

AP - 17

ANNUAL MONITORING REPORT

YEAR(S):

2011



**2011
ANNUAL MONITORING REPORT**

TNM 97-17

NE 1/4 SW 1/4 SECTION 21, TOWNSHIP 20 SOUTH RANGE 37 EAST
LEA COUNTY, NEW MEXICO
PLAINS MARKETING SRS NUMBER: TNM 97-17
NMOCD REFERENCE AP-017

PREPARED FOR:

PLAINS MARKETING, L.P.
333 CLAY STREET SUITE 1600
HOUSTON, TEXAS 77022

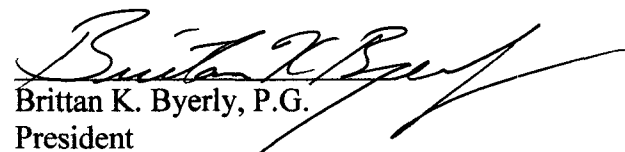


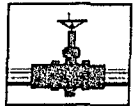
PREPARED BY:

NOVA Safety and Environmental
2057 Commerce Street
Midland, Texas 79703

March 2012


Ronald K. Rounsaville
Senior Project Manager


Brittan K. Byerly, P.G.
President



PLAINS ALL AMERICAN

March 22, 2012

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

RECEIVED

MAR 26 2012

E

Re: Plains All American – 2011 Annual Monitoring Reports
15 Sites in Lea County, New Mexico

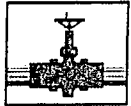
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

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:

34 Junc. to Lea Sta.	1R-0386 ✓	Section 21, Township 20 South, Range 37 East, Lea County
34 Junction South	1R-0456 ✓	Section 02, Township 17 South, Range 36 East, Lea County
Bob Durham	AP-0016 ✓	Section 32, Township 19 South, Range 37 East, Lea County
HDO-90-23	AP-009 ✓	Section 06, Township 20 South, Range 37 East, Lea County
LF-59	1R-0103 ✓	Section 32, Township 19 South, Range 37 East, Lea County
Monument 2	1R-0110 ✓	Section 06, Township 20 South, Range 37 East, Lea County Section 07, Township 20 South, Range 37 East, Lea County
Monument 10	1R-0119 ✓	Section 30, Township 19 South, Range 37 East, Lea County
Monument 17	1R-123 ✓	Section 29, Township 19 South, Range 37 East, Lea County
Monument 18	1R-0124 ✓	Section 07, Township 20 South, Range 37 East, Lea County
SPS-11	GW-0140 ✓	Section 18, Township 18 South, Range 36 East, Lea County
Texaco Skelly F	1R-0420 ✓	Section 11, Township 21 South, Range 37 East, Lea County
TNM 97-04	GW-0294 ✓	Section 11, Township 16 South, Range 35 East, Lea County
TNM 97-17	AP-017 ✓	Section 21, Township 20 South, Range 37 East, Lea County
TNM 97-18	AP-0013 ✓	Section 28, Township 20 South, Range 37 East, Lea County
TNM 98-05A	AP-12 ✓	Section 26, Township 21 South, Range 37 East, Lea County

Nova Safety and Environmental (Nova) 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 Nova 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.



PLAINS
ALL AMERICAN

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

Sincerely,

Jason Henry
Remediation Coordinator
Plains All American

CC: Geoff Leking, NMOCD, Hobbs, NM

Enclosures

TABLE OF CONTENTS

INTRODUCTION	1
SITE DESCRIPTION AND BACKGROUND INFORMATION	1
FIELD ACTIVITIES	1
LABORATORY RESULTS	3
SUMMARY... ..	9
ANTICIPATED ACTIONS.....	10
LIMITATIONS.....	10
DISTRIBUTION	12

FIGURES

Figure 1 – Site Location Map

Figure 2A – Inferred Groundwater Gradient Map – February 16, 2011

2B – Inferred Groundwater Gradient Map – May 19, 2011

2C – Inferred Groundwater Gradient Map – August 10, 2011

2D – Inferred Groundwater Gradient Map – November 14, 2011

Figure 3A – Groundwater Concentration and Inferred PSH Extent Map – February 16, 2011

3B – Groundwater Concentration and Inferred PSH Extent Map – May 19, 2011

3C – Groundwater Concentration and Inferred PSH Extent Map – August 10, 2011

3D – Groundwater Concentrations and Inferred PSH Extent Map – November 14, 2011

TABLES

Table 1 – 2011 Groundwater Elevation Data

Table 2 – 2011 Concentrations of BTEX and TPH in Groundwater

Table 3 – 2011 Concentrations of PAH in Groundwater

APPENDICES

Appendix A – Release Notification and Corrective Action (Form C-141)

ENCLOSED ON DATA DISK

2011 Annual Monitoring Report

2011 Tables 1, 2 and 3 – Groundwater Elevation, BTEX and PAH Concentration Data

2011 Figures 1, 2A-2D, and 3A-3D

Electronic Copies of Laboratory Reports

Historic Table 1, 2 and 3 – Groundwater Elevation, BTEX and PAH Concentration Tables

INTRODUCTION

On behalf of Plains Marketing, L.P., (Plains), NOVA Safety and Environmental (NOVA) is pleased to submit this Annual Monitoring Report in compliance with the New Mexico Oil Conservation Division (NMOCD) letter of May 1998, requiring submittal of an Annual Monitoring Report by April 1 of each year. Beginning on May 29, 2004, project management responsibilities were assumed by NOVA. The TNM 97-17 Pipe Line Release Site, formally the responsibility of Enron Oil Trading and Transportation (EOTT) is the responsibility of Plains. The Release Notification and Corrective Action (Form C-141) is provided as Appendix A. This report is intended to be viewed as a complete document with figures, attachments, tables and text. The report presents the results of the quarterly groundwater monitoring events conducted in calendar year 2011 only. For reference, the Site Location Map is provided as Figure 1. Cumulative tables and laboratory data are provided on the enclosed data disk.

Groundwater monitoring was conducted during each quarter of 2011 to assess the levels and extent of dissolved phase constituents and Phase Separated Hydrocarbon (PSH). Each groundwater monitoring event consisted of measuring static water levels in monitor wells, checking for the presence of PSH on the water column and purging and sampling of each well exhibiting sufficient recharge. Monitor wells containing a thickness of PSH greater than 0.01 foot were not sampled as per a NMOCD directive.

SITE DESCRIPTION AND BACKGROUND INFORMATION

The legal description of the site is NE 1/4 SW 1/4 Section 21, Township 20 South, Range 37 East, Lea County, New Mexico. The TNM 97-17 release was discovered by Texas New Mexico Pipe Line Company (TNM) and reported on August 19, 1997. An estimated 170 barrels of crude oil were released with 160 barrels recovered. The release occurred from a 16-inch pipeline and was attributed to structural failure associated with internal pipeline corrosion. The Release Notification and Corrective Action (Form C-141) is provided as Appendix A. Following completion of repairs to the pipeline, approximately 1,160 cubic yards of impacted soil was excavated and stockpiled on-site pending treatment. The groundwater at this site ranges from approximately 17 to 21 feet below ground surface (bgs).

A total of 28 groundwater monitor wells (MW-1 through MW-28) and six PSH recovery wells (RW-1 through RW-6) are currently on-site. A pneumatic product recovery system formerly operated on-site, incorporating recovery well RW-6 and monitor wells MW-8, MW-14 and MW-15. The automated recovery system was decommissioned in the summer of 2007, due to declining PSH thickness, which cannot be efficiently recovered utilizing the automated recovery system. Currently, manual PSH recovery is performed on a weekly basis for monitor and recovery wells exhibiting PSH.

FIELD ACTIVITIES

Product Recovery Efforts

A measurable thickness of PSH was recorded on five monitor wells and three recovery wells during the reporting period. The average thickness of PSH in monitor wells and recovery wells

exhibiting PSH was 0.53 feet. The maximum thickness of PSH in monitor wells and recovery wells during the 2011 reporting period was 1.63 feet in monitor well MW-14 on March 7, 2011. Groundwater elevation data for the 2011 gauging events can be found in Table 1. Approximately 168 gallons (4.0 barrels) of PSH were recovered from the site during the reporting period. Approximately 2,392 gallons (approximately 57 barrels) of PSH has been recovered since project inception.

Groundwater Monitoring

Quarterly monitoring events for the reporting period were performed according to the following sampling schedule, which was approved by the NMOCD in correspondence dated April 28, 2004 and amended by NMOCD by correspondence dated June 22, 2005.

NMOCD APPROVED SAMPLING SCHEDULE					
Location	Schedule	Location	Schedule	Location	Schedule
MW-1	Annually	MW-13	Annually	MW-25	Semi-Annually
MW-2	Annually	MW-14	Quarterly	MW-26	Quarterly
MW-3	Annually	MW-15	Quarterly	MW-27	Semi-Annually
MW-4	Quarterly	MW-16	Annually	MW-28	Annually
MW-5	Quarterly	MW-17	Annually	RW-1	Quarterly
MW-6	Quarterly	MW-18	Annually	RW-2	Quarterly
MW-7	Quarterly	MW-19	Quarterly	RW-3	Quarterly
MW-8	Quarterly	MW-20	Quarterly	RW-4	Quarterly
MW-9	Quarterly	MW-21	Quarterly	RW-5	Quarterly
MW-10	Quarterly	MW-22	Semi-Annually	RW-6	Quarterly
MW-11	Annually	MW-23	Semi-Annually		
MW-12	Annually	MW-24	Annually		

The site monitor wells were gauged and sampled on February 16, May 19, August 10, and November 14, 2011. During each sampling event, the monitor wells were purged of a minimum of three well volumes of water or until the wells were dry using a PVC bailer or electrical Grundfos pump. Groundwater was allowed to recharge and samples were collected using disposable Teflon samplers. Water samples were placed in clean glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in a polystyrene tank and disposed of at a licensed disposal facility.

Locations of the monitor wells and the inferred groundwater gradient, which were constructed from measurements collected during the four quarterly monitoring events, are depicted on Figures 2A through 2D, the Inferred Groundwater Gradient Maps. Groundwater elevation data for 2011 is provided as Table 1. Historic groundwater elevation data beginning at project inception is provided on the enclosed data disk.

The most recent Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.0035 feet/foot to the south-southeast as measured between monitor well MW-1 and MW-22. This is consistent with data presented on Figures 2A through 2C from earlier in the year. The corrected groundwater elevations ranged between 3,486.99 to 3,490.54 feet above mean sea level, in monitor well MW-22 on November 14, 2011 and in monitor well MW-4 on January 18, 2011, respectively.

LABORATORY RESULTS

Monitor wells MW-4, MW-7 and MW-8 and MW-14 and recovery wells RW-1, RW-5 and RW-6 contained measurable PSH throughout the 2011 reporting period. Monitor well MW-15 contained measurable PSH during at least three quarters of the reporting period and were not sampled.

Groundwater samples obtained during the quarterly sampling events of 2011 were delivered to Trace Analysis, Inc. in Midland, Texas for determination of Benzene, Toluene, Ethylbenzene and Xylene (BTEX) constituent concentrations by EPA Method 8021B. Polynuclear Aromatic Hydrocarbons (PAH) analysis was conducted during the 2011 calendar year on monitor wells MW-5, MW-6, MW-10, MW-19 and recovery wells RW-2 through RW-4. Based upon historic PAH analytical data, only those wells exhibiting elevated constituent concentrations above WQCC standards are sampled, with the exclusion of those wells containing measurable PSH thicknesses. A listing of BTEX constituent concentrations for 2011 are summarized in Table 2 and the Historic PAH constituent concentrations are summarized in Table 3. Copies of the laboratory reports generated for 2011 are provided on the enclosed data disk. The quarterly groundwater sample results for BTEX constituent concentrations are depicted on Figures 3A through 3D.

Monitor well MW-1 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below laboratory method detection limits (MDL) and NMOCD regulatory standards of 0.01 mg/L for benzene, 0.75 mg/L for toluene, 0.75 mg/L for ethylbenzene and 0.62 for xylene during the 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last thirty-eight consecutive quarters. PAH analysis was not required on samples from MW-1 during the 4th quarter sampling event.

Monitor well MW-2 is sampled on an annual schedule and analytical results indicate benzene, toluene, ethylbenzene and xylene concentrations were below the MDL and NMOCD regulatory standards during the 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last thirty-eight consecutive quarters. PAH analysis was not required on samples from MW-2 during the 4th quarter sampling event.

Monitor well MW-3 is sampled on an annual schedule and analytical results indicate benzene, toluene, ethylbenzene and xylene concentrations were below the MDL and NMOCD regulatory standards, during the 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last thirty-eight consecutive quarters. PAH analysis was not required on samples from MW-3 during the 4th quarter sampling event.

Monitor well MW-4 is monitored on a quarterly schedule. Monitor well MW-4 was not sampled during the 1st, 2nd, 3rd and 4th quarters of the reporting period, due to the presence of PSH. PSH thicknesses of 1.40 feet, 0.42 feet, 0.50 feet and 0.07 feet were reported during the 1st, 2nd, 3rd

and 4th quarters of 2011, respectively. PAH analysis was not conducted on samples from MW-4 during the 4th quarter sampling event due to the presence of PSH.

Monitor well MW-5 is sampled on a quarterly schedule. Analytical results on groundwater samples collected indicate benzene concentrations ranged from 0.0429 mg/L during the 2nd quarter to 0.1030 mg/L during the 4th quarter of 2011. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations were below MDLs and NMOCD regulatory standards during all four quarters of the reporting period. Ethylbenzene concentrations ranged from <0.001 mg/L during the 2nd quarter to 0.0166 mg/L during the 1st quarter of 2011. Ethylbenzene concentrations were below NMOCD regulatory standards during all four quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 2nd quarter to 0.0402 mg/L during the 1st quarter of 2011. Xylene concentrations were below NMOCD regulatory standards during all four quarters of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for fluorene (0.00106 mg/L) and phenanthrene (0.00129 mg/L). Additional PAH constituents detected above MDLs include 1-methylnaphthalene (0.00281 mg/L) and dibenzofuran (0.00138 mg/L), which are below WQCC standards.

Monitor well MW-6 is monitored on a quarterly schedule. Analytical results on groundwater samples collected indicate benzene concentrations ranged from 0.0176 mg/L during the 4th quarter to 0.0689 mg/L during the 2nd quarter of 2011. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene, ethylbenzene and xylene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above MDLs for 1-methylnaphthalene (0.00264 mg/L) and phenanthrene (0.000755 mg/L), which are below WQCC standards.

Monitor well MW-7 is monitored on a quarterly schedule. Monitor well MW-7 was not sampled during the 1st, 2nd, 3rd and 4th quarters of the reporting period, due to the presence of PSH in the monitor well. PSH thicknesses of 0.45 feet, 0.61 feet, 0.25 feet and 0.33 feet were reported during the 1st, 2nd, 3rd and 4th quarters of 2011, respectively. PAH analysis was not conducted on samples from MW-7 during the 4th quarter sampling event due to the presence of PSH.

Monitor well MW-8 is monitored on a quarterly schedule. Monitor well MW-8 was not sampled during the 1st, 2nd, 3rd and 4th quarters of the reporting period, due to the presence of PSH in the monitor well. PSH thicknesses of 0.66 feet, 0.43 feet, 0.32 feet and 0.54 feet were reported during the 1st, 2nd, 3rd and 4th quarters of 2011, respectively. PAH analysis was not conducted on samples from MW-8 during the 4th quarter sampling event due to the presence of PSH.

Monitor well MW-9 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from <0.001 mg/L during the 2nd quarter to 0.0106 mg/L during the 1st quarter of 2011. Benzene concentrations were above the NMOCD regulatory standard during the 1st quarter of the reporting period. Toluene, ethylbenzene and xylene concentrations were below the MDL and the NMOCD regulatory standards during all four quarters of the reporting

period. PAH analysis was not required on samples from MW-9 during the 4th quarter sampling event.

Monitor well MW-10 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.0082 mg/L during the 4th quarter to 0.0384 mg/L during the 2nd quarter of 2011. Benzene concentrations were above the NMOCD regulatory standard during the 1st, 2nd and 3rd quarters of the reporting period. Toluene, ethylbenzene and xylene concentrations were below the MDL and the NMOCD regulatory standards during all four quarters of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for phenanthrene (0.00339 mg/L). Additional PAH constituents detected above MDLs include 1-methylnaphthalene (0.00287 mg/L) and dibenzofuran (0.00261 mg/L), which are below WQCC standards.

Monitor well MW-11 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards during the 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last twenty-seven consecutive quarters. PAH analysis was not required on samples from MW-11 during the 4th quarter sampling event.

Monitor well MW-12 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards during the 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last twenty-eight consecutive quarters. PAH analysis was not required on samples from MW-12 during the 4th quarter sampling event.

Monitor well MW-13 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards during the 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last twenty-eight consecutive quarters. PAH analysis was not required on samples from MW-13 during the 4th quarter sampling event.

Monitor well MW-14 is monitored on a quarterly schedule. Monitor well MW-14 was not sampled during the 1st, 2nd, 3rd and 4th quarters of the reporting period, due to the presence of PSH in the monitor well. PSH thicknesses of 1.22 feet, 1.06 feet, 0.56 feet and 0.92 feet were reported during the 1st, 2nd, 3rd and 4th quarters of 2011, respectively. PAH analysis was not required on samples from MW-14 during the 4th quarter sampling event, due to the presence of PSH.

Monitor well MW-15 is monitored on a quarterly schedule. Monitor well MW-15 was not sampled during the 1st, 2nd and 3rd quarters of the reporting period, due to the presence of PSH in the monitor well. PSH thicknesses of 0.14 feet, 0.33 feet and 0.20 feet were reported during the 1st, 2nd and 3rd quarters of 2011, respectively. Analytical results on groundwater samples collected during the 4th quarter sampling event indicate a benzene concentration of 0.0898 mg/L. Benzene concentrations were above the NMOCD regulatory standard during the 4th quarter of the reporting period. Toluene, ethylbenzene and xylene concentrations were below the MDL and the NMOCD regulatory standards during the 4th quarter of the reporting period. PAH analysis

during the 4th quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for phenanthrene (0.00136 mg/L). Additional PAH constituents detected above MDLs include 1-methylnaphthalene (0.0035 mg/L) and dibenzofuran (0.00176 mg/L), which are below WQCC standards.

Monitor well MW-16 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards during the 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last twenty-eight consecutive quarters. PAH analysis was not required on samples from MW-16 during the 4th quarter sampling event.

Monitor well MW-17 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards during the 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last twenty-eight consecutive quarters. PAH analysis was not required on samples from MW-17 during the 4th quarter sampling event.

Monitor well MW-18 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards during the 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last twenty-eight consecutive quarters. PAH analysis was not required on samples from MW-16 during the 4th quarter sampling event.

Monitor well MW-19 is monitored on a quarterly schedule. Analytical results indicate benzene concentrations ranged from 0.2940 mg/L during the 3rd quarter to 1.150 mg/L during the 2nd quarter of 2011. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations were below MDLs and NMOCD regulatory standards during all four quarters of the reporting period. Ethylbenzene concentrations ranged from <0.100 mg/L during the 1st quarter to 0.5160 mg/L during the 2nd quarter of 2011. Ethylbenzene concentrations were below NMOCD regulatory standards during all four quarters of the reporting period. Xylene concentrations ranged from <0.100 mg/L during the 1st quarter to 1.590 mg/L during the 2nd quarter of 2011. Xylene concentrations were above NMOCD regulatory standards during the 2nd quarter of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for phenanthrene (0.00624 mg/L). Additional PAH constituents detected above MDLs include naphthalene (0.00656 mg/L), 1-methylnaphthalene (0.0293 mg/L), 2-methylnaphthalene (0.00517 mg/L) and dibenzofuran (0.00518 mg/L), which are below WQCC standards.

Monitor well MW-20 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.0298 mg/L during the 3rd quarter to 0.1030 mg/L during the 1st quarter of 2011. Benzene concentrations were above the NMOCD regulatory standard during the all four quarters of the reporting period. Toluene and ethyl-benzene concentrations were below the MDL and NMOCD regulatory standards during the four quarterly sampling events of 2011. Xylene concentrations ranged from <0.001 mg/L during the 4th quarter to 0.0186 mg/L during the 1st quarter of 2011. Xylene concentrations were below the NMOCD regulatory

standard during all four quarters of the reporting period. PAH analysis was not required on samples from MW-20 during the 4th quarter sampling event.

Monitor well MW-21 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from <0.001 mg/L during the 1st quarter to 0.0184 mg/L during the 2nd quarter of 2011. Benzene concentrations were above the NMOCD regulatory standard during the 2nd quarter of the reporting period. Toluene and ethylbenzene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of 2011. Xylene concentrations ranged from <0.001 mg/L during the 3rd and 4th quarters to 0.0216 mg/L during the 1st quarter of 2011. Xylene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. PAH analysis was not required on samples from MW-21 during the 4th quarter sampling event.

Monitor well MW-22 is sampled on a semi-annual schedule. Analytical results on groundwater samples collected during the 2nd and 4th quarter events indicated benzene, toluene and ethylbenzene concentrations were below the MDL and NMOCD regulatory standards. Xylene concentrations ranged from <0.001 mg/L during the 4th quarter to 0.0154 mg/L during the 2nd quarter of 2011. Xylene concentrations were below NMOCD regulatory standards during the 2nd and 4th quarters of the reporting period. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last thirty consecutive quarters. PAH analysis was not required on samples from MW-22 during the 4th quarter sampling event.

Monitor well MW-23 is sampled on a semi-annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards during the 2nd and 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last eleven consecutive quarters. PAH analysis was not required on samples from MW-23 during the 4th quarter sampling event.

Monitor well MW-24 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards during the 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last twenty-eight consecutive quarters. PAH analysis was not required on samples from MW-24 during the 4th quarter sampling event.

Monitor well MW-25 is sampled on a semi-annual schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards during the 2nd and 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last thirty consecutive quarters. PAH analysis was not required on samples from MW-25 during the 4th quarter sampling event.

Monitor well MW-26 is sampled on a quarterly schedule. Analytical results indicate benzene concentrations ranged from 0.0025 mg/L during the 4th quarter to 0.0114 mg/L during the 2nd quarter of 2011. Benzene concentrations were above the NMOCD regulatory standard during the 2nd quarter of the reporting period. Toluene and ethylbenzene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of 2011. Xylene concentrations ranged from <0.001 mg/L during the 3rd and 4th quarters to 0.0254 mg/L during

the 1st quarter of 2011. Xylene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. PAH analysis was not required on samples from MW-26 during the 4th quarter sampling event.

Monitor well MW-27 is sampled on a semi-annual schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards during the 2nd and 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last thirty-two consecutive quarters. PAH analysis was not required on samples from MW-27 during the 4th quarter sampling event.

Monitor well MW-28 is sampled on an annual schedule. Analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards during the 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last twenty-nine consecutive quarters. PAH analysis was not conducted on samples from MW-27 during the 4th quarter sampling event.

Recovery well RW-1 is monitored on a quarterly schedule. Recovery well RW-1 was not sampled during the 1st, 2nd, 3rd and 4th quarters of the reporting period, due to the presence of PSH in the monitor well. PSH thicknesses of 0.09 feet, 0.02 feet, 0.07 feet and 0.02 feet were reported during the 1st, 2nd, 3rd and 4th quarters of 2011, respectively. PAH analysis was not conducted on samples from RW-1 during the 4th quarter sampling event, due to the presence of PSH.

Recovery well RW-2 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.0531 mg/L during the 1st quarter to 0.0945 mg/L during the 2nd quarter of 2011. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of 2011. Ethylbenzene concentrations ranged from <0.001 mg/L during the 3rd quarter to 0.0320 mg/L during the 2nd quarter of 2011. Ethylbenzene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 3rd and 4th quarters to 0.0779 mg/L during the 2nd quarter of 2011. Xylene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for phenanthrene (0.00344 mg/L). Additional PAH constituents detected above MDLs include dibenzofuran (0.00275 mg/L), which is below WQCC standards.

Recovery well RW-3 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.1420 mg/L during the 4th quarter to 0.9380 mg/L during the 2nd quarter of 2011. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of 2011. Ethylbenzene concentrations ranged from <0.020 mg/L during the 3rd and 4th quarters to 0.275 mg/L during the 2nd quarter of 2011. Ethylbenzene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Xylene concentrations ranged from <0.020 mg/L during the 3rd and 4th quarters to 0.7750 mg/L during the 2nd quarter of 2011. Xylene concentrations were

above the NMOCD regulatory standard during the 2nd quarter of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above MDLs for 1-methylnaphthalene (0.00364 mg/L) and dibenzofuran (0.00126 mg/L), which are below WQCC standards.

Recovery well RW-4 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.3150 mg/L during the 4th quarter to 1.850 mg/L during the 2nd quarter of 2011. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of 2011. Ethylbenzene concentrations ranged from 0.0753 mg/L during the 4th quarter to 0.8490 mg/L during the 1st quarter of 2011. Ethylbenzene concentrations were above the NMOCD regulatory standard during the 1st quarter of the reporting period. Xylene concentrations ranged from <0.020 mg/L during the 4th quarter to 1.620 mg/L during the 2nd quarter of 2011. Xylene concentrations were above the NMOCD regulatory standard during the 2nd quarter of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for phenanthrene (0.00161 mg/L). Additional PAH constituents detected above MDLs include naphthalene (0.00261 mg/L), 1-methylnaphthalene (0.0106 mg/L) and dibenzofuran (0.00275 mg/L), which are below WQCC standards.

Recovery well RW-5 is monitored on a quarterly schedule. Recovery well RW-5 was not sampled during the 1st, 2nd, 3rd and 4th quarters of the reporting period, due to the presence of PSH in the monitor well. PSH thicknesses of 0.61 feet, 0.38 feet, 0.26 feet and 0.07 feet were reported during the 1st, 2nd, 3rd and 4th quarters of 2011, respectively. PAH analysis was not conducted on samples from RW-5 during the 4th quarter sampling event, due to the presence of PSH.

Recovery well RW-6 is monitored on a quarterly schedule. Recovery well RW-6 was not sampled during the 1st, 2nd, 3rd and 4th quarters of the reporting period, due to the presence of PSH in the monitor well. PSH thicknesses of 0.67 feet, 0.26 feet, 0.21 feet and 0.56 feet were reported during the 1st, 2nd, 3rd and 4th quarters of 2011, respectively. PAH analysis was not conducted on samples from RW-6 during the 4th quarter sampling event, due to the presence of PSH.

Laboratory analytical results were compared to NMOCD regulatory limits based on the New Mexico groundwater standards found in section 20.6.2.3103 of the New Mexico Administrative Code.

SUMMARY

This report presents the results of monitoring activities for the 2011 annual monitoring period. Currently, there are 28 groundwater monitor wells (MW-1 through MW-28) and six product recovery wells (RW-1 through RW-6) on-site. A pneumatic product recovery system operated on-site, incorporating recovery well RW-6 and monitor wells MW-8, MW-14 and MW-15. The automated recovery system was decommissioned in the summer of 2007, due to declining PSH thickness, which cannot be efficiently recovered utilizing the automated recovery system.

Currently, manual PSH recovery is performed on a weekly basis for monitor and recovery wells exhibiting PSH. Approximately 168 gallons (4.0 barrels) of PSH were recovered from the site during the reporting period. Approximately 2,392 gallons (approximately 56.9 barrels) of PSH has been recovered since project inception.

During the reporting period, five monitor wells (MW-4, MW-7, MW-8, MW-14 and MW-15) and three recovery wells (RW-1, RW-5 and RW-6) contained measurable PSH during at least three or more quarters of the 2011 reporting period.

The average thickness of PSH in monitor wells and recovery wells exhibiting PSH was 0.53 feet. The maximum thickness of PSH in monitor wells and recovery wells during the 2011 reporting period was 1.63 feet in monitor well MW-14 on March 7, 2011. In comparison, the maximum PSH thickness reported during the 2009 reporting period was 2.05 feet.

Groundwater elevation contours generated from water level measurements acquired indicated a general gradient of approximately 0.0035 feet/foot to the south-southeast.

Review of laboratory analytical results of the groundwater samples obtained during the 2011 monitoring period indicates the BTEX constituent concentrations are below applicable NMOCD standards in 15 of the 28 monitor wells currently on-site. Dissolved phase and phase separated hydrocarbon impact appears to be limited to monitor wells MW-4 through MW-10, MW-14, MW-15, MW-19 through MW-21 and MW-26 and recovery wells RW-1 through RW-6. Analytical results on groundwater samples collected indicate PAH concentrations are demonstrating an increasing trend in MW-19 and RW-4, a fluctuating trend in MW-5, MW-6 and RW-2, and a decreasing trend in MW-10 and RW-3.

ANTICIPATED ACTIONS

Quarterly gauging and sampling will continue in 2012. Manual product recovery will continue weekly and will be adjusted according to site conditions. An Annual Monitoring Report will be submitted to the NMOCD before April 1, 2013.

Based on the results of the PAH analysis over the past several years, further PAH analysis will be conducted only on those monitor wells (MW-5, MW-6, MW-10, MW-19) and recovery wells (RW-1 through RW-4) which have historically exhibited elevated constituents near or above the WQCC standards.

Soil remediation activities are scheduled to commence during the 2nd or 3rd quarter of 2012. A Soil Closure Request will be submitted to the NMOCD following the completion of these activities.

LIMITATIONS

NOVA has prepared this Annual Monitoring Report to the best of its ability. No other warranty, expressed or implied, is made or intended.

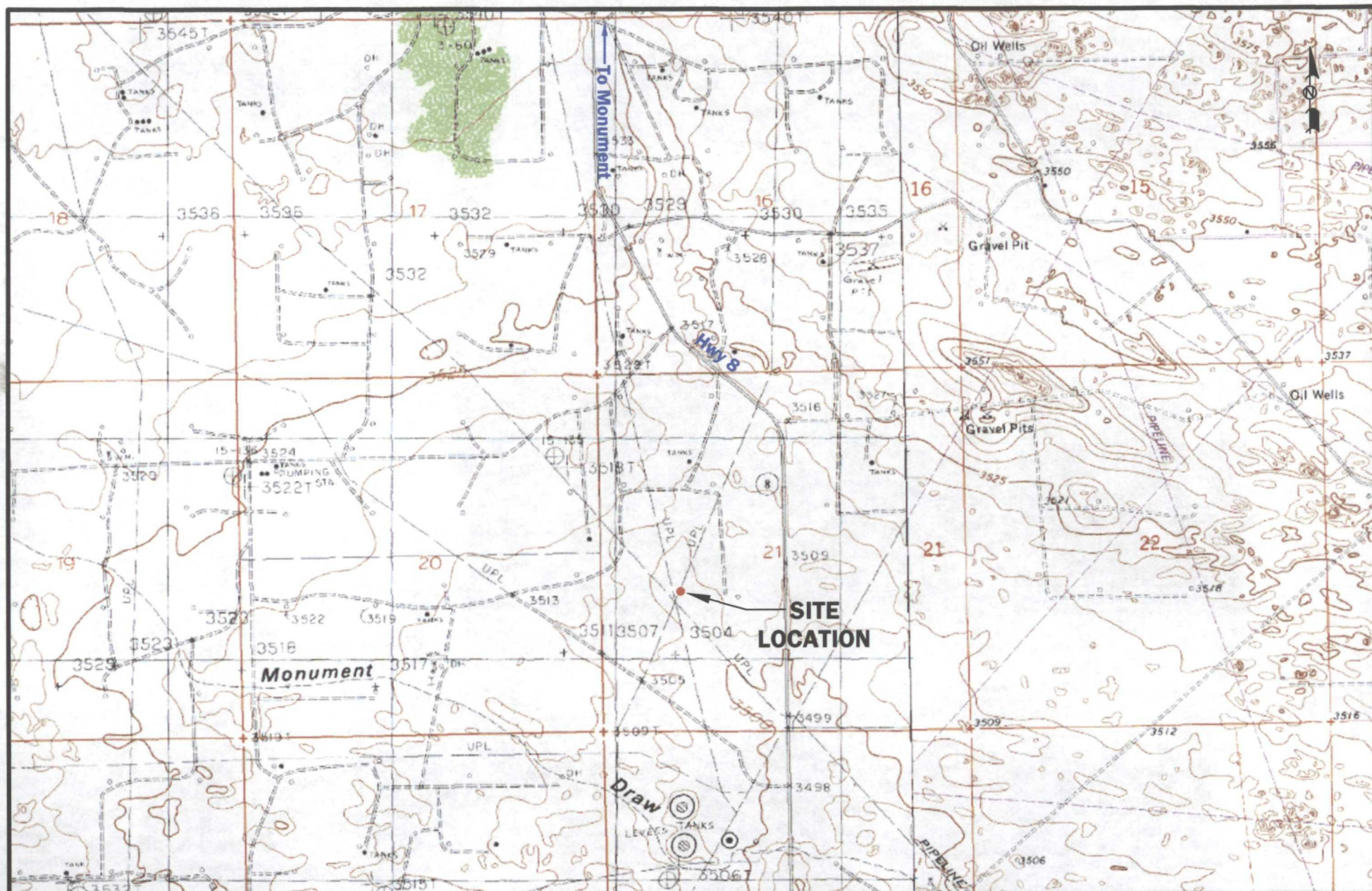
NOVA has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. NOVA has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. NOVA has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. NOVA also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Plains. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of NOVA and/or Plains.

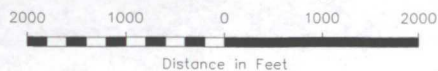
DISTRIBUTION

- Copy 1 Ed Hansen
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505
- Copy 2: Geoffrey R. Leking
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 1
1625 French Drive
Hobbs, NM 88240
- Copy 3: Jason Henry
Plains Marketing, L.P.
2530 State Highway 214
Denver City, TX 79323
jhenry@paalp.com
- Copy 4: Jeff Dann
Plains Marketing, L.P.
333 Clay Street
Suite 1600
Houston, TX 77002
jpdann@paalp.com
- Copy 5: NOVA Safety and Environmental
2057 Commerce Street
Midland, TX 79703
rrounsaville@novatraining.cc

Figures



LEGEND:



NMOCD Reference #AP-017

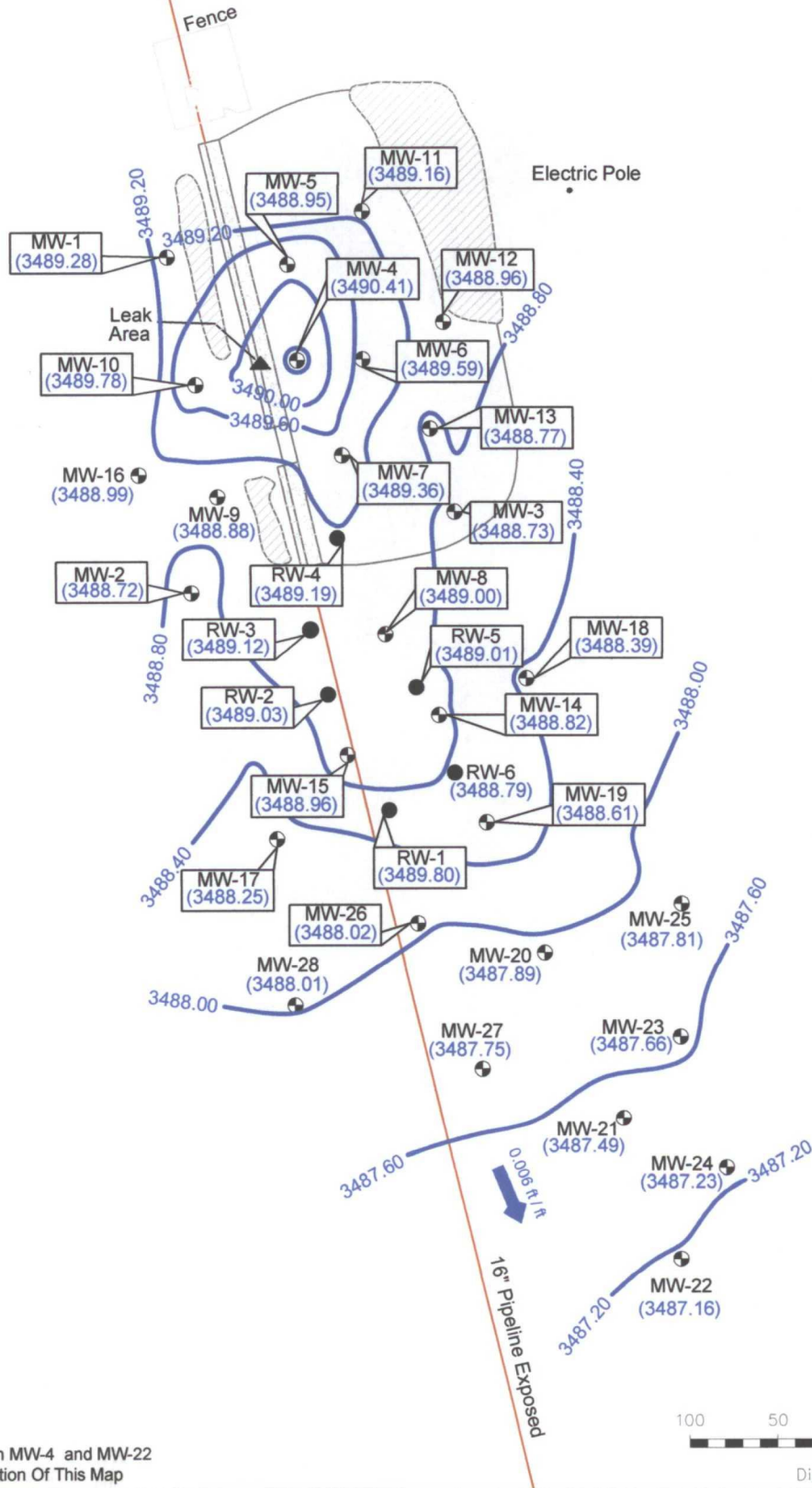
Figure 1
Site Location Map
TNM 97-17
Plains Marketing, L.P.
Lea County, NM



2057 Commerce Drive
 Midland, Texas 79703
 432.520.7720

www.novasafetyandenvironmental.com

March 3, 2011	Scale: 1" = 2000'	CAD By: TA	Checked By: RKR
LATITUDE & LONGITUDE COORDINATES: N 32° 33' 24.00" W 103° 15' 37.3"			



NOTE:
Contour Interval = 0.40'
GW Gradient Measured Between MW-4 and MW-22
RW-1 Not Used In The Construction Of This Map

LEGEND:

- Monitor Well Location
- Recovery Well Location
- Pipeline
- Groundwater Elevation Contour Line
- Groundwater Gradient Direction and Magnitude
- Stockpile Soil Area
- Excavated Area

Figure 2A
Inferred Groundwater
Gradient Map
(2-16-11)
NMOCD Reference # AP-017
Plains Marketing, L.P.
TNM 97-17
Lea County, NM

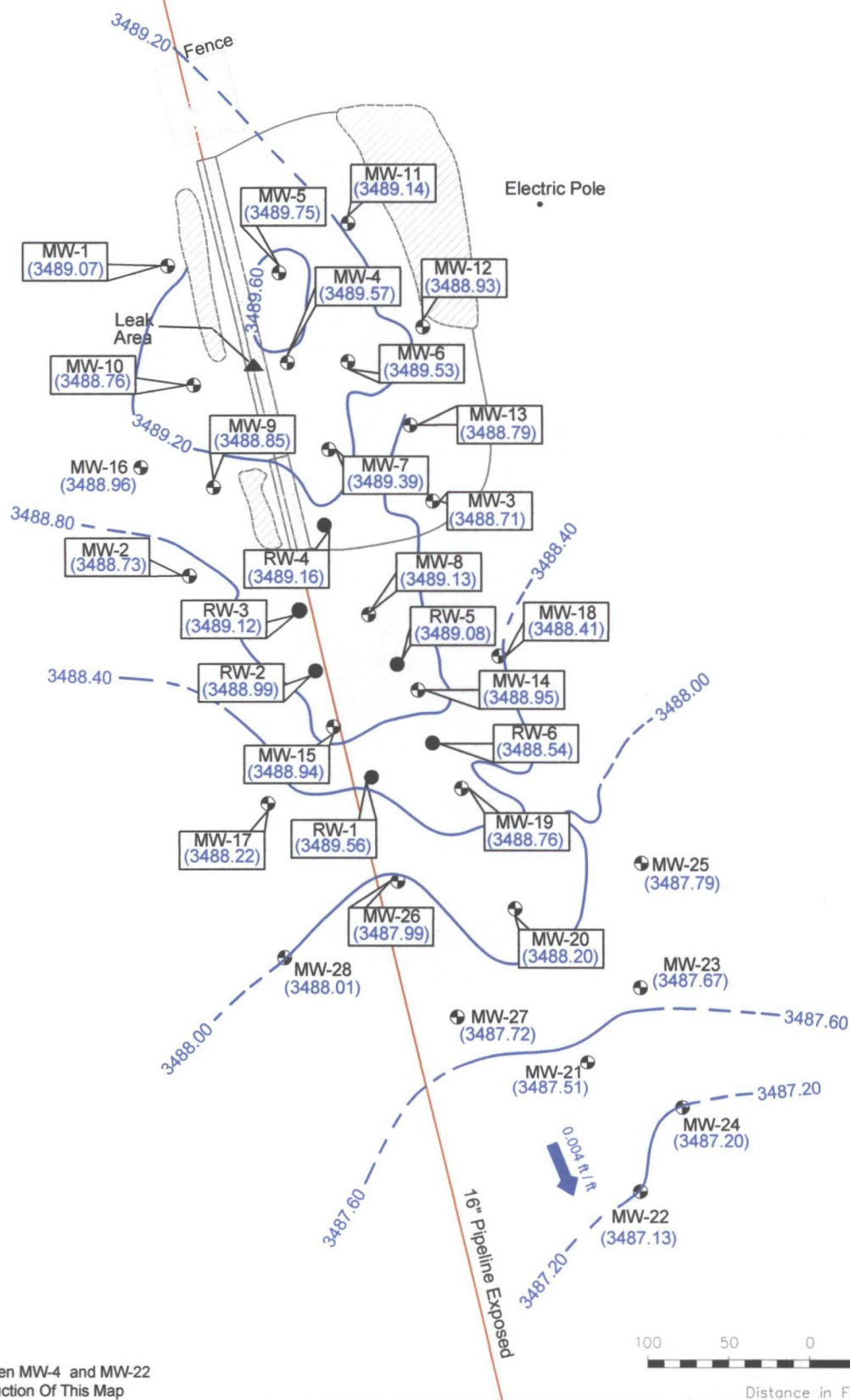


2057 Commerce Drive
Midland, Texas 79703
432.520.7720

www.novasafetyandenvironmental.com

May 5, 2011 Scale: 1" = 100' CAD By: TA Checked By: RKR

Lat. N 32° 33' 24.0" Long. W 103° 15' 37.3"



NOTE:

Contour Interval = 0.40'

GW Gradient Measured Between MW-4 and MW-22
RW-1 Not Used In The Construction Of This Map

LEGEND:

(3490.00) Groundwater Elevation (feet)

- Monitor Well Location
- Recovery Well Location
- Pipeline
- Groundwater Elevation Contour Line
- Groundwater Gradient Direction and Magnitude
- ▨ Stockpile Soil Area
- ▨ Excavated Area

Figure 2B
Inferred Groundwater
Gradient Map
(5-19-2011)
NMOCD Reference # AP-017
Plains Marketing, L.P.
TNM 97-17
Lea County, NM

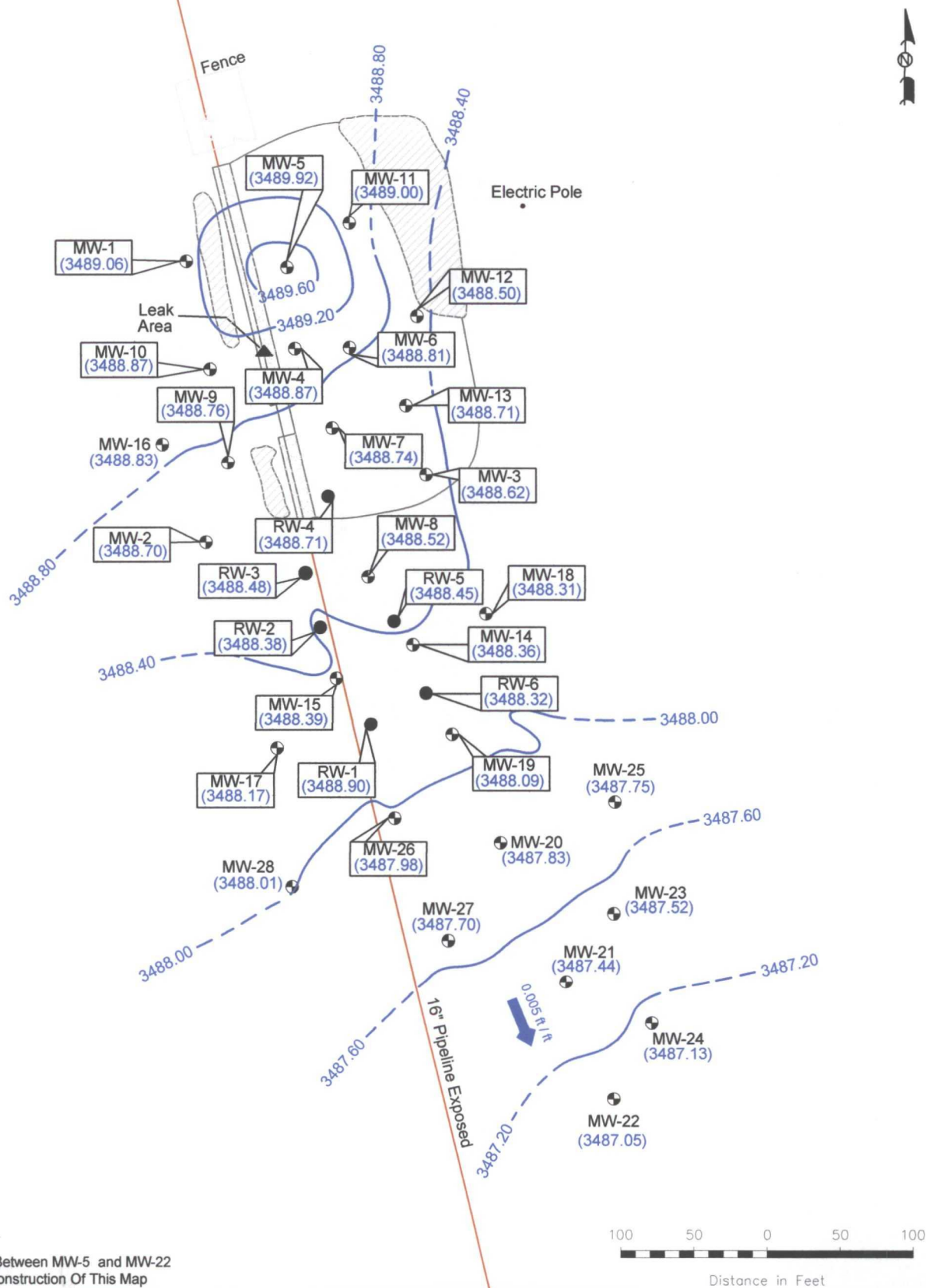


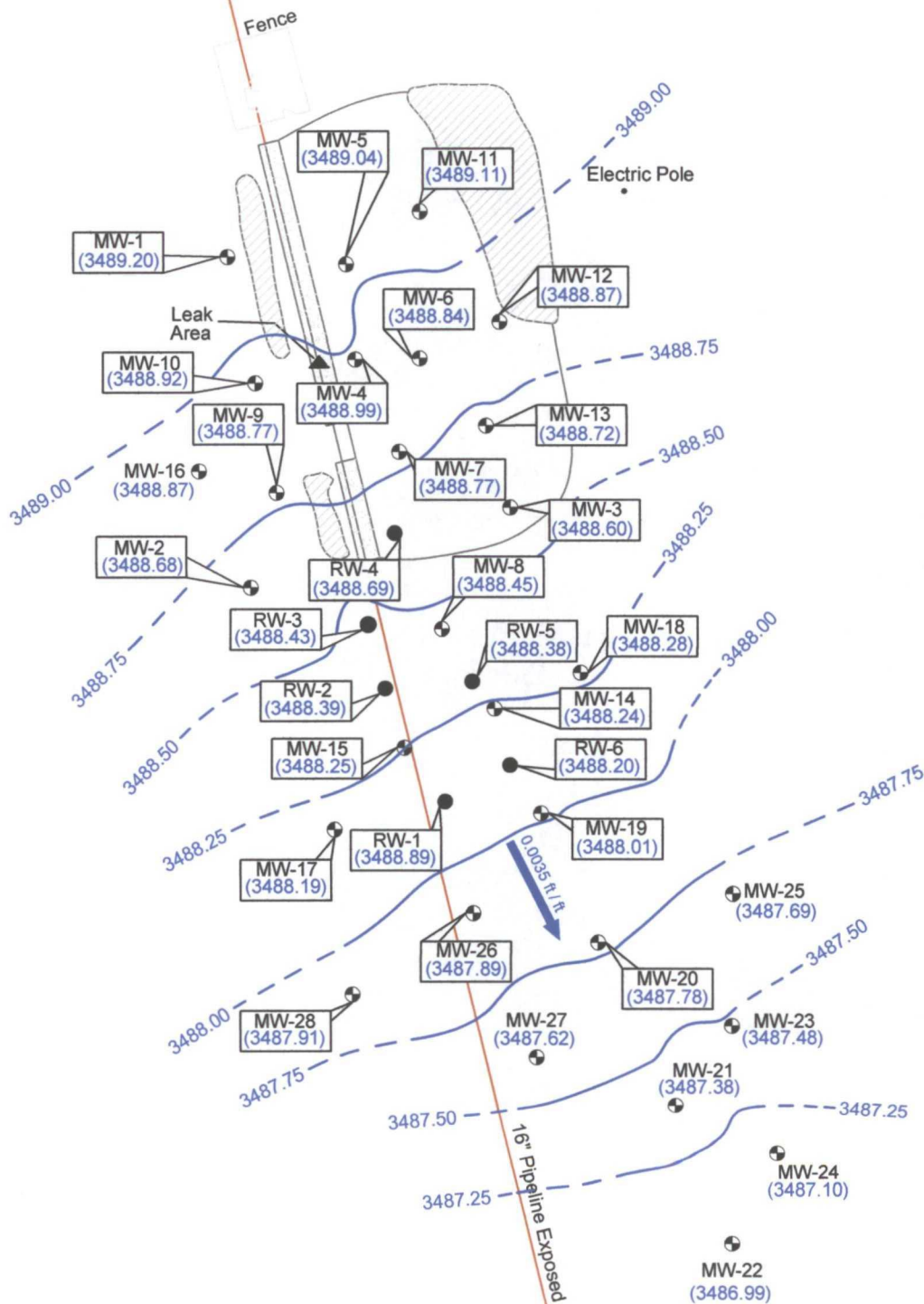
2057 Commerce Drive
Midland, Texas 79703
432.520.7720

www.novasafetyandenvironmental.com

June 8, 2011 Scale: 1" = 100' CAD By: TA Checked By: RKR

Lat N 32° 33' 24.0" Long. W 103° 15' 37.3"





NOTE:

Contour Interval = 0.25'

GW Gradient Measured Between MW-1 and MW-22

RW-1 Not Used In The Construction Of This Map

LEGEND:

(3490.00) Groundwater Elevation (feet)

- Monitor Well Location
- Recovery Well Location
- Pipeline
- Groundwater Elevation Contour Line
- Groundwater Gradient Direction and Magnitude
- Stockpile Soil Area
- Excavated Area
- (NW) Dry Well / No Water

Figure 2D
Inferred Groundwater
Gradient Map
(11/14/2011)
NMOCD Reference # AP-017
Plains Marketing, L.P.
TNM 97-17
Lea County, NM



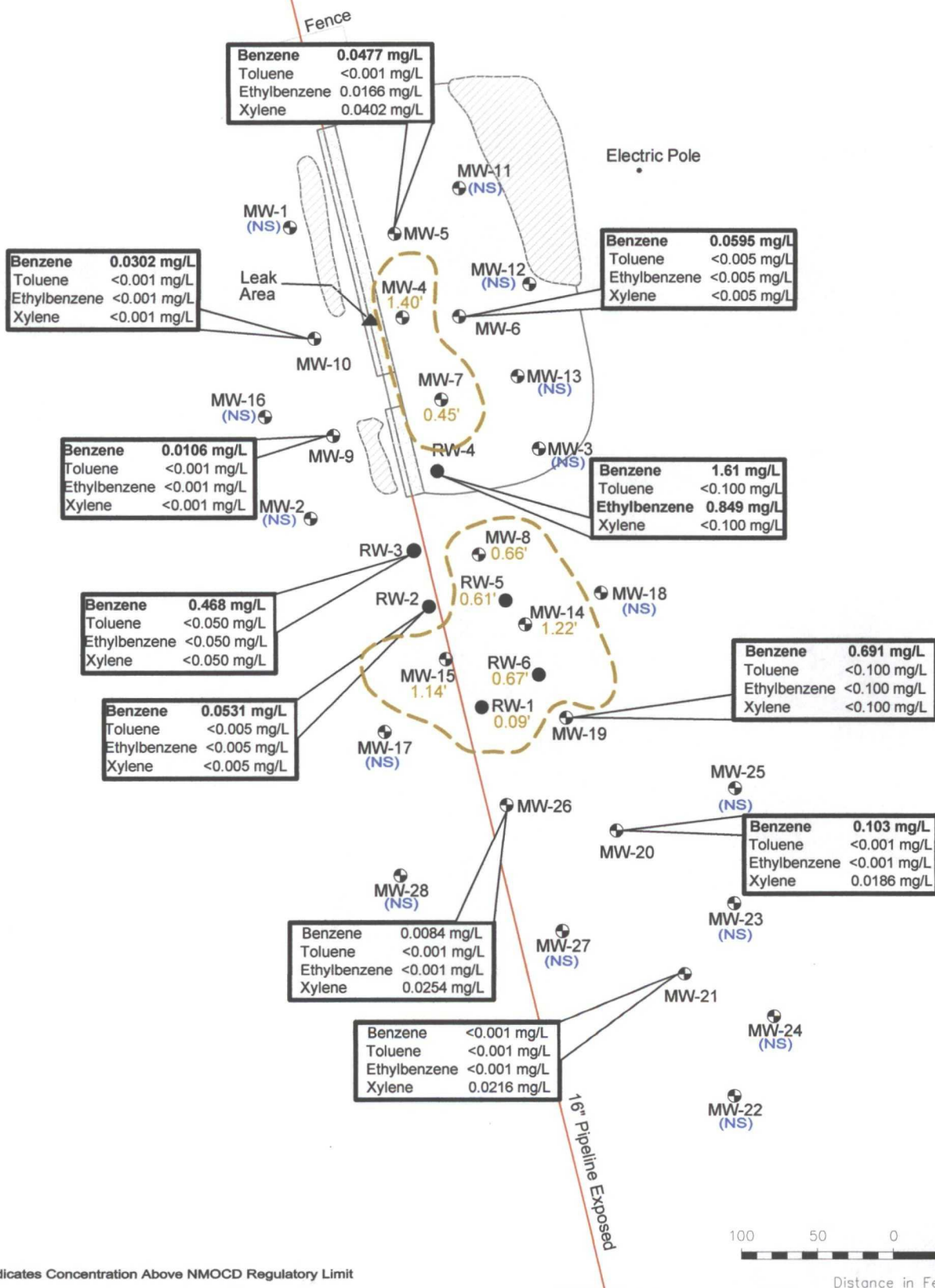
2057 Commerce Drive
Midland, Texas 79703
432.520.7720

www.novasafetyandenvironmental.com

November 22, 2011 Scale: 1" = 100' CAD By: TA Checked By: RKR

Lat. N 32° 33' 24.0" Long. W 103° 15' 37.3"





NOTE:

- BOLD Indicates Concentration Above NMOC Regulatory Limit

LEGEND:

- Monitor Well Location
- Recovery Well Location
- Pipeline
- Inferred PSH Extent
- 0.18' Thickness of PSH (feet)
- Constituent Concentration (mg/L)
- Stockpile Soil Area
- Excavated Area
- Not Sampled

Figure 3A
Groundwater Concentration and Inferred PSH Extent
Map (2/16/11)
NMOC Reference # AP-017
Plains Marketing, L.P.
TNM 97-17
Lea County, NM

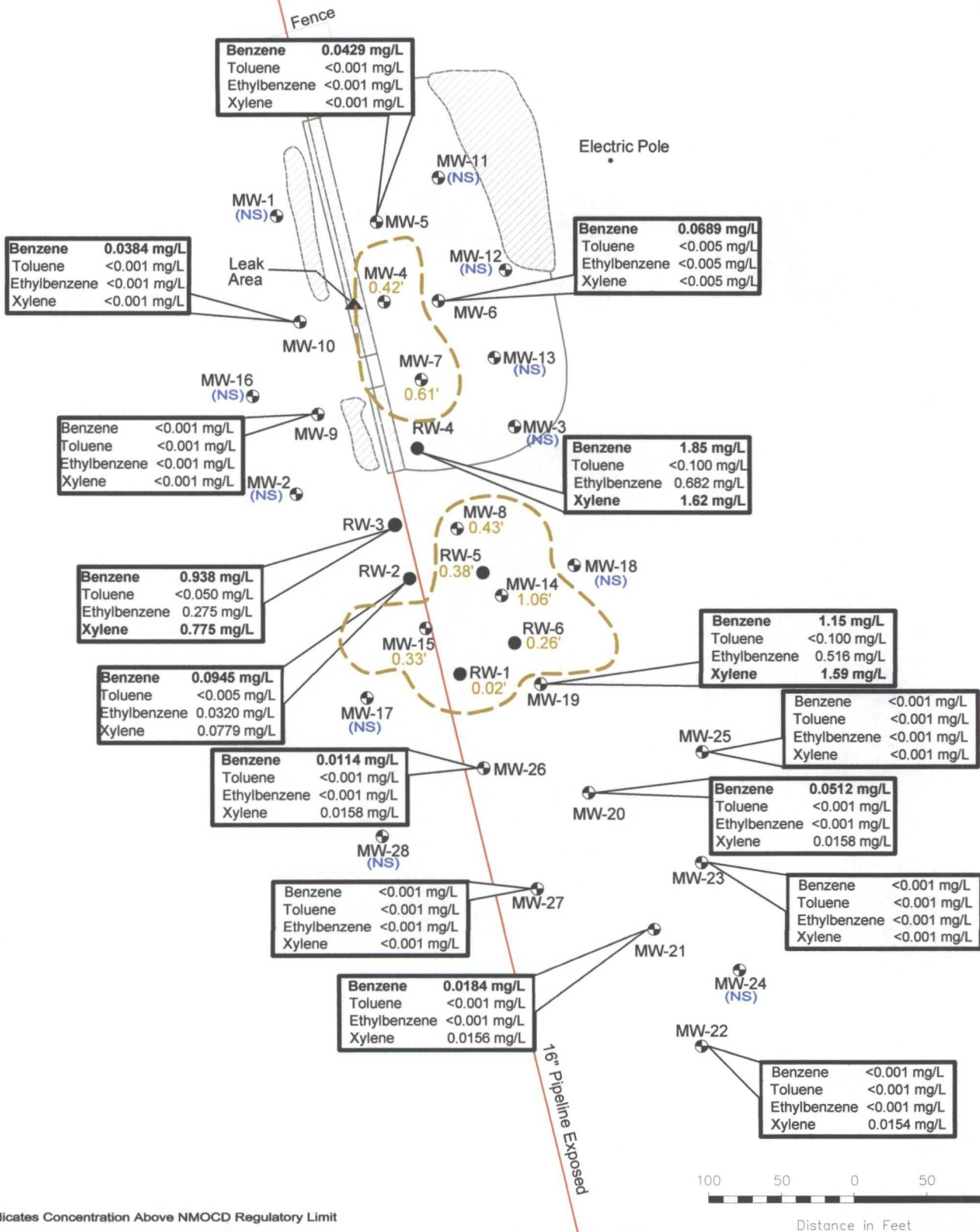


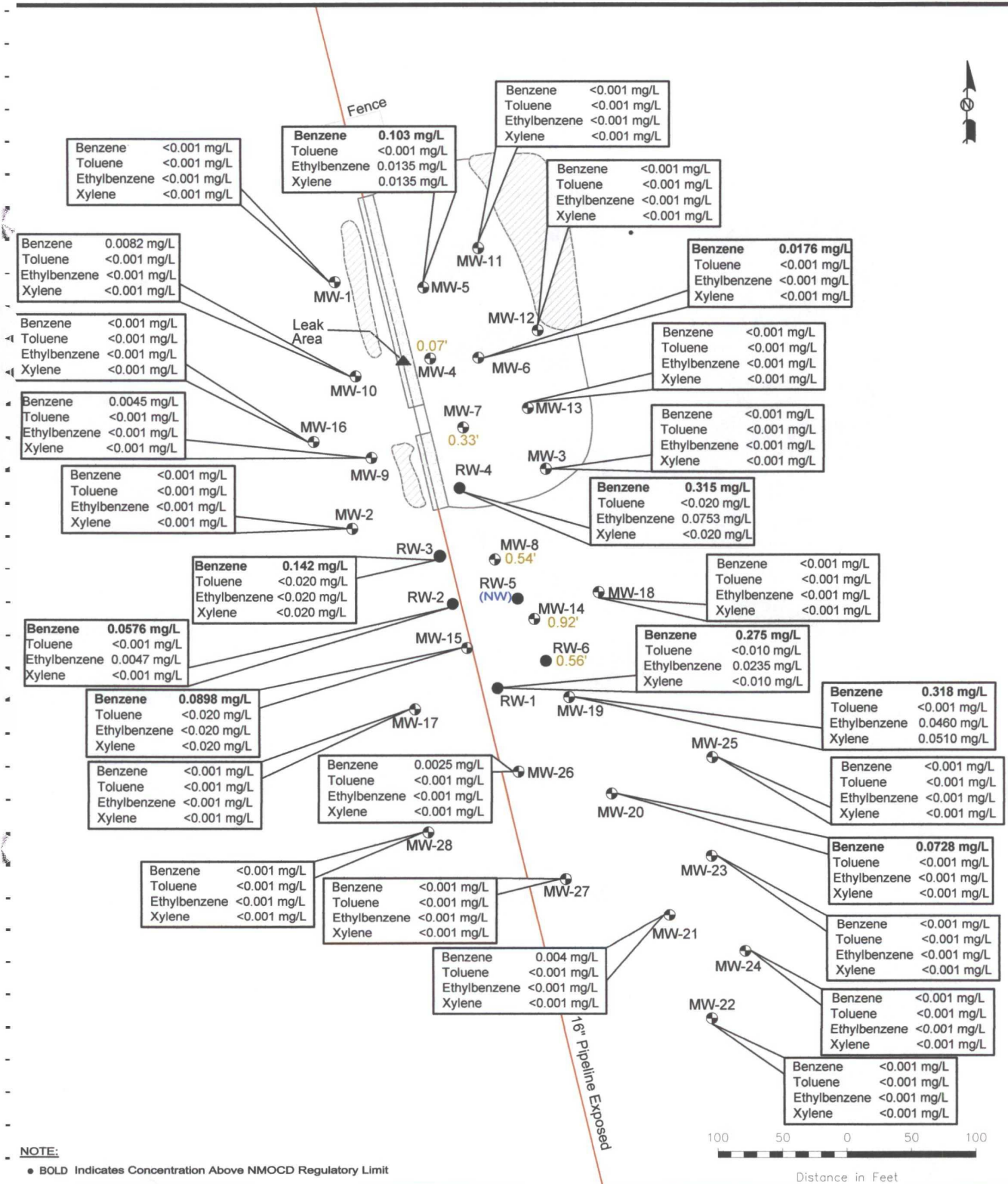
2057 Commerce Drive
Midland, Texas 79703
432.520.7720

www.novasafetyandenvironmental.com

April 5, 2011 Scale: 1" = 100' CAD By: TA Checked By: RKR

Lat. N 32° 33' 24.0" Long. W 103° 15' 37.3"





NOTE:

• BOLD Indicates Concentration Above NMOC Regulatory Limit

LEGEND:

- Monitor Well Location
- Recovery Well Location
- Pipeline
- Inferred PSH Extent
- 0.18" Thickness of PSH (feet)
- <0.001 Constituent Concentration (mg/L)
- Stockpile Soil Area
- Excavated Area
- (NW) No Water

Figure 3D
Groundwater Concentration
and Inferred PSH Extent
Map (11/14/2011)
NMOC Reference # AP-017
Plains Marketing, L.P.
TNM 97-17
Lea County, NM



2057 Commerce Drive
Midland, Texas 79703
432.520.7720

www.novasafetyandenvironmental.com

November 23, 2011 Scale: 1" = 100' CAD By: TA Checked By: RKR

Lat. N 32° 33' 24.0" Long. W 103° 15' 37.3"

Tables

TABLE 1

GROUNDWATER ELEVATION DATA - 2011

TNM 97- 17
 LEA COUNTY, NEW MEXICO
 PLAINS MARKETING, L.P.
 NMOCD REFERENCE NUMBER AP-017

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 1	02/16/11	3510.90	-	21.62	0.00	3489.28
MW - 1	05/19/11	3510.90	-	21.83	0.00	3489.07
MW - 1	08/10/11	3510.90	-	21.84	0.00	3489.06
MW - 1	11/14/11	3510.90	-	21.70	0.00	3489.20
MW - 2	02/16/11	3509.23	-	20.51	0.00	3488.72
MW - 2	05/19/11	3509.23	-	20.50	0.00	3488.73
MW - 2	08/10/11	3509.23	-	20.53	0.00	3488.70
MW - 2	11/14/11	3509.23	-	20.55	0.00	3488.68
MW - 3	02/16/11	3508.82	-	20.09	0.00	3488.73
MW - 3	05/19/11	3508.82	-	20.11	0.00	3488.71
MW - 3	08/10/11	3508.82	-	20.20	0.00	3488.62
MW - 3	11/14/11	3508.82	-	20.22	0.00	3488.60
MW - 4	01/18/11	3509.15	18.55	18.92	0.37	3490.54
MW - 4	02/16/11	3509.15	18.53	19.93	1.40	3490.41
MW - 4	03/01/11	3509.15	19.40	19.56	0.16	3489.73
MW - 4	03/07/11	3509.15	19.38	19.68	0.30	3489.73
MW - 4	03/22/11	3509.15	18.53	19.93	1.40	3490.41
MW - 4	04/27/11	3509.15	19.15	19.82	0.67	3489.90
MW - 4	05/05/11	3509.15	19.45	19.76	0.31	3489.65
MW - 4	05/10/11	3509.15	19.51	19.85	0.34	3489.59
MW - 4	05/17/11	3509.15	19.52	19.94	0.42	3489.57
MW - 4	05/19/11	3509.15	19.52	19.94	0.42	3489.57
MW - 4	05/24/11	3509.15	19.62	20.02	0.40	3489.47
MW - 4	06/07/11	3509.15	19.76	20.07	0.31	3489.34
MW - 4	06/08/11	3509.15	19.79	20.00	0.21	3489.33
MW - 4	06/14/11	3509.15	19.85	20.14	0.29	3489.26
MW - 4	06/23/11	3509.15	19.79	20.10	0.31	3489.31
MW - 4	06/28/11	3509.15	19.83	20.05	0.22	3489.29
MW - 4	07/06/11	3509.15	20.08	20.23	0.15	3489.05
MW - 4	07/14/11	3509.15	19.93	20.15	0.22	3489.19
MW - 4	07/20/11	3509.15	20.11	20.33	0.22	3489.01
MW - 4	07/27/11	3509.15	20.15	20.36	0.21	3488.97
MW - 4	08/03/11	3509.15	20.14	20.35	0.21	3488.98
MW - 4	08/10/11	3509.15	20.21	20.71	0.50	3488.87
MW - 4	08/18/11	3509.15	20.23	20.45	0.22	3488.89
MW - 4	08/25/11	3509.15	20.28	20.50	0.22	3488.84
MW - 4	09/06/11	3509.15	19.56	19.87	0.31	3489.54
MW - 4	09/14/11	3509.15	20.34	20.86	0.52	3488.73
MW - 4	11/14/11	3509.15	20.15	20.22	0.07	3488.99
MW - 5	01/18/11	3509.96	-	20.02	0.00	3489.94
MW - 5	02/16/11	3509.96	-	20.01	0.00	3489.95
MW - 5	03/01/11	3509.96	-	20.25	0.00	3489.71
MW - 5	03/07/11	3509.96	-	20.20	0.00	3489.76
MW - 5	03/22/11	3509.96	-	20.00	0.00	3489.96
MW - 5	04/27/11	3509.96	-	20.16	0.00	3489.80
MW - 5	05/05/11	3509.96	-	20.20	0.00	3489.76
MW - 5	05/10/11	3509.96	-	20.15	0.00	3489.81
MW - 5	05/17/11	3509.96	-	20.21	0.00	3489.75
MW - 5	05/19/11	3509.96	-	20.21	0.00	3489.75

TABLE 1

GROUNDWATER ELEVATION DATA - 2011

TNM 97- 17
 LEA COUNTY, NEW MEXICO
 PLAINS MARKETING, L.P.
 NMOCD REFERENCE NUMBER AP-017

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 5	05/24/11	3509.96	-	20.37	0.00	3489.59
MW - 5	06/07/11	3509.96	-	20.52	0.00	3489.44
MW - 5	06/08/11	3509.96	-	20.56	0.00	3489.40
MW - 5	06/14/11	3509.96	-	20.58	0.00	3489.38
MW - 5	06/23/11	3509.96	-	20.53	0.00	3489.43
MW - 5	06/28/11	3509.96	-	20.68	0.00	3489.28
MW - 5	07/06/11	3509.96	-	20.81	0.00	3489.15
MW - 5	07/14/11	3509.96	-	20.83	0.00	3489.13
MW - 5	07/20/11	3509.96	-	21.89	0.00	3488.07
MW - 5	07/27/11	3509.96	-	21.92	0.00	3488.04
MW - 5	08/03/11	3509.96	-	20.98	0.00	3488.98
MW - 5	08/10/11	3509.96	-	20.04	0.00	3489.92
MW - 5	08/18/11	3509.96	-	21.28	0.00	3488.68
MW - 5	08/25/11	3509.96	-	21.33	0.00	3488.63
MW - 5	09/07/11	3509.96	-	20.10	0.00	3489.86
MW - 5	09/14/11	3509.96	-	21.12	0.00	3488.84
MW - 5	11/14/11	3509.96	-	20.92	0.00	3489.04
MW - 6	01/18/11	3507.94	-	18.34	0.00	3489.60
MW - 6	02/16/11	3507.94	-	18.35	0.00	3489.59
MW - 6	03/01/11	3507.94	-	18.40	0.00	3489.54
MW - 6	03/07/11	3507.94	-	18.35	0.00	3489.59
MW - 6	03/22/11	3507.94	-	18.34	0.00	3489.60
MW - 6	04/27/11	3507.94	-	18.35	0.00	3489.59
MW - 6	05/05/11	3507.94	-	18.42	0.00	3489.52
MW - 6	05/10/11	3507.94	-	18.37	0.00	3489.57
MW - 6	05/17/11	3507.94	-	18.41	0.00	3489.53
MW - 6	05/24/11	3507.94	-	18.59	0.00	3489.35
MW - 6	05/29/11	3507.94	-	18.41	0.00	3489.53
MW - 6	06/07/11	3507.94	-	18.69	0.00	3489.25
MW - 6	06/08/11	3507.94	-	18.72	0.00	3489.22
MW - 6	06/14/11	3507.94	-	18.63	0.00	3489.31
MW - 6	06/23/11	3507.94	-	18.68	0.00	3489.26
MW - 6	06/28/11	3507.94	-	18.73	0.00	3489.21
MW - 6	07/06/11	3507.94	-	18.83	0.00	3489.11
MW - 6	07/14/11	3507.94	-	18.91	0.00	3489.03
MW - 6	07/20/11	3507.94	-	19.02	0.00	3488.92
MW - 6	07/27/11	3507.94	-	19.06	0.00	3488.88
MW - 6	08/03/11	3507.94	-	19.07	0.00	3488.87
MW - 6	08/10/11	3507.94	-	19.13	0.00	3488.81
MW - 6	08/18/11	3507.94	-	19.11	0.00	3488.83
MW - 6	08/25/11	3507.94	-	19.12	0.00	3488.82
MW - 6	09/07/11	3507.94	-	19.24	0.00	3488.70
MW - 6	09/14/11	3507.94	-	19.26	0.00	3488.68
MW - 6	11/14/11	3507.94	-	19.10	0.00	3488.84
MW - 7	01/18/11	3507.08	17.66	18.06	0.40	3489.36
MW - 7	02/16/11	3507.08	17.65	18.10	0.45	3489.36
MW - 7	03/01/11	3507.08	17.50	18.00	0.50	3489.51
MW - 7	03/07/11	3507.08	17.48	18.31	0.83	3489.48
MW - 7	03/22/11	3507.08	17.61	18.11	0.50	3489.40
MW - 7	04/27/11	3507.08	17.41	18.31	0.90	3489.54
MW - 7	05/05/11	3507.08	17.62	18.13	0.51	3489.38

TABLE 1

GROUNDWATER ELEVATION DATA - 2011

TNM 97- 17
 LEA COUNTY, NEW MEXICO
 PLAINS MARKETING, L.P.
 NMOCD REFERENCE NUMBER AP-017

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 7	05/10/11	3507.08	17.61	18.29	0.68	3489.37
MW - 7	05/17/11	3507.08	17.60	18.21	0.61	3489.39
MW - 7	05/19/11	3507.08	17.60	18.21	0.61	3489.39
MW - 7	05/24/11	3507.08	17.75	18.48	0.73	3489.22
MW - 7	06/07/11	3507.08	17.82	18.41	0.59	3489.17
MW - 7	06/08/11	3507.08	17.89	18.40	0.51	3489.11
MW - 7	06/14/11	3507.08	17.86	18.45	0.59	3489.13
MW - 7	06/23/11	3507.08	17.80	18.30	0.50	3489.21
MW - 7	06/28/11	3507.08	17.98	18.36	0.38	3489.04
MW - 7	07/06/11	3507.08	18.09	18.53	0.44	3488.92
MW - 7	07/14/11	3507.08	18.03	18.45	0.42	3488.99
MW - 7	07/20/11	3507.08	18.20	18.80	0.60	3488.79
MW - 7	07/27/11	3507.08	18.23	18.65	0.42	3488.79
MW - 7	08/03/11	3507.08	18.22	18.58	0.36	3488.81
MW - 7	08/10/11	3507.08	18.30	18.55	0.25	3488.74
MW - 7	08/18/11	3507.08	18.32	18.70	0.38	3488.70
MW - 7	08/25/11	3507.08	18.34	18.50	0.16	3488.72
MW - 7	09/07/11	3507.08	18.44	18.80	0.36	3488.59
MW - 7	09/14/11	3507.08	18.40	18.84	0.44	3488.61
MW - 7	11/14/11	3507.08	18.26	18.59	0.33	3488.77
MW - 8	01/18/11	3506.39	17.27	17.91	0.64	3489.02
MW - 8	02/16/11	3506.39	17.29	17.95	0.66	3489.00
MW - 8	03/01/11	3506.39	17.08	17.91	0.83	3489.19
MW - 8	03/07/11	3506.39	17.05	17.72	0.67	3489.24
MW - 8	03/22/11	3506.39	17.26	17.93	0.67	3489.03
MW - 8	04/27/11	3506.39	17.15	17.62	0.47	3489.17
MW - 8	05/05/11	3506.39	17.22	17.62	0.40	3489.11
MW - 8	05/10/11	3506.39	17.31	17.61	0.30	3489.04
MW - 8	05/17/11	3506.39	17.20	17.63	0.43	3489.13
MW - 8	05/19/11	3506.39	17.20	17.63	0.43	3489.13
MW - 8	05/24/11	3506.39	17.34	17.75	0.41	3488.99
MW - 8	06/07/11	3506.39	17.43	17.88	0.45	3488.89
MW - 8	06/08/11	3506.39	17.45	17.92	0.47	3488.87
MW - 8	06/14/11	3506.39	17.70	18.25	0.55	3488.61
MW - 8	06/23/11	3506.39	17.81	18.32	0.51	3488.50
MW - 8	06/28/11	3506.39	17.56	18.09	0.53	3488.75
MW - 8	07/06/11	3506.39	17.66	18.17	0.51	3488.65
MW - 8	07/14/11	3506.39	17.49	18.29	0.80	3488.78
MW - 8	07/20/11	3506.39	17.75	18.11	0.36	3488.59
MW - 8	07/27/11	3506.39	17.78	18.16	0.38	3488.55
MW - 8	08/03/11	3506.39	17.80	18.08	0.28	3488.55
MW - 8	08/10/11	3506.39	17.82	18.14	0.32	3488.52
MW - 8	08/18/11	3506.39	17.84	18.20	0.36	3488.50
MW - 8	08/25/11	3506.39	17.88	18.30	0.42	3488.45
MW - 8	09/07/11	3506.39	17.91	18.50	0.59	3488.39
MW - 8	09/14/11	3506.39	18.09	18.73	0.64	3488.20
MW - 8	11/14/11	3506.39	17.86	18.40	0.54	3488.45
MW - 9	02/16/11	3509.36	-	20.48	0.00	3488.88
MW - 9	03/01/11	3509.36	-	19.83	0.00	3489.53
MW - 9	03/07/11	3509.36	-	19.81	0.00	3489.55
MW - 9	04/27/11	3509.36	-	19.85	0.00	3489.51

TABLE 1

GROUNDWATER ELEVATION DATA - 2011

TNM 97- 17
 LEA COUNTY, NEW MEXICO
 PLAINS MARKETING, L.P.
 NMOCD REFERENCE NUMBER AP-017

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 9	05/19/11	3509.36	-	20.51	0.00	3488.85
MW - 9	06/08/11	3509.36	-	20.10	0.00	3489.26
MW - 9	07/06/11	3509.36	-	20.40	0.00	3488.96
MW - 9	08/10/11	3509.36	-	20.60	0.00	3488.76
MW - 9	11/14/11	3509.36	-	20.59	0.00	3488.77
MW - 10	01/18/11	3509.91	-	20.11	0.00	3489.80
MW - 10	02/16/11	3509.91	-	20.13	0.00	3489.78
MW - 10	03/01/11	3509.91	-	22.01	0.00	3487.90
MW - 10	03/07/11	3509.91	-	20.21	0.00	3489.70
MW - 10	03/22/11	3509.91	-	20.14	0.00	3489.77
MW - 10	04/27/11	3509.91	-	20.23	0.00	3489.68
MW - 10	05/19/11	3509.91	-	20.15	0.00	3489.76
MW - 10	06/08/11	3509.91	-	20.58	0.00	3489.33
MW - 10	07/06/11	3509.91	-	20.84	0.00	3489.07
MW - 10	08/10/11	3509.91	-	21.04	0.00	3488.87
MW - 10	09/07/11	3509.91	-	20.18	0.00	3489.73
MW - 10	09/14/11	3509.91	-	21.17	0.00	3488.74
MW - 10	11/14/11	3509.91	-	20.99	0.00	3488.92
MW - 11	02/16/11	3509.27	-	20.11	0.00	3489.16
MW - 11	05/19/11	3509.27	-	20.13	0.00	3489.14
MW - 11	08/10/11	3509.27	-	20.27	0.00	3489.00
MW - 11	11/14/11	3509.27	-	20.16	0.00	3489.11
MW - 12	02/16/11	3508.63	-	19.67	0.00	3488.96
MW - 12	05/19/11	3508.63	-	19.70	0.00	3488.93
MW - 12	08/10/11	3508.63	-	20.13	0.00	3488.50
MW - 12	11/14/11	3508.63	-	19.76	0.00	3488.87
MW - 13	02/16/11	3507.96	-	19.19	0.00	3488.77
MW - 13	05/19/11	3507.96	-	19.17	0.00	3488.79
MW - 13	08/10/11	3507.96	-	19.25	0.00	3488.71
MW - 13	11/14/11	3507.96	-	19.24	0.00	3488.72
MW - 14	01/18/11	3507.46	18.48	19.65	1.17	3488.80
MW - 14	02/16/11	3507.46	18.46	19.68	1.22	3488.82
MW - 14	03/01/11	3507.46	18.24	19.86	1.62	3488.98
MW - 14	03/07/11	3507.46	18.22	19.85	1.63	3489.00
MW - 14	03/22/11	3507.46	18.44	19.65	1.21	3488.84
MW - 14	04/27/11	3507.46	18.31	19.84	1.53	3488.92
MW - 14	05/05/11	3507.46	18.42	19.40	0.98	3488.89
MW - 14	05/10/11	3507.46	18.38	19.25	0.87	3488.95
MW - 14	05/17/11	3507.46	18.35	19.41	1.06	3488.95
MW - 14	05/19/11	3507.46	18.35	19.41	1.06	3488.95
MW - 14	05/24/11	3507.46	18.44	19.48	1.04	3488.86
MW - 14	06/07/11	3507.46	18.63	19.87	1.24	3488.64
MW - 14	06/08/11	3507.46	18.62	19.79	1.17	3488.66
MW - 14	06/14/11	3507.46	18.59	19.60	1.01	3488.72
MW - 14	06/23/11	3507.46	18.68	19.62	0.94	3488.64
MW - 14	06/28/11	3507.46	18.78	19.86	1.08	3488.52
MW - 14	07/06/11	3507.46	18.84	20.01	1.17	3488.44
MW - 14	07/14/11	3507.46	18.91	19.82	0.91	3488.41

TABLE 1

GROUNDWATER ELEVATION DATA - 2011

TNM 97- 17
 LEA COUNTY, NEW MEXICO
 PLAINS MARKETING, L.P.
 NMOCD REFERENCE NUMBER AP-017

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 14	07/20/11	3507.46	18.98	19.85	0.87	3488.35
MW - 14	07/27/11	3507.46	18.98	19.73	0.75	3488.37
MW - 14	08/03/11	3507.46	19.00	19.71	0.71	3488.35
MW - 14	08/10/11	3507.46	19.02	19.58	0.56	3488.36
MW - 14	08/18/11	3507.46	19.02	19.75	0.73	3488.33
MW - 14	08/25/11	3507.46	19.10	19.82	0.72	3488.25
MW - 14	09/07/11	3507.46	19.16	19.90	0.74	3488.19
MW - 14	09/14/11	3507.46	19.19	19.94	0.75	3488.16
MW - 14	11/14/11	3507.46	19.08	20.00	0.92	3488.24
MW - 15	01/18/11	3506.48	17.53	17.58	0.05	3488.94
MW - 15	02/16/11	3506.48	17.50	17.64	0.14	3488.96
MW - 15	03/01/11	3506.48	17.40	17.86	0.46	3489.01
MW - 15	03/07/11	3506.48	17.35	17.75	0.40	3489.07
MW - 15	03/22/11	3506.48	17.51	17.66	0.15	3488.95
MW - 15	04/27/11	3506.48	17.41	17.85	0.44	3489.00
MW - 15	05/05/11	3506.48	17.47	17.87	0.40	3488.95
MW - 15	05/10/11	3506.48	17.50	17.85	0.35	3488.93
MW - 15	05/17/11	3506.48	17.49	17.82	0.33	3488.94
MW - 15	05/19/11	3506.48	17.49	17.82	0.33	3488.94
MW - 15	05/24/11	3506.48	17.62	17.94	0.32	3488.81
MW - 15	06/07/11	3506.48	17.68	18.03	0.35	3488.75
MW - 15	06/08/11	3506.48	17.69	18.25	0.56	3488.71
MW - 15	06/14/11	3506.48	17.60	17.98	0.38	3488.82
MW - 15	06/23/11	3506.48	17.69	17.97	0.28	3488.75
MW - 15	06/28/11	3506.48	17.49	17.77	0.28	3488.95
MW - 15	07/06/11	3506.48	17.49	17.87	0.38	3488.93
MW - 15	07/14/11	3506.48	17.83	18.03	0.20	3488.62
MW - 15	07/20/11	3506.48	18.03	18.40	0.37	3488.39
MW - 15	07/27/11	3506.48	18.02	18.25	0.23	3488.43
MW - 15	08/03/11	3506.48	18.07	18.26	0.19	3488.38
MW - 15	08/10/11	3506.48	18.06	18.26	0.20	3488.39
MW - 15	08/18/11	3506.48	18.09	18.34	0.25	3488.35
MW - 15	08/25/11	3506.48	-	18.70	0.00	3487.78
MW - 15	09/07/11	3506.48	-	18.45	0.00	3488.03
MW - 15	09/14/11	3506.48	-	18.40	0.00	3488.08
MW - 15	11/14/11	3506.48	-	18.23	0.00	3488.25
MW - 16	02/16/11	3509.38	-	20.39	0.00	3488.99
MW - 16	05/19/11	3509.38	-	20.42	0.00	3488.96
MW - 16	08/10/11	3509.38	-	20.55	0.00	3488.83
MW - 16	11/14/11	3509.38	-	20.51	0.00	3488.87
MW - 17	02/16/11	3507.56	-	19.31	0.00	3488.25
MW - 17	05/19/11	3507.56	-	19.34	0.00	3488.22
MW - 17	08/10/11	3507.56	-	19.39	0.00	3488.17
MW - 17	11/14/11	3507.56	-	19.37	0.00	3488.19
MW - 18	02/16/11	3509.12	-	20.73	0.00	3488.39
MW - 18	05/19/11	3509.12	-	20.71	0.00	3488.41
MW - 18	08/10/11	3509.12	-	20.81	0.00	3488.31
MW - 18	11/14/11	3509.12	-	20.84	0.00	3488.28

TABLE 1

GROUNDWATER ELEVATION DATA - 2011

TNM 97- 17
 LEA COUNTY, NEW MEXICO
 PLAINS MARKETING, L.P.
 NMOCD REFERENCE NUMBER AP-017

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 19	01/18/11	3507.28	-	18.66	0.00	3488.62
MW - 19	02/16/11	3507.28	-	18.67	0.00	3488.61
MW - 19	03/01/11	3507.28	-	18.54	0.00	3488.74
MW - 19	03/07/11	3507.28	-	18.50	0.00	3488.78
MW - 19	03/22/11	3507.28	-	18.66	0.00	3488.62
MW - 19	04/27/11	3507.28	-	18.57	0.00	3488.71
MW - 19	05/05/11	3507.28	-	18.57	0.00	3488.71
MW - 19	05/10/11	3507.28	-	18.50	0.00	3488.78
MW - 19	05/17/11	3507.28	-	18.52	0.00	3488.76
MW - 19	05/19/11	3507.28	-	18.52	0.00	3488.76
MW - 19	05/24/11	3507.28	-	18.73	0.00	3488.55
MW - 19	06/07/11	3507.28	-	18.83	0.00	3488.45
MW - 19	06/08/11	3507.28	-	17.84	0.00	3489.44
MW - 19	06/14/11	3507.28	-	18.80	0.00	3488.48
MW - 19	06/23/11	3507.28	-	18.84	0.00	3488.44
MW - 19	06/28/11	3507.28	-	19.90	0.00	3487.38
MW - 19	07/06/11	3507.28	-	19.03	0.00	3488.25
MW - 19	07/14/11	3507.28	-	19.08	0.00	3488.20
MW - 19	07/20/11	3507.28	-	19.24	0.00	3488.04
MW - 19	07/27/11	3507.28	-	19.13	0.00	3488.15
MW - 19	08/03/11	3507.28	-	19.18	0.00	3488.10
MW - 19	08/10/11	3507.28	-	19.19	0.00	3488.09
MW - 19	08/18/11	3507.28	-	19.23	0.00	3488.05
MW - 19	08/25/11	3507.28	-	19.18	0.00	3488.10
MW - 19	09/07/11	3507.28	-	19.30	0.00	3487.98
MW - 19	09/14/11	3507.28	-	19.33	0.00	3487.95
MW - 19	11/14/11	3507.28	-	19.27	0.00	3488.01
MW - 20	02/16/11	3508.43	-	20.54	0.00	3487.89
MW - 20	03/01/11	3508.43	-	19.94	0.00	3488.49
MW - 20	03/07/11	3508.43	-	19.92	0.00	3488.51
MW - 20	04/27/11	3508.43	-	19.94	0.00	3488.49
MW - 20	05/05/11	3508.43	-	20.00	0.00	3488.43
MW - 20	05/10/11	3508.43	-	20.12	0.00	3488.31
MW - 20	05/17/11	3508.43	-	20.23	0.00	3488.20
MW - 20	05/19/11	3508.43	-	20.23	0.00	3488.20
MW - 20	05/24/11	3508.43	-	20.13	0.00	3488.30
MW - 20	06/07/11	3508.43	-	20.23	0.00	3488.20
MW - 20	06/08/11	3508.43	-	20.24	0.00	3488.19
MW - 20	06/14/11	3508.43	-	20.27	0.00	3488.16
MW - 20	06/23/11	3508.43	-	20.26	0.00	3488.17
MW - 20	06/28/11	3508.43	-	20.28	0.00	3488.15
MW - 20	07/06/11	3508.43	-	20.43	0.00	3488.00
MW - 20	07/14/11	3508.43	-	20.43	0.00	3488.00
MW - 20	07/20/11	3508.43	-	20.50	0.00	3487.93
MW - 20	07/27/11	3508.43	-	20.55	0.00	3487.88
MW - 20	08/03/11	3508.43	-	20.57	0.00	3487.86
MW - 20	08/10/11	3508.43	-	20.60	0.00	3487.83
MW - 20	08/18/11	3508.43	-	20.66	0.00	3487.77
MW - 20	08/25/11	3508.43	-	20.71	0.00	3487.72
MW - 20	11/14/11	3508.43	-	20.65	0.00	3487.78

TABLE 1

GROUNDWATER ELEVATION DATA - 2011

TNM 97- 17
 LEA COUNTY, NEW MEXICO
 PLAINS MARKETING, L.P.
 NMOC REFERENCE NUMBER AP-017

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 21	02/16/11	3506.98	-	19.49	0.00	3487.49
MW - 21	05/19/11	3506.98	-	19.47	0.00	3487.51
MW - 21	08/10/11	3506.98	-	19.54	0.00	3487.44
MW - 21	11/14/11	3506.98	-	19.60	0.00	3487.38
MW - 22	02/16/11	3505.61	-	18.45	0.00	3487.16
MW - 22	05/19/11	3505.61	-	18.48	0.00	3487.13
MW - 22	08/10/11	3505.61	-	18.56	0.00	3487.05
MW - 22	11/14/11	3505.61	-	18.62	0.00	3486.99
MW - 23	02/16/11	3509.79	-	22.13	0.00	3487.66
MW - 23	05/19/11	3509.79	-	22.12	0.00	3487.67
MW - 23	08/10/11	3509.79	-	22.27	0.00	3487.52
MW - 23	11/14/11	3509.79	-	22.31	0.00	3487.48
MW - 24	02/16/11	3509.68	-	22.45	0.00	3487.23
MW - 24	05/19/11	3509.68	-	22.48	0.00	3487.20
MW - 24	08/10/11	3509.68	-	22.55	0.00	3487.13
MW - 24	11/14/11	3509.68	-	22.58	0.00	3487.10
MW - 25	02/16/11	3509.65	-	21.84	0.00	3487.81
MW - 25	05/19/11	3509.65	-	21.86	0.00	3487.79
MW - 25	08/10/11	3509.65	-	21.90	0.00	3487.75
MW - 25	11/14/11	3509.65	-	21.96	0.00	3487.69
MW - 26	02/16/11	3507.49	-	19.47	0.00	3488.02
MW - 26	05/19/11	3507.49	-	19.50	0.00	3487.99
MW - 26	08/10/11	3507.49	-	19.51	0.00	3487.98
MW - 26	11/14/11	3507.49	-	19.60	0.00	3487.89
MW - 27	02/16/11	3507.66	-	19.91	0.00	3487.75
MW - 27	05/19/11	3507.66	-	19.94	0.00	3487.72
MW - 27	08/10/11	3507.66	-	19.96	0.00	3487.70
MW - 27	11/14/11	3507.66	-	20.04	0.00	3487.62
MW - 28	02/16/11	3508.37	-	20.36	0.00	3488.01
MW - 28	05/19/11	3508.37	-	20.36	0.00	3488.01
MW - 28	08/10/11	3508.37	-	20.36	0.00	3488.01
MW - 28	11/14/11	3508.37	-	20.46	0.00	3487.91
RW - 1	01/18/11	3507.27	18.15	18.21	0.06	3489.85
RW - 1	02/16/11	3507.27	18.14	18.23	0.09	3489.80
RW - 1	03/01/11	3507.27	18.38	18.39	0.01	3489.72
RW - 1	03/07/11	3507.27	18.35	18.36	0.01	3489.75
RW - 1	03/22/11	3507.27	18.15	18.21	0.06	3489.85
RW - 1	04/27/11	3507.27	18.34	18.63	0.29	3489.20
RW - 1	05/05/11	3507.27	18.46	18.49	0.03	3489.60
RW - 1	05/10/11	3507.27	18.51	18.53	0.02	3489.57
RW - 1	05/17/11	3507.27	18.52	18.54	0.02	3489.56
RW - 1	05/19/11	3507.27	18.52	18.54	0.02	3489.56
RW - 1	05/24/11	3507.27	18.63	18.68	0.05	3489.39
RW - 1	06/07/11	3507.27	18.68	18.76	0.08	3489.28
RW - 1	06/08/11	3507.27	18.70	18.75	0.05	3489.32

TABLE 1

GROUNDWATER ELEVATION DATA - 2011

TNM 97- 17
 LEA COUNTY, NEW MEXICO
 PLAINS MARKETING, L.P.
 NMOCD REFERENCE NUMBER AP-017

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
RW - 1	06/14/11	3507.27	18.75	18.80	0.05	3489.27
RW - 1	06/23/11	3507.27	18.68	18.78	0.10	3489.24
RW - 1	06/28/11	3507.27	18.65	18.72	0.07	3489.33
RW - 1	07/06/11	3507.27	18.88	19.14	0.26	3488.72
RW - 1	07/14/11	3507.27	18.88	18.98	0.10	3489.04
RW - 1	07/20/11	3507.27	19.00	19.08	0.08	3488.96
RW - 1	07/27/11	3507.27	18.97	19.05	0.08	3488.99
RW - 1	08/03/11	3507.27	18.95	19.03	0.08	3489.01
RW - 1	08/10/11	3507.27	19.08	19.15	0.07	3488.90
RW - 1	08/18/11	3507.27	19.21	19.28	0.07	3488.77
RW - 1	08/25/11	3507.27	19.25	19.30	0.05	3488.77
RW - 1	09/07/11	3507.27	19.33	19.42	0.09	3488.61
RW - 1	09/14/11	3507.27	19.40	19.46	0.06	3488.60
RW - 1	11/14/11	3507.27	19.21	19.23	0.02	3488.89
RW - 2	01/18/11	3507.45	-	18.40	0.00	3489.05
RW - 2	02/16/11	3507.45	-	18.42	0.00	3489.03
RW - 2	03/01/11	3507.45	-	18.26	0.00	3489.19
RW - 2	03/07/11	3507.45	-	18.20	0.00	3489.25
RW - 2	03/22/11	3507.45	-	18.42	0.00	3489.03
RW - 2	04/27/11	3507.45	-	18.28	0.00	3489.17
RW - 2	05/05/11	3507.45	-	18.30	0.00	3489.15
RW - 2	05/19/11	3507.45	-	18.46	0.00	3488.99
RW - 2	06/08/11	3507.45	-	18.63	0.00	3488.82
RW - 2	07/06/11	3507.45	-	18.77	0.00	3488.68
RW - 2	07/14/11	3507.45	-	18.89	0.00	3488.56
RW - 2	07/20/11	3507.45	-	18.83	0.00	3488.62
RW - 2	07/27/11	3507.45	-	18.93	0.00	3488.52
RW - 2	08/03/11	3507.45	-	18.84	0.00	3488.61
RW - 2	08/10/11	3507.45	-	19.07	0.00	3488.38
RW - 2	08/18/11	3507.45	-	18.88	0.00	3488.57
RW - 2	08/25/11	3507.45	-	18.92	0.00	3488.53
RW - 2	09/07/11	3507.45	-	19.00	0.00	3488.45
RW - 2	09/14/11	3507.45	-	19.17	0.00	3488.28
RW - 2	11/14/11	3507.45	-	19.06	0.00	3488.39
RW - 3	01/18/11	3507.86	-	18.73	0.00	3489.13
RW - 3	02/16/11	3507.86	-	18.74	0.00	3489.12
RW - 3	03/01/11	3507.86	-	18.61	0.00	3489.25
RW - 3	03/07/11	3507.86	-	18.59	0.00	3489.27
RW - 3	03/22/11	3507.86	-	18.75	0.00	3489.11
RW - 3	04/27/11	3507.86	-	18.65	0.00	3489.21
RW - 3	05/05/11	3507.86	-	18.59	0.00	3489.27
RW - 3	05/19/11	3507.86	-	18.74	0.00	3489.12
RW - 3	06/08/11	3507.86	-	19.01	0.00	3488.85
RW - 3	07/06/11	3507.86	-	19.18	0.00	3488.68
RW - 3	07/14/11	3507.86	-	19.18	0.00	3488.68
RW - 3	07/20/11	3507.86	-	19.19	0.00	3488.67
RW - 3	07/27/11	3507.86	-	19.23	0.00	3488.63
RW - 3	08/03/11	3507.86	-	19.23	0.00	3488.63
RW - 3	08/10/11	3507.86	-	19.38	0.00	3488.48
RW - 3	08/18/11	3507.86	-	19.26	0.00	3488.60
RW - 3	08/25/11	3507.86	-	19.33	0.00	3488.53

TABLE 1

GROUNDWATER ELEVATION DATA - 2011

TNM 97- 17
 LEA COUNTY, NEW MEXICO
 PLAINS MARKETING, L.P.
 NMOCD REFERENCE NUMBER AP-017

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
RW - 3	09/07/11	3507.86	-	19.41	0.00	3488.45
RW - 3	09/14/11	3507.86	-	19.56	0.00	3488.30
RW - 3	11/14/11	3507.86	-	19.43	0.00	3488.43
RW - 4	01/18/11	3507.22	-	18.02	0.00	3489.20
RW - 4	02/16/11	3507.22	-	18.03	0.00	3489.19
RW - 4	03/01/11	3507.22	-	18.82	0.00	3488.40
RW - 4	03/07/11	3507.22	-	17.79	0.00	3489.43
RW - 4	03/22/11	3507.22	-	18.03	0.00	3489.19
RW - 4	04/27/11	3507.22	-	17.85	0.00	3489.37
RW - 4	05/05/11	3507.22	-	17.86	0.00	3489.36
RW - 4	05/19/11	3507.22	-	18.06	0.00	3489.16
RW - 4	06/08/11	3507.22	-	18.20	0.00	3489.02
RW - 4	07/06/11	3507.22	-	18.34	0.00	3488.88
RW - 4	07/14/11	3507.22	-	18.43	0.00	3488.79
RW - 4	07/20/11	3507.22	-	18.39	0.00	3488.83
RW - 4	07/27/11	3507.22	-	18.50	0.00	3488.72
RW - 4	08/03/11	3507.22	-	18.47	0.00	3488.75
RW - 4	08/10/11	3507.22	-	18.51	0.00	3488.71
RW - 4	08/18/11	3507.22	-	18.48	0.00	3488.74
RW - 4	08/25/11	3507.22	-	18.55	0.00	3488.67
RW - 4	09/07/11	3507.22	-	18.17	0.00	3489.05
RW - 4	09/14/11	3507.22	-	18.76	0.00	3488.46
RW - 4	11/14/11	3507.22	-	18.53	0.00	3488.69
RW - 5	01/18/11	3506.91	17.83	18.41	0.58	3488.99
RW - 5	02/16/11	3506.91	17.81	18.42	0.61	3489.01
RW - 5	03/01/11	3506.91	17.71	18.39	0.68	3489.10
RW - 5	03/07/11	3506.91	17.69	18.06	0.37	3489.16
RW - 5	03/22/11	3506.91	17.80	18.43	0.63	3489.02
RW - 5	04/27/11	3506.91	17.76	18.26	0.50	3489.08
RW - 5	05/05/11	3506.91	17.85	18.26	0.41	3489.00
RW - 5	05/10/11	3506.91	17.92	18.31	0.39	3488.93
RW - 5	05/17/11	3506.91	17.77	18.15	0.38	3489.08
RW - 5	05/19/11	3506.91	17.77	18.15	0.38	3489.08
RW - 5	05/24/11	3506.91	17.88	18.22	0.34	3488.98
RW - 5	06/07/11	3506.91	18.06	18.40	0.34	3488.80
RW - 5	06/08/11	3506.91	18.09	18.26	0.17	3488.79
RW - 5	06/14/11	3506.91	18.12	18.36	0.24	3488.75
RW - 5	06/23/11	3506.91	18.01	18.48	0.47	3488.83
RW - 5	06/28/11	3506.91	18.05	18.42	0.37	3488.80
RW - 5	07/06/11	3506.91	18.22	18.70	0.48	3488.62
RW - 5	07/14/11	3506.91	18.22	18.53	0.31	3488.64
RW - 5	07/20/11	3506.91	18.35	18.68	0.33	3488.51
RW - 5	07/27/11	3506.91	18.42	18.70	0.28	3488.45
RW - 5	08/03/11	3506.91	18.37	18.68	0.31	3488.49
RW - 5	08/10/11	3506.91	18.42	18.68	0.26	3488.45
RW - 5	08/18/11	3506.91	18.46	18.80	0.34	3488.40
RW - 5	08/25/11	3506.91	18.52	18.75	0.23	3488.36
RW - 5	09/07/11	3506.91	18.56	18.78	0.22	3488.32
RW - 5	09/14/11	3506.91	18.58	18.70	0.12	3488.31
RW - 5	11/14/11	3506.91	18.52	18.59	0.07	3488.38

TABLE 1

GROUNDWATER ELEVATION DATA - 2011

TNM 97- 17
 LEA COUNTY, NEW MEXICO
 PLAINS MARKETING, L.P.
 NMOCD REFERENCE NUMBER AP-017

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
RW - 6	01/18/11	3507.45	18.60	19.20	0.60	3488.76
RW - 6	02/16/11	3507.45	18.56	19.23	0.67	3488.79
RW - 6	03/01/11	3507.45	18.40	19.02	0.62	3488.96
RW - 6	03/07/11	3507.45	18.39	18.99	0.60	3488.97
RW - 6	03/22/11	3507.45	18.56	19.21	0.65	3488.79
RW - 6	04/27/11	3507.45	18.51	19.01	0.50	3488.87
RW - 6	05/05/11	3507.45	18.58	19.03	0.45	3488.80
RW - 6	05/10/11	3507.45	19.01	19.05	0.04	3488.43
RW - 6	05/17/11	3507.45	18.87	19.13	0.26	3488.54
RW - 6	05/19/11	3507.45	18.87	19.13	0.26	3488.54
RW - 6	05/24/11	3507.45	18.67	19.00	0.33	3488.73
RW - 6	06/07/11	3507.45	18.79	19.08	0.29	3488.62
RW - 6	06/08/11	3507.45	18.80	18.95	0.15	3488.63
RW - 6	06/14/11	3507.45	18.85	19.10	0.25	3488.56
RW - 6	06/23/11	3507.45	18.91	19.11	0.20	3488.51
RW - 6	06/28/11	3507.45	18.85	19.09	0.24	3488.56
RW - 6	07/06/11	3507.45	18.97	19.44	0.47	3488.41
RW - 6	07/14/11	3507.45	18.69	19.39	0.70	3488.66
RW - 6	07/20/11	3507.45	19.04	19.45	0.41	3488.35
RW - 6	07/27/11	3507.45	19.12	19.45	0.33	3488.28
RW - 6	08/03/11	3507.45	19.11	19.43	0.32	3488.29
RW - 6	08/10/11	3507.45	19.10	19.31	0.21	3488.32
RW - 6	08/18/11	3507.45	19.15	19.48	0.33	3488.25
RW - 6	08/25/11	3507.45	19.24	19.60	0.36	3488.16
RW - 6	09/07/11	3507.45	19.26	19.68	0.42	3488.13
RW - 6	09/14/11	3507.45	19.28	19.76	0.48	3488.10
RW - 6	11/14/11	3507.45	19.17	19.73	0.56	3488.20

* Complete Historical Tables are provided on the attached CD.

TABLE 2
CONCENTRATIONS OF BTEX IN GROUNDWATER - 2011

PLAINS MARKETING, L.P.
TNM 97-17
LEA COUNTY, NM
NMOCD REFERENCE NUMBER AP-017

All concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW 846-8015M		SW 846-8012B, 5030				
		GRO C6-C12 mg/L	DRO C12-C35 mg/L	BENZENE	TOLUENE	ETHYL-BENZENE	m, p, -XYLENES	o -XYLENE
NMOCD Regulatory Limit				0.010	0.75	0.75	0.62	
MW - 1	02/16/11			Not Sampled on Current Sample Schedule				
MW - 1	05/19/11			Not Sampled on Current Sample Schedule				
MW - 1	08/10/11			Not Sampled on Current Sample Schedule				
MW - 1	11/16/11			<0.001	<0.001	<0.001	<0.001	
MW - 2	02/16/11			Not Sampled on Current Sample Schedule				
MW - 2	05/19/11			Not Sampled on Current Sample Schedule				
MW - 2	08/10/11			Not Sampled on Current Sample Schedule				
MW - 2	11/16/11			<0.001	<0.001	<0.001	<0.001	
MW - 3	02/16/11			Not Sampled on Current Sample Schedule				
MW - 3	05/19/11			Not Sampled on Current Sample Schedule				
MW - 3	08/10/11			Not Sampled on Current Sample Schedule				
MW - 3	11/16/11			<0.001	<0.001	<0.001	<0.001	
MW - 4	02/16/11			Not Sampled Due to PSH in Well				
MW - 4	05/19/11			Not Sampled Due to PSH in Well				
MW - 4	08/10/11			Not Sampled Due to PSH in Well				
MW - 4	11/16/11			Not Sampled Due to PSH in Well				
MW - 5	02/16/11			0.0477	<0.001	0.0166	0.0402	
MW - 5	05/19/11			0.0429	<0.001	<0.001	<0.001	
MW - 5	08/10/11			0.0722	<0.001	0.0078	0.0136	
MW - 5	11/16/11			0.1030	<0.001	0.0135	0.0135	
MW - 6	02/16/11			0.0595	<0.005	<0.005	<0.005	
MW - 6	05/19/11			0.0689	<0.005	<0.005	<0.005	
MW - 6	08/10/11			0.0189	<0.001	<0.001	<0.001	
MW - 6	11/16/11			0.0176	<0.001	<0.001	<0.001	
MW - 7	02/16/11			Not Sampled Due to PSH in Well				
MW - 7	05/19/11			Not Sampled Due to PSH in Well				
MW - 7	08/10/11			Not Sampled Due to PSH in Well				
MW - 7	11/16/11			Not Sampled Due to PSH in Well				
MW - 8	02/16/11			Not Sampled Due to PSH in Well				
MW - 8	05/19/11			Not Sampled Due to PSH in Well				
MW - 8	08/10/11			Not Sampled Due to PSH in Well				
MW - 8	11/16/11			Not Sampled Due to PSH in Well				

TABLE 2

CONCENTRATIONS OF BTEX IN GROUNDWATER - 2011

PLAINS MARKETING, L.P.
TNM 97-17
LEA COUNTY, NM
NMOCD REFERENCE NUMBER AP-017

All concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW 846-8015M		SW 846-8012B, 5030				
		GRO C6-C12 mg/L	DRO C12-C35 mg/L	BENZENE	TOLUENE	ETHYL-BENZENE	m, p, -XYLENES	o -XYLENE
NMOCD Regulatory Limit				0.010	0.75	0.75	0.62	
MW - 9	02/16/11			0.0106	<0.001	<0.001	<0.001	
MW - 9	05/19/11			<0.001	<0.001	<0.001	<0.001	
MW - 9	08/10/11			0.0076	<0.001	<0.001	<0.001	
MW - 9	11/16/11			0.0045	<0.001	<0.001	<0.001	
MW - 10	02/16/11			0.0302	<0.001	<0.001	<0.001	
MW - 10	05/19/11			0.0384	<0.001	<0.001	<0.001	
MW - 10	08/10/11			0.0131	<0.001	<0.001	<0.001	
MW - 10	11/16/11			0.0082	<0.001	<0.001	<0.001	
MW - 11	02/16/11			Not Sampled on Current Sample Schedule				
MW - 11	05/19/11			Not Sampled on Current Sample Schedule				
MW - 11	08/10/11			Not Sampled on Current Sample Schedule				
MW - 11	11/16/11			<0.001	<0.001	<0.001	<0.001	
MW - 12	02/16/11			Not Sampled on Current Sample Schedule				
MW - 12	05/19/11			Not Sampled on Current Sample Schedule				
MW - 12	08/10/11			Not Sampled on Current Sample Schedule				
MW - 12	11/16/11			<0.001	<0.001	<0.001	<0.001	
MW - 13	02/16/11			Not Sampled on Current Sample Schedule				
MW - 13	05/19/11			Not Sampled on Current Sample Schedule				
MW - 13	08/10/11			Not Sampled on Current Sample Schedule				
MW - 13	11/16/11			<0.001	<0.001	<0.001	<0.001	
MW - 14	02/16/11			Not Sampled Due to PSH in Well				
MW - 14	05/19/11			Not Sampled Due to PSH in Well				
MW - 14	08/10/11			Not Sampled Due to PSH in Well				
MW - 14	11/16/11			Not Sampled Due to PSH in Well				
MW - 15	02/16/11			Not Sampled Due to PSH in Well				
MW - 15	05/19/11			Not Sampled Due to PSH in Well				
MW - 15	08/10/11			Not Sampled Due to PSH in Well				
MW - 15	11/17/11			0.0898	<0.020	<0.020	<0.020	
MW - 16	02/16/11			Not Sampled on Current Sample Schedule				
MW - 16	05/19/11			Not Sampled on Current Sample Schedule				
MW - 16	08/10/11			Not Sampled on Current Sample Schedule				
MW - 16	11/16/11			<0.001	<0.001	<0.001	<0.001	

TABLE 2

CONCENTRATIONS OF BTEX IN GROUNDWATER - 2011

PLAINS MARKETING, L.P.
TNM 97-17
LEA COUNTY, NM
NMOCD REFERENCE NUMBER AP-017

All concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW 846-8015M		SW 846-8012B, 5030				
		GRO C6-C12 mg/L	DRO C12-C35 mg/L	BENZENE	TOLUENE	ETHYL-BENZENE	m, p, -XYLENES	o -XYLENE
NMOCD Regulatory Limit				0.010	0.75	0.75	0.62	
MW - 17	02/16/11			Not Sampled on Current Sample Schedule				
MW - 17	05/19/11			Not Sampled on Current Sample Schedule				
MW - 17	08/10/11			Not Sampled on Current Sample Schedule				
MW - 17	11/16/11			<0.001	<0.001	<0.001	<0.001	
MW - 18	02/16/11			Not Sampled on Current Sample Schedule				
MW - 18	05/19/11			Not Sampled on Current Sample Schedule				
MW - 18	08/10/11			Not Sampled on Current Sample Schedule				
MW - 18	11/16/11			<0.001	<0.001	<0.001	<0.001	
MW - 19	02/16/11			0.6910	<0.100	<0.100	<0.100	
MW - 19	05/19/11			1.1500	<0.100	0.5160	1.5900	
MW - 19	08/10/11			0.2940	<0.100	0.0398	0.0435	
MW - 19	11/16/11			0.3180	<0.001	0.0460	0.0510	
MW - 20	02/16/11			0.1030	<0.001	<0.001	0.0186	
MW - 20	05/19/11			0.0512	<0.001	<0.001	0.0158	
MW - 20	08/10/11			0.0298	<0.001	<0.001	0.0120	
MW - 20	11/16/11			0.0728	<0.001	<0.001	<0.001	
MW - 21	02/16/11			<0.001	<0.001	<0.001	0.0216	
MW - 21	05/19/11			0.0184	<0.001	<0.001	0.0156	
MW - 21	08/10/11			0.0071	<0.001	<0.001	<0.001	
MW - 21	11/16/11			0.0040	<0.001	<0.001	<0.001	
MW - 22	02/16/11			Not Sampled on Current Sample Schedule				
MW - 22	05/19/11			<0.001	<0.001	<0.001	0.0154	
MW - 22	08/10/11			Not Sampled on Current Sample Schedule				
MW - 22	11/16/11			<0.001	<0.001	<0.001	<0.001	
MW - 23	02/16/11			Not Sampled on Current Sample Schedule				
MW - 23	05/19/11			<0.001	<0.001	<0.001	<0.001	
MW - 23	08/10/11			Not Sampled on Current Sample Schedule				
MW - 23	11/16/11			<0.001	<0.001	<0.001	<0.001	
MW - 24	02/16/11			Not Sampled on Current Sample Schedule				
MW - 24	05/19/11			Not Sampled on Current Sample Schedule				
MW - 24	08/10/11			Not Sampled on Current Sample Schedule				
MW - 24	11/16/11			<0.001	<0.001	<0.001	<0.001	

TABLE 2
CONCENTRATIONS OF BTEX IN GROUNDWATER - 2011

PLAINS MARKETING, L.P.
TNM 97-17
LEA COUNTY, NM
NMOCD REFERENCE NUMBER AP-017

All concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW 846-8015M		SW 846-8012B, 5030					
		GRO C6-C12 mg/L	DRO C12-C35 mg/L	BENZENE	TOLUENE	ETHYL-BENZENE	m, p, -XYLENES	o -XYLENE	
NMOCD Regulatory Limit				0.010	0.75	0.75	0.62		
MW - 25	02/16/11			Not Sampled on Current Sample Schedule					
MW - 25	05/19/11			<0.001	<0.001	<0.001	<0.001		
MW - 25	08/10/11			Not Sampled on Current Sample Schedule					
MW - 25	11/16/11			<0.001	<0.001	<0.001	<0.001		
MW - 26	02/16/11			0.0084	<0.001	<0.001	0.0254		
MW - 26	05/19/11			0.0114	<0.001	<0.001	0.0158		
MW - 26	08/10/11			0.0050	<0.001	<0.001	<0.001		
MW - 26	11/16/11			0.0025	<0.001	<0.001	<0.001		
MW - 27	02/16/11			Not Sampled on Current Sample Schedule					
MW - 27	05/19/11			<0.001	<0.001	<0.001	<0.001		
MW - 27	08/10/11			Not Sampled on Current Sample Schedule					
MW - 27	11/16/11			<0.001	<0.001	<0.001	<0.001		
MW - 28	02/16/11			Not Sampled on Current Sample Schedule					
MW - 28	05/19/11			Not Sampled on Current Sample Schedule					
MW - 28	08/10/11			Not Sampled on Current Sample Schedule					
MW - 28	11/16/11			<0.001	<0.001	<0.001	<0.001		
RW - 1	02/16/11			Not Sampled Due to PSH in Well					
RW - 1	05/19/11			Not Sampled Due to PSH in Well					
RW - 1	08/10/11			Not Sampled Due to PSH in Well					
RW - 1	11/16/11			Not Sampled Due to PSH in Well					
RW - 2	02/16/11			0.0531	<0.005	<0.005	<0.005		
RW - 2	05/19/11			0.0945	<0.005	0.0320	0.0779		
RW - 2	08/10/11			0.0572	<0.001	<0.001	<0.001		
RW - 2	11/16/11			0.0576	<0.001	0.0047	<0.001		
RW - 3	02/16/11			0.4680	<0.050	<0.050	0.050		
RW - 3	05/19/11			0.9380	<0.050	0.275	0.7750		
RW - 3	08/10/11			0.3040	<0.020	<0.020	<0.020		
RW - 3	11/17/11			0.1420	<0.020	<0.020	<0.020		
RW - 4	02/16/11			1.6100	<0.100	0.8490	<0.100		
RW - 4	05/19/11			1.8500	<0.100	0.6820	1.620		
RW - 4	08/10/11			0.6130	<0.020	0.1580	0.2280		
RW - 4	11/17/11			0.3150	<0.020	0.0753	<0.020		

TABLE 2
CONCENTRATIONS OF BTEX IN GROUNDWATER - 2011

PLAINS MARKETING, L.P.
TNM 97-17
LEA COUNTY, NM
NMOCD REFERENCE NUMBER AP-017

All concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW 846-8015M		SW 846-8012B, 5030				
		GRO C6-C12 mg/L	DRO C12-C35 mg/L	BENZENE	TOLUENE	ETHYL-BENZENE	m, p, -XYLENES	o -XYLENE
NMOCD Regulatory Limit				0.010	0.75	0.75	0.62	
RW - 5	02/16/11			Not Sampled Due to PSH in Well				
RW - 5	05/19/11			Not Sampled Due to PSH in Well				
RW - 5	08/10/11			Not Sampled Due to PSH in Well				
RW - 5	11/17/11			Not Sampled Due to PSH in Well				
RW - 6	02/16/11			Not Sampled Due to PSH in Well				
RW - 6	05/19/11			Not Sampled Due to PSH in Well				
RW - 6	08/10/11			Not Sampled Due to PSH in Well				
RW - 6	11/17/11			Not Sampled Due to PSH in Well				

* Complete Historical Data Tables are presented on the attached CD.

POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

PLAINS MARKETING, L.P.
TNM 97-17
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER AP-017

All water concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510																		
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenzo[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Phenanthrene	Pyrene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Dibenzofuran
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		—	—	0.001 mg/L	0.0001 mg/L	0.0007 mg/L	0.001 mg/L	—	0.001 mg/L	0.0002 mg/L	0.0003 mg/L	0.001 mg/L	0.001 mg/L	0.0004 mg/L	0.001 mg/L	0.001 mg/L	0.03 mg/L		—	
MW-1	11/12/08	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	
	11/17/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																		
MW-2	11/12/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	
	11/17/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																		
MW-3	11/12/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	
	11/17/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																		
MW-4	11/12/08	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	0.00238	<0.000917	0.00337	<0.000917	0.00682	0.015	0.0131	0.00239	
	11/18/09	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	0.00834	<0.000926	0.0121	<0.000926	0.0229	0.0802	0.0574	0.00851	
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	Not Sampled due to the presence of PSH.																		
MW-5	11/12/08	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.00233	<0.000922	0.00189	<0.000922	<0.000922	0.00183	<0.000922	0.0023	
	11/18/09	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.00116	<0.000185	0.000814	<0.000185	<0.000185	0.00234	<0.000185	0.00109	
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.00106	<0.000183	0.00129	<0.000183	<0.000183	0.00281	<0.000183	0.00138	
MW-6	11/12/08	<0.00183	<0.00183	0.00361	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	0.00357	<0.00183	0.00782	0.0115	0.00712	<0.00183	
	11/18/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.000842	<0.000184	0.000596	<0.000184	<0.000184	0.00277	<0.000184	0.00112	
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.000755	<0.000183	<0.000183	0.00264	<0.000183	<0.000183	
MW-7	11/12/08	<0.00185	<0.00185	0.0059	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	0.00539	<0.00185	0.00582	<0.00185	0.0106	0.0285	0.0175	<0.00185	
	11/18/09	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.00894	<0.000922	0.0108	<0.000922	0.0151	0.0792	0.0383	0.00773	
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	Not Sampled due to the presence of PSH.																		

PLAINS MARKETING, L.P.
TNM 97-17
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER AP-017

EPA SW846-8270C, 3510

Page 2 of 5

POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

PLAINS MARKETING, L.P.
TNM 97-17
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER AP-017

All water concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510																	
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Phenanthrene	Pyrene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		—	—	0.001 mg/L	0.0001 mg/L	0.0007 mg/L	0.001 mg/L	—	0.001 mg/L	0.0002 mg/L	0.0003 mg/L	0.001 mg/L	0.001 mg/L	0.0004 mg/L	0.001 mg/L	0.001 mg/L	0.03 mg/L		—
MW-15	11/12/08	Not Sampled due to Insufficient water volume																	
	11/18/09	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	0.0274	<0.00185	0.0369	<0.00185	0.0219	0.157	0.0508	0.0236
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																	
	12/31/11	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00136	<0.000184	<0.000184	0.0035	<0.000184	0.00176
MW-16	11/12/08	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193
	11/17/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																	
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																	
MW-17	11/12/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185
	11/17/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																	
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																	
MW-18	11/12/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
	11/17/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																	
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																	
MW-19	11/12/08	Not Sampled due to Insufficient water volume																	
	11/18/09	<0.000922	<0.000922	0.000931	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.00387	<0.000922	0.00471	<0.000922	0.00526	0.0275	0.00258
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																	
	12/14/11	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00624	<0.000184	0.00656	0.0293	0.00517
MW-20	11/12/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.000615	<0.000185	0.000318	<0.000185	<0.000185	0.00351	<0.000185	0.000958
	11/18/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.000401	<0.000183	<0.000183	0.00159	<0.000183	0.000783
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																	
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																	
MW-21	11/12/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.000414	<0.000184	0.000203	<0.000184	<0.000184	<0.000184	<0.000184	0.00108
	11/18/09	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.000249	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.000578
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																	
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																	

POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

PLAINS MARKETING, L.P.
TNM 97-17
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER AP-017

All water concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510																	
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Phenanthrene	Pyrene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		—	—	0.001 mg/L	0.0001 mg/L	0.0007 mg/L	0.001 mg/L	—	0.001 mg/L	0.0002 mg/L	0.0003 mg/L	0.001 mg/L	0.001 mg/L	0.0004 mg/L	0.001 mg/L	0.001 mg/L	0.03 mg/L		—
MW-22	11/12/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185
	11/17/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																	
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																	
MW-23	11/12/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185
	11/17/09	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																	
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																	
MW-24	11/12/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/17/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																	
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																	
MW-25	11/12/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185
	11/17/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																	
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																	
MW-26	11/12/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.000312	<0.000185	0.000308	<0.000185	<0.000185	0.000204	<0.000185	0.000471
	11/18/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																	
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																	
MW-27	11/12/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/17/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																	
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																	
MW-28	11/12/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/18/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																	
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																	

POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

PLAINS MARKETING, L.P.
TNM 97-17
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER AP-017

All water concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510																		
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Phenanthrene	Pyrene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Dibenzofuran
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		—	—	0.001 mg/L	0.0001 mg/L	0.0007 mg/L	0.001 mg/L	—	0.001 mg/L	0.0002 mg/L	0.0003 mg/L	0.001 mg/L	0.001 mg/L	0.0004 mg/L	0.001 mg/L	0.001 mg/L	0.03 mg/L			—
RW-1	11/12/08	<0.0184	<0.0184	<0.0184	<0.0184	<0.0184	<0.0184	<0.0184	<0.0184	<0.0184	<0.0184	<0.0184	<0.0184	0.023	<0.0184	<0.0184	0.0941	<0.0184	<0.0184	
	11/18/09	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.00771	<0.000922	0.00884	<0.000922	<0.000922	0.0262	<0.000922	
	11/11/10	Not Sampled Due to Presence of PSH.																		
	12/14/11	Not Sampled due to the presence of PSH.																		
RW-2	11/12/08	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	0.00424	<0.00184	0.00488	<0.00184	<0.00184	0.00552	<0.00184	
	11/18/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.001	<0.000184	0.000874	<0.000184	<0.000184	0.00155	<0.000184	
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.00344	<0.000183	<0.000183	<0.000183	<0.000183	
RW-3	11/12/08	<0.000922	<0.000922	0.000931	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.00212	<0.000922	0.000922	<0.000922	0.000993	0.00787	<0.000922	
	11/18/09	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.000906	<0.000185	<0.000185	<0.000185	0.00132	0.00526	<0.000185	
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00364	<0.000184	
RW-4	11/12/08	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	0.00391	<0.00184	0.00442	<0.00184	0.00766	0.0201	0.00836	
	11/18/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00118	<0.000184	0.000935	<0.000184	0.00989	0.0168	0.00425	
	11/11/10	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00154	<0.000184	0.000887	0.00489	0.000475	
	12/14/11	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00161	<0.000184	0.00261	0.0106	<0.000184	
RW-5	11/12/08	<0.00184	<0.00184	0.00472	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	0.00466	<0.00184	0.0172	0.0266	0.0192	
	11/18/09	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	0.00522	<0.000926	0.00683	<0.000926	0.0107	0.0461	0.0236	
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	Not Sampled due to the presence of PSH.																		
RW-6	11/12/08	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	0.0106	<0.00184	0.011	<0.00184	<0.00184	0.0381	0.0245	
	11/18/09	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	0.0748	<0.00463	0.107	<0.00463	0.0222	0.413	0.0617	
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	Not Sampled due to the presence of PSH.																		

Appendices

Appendix A
Release Notification and Corrective Action
(Form C-141)

District I - (505) 393-6161
P.O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 South First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

State of New Mexico
Enc Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-141
Originated 2/13/97

Submit 2 copies to
Appropriate District
Office in accordance
with Rule 116 on
back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name Texas-New Mexico Pipe Line Company	Contact Edwin H. Gripp	
Address Box 60028, San Angelo, TX 76906	Telephone No. (915) 947-9000	
Facility Name <i>Vacuum Jct. to Gal Main Line</i>	Facility Type <i>pipe line</i>	
Surface Owner <i>Millard Bush</i>	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	<i>21</i>	<i>20S</i>	<i>37E</i>					<i>Lea</i>

NATURE OF RELEASE

Type of Release <i>Down crude</i>	Volume of Release <i>170 barrels</i>	Volume Recovered <i>160 barrels</i>
Source of Release <i>8" pipeline on scraper trap began</i>	Date and Hour of Occurrence <i>Unknown</i>	Date and Hour of Discovery <i>CST 8-13-97 3:00pm</i>
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? <i>Delia T. Ardlow</i>	
By Whom? <i>Johnny W. Chapman</i>	Date and Hour <i>8-13-97 4:45pm CST</i>	
Was Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

*External Corrosion
Leak successfully changed off.*

Describe Area Affected and Cleanup Action Taken.*

*Approximately 360 sq. ft. scraper trap area.
Contaminated soil was removed*

Describe General Conditions Prevailing (Temperature, Precipitation, etc.).*

Clear 90°

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
Signature: *E. H. Gripp*

Printed Name: Edwin H. Gripp
Title: District Manager

Date: 8-14-97 Phone: 915-947-9001

OIL CONSERVATION DIVISION

Approved by
District Supervisor:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

* Attach Additional Sheets If Necessary

State Corp. Commission
Pipe Line Division

Hazardous Waste Section
NM Environmental Improvement Div.

TNM-97-17 JWC IAS

Laboratory Analytical Reports



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 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFVB38444Y0909

DBE: VN 20657

NELAP Certifications

Lubbock: T104704219-08-TX
LELAP-02003
Kansas E-10317

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

E-mail Reports
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: March 16, 2011

Work Order: 11021719

Project Location: Eunice, NM
Project Name: 97-17
Project Number: TNM 97-17

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
257755	MW-26	water	2011-02-16	08:00	2011-02-17
257756	MW-21	water	2011-02-16	08:45	2011-02-17
257757	MW-9	water	2011-02-16	09:30	2011-02-17
257758	MW-10	water	2011-02-16	10:15	2011-02-17
257759	MW-20	water	2011-02-16	11:00	2011-02-17
257760	MW-5	water	2011-02-16	11:45	2011-02-17
257761	MW-6	water	2011-02-16	12:30	2011-02-17
257762	RW-2	water	2011-02-16	13:30	2011-02-17
257763	RW-3	water	2011-02-16	14:30	2011-02-17
257764	MW-19	water	2011-02-16	15:15	2011-02-17
257765	RW-4	water	2011-02-16	16:30	2011-02-17

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

This report consists of a total of 13 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



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

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project 97-17 were received by TraceAnalysis, Inc. on 2011-02-17 and assigned to work order 11021719. Samples for work order 11021719 were received intact without headspace and at a temperature of 1.6 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	66740	2011-02-22 at 15:10	77815	2011-02-22 at 04:16
BTEX	S 8021B	66908	2011-02-28 at 09:25	78000	2011-02-28 at 11:19

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 11021719 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: 257755 - MW-26

Laboratory: Midland
Analysis: BTEX
QC Batch: 77815
Prep Batch: 66740

Analytical Method: S 8021B
Date Analyzed: 2011-02-22
Sample Preparation: 2011-02-22

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00840	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.0254	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.106	mg/L	1	0.100	106	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.123	mg/L	1	0.100	123	51.1 - 128

Sample: 257756 - MW-21

Laboratory: Midland
Analysis: BTEX
QC Batch: 77815
Prep Batch: 66740

Analytical Method: S 8021B
Date Analyzed: 2011-02-22
Sample Preparation: 2011-02-22

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.0216	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.104	mg/L	1	0.100	104	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.127	mg/L	1	0.100	127	51.1 - 128

Sample: 257757 - MW-9

Laboratory: Midland
Analysis: BTEX
QC Batch: 77815
Prep Batch: 66740

Analytical Method: S 8021B
Date Analyzed: 2011-02-22
Sample Preparation: 2011-02-22

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Report Date: March 16, 2011
TNM 97-17

Work Order: 11021719
97-17

Page Number: 5 of 13
Eunice, NM

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0106	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.100	mg/L	1	0.100	100	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.121	mg/L	1	0.100	121	51.1 - 128

Sample: 257758 - MW-10

Laboratory: Midland
Analysis: BTEX
QC Batch: 77815
Prep Batch: 66740

Analytical Method: S 8021B
Date Analyzed: 2011-02-22
Sample Preparation: 2011-02-22

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0302	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0903	mg/L	1	0.100	90	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.113	mg/L	1	0.100	113	51.1 - 128

Sample: 257759 - MW-20

Laboratory: Midland
Analysis: BTEX
QC Batch: 77815
Prep Batch: 66740

Analytical Method: S 8021B
Date Analyzed: 2011-02-22
Sample Preparation: 2011-02-22

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.103	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.0186	mg/L	1	0.00100

Report Date: March 16, 2011
TNM 97-17

Work Order: 11021719
97-17

Page Number: 6 of 13
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.100	mg/L	1	0.100	100	67.8 - 126
4-Bromofluorobenzene (4-BFB)	¹	0.132	mg/L	1	0.100	132	51.1 - 128

Sample: 257760 - MW-5

Laboratory: Midland
Analysis: BTEX
QC Batch: 77815
Prep Batch: 66740

Analytical Method: S 8021B
Date Analyzed: 2011-02-22
Sample Preparation: 2011-02-22

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0477	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		0.0166	mg/L	1	0.00100
Xylene		0.0402	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0982	mg/L	1	0.100	98	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.124	mg/L	1	0.100	124	51.1 - 128

Sample: 257761 - MW-6

Laboratory: Midland
Analysis: BTEX
QC Batch: 77815
Prep Batch: 66740

Analytical Method: S 8021B
Date Analyzed: 2011-02-22
Sample Preparation: 2011-02-22

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0595	mg/L	5	0.00100
Toluene		<0.00500	mg/L	5	0.00100
Ethylbenzene		<0.00500	mg/L	5	0.00100
Xylene		<0.00500	mg/L	5	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.481	mg/L	5	0.500	96	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.574	mg/L	5	0.500	115	51.1 - 128

¹High surrogate recovery due to peak interference.

Report Date: March 16, 2011
TNM 97-17

Work Order: 11021719
97-17

Page Number: 7 of 13
Eunice, NM

Sample: 257762 - RW-2

Laboratory: Midland
Analysis: BTEX
QC Batch: 77815
Prep Batch: 66740

Analytical Method: S 8021B
Date Analyzed: 2011-02-22
Sample Preparation: 2011-02-22

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0531	mg/L	5	0.00100
Toluene		<0.00500	mg/L	5	0.00100
Ethylbenzene		<0.00500	mg/L	5	0.00100
Xylene		<0.00500	mg/L	5	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.501	mg/L	5	0.500	100	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.574	mg/L	5	0.500	115	51.1 - 128

Sample: 257763 - RW-3

Laboratory: Midland
Analysis: BTEX
QC Batch: 77815
Prep Batch: 66740

Analytical Method: S 8021B
Date Analyzed: 2011-02-22
Sample Preparation: 2011-02-22

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.468	mg/L	50	0.00100
Toluene		<0.0500	mg/L	50	0.00100
Ethylbenzene		<0.0500	mg/L	50	0.00100
Xylene		<0.0500	mg/L	50	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4.75	mg/L	50	5.00	95	67.8 - 126
4-Bromofluorobenzene (4-BFB)		5.61	mg/L	50	5.00	112	51.1 - 128

Sample: 257764 - MW-19

Laboratory: Midland
Analysis: BTEX
QC Batch: 77815
Prep Batch: 66740

Analytical Method: S 8021B
Date Analyzed: 2011-02-22
Sample Preparation: 2011-02-22

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Report Date: March 16, 2011
TNM 97-17

Work Order: 11021719
97-17

Page Number: 8 of 13
Eunice, NM

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.691	mg/L	100	0.00100
Toluene		<0.100	mg/L	100	0.00100
Ethylbenzene		<0.100	mg/L	100	0.00100
Xylene		<0.100	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.55	mg/L	100	10.0	96	67.8 - 126
4-Bromofluorobenzene (4-BFB)		11.4	mg/L	100	10.0	114	51.1 - 128

Sample: 257765 - RW-4

Laboratory: Midland

Analysis: BTEX

QC Batch: 78000

Prep Batch: 66908

Analytical Method: S 8021B

Date Analyzed: 2011-02-28

Sample Preparation: 2011-02-28

Prep Method: S 5030B

Analyzed By: ME

Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		1.61	mg/L	100	0.00100
Toluene		<0.100	mg/L	100	0.00100
Ethylbenzene		0.849	mg/L	100	0.00100
Xylene		<0.100	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.14	mg/L	100	10.0	91	67.8 - 126
4-Bromofluorobenzene (4-BFB)		10.7	mg/L	100	10.0	107	51.1 - 128

Method Blank (1) QC Batch: 77815

QC Batch: 77815

Prep Batch: 66740

Date Analyzed: 2011-02-22

QC Preparation: 2011-02-22

Analyzed By: ME

Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000400	mg/L	0.001
Toluene		<0.000300	mg/L	0.001
Ethylbenzene		<0.000300	mg/L	0.001
Xylene		<0.000333	mg/L	0.001

Report Date: March 16, 2011
TNM 97-17

Work Order: 11021719
97-17

Page Number: 9 of 13
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0957	mg/L	1	0.100	96	70.2 - 118
4-Bromofluorobenzene (4-BFB)		0.113	mg/L	1	0.100	113	47.3 - 116

Method Blank (1) QC Batch: 78000

QC Batch: 78000
Prep Batch: 66908

Date Analyzed: 2011-02-28
QC Preparation: 2011-02-28

Analyzed By: ME
Prepared By: ME

Parameter	Flag	MDL		Units	RL
		Result			
Benzene		<0.000400		mg/L	0.001
Toluene		<0.000300		mg/L	0.001
Ethylbenzene		<0.000300		mg/L	0.001
Xylene		<0.000333		mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0955	mg/L	1	0.100	96	70.2 - 118
4-Bromofluorobenzene (4-BFB)		0.108	mg/L	1	0.100	108	47.3 - 116

Laboratory Control Spike (LCS-1)

QC Batch: 77815
Prep Batch: 66740

Date Analyzed: 2011-02-22
QC Preparation: 2011-02-22

Analyzed By: ME
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0925	mg/L	1	0.100	<0.000400	92	82.9 - 108
Toluene	0.0947	mg/L	1	0.100	<0.000300	95	82.7 - 107
Ethylbenzene	0.0949	mg/L	1	0.100	<0.000300	95	78.8 - 106
Xylene	0.288	mg/L	1	0.300	<0.000333	96	79.3 - 106

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0953	mg/L	1	0.100	<0.000400	95	82.9 - 108	3	20
Toluene	0.0974	mg/L	1	0.100	<0.000300	97	82.7 - 107	3	20
Ethylbenzene	0.0979	mg/L	1	0.100	<0.000300	98	78.8 - 106	3	20
Xylene	0.297	mg/L	1	0.300	<0.000333	99	79.3 - 106	3	20

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

Report Date: March 16, 2011
TNM 97-17

Work Order: 11021719
97-17

Page Number: 10 of 13
Eunice, NM

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0960	0.0923	mg/L	1	0.100	96	92	67.3 - 113
4-Bromofluorobenzene (4-BFB)	0.113	0.113	mg/L	1	0.100	113	113	68.2 - 124

Laboratory Control Spike (LCS-1)

QC Batch: 78000
Prep Batch: 66908

Date Analyzed: 2011-02-28
QC Preparation: 2011-02-28

Analyzed By: ME
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0985	mg/L	1	0.100	<0.000400	98	82.9 - 108
Toluene	0.100	mg/L	1	0.100	<0.000300	100	82.7 - 107
Ethylbenzene	0.101	mg/L	1	0.100	<0.000300	101	78.8 - 106
Xylene	0.307	mg/L	1	0.300	<0.000333	102	79.3 - 106

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0956	mg/L	1	0.100	<0.000400	96	82.9 - 108	3	20
Toluene	0.0969	mg/L	1	0.100	<0.000300	97	82.7 - 107	3	20
Ethylbenzene	0.0994	mg/L	1	0.100	<0.000300	99	78.8 - 106	2	20
Xylene	0.301	mg/L	1	0.300	<0.000333	100	79.3 - 106	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)	0.101	0.0963	mg/L	1	0.100	101	96	67.3 - 113
4-Bromofluorobenzene (4-BFB)	0.114	0.113	mg/L	1	0.100	114	113	68.2 - 124

Matrix Spike (MS-1) Spiked Sample: 257764

QC Batch: 77815
Prep Batch: 66740

Date Analyzed: 2011-02-22
QC Preparation: 2011-02-22

Analyzed By: ME
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	8.68	mg/L	100	10.0	0.6906	80	77.9 - 114
Toluene	8.73	mg/L	100	10.0	<0.0300	87	78.3 - 111
Ethylbenzene	8.81	mg/L	100	10.0	<0.0300	88	75.3 - 110
Xylene	26.5	mg/L	100	30.0	<0.0333	88	75.7 - 109

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

Report Date: March 16, 2011
TNM 97-17

Work Order: 11021719
97-17

Page Number: 11 of 13
Eunice, NM

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	9.50	mg/L	100	10.0	0.6906	88	77.9 - 114	9	20
Toluene	9.65	mg/L	100	10.0	<0.0300	96	78.3 - 111	10	20
Ethylbenzene	9.82	mg/L	100	10.0	<0.0300	98	75.3 - 110	11	20
Xylene	29.5	mg/L	100	30.0	<0.0333	98	75.7 - 109	11	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)	9.27	9.19	mg/L	100	10	93	92	68.3 - 107
4-Bromofluorobenzene (4-BFB)	11.4	11.2	mg/L	100	10	114	112	60.1 - 135

Matrix Spike (MS-1) Spiked Sample: 258428

QC Batch: 78000
Prep Batch: 66908

Date Analyzed: 2011-02-28
QC Preparation: 2011-02-28

Analyzed By: ME
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	10.4	mg/L	100	10.0	1.4918	89	77.9 - 114
Toluene	9.21	mg/L	100	10.0	<0.0300	92	78.3 - 111
Ethylbenzene	9.50	mg/L	100	10.0	1.0446	84	75.3 - 110
Xylene	27.6	mg/L	100	30.0	1.9942	85	75.7 - 109

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	10.3	mg/L	100	10.0	1.4918	88	77.9 - 114	1	20
Toluene	9.32	mg/L	100	10.0	<0.0300	93	78.3 - 111	1	20
Ethylbenzene	9.72	mg/L	100	10.0	1.0446	87	75.3 - 110	2	20
Xylene	28.4	mg/L	100	30.0	1.9942	88	75.7 - 109	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)	9.17	9.34	mg/L	100	10	92	93	68.3 - 107
4-Bromofluorobenzene (4-BFB)	11.0	11.3	mg/L	100	10	110	113	60.1 - 135

Standard (CCV-1)

QC Batch: 77815

Date Analyzed: 2011-02-22

Analyzed By: ME

Report Date: March 16, 2011
TNM 97-17

Work Order: 11021719
97-17

Page Number: 12 of 13
Eunice, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0943	94	80 - 120	2011-02-22
Toluene		mg/L	0.100	0.0953	95	80 - 120	2011-02-22
Ethylbenzene		mg/L	0.100	0.0963	96	80 - 120	2011-02-22
Xylene		mg/L	0.300	0.293	98	80 - 120	2011-02-22

Standard (CCV-2)

QC Batch: 77815

Date Analyzed: 2011-02-22

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0908	91	80 - 120	2011-02-22
Toluene		mg/L	0.100	0.0920	92	80 - 120	2011-02-22
Ethylbenzene		mg/L	0.100	0.0911	91	80 - 120	2011-02-22
Xylene		mg/L	0.300	0.276	92	80 - 120	2011-02-22

Standard (CCV-3)

QC Batch: 77815

Date Analyzed: 2011-02-22

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0916	92	80 - 120	2011-02-22
Toluene		mg/L	0.100	0.0929	93	80 - 120	2011-02-22
Ethylbenzene		mg/L	0.100	0.0923	92	80 - 120	2011-02-22
Xylene		mg/L	0.300	0.281	94	80 - 120	2011-02-22

Standard (CCV-2)

QC Batch: 78000

Date Analyzed: 2011-02-28

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0994	99	80 - 120	2011-02-28
Toluene		mg/L	0.100	0.0989	99	80 - 120	2011-02-28
Ethylbenzene		mg/L	0.100	0.0994	99	80 - 120	2011-02-28
Xylene		mg/L	0.300	0.298	99	80 - 120	2011-02-28

Report Date: March 16, 2011
TNM 97-17

Work Order: 11021719
97-17

Page Number: 13 of 13
Eunice, NM

Standard (CCV-3)

QC Batch: 78000

Date Analyzed: 2011-02-28

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0955	96	80 - 120	2011-02-28
Toluene		mg/L	0.100	0.0965	96	80 - 120	2011-02-28
Ethylbenzene		mg/L	0.100	0.0969	97	80 - 120	2011-02-28
Xylene		mg/L	0.300	0.292	97	80 - 120	2011-02-28

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-12965002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name:	<u>NOVA</u>	Phone #:	<u>432-520-7720</u>
Address:	(Street, City, Zip) <u>2057 Commerce Midland TX 79703</u>	Fax #:	<u>432-520-77201</u>
Contact Person:	<u>Ron R</u>	E-mail:	
Invoice to:		Project Name:	<u>TNM 97-17</u>
(If different from above)	<u>PLAINS</u>	Sampler Signature:	
Project #:			
Project Location (including state):	<u>Lea Co. NM</u>		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING		MTBE 8021 / 602 / 8260 / 625 BTX 8021 / 602 / 8260 / 625 TPH 418.1 / TX1005 / TX1005 Ext(C35) TPH 8015 GRO / DRO / TVHC PAH 8270 / 625 Total Metals Ag As Ba Cd Cr Pb Se Hg 8010/200.7 TCLP Metals Ag As Ba Cd Cr Pb Se Hg TCLP Volatiles TCLP Semi Volatiles TCLP Pesticides RCI GC/MS Vol. 8260 / 624 GC/MS Semi. Vol. 8270 / 625 PCB's 8082 / 608 Pesticides 8081 / 608 BOD, TSS, pH Moisture Content Cl, F, S, NO ₃ , NO ₂ , Alkalinity Na, Ca, Mg, K, TDS, EC	Turn Around Time if different from standard	Hold																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
757	mw-26	3	1000	X				X				X			2-16	8:00	X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST
<u>Ron R</u>	<u>NOVA</u>	<u>2-17/11</u>	<u>7am</u>	<u>Ron R</u>	<u>NOVA</u>	<u>2/17/11</u>	<u>8:00</u>	<u>OBS</u>
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST
<u>Ron R</u>	<u>NOVA</u>	<u>2/17/11</u>	<u>11:23</u>	<u>Ron R</u>	<u>NOVA</u>	<u>2/17/11</u>	<u>11:23</u>	<u>OBS</u>
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST
								<u>COR</u>

LAB USE ONLYInitial NHeadspace Y / N**REMARKS:***All tests - Midland

- ☐ Dry Weight Basis Required
☐ TRRP Report Required
☐ Check If Special Reporting Limits Are Needed



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 806•378•1296 806•794•1296 FAX 806•794•1296
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: May 24, 2011

Work Order: 11052310

Project Location: Eunice, NM
Project Name: 97-17
Project Number: TNM 97-17

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
266983	MW-22	water	2011-05-19	08:00	2011-05-23
266984	MW-23	water	2011-05-19	08:30	2011-05-23
266985	MW-25	water	2011-05-19	09:00	2011-05-23
266986	MW-27	water	2011-05-19	09:30	2011-05-23
266987	MW-26	water	2011-05-19	10:00	2011-05-23
266988	MW-21	water	2011-05-19	10:30	2011-05-23
266989	MW-9	water	2011-05-19	11:00	2011-05-23
266990	MW-10	water	2011-05-19	11:30	2011-05-23
266991	MW-5	water	2011-05-19	12:00	2011-05-23
266992	RW-2	water	2011-05-19	13:00	2011-05-23
266993	MW-6	water	2011-05-19	13:30	2011-05-23
266994	MW-20	water	2011-05-19	14:00	2011-05-23
266995	RW-3	water	2011-05-19	15:00	2011-05-23
266996	MW-19	water	2011-05-19	15:30	2011-05-23
266997	RW-4	water	2011-05-19	16:30	2011-05-23

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

This report consists of a total of 18 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink that reads "Michael Abel". The signature is written in a cursive style with a large, stylized 'M' and 'A'.

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

Report Contents

Case Narrative	4
Analytical Report	5
Sample 266983 (MW-22)	5
Sample 266984 (MW-23)	5
Sample 266985 (MW-25)	5
Sample 266986 (MW-27)	6
Sample 266987 (MW-26)	6
Sample 266988 (MW-21)	7
Sample 266989 (MW-9)	7
Sample 266990 (MW-10)	8
Sample 266991 (MW-5)	8
Sample 266992 (RW-2)	9
Sample 266993 (MW-6)	9
Sample 266994 (MW-20)	10
Sample 266995 (RW-3)	10
Sample 266996 (MW-19)	11
Sample 266997 (RW-4)	11
Method Blanks	13
QC Batch 81550 - Method Blank (1)	13
Laboratory Control Spikes	14
QC Batch 81550 - LCS (1)	14
QC Batch 81550 - MS (1)	14
Calibration Standards	16
QC Batch 81550 - CCV (1)	16
QC Batch 81550 - CCV (2)	16
QC Batch 81550 - CCV (3)	16
QC Batch 81550 - CCV (4)	16
Appendix	18
Laboratory Certifications	18
Standard Flags	18
Attachments	18

Case Narrative

Samples for project 97-17 were received by TraceAnalysis, Inc. on 2011-05-23 and assigned to work order 11052310. Samples for work order 11052310 were received intact without headspace and at a temperature of 3.4 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	69246	2011-05-23 at 16:00	81550	2011-05-23 at 18:59

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 11052310 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: 266983 - MW-22

Laboratory: Midland
Analysis: BTEX
QC Batch: 81550
Prep Batch: 69246

Analytical Method: S 8021B
Date Analyzed: 2011-05-23
Sample Preparation: 2011-05-23

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	<0.00100	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	0.0154	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0863	mg/L	1	0.100	86	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0836	mg/L	1	0.100	84	51.1 - 128

Sample: 266984 - MW-23

Laboratory: Midland
Analysis: BTEX
QC Batch: 81550
Prep Batch: 69246

Analytical Method: S 8021B
Date Analyzed: 2011-05-23
Sample Preparation: 2011-05-23

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0822	mg/L	1	0.100	82	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0810	mg/L	1	0.100	81	51.1 - 128

Report Date: May 24, 2011
TNM 97-17

Work Order: 11052310
97-17

Page Number: 6 of 18
Eunice, NM

Sample: 266985 - MW-25

Laboratory: Midland

Analysis: BTEX

QC Batch: 81550

Prep Batch: 69246

Analytical Method: S 8021B

Date Analyzed: 2011-05-23

Sample Preparation: 2011-05-23

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0867	mg/L	1	0.100	87	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0756	mg/L	1	0.100	76	51.1 - 128

Sample: 266986 - MW-27

Laboratory: Midland

Analysis: BTEX

QC Batch: 81550

Prep Batch: 69246

Analytical Method: S 8021B

Date Analyzed: 2011-05-23

Sample Preparation: 2011-05-23

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0840	mg/L	1	0.100	84	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0807	mg/L	1	0.100	81	51.1 - 128

Report Date: May 24, 2011
TNM 97-17

Work Order: 11052310
97-17

Page Number: 7 of 18
Eunice, NM

Sample: 266987 - MW-26

Laboratory: Midland
Analysis: BTEX
QC Batch: 81550
Prep Batch: 69246

Analytical Method: S 8021B
Date Analyzed: 2011-05-23
Sample Preparation: 2011-05-23

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0114	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	0.0158	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0785	mg/L	1	0.100	78	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0798	mg/L	1	0.100	80	51.1 - 128

Sample: 266988 - MW-21

Laboratory: Midland
Analysis: BTEX
QC Batch: 81550
Prep Batch: 69246

Analytical Method: S 8021B
Date Analyzed: 2011-05-23
Sample Preparation: 2011-05-23

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0184	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	0.0156	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0829	mg/L	1	0.100	83	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0926	mg/L	1	0.100	93	51.1 - 128

Report Date: May 24, 2011
TNM 97-17

Work Order: 11052310
97-17

Page Number: 8 of 18
Eunice, NM

Sample: 266989 - MW-9

Laboratory: Midland
Analysis: BTEX
QC Batch: 81550
Prep Batch: 69246

Analytical Method: S 8021B
Date Analyzed: 2011-05-23
Sample Preparation: 2011-05-23

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0832	mg/L	1	0.100	83	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0787	mg/L	1	0.100	79	51.1 - 128

Sample: 266990 - MW-10

Laboratory: Midland
Analysis: BTEX
QC Batch: 81550
Prep Batch: 69246

Analytical Method: S 8021B
Date Analyzed: 2011-05-23
Sample Preparation: 2011-05-23

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0384	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		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	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0916	mg/L	1	0.100	92	51.1 - 128

Report Date: May 24, 2011
TNM 97-17

Work Order: 11052310
97-17

Page Number: 9 of 18
Eunice, NM

Sample: 266991 - MW-5

Laboratory: Midland

Analysis: BTEX

QC Batch: 81550

Prep Batch: 69246

Analytical Method: S 8021B

Date Analyzed: 2011-05-23

Sample Preparation: 2011-05-23

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0429	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0823	mg/L	1	0.100	82	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0832	mg/L	1	0.100	83	51.1 - 128

Sample: 266992 - RW-2

Laboratory: Midland

Analysis: BTEX

QC Batch: 81550

Prep Batch: 69246

Analytical Method: S 8021B

Date Analyzed: 2011-05-23

Sample Preparation: 2011-05-23

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0945	mg/L	5	0.00100
Toluene		1	<0.00500	mg/L	5	0.00100
Ethylbenzene		1	0.0320	mg/L	5	0.00100
Xylene		1	0.0779	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.413	mg/L	5	0.500	83	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.387	mg/L	5	0.500	77	51.1 - 128

Report Date: May 24, 2011
TNM 97-17

Work Order: 11052310
97-17

Page Number: 10 of 18
Eunice, NM

Sample: 266993 - MW-6

Laboratory: Midland
Analysis: BTEX
QC Batch: 81550
Prep Batch: 69246

Analytical Method: S 8021B
Date Analyzed: 2011-05-23
Sample Preparation: 2011-05-23

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0689	mg/L	5	0.00100
Toluene		1	<0.00500	mg/L	5	0.00100
Ethylbenzene		1	<0.00500	mg/L	5	0.00100
Xylene		1	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.416	mg/L	5	0.500	83	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.382	mg/L	5	0.500	76	51.1 - 128

Sample: 266994 - MW-20

Laboratory: Midland
Analysis: BTEX
QC Batch: 81550
Prep Batch: 69246

Analytical Method: S 8021B
Date Analyzed: 2011-05-23
Sample Preparation: 2011-05-23

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0512	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	0.0158	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	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0832	mg/L	1	0.100	83	51.1 - 128

Report Date: May 24, 2011
TNM 97-17

Work Order: 11052310
97-17

Page Number: 11 of 18
Eunice, NM

Sample: 266995 - RW-3

Laboratory: Midland
Analysis: BTEX
QC Batch: 81550
Prep Batch: 69246

Analytical Method: S 8021B
Date Analyzed: 2011-05-23
Sample Preparation: 2011-05-23

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.938	mg/L	50	0.00100
Toluene		1	<0.0500	mg/L	50	0.00100
Ethylbenzene		1	0.275	mg/L	50	0.00100
Xylene		1	0.775	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.51	mg/L	50	5.00	90	67.8 - 129
4-Bromofluorobenzene (4-BFB)			4.16	mg/L	50	5.00	83	51.1 - 128

Sample: 266996 - MW-19

Laboratory: Midland
Analysis: BTEX
QC Batch: 81550
Prep Batch: 69246

Analytical Method: S 8021B
Date Analyzed: 2011-05-23
Sample Preparation: 2011-05-23

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	1.15	mg/L	100	0.00100
Toluene		1	<0.100	mg/L	100	0.00100
Ethylbenzene		1	0.516	mg/L	100	0.00100
Xylene		1	1.59	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.68	mg/L	100	10.0	87	67.8 - 129
4-Bromofluorobenzene (4-BFB)			7.92	mg/L	100	10.0	79	51.1 - 128

Report Date: May 24, 2011
TNM 97-17

Work Order: 11052310
97-17

Page Number: 12 of 18
Eunice, NM

Sample: 266997 - RW-4

Laboratory: Midland
Analysis: BTEX
QC Batch: 81550
Prep Batch: 69246

Analytical Method: S 8021B
Date Analyzed: 2011-05-23
Sample Preparation: 2011-05-23

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	1.85	mg/L	100	0.00100
Toluene		1	<0.100	mg/L	100	0.00100
Ethylbenzene		1	0.682	mg/L	100	0.00100
Xylene		1	1.62	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.70	mg/L	100	10.0	87	67.8 - 129
4-Bromofluorobenzene (4-BFB)			8.13	mg/L	100	10.0	81	51.1 - 128

Method Blanks

Method Blank (1) QC Batch: 81550

QC Batch: 81550
Prep Batch: 69246

Date Analyzed: 2011-05-23
QC Preparation: 2011-05-23

Analyzed By: AG
Prepared By: AG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000400	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000300	mg/L	0.001
Xylene		1	<0.000333	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0886	mg/L	1	0.100	89	70.2 - 118
4-Bromofluorobenzene (4-BFB)			0.0819	mg/L	1	0.100	82	47.3 - 116

Report Date: May 24, 2011
TNM 97-17

Work Order: 11052310
97-17

Page Number: 14 of 18
Eunice, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 81550
Prep Batch: 69246

Date Analyzed: 2011-05-23
QC Preparation: 2011-05-23

Analyzed By: AG
Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.106	mg/L	1	0.100	<0.000400	106	76.8 - 110
Toluene		1	0.110	mg/L	1	0.100	<0.000300	110	81 - 118
Ethylbenzene		1	0.0911	mg/L	1	0.100	<0.000300	91	78.8 - 118
Xylene		1	0.271	mg/L	1	0.300	<0.000333	90	80.3 - 119

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.107	mg/L	1	0.100	<0.000400	107	76.8 - 110	1	20
Toluene		1	0.111	mg/L	1	0.100	<0.000300	111	81 - 118	1	20
Ethylbenzene		1	0.0925	mg/L	1	0.100	<0.000300	92	78.8 - 118	2	20
Xylene		1	0.275	mg/L	1	0.300	<0.000333	92	80.3 - 119	2	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0894	0.0889	mg/L	1	0.100	89	89	66.6 - 114
4-Bromofluorobenzene (4-BFB)	0.0874	0.0881	mg/L	1	0.100	87	88	68.2 - 124

Matrix Spike (MS-1) Spiked Sample: 266997

QC Batch: 81550
Prep Batch: 69246

Date Analyzed: 2011-05-23
QC Preparation: 2011-05-23

Analyzed By: AG
Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	11.8	mg/L	100	10.0	<0.0400	118	77.9 - 114
Toluene		1	11.2	mg/L	100	10.0	<0.0300	112	78.3 - 111
Ethylbenzene		1	9.34	mg/L	100	10.0	<0.0300	93	75.3 - 110
Xylene		1	27.2	mg/L	100	30.0	<0.0333	91	75.7 - 109

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

Report Date: May 24, 2011
TNM 97-17

Work Order: 11052310
97-17

Page Number: 15 of 18
Eunice, NM

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	11.9	mg/L	100	10.0	<0.0400	119	77.9 - 114	1	20
Toluene		1	11.2	mg/L	100	10.0	<0.0300	112	78.3 - 111	0	20
Ethylbenzene		1	9.52	mg/L	100	10.0	<0.0300	95	75.3 - 110	2	20
Xylene		1	28.0	mg/L	100	30.0	<0.0333	93	75.7 - 109	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)	8.74	8.62	mg/L	100	10	87	86	68.3 - 107
4-Bromofluorobenzene (4-BFB)	8.50	8.54	mg/L	100	10	85	85	60.1 - 135

Calibration Standards

Standard (CCV-1)

QC Batch: 81550

Date Analyzed: 2011-05-23

Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.102	102	80 - 120	2011-05-23
Toluene		1	mg/L	0.100	0.105	105	80 - 120	2011-05-23
Ethylbenzene		1	mg/L	0.100	0.0857	86	80 - 120	2011-05-23
Xylene		1	mg/L	0.300	0.254	85	80 - 120	2011-05-23

Standard (CCV-2)

QC Batch: 81550

Date Analyzed: 2011-05-23

Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.105	105	80 - 120	2011-05-23
Toluene		1	mg/L	0.100	0.108	108	80 - 120	2011-05-23
Ethylbenzene		1	mg/L	0.100	0.0895	90	80 - 120	2011-05-23
Xylene		1	mg/L	0.300	0.264	88	80 - 120	2011-05-23

Standard (CCV-3)

QC Batch: 81550

Date Analyzed: 2011-05-23

Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.106	106	80 - 120	2011-05-23
Toluene		1	mg/L	0.100	0.110	110	80 - 120	2011-05-23
Ethylbenzene		1	mg/L	0.100	0.0915	92	80 - 120	2011-05-23
Xylene		1	mg/L	0.300	0.274	91	80 - 120	2011-05-23

Report Date: May 24, 2011
TNM 97-17

Work Order: 11052310
97-17

Page Number: 17 of 18
Eunice, NM

Standard (CCV-4)

QC Batch: 81550

Date Analyzed: 2011-05-23

Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.110	110	80 - 120	2011-05-23
Toluene		1	mg/L	0.100	0.116	116	80 - 120	2011-05-23
Ethylbenzene		1	mg/L	0.100	0.0965	96	80 - 120	2011-05-23
Xylene		1	mg/L	0.300	0.287	96	80 - 120	2011-05-23

Appendix

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	T104704392-10-TX	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.

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-12965002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name:	<u>NOVA</u>	Phone #:	<u>432-520-7720</u>
Address:	<u>2057 Commerce Midland TX 79703</u>	Fax #:	<u>432-520-7701</u>
Contact Person:	<u>Ron R.</u>	E-mail:	
Invoice to:			
(If different from above)			
Project #:	<u>TN497-17</u>	Project Name:	<u>9717</u>
Project Location (including state):	<u>New Mexico</u>	Sampler Signature:	<u>[Signature]</u>

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING		MTBE 8021 / 602 / 8260 / 625	STEX 8021 / 602 / 8260 / 625	TPH 418.1 / TX1005	TPH 8015 GRO / DRO	PAH 8270 / 625	Total Metals Ag As Ba C	TCLP Metals Ag As C	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 6	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, Fl, S04, NO3, NO2	Na, Ca, Mg, K, TDS,			Turn Around Time if different from standard	Hold
				WATER	SOIL	AIR	SLUDGE	HCl	HNO3	H2SO4	NaOH	ICE	NONE	DATE	TIME																							
266983	MW-22	3	unl	X				X				X			5-19	8:00	X																					
984	MW-23															8:30																						
985	MW-25															9:00																						
986	MW-27															9:30																						
987	MW-26															10:00																						
988	MW-21															10:30																						
989	MW-9															11:00																						
990	MW-10															11:30																						
991	MW-5															12:00																						
992	MW-2															13:00																						
993	MW-6															13:30																						

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR
<u>[Signature]</u>	<u>NOVA</u>	<u>6-25</u>	<u>8:45</u>	<u>[Signature]</u>	<u>T/A</u>	<u>5/23/11</u>	<u>8:45</u>	<u>3.4</u>	<u></u>	<u></u>
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR

LAB USE ONLYIntact Y / N
Headspace Y / N / NA

Log-In-Review

REMARKS:All tests Midland

- ☐ Dry Weight Basis Required
☐ TRRP Report Required
☐ Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

Carrier # Cargill



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 808•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysisinc.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: August 18, 2011

Work Order: 11081122

CESTRA CESTRA CESTRA CESTRA CESTRA CESTRA CESTRA CESTRA CESTRA

Project Location: Eunice, NM
Project Name: 97-17
Project Number: TNM 97-17

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
274387	MW-9	water	2011-08-10	09:00	2011-08-11
274388	MW-26	water	2011-08-10	09:45	2011-08-11
274389	MW-21	water	2011-08-10	10:30	2011-08-11
274390	MW-10	water	2011-08-10	11:15	2011-08-11
274391	MW-5	water	2011-08-10	12:00	2011-08-11
274392	MW-6	water	2011-08-10	12:45	2011-08-11
274393	MW-20	water	2011-08-10	13:30	2011-08-11
274394	RW-3	water	2011-08-10	14:30	2011-08-11
274395	RW-2	water	2011-08-10	15:30	2011-08-11
274396	MW-19	water	2011-08-10	16:15	2011-08-11
274397	RW-4	water	2011-08-10	17:15	2011-08-11

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

This report consists of a total of 17 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

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

Report Contents

Case Narrative	4
Analytical Report	5
Sample 274387 (MW-9)	5
Sample 274388 (MW-26)	5
Sample 274389 (MW-21)	5
Sample 274390 (MW-10)	6
Sample 274391 (MW-5)	6
Sample 274392 (MW-6)	7
Sample 274393 (MW-20)	7
Sample 274394 (RW-3)	8
Sample 274395 (RW-2)	8
Sample 274396 (MW-19)	9
Sample 274397 (RW-4)	9
Method Blanks	11
QC Batch 83858 - Method Blank (1)	11
QC Batch 84003 - Method Blank (1)	11
Laboratory Control Spikes	12
QC Batch 83858 - LCS (1)	12
QC Batch 84003 - LCS (1)	12
QC Batch 83858 - MS (1)	13
QC Batch 84003 - MS (1)	13
Calibration Standards	15
QC Batch 83858 - CCV (2)	15
QC Batch 83858 - CCV (3)	15
QC Batch 84003 - CCV (1)	15
QC Batch 84003 - CCV (2)	15
QC Batch 84003 - CCV (3)	16
Appendix	17
Laboratory Certifications	17
Standard Flags	17
Attachments	17

Case Narrative

Samples for project 97-17 were received by TraceAnalysis, Inc. on 2011-08-11 and assigned to work order 11081122. Samples for work order 11081122 were received intact without headspace and at a temperature of 4.0 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	71215	2011-08-16 at 09:24	83858	2011-08-16 at 09:24
BTEX	S 8021B	71329	2011-08-17 at 15:25	84003	2011-08-17 at 16:38

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 11081122 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: 274387 - MW-9

Laboratory: Midland
Analysis: BTEX
QC Batch: 83858
Prep Batch: 71215

Analytical Method: S 8021B
Date Analyzed: 2011-08-16
Sample Preparation: 2011-08-16

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00760	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)			0.103	mg/L	1	0.100	103	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.102	mg/L	1	0.100	102	67.5 - 140.8

Sample: 274388 - MW-26

Laboratory: Midland
Analysis: BTEX
QC Batch: 83858
Prep Batch: 71215

Analytical Method: S 8021B
Date Analyzed: 2011-08-16
Sample Preparation: 2011-08-16

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00500	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		1	0.00900	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0933	mg/L	1	0.100	93	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0920	mg/L	1	0.100	92	67.5 - 140.8

Report Date: August 18, 2011
TNM 97-17

Work Order: 11081122
97-17

Page Number: 6 of 17
Eunice, NM

Sample: 274389 - MW-21

Laboratory: Midland
Analysis: BTEX
QC Batch: 83858
Prep Batch: 71215

Analytical Method: S 8021B
Date Analyzed: 2011-08-16
Sample Preparation: 2011-08-16

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00710	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)			0.107	mg/L	1	0.100	107	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.127	mg/L	1	0.100	127	67.5 - 140.8

Sample: 274390 - MW-10

Laboratory: Midland
Analysis: BTEX
QC Batch: 83858
Prep Batch: 71215

Analytical Method: S 8021B
Date Analyzed: 2011-08-16
Sample Preparation: 2011-08-16

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0131	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)			0.0944	mg/L	1	0.100	94	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0951	mg/L	1	0.100	95	67.5 - 140.8

Sample: 274391 - MW-5

Laboratory: Midland
Analysis: BTEX
QC Batch: 83858
Prep Batch: 71215

Analytical Method: S 8021B
Date Analyzed: 2011-08-16
Sample Preparation: 2011-08-16

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0722	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	0.00780	mg/L	1	0.00100
Xylene		1	0.0136	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0977	mg/L	1	0.100	98	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.101	mg/L	1	0.100	101	67.5 - 140.8

Sample: 274392 - MW-6

Laboratory: Midland
Analysis: BTEX
QC Batch: 83858
Prep Batch: 71215

Analytical Method: S 8021B
Date Analyzed: 2011-08-16
Sample Preparation: 2011-08-16

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0189	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)			0.0944	mg/L	1	0.100	94	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0989	mg/L	1	0.100	99	67.5 - 140.8

Report Date: August 18, 2011
TNM 97-17

Work Order: 11081122
97-17

Page Number: 8 of 17
Eunice, NM

Sample: 274393 - MW-20

Laboratory: Midland
Analysis: BTEX
QC Batch: 83858
Prep Batch: 71215

Analytical Method: S 8021B
Date Analyzed: 2011-08-16
Sample Preparation: 2011-08-16

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0298	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		1	0.0120	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.108	mg/L	1	0.100	108	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.114	mg/L	1	0.100	114	67.5 - 140.8

Sample: 274394 - RW-3

Laboratory: Midland
Analysis: BTEX
QC Batch: 83858
Prep Batch: 71215

Analytical Method: S 8021B
Date Analyzed: 2011-08-16
Sample Preparation: 2011-08-16

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.304	mg/L	20	0.00100
Toluene	u	1	<0.0200	mg/L	20	0.00100
Ethylbenzene	u	1	<0.0200	mg/L	20	0.00100
Xylene	u	1	<0.0200	mg/L	20	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.91	mg/L	20	2.00	96	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			1.81	mg/L	20	2.00	90	67.5 - 140.8

Report Date: August 18, 2011
TNM 97-17

Work Order: 11081122
97-17

Page Number: 9 of 17
Eunice, NM

Sample: 274395 - RW-2

Laboratory: Midland
Analysis: BTEX
QC Batch: 84003
Prep Batch: 71329

Analytical Method: S 8021B
Date Analyzed: 2011-08-17
Sample Preparation: 2011-08-17

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0572	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)			0.0982	mg/L	1	0.100	98	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.109	mg/L	1	0.100	109	67.5 - 140.8

Sample: 274396 - MW-19

Laboratory: Midland
Analysis: BTEX
QC Batch: 84003
Prep Batch: 71329

Analytical Method: S 8021B
Date Analyzed: 2011-08-17
Sample Preparation: 2011-08-17

Prep Method: S 5030B
Analyzed By: ME
Prepared By: ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.294	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	0.0398	mg/L	1	0.00100
Xylene		1	0.0435	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.102	mg/L	1	0.100	102	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.126	mg/L	1	0.100	126	67.5 - 140.8

Report Date: August 18, 2011
TNM 97-17

Work Order: 11081122
97-17

Page Number: 10 of 17
Eunice, NM

Sample: 274397 - RW-4

Laboratory: Midland

Analysis: BTEX

QC Batch: 84003

Prep Batch: 71329

Analytical Method: S 8021B

Date Analyzed: 2011-08-17

Sample Preparation: 2011-08-17

Prep Method: S 5030B

Analyzed By: ME

Prepared By: ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.613	mg/L	20	0.00100
Toluene	u	1	<0.0200	mg/L	20	0.00100
Ethylbenzene		1	0.158	mg/L	20	0.00100
Xylene		1	0.228	mg/L	20	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.80	mg/L	20	2.00	90	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			1.78	mg/L	20	2.00	89	67.5 - 140.8

Method Blanks

Method Blank (1) QC Batch: 83858

QC Batch: 83858
Prep Batch: 71215

Date Analyzed: 2011-08-16
QC Preparation: 2011-08-16

Analyzed By: ME
Prepared By: ME

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000400	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000300	mg/L	0.001
Xylene		1	<0.000333	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0931	mg/L	1	0.100	93	61.1 - 118.4
4-Bromofluorobenzene (4-BFB)			0.0869	mg/L	1	0.100	87	45.9 - 126.4

Method Blank (1) QC Batch: 84003

QC Batch: 84003
Prep Batch: 71329

Date Analyzed: 2011-08-17
QC Preparation: 2011-08-17

Analyzed By: ME
Prepared By: ME

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000400	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000300	mg/L	0.001
Xylene		1	<0.000333	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0803	mg/L	1	0.100	80	61.1 - 118.4
4-Bromofluorobenzene (4-BFB)			0.0769	mg/L	1	0.100	77	45.9 - 126.4

Report Date: August 18, 2011
TNM 97-17

Work Order: 11081122
97-17

Page Number: 12 of 17
Eunice, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 83858
Prep Batch: 71215

Date Analyzed: 2011-08-16
QC Preparation: 2011-08-16

Analyzed By: ME
Prepared By: ME

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0984	mg/L	1	0.100	<0.000400	98	76.8 - 110.3
Toluene		1	0.103	mg/L	1	0.100	<0.000300	103	90.9 - 122.2
Ethylbenzene		1	0.105	mg/L	1	0.100	<0.000300	105	72.7 - 120.2
Xylene		1	0.317	mg/L	1	0.300	<0.000333	106	72.1 - 121.5

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0979	mg/L	1	0.100	<0.000400	98	76.8 - 110.3	0	20
Toluene		1	0.103	mg/L	1	0.100	<0.000300	103	90.9 - 122.2	0	20
Ethylbenzene		1	0.105	mg/L	1	0.100	<0.000300	105	72.7 - 120.2	0	20
Xylene		1	0.317	mg/L	1	0.300	<0.000333	106	72.1 - 121.5	0	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0996	0.0987	mg/L	1	0.100	100	99	61.9 - 119.2
4-Bromofluorobenzene (4-BFB)	0.0998	0.0988	mg/L	1	0.100	100	99	56.4 - 127.9

Laboratory Control Spike (LCS-1)

QC Batch: 84003
Prep Batch: 71329

Date Analyzed: 2011-08-17
QC Preparation: 2011-08-17

Analyzed By: ME
Prepared By: ME

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0841	mg/L	1	0.100	<0.000400	84	76.8 - 110.3
Toluene		1	0.0966	mg/L	1	0.100	<0.000300	97	90.9 - 122.2
Ethylbenzene		1	0.101	mg/L	1	0.100	<0.000300	101	72.7 - 120.2
Xylene		1	0.307	mg/L	1	0.300	<0.000333	102	72.1 - 121.5

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

Report Date: August 18, 2011
TNM 97-17

Work Order: 11081122
97-17

Page Number: 13 of 17
Eunice, NM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0854	mg/L	1	0.100	<0.000400	85	76.8 - 110.3	2	20
Toluene		1	0.0981	mg/L	1	0.100	<0.000300	98	90.9 - 122.2	2	20
Ethylbenzene		1	0.103	mg/L	1	0.100	<0.000300	103	72.7 - 120.2	2	20
Xylene		1	0.312	mg/L	1	0.300	<0.000333	104	72.1 - 121.5	2	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0943	0.0923	mg/L	1	0.100	94	92	61.9 - 119.2
4-Bromofluorobenzene (4-BFB)	0.0957	0.0955	mg/L	1	0.100	96	96	56.4 - 127.9

Matrix Spike (MS-1) Spiked Sample: 274394

QC Batch: 83858
Prep Batch: 71215

Date Analyzed: 2011-08-16
QC Preparation: 2011-08-16

Analyzed By: ME
Prepared By: ME

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.17	mg/L	20	2.00	0.3037	93	66.9 - 128.2
Toluene		1	1.94	mg/L	20	2.00	<0.00600	97	81.6 - 122.9
Ethylbenzene		1	2.03	mg/L	20	2.00	<0.00600	102	62.7 - 117.9
Xylene		1	5.98	mg/L	20	6.00	<0.00666	100	62.9 - 118.2

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	2.06	mg/L	20	2.00	0.3037	88	66.9 - 128.2	5	20
Toluene		1	1.89	mg/L	20	2.00	<0.00600	94	81.6 - 122.9	3	20
Ethylbenzene		1	1.96	mg/L	20	2.00	<0.00600	98	62.7 - 117.9	4	20
Xylene		1	5.80	mg/L	20	6.00	<0.00666	97	62.9 - 118.2	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	1.81	mg/L	20	2	101	90	58.6 - 119.7
4-Bromofluorobenzene (4-BFB)	2.05	1.87	mg/L	20	2	102	94	52.2 - 135.8

Report Date: August 18, 2011
TNM 97-17

Work Order: 11081122
97-17

Page Number: 14 of 17
Eunice, NM

Matrix Spike (MS-1) Spiked Sample: 274532

QC Batch: 84003
Prep Batch: 71329

Date Analyzed: 2011-08-17
QC Preparation: 2011-08-17

Analyzed By: ME
Prepared By: ME

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	9.15	mg/L	100	10.0	0.4887	87	66.9 - 128.2
Toluene		1	9.30	mg/L	100	10.0	<0.0300	93	81.6 - 122.9
Ethylbenzene		1	9.49	mg/L	100	10.0	<0.0300	95	62.7 - 117.9
Xylene		1	28.5	mg/L	100	30.0	<0.0333	95	62.9 - 118.2

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	9.46	mg/L	100	10.0	0.4887	90	66.9 - 128.2	3	20
Toluene		1	9.65	mg/L	100	10.0	<0.0300	96	81.6 - 122.9	4	20
Ethylbenzene		1	9.90	mg/L	100	10.0	<0.0300	99	62.7 - 117.9	4	20
Xylene		1	29.8	mg/L	100	30.0	<0.0333	99	62.9 - 118.2	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)	9.39	9.29	mg/L	100	10	94	93	58.6 - 119.7
4-Bromofluorobenzene (4-BFB)	9.83	9.82	mg/L	100	10	98	98	52.2 - 135.8

Calibration Standards

Standard (CCV-2)

QC Batch: 83858

Date Analyzed: 2011-08-16

Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2011-08-16
Toluene		1	mg/L	0.100	0.105	105	80 - 120	2011-08-16
Ethylbenzene		1	mg/L	0.100	0.107	107	80 - 120	2011-08-16
Xylene		1	mg/L	0.300	0.321	107	80 - 120	2011-08-16

Standard (CCV-3)

QC Batch: 83858

Date Analyzed: 2011-08-16

Analyzed By: ME

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	2011-08-16
Toluene		1	mg/L	0.100	0.0984	98	80 - 120	2011-08-16
Ethylbenzene		1	mg/L	0.100	0.100	100	80 - 120	2011-08-16
Xylene		1	mg/L	0.300	0.301	100	80 - 120	2011-08-16

Standard (CCV-1)

QC Batch: 84003

Date Analyzed: 2011-08-17

Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0855	86	80 - 120	2011-08-17
Toluene		1	mg/L	0.100	0.0985	98	80 - 120	2011-08-17
Ethylbenzene		1	mg/L	0.100	0.104	104	80 - 120	2011-08-17
Xylene		1	mg/L	0.300	0.316	105	80 - 120	2011-08-17

Report Date: August 18, 2011
TNM 97-17

Work Order: 11081122
97-17

Page Number: 16 of 17
Eunice, NM

Standard (CCV-2)

QC Batch: 84003

Date Analyzed: 2011-08-17

Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0863	86	80 - 120	2011-08-17
Toluene		1	mg/L	0.100	0.0988	99	80 - 120	2011-08-17
Ethylbenzene		1	mg/L	0.100	0.104	104	80 - 120	2011-08-17
Xylene		1	mg/L	0.300	0.315	105	80 - 120	2011-08-17

Standard (CCV-3)

QC Batch: 84003

Date Analyzed: 2011-08-17

Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0846	85	80 - 120	2011-08-17
Toluene		1	mg/L	0.100	0.0976	98	80 - 120	2011-08-17
Ethylbenzene		1	mg/L	0.100	0.104	104	80 - 120	2011-08-17
Xylene		1	mg/L	0.300	0.313	104	80 - 120	2011-08-17

Appendix

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	T104704392-10-TX	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 than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

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

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-12965002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name:	Phone #:
Address: (Street, City, Zip)	Fax #:
Contact Person:	E-mail:
Invoice to:	
(If different from above)	
Project #:	Project Name:
Project Location (including state):	Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING		DATE	TIME	MTBE 8021 / 602 / 8260 / 624	STEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, S, NO ₃ , NO ₂ , Alkalinity	Na, Ca, Mg, K, TDS, EC	Turn Around Time if different from standard	Hold
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE																									
274387	MW-9	3	100%	X				X				X				8-10	9:00	X																				
388	MW-26																9:45																					
389	MW-21																10:30																					
390	MW-10																11:15																					
391	MW-5																12:00																					
392	MW-6																12:45																					
393	MW-20																13:30																					
394	RW-3																14:30																					
395	RW-2																15:30																					
396	MW-19																16:15																					
397	RW-4																17:15																					

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

LAB USE
ONLY
Intact
Headspace
Log-In-Review

REMARKS:

* All tests Midland

- ☐ Dry Weight Basis Required
☐ TRRP Report Required
☐ Check If Special Reporting Limits Are Needed



5701 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 808•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
5015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: November 23, 2011

Work Order: 11112101

Project Location: Eunice, NM
Project Name: 97-17
Project Number: TNM 97-17

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
282847	MW 1	water	2011-11-16	11:50	2011-11-18
282848	MW 2	water	2011-11-16	12:05	2011-11-18
282849	MW 3	water	2011-11-16	12:15	2011-11-18
282850	MW 11	water	2011-11-16	12:25	2011-11-18
282851	MW 12	water	2011-11-16	12:40	2011-11-18
282852	MW 13	water	2011-11-16	12:45	2011-11-18
282853	MW 16	water	2011-11-16	13:05	2011-11-18
282854	MW 17	water	2011-11-16	13:15	2011-11-18
282855	MW 18	water	2011-11-16	13:30	2011-11-18
282856	MW 24	water	2011-11-16	13:40	2011-11-18
282857	MW 28	water	2011-11-16	14:00	2011-11-18
282858	MW 22	water	2011-11-16	14:15	2011-11-18
282859	MW 23	water	2011-11-16	14:25	2011-11-18
282860	MW 25	water	2011-11-16	14:35	2011-11-18
282861	MW 27	water	2011-11-16	14:50	2011-11-18
282862	MW 9	water	2011-11-16	15:05	2011-11-18
282863	MW 26	water	2011-11-16	15:20	2011-11-18
282864	MW 21	water	2011-11-16	15:30	2011-11-18

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
282865	MW 10	water	2011-11-16	15:40	2011-11-18
282866	MW 6	water	2011-11-16	15:50	2011-11-18
282867	MW 20	water	2011-11-16	16:00	2011-11-18
282868	RW 2	water	2011-11-16	16:30	2011-11-18
282869	MW 5	water	2011-11-16	16:40	2011-11-18
282870	MW 19	water	2011-11-16	16:50	2011-11-18
282871	RW 3	water	2011-11-17	11:30	2011-11-18
282872	RW 4	water	2011-11-17	12:00	2011-11-18
282873	RW 1	water	2011-11-17	12:20	2011-11-18
282874	MW 15	water	2011-11-17	12:35	2011-11-18

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

This report consists of a total of 26 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



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

Report Contents

Case Narrative	5
Analytical Report	6
Sample 282847 (MW 1)	6
Sample 282848 (MW 2)	6
Sample 282849 (MW 3)	6
Sample 282850 (MW 11)	7
Sample 282851 (MW 12)	7
Sample 282852 (MW 13)	8
Sample 282853 (MW 16)	8
Sample 282854 (MW 17)	9
Sample 282855 (MW 18)	9
Sample 282856 (MW 24)	10
Sample 282857 (MW 28)	10
Sample 282858 (MW 22)	11
Sample 282859 (MW 23)	11
Sample 282860 (MW 25)	12
Sample 282861 (MW 27)	12
Sample 282862 (MW 9)	13
Sample 282863 (MW 26)	13
Sample 282864 (MW 21)	14
Sample 282865 (MW 10)	14
Sample 282866 (MW 6)	15
Sample 282867 (MW 20)	15
Sample 282868 (RW 2)	16
Sample 282869 (MW 5)	16
Sample 282870 (MW 19)	17
Sample 282871 (RW 3)	17
Sample 282872 (RW 4)	18
Sample 282873 (RW 1)	18
Sample 282874 (MW 15)	19
Method Blanks	20
QC Batch 86659 - Method Blank (1)	20
QC Batch 86689 - Method Blank (1)	20
Laboratory Control Spikes	21
QC Batch 86659 - LCS (1)	21
QC Batch 86689 - LCS (1)	21
QC Batch 86659 - MS (1)	22
QC Batch 86689 - MS (1)	22
Calibration Standards	24
QC Batch 86659 - CCV (1)	24
QC Batch 86659 - CCV (2)	24
QC Batch 86689 - CCV (1)	24

QC Batch 86689 - CCV (2)	24
QC Batch 86689 - CCV (3)	25

Appendix	26
Report Definitions	26
Laboratory Certifications	26
Standard Flags	26
Attachments	26

Case Narrative

Samples for project 97-17 were received by TraceAnalysis, Inc. on 2011-11-18 and assigned to work order 11112101. Samples for work order 11112101 were received intact without headspace and at a temperature of 4.0 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	73580	2011-11-21 at 12:00	86659	2011-11-21 at 20:59
BTEX	S 8021B	73606	2011-11-22 at 06:30	86689	2011-11-22 at 07:34

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 11112101 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: 282847 - MW 1

Laboratory: Midland
Analysis: BTEX
QC Batch: 86659
Prep Batch: 73580

Analytical Method: S 8021B
Date Analyzed: 2011-11-21
Sample Preparation: 2011-11-21

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

Parameter	Flag	Cert	RL Result	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)			0.0853	mg/L	1	0.100	85	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0732	mg/L	1	0.100	73	67.5 - 140.8

Sample: 282848 - MW 2

Laboratory: Midland
Analysis: BTEX
QC Batch: 86659
Prep Batch: 73580

Analytical Method: S 8021B
Date Analyzed: 2011-11-21
Sample Preparation: 2011-11-21

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

Parameter	Flag	Cert	RL Result	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)			0.0857	mg/L	1	0.100	86	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0693	mg/L	1	0.100	69	67.5 - 140.8

Report Date: November 23, 2011
TNM 97-17

Work Order: 11112101
97-17

Page Number: 7 of 26
Eunice, NM

Sample: 282849 - MW 3

Laboratory: Midland

Analysis: BTEX

QC Batch: 86659

Prep Batch: 73580

Analytical Method: S 8021B

Date Analyzed: 2011-11-21

Sample Preparation: 2011-11-21

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0824	mg/L	1	0.100	82	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	0.0651	mg/L	1	0.100	65	67.5 - 140.8

Sample: 282850 - MW 11

Laboratory: Midland

Analysis: BTEX

QC Batch: 86659

Prep Batch: 73580

Analytical Method: S 8021B

Date Analyzed: 2011-11-21

Sample Preparation: 2011-11-21

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0860	mg/L	1	0.100	86	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0700	mg/L	1	0.100	70	67.5 - 140.8

Report Date: November 23, 2011
TNM 97-17

Work Order: 11112101
97-17

Page Number: 8 of 26
Eunice, NM

Sample: 282851 - MW 12

Laboratory: Midland

Analysis: BTEX

QC Batch: 86659

Prep Batch: 73580

Analytical Method: S 8021B

Date Analyzed: 2011-11-21

Sample Preparation: 2011-11-21

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0861	mg/L	1	0.100	86	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0689	mg/L	1	0.100	69	67.5 - 140.8

Sample: 282852 - MW 13

Laboratory: Midland

Analysis: BTEX

QC Batch: 86659

Prep Batch: 73580

Analytical Method: S 8021B

Date Analyzed: 2011-11-21

Sample Preparation: 2011-11-21

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0806	mg/L	1	0.100	81	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	0.0635	mg/L	1	0.100	64	67.5 - 140.8

Sample: 282853 - MW 16

Laboratory: Midland
Analysis: BTEX
QC Batch: 86659
Prep Batch: 73580

Analytical Method: S 8021B
Date Analyzed: 2011-11-21
Sample Preparation: 2011-11-21

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

Parameter	Flag	Cert	RL Result	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)			0.0837	mg/L	1	0.100	84	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)	Q _{sr}	Q _{sr}	0.0663	mg/L	1	0.100	66	67.5 - 140.8

Sample: 282854 - MW 17

Laboratory: Midland
Analysis: BTEX
QC Batch: 86659
Prep Batch: 73580

Analytical Method: S 8021B
Date Analyzed: 2011-11-21
Sample Preparation: 2011-11-21

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

Parameter	Flag	Cert	RL Result	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)			0.0851	mg/L	1	0.100	85	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)	Q _{sr}	Q _{sr}	0.0665	mg/L	1	0.100	66	67.5 - 140.8

Report Date: November 23, 2011
TNM 97-17

Work Order: 11112101
97-17

Page Number: 10 of 26
Eunice, NM

Sample: 282855 - MW 18

Laboratory: Midland
Analysis: BTEX
QC Batch: 86659
Prep Batch: 73580

Analytical Method: S 8021B
Date Analyzed: 2011-11-21
Sample Preparation: 2011-11-21

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0840	mg/L	1	0.100	84	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	0.0653	mg/L	1	0.100	65	67.5 - 140.8

Sample: 282856 - MW 24

Laboratory: Midland
Analysis: BTEX
QC Batch: 86659
Prep Batch: 73580

Analytical Method: S 8021B
Date Analyzed: 2011-11-21
Sample Preparation: 2011-11-21

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0856	mg/L	1	0.100	86	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0683	mg/L	1	0.100	68	67.5 - 140.8

Report Date: November 23, 2011
TNM 97-17

Work Order: 11112101
97-17

Page Number: 11 of 26
Eunice, NM

Sample: 282857 - MW 28

Laboratory: Midland

Analysis: BTEX

QC Batch: 86689

Prep Batch: 73606

Analytical Method: S 8021B

Date Analyzed: 2011-11-22

Sample Preparation: 2011-11-22

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	Cert	RL Result	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)			0.0957	mg/L	1	0.100	96	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0813	mg/L	1	0.100	81	67.5 - 140.8

Sample: 282858 - MW 22

Laboratory: Midland

Analysis: BTEX

QC Batch: 86689

Prep Batch: 73606

Analytical Method: S 8021B

Date Analyzed: 2011-11-22

Sample Preparation: 2011-11-22

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	Cert	RL Result	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)			0.0906	mg/L	1	0.100	91	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0765	mg/L	1	0.100	76	67.5 - 140.8

Report Date: November 23, 2011
TNM 97-17

Work Order: 11112101
97-17

Page Number: 12 of 26
Eunice, NM

Sample: 282859 - MW 23

Laboratory: Midland

Analysis: BTEX

QC Batch: 86689

Prep Batch: 73606

Analytical Method: S 8021B

Date Analyzed: 2011-11-22

Sample Preparation: 2011-11-22

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0946	mg/L	1	0.100	95	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0809	mg/L	1	0.100	81	67.5 - 140.8

Sample: 282860 - MW 25

Laboratory: Midland

Analysis: BTEX

QC Batch: 86689

Prep Batch: 73606

Analytical Method: S 8021B

Date Analyzed: 2011-11-22

Sample Preparation: 2011-11-22

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0910	mg/L	1	0.100	91	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0738	mg/L	1	0.100	74	67.5 - 140.8

Report Date: November 23, 2011
TNM 97-17

Work Order: 11112101
97-17

Page Number: 13 of 26
Eunice, NM

Sample: 282861 - MW 27

Laboratory: Midland

Analysis: BTEX

QC Batch: 86689

Prep Batch: 73606

Analytical Method: S 8021B

Date Analyzed: 2011-11-22

Sample Preparation: 2011-11-22

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0913	mg/L	1	0.100	91	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0775	mg/L	1	0.100	78	67.5 - 140.8

Sample: 282862 - MW 9

Laboratory: Midland

Analysis: BTEX

QC Batch: 86689

Prep Batch: 73606

Analytical Method: S 8021B

Date Analyzed: 2011-11-22

Sample Preparation: 2011-11-22

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene			1	0.00450	mg/L	1	0.00100
Toluene	u	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	U	1	<0.00100	mg/L	1	0.00100
Xylene	u	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0936	mg/L	1	0.100	94	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0804	mg/L	1	0.100	80	67.5 - 140.8

Report Date: November 23, 2011
TNM 97-17

Work Order: 11112101
97-17

Page Number: 14 of 26
Eunice, NM

Sample: 282863 - MW 26

Laboratory: Midland
Analysis: BTEX
QC Batch: 86689
Prep Batch: 73606

Analytical Method: S 8021B
Date Analyzed: 2011-11-22
Sample Preparation: 2011-11-22

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0924	mg/L	1	0.100	92	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0796	mg/L	1	0.100	80	67.5 - 140.8

Sample: 282864 - MW 21

Laboratory: Midland
Analysis: BTEX
QC Batch: 86689
Prep Batch: 73606

Analytical Method: S 8021B
Date Analyzed: 2011-11-22
Sample Preparation: 2011-11-22

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00400	mg/L	1	0.00100
Toluene	u	U	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	U	<0.00100	mg/L	1	0.00100
Xylene	u	U	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0930	mg/L	1	0.100	93	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0957	mg/L	1	0.100	96	67.5 - 140.8

Sample: 282865 - MW 10

Laboratory: Midland
Analysis: BTEX
QC Batch: 86689
Prep Batch: 73606

Analytical Method: S 8021B
Date Analyzed: 2011-11-22
Sample Preparation: 2011-11-22

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00820	mg/L	1	0.00100
Toluene	u	U	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	U	<0.00100	mg/L	1	0.00100
Xylene	u	U	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0854	mg/L	1	0.100	85	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0795	mg/L	1	0.100	80	67.5 - 140.8

Sample: 282866 - MW 6

Laboratory: Midland
Analysis: BTEX
QC Batch: 86689
Prep Batch: 73606

Analytical Method: S 8021B
Date Analyzed: 2011-11-22
Sample Preparation: 2011-11-22

Prep Method: S 5030B
Analyzed By: AG
Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0176	mg/L	1	0.00100
Toluene	u	U	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	U	<0.00100	mg/L	1	0.00100
Xylene	u	U	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0855	mg/L	1	0.100	86	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0882	mg/L	1	0.100	88	67.5 - 140.8

Report Date: November 23, 2011
TNM 97-17

Work Order: 11112101
97-17

Page Number: 16 of 26
Eunice, NM

Sample: 282867 - MW 20

Laboratory: Midland

Analysis: BTEX

QC Batch: 86689

Prep Batch: 73606

Analytical Method: S 8021B

Date Analyzed: 2011-11-22

Sample Preparation: 2011-11-22

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	Cert	RL	Units	Dilution	RL	
			Result				
Benzene		1	0.0728	mg/L	1	0.00100	
Toluene	u	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	U	1	<0.00100	mg/L	1	0.00100
Xylene	u	U	1	<0.00100	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	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0891	mg/L	1	0.100	89	67.5 - 140.8

Sample: 282868 - RW 2

Laboratory: Midland

Analysis: BTEX

QC Batch: 86689

Prep Batch: 73606

Analytical Method: S 8021B

Date Analyzed: 2011-11-22

Sample Preparation: 2011-11-22

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	Cert	RL	Units	Dilution	RL	
			Result				
Benzene		1	0.0576	mg/L	1	0.00100	
Toluene	u	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	0.00470	mg/L	1	0.00100	
Xylene	u	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0877	mg/L	1	0.100	88	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0907	mg/L	1	0.100	91	67.5 - 140.8

Report Date: November 23, 2011
TNM 97-17

Work Order: 11112101
97-17

Page Number: 17 of 26
Eunice, NM

Sample: 282869 - MW 5

Laboratory: Midland

Analysis: BTEX

QC Batch: 86689

Prep Batch: 73606

Analytical Method: S 8021B

Date Analyzed: 2011-11-22

Sample Preparation: 2011-11-22

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.103	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	0.0135	mg/L	1	0.00100
Xylene		1	0.0135	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0847	mg/L	1	0.100	85	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0907	mg/L	1	0.100	91	67.5 - 140.8

Sample: 282870 - MW 19

Laboratory: Midland

Analysis: BTEX

QC Batch: 86689

Prep Batch: 73606

Analytical Method: S 8021B

Date Analyzed: 2011-11-22

Sample Preparation: 2011-11-22

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.318	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	0.0460	mg/L	1	0.00100
Xylene		1	0.0510	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0828	mg/L	1	0.100	83	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.111	mg/L	1	0.100	111	67.5 - 140.8

Report Date: November 23, 2011
TNM 97-17

Work Order: 11112101
97-17

Page Number: 18 of 26
Eunice, NM

Sample: 282871 - RW 3

Laboratory: Midland

Analysis: BTEX

QC Batch: 86689

Prep Batch: 73606

Analytical Method: S 8021B

Date Analyzed: 2011-11-22

Sample Preparation: 2011-11-22

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.142	mg/L	20	0.00100
Toluene	u	U	<0.0200	mg/L	20	0.00100
Ethylbenzene	u	U	<0.0200	mg/L	20	0.00100
Xylene	u	U	<0.0200	mg/L	20	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.70	mg/L	20	2.00	85	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			1.60	mg/L	20	2.00	80	67.5 - 140.8

Sample: 282872 - RW 4

Laboratory: Midland

Analysis: BTEX

QC Batch: 86689

Prep Batch: 73606

Analytical Method: S 8021B

Date Analyzed: 2011-11-22

Sample Preparation: 2011-11-22

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.315	mg/L	20	0.00100
Toluene	u	U	<0.0200	mg/L	20	0.00100
Ethylbenzene		1	0.0753	mg/L	20	0.00100
Xylene	u	U	<0.0200	mg/L	20	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.79	mg/L	20	2.00	90	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			1.59	mg/L	20	2.00	80	67.5 - 140.8

Report Date: November 23, 2011
TNM 97-17

Work Order: 11112101
97-17

Page Number: 19 of 26
Eunice, NM

Sample: 282873 - RW 1

Laboratory: Midland

Analysis: BTEX

QC Batch: 86689

Prep Batch: 73606

Analytical Method: S 8021B

Date Analyzed: 2011-11-22

Sample Preparation: 2011-11-22

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.275	mg/L	10	0.00100
Toluene	u	U	1	<0.0100	10	0.00100
Ethylbenzene		1	0.0235	mg/L	10	0.00100
Xylene	u	U	1	<0.0100	10	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.881	mg/L	10	1.00	88	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.824	mg/L	10	1.00	82	67.5 - 140.8

Sample: 282874 - MW 15

Laboratory: Midland

Analysis: BTEX

QC Batch: 86689

Prep Batch: 73606

Analytical Method: S 8021B

Date Analyzed: 2011-11-22

Sample Preparation: 2011-11-22

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0898	mg/L	20	0.00100
Toluene	u	U	1	<0.0200	20	0.00100
Ethylbenzene	u	U	1	<0.0200	20	0.00100
Xylene	u	U	1	<0.0200	20	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.73	mg/L	20	2.00	86	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			1.56	mg/L	20	2.00	78	67.5 - 140.8

Report Date: November 23, 2011
TNM 97-17

Work Order: 11112101
97-17

Page Number: 20 of 26
Eunice, NM

Method Blanks

Method Blank (1) QC Batch: 86659

QC Batch: 86659
Prep Batch: 73580

Date Analyzed: 2011-11-21
QC Preparation: 2011-11-21

Analyzed By: AG
Prepared By: AG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000400	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000300	mg/L	0.001
Xylene		1	<0.000333	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0838	mg/L	1	0.100	84	61.1 - 118.4
4-Bromofluorobenzene (4-BFB)			0.0751	mg/L	1	0.100	75	45.9 - 126.4

Method Blank (1) QC Batch: 86689

QC Batch: 86689
Prep Batch: 73606

Date Analyzed: 2011-11-22
QC Preparation: 2011-11-22

Analyzed By: AG
Prepared By: AG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000400	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000300	mg/L	0.001
Xylene		1	<0.000333	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0897	mg/L	1	0.100	90	61.1 - 118.4
4-Bromofluorobenzene (4-BFB)			0.0714	mg/L	1	0.100	71	45.9 - 126.4

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 86659
Prep Batch: 73580

Date Analyzed: 2011-11-21
QC Preparation: 2011-11-21

Analyzed By: AG
Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.104	mg/L	1	0.100	<0.000400	104	76.8 - 120.3
Toluene		1	0.0984	mg/L	1	0.100	<0.000300	98	80.9 - 122.2
Ethylbenzene		1	0.0917	mg/L	1	0.100	<0.000300	92	72.7 - 120.2
Xylene		1	0.275	mg/L	1	0.300	<0.000333	92	72.1 - 121.5

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.105	mg/L	1	0.100	<0.000400	105	76.8 - 120.3	1	20
Toluene		1	0.0986	mg/L	1	0.100	<0.000300	99	80.9 - 122.2	0	20
Ethylbenzene		1	0.0930	mg/L	1	0.100	<0.000300	93	72.7 - 120.2	1	20
Xylene		1	0.279	mg/L	1	0.300	<0.000333	93	72.1 - 121.5	1	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0825	0.0843	mg/L	1	0.100	82	84	61.9 - 119.2
4-Bromofluorobenzene (4-BFB)	0.0818	0.0829	mg/L	1	0.100	82	83	56.4 - 127.9

Laboratory Control Spike (LCS-1)

QC Batch: 86689
Prep Batch: 73606

Date Analyzed: 2011-11-22
QC Preparation: 2011-11-22

Analyzed By: AG
Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0974	mg/L	1	0.100	<0.000400	97	76.8 - 120.3
Toluene		1	0.0902	mg/L	1	0.100	<0.000300	90	80.9 - 122.2
Ethylbenzene		1	0.0844	mg/L	1	0.100	<0.000300	84	72.7 - 120.2
Xylene		1	0.252	mg/L	1	0.300	<0.000333	84	72.1 - 121.5

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

Report Date: November 23, 2011
TNM 97-17

Work Order: 11112101
97-17

Page Number: 22 of 26
Eunice, NM

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.102	mg/L	1	0.100	<0.000400	102	76.8 - 120.3	5	20
Toluene		1	0.0958	mg/L	1	0.100	<0.000300	96	80.9 - 122.2	6	20
Ethylbenzene		1	0.0887	mg/L	1	0.100	<0.000300	89	72.7 - 120.2	5	20
Xylene		1	0.266	mg/L	1	0.300	<0.000333	89	72.1 - 121.5	5	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)	0.0881	0.0901	mg/L	1	0.100	88	90	61.9 - 119.2
4-Bromofluorobenzene (4-BFB)	0.0817	0.0845	mg/L	1	0.100	82	84	56.4 - 127.9

Matrix Spike (MS-1) Spiked Sample: 282856

QC Batch: 86659
Prep Batch: 73580

Date Analyzed: 2011-11-21
QC Preparation: 2011-11-21

Analyzed By: AG
Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.110	mg/L	1	0.100	<0.000400	110	66.9 - 128.2
Toluene		1	0.102	mg/L	1	0.100	<0.000300	102	81.6 - 122.9
Ethylbenzene		1	0.0938	mg/L	1	0.100	<0.000300	94	62.7 - 117.9
Xylene		1	0.280	mg/L	1	0.300	<0.000333	93	62.9 - 118.2

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	0.106	mg/L	1	0.100	<0.000400	106	66.9 - 128.2	4	20
Toluene		1	0.0985	mg/L	1	0.100	<0.000300	98	81.6 - 122.9	4	20
Ethylbenzene		1	0.0910	mg/L	1	0.100	<0.000300	91	62.7 - 117.9	3	20
Xylene		1	0.270	mg/L	1	0.300	<0.000333	90	62.9 - 118.2	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)	0.0846	0.0833	mg/L	1	0.1	85	83	58.6 - 119.7
4-Bromofluorobenzene (4-BFB)	0.0783	0.0779	mg/L	1	0.1	78	78	52.2 - 135.8

Report Date: November 23, 2011
TNM 97-17

Work Order: 11112101
97-17

Page Number: 23 of 26
Eunice, NM

Matrix Spike (MS-1) Spiked Sample: 282874

QC Batch: 86689
Prep Batch: 73606

Date Analyzed: 2011-11-22
QC Preparation: 2011-11-22

Analyzed By: AG
Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.23	mg/L	20	2.00	0.0898	107	66.9 - 128.2
Toluene		1	1.98	mg/L	20	2.00	<0.00600	99	81.6 - 122.9
Ethylbenzene		1	1.87	mg/L	20	2.00	<0.00600	94	62.7 - 117.9
Xylene		1	5.53	mg/L	20	6.00	<0.00666	92	62.9 - 118.2

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	2.20	mg/L	20	2.00	0.0898	106	66.9 - 128.2	1	20
Toluene		1	1.97	mg/L	20	2.00	<0.00600	98	81.6 - 122.9	0	20
Ethylbenzene		1	1.86	mg/L	20	2.00	<0.00600	93	62.7 - 117.9	0	20
Xylene		1	5.47	mg/L	20	6.00	<0.00666	91	62.9 - 118.2	1	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)	1.75	1.75	mg/L	20	2	88	88	58.6 - 119.7
4-Bromofluorobenzene (4-BFB)	1.72	1.78	mg/L	20	2	86	89	52.2 - 135.8

Calibration Standards

Standard (CCV-1)

QC Batch: 86659

Date Analyzed: 2011-11-21

Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2011-11-21
Toluene		1	mg/L	0.100	0.0967	97	80 - 120	2011-11-21
Ethylbenzene		1	mg/L	0.100	0.0904	90	80 - 120	2011-11-21
Xylene		1	mg/L	0.300	0.273	91	80 - 120	2011-11-21

Standard (CCV-2)

QC Batch: 86659

Date Analyzed: 2011-11-21

Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0981	98	80 - 120	2011-11-21
Toluene		1	mg/L	0.100	0.0913	91	80 - 120	2011-11-21
Ethylbenzene		1	mg/L	0.100	0.0842	84	80 - 120	2011-11-21
Xylene		1	mg/L	0.300	0.250	83	80 - 120	2011-11-21

Standard (CCV-1)

QC Batch: 86689

Date Analyzed: 2011-11-22

Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.102	102	80 - 120	2011-11-22
Toluene		1	mg/L	0.100	0.0936	94	80 - 120	2011-11-22
Ethylbenzene		1	mg/L	0.100	0.0862	86	80 - 120	2011-11-22
Xylene		1	mg/L	0.300	0.257	86	80 - 120	2011-11-22

Standard (CCV-2)

QC Batch: 86689

Date Analyzed: 2011-11-22

Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.106	106	80 - 120	2011-11-22
Toluene		1	mg/L	0.100	0.0998	100	80 - 120	2011-11-22
Ethylbenzene		1	mg/L	0.100	0.0921	92	80 - 120	2011-11-22
Xylene		1	mg/L	0.300	0.274	91	80 - 120	2011-11-22

Standard (CCV-3)

QC Batch: 86689

Date Analyzed: 2011-11-22

Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.106	106	80 - 120	2011-11-22
Toluene		1	mg/L	0.100	0.0985	98	80 - 120	2011-11-22
Ethylbenzene		1	mg/L	0.100	0.0934	93	80 - 120	2011-11-22
Xylene		1	mg/L	0.300	0.279	93	80 - 120	2011-11-22

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	T104704392-10-TX	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 than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
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.

LAB Order ID # 41112101

Page 1 of 3

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1296
1 (800) 378-12965002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name:

Nova Safety & Environmental

Phone #:

432-520-7720

Address: (Street, City, zip)

2057 Commerce

Fax #:

Contact Person:

Ron Townsawille

E-mail:

Invoice to:

(If different from above)

Project Name:

TMM-9717

Project Location (including state):

Monmouth, NJ

Sampler Signature:

FIELD CODE

(LAB USE ONLY)

LAB #

CONTAINERS

Volume / Amount

WATER

SOIL

AIR

SLUDGE

HCl

HNO₃H₂SO₄

NaOH

ICE

NONE

DATE

TIME

MTBE 8021 / 602 / 8260 / 624

BTX 8021 / 602 / 8260 / 624

TPH 418.1 / TX1005 / TX1005 Ext(C35)

TPH 8015 GRO / DRO / TVHC

PAH 8270 / 625

Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Volatiles

TCLP Semi Volatiles

TCLP Pesticides

RCI

GC/MS Vol. 8260 / 624

GC/MS Semi. Vol. 8270 / 625

PCB's 8082 / 608

Pesticides 8081 / 608

BOD, TSS, pH

Moisture Content

Cl, FI, SO₄, NO₃, NO₂, Alkalinity

Na, Ca, Mg, K, TDS, EC

Turn Around Time if different from standard

Hold

ANALYSIS REQUEST

(Circle or Specify Method No.)

205 + LOUVERCE		E-mail:	
Contact Person:		Ren Rounsaville	
Invoice to:		(if different from above)	
Project #:		Project Name:	
Project Location (including state):		TMM-4717	
LAB USE ONLY		Sample Signature:	
LAB #		75	
FIELD CODE		# CONTAINERS	
		Volume / Amount	
		WATER	
		SOIL	
		AIR	
		SLUDGE	
		HCl	
		HNO ₃	
		H ₂ SO ₄	
		NaOH	
		ICE	
		NONE	
		DATE	
		TIME	
MW1		3	
MW2		100	
MW3		X	
MW11		X	
MW12		X	
MW13		11/16	
MW16		11/50	
MW17		1205	
MW18		1215	
MW24		1225	
MW28		1240	
		1245	
		1305	
		1315	
		1330	
		1340	
		1400	
		X	
		MTBE 8021 / 602 / 8260 / 624	
		BTX 8021 / 602 / 8260 / 624	
		TPH 418.1 / TX1005 / TX1005 Ext(C35)	
		TPH 8015 GRO / DRO / TVHC	
		PAH 8270 / 625	
		Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	
		TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
		TCLP Volatiles	
		TCLP Semi Volatiles	
		TCLP Pesticides	
		RCI	
		GC/MS Vol. 8260 / 624	
		GC/MS Semi. Vol. 8270 / 625	
		PCB's 8082 / 608	
		Pesticides 8081 / 608	
		BOD, TSS, pH	
		Moisture Content	
		Cl, FI, SO ₄ , NO ₃ , NO ₂ , Alkalinity	
		Na, Ca, Mg, K, TDS, EC	
		Turn Around Time if different from standard	
		Hold	

Relinquished by:

Company: Nova

Date: 11/18

Time: 1700

Received by:

Company: Nova

Date: 11/18

Time: 1700

INST OBS

COR

LAB USE ONLY

INST OBS

REMARKS:

all test mudland

Relinquished by:

Company:

Date:

Time:

Received by:

Company:

Date:

Time:

INST OBS

COR

LAB USE ONLY

INST OBS

REMARKS:

all test mudland

Relinquished by:

Company:

Date:

Time:

Received by:

Company:

Date:

Time:

INST OBS

COR

LAB USE ONLY

INST OBS

REMARKS:

all test mudland

Relinquished by:

Company:

Date:

Time:

Received by:

Company:

Date:

Time:

INST OBS

COR

LAB USE ONLY

INST OBS

REMARKS:

all test mudland

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

Carrier #

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-12965002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443Bioanalytic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Phone #:

432-520-7722

Fax #:

432-520-7722

ANALYSIS REQUEST

(Circle or Specify Method No.)

Company Name:

Nova Safety & Environmental
(Street, City, Zip)
2057 Commerce
Don Rounsaville

E-mail:

Invoice to:

(If different from above)

Project #:

Project Name:

TMM-4717

Project Location (including state):

Monument, NM

Sample Signature:

[Signature]

FIELD CODE

LAB #
(LAB USE ONLY)

CONTAINERS

Volume / Amount

WATER
SOIL
AIR
SLUDGE
HCl
HNO₃
H₂SO₄
NaOH
ICE
NONEDATE
TIME

MTBE 8021 / 602 / 8260 / 624

BTEX 8021 / 602 / 8260 / 624

TPH 418.1 / TX1005 / TX1005 Ext(C35)

TPH 8015 GRO / DRO / TVHC

PAH 8270 / 625

Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Volatiles

TCLP Semi Volatiles

TCLP Pesticides

RCI

GC/MS Vol. 8260 / 624

GC/MS Semi. Vol. 8270 / 625

PCB's 8082 / 608

Pesticides 8081 / 608

BOD, TSS, pH

Moisture Content

Cl, F, S₀₄, NO₃, NO₂, Alkalinity

Na, Ca, Mg, K, TDS, EC

Turn Around Time if different from standard

Hold

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX	PRESERVATIVE METHOD	SAMPLING	DATE	TIME	ANALYSIS REQUEST
885	MWZ2	3	Var	X	X	X	11/16	1415	Y
885	MWZ3							1425	
885	MWZ5							1435	
885	MWZ7							1450	
885	MWZ9							1505	
885	MWZ6							1520	
885	MWZ1							1530	
885	MW10							1540	
885	MW16							1550	
885	MW20							1600	
885	MW2							1630	

Relinquished by:

Nova

Date:

11/18

Time:

1700

Received by:

[Signature]

Company:

Nova

Date:

11/18

Time:

1700

INST

COR

LAB USE ONLY

REMARKS:

Relinquished by:

Nova

Date:

11/18

Time:

1700

Received by:

[Signature]

Company:

Nova

Date:

11/18

Time:

1700

INST

COR

LAB USE ONLY

REMARKS:

Relinquished by:

Nova

Date:

11/18

Time:

1700

Received by:

[Signature]

Company:

Nova

Date:

11/18

Time:

1700

INST

COR

LAB USE ONLY

REMARKS:

Relinquished by:

Nova

Date:

11/18

Time:

1700

Received by:

[Signature]

Company:

Nova

Date:

11/18

Time:

1700

INST

COR

LAB USE ONLY

REMARKS:

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

Carrier #

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Fax #:

E-mail:

Project #:

100-9717

Monument, NM

Sampler Signature:

RE

MTBE	8021 / 602 / 8260 / 624
ETEX	8021 / 602 / 8260 / 624
TPH	418.1 / TX1005 / TX1005 Ext(C35)
TPH	8015 GRO / DRO / TVHC
PAH	8270 / 625
Total Metals	Ag As Ba Cd Cr Pb Se Hg 6010/200.7
TCLP Metals	Ag As Ba Cd Cr Pb Se Hg
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol.	8260 / 624
GC/MS Semi. Vol.	8270 / 625
PCB's	8082 / 608
Pesticides	8081 / 608
BOD, TSS, pH	
Moisture Content	
Cl, FI, S04, NO3, NO2, Alkalinity	
Na, Ca, Mg, K, TDS, EC	
Turn Around Time if different from standard	
Hold	

Hold

LAB USE

REMARKS:

AKA FN 11311700 OBS COR

ONLY

2

Received by: _____ Date: _____ INST _____ °

Intact ☒ N

5

Received by: _____ Company: _____ Date: _____ Time: _____ INST _____

40

Dry Weight B
TRRP Report

OBS _____

Log-in-Review

Check If Spec

Submission of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier #

ORIGINAL COPY



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 808•794•1296 FAX 808•794•1296
200 East Sunset Road, Suite E El Paso, Texas 79922 688•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite 41 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
5015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: January 13, 2012

Work Order: 11121917

Project Location: Eunice, NM
Project Name: 97-17
Project Number: TNM 97-17

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
284788	MW-5	water	2011-12-14	13:15	2011-12-16
284789	MW-6	water	2011-12-14	12:45	2011-12-16
284790	MW-10	water	2011-12-14	13:00	2011-12-16
284791	MW-19	water	2011-12-14	13:30	2011-12-16
284793	RW-2	water	2011-12-14	12:30	2011-12-16
284794	RW-3	water	2011-12-14	12:15	2011-12-16
284795	RW-4	water	2011-12-14	12:00	2011-12-16

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

This report consists of a total of 20 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

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

Report Contents

Case Narrative	4
Analytical Report	5
Sample 284788 (MW-5)	5
Sample 284789 (MW-6)	5
Sample 284790 (MW-10)	6
Sample 284791 (MW-19)	7
Sample 284793 (RW-2)	8
Sample 284794 (RW-3)	9
Sample 284795 (RW-4)	10
Method Blanks	12
QC Batch 87378 - Method Blank (1)	12
QC Batch 87535 - Method Blank (1)	12
Laboratory Control Spikes	14
QC Batch 87378 - LCS (1)	14
QC Batch 87535 - LCS (1)	15
Calibration Standards	17
QC Batch 87378 - CCV (2)	17
QC Batch 87535 - CCV (1)	17
QC Batch 87535 - CCV (2)	18
Appendix	20
Report Definitions	20
Laboratory Certifications	20
Standard Flags	20
Attachments	20

Case Narrative

Samples for project 97-17 were received by TraceAnalysis, Inc. on 2011-12-16 and assigned to work order 11121917. Samples for work order 11121917 were received intact at a temperature of 11.3 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
PAH	S 8270D	74197	2011-12-20 at 15:00	87378	2011-12-22 at 11:26
PAH	S 8270D	74334	2012-12-21 at 15:00	87535	2012-01-02 at 11:40

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11121917 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: 284788 - MW-5

Laboratory: Lubbock

Analysis: PAH

QC Batch: 87378

Prep Batch: 74197

Analytical Method: S 8270D

Date Analyzed: 2011-12-22

Sample Preparation: 2011-12-20

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	u	1	<0.000183	mg/L	0.913	0.000200
2-Methylnaphthalene	u	1	<0.000183	mg/L	0.913	0.000200
1-Methylnaphthalene			0.00281	mg/L	0.913	0.000200
Acenaphthylene	u	1	<0.000183	mg/L	0.913	0.000200
Acenaphthene	u	1	<0.000183	mg/L	0.913	0.000200
Dibenzofuran		1	0.00138	mg/L	0.913	0.000200
Fluorene	Qc	1	0.00106	mg/L	0.913	0.000200
Anthracene	u	1	<0.000183	mg/L	0.913	0.000200
Phenanthrene			0.00129	mg/L	0.913	0.000200
Fluoranthene	u		<0.000183	mg/L	0.913	0.000200
Pyrene	u	1	<0.000183	mg/L	0.913	0.000200
Benzo(a)anthracene	u		<0.000183	mg/L	0.913	0.000200
Chrysene	u	1	<0.000183	mg/L	0.913	0.000200
Benzo(b)fluoranthene	u		<0.000183	mg/L	0.913	0.000200
Benzo(k)fluoranthene	u	1	<0.000183	mg/L	0.913	0.000200
Benzo(a)pyrene	u	1	<0.000183	mg/L	0.913	0.000200
Indeno(1,2,3-cd)pyrene	u	1	<0.000183	mg/L	0.913	0.000200
Dibenzo(a,h)anthracene	u	1	<0.000183	mg/L	0.913	0.000200
Benzo(g,h,i)perylene	u		<0.000183	mg/L	0.913	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0540	mg/L	0.913	0.0800	68	10 - 117
2-Fluorobiphenyl			0.0518	mg/L	0.913	0.0800	65	10 - 99
Terphenyl-d14			0.0630	mg/L	0.913	0.0800	79	22.6 - 115

Sample: 284789 - MW-6

Laboratory: Lubbock

Analysis: PAH

QC Batch: 87378

Prep Batch: 74197

Analytical Method: S 8270D

Date Analyzed: 2011-12-22

Sample Preparation: 2011-12-20

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	U	1	<0.000183	mg/L	0.913	0.000200
2-Methylnaphthalene	U	1	<0.000183	mg/L	0.913	0.000200
1-Methylnaphthalene			0.00264	mg/L	0.913	0.000200
Acenaphthylene	U	1	<0.000183	mg/L	0.913	0.000200
Acenaphthene	U	1	<0.000183	mg/L	0.913	0.000200
Dibenzofuran	U	1	<0.000183	mg/L	0.913	0.000200
Fluorene	QC, U	1	<0.000183	mg/L	0.913	0.000200
Anthracene	U	1	<0.000183	mg/L	0.913	0.000200
Phenanthrene			0.000755	mg/L	0.913	0.000200
Fluoranthene	U		<0.000183	mg/L	0.913	0.000200
Pyrene	U	1	<0.000183	mg/L	0.913	0.000200
Benzo(a)anthracene	U		<0.000183	mg/L	0.913	0.000200
Chrysene	U	1	<0.000183	mg/L	0.913	0.000200
Benzo(b)fluoranthene	U		<0.000183	mg/L	0.913	0.000200
Benzo(k)fluoranthene	U	1	<0.000183	mg/L	0.913	0.000200
Benzo(a)pyrene	U	1	<0.000183	mg/L	0.913	0.000200
Indeno(1,2,3-cd)pyrene	U	1	<0.000183	mg/L	0.913	0.000200
Dibenzo(a,h)anthracene	U	1	<0.000183	mg/L	0.913	0.000200
Benzo(g,h,i)perylene	U		<0.000183	mg/L	0.913	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.00910	mg/L	0.913	0.0800	11	10 - 117
2-Fluorobiphenyl			0.00920	mg/L	0.913	0.0800	12	10 - 99
Terphenyl-d14	Qsr	Qsr	0.0109	mg/L	0.913	0.0800	14	22.6 - 115

Sample: 284790 - MW-10

Laboratory: Lubbock

Analysis: PAH

QC Batch: 87535

Prep Batch: 74334

Analytical Method: S 8270D

Date Analyzed: 2012-01-02

Sample Preparation: 2012-12-21

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	U	1	<0.000184	mg/L	0.922	0.000200

continued ...

Report Date: January 13, 2012
TNM 97-17

Work Order: 11121917
97-17

Page Number: 7 of 20
Eunice, NM

sample 284790 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
2-Methylnaphthalene	u	1	<0.000184	mg/L	0.922	0.000200
1-Methylnaphthalene			0.00287	mg/L	0.922	0.000200
Acenaphthylene	u	1	<0.000184	mg/L	0.922	0.000200
Acenaphthene	u	1	<0.000184	mg/L	0.922	0.000200
Dibenzofuran		1	0.00261	mg/L	0.922	0.000200
Fluorene	u	1	<0.000184	mg/L	0.922	0.000200
Anthracene	u	1	<0.000184	mg/L	0.922	0.000200
Phenanthrene			0.00339	mg/L	0.922	0.000200
Fluoranthene	u		<0.000184	mg/L	0.922	0.000200
Pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(a)anthracene	u		<0.000184	mg/L	0.922	0.000200
Chrysene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(b)fluoranthene	u		<0.000184	mg/L	0.922	0.000200
Benzo(k)fluoranthene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(a)pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Indeno(1,2,3-cd)pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Dibenzo(a,h)anthracene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(g,h,i)perylene	u		<0.000184	mg/L	0.922	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0557	mg/L	0.922	0.0800	70	10 - 117
2-Fluorobiphenyl			0.0521	mg/L	0.922	0.0800	65	10 - 99
Terphenyl-d14			0.0735	mg/L	0.922	0.0800	92	22.6 - 115

Sample: 284791 - MW-19

Laboratory: Lubbock
Analysis: PAH
QC Batch: 87535
Prep Batch: 74334

Analytical Method: S 8270D
Date Analyzed: 2012-01-02
Sample Preparation: 2012-12-21

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene		1	0.00656	mg/L	0.922	0.000200
2-Methylnaphthalene		1	0.00517	mg/L	0.922	0.000200
1-Methylnaphthalene			0.0293	mg/L	0.922	0.000200
Acenaphthylene	u	1	<0.000184	mg/L	0.922	0.000200
Acenaphthene	u	1	<0.000184	mg/L	0.922	0.000200
Dibenzofuran		1	0.00518	mg/L	0.922	0.000200

continued ...

sample 284791 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Fluorene	u	1	<0.000184	mg/L	0.922	0.000200
Anthracene	u	1	<0.000184	mg/L	0.922	0.000200
Phenanthrene			0.00624	mg/L	0.922	0.000200
Fluoranthene	u		<0.000184	mg/L	0.922	0.000200
Pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(a)anthracene	u		<0.000184	mg/L	0.922	0.000200
Chrysene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(b)fluoranthene	u		<0.000184	mg/L	0.922	0.000200
Benzo(k)fluoranthene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(a)pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Indeno(1,2,3-cd)pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Dibenzo(a,h)anthracene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(g,h,i)perylene	u		<0.000184	mg/L	0.922	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0534	mg/L	0.922	0.0800	67	10 - 117
2-Fluorobiphenyl			0.0436	mg/L	0.922	0.0800	54	10 - 99
Terphenyl-d14			0.0590	mg/L	0.922	0.0800	74	22.6 - 115

Sample: 284793 - RW-2

Laboratory: Lubbock
Analysis: PAH
QC Batch: 87535
Prep Batch: 74334

Analytical Method: S 8270D
Date Analyzed: 2012-01-02
Sample Preparation: 2012-12-21

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	u	1	<0.000183	mg/L	0.917	0.000200
2-Methylnaphthalene	u	1	<0.000183	mg/L	0.917	0.000200
1-Methylnaphthalene	u		<0.000183	mg/L	0.917	0.000200
Acenaphthylene	u	1	<0.000183	mg/L	0.917	0.000200
Acenaphthene	u	1	<0.000183	mg/L	0.917	0.000200
Dibenzofuran		1	0.00275	mg/L	0.917	0.000200
Fluorene	u	1	<0.000183	mg/L	0.917	0.000200
Anthracene	u	1	<0.000183	mg/L	0.917	0.000200
Phenanthrene			0.00344	mg/L	0.917	0.000200
Fluoranthene	u		<0.000183	mg/L	0.917	0.000200
Pyrene	u	1	<0.000183	mg/L	0.917	0.000200

continued ...

Report Date: January 13, 2012
TNM 97-17

Work Order: 11121917
97-17

Page Number: 9 of 20
Eunice, NM

sample 284793 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzo(a)anthracene	u		<0.000183	mg/L	0.917	0.000200
Chrysene	u	1	<0.000183	mg/L	0.917	0.000200
Benzo(b)fluoranthene	u		<0.000183	mg/L	0.917	0.000200
Benzo(k)fluoranthene	u	1	<0.000183	mg/L	0.917	0.000200
Benzo(a)pyrene	u	1	<0.000183	mg/L	0.917	0.000200
Indeno(1,2,3-cd)pyrene	u	1	<0.000183	mg/L	0.917	0.000200
Dibenzo(a,h)anthracene	u	1	<0.000183	mg/L	0.917	0.000200
Benzo(g,h,i)perylene	u		<0.000183	mg/L	0.917	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0547	mg/L	0.917	0.0800	68	10 - 117
2-Fluorobiphenyl			0.0413	mg/L	0.917	0.0800	52	10 - 99
Terphenyl-d14			0.0543	mg/L	0.917	0.0800	68	22.6 - 115

Sample: 284794 - RW-3

Laboratory: Lubbock
Analysis: PAH
QC Batch: 87535
Prep Batch: 74334

Analytical Method: S 8270D
Date Analyzed: 2012-01-02
Sample Preparation: 2012-12-21

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	u	1	<0.000184	mg/L	0.922	0.000200
2-Methylnaphthalene	u	1	<0.000184	mg/L	0.922	0.000200
1-Methylnaphthalene			0.00364	mg/L	0.922	0.000200
Acenaphthylene	u	1	<0.000184	mg/L	0.922	0.000200
Acenaphthene	u	1	<0.000184	mg/L	0.922	0.000200
Dibenzofuran		1	0.00126	mg/L	0.922	0.000200
Fluorene	u	1	<0.000184	mg/L	0.922	0.000200
Anthracene	u	1	<0.000184	mg/L	0.922	0.000200
Phenanthrene	u		<0.000184	mg/L	0.922	0.000200
Fluoranthene	u		<0.000184	mg/L	0.922	0.000200
Pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(a)anthracene	u		<0.000184	mg/L	0.922	0.000200
Chrysene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(b)fluoranthene	u		<0.000184	mg/L	0.922	0.000200
Benzo(k)fluoranthene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(a)pyrene	u	1	<0.000184	mg/L	0.922	0.000200

continued ...

sample 284794 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Indeno(1,2,3-cd)pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Dibenzo(a,h)anthracene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(g,h,i)perylene	u		<0.000184	mg/L	0.922	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0477	mg/L	0.922	0.0800	60	10 - 117
2-Fluorobiphenyl			0.0482	mg/L	0.922	0.0800	60	10 - 99
Terphenyl-d14			0.0649	mg/L	0.922	0.0800	81	22.6 - 115

Sample: 284795 - RW-4

Laboratory: Lubbock
Analysis: PAH
QC Batch: 87535
Prep Batch: 74334

Analytical Method: S 8270D
Date Analyzed: 2012-01-02
Sample Preparation: 2012-12-21

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene		1	0.00261	mg/L	0.922	0.000200
2-Methylnaphthalene	u	1	<0.000184	mg/L	0.922	0.000200
1-Methylnaphthalene			0.0106	mg/L	0.922	0.000200
Acenaphthylene	u	1	<0.000184	mg/L	0.922	0.000200
Acenaphthene	u	1	<0.000184	mg/L	0.922	0.000200
Dibenzofuran		1	0.00166	mg/L	0.922	0.000200
Fluorene	u	1	<0.000184	mg/L	0.922	0.000200
Anthracene	u	1	<0.000184	mg/L	0.922	0.000200
Phenanthrene			0.00161	mg/L	0.922	0.000200
Fluoranthene	u		<0.000184	mg/L	0.922	0.000200
Pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(a)anthracene	u		<0.000184	mg/L	0.922	0.000200
Chrysene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(b)fluoranthene	u		<0.000184	mg/L	0.922	0.000200
Benzo(k)fluoranthene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(a)pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Indeno(1,2,3-cd)pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Dibenzo(a,h)anthracene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(g,h,i)perylene	u		<0.000184	mg/L	0.922	0.000200

Report Date: January 13, 2012
TNM 97-17

Work Order: 11121917
97-17

Page Number: 11 of 20
Eunice, NM

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0646	mg/L	0.922	0.0800	81	10 - 117
2-Fluorobiphenyl			0.0699	mg/L	0.922	0.0800	87	10 - 99
Terphenyl-d14	Q _{sr}	Q _{sr}	0.0960	mg/L	0.922	0.0800	120	22.6 - 115

Method Blanks

Method Blank (1) QC Batch: 87378

QC Batch: 87378
Prep Batch: 74197

Date Analyzed: 2011-12-22
QC Preparation: 2011-12-20

Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	MDL Result	Units	RL
Naphthalene		1	<0.0000904	mg/L	0.0002
2-Methylnaphthalene		1	<0.000184	mg/L	0.0002
1-Methylnaphthalene			<0.000120	mg/L	0.0002
Acenaphthylene		1	<0.000101	mg/L	0.0002
Acenaphthene		1	<0.000122	mg/L	0.0002
Dibenzofuran		1	<0.000119	mg/L	0.0002
Fluorene		1	<0.000198	mg/L	0.0002
Anthracene		1	<0.000190	mg/L	0.0002
Phenanthrene			<0.000190	mg/L	0.0002
Fluoranthene			<0.000122	mg/L	0.0002
Pyrene		1	<0.000142	mg/L	0.0002
Benzo(a)anthracene			<0.000138	mg/L	0.0002
Chrysene		1	<0.000155	mg/L	0.0002
Benzo(b)fluoranthene			<0.000179	mg/L	0.0002
Benzo(k)fluoranthene		1	<0.000185	mg/L	0.0002
Benzo(a)pyrene		1	<0.000169	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		1	<0.000139	mg/L	0.0002
Dibenzo(a,h)anthracene		1	<0.000107	mg/L	0.0002
Benzo(g,h,i)perylene			<0.000143	mg/L	0.0002

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0351	mg/L	1	0.0800	44	10 - 117
2-Fluorobiphenyl			0.0252	mg/L	1	0.0800	32	10 - 99
Terphenyl-d14			0.0493	mg/L	1	0.0800	62	22.6 - 115

Method Blank (1) QC Batch: 87535

QC Batch: 87535
Prep Batch: 74334

Date Analyzed: 2012-01-02
QC Preparation: 2012-12-21

Analyzed By: MN
Prepared By: MN

Report Date: January 13, 2012
TNM 97-17

Work Order: 11121917
97-17

Page Number: 13 of 20
Eunice, NM

Parameter	Flag	Cert	MDL Result	Units	RL
Naphthalene		1	<0.0000904	mg/L	0.0002
2-Methylnaphthalene		1	<0.000184	mg/L	0.0002
1-Methylnaphthalene			<0.000120	mg/L	0.0002
Acenaphthylene		1	<0.000101	mg/L	0.0002
Acenaphthene		1	<0.000122	mg/L	0.0002
Dibenzofuran		1	<0.000119	mg/L	0.0002
Fluorene		1	<0.000198	mg/L	0.0002
Anthracene		1	<0.000190	mg/L	0.0002
Phenanthrene			<0.000190	mg/L	0.0002
Fluoranthene			<0.000122	mg/L	0.0002
Pyrene		1	<0.000142	mg/L	0.0002
Benzo(a)anthracene			<0.000138	mg/L	0.0002
Chrysene		1	<0.000155	mg/L	0.0002
Benzo(b)fluoranthene			<0.000179	mg/L	0.0002
Benzo(k)fluoranthene		1	<0.000185	mg/L	0.0002
Benzo(a)pyrene		1	<0.000169	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		1	<0.000139	mg/L	0.0002
Dibenzo(a,h)anthracene		1	<0.000107	mg/L	0.0002
Benzo(g,h,i)perylene			<0.000143	mg/L	0.0002

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0450	mg/L	1	0.0800	56	10 - 117
2-Fluorobiphenyl			0.0360	mg/L	1	0.0800	45	10 - 99
Terphenyl-d14			0.0563	mg/L	1	0.0800	70	22.6 - 115

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 87378
Prep Batch: 74197

Date Analyzed: 2011-12-22
QC Preparation: 2011-12-20

Analyzed By: MN
Prepared By: MN

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene		1	0.0369	mg/L	1	0.0800	<0.0000904	46	10 - 89.9
2-Methylnaphthalene		1	0.0427	mg/L	1	0.0800	<0.000184	53	13.8 - 98.4
1-Methylnaphthalene			0.0486	mg/L	1	0.0800	<0.000120	61	13.1 - 103
Acenaphthylene		1	0.0485	mg/L	1	0.0800	<0.000101	61	20 - 104
Acenaphthene		1	0.0461	mg/L	1	0.0800	<0.000122	58	21.6 - 94.6
Dibenzofuran		1	0.0413	mg/L	1	0.0800	<0.000119	52	22.9 - 74.9
Fluorene		1	0.0492	mg/L	1	0.0800	<0.000198	62	30.8 - 109
Anthracene		1	0.0623	mg/L	1	0.0800	<0.000190	78	37.6 - 96.4
Phenanthrene			0.0628	mg/L	1	0.0800	<0.000190	78	42.4 - 99.8
Fluoranthene			0.0579	mg/L	1	0.0800	<0.000122	72	48 - 118
Pyrene		1	0.0566	mg/L	1	0.0800	<0.000142	71	45.3 - 109
Benzo(a)anthracene			0.0702	mg/L	1	0.0800	<0.000138	88	48 - 113
Chrysene		1	0.0770	mg/L	1	0.0800	<0.000155	96	35.2 - 175
Benzo(b)fluoranthene			0.0497	mg/L	1	0.0800	<0.000179	62	16.6 - 106
Benzo(k)fluoranthene		1	0.0523	mg/L	1	0.0800	<0.000185	65	36.8 - 99.4
Benzo(a)pyrene		1	0.0500	mg/L	1	0.0800	<0.000169	62	32.3 - 99.7
Indeno(1,2,3-cd)pyrene		1	0.0502	mg/L	1	0.0800	<0.000139	63	34.1 - 106
Dibenzo(a,h)anthracene		1	0.0430	mg/L	1	0.0800	<0.000107	54	47.1 - 103
Benzo(g,h,i)perylene			0.0522	mg/L	1	0.0800	<0.000143	65	21.9 - 112

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Naphthalene		1	0.0368	mg/L	1	0.0800	<0.0000904	46	10 - 89.9	0	20
2-Methylnaphthalene		1	0.0428	mg/L	1	0.0800	<0.000184	54	13.8 - 98.4	0	20
1-Methylnaphthalene			0.0484	mg/L	1	0.0800	<0.000120	60	13.1 - 103	0	20
Acenaphthylene		1	0.0491	mg/L	1	0.0800	<0.000101	61	20 - 104	1	20
Acenaphthene		1	0.0463	mg/L	1	0.0800	<0.000122	58	21.6 - 94.6	0	20
Dibenzofuran		1	0.0412	mg/L	1	0.0800	<0.000119	52	22.9 - 74.9	0	20
Fluorene		1	0.0494	mg/L	1	0.0800	<0.000198	62	30.8 - 109	0	20
Anthracene		1	0.0638	mg/L	1	0.0800	<0.000190	80	37.6 - 96.4	2	20
Phenanthrene			0.0635	mg/L	1	0.0800	<0.000190	79	42.4 - 99.8	1	20
Fluoranthene			0.0600	mg/L	1	0.0800	<0.000122	75	48 - 118	4	20
Pyrene		1	0.0576	mg/L	1	0.0800	<0.000142	72	45.3 - 109	2	20

continued ...

control spikes continued ...

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzo(a)anthracene			0.0708	mg/L	1	0.0800	<0.000138	88	48 - 113	1	20
Chrysene		1	0.0770	mg/L	1	0.0800	<0.000155	96	35.2 - 175	0	20
Benzo(b)fluoranthene			0.0505	mg/L	1	0.0800	<0.000179	63	16.6 - 106	2	20
Benzo(k)fluoranthene		1	0.0498	mg/L	1	0.0800	<0.000185	62	36.8 - 99.4	5	20
Benzo(a)pyrene		1	0.0511	mg/L	1	0.0800	<0.000169	64	32.3 - 99.7	2	20
Indeno(1,2,3-cd)pyrene		1	0.0516	mg/L	1	0.0800	<0.000139	64	34.1 - 106	3	20
Dibenzo(a,h)anthracene		1	0.0443	mg/L	1	0.0800	<0.000107	55	47.1 - 103	3	20
Benzo(g,h,i)perylene			0.0529	mg/L	1	0.0800	<0.000143	66	21.9 - 112	1	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Nitrobenzene-d5	0.0420	0.0418	mg/L	1	0.0800	52	52	10 - 117
2-Fluorobiphenyl	0.0364	0.0367	mg/L	1	0.0800	46	46	10 - 99
Terphenyl-d14	0.0543	0.0558	mg/L	1	0.0800	68	70	22.6 - 115

Laboratory Control Spike (LCS-1)

QC Batch: 87535
Prep Batch: 74334

Date Analyzed: 2012-01-02
QC Preparation: 2012-12-21

Analyzed By: MN
Prepared By: MN

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene		1	0.0315	mg/L	1	0.0800	<0.0000904	39	10 - 89.9
2-Methylnaphthalene		1	0.0351	mg/L	1	0.0800	<0.000184	44	13.8 - 98.4
1-Methylnaphthalene			0.0407	mg/L	1	0.0800	<0.000120	51	13.1 - 103
Acenaphthylene		1	0.0410	mg/L	1	0.0800	<0.000101	51	20 - 104
Acenaphthene		1	0.0403	mg/L	1	0.0800	<0.000122	50	21.6 - 94.6
Dibenzofuran		1	0.0479	mg/L	1	0.0800	<0.000119	60	22.9 - 74.9
Fluorene		1	0.0515	mg/L	1	0.0800	<0.000198	64	30.8 - 109
Anthracene		1	0.0594	mg/L	1	0.0800	<0.000190	74	37.6 - 96.4
Phenanthrene			0.0571	mg/L	1	0.0800	<0.000190	71	42.4 - 99.8
Fluoranthene			0.0558	mg/L	1	0.0800	<0.000122	70	48 - 118
Pyrene		1	0.0734	mg/L	1	0.0800	<0.000142	92	45.3 - 109
Benzo(a)anthracene			0.0642	mg/L	1	0.0800	<0.000138	80	48 - 113
Chrysene		1	0.0598	mg/L	1	0.0800	<0.000155	75	35.2 - 175
Benzo(b)fluoranthene			0.0495	mg/L	1	0.0800	<0.000179	62	16.6 - 106
Benzo(k)fluoranthene		1	0.0456	mg/L	1	0.0800	<0.000185	57	36.8 - 99.4
Benzo(a)pyrene		1	0.0458	mg/L	1	0.0800	<0.000169	57	32.3 - 99.7
Indeno(1,2,3-cd)pyrene		1	0.0512	mg/L	1	0.0800	<0.000139	64	34.1 - 106
Dibenzo(a,h)anthracene		1	0.0551	mg/L	1	0.0800	<0.000107	69	47.1 - 103

continued ...

control spikes continued ...

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzo(g,h,i)perylene			0.0506	mg/L	1	0.0800	<0.000143	63	21.9 - 112

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Naphthalene	1		0.0352	mg/L	1	0.0800	<0.0000904	44	10 - 89.9	11	20
2-Methylnaphthalene	1		0.0400	mg/L	1	0.0800	<0.000184	50	13.8 - 98.4	13	20
1-Methylnaphthalene			0.0465	mg/L	1	0.0800	<0.000120	58	13.1 - 103	13	20
Acenaphthylene	1		0.0467	mg/L	1	0.0800	<0.000101	58	20 - 104	13	20
Acenaphthene	1		0.0455	mg/L	1	0.0800	<0.000122	57	21.6 - 94.6	12	20
Dibenzofuran	1		0.0551	mg/L	1	0.0800	<0.000119	69	22.9 - 74.9	14	20
Fluorene	1		0.0595	mg/L	1	0.0800	<0.000198	74	30.8 - 109	14	20
Anthracene	1		0.0668	mg/L	1	0.0800	<0.000190	84	37.6 - 96.4	12	20
Phenanthrene			0.0642	mg/L	1	0.0800	<0.000190	80	42.4 - 99.8	12	20
Fluoranthene			0.0619	mg/L	1	0.0800	<0.000122	77	48 - 118	10	20
Pyrene	1		0.0826	mg/L	1	0.0800	<0.000142	103	45.3 - 109	12	20
Benzo(a)anthracene			0.0714	mg/L	1	0.0800	<0.000138	89	48 - 113	11	20
Chrysene	1		0.0670	mg/L	1	0.0800	<0.000155	84	35.2 - 175	11	20
Benzo(b)fluoranthene			0.0477	mg/L	1	0.0800	<0.000179	60	16.6 - 106	4	20
Benzo(k)fluoranthene	1		0.0510	mg/L	1	0.0800	<0.000185	64	36.8 - 99.4	11	20
Benzo(a)pyrene	1		0.0516	mg/L	1	0.0800	<0.000169	64	32.3 - 99.7	12	20
Indeno(1,2,3-cd)pyrene	1		0.0580	mg/L	1	0.0800	<0.000139	72	34.1 - 106	12	20
Dibenzo(a,h)anthracene	1		0.0632	mg/L	1	0.0800	<0.000107	79	47.1 - 103	14	20
Benzo(g,h,i)perylene			0.0581	mg/L	1	0.0800	<0.000143	73	21.9 - 112	14	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
Nitrobenzene-d5	0.0437	0.0490	mg/L	1	0.0800	55	61	10 - 117
2-Fluorobiphenyl	0.0381	0.0436	mg/L	1	0.0800	48	54	10 - 99
Terphenyl-d14	0.0791	0.0874	mg/L	1	0.0800	99	109	22.6 - 115

Calibration Standards

Standard (CCV-2)

QC Batch: 87378

Date Analyzed: 2011-12-22

Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		1	mg/L	60.0	50.8	85	80 - 120	2011-12-22
2-Methylnaphthalene		1	mg/L	60.0	49.0	82	80 - 120	2011-12-22
1-Methylnaphthalene			mg/L	60.0	56.9	95	80 - 120	2011-12-22
Acenaphthylene		1	mg/L	60.0	52.0	87	80 - 120	2011-12-22
Acenaphthene		1	mg/L	60.0	50.8	85	80 - 120	2011-12-22
Dibenzofuran		1	mg/L	60.0	49.5	82	80 - 120	2011-12-22
Fluorene		1	mg/L	60.0	48.1	80	80 - 120	2011-12-22
Anthracene		1	mg/L	60.0	59.3	99	80 - 120	2011-12-22
Phenanthrene			mg/L	60.0	58.8	98	80 - 120	2011-12-22
Fluoranthene			mg/L	60.0	61.4	102	80 - 120	2011-12-22
Pyrene		1	mg/L	60.0	57.8	96	80 - 120	2011-12-22
Benzo(a)anthracene			mg/L	60.0	59.9	100	80 - 120	2011-12-22
Chrysene		1	mg/L	60.0	52.4	87	80 - 120	2011-12-22
Benzo(b)fluoranthene			mg/L	60.0	50.8	85	80 - 120	2011-12-22
Benzo(k)fluoranthene		1	mg/L	60.0	50.3	84	80 - 120	2011-12-22
Benzo(a)pyrene		1	mg/L	60.0	51.4	86	80 - 120	2011-12-22
Indeno(1,2,3-cd)pyrene		1	mg/L	60.0	52.7	88	80 - 120	2011-12-22
Dibenzo(a,h)anthracene		1	mg/L	60.0	55.0	92	80 - 120	2011-12-22
Benzo(g,h,i)perylene			mg/L	60.0	51.7	86	80 - 120	2011-12-22

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			60.2	mg/L	1	60.0	100	-
2-Fluorobiphenyl			56.9	mg/L	1	60.0	95	-
Terphenyl-d14			61.6	mg/L	1	60.0	103	-

Standard (CCV-1)

QC Batch: 87535

Date Analyzed: 2012-01-02

Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		1	mg/L	60.0	53.7	90	80 - 120	2012-01-02

continued ...

Report Date: January 13, 2012
TNM 97-17

Work Order: 11121917
97-17

Page Number: 18 of 20
Eunice, NM

standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
2-Methylnaphthalene		1	mg/L	60.0	49.9	83	80 - 120	2012-01-02
1-Methylnaphthalene			mg/L	60.0	61.0	102	80 - 120	2012-01-02
Acenaphthylene		1	mg/L	60.0	52.5	88	80 - 120	2012-01-02
Acenaphthene		1	mg/L	60.0	53.8	90	80 - 120	2012-01-02
Dibenzofuran		1	mg/L	60.0	52.7	88	80 - 120	2012-01-02
Fluorene		1	mg/L	60.0	56.0	93	80 - 120	2012-01-02
Anthracene		1	mg/L	60.0	62.2	104	80 - 120	2012-01-02
Phenanthrene			mg/L	60.0	60.6	101	80 - 120	2012-01-02
Fluoranthene			mg/L	60.0	57.3	96	80 - 120	2012-01-02
Pyrene		1	mg/L	60.0	68.3	114	80 - 120	2012-01-02
Benzo(a)anthracene			mg/L	60.0	59.2	99	80 - 120	2012-01-02
Chrysene		1	mg/L	60.0	52.2	87	80 - 120	2012-01-02
Benzo(b)fluoranthene			mg/L	60.0	49.5	82	80 - 120	2012-01-02
Benzo(k)fluoranthene		1	mg/L	60.0	48.1	80	80 - 120	2012-01-02
Benzo(a)pyrene		1	mg/L	60.0	51.2	85	80 - 120	2012-01-02
Indeno(1,2,3-cd)pyrene		1	mg/L	60.0	54.4	91	80 - 120	2012-01-02
Dibenzo(a,h)anthracene		1	mg/L	60.0	55.8	93	80 - 120	2012-01-02
Benzo(g,h,i)perylene			mg/L	60.0	54.2	90	80 - 120	2012-01-02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			58.2	mg/L	1	60.0	97	-
2-Fluorobiphenyl			50.8	mg/L	1	60.0	85	-
Terphenyl-d14			67.5	mg/L	1	60.0	112	-

Standard (CCV-2)

QC Batch: 87535

Date Analyzed: 2012-01-02

Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		1	mg/L	60.0	52.7	88	80 - 120	2012-01-02
2-Methylnaphthalene		1	mg/L	60.0	49.0	82	80 - 120	2012-01-02
1-Methylnaphthalene			mg/L	60.0	57.6	96	80 - 120	2012-01-02
Acenaphthylene		1	mg/L	60.0	52.9	88	80 - 120	2012-01-02
Acenaphthene		1	mg/L	60.0	53.7	90	80 - 120	2012-01-02
Dibenzofuran		1	mg/L	60.0	53.0	88	80 - 120	2012-01-02
Fluorene		1	mg/L	60.0	55.6	93	80 - 120	2012-01-02
Anthracene		1	mg/L	60.0	60.8	101	80 - 120	2012-01-02
Phenanthrene			mg/L	60.0	59.4	99	80 - 120	2012-01-02

continued ...

standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoranthene			mg/L	60.0	58.9	98	80 - 120	2012-01-02
Pyrene		1	mg/L	60.0	64.4	107	80 - 120	2012-01-02
Benzo(a)anthracene			mg/L	60.0	57.4	96	80 - 120	2012-01-02
Chrysene		1	mg/L	60.0	51.4	86	80 - 120	2012-01-02
Benzo(b)fluoranthene			mg/L	60.0	52.1	87	80 - 120	2012-01-02
Benzo(k)fluoranthene		1	mg/L	60.0	55.1	92	80 - 120	2012-01-02
Benzo(a)pyrene		1	mg/L	60.0	51.5	86	80 - 120	2012-01-02
Indeno(1,2,3-cd)pyrene		1	mg/L	60.0	53.1	88	80 - 120	2012-01-02
Dibenzo(a,h)anthracene		1	mg/L	60.0	55.6	93	80 - 120	2012-01-02
Benzo(g,h,i)perylene			mg/L	60.0	51.8	86	80 - 120	2012-01-02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			60.3	mg/L	1	60.0	100	-
2-Fluorobiphenyl			51.9	mg/L	1	60.0	86	-
Terphenyl-d14			64.5	mg/L	1	60.0	108	-

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	T104704219-11-5	Lubbock

Standard Flags

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

Attachments

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

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-12965002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: <u>NOVA</u>	Phone #:
Address: (Street, City, Zip)	Fax #:
Contact Person: <u>RON Rounsaville</u>	E-mail:
Invoice to: (If different from above)	
Project #: <u>TNM 97-17</u>	Project Name: <u>97-17</u>
Project Location (including state):	Sampler Signature: <u>David Fletcher</u>

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING		DATE	TIME	MTBE 8021 / 602 / 8260 / 624	BTX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F1, S04, NO3, NO2, Alkalinity	Na, Ca, Mg, K, TDS, EC	Turn Around Time if different from standard	Hold
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE																									
284788	mw5	1	15	X									X			12/14/11	1315					X																
789	mw6																1245																					
790	mw10																1300																					
791	mw19																1330																					
792	Rw1																1345																					
793	Rw2																1230																					
794	Rw3																1215																					
795	Rw4																1200																					

Relinquished by: <u>David Fletcher</u>	Company: <u>NOVA</u>	Date: <u>12/14/11</u>	Time: <u>8:42</u>	Received by: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>12/16/11</u>	Time: <u>8:42</u>	INST OBS <u>13.0</u> COR <u>0.0</u>
Relinquished by: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>12/16/11</u>	Time: <u>10:05</u>	Received by: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>12/17/11</u>	Time: <u>11:00</u>	INST OBS <u>3.3</u> COR <u>3.4</u>

LAB USE ONLY	REMARKS:
Impact Y / N <u>Y</u>	<u>Lubricated</u>
Headspace Y / N / NA <u>NA</u>	<u>Self delivery</u>
Log-in-Review <u>Y</u>	
☐ Dry Weight Basis Required ☐ TRRP Report Required ☐ Check If Special Reporting Limits Are Needed	

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

Carrier # Carry on 25 28173059



5701 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 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
5015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: January 12, 2012

Work Order: 12010509

Project Location: Eunice, NM
Project Name: 97-17
Project Number: TNM 97-17

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
285722	MW-15	water	2011-12-31	12:00	2012-01-04

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

This report consists of a total of 9 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

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

Report Contents

Case Narrative	3
Analytical Report	4
Sample 285722 (MW-15)	4
Method Blanks	5
QC Batch 87703 - Method Blank (1)	5
Laboratory Control Spikes	6
QC Batch 87703 - LCS (1)	6
Calibration Standards	8
QC Batch 87703 - CCV (1)	8
Appendix	9
Report Definitions	9
Laboratory Certifications	9
Standard Flags	9
Attachments	9

Case Narrative

Samples for project 97-17 were received by TraceAnalysis, Inc. on 2012-01-04 and assigned to work order 12010509. Samples for work order 12010509 were received intact 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
PAH	S 8270D	74466	2012-01-05 at 15:00	87703	2012-01-05 at 15:00

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 12010509 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.

Report Date: January 12, 2012
TNM 97-17

Work Order: 12010509
97-17

Page Number: 4 of 9
Eunice, NM

Analytical Report

Sample: 285722 - MW-15

Laboratory: Lubbock

Analysis: PAH

QC Batch: 87703

Prep Batch: 74466

Analytical Method: S 8270D

Date Analyzed: 2012-01-05

Sample Preparation: 2012-01-05

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	u	1	<0.000184	mg/L	0.922	0.000200
2-Methylnaphthalene	u	1	<0.000184	mg/L	0.922	0.000200
1-Methylnaphthalene			0.00350	mg/L	0.922	0.000200
Acenaphthylene	u	1	<0.000184	mg/L	0.922	0.000200
Acenaphthene	u	1	<0.000184	mg/L	0.922	0.000200
Dibenzofuran		1	0.00176	mg/L	0.922	0.000200
Fluorene	u	1	<0.000184	mg/L	0.922	0.000200
Anthracene	u	1	<0.000184	mg/L	0.922	0.000200
Phenanthrene			0.00136	mg/L	0.922	0.000200
Fluoranthene	u		<0.000184	mg/L	0.922	0.000200
Pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(a)anthracene	u		<0.000184	mg/L	0.922	0.000200
Chrysene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(b)fluoranthene	u		<0.000184	mg/L	0.922	0.000200
Benzo(k)fluoranthene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(a)pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Indeno(1,2,3-cd)pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Dibenzo(a,h)anthracene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(g,h,i)perylene	u		<0.000184	mg/L	0.922	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0387	mg/L	0.922	0.0800	48	10 - 117
2-Fluorobiphenyl			0.0442	mg/L	0.922	0.0800	55	10 - 99
Terphenyl-d14			0.0484	mg/L	0.922	0.0800	60	22.6 - 115

Method Blanks

Method Blank (1) QC Batch: 87703

QC Batch: 87703
Prep Batch: 74466

Date Analyzed: 2012-01-05
QC Preparation: 2012-01-05

Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	MDL Result	Units	RL
Naphthalene		1	<0.0000904	mg/L	0.0002
2-Methylnaphthalene		1	<0.000184	mg/L	0.0002
1-Methylnaphthalene			<0.000120	mg/L	0.0002
Acenaphthylene		1	<0.000101	mg/L	0.0002
Acenaphthene		1	<0.000122	mg/L	0.0002
Dibenzofuran		1	<0.000119	mg/L	0.0002
Fluorene		1	<0.000198	mg/L	0.0002
Anthracene		1	<0.000190	mg/L	0.0002
Phenanthrene			<0.000190	mg/L	0.0002
Fluoranthene			<0.000122	mg/L	0.0002
Pyrene		1	<0.000142	mg/L	0.0002
Benzo(a)anthracene			<0.000138	mg/L	0.0002
Chrysene		1	<0.000155	mg/L	0.0002
Benzo(b)fluoranthene			<0.000179	mg/L	0.0002
Benzo(k)fluoranthene		1	<0.000185	mg/L	0.0002
Benzo(a)pyrene		1	<0.000169	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		1	<0.000139	mg/L	0.0002
Dibenzo(a,h)anthracene		1	<0.000107	mg/L	0.0002
Benzo(g,h,i)perylene			<0.000143	mg/L	0.0002

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0275	mg/L	1	0.0800	34	10 - 117
2-Fluorobiphenyl			0.0249	mg/L	1	0.0800	31	10 - 99
Terphenyl-d14			0.0324	mg/L	1	0.0800	40	22.6 - 115

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 87703
Prep Batch: 74466

Date Analyzed: 2012-01-05
QC Preparation: 2012-01-05

Analyzed By: MN
Prepared By: MN

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene		1	0.0323	mg/L	1	0.0800	<0.0000904	40	10 - 89.9
2-Methylnaphthalene		1	0.0363	mg/L	1	0.0800	<0.000184	45	13.8 - 98.4
1-Methylnaphthalene			0.0345	mg/L	1	0.0800	<0.000120	43	13.1 - 103
Acenaphthylene		1	0.0401	mg/L	1	0.0800	<0.000101	50	20 - 104
Acenaphthene		1	0.0384	mg/L	1	0.0800	<0.000122	48	21.6 - 94.6
Dibenzofuran		1	0.0339	mg/L	1	0.0800	<0.000119	42	22.9 - 74.9
Fluorene		1	0.0413	mg/L	1	0.0800	<0.000198	52	30.8 - 109
Anthracene		1	0.0475	mg/L	1	0.0800	<0.000190	59	37.6 - 96.4
Phenanthrene			0.0471	mg/L	1	0.0800	<0.000190	59	42.4 - 99.8
Fluoranthene			0.0512	mg/L	1	0.0800	<0.000122	64	48 - 118
Pyrene		1	0.0484	mg/L	1	0.0800	<0.000142	60	45.3 - 109
Benzo(a)anthracene			0.0564	mg/L	1	0.0800	<0.000138	70	48 - 113
Chrysene		1	0.0587	mg/L	1	0.0800	<0.000155	73	35.2 - 175
Benzo(b)fluoranthene			0.0363	mg/L	1	0.0800	<0.000179	45	16.6 - 106
Benzo(k)fluoranthene		1	0.0474	mg/L	1	0.0800	<0.000185	59	36.8 - 99.4
Benzo(a)pyrene		1	0.0424	mg/L	1	0.0800	<0.000169	53	32.3 - 99.7
Indeno(1,2,3-cd)pyrene		1	0.0432	mg/L	1	0.0800	<0.000139	54	34.1 - 106
Dibenzo(a,h)anthracene		1	0.0492	mg/L	1	0.0800	<0.000107	62	47.1 - 103
Benzo(g,h,i)perylene			0.0436	mg/L	1	0.0800	<0.000143	54	21.9 - 112

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
Naphthalene		1	0.0372	mg/L	1	0.0800	<0.0000904	46	10 - 89.9	14	20
2-Methylnaphthalene		1	0.0425	mg/L	1	0.0800	<0.000184	53	13.8 - 98.4	16	20
1-Methylnaphthalene			0.0400	mg/L	1	0.0800	<0.000120	50	13.1 - 103	15	20
Acenaphthylene		1	0.0458	mg/L	1	0.0800	<0.000101	57	20 - 104	13	20
Acenaphthene		1	0.0435	mg/L	1	0.0800	<0.000122	54	21.6 - 94.6	12	20
Dibenzofuran		1	0.0381	mg/L	1	0.0800	<0.000119	48	22.9 - 74.9	12	20
Fluorene		1	0.0462	mg/L	1	0.0800	<0.000198	58	30.8 - 109	11	20
Anthracene		1	0.0541	mg/L	1	0.0800	<0.000190	68	37.6 - 96.4	13	20
Phenanthrene			0.0537	mg/L	1	0.0800	<0.000190	67	42.4 - 99.8	13	20
Fluoranthene			0.0582	mg/L	1	0.0800	<0.000122	73	48 - 118	13	20
Pyrene		1	0.0555	mg/L	1	0.0800	<0.000142	69	45.3 - 109	14	20

continued ...

control spikes continued ...

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzo(a)anthracene			0.0638	mg/L	1	0.0800	<0.000138	80	48 - 113	12	20
Chrysene		1	0.0669	mg/L	1	0.0800	<0.000155	84	35.2 - 175	13	20
Benzo(b)fluoranthene			0.0399	mg/L	1	0.0800	<0.000179	50	16.6 - 106	9	20
Benzo(k)fluoranthene		1	0.0499	mg/L	1	0.0800	<0.000185	62	36.8 - 99.4	5	20
Benzo(a)pyrene		1	0.0487	mg/L	1	0.0800	<0.000169	61	32.3 - 99.7	14	20
Indeno(1,2,3-cd)pyrene		1	0.0493	mg/L	1	0.0800	<0.000139	62	34.1 - 106	13	20
Dibenzo(a,h)anthracene		1	0.0564	mg/L	1	0.0800	<0.000107	70	47.1 - 103	14	20
Benzo(g,h,i)perylene			0.0500	mg/L	1	0.0800	<0.000143	62	21.9 - 112	14	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Nitrobenzene-d5	0.0323	0.0369	mg/L	1	0.0800	40	46	10 - 117
2-Fluorobiphenyl	0.0353	0.0405	mg/L	1	0.0800	44	51	10 - 99
Terphenyl-d14	0.0502	0.0561	mg/L	1	0.0800	63	70	22.6 - 115

Calibration Standards

Standard (CCV-1)

QC Batch: 87703

Date Analyzed: 2012-01-05

Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		1	mg/L	60.0	54.3	90	80 - 120	2012-01-05
2-Methylnaphthalene		1	mg/L	60.0	56.4	94	80 - 120	2012-01-05
1-Methylnaphthalene			mg/L	60.0	56.4	94	80 - 120	2012-01-05
Acenaphthylene		1	mg/L	60.0	55.3	92	80 - 120	2012-01-05
Acenaphthene		1	mg/L	60.0	55.9	93	80 - 120	2012-01-05
Dibenzofuran		1	mg/L	60.0	54.7	91	80 - 120	2012-01-05
Fluorene		1	mg/L	60.0	54.0	90	80 - 120	2012-01-05
Anthracene		1	mg/L	60.0	53.5	89	80 - 120	2012-01-05
Phenanthrene			mg/L	60.0	54.0	90	80 - 120	2012-01-05
Fluoranthene			mg/L	60.0	58.9	98	80 - 120	2012-01-05
Pyrene		1	mg/L	60.0	54.0	90	80 - 120	2012-01-05
Benzo(a)anthracene			mg/L	60.0	56.7	94	80 - 120	2012-01-05
Chrysene		1	mg/L	60.0	57.6	96	80 - 120	2012-01-05
Benzo(b)fluoranthene			mg/L	60.0	59.7	100	80 - 120	2012-01-05
Benzo(k)fluoranthene		1	mg/L	60.0	53.6	89	80 - 120	2012-01-05
Benzo(a)pyrene		1	mg/L	60.0	53.6	89	80 - 120	2012-01-05
Indeno(1,2,3-cd)pyrene		1	mg/L	60.0	53.4	89	80 - 120	2012-01-05
Dibenzo(a,h)anthracene		1	mg/L	60.0	53.8	90	80 - 120	2012-01-05
Benzo(g,h,i)perylene			mg/L	60.0	53.5	89	80 - 120	2012-01-05

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			51.8	mg/L	1	60.0	86	-
2-Fluorobiphenyl			56.0	mg/L	1	60.0	93	-
Terphenyl-d14			54.6	mg/L	1	60.0	91	-

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	T104704219-11-5	Lubbock

Standard Flags

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

Attachments

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

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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

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

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

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name:	Phone #:
Nova	432-520-7220
Address:	Fax #:
(Street, City, Zip)	
2057 Commerce Drive	
Contact Person:	E-mail:
Ron Rounsaville	
Invoice to:	
(If different from above)	
Project #:	Project Name:
	TWM 97-17
Project Location (including state):	Sampler Signature:
N.M.	

ANALYSIS REQUEST
(Circle or Specify Method No.)

[illegible][illegible]

LAB USE ONLY

Intact Y / N
Headspace Y / N / N

Log-in-Review

REMARKS:

All herb Subliod

- | | |
|--------------------------|--|
| ☐ | Dry Weight Basis Required |
| ☐ | TRRP Report Required |
| ☐ | Check If Special Reporting Limits Are Needed |

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier:

ORIGINAL COPY

Carrier# Carney in 2N221310