

3R - 325

2012 AGWMR

04 / 10 / 2013



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April 10, 2013

New Mexico Oil Conservation Division
Attn: Glenn von Goten
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

**RE: 2012 Annual Groundwater Reports
Williams Field Services, LLC
PO Box 3483, MD 48-6
Tulsa, Oklahoma 74101**

Dear Mr. von Goten:

Please find attached to this letter the "2012 Annual Groundwater Reports" for the following three locations in the San Juan Basin for Williams Field Services, LLC:

- Ice Canyon Drip 3R-322
- Jicarilla Contract 147-6 3R-325
- Pritchard #2A 3R-339

If you have any questions or comments, please do not hesitate to contact us at (505) 326-2107 or (970) 385-1096.

Sincerely,

LT ENVIRONMENTAL, INC.

Kyla Vaughan
Environmental Compliance Specialist

cc: Williams Field Services, LLC

2012 ANNUAL GROUNDWATER REPORT

JICARILLA CONTRACT 147-6

**ADMINISTRATIVE/ENVIRONMENTAL ORDER NUMBER
3RP-325-0**

APRIL 2013

Prepared for:

**WILLIAMS FIELD SERVICES, LLC
TULSA, OKLAHOMA**



2012 ANNUAL GROUNDWATER REPORT
JICARILLA CONTRACT
ADMINISTRATIVE/ENVIRONMENTAL ORDER NUMBER
3RP-325-0

APRIL 2013

Prepared for:

WILLIAMS FIELD SERVICES, LLC
PO Box 3483, MD 48-6
Tulsa, Oklahoma 74101

Prepared by:

LT ENVIRONMENTAL, INC.
2243 Main Avenue, Suite 3
Durango, Colorado 81301
(970) 385-1096



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EXECUTIVE SUMMARY

Groundwater at the Jicarilla Contract 147-6 (Administrative/Environmental Order Number 3RP-325-0) natural gas production well (Site) is impacted by petroleum hydrocarbons in excess of the New Mexico Water Quality Control Commission (NMWQCC) groundwater standards for benzene, toluene, ethylbenzene, and total xylenes (BTEX) due to a release from a former dehydrator pit. Williams Field Services, LLC (Williams) conducted groundwater monitoring activities at the Site between April 2012 and December 2012. In January 2013, LT Environmental Inc., (LTE) was retained by Williams to visit the Site and evaluate the status of all groundwater monitoring wells, complete annual sampling requirements, and recommend improvements to the groundwater remediation program.

Between April 2012 and March 2013, five groundwater monitoring events were conducted (April 2012, June 2012, September 2012, December 2012, and March 2013). Depth to groundwater and depth to free-phase hydrocarbon data for the monitoring events conducted in 2012 were not available. Depth to groundwater data in March 2013 indicates the groundwater flow is to the north.

BTEX concentrations in groundwater monitoring wells MW-1, MW-8, and MW-9 were compliant with the NMWQCC groundwater standards between April 2012 and March 2013. BTEX concentrations in groundwater monitoring well MW-2 were compliant with the NMWQCC groundwater standards between April 2012 and December 2012; however, monitoring well MW-2 contained 0.01 feet of free-phase hydrocarbons in March 2013. Groundwater monitoring well MW-10 was not sampled in April 2012, June 2012, or September 2012; BTEX concentrations were compliant with the NMWQCC groundwater standards in December 2012, and the monitoring well contained 0.01 feet of free-phase hydrocarbons in March 2013. Groundwater monitoring well MW-3 and MW-6 both contained benzene, ethylbenzene, and total xylenes in excess of the NMWQCC groundwater standards during the April 2012 through December 2012 monitoring events; benzene and total xylenes in monitoring well MW-3 and benzene in monitoring well MW-6 exceeded the NMWQCC groundwater standards in March 2013. Groundwater monitoring wells MW-4, MW-5, and MW-7 have been destroyed by erosion of the wash.

Williams will conduct research into the operator and the history of groundwater monitoring well MW-10. Groundwater monitoring wells MW-1 and MW-8 will be monitored for depth to groundwater, but will not be sampled for BTEX due to at least eight consecutive quarters or long term trend of BTEX results compliant with the NMWQCC groundwater standards. Quarterly depth to groundwater data, depth to product data, and BTEX samples will be collected from groundwater monitoring wells MW-2, MW-3, MW-6, MW-9, and MW-10. Williams will research the three unknown wells and will replace monitoring well MW-3 when necessary.

1.0 INTRODUCTION

LT Environmental, Inc. (LTE) on behalf of Williams Field Services, LLC (Williams) has prepared this report detailing groundwater monitoring activities completed from April 2012 through March 2013 at the Jicarilla Contract 147-6 (Administrative/Environmental Order Number 3RP-325-0) natural gas production well site (Site) (Figure 1). The scope of work for this project was continued monitoring of petroleum hydrocarbon impacts to groundwater as a result of a release from a former dehydrator pit. From April 2012 through December 2012, Williams conducted groundwater sampling. In March 2013, LTE visited the Site to evaluate the status of all groundwater monitoring wells, complete annual sampling requirements, and recommend improvements to the groundwater remediation program.

1.1 LOCATION

The Site is located at latitude 36.433803 and longitude -107.403562 in Unit C, Section 6, Township 25 North, Range 5 West. The Site is in a tributary to Tapacito Creek, which drains into Largo Wash, in the San Juan Basin, Rio Arriba County, New Mexico.

1.2 HISTORY

The source is a former dehydrator pit. In July 1998, over 12,000 cubic yards of impacted soil were excavated from the Site. A groundwater sample collected from the excavation at approximately 26 feet below ground surface (bgs) contained 1,400 micrograms per liter ($\mu\text{g/L}$) benzene, 4,500 $\mu\text{g/L}$ toluene, 580 $\mu\text{g/L}$ ethylbenzene, and 6,800 total xylenes. In January 1999, four groundwater monitoring wells were installed. At some time after that, additional groundwater monitoring wells were installed.

Between January 1999 and December 2012, groundwater at the Site was monitored. Records regarding these activities can be found in previous groundwater reports submitted to the New Mexico Oil Conservation Division (NMOCD).

In March 2013, a site visit was conducted by LTE to observe site conditions and evaluate the status of all groundwater monitoring wells. Depth to groundwater and depth to product were measured and groundwater samples were collected, when possible, for laboratory analysis of benzene, toluene, ethyl benzene and total xylene (BTEX).

2.0 METHODOLOGY

Groundwater monitoring activities were conducted at the Site in April 2012, June 2012, September 2012, December 2012, and March 2013. The April 2012 through December 2012 monitoring events were conducted by a third-party consultant and the methodology used is not known. Water level measurements were not available for the April 2012 through December 2012 monitoring events. Table 1 provides a cross-reference to match the sample identifier with the appropriate groundwater monitoring well for the April 2012 through December 2012 monitoring events. The first quarter 2013 monitoring event was conducted by LTE; the methodology used by LTE is discussed below.



2.1 WATER AND PRODUCT LEVEL MEASUREMENTS

Groundwater level monitoring included recording depth to groundwater measurements with a Keck oil/water interface probe. The presence of any free-phase petroleum hydrocarbons was investigated using the interface probe. The interface probe was decontaminated with Alconox™ soap and rinsed with de-ionized water prior to each measurement. These data are summarized in Table 2.

2.2 GROUNDWATER SAMPLING

Prior to sampling groundwater, depth to groundwater and total depth of monitoring wells were measured with a Keck oil/water interface probe. Groundwater monitoring wells containing measurable free-phase petroleum hydrocarbons were not sampled. The volume of water in each monitoring well was calculated, and a minimum of three well casing volumes of water was purged from each well using a new disposable polyvinyl chloride (PVC) bailer. As water was removed from the monitoring well, pH, electric conductivity, and temperature were monitored. Wells were purged until these properties stabilized, indicating the purge water was representative of aquifer conditions, or until the well was purged dry. Stabilization was defined as three consecutive stable readings for each water property (± 0.4 units for pH, ± 10 percent for electric conductivity and $\pm 2^\circ$ C for temperature). All purge water was containerized and disposed of at a facility designated by Williams. A copy of the laboratory reports are presented in Appendix A and copies of the field sheets are presented in Appendix B.

Once each monitoring well was properly purged, groundwater samples were collected by filling three 40-milliliter (ml) glass vials. The laboratory supplied vials were filled and capped with no air inside to prevent degradation of the sample. Samples were labeled with the date and time of collection, monitoring well designation, project name, collector's name, and parameters to be analyzed. They were immediately sealed and packed on ice. The samples were transferred to Hall Environmental Analysis Laboratory (HEAL) for analysis. Samples were stored on ice in a sealed cooler and maintained under chain-of-custody (COC) procedures. COC forms were completed documenting the date and time sampled, sample number, type of sample, sampler's name, preservative used (if any), analyses required, and sampler's signature.

2.3 GROUNDWATER CONTOUR MAPS

LTE used existing top of casing well elevations and groundwater elevations obtained from monitoring wells during the March 2013 site visit to draft a groundwater contour map (Figure 2). Contours were inferred based on groundwater elevations obtained and observation of physical characteristics at the Site (topography, proximity to irrigation ditches, etc.).

3.0 RESULTS

Depth to groundwater data during the March 2013 monitoring event is summarized on Table 2. Groundwater flow direction was determined to be toward the wash; then the northwest (Figure 2).

BTEX concentrations in groundwater monitoring wells MW-1, MW-8, and MW-9 were below NMWQCC groundwater standards during all five monitoring events. Groundwater monitoring well MW-2 did not contain BTEX above the laboratory reporting detection limits during the 2012 sampling events; during March 2013, the well was not sampled due to free-phase hydrocarbons in the well. Groundwater monitoring wells MW-3 and MW-6 exceeded the NMWQCC groundwater standards for benzene, ethylbenzene, and/or total xylenes during all sampling events. Groundwater monitoring wells MW-4, MW-5, and MW-7 have been destroyed. BTEX concentrations in groundwater monitoring well MW-10 were below the laboratory reporting detection limit when sampled in 2012. Groundwater monitoring wells MW-3 and MW-10 contained free-phase hydrocarbons in March 2013. Three newly installed groundwater monitoring wells were observed at the Site during the March 2013 site visit; they are portrayed on Figure 2 as "Unknown Well #1, Unknown Well #2, and Unknown Well #3". Table 3 summarizes the groundwater analytical results and copies of the laboratory reports can be found in Appendix A.

4.0 CONCLUSIONS

Groundwater at the Site remains impacted by benzene, ethylbenzene, and total xylenes above the NMWQCC groundwater standards. Free-phase hydrocarbons are present in groundwater monitoring wells MW-2, the source area well, and MW-10. Due to the location of groundwater monitoring well MW-10 upgradient from the former dehydrator pit, and its location adjacent to former production equipment, it is likely the free-phase hydrocarbons in groundwater monitoring well MW-10 are not Williams' responsibility. Further research is warranted regarding groundwater monitoring well MW-10. Downgradient groundwater monitoring wells MW-3 and MW-6 remain impacted by BTEX above the NMWQCC groundwater standards. Cross gradient groundwater monitoring well MW-8, upgradient groundwater monitoring well MW-1, and the sentinel monitoring well MW-9 define the groundwater impacts to the southeast, west, and far northwest of the source area. Groundwater monitoring wells MW-4, MW-5, and MW-7 have been destroyed by erosion of the banks of the wash; monitoring wells MW-3 and MW-1 are in locations that may also be destroyed by erosion.

5.0 RECOMMENDATIONS

Williams will conduct research into the operator and the history of groundwater monitoring well MW-10. Groundwater monitoring wells MW-1 and MW-8 will be monitored for depth to groundwater, but will not be sampled for BTEX due to at least eight consecutive quarters or long term trend of BTEX results compliant with the NMWQCC groundwater standards. Quarterly depth to groundwater data, depth to product data, and BTEX samples will be collected from groundwater monitoring wells MW-2, MW-3, MW-6, MW-9, and MW-10. Williams will research the three unknown wells and will replace groundwater monitoring well MW-3 when necessary.



FIGURES



LEGEND

 SITE LOCATION

IMAGE COURTESY OF ESRI/BING MAPS

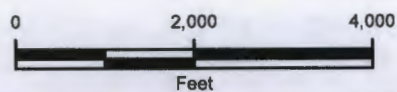
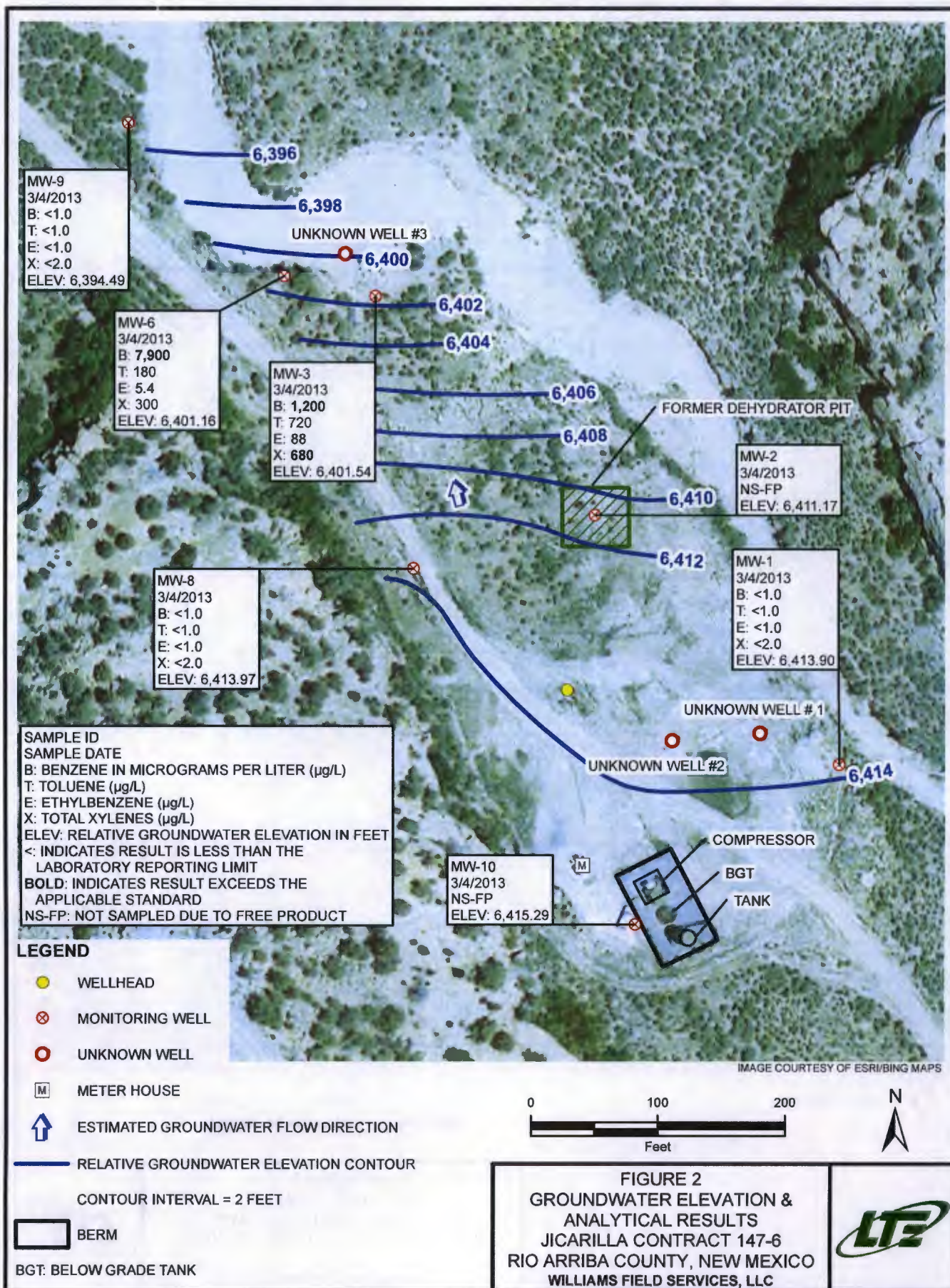


FIGURE 1
SITE LOCATION MAP
JICARILLA CONTRACT 147-6
RIO ARriba COUNTY, NEW MEXICO

WILLIAMS FIELD SERVICES, LLC





0 100 200
Feet



IMAGE COURTESY OF ESRI/BING MAPS

FIGURE 2
GROUNDWATER ELEVATION &
ANALYTICAL RESULTS
JICARILLA CONTRACT 147-6
RIO ARriba COUNTY, NEW MEXICO
WILLIAMS FIELD SERVICES, LLC



TABLES

TABLE 1

**CROSS REFERENCE WELL NAME AND SAMPLE IDENTIFIER
APRIL 2012 THROUGH DECEMBER 2012 SAMPLE DATES
JICARILLA CONTRACT 147-6
WILLIAMS FIELD SERVICES, LLC**

Sample Identifier	Well Name	Sample Date
152006APR06	MW-1	4/6/2012
115214JUN12	MW-1	6/12/2012
142227SEP12	MW-1	9/27/2012
130007DEC12	MW-1	12/7/2012
153206APR06	MW-2	4/6/2012
120014JUN12	MW-2	6/12/2012
142927SEP12	MW-2	9/27/2012
132007DEC12	MW-2	12/7/2012
155306APR06	MW-3	4/6/2012
121914JUN12	MW-3	6/12/2012
145427SEP12	MW-3	9/27/2012
134307DEC12	MW-3	12/7/2012
160406APR06	MW-6	4/6/2012
123214JUN12	MW-6	6/12/2012
150727SEP12	MW-6	9/27/2012
134807DEC12	MW-6	12/7/2012
154406APR06	MW-8	4/6/2012
121014JUN12	MW-8	6/12/2012
143927SEP12	MW-8	9/27/2012
132907DEC12	MW-8	12/7/2012
161506APR06	MW-9	4/6/2012
124414JUN12	MW-9	6/12/2012
152127SEP12	MW-9	9/27/2012
140007DEC12	MW-9	12/7/2012
131307DEC12	MW-10	12/7/2012

Note:

Samples summarized in this table were not collected by LTE



TABLE 2

**GROUNDWATER ELEVATION SUMMARY
JICARILLA CONTRACT 147-6
WILLIAMS FIELD SERVICES, LLC**

Well ID	Date	Depth to Product (feet BTOC)	Product Thickness (feet)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)
MW-1	4/6/2012	UNK	UNK	UNK	UNK
MW-1	6/12/2012	UNK	UNK	UNK	UNK
MW-1	9/27/2012	UNK	UNK	UNK	UNK
MW-1	12/7/2012	UNK	UNK	UNK	UNK
MW-1	3/4/2013	NP	NP	21.85	6413.90
MW-2	4/6/2012	UNK	UNK	UNK	UNK
MW-2	6/12/2012	UNK	UNK	UNK	UNK
MW-2	9/27/2012	UNK	UNK	UNK	UNK
MW-2	12/7/2012	UNK	UNK	UNK	UNK
MW-2	3/4/2013	22.33	0.01	22.34	6411.17
MW-3	4/6/2012	UNK	UNK	UNK	UNK
MW-3	6/12/2012	UNK	UNK	UNK	UNK
MW-3	9/27/2012	UNK	UNK	UNK	UNK
MW-3	12/7/2012	UNK	UNK	UNK	UNK
MW-3	3/4/2013	NP	NP	21.26	6401.54
MW-4	4/6/2012	UNK	UNK	UNK	UNK
MW-4	6/12/2012	UNK	UNK	UNK	UNK
MW-4	9/27/2012	UNK	UNK	UNK	UNK
MW-4	12/7/2012	UNK	UNK	UNK	UNK
MW-4	3/4/2013	DEST	DEST	DEST	DEST
MW-5	3/4/2013	DEST	DEST	DEST	DEST
MW-6	4/6/2012	UNK	UNK	UNK	UNK
MW-6	6/12/2012	UNK	UNK	UNK	UNK
MW-6	9/27/2012	UNK	UNK	UNK	UNK
MW-6	12/7/2012	UNK	UNK	UNK	UNK
MW-6	3/4/2013	NP	NP	25.61	6401.16
MW-7	3/4/2013	DEST	DEST	DEST	DEST
MW-8	4/6/2012	UNK	UNK	UNK	UNK



TABLE 2

**GROUNDWATER ELEVATION SUMMARY
JICARILLA CONTRACT 147-6
WILLIAMS FIELD SERVICES, LLC**

Well ID	Date	Depth to Product (feet BTOC)	Product Thickness (feet)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)
MW-8	6/12/2012	UNK	UNK	UNK	UNK
MW-8	9/27/2012	UNK	UNK	UNK	UNK
MW-8	12/7/2012	UNK	UNK	UNK	UNK
MW-8	3/4/2013	NP	NP	16.36	6413.97

MW-9	4/6/2012	UNK	UNK	UNK	UNK
MW-9	6/12/2012	UNK	UNK	UNK	UNK
MW-9	9/27/2012	UNK	UNK	UNK	UNK
MW-9	12/7/2012	UNK	UNK	UNK	UNK
MW-9	3/4/2013	NP	NP	28.55	6394.49

MW-10	4/6/2012	UNK	UNK	UNK	UNK
MW-10	6/12/2012	UNK	UNK	UNK	UNK
MW-10	9/27/2012	UNK	UNK	UNK	UNK
MW-10	12/7/2012	UNK	UNK	UNK	UNK
MW-10	3/4/2013	20.89	0.01	20.90	6415.29

UNKNOWN WELL #3	3/4/2013	NP	NP	21.26	CANNOT CALCULATE *
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Notes:

BTOC - Below Top of Casing

AMSL - Above Mean Sea Level

DEST - well has been destroyed

NP - No Product

UNK - data is not known

Groundwater elevation calculation in wells with product: (Top of Casing Elevation - Depth to Water) + (Product Thickness * 0.8)

TABLE 3

GROUNDWATER LABORATORY ANALYTICAL RESULTS
JICARILLA CONTRACT 147-6
WILLIAMS FIELD SERVICES, LLC

Well Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard (µg/L)		10	750	750	620
MW-1	4/6/2012	<1.0	<1.0	<1.0	<3.0
MW-1	6/12/2012	<1.0	<1.0	<1.0	<3.0
MW-1	9/27/2012	<1.0	<1.0	<1.0	<3.0
MW-1	12/7/2012	<1.0	<1.0	<1.0	<3.0
MW-1	3/4/2013	<1.0	<1.0	<1.0	<2.0
MW-2	4/6/2012	<1.0	<1.0	<1.0	<3.0
MW-2	6/12/2012	<1.0	<1.0	<1.0	<3.0
MW-2	9/27/2012	<1.0	<1.0	<1.0	18.5
MW-2	12/7/2012	<1.0	<1.0	<1.0	<3.0
MW-2	3/4/2013	NSP	NSP	NSP	NSP
MW-3	4/6/2012	1,900	127	955	1,040
MW-3	6/12/2012	2,700	203	4,990	2,890
MW-3	9/27/2012	2,070	194	4,380	2,690
MW-3	12/7/2012	1,650	145	1,810	1,630
MW-3	3/4/2013	1,200	720	88	680
MW-4	4/6/2012	NS	NS	NS	NS
MW-4	6/12/2012	NS	NS	NS	NS
MW-4	9/27/2012	NS	NS	NS	NS
MW-4	12/7/2012	NS	NS	NS	NS
MW-4	3/4/2013	DEST	DEST	DEST	DEST
MW-6	4/6/2012	13,800	333	3,070	1,590
MW-6	6/12/2012	13,000	406	1,010	1,560
MW-6	9/27/2012	10,300	360	3,430	2,070
MW-6	12/7/2012	10,200	315	1,540	1,760
MW-6	3/4/2013	7,900	180	5.4	300
MW-7	4/6/2012	NS	NS	NS	NS
MW-7	6/12/2012	NS	NS	NS	NS
MW-7	9/27/2012	NS	NS	NS	NS



TABLE 3

GROUNDWATER LABORATORY ANALYTICAL RESULTS
JICARILLA CONTRACT 147-6
WILLIAMS FIELD SERVICES, LLC

Well Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard (µg/L)		10	750	750	620
MW-7	12/7/2012	NS	NS	NS	NS
MW-7	3/4/2013	DEST	DEST	DEST	DEST
MW-8	4/6/2012	<1.0	<1.0	<1.0	<3.0
MW-8	6/12/2012	2.5	<1.0	<1.0	<3.0
MW-8	9/27/2012	<1.0	<1.0	<1.0	<3.0
MW-8	12/7/2012	<1.0	<1.0	<1.0	<3.0
MW-8	3/4/2013	<1.0	<1.0	<1.0	<2.0
MW-9	4/6/2012	<1.0	<1.0	<1.0	<3.0
MW-9	6/12/2012	<1.0	2.1	<1.0	<3.0
MW-9	9/27/2012	<1.0	<1.0	<1.0	<3.0
MW-9	12/7/2012	<1.0	<1.0	<1.0	<3.0
MW-9	3/4/2013	<1.0	<1.0	<1.0	<2.0
MW-10	4/6/2012	NS	NS	NS	NS
MW-10	6/12/2012	NS	NS	NS	NS
MW-10	9/27/2012	NS	NS	NS	NS
MW-10	12/7/2012	<1.0	<1.0	<1.0	<3.0
MW-10	3/4/2013	NSP	NSP	NSP	NSP
UNKNOWN WELL #3	3/4/2013	<1.0	<1.0	<1.0	<2.0

Notes:

NMWQCC - New Mexico Water Quality Control Commission

NS- not sampled

NSP - not sampled due to the presence of free phase hydrocarbons in the well

DEST - well has been destroyed

µg/L - micrograms per liter

< - indicates result is less than laboratory reporting detection limit

Bold - indicates sample exceeds NMWQCC standard

APPENDIX A
ANALYTICAL LABORATORY REPORTS





Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

April 17, 2012

Mr. Mark Harvey
Mile High Environmental
811 B West Apache
Farmington, NM 87401

RE: Project: NM GW PRTCHO & JIC
Pace Project No.: 60119079

Dear Mr. Harvey:

Enclosed are the analytical results for sample(s) received by the laboratory on April 10, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Heather Wilson

heather.wilson@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, Inc..



Pace Analytical Services, Inc.

9608 Loiret Blvd.

Lenexa, KS 66219

(913)599-5665

CERTIFICATIONS

Project: NM GW PRTCHO & JIC

Pace Project No.: 60119079

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219

A2LA Certification #: 2456.01

Arkansas Certification #: 05-008-0

Illinois Certification #: 001191

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055

Nevada Certification #: KS000212008A

Oklahoma Certification #: 9205/9935

Texas Certification #: T104704407-08-TX

Utah Certification #: 9135995665

REPORT OF LABORATORY ANALYSIS

Page 2 of 17

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Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: NM GW PRTCHO & JIC
Pace Project No.: 60119079

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60119079001	141902APR06	Water	04/02/12 14:19	04/10/12 10:00
60119079002	142902APR06	Water	04/02/12 14:29	04/10/12 10:00
60119079003	143802APR06	Water	04/02/12 14:38	04/10/12 10:00
60119079004	145702APR06	Water	04/02/12 14:57	04/10/12 10:00
60119079005	152006APR06	Water	04/06/12 15:20	04/10/12 10:00
60119079006	153206APR06	Water	04/06/12 15:32	04/10/12 10:00
60119079007	154406APR06	Water	04/06/12 15:44	04/10/12 10:00
60119079008	155306APR06	Water	04/06/12 15:53	04/10/12 10:00
60119079009	160406APR06	Water	04/06/12 16:04	04/10/12 10:00
60119079010	161506APR06	Water	04/06/12 16:15	04/10/12 10:00
60119079011	EDD	Water	04/06/12 00:00	04/10/12 10:00

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: NM GW PRTCHO & JIC

Pace Project No.: 60119079

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60119079001	141902APR06	EPA 8260	RNS	9
60119079002	142902APR06	EPA 8260	RNS	9
60119079003	143802APR06	EPA 8260	RNS	9
60119079004	145702APR06	EPA 8260	RNS	9
60119079005	152006APR06	EPA 8260	RNS	9
60119079006	153206APR06	EPA 8260	RNS	9
60119079007	154406APR06	EPA 8260	RNS	9
60119079008	155306APR06	EPA 8260	RNS	9
60119079009	160406APR06	EPA 8260	RNS	9
60119079010	161506APR06	EPA 8260	RNS	9

REPORT OF LABORATORY ANALYSIS

Page 4 of 17

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(913)599-5665

ANALYTICAL RESULTS

Project: NM GW PRTCHO & JIC

Pace Project No.: 60119079

Sample: 141902APR06		Lab ID: 60119079001	Collected: 04/02/12 14:19	Received: 04/10/12 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	23.5	ug/L	1.0	1		04/12/12 10:48	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		04/12/12 10:48	100-41-4	
Toluene	7.7	ug/L	1.0	1		04/12/12 10:48	108-88-3	
Xylene (Total)	45.9	ug/L	3.0	1		04/12/12 10:48	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	103	%	86-112	1		04/12/12 10:48	1868-53-7	
Toluene-d8 (S)	96	%	90-110	1		04/12/12 10:48	2037-26-5	
4-Bromofluorobenzene (S)	98	%	87-113	1		04/12/12 10:48	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	82-119	1		04/12/12 10:48	17060-07-0	
Preservation pH	1.0		1.0	1		04/12/12 10:48		



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ANALYTICAL RESULTS

Project: NM GW PRTCHO & JIC

Pace Project No.: 60119079

Sample: 142902APR06		Lab ID: 60119079002		Collected: 04/02/12 14:29		Received: 04/10/12 10:00		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260							
Benzene		18.2 ug/L		1.0	1		04/12/12 11:03	71-43-2	
Ethylbenzene		1.8 ug/L		1.0	1		04/12/12 11:03	100-41-4	
Toluene		ND ug/L		1.0	1		04/12/12 11:03	108-88-3	
Xylene (Total)		7.5 ug/L		3.0	1		04/12/12 11:03	1330-20-7	
Surrogates									
Dibromofluoromethane (S)		102 %		86-112	1		04/12/12 11:03	1868-53-7	
Toluene-d8 (S)		98 %		90-110	1		04/12/12 11:03	2037-26-5	
4-Bromofluorobenzene (S)		100 %		87-113	1		04/12/12 11:03	460-00-4	
1,2-Dichloroethane-d4 (S)		104 %		82-119	1		04/12/12 11:03	17060-07-0	
Preservation pH		1.0		1.0	1		04/12/12 11:03		



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ANALYTICAL RESULTS

Project: NM GW PRTCHO & JIC

Pace Project No.: 60119079

Sample: 143802APR06		Lab ID: 60119079003	Collected: 04/02/12 14:38		Received: 04/10/12 10:00	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND	ug/L	1.0	1		04/12/12 11:19	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		04/12/12 11:19	100-41-4	
Toluene	ND	ug/L	1.0	1		04/12/12 11:19	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		04/12/12 11:19	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	100	%	86-112	1		04/12/12 11:19	1868-53-7	
Toluene-d8 (S)	96	%	90-110	1		04/12/12 11:19	2037-26-5	
4-Bromofluorobenzene (S)	99	%	87-113	1		04/12/12 11:19	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	82-119	1		04/12/12 11:19	17060-07-0	
Preservation pH	7.0		1.0	1		04/12/12 11:19		pH



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ANALYTICAL RESULTS

Project: NM GW PRTCHO & JIC

Pace Project No.: 60119079

Sample: 145702APR06		Lab ID: 60119079004		Collected: 04/02/12 14:57		Received: 04/10/12 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV UST, Water		Analytical Method: EPA 8260							
Benzene	1210	ug/L	20.0	20		04/12/12 11:34	71-43-2		
Ethylbenzene	259	ug/L	20.0	20		04/12/12 11:34	100-41-4		
Toluene	36.2	ug/L	20.0	20		04/12/12 11:34	108-88-3		
Xylene (Total)	423	ug/L	60.0	20		04/12/12 11:34	1330-20-7		
Surrogates									
Dibromofluoromethane (S)	99	%	86-112	20		04/12/12 11:34	1868-53-7		
Toluene-d8 (S)	99	%	90-110	20		04/12/12 11:34	2037-26-5		
4-Bromofluorobenzene (S)	100	%	87-113	20		04/12/12 11:34	460-00-4		
1,2-Dichloroethane-d4 (S)	101	%	82-119	20		04/12/12 11:34	17060-07-0		
Preservation pH	1.0		1.0	20		04/12/12 11:34			



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ANALYTICAL RESULTS

Project: NM GW PRTCHO & JIC

Pace Project No.: 60119079

Sample: 152006APR06		Lab ID: 60119079005	Collected: 04/06/12 15:20		Received: 04/10/12 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND	ug/L	1.0	1		04/12/12 11:49	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		04/12/12 11:49	100-41-4	
Toluene	ND	ug/L	1.0	1		04/12/12 11:49	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		04/12/12 11:49	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	103	%	86-112	1		04/12/12 11:49	1868-53-7	
Toluene-d8 (S)	96	%	90-110	1		04/12/12 11:49	2037-26-5	
4-Bromofluorobenzene (S)	98	%	87-113	1		04/12/12 11:49	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	82-119	1		04/12/12 11:49	17060-07-0	
Preservation pH	1.0		1.0	1		04/12/12 11:49		



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ANALYTICAL RESULTS

Project: NM GW PRTCHO & JIC

Pace Project No.: 60119079

Sample: 153206APR06		Lab ID: 60119079006	Collected: 04/06/12 15:32		Received: 04/10/12 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND	ug/L	1.0	1		04/12/12 12:04	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		04/12/12 12:04	100-41-4	
Toluene	ND	ug/L	1.0	1		04/12/12 12:04	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		04/12/12 12:04	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	101	%	86-112	1		04/12/12 12:04	1868-53-7	
Toluene-d8 (S)	97	%	90-110	1		04/12/12 12:04	2037-26-5	
4-Bromofluorobenzene (S)	102	%	87-113	1		04/12/12 12:04	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	82-119	1		04/12/12 12:04	17060-07-0	
Preservation pH	1.0		1.0	1		04/12/12 12:04		



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ANALYTICAL RESULTS

Project: NM GW PRTCHO & JIC

Pace Project No.: 60119079

Sample: 154406APR06		Lab ID: 60119079007	Collected: 04/06/12 15:44	Received: 04/10/12 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND	ug/L	1.0	1		04/12/12 12:19	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		04/12/12 12:19	100-41-4	
Toluene	ND	ug/L	1.0	1		04/12/12 12:19	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		04/12/12 12:19	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	103 %		86-112	1		04/12/12 12:19	1868-53-7	
Toluene-d8 (S)	98 %		90-110	1		04/12/12 12:19	2037-26-5	
4-Bromofluorobenzene (S)	100 %		87-113	1		04/12/12 12:19	460-00-4	
1,2-Dichloroethane-d4 (S)	101 %		82-119	1		04/12/12 12:19	17060-07-0	
Preservation pH	1.0		1.0	1		04/12/12 12:19		



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ANALYTICAL RESULTS

Project: NM GW PRTCHO & JIC

Pace Project No.: 60119079

Sample: 155306APR06		Lab ID: 60119079008		Collected: 04/06/12 15:53		Received: 04/10/12 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV UST, Water									
Analytical Method: EPA 8260									
Benzene	1900	ug/L	20.0	20		04/12/12 12:34	71-43-2		
Ethylbenzene	127	ug/L	20.0	20		04/12/12 12:34	100-41-4		
Toluene	955	ug/L	20.0	20		04/12/12 12:34	108-88-3		
Xylene (Total)	1040	ug/L	60.0	20		04/12/12 12:34	1330-20-7		
Surrogates									
Dibromofluoromethane (S)	101	%	86-112	20		04/12/12 12:34	1868-53-7		
Toluene-d8 (S)	97	%	90-110	20		04/12/12 12:34	2037-26-5		
4-Bromofluorobenzene (S)	101	%	87-113	20		04/12/12 12:34	460-00-4		
1,2-Dichloroethane-d4 (S)	100	%	82-119	20		04/12/12 12:34	17060-07-0		
Preservation pH	2.0		1.0	20		04/12/12 12:34			



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ANALYTICAL RESULTS

Project: NM GW PRTCHO & JIC

Pace Project No.: 60119079

Sample: 160406APR06		Lab ID: 60119079009		Collected: 04/06/12 16:04		Received: 04/10/12 10:00		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260							
Benzene	13800	ug/L	100	100		04/12/12 12:49	71-43-2		
Ethylbenzene	333	ug/L	100	100		04/12/12 12:49	100-41-4		
Toluene	3070	ug/L	100	100		04/12/12 12:49	108-88-3		
Xylene (Total)	1590	ug/L	300	100		04/12/12 12:49	1330-20-7		
Surrogates									
Dibromofluoromethane (S)	100	%	86-112	100		04/12/12 12:49	1868-53-7		
Toluene-d8 (S)	98	%	90-110	100		04/12/12 12:49	2037-26-5		
4-Bromofluorobenzene (S)	99	%	87-113	100		04/12/12 12:49	460-00-4		
1,2-Dichloroethane-d4 (S)	102	%	82-119	100		04/12/12 12:49	17060-07-0		
Preservation pH	7.0		1.0	100		04/12/12 12:49			pH



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ANALYTICAL RESULTS

Project: NM GW PRTCHO & JIC

Pace Project No.: 60119079

Sample: 161506APR06		Lab ID: 60119079010	Collected: 04/06/12 16:15		Received: 04/10/12 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND	ug/L	1.0	1		04/12/12 13:04	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		04/12/12 13:04	100-41-4	
Toluene	ND	ug/L	1.0	1		04/12/12 13:04	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		04/12/12 13:04	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	99 %		86-112	1		04/12/12 13:04	1868-53-7	
Toluene-d8 (S)	96 %		90-110	1		04/12/12 13:04	2037-26-5	
4-Bromofluorobenzene (S)	102 %		87-113	1		04/12/12 13:04	460-00-4	
1,2-Dichloroethane-d4 (S)	102 %		82-119	1		04/12/12 13:04	17060-07-0	
Preservation pH	1.0		1.0	1		04/12/12 13:04		



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QUALITY CONTROL DATA

Project: NM GW PRTCHO & JIC

Pace Project No.: 60119079

QC Batch: MSV/44875 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 60119079001, 60119079002, 60119079003, 60119079004, 60119079005, 60119079006, 60119079007, 60119079008, 60119079009, 60119079010

METHOD BLANK: 980214

Matrix: Water

Associated Lab Samples: 60119079001, 60119079002, 60119079003, 60119079004, 60119079005, 60119079006, 60119079007, 60119079008, 60119079009, 60119079010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	04/12/12 09:48	
Ethylbenzene	ug/L	ND	1.0	04/12/12 09:48	
Toluene	ug/L	ND	1.0	04/12/12 09:48	
Xylene (Total)	ug/L	ND	3.0	04/12/12 09:48	
1,2-Dichloroethane-d4 (S)	%	101	82-119	04/12/12 09:48	
4-Bromofluorobenzene (S)	%	102	87-113	04/12/12 09:48	
Dibromofluoromethane (S)	%	100	86-112	04/12/12 09:48	
Toluene-d8 (S)	%	97	90-110	04/12/12 09:48	

LABORATORY CONTROL SAMPLE: 980215

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	22.0	110	82-117	
Ethylbenzene	ug/L	20	20.6	103	79-121	
Toluene	ug/L	20	21.0	105	80-120	
Xylene (Total)	ug/L	60	61.1	102	79-120	
1,2-Dichloroethane-d4 (S)	%			102	82-119	
4-Bromofluorobenzene (S)	%			100	87-113	
Dibromofluoromethane (S)	%			103	86-112	
Toluene-d8 (S)	%			98	90-110	



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QUALIFIERS

Project: NM GW PRTCHO & JIC

Pace Project No.: 60119079

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/44875

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

pH Post-analysis pH measurement indicates insufficient VOA sample preservation.



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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NM GW PRTCHO & JIC
Pace Project No.: 60119079

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60119079001	141902APR06	EPA 8260	MSV/44875		
60119079002	142902APR06	EPA 8260	MSV/44875		
60119079003	143802APR06	EPA 8260	MSV/44875		
60119079004	145702APR06	EPA 8260	MSV/44875		
60119079005	152006APR06	EPA 8260	MSV/44875		
60119079006	153206APR06	EPA 8260	MSV/44875		
60119079007	154406APR06	EPA 8260	MSV/44875		
60119079008	155306APR06	EPA 8260	MSV/44875		
60119079009	160406APR06	EPA 8260	MSV/44875		
60119079010	161506APR06	EPA 8260	MSV/44875		

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Requested Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	M, L E HIGH	Report To:	M. HARVEY	Attention:	
Address:	811 B LEST APACHE	Copy To:		Company Name:	
	FARMINGTON, NM			Address:	
Email To:		Purchase Order No.:		Pace Quota Reference:	
Phone:		Project Name:	NM GWD	Pace Project Manager:	
Fax:		Project Number:	85422	Pace Profile #:	
Requested Due Date/TAT:		Requested Due Date/TAT:		Requested Due Date/TAT:	
Page: / of /		1369884		REGULATORY AGENCY	
				☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER	
Site Location		STATE:		N/M	

[illegible]

ORIGINAL		SAMPLER NAME AND SIGNATURE					Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
M. HARVEY / MILE HIGH	4-9-12	3:50	FE0-EX	4-9-12						
			Phyllis	4/10	1000		4.0	X	X	Y

PRINT Name of SAMPLER: M. HARVEY /

SIGNATURE of SAMPLER: *M. J.*

DATE Signed (MM/DD/YYYY): 4-9-12

***Important Note:** By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007



Sample Condition Upon Receipt

Client Name: mile HighProject # 60119679Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ OtherTracking #: 8001 1020 5172 Pace Shipping Label Used? ☐ Yes ☒ NoCustody Seal on Cooler/Box Present: ☐ Yes ☒ No Seals intact: ☐ Yes ☒ No

Optional
Proj. Due Date: <u>4/17</u>
Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ OtherThermometer Used: T-191 / T-194Type of Ice: Wet Blue None☐ Samples on ice, cooling process has begunCooler Temperature: 4.0

Temperature should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: 4-10-12

Chain of Custody present:	☐ Yes ☒ No ☐ N/A	1.
Chain of Custody filled out:	☐ Yes ☒ No ☐ N/A	2.
Chain of Custody relinquished:	☐ Yes ☒ No ☐ N/A	3.
Sampler name & signature on COC:	☐ Yes ☒ No ☐ N/A	4.
Samples arrived within holding time:	☐ Yes ☒ No ☐ N/A	5.
Short Hold Time analyses (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient volume:	☐ Yes ☒ No ☐ N/A	8.
Correct containers used:	☐ Yes ☒ No ☐ N/A	9.
-Pace containers used:	☐ Yes ☒ No ☐ N/A	
Containers intact:	☐ Yes ☒ No ☐ N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐ Yes ☐ No ☒ N/A	11.
Filtered volume received for dissolved tests	☐ Yes ☐ No ☒ N/A	12.
Sample labels match COC:	☒ Yes ☐ No ☐ N/A	13.
-Includes date/time/ID/analyses Matrix: <u>WT</u>		
All containers needing preservation have been checked.	☐ Yes ☒ No ☐ N/A	14.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☒ No ☐ N/A	
Exceptions: <u>VOA</u> coliform, TOC, O&G, WI-DRO (water), Phenolics	☒ Yes ☐ No	Initial when completed
Trip Blank present:	☐ Yes ☒ No ☐ N/A	Lot # of added preservative
Pace Trip Blank lot # (if purchased):		
Headspace in VOA vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Project sampled in USDA Regulated Area:	☐ Yes ☐ No ☒ N/A	16.
Project sampled in USDA Regulated Area:	☐ Yes ☐ No ☒ N/A	17. List State: <u>NC</u>

Client Notification/ Resolution:

Copy COC to Client?

☒ Y / N

Field Data Required?

Y / N

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: AMWDate: 4/10/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



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June 25, 2012

Mr. Mark Harvey
Mile High Environmental
811 B West Apache
Farmington, NM 87401

RE: Project: NM GW JIC & DOGE
Pace Project No.: 60123510

Dear Mr. Harvey:

Enclosed are the analytical results for sample(s) received by the laboratory between June 16, 2012 and June 18, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Heather Wilson

heather.wilson@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: NM GW JIC & DOGE
Pace Project No.: 60123510

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
A2LA Certification #: 2456.01
Arkansas Certification #: 05-008-0
Illinois Certification #: 001191
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407-08-TX
Utah Certification #: 9135995665

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SAMPLE SUMMARY

Project: NM GW JIC & DOGE

Pace Project No.: 60123510

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60123510001	115214JUN12	Water	06/12/12 11:52	06/16/12 08:45
60123510002	120014JUN12	Water	06/12/12 12:00	06/16/12 08:45
60123510003	121014JUN12	Water	06/12/12 12:10	06/16/12 08:45
60123510004	121914JUN12	Water	06/12/12 12:19	06/16/12 08:45
60123510005	123214JUN12	Water	06/12/12 12:32	06/16/12 08:45
60123510006	124414JUN12	Water	06/12/12 12:44	06/16/12 08:45
60123510007	132814JUN12	Water	06/12/12 13:28	06/16/12 08:45
60123510008	133414JUN12	Water	06/12/12 13:34	06/16/12 08:45
60123510009	134114JUN12	Water	06/12/12 13:41	06/16/12 08:45
60123510010	134914JUN12	Water	06/12/12 13:49	06/16/12 08:45
60123510011	141114JUN12	Water	06/12/12 14:11	06/16/12 08:45
60123510012	EDD	Water		06/18/12 10:18

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SAMPLE ANALYTE COUNT

Project: NM GW JIC & DOGE
Pace Project No.: 60123510

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60123510001	115214JUN12	EPA 8260	JTK	9
60123510002	120014JUN12	EPA 8260	JTK	9
60123510003	121014JUN12	EPA 8260	JTK	9
60123510004	121914JUN12	EPA 8260	JTK	9
60123510005	123214JUN12	EPA 8260	JTK	9
60123510006	124414JUN12	EPA 8260	HNS	9
60123510007	132814JUN12	EPA 8260	HNS	9
60123510008	133414JUN12	EPA 8260	HNS	9
60123510009	134114JUN12	EPA 8260	RNS	9
60123510010	134914JUN12	EPA 8260	HNS	9
60123510011	141114JUN12	EPA 8260	HNS	9

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NM GW JIC & DOGE

Pace Project No.: 60123510

Sample: 115214JUN12		Lab ID: 60123510001		Collected: 06/12/12 11:52		Received: 06/16/12 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV UST, Water									
Analytical Method: EPA 8260									
Benzene	ND ug/L		1.0	1		06/18/12 21:05	71-43-2		
Ethylbenzene	ND ug/L		1.0	1		06/18/12 21:05	100-41-4		
Toluene	ND ug/L		1.0	1		06/18/12 21:05	108-88-3		
Xylene (Total)	ND ug/L		3.0	1		06/18/12 21:05	1330-20-7		
Surrogates									
Dibromofluoromethane (S)	100 %		86-112	1		06/18/12 21:05	1868-53-7		
Toluene-d8 (S)	104 %		90-110	1		06/18/12 21:05	2037-26-5		
4-Bromofluorobenzene (S)	104 %		87-113	1		06/18/12 21:05	460-00-4		
1,2-Dichloroethane-d4 (S)	95 %		82-119	1		06/18/12 21:05	17060-07-0		
Preservation pH	7.0		1.0	1		06/18/12 21:05			pH



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ANALYTICAL RESULTS

Project: NM GW JIC & DOGE

Pace Project No.: 60123510

Sample: 120014JUN12		Lab ID: 60123510002		Collected: 06/12/12 12:00		Received: 06/16/12 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV UST, Water		Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		06/18/12 21:22	71-43-2		
Ethylbenzene	ND	ug/L	1.0	1		06/18/12 21:22	100-41-4		
Toluene	ND	ug/L	1.0	1		06/18/12 21:22	108-88-3		
Xylene (Total)	ND	ug/L	3.0	1		06/18/12 21:22	1330-20-7		
Surrogates									
Dibromofluoromethane (S)	99	%	86-112	1		06/18/12 21:22	1868-53-7		
Toluene-d8 (S)	101	%	90-110	1		06/18/12 21:22	2037-26-5		
4-Bromofluorobenzene (S)	103	%	87-113	1		06/18/12 21:22	460-00-4		
1,2-Dichloroethane-d4 (S)	96	%	82-119	1		06/18/12 21:22	17060-07-0		
Preservation pH	7.0		1.0	1		06/18/12 21:22		pH	



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ANALYTICAL RESULTS

Project: NM GW JIC & DOGE

Pace Project No.: 60123510

Sample: 121014JUN12		Lab ID: 60123510003	Collected: 06/12/12 12:10		Received: 06/16/12 08:45	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	2.5 ug/L		1.0	1		06/18/12 21:39	71-43-2	
Ethylbenzene	ND ug/L		1.0	1		06/18/12 21:39	100-41-4	
Toluene	ND ug/L		1.0	1		06/18/12 21:39	108-88-3	
Xylene (Total)	ND ug/L		3.0	1		06/18/12 21:39	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	100 %		86-112	1		06/18/12 21:39	1868-53-7	
Toluene-d8 (S)	102 %		90-110	1		06/18/12 21:39	2037-26-5	
4-Bromofluorobenzene (S)	103 %		87-113	1		06/18/12 21:39	460-00-4	
1,2-Dichloroethane-d4 (S)	95 %		82-119	1		06/18/12 21:39	17060-07-0	
Preservation pH	1.0		1.0	1		06/18/12 21:39		



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ANALYTICAL RESULTS

Project: NM GW JIC & DOGE

Pace Project No.: 60123510

Sample: 121914JUN12		Lab ID: 60123510004		Collected: 06/12/12 12:19		Received: 06/16/12 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV UST, Water		Analytical Method: EPA 8260							
Benzene	2700	ug/L	50.0	50		06/19/12 19:54	71-43-2		
Ethylbenzene	203	ug/L	10.0	10		06/18/12 21:56	100-41-4		
Toluene	4990	ug/L	50.0	50		06/19/12 19:54	108-88-3		
Xylene (Total)	2890	ug/L	30.0	10		06/18/12 21:56	1330-20-7		
Surrogates									
Dibromofluoromethane (S)	98	%	86-112	10		06/18/12 21:56	1868-53-7		
Toluene-d8 (S)	98	%	90-110	10		06/18/12 21:56	2037-26-5		
4-Bromofluorobenzene (S)	105	%	87-113	10		06/18/12 21:56	460-00-4		
1,2-Dichloroethane-d4 (S)	94	%	82-119	10		06/18/12 21:56	17060-07-0		
Preservation pH	1.0		1.0	10		06/18/12 21:56			



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ANALYTICAL RESULTS

Project: NM GW JIC & DOGE

Pace Project No.: 60123510

Sample: 123214JUN12		Lab ID: 60123510005	Collected: 06/12/12 12:32		Received: 06/16/12 08:45	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	13000	ug/L	200	200		06/18/12 22:13	71-43-2	
Ethylbenzene	406	ug/L	200	200		06/18/12 22:13	100-41-4	
Toluene	1010	ug/L	200	200		06/18/12 22:13	108-88-3	
Xylene (Total)	1560	ug/L	600	200		06/18/12 22:13	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	110	%	86-112	200		06/18/12 22:13	1868-53-7	
Toluene-d8 (S)	105	%	90-110	200		06/18/12 22:13	2037-26-5	
4-Bromofluorobenzene (S)	102	%	87-113	200		06/18/12 22:13	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	82-119	200		06/18/12 22:13	17060-07-0	
Preservation pH	8.0		1.0	200		06/18/12 22:13		pH



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ANALYTICAL RESULTS

Project: NM GW JIC & DOGE

Pace Project No.: 60123510

Sample: 124414JUN12		Lab ID: 60123510006	Collected: 06/12/12 12:44		Received: 06/16/12 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND	ug/L	1.0	1		06/20/12 14:08	71-43-2	
Ethylbenzene	2.1	ug/L	1.0	1		06/20/12 14:08	100-41-4	
Toluene	ND	ug/L	1.0	1		06/20/12 14:08	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		06/20/12 14:08	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	106	%	86-112	1		06/20/12 14:08	1868-53-7	
Toluene-d8 (S)	94	%	90-110	1		06/20/12 14:08	2037-26-5	
4-Bromofluorobenzene (S)	104	%	87-113	1		06/20/12 14:08	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	82-119	1		06/20/12 14:08	17060-07-0	
Preservation pH	7.0		1.0	1		06/20/12 14:08		pH



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ANALYTICAL RESULTS

Project: NM GW JIC & DOGE

Pace Project No.: 60123510

Sample: 132814JUN12		Lab ID: 60123510007		Collected: 06/12/12 13:28		Received: 06/16/12 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV UST, Water		Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		06/20/12 14:25	71-43-2		
Ethylbenzene	ND	ug/L	1.0	1		06/20/12 14:25	100-41-4		
Toluene	ND	ug/L	1.0	1		06/20/12 14:25	108-88-3		
Xylene (Total)	ND	ug/L	3.0	1		06/20/12 14:25	1330-20-7		
Surrogates									
Dibromofluoromethane (S)	102	%	86-112	1		06/20/12 14:25	1868-53-7		
Toluene-d8 (S)	94	%	90-110	1		06/20/12 14:25	2037-26-5		
4-Bromofluorobenzene (S)	105	%	87-113	1		06/20/12 14:25	460-00-4		
1,2-Dichloroethane-d4 (S)	93	%	82-119	1		06/20/12 14:25	17060-07-0		
Preservation pH	7.0		1.0	1		06/20/12 14:25		pH	



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ANALYTICAL RESULTS

Project: NM GW JIC & DOGE

Pace Project No.: 60123510

Sample: 133414JUN12		Lab ID: 60123510008		Collected: 06/12/12 13:34		Received: 06/16/12 08:45		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		06/20/12 14:41	71-43-2		
Ethylbenzene	ND	ug/L	1.0	1		06/20/12 14:41	100-41-4		
Toluene	ND	ug/L	1.0	1		06/20/12 14:41	108-88-3		
Xylene (Total)	ND	ug/L	3.0	1		06/20/12 14:41	1330-20-7		
Surrogates									
Dibromofluoromethane (S)	103	%	86-112	1		06/20/12 14:41	1868-53-7		
Toluene-d8 (S)	97	%	90-110	1		06/20/12 14:41	2037-26-5		
4-Bromofluorobenzene (S)	105	%	87-113	1		06/20/12 14:41	460-00-4		
1,2-Dichloroethane-d4 (S)	97	%	82-119	1		06/20/12 14:41	17060-07-0		
Preservation pH	7.0		1.0	1		06/20/12 14:41			pH



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ANALYTICAL RESULTS

Project: NM GW JIC & DOGE

Pace Project No.: 60123510

Sample: 134114JUN12		Lab ID: 60123510009	Collected: 06/12/12 13:41	Received: 06/16/12 08:45	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	4.8	ug/L	1.0	1		06/21/12 22:03	71-43-2	
Ethylbenzene	122	ug/L	1.0	1		06/21/12 22:03	100-41-4	
Toluene	13.4	ug/L	1.0	1		06/21/12 22:03	108-88-3	
Xylene (Total)	344	ug/L	3.0	1		06/21/12 22:03	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	98	%	86-112	1		06/21/12 22:03	1868-53-7	
Toluene-d8 (S)	100	%	90-110	1		06/21/12 22:03	2037-26-5	
4-Bromofluorobenzene (S)	101	%	87-113	1		06/21/12 22:03	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	82-119	1		06/21/12 22:03	17060-07-0	
Preservation pH	1.0		1.0	1		06/21/12 22:03		



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ANALYTICAL RESULTS

Project: NM GW JIC & DOGE

Pace Project No.: 60123510

Sample: 134914JUN12		Lab ID: 60123510010		Collected: 06/12/12 13:49		Received: 06/16/12 08:45		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV UST, Water		Analytical Method: EPA 8260							
Benzene	22.0	ug/L	1.0	1		06/20/12 15:13	71-43-2		
Ethylbenzene	ND	ug/L	1.0	1		06/20/12 15:13	100-41-4		
Toluene	4.1	ug/L	1.0	1		06/20/12 15:13	108-88-3		
Xylene (Total)	ND	ug/L	3.0	1		06/20/12 15:13	1330-20-7		
Surrogates									
Dibromofluoromethane (S)	103	%	86-112	1		06/20/12 15:13	1868-53-7		
Toluene-d8 (S)	95	%	90-110	1		06/20/12 15:13	2037-26-5		
4-Bromofluorobenzene (S)	104	%	87-113	1		06/20/12 15:13	460-00-4		
1,2-Dichloroethane-d4 (S)	99	%	82-119	1		06/20/12 15:13	17060-07-0		
Preservation pH	1.0		1.0	1		06/20/12 15:13			



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ANALYTICAL RESULTS

Project: NM GW JIC & DOGE

Pace Project No.: 60123510

Sample: 141114JUN12		Lab ID: 60123510011	Collected: 06/12/12 14:11	Received: 06/16/12 08:45	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND	ug/L	1.0	1		06/20/12 15:30	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		06/20/12 15:30	100-41-4	
Toluene	ND	ug/L	1.0	1		06/20/12 15:30	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		06/20/12 15:30	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	104	%	86-112	1		06/20/12 15:30	1868-53-7	
Toluene-d8 (S)	98	%	90-110	1		06/20/12 15:30	2037-26-5	
4-Bromofluorobenzene (S)	103	%	87-113	1		06/20/12 15:30	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	82-119	1		06/20/12 15:30	17060-07-0	
Preservation pH	7.0		1.0	1		06/20/12 15:30		pH



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QUALITY CONTROL DATA

Project: NM GW JIC & DOGE

Pace Project No.: 60123510

QC Batch: MSV/46444

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV UST-WATER

Associated Lab Samples: 60123510001, 60123510002, 60123510003, 60123510004, 60123510005

METHOD BLANK: 1015987

Matrix: Water

Associated Lab Samples: 60123510001, 60123510002, 60123510003, 60123510004, 60123510005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	06/18/12 20:48	
Ethylbenzene	ug/L	ND	1.0	06/18/12 20:48	
Toluene	ug/L	ND	1.0	06/18/12 20:48	
Xylene (Total)	ug/L	ND	3.0	06/18/12 20:48	
1,2-Dichloroethane-d4 (S)	%	95	82-119	06/18/12 20:48	
4-Bromofluorobenzene (S)	%	103	87-113	06/18/12 20:48	
Dibromofluoromethane (S)	%	110	86-112	06/18/12 20:48	
Toluene-d8 (S)	%	99	90-110	06/18/12 20:48	

LABORATORY CONTROL SAMPLE: 1015988

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.5	97	82-117	
Ethylbenzene	ug/L	20	20.1	101	79-121	
Toluene	ug/L	20	20.6	103	80-120	
Xylene (Total)	ug/L	60	59.0	98	79-120	
1,2-Dichloroethane-d4 (S)	%			95	82-119	
4-Bromofluorobenzene (S)	%			103	87-113	
Dibromofluoromethane (S)	%			99	86-112	
Toluene-d8 (S)	%			102	90-110	



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QUALITY CONTROL DATA

Project: NM GW JIC & DOGE

Pace Project No.: 60123510

QC Batch: MSV/46450

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV UST-WATER

Associated Lab Samples: 60123510006, 60123510007, 60123510008, 60123510010, 60123510011

METHOD BLANK: 1016008

Matrix: Water

Associated Lab Samples: 60123510006, 60123510007, 60123510008, 60123510010, 60123510011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	06/20/12 11:26	
Ethylbenzene	ug/L	ND	1.0	06/20/12 11:26	
Toluene	ug/L	ND	1.0	06/20/12 11:26	
Xylene (Total)	ug/L	ND	3.0	06/20/12 11:26	
1,2-Dichloroethane-d4 (S)	%	100	82-119	06/20/12 11:26	
4-Bromofluorobenzene (S)	%	104	87-113	06/20/12 11:26	
Dibromofluoromethane (S)	%	102	86-112	06/20/12 11:26	
Toluene-d8 (S)	%	93	90-110	06/20/12 11:26	

LABORATORY CONTROL SAMPLE: 1016009

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.4	102	82-117	
Ethylbenzene	ug/L	20	20.7	104	79-121	
Toluene	ug/L	20	19.8	99	80-120	
Xylene (Total)	ug/L	60	64.5	108	79-120	
1,2-Dichloroethane-d4 (S)	%			92	82-119	
4-Bromofluorobenzene (S)	%			101	87-113	
Dibromofluoromethane (S)	%			103	86-112	
Toluene-d8 (S)	%			94	90-110	

QUALITY CONTROL DATA

Project: NM GW JIC & DOGE

Pace Project No.: 60123510

QC Batch: MSV/46486

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV UST-WATER

Associated Lab Samples: 60123510004

METHOD BLANK: 1016544

Matrix: Water

Associated Lab Samples: 60123510004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	06/19/12 19:37	
Toluene	ug/L	ND	1.0	06/19/12 19:37	
1,2-Dichloroethane-d4 (S)	%	94	82-119	06/19/12 19:37	
4-Bromofluorobenzene (S)	%	104	87-113	06/19/12 19:37	
Dibromofluoromethane (S)	%	106	86-112	06/19/12 19:37	
Toluene-d8 (S)	%	103	90-110	06/19/12 19:37	

LABORATORY CONTROL SAMPLE: 1016545

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.6	93	82-117	
Toluene	ug/L	20	20.2	101	80-120	
1,2-Dichloroethane-d4 (S)	%			90	82-119	
4-Bromofluorobenzene (S)	%			103	87-113	
Dibromofluoromethane (S)	%			102	86-112	
Toluene-d8 (S)	%			100	90-110	



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QUALITY CONTROL DATA

Project: NM GW JIC & DOGE

Pace Project No.: 60123510

QC Batch: MSV/46544

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV UST-WATER

Associated Lab Samples: 60123510009

METHOD BLANK: 1017866

Matrix: Water

Associated Lab Samples: 60123510009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	06/21/12 21:48	
Ethylbenzene	ug/L	ND	1.0	06/21/12 21:48	
Toluene	ug/L	ND	1.0	06/21/12 21:48	
Xylene (Total)	ug/L	ND	3.0	06/21/12 21:48	
1,2-Dichloroethane-d4 (S)	%	103	82-119	06/21/12 21:48	
4-Bromofluorobenzene (S)	%	104	87-113	06/21/12 21:48	
Dibromofluoromethane (S)	%	104	86-112	06/21/12 21:48	
Toluene-d8 (S)	%	101	90-110	06/21/12 21:48	

LABORATORY CONTROL SAMPLE: 1017867

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.4	102	82-117	
Ethylbenzene	ug/L	20	20.1	100	79-121	
Toluene	ug/L	20	21.0	105	80-120	
Xylene (Total)	ug/L	60	59.5	99	79-120	
1,2-Dichloroethane-d4 (S)	%			95	82-119	
4-Bromofluorobenzene (S)	%			106	87-113	
Dibromofluoromethane (S)	%			100	86-112	
Toluene-d8 (S)	%			102	90-110	

QUALIFIERS

Project: NM GW JIC & DOGE
Pace Project No.: 60123510

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.
ND - Not Detected at or above adjusted reporting limit.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PRL - Pace Reporting Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/46444

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/46450

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/46486

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/46544

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

pH Post-analysis pH measurement indicates insufficient VOA sample preservation.



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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NM GW JIC & DOGE

Pace Project No.: 60123510

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60123510001	115214JUN12	EPA 8260	MSV/46444		
60123510002	120014JUN12	EPA 8260	MSV/46444		
60123510003	121014JUN12	EPA 8260	MSV/46444		
60123510004	121914JUN12	EPA 8260	MSV/46444		
60123510004	121914JUN12	EPA 8260	MSV/46486		
60123510005	123214JUN12	EPA 8260	MSV/46444		
60123510006	124414JUN12	EPA 8260	MSV/46450		
60123510007	132814JUN12	EPA 8260	MSV/46450		
60123510008	133414JUN12	EPA 8260	MSV/46450		
60123510009	134114JUN12	EPA 8260	MSV/46544		
60123510010	134914JUN12	EPA 8260	MSV/46450		
60123510011	141114JUN12	EPA 8260	MSV/46450		

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	MILE HIGH SERVICES	Report To:	MARIL HARVEY	Attention:	
Address:	8110 WEST ARACHE	Copy To:		Company Name:	
	PARMILCROD, NM 87401			Address:	
Email To:		Purchase Order No.:		Pace Quota Reference:	
Phone:	805-326-5422	Project Name:	NM GW	Pace Project Manager:	
Requested Due Date/TAT:		Project Number:	JIC + DOGE	Pace Profile #:	
Page: 1 of 1		REGULATORY AGENCY		REGULATORY AGENCY	
1372652		☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER		Site Location STATE: NM	

[illegible]

ORIGINAL		SAMPLER NAME AND SIGNATURE					Temp in °C	Received on (Y/N)	Custody (Y/N)	Sealed Cooler (Y/N)	Samples Intact (Y/N)
		PRINT Name of SAMPLER: M. HARVEY									
		SIGNATURE of SAMPLER: <i>M. Harvey</i>									
		DATE Signed (MM/DD/YY): 6-14-12									



Sample Condition Upon Receipt

Client Name: Mile High Services Project # 60123510

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Tracking #: 800120957033

Pace Shipping Label Used? ☐ Yes ☒ No

Custody Seal on Cooler/Box Present: ☐ Yes ☒ No Seals intact: ☐ Yes ☒ No

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other

Thermometer Used: T-19 / T-194

Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 11.3

Temperature should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: 6-16-12 BA

Chain of Custody present:	☒ Yes ☐ No ☐ N/A	1. <u>Out of temp, not enough ice to</u>
Chain of Custody filled out:	☒ Yes ☐ No ☐ N/A	2. <u>Keep it cold.</u>
Chain of Custody relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler name & signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples arrived within holding time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time analyses (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient volume:	☒ Yes ☐ No ☐ N/A	8.
Correct containers used:	☒ Yes ☐ No ☐ N/A	9.
-Pace containers used:	☒ Yes ☐ No ☐ N/A	
Containers intact:	☒ Yes ☐ No ☐ N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐ Yes ☐ No ☒ N/A	11.
Filtered volume received for dissolved tests	☐ Yes ☐ No ☒ N/A	12.
Sample labels match COC:	☒ Yes ☐ No ☐ N/A	13.
-Includes date/time/ID/analyses Matrix: <u>WT</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	14.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
Exceptions: <u>VOA</u> , coliform, TOC, O&G, WI-DRO (water), Phenolics	☒ Yes ☐ No	Initial when completed
Trip Blank present:	☐ Yes ☒ No ☐ N/A	Lot # of added preservative
Pace Trip Blank lot # (if purchased):		
Headspace in VOA vials (>6mm):	☐ Yes ☒ No ☐ N/A	16.
Project sampled in USDA Regulated Area:	☐ Yes ☐ No ☒ N/A	17. List State: <u>CA</u>

Client Notification/ Resolution:

Copy COC to Client? ☒ Y ☐ N

Field Data Required?

☐ Y ☐ N

Person Contacted: Mark Harvey

Date/Time: 6/18/12

Comments/ Resolution: Emailed about cooler out of temp & muw 6/18/12
Per mark Harvey Analyze samples & muw 6/18/12

Project Manager Review:

& muw

Date: 6/18/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



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October 10, 2012

Mr. Mark Harvey
Mile High Environmental
811 B West Apache
Farmington, NM 87401

RE: Project: NM GW ICE & JIC
Pace Project No.: 60130478

Dear Mr. Harvey:

Enclosed are the analytical results for sample(s) received by the laboratory on October 04, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Andy Brownfield for
Heather Wilson
heather.wilson@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: NM GW ICE & JIC
Pace Project No.: 60130478

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
A2LA Certification #: 2456.01
Arkansas Certification #: 12-019-0
Illinois Certification #: 002885
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407-12-3
Utah Certification #: KS000212012-2

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: NM GW ICE & JIC
Pace Project No.: 60130478

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60130478001	121027SEP12	Water	09/27/12 12:10	10/04/12 08:20
60130478002	122127SEP12	Water	09/27/12 12:21	10/04/12 08:20
60130478003	125627SEP12	Water	09/27/12 12:56	10/04/12 08:20
60130478004	134427SEP12	Water	09/27/12 13:44	10/04/12 08:20
60130478005	135227SEP12	Water	09/27/12 13:52	10/04/12 08:20
60130478006	142227SEP12	Water	09/27/12 14:22	10/04/12 08:20
60130478007	142927SEP12	Water	09/27/12 14:29	10/04/12 08:20
60130478008	143927SEP12	Water	09/27/12 14:39	10/04/12 08:20
60130478009	145427SEP12	Water	09/27/12 14:54	10/04/12 08:20
60130478010	150727SEP12	Water	09/27/12 15:07	10/04/12 08:20
60130478011	152127SEP12	Water	09/27/12 15:21	10/04/12 08:20

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: NM GW ICE & JIC

Pace Project No.: 60130478

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60130478001	121027SEP12	EPA 8260	SDR	9
60130478002	122127SEP12	EPA 8260	SDR	9
60130478003	125627SEP12	EPA 8260	SDR	9
60130478004	134427SEP12	EPA 8260	JTK	9
60130478005	135227SEP12	EPA 8260	JTK	9
60130478006	142227SEP12	EPA 8260	JTK	9
60130478007	142927SEP12	EPA 8260	JTK	9
60130478008	143927SEP12	EPA 8260	JTK	9
60130478009	145427SEP12	EPA 8260	JTK	9
60130478010	150727SEP12	EPA 8260	JTK	9
60130478011	152127SEP12	EPA 8260	JTK	9

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NM GW ICE & JIC

Pace Project No.: 60130478

Sample: 121027SEP12		Lab ID: 60130478001	Collected: 09/27/12 12:10		Received: 10/04/12 08:20	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND ug/L		1.0	1		10/06/12 04:20	71-43-2	
Ethylbenzene	ND ug/L		1.0	1		10/06/12 04:20	100-41-4	
Toluene	ND ug/L		1.0	1		10/06/12 04:20	108-88-3	
Xylene (Total)	ND ug/L		3.0	1		10/06/12 04:20	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	100 %		80-120	1		10/06/12 04:20	1868-53-7	
Toluene-d8 (S)	104 %		80-120	1		10/06/12 04:20	2037-26-5	
4-Bromofluorobenzene (S)	107 %		80-120	1		10/06/12 04:20	460-00-4	
1,2-Dichloroethane-d4 (S)	89 %		80-120	1		10/06/12 04:20	17060-07-0	
Preservation pH	1.0		1.0	1		10/06/12 04:20		



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ANALYTICAL RESULTS

Project: NM GW ICE & JIC

Pace Project No.: 60130478

Sample: 122127SEP12		Lab ID: 60130478002	Collected: 09/27/12 12:21		Received: 10/04/12 08:20		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND	ug/L	1.0	1		10/06/12 04:36	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/06/12 04:36	100-41-4	
Toluene	ND	ug/L	1.0	1		10/06/12 04:36	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/06/12 04:36	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	99 %		80-120	1		10/06/12 04:36	1868-53-7	
Toluene-d8 (S)	104 %		80-120	1		10/06/12 04:36	2037-26-5	
4-Bromofluorobenzene (S)	103 %		80-120	1		10/06/12 04:36	460-00-4	
1,2-Dichloroethane-d4 (S)	92 %		80-120	1		10/06/12 04:36	17060-07-0	
Preservation pH	1.0		1.0	1		10/06/12 04:36		



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ANALYTICAL RESULTS

Project: NM GW ICE & JIC
Pace Project No.: 60130478

Sample: 125627SEP12		Lab ID: 60130478003	Collected: 09/27/12 12:56	Received: 10/04/12 08:20	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND	ug/L	1.0	1		10/06/12 04:52	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/06/12 04:52	100-41-4	
Toluene	ND	ug/L	1.0	1		10/06/12 04:52	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/06/12 04:52	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	100	%	80-120	1		10/06/12 04:52	1868-53-7	
Toluene-d8 (S)	103	%	80-120	1		10/06/12 04:52	2037-26-5	
4-Bromofluorobenzene (S)	106	%	80-120	1		10/06/12 04:52	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	80-120	1		10/06/12 04:52	17060-07-0	
Preservation pH	1.0		1.0	1		10/06/12 04:52		



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ANALYTICAL RESULTS

Project: NM GW ICE & JIC

Pace Project No.: 60130478

Sample: 134427SEP12		Lab ID: 60130478004		Collected: 09/27/12 13:44		Received: 10/04/12 08:20		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV UST, Water		Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		10/06/12 03:58	71-43-2		
Ethylbenzene	ND	ug/L	1.0	1		10/06/12 03:58	100-41-4		
Toluene	ND	ug/L	1.0	1		10/06/12 03:58	108-88-3		
Xylene (Total)	ND	ug/L	3.0	1		10/06/12 03:58	1330-20-7		
Surrogates									
Dibromofluoromethane (S)	102	%	80-120	1		10/06/12 03:58	1868-53-7		
Toluene-d8 (S)	98	%	80-120	1		10/06/12 03:58	2037-26-5		
4-Bromofluorobenzene (S)	104	%	80-120	1		10/06/12 03:58	460-00-4		
1,2-Dichloroethane-d4 (S)	102	%	80-120	1		10/06/12 03:58	17060-07-0		
Preservation pH	1.0		1.0	1		10/06/12 03:58			



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ANALYTICAL RESULTS

Project: NM GW ICE & JIC

Pace Project No.: 60130478

Sample: 135227SEP12		Lab ID: 60130478005	Collected: 09/27/12 13:52	Received: 10/04/12 08:20	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND	ug/L	1.0	1		10/06/12 04:13	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/06/12 04:13	100-41-4	
Toluene	ND	ug/L	1.0	1		10/06/12 04:13	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/06/12 04:13	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	96	%	80-120	1		10/06/12 04:13	1868-53-7	
Toluene-d8 (S)	101	%	80-120	1		10/06/12 04:13	2037-26-5	
4-Bromofluorobenzene (S)	101	%	80-120	1		10/06/12 04:13	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	80-120	1		10/06/12 04:13	17060-07-0	
Preservation pH	1.0		1.0	1		10/06/12 04:13		



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ANALYTICAL RESULTS

Project: NM GW ICE & JIC

Pace Project No.: 60130478

Sample: 142227SEP12		Lab ID: 60130478006	Collected: 09/27/12 14:22		Received: 10/04/12 08:20		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND	ug/L	1.0	1		10/06/12 04:29	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/06/12 04:29	100-41-4	
Toluene	ND	ug/L	1.0	1		10/06/12 04:29	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/06/12 04:29	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	93 %		80-120	1		10/06/12 04:29	1868-53-7	
Toluene-d8 (S)	104 %		80-120	1		10/06/12 04:29	2037-26-5	
4-Bromofluorobenzene (S)	94 %		80-120	1		10/06/12 04:29	460-00-4	
1,2-Dichloroethane-d4 (S)	93 %		80-120	1		10/06/12 04:29	17060-07-0	
Preservation pH	1.0		1.0	1		10/06/12 04:29		



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ANALYTICAL RESULTS

Project: NM GW ICE & JIC

Pace Project No.: 60130478

Sample: 142927SEP12		Lab ID: 60130478007	Collected: 09/27/12 14:29	Received: 10/04/12 08:20	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND	ug/L	1.0	1		10/06/12 04:44	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/06/12 04:44	100-41-4	
Toluene	ND	ug/L	1.0	1		10/06/12 04:44	108-88-3	
Xylene (Total)	18.5	ug/L	3.0	1		10/06/12 04:44	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	95 %		80-120	1		10/06/12 04:44	1868-53-7	
Toluene-d8 (S)	101 %		80-120	1		10/06/12 04:44	2037-26-5	
4-Bromofluorobenzene (S)	99 %		80-120	1		10/06/12 04:44	460-00-4	
1,2-Dichloroethane-d4 (S)	94 %		80-120	1		10/06/12 04:44	17060-07-0	
Preservation pH	1.0		1.0	1		10/06/12 04:44		



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ANALYTICAL RESULTS

Project: NM GW ICE & JIC

Pace Project No.: 60130478

Sample: 143927SEP12		Lab ID: 60130478008	Collected: 09/27/12 14:39		Received: 10/04/12 08:20	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND ug/L		1.0	1		10/06/12 05:00	71-43-2	
Ethylbenzene	ND ug/L		1.0	1		10/06/12 05:00	100-41-4	
Toluene	ND ug/L		1.0	1		10/06/12 05:00	108-88-3	
Xylene (Total)	ND ug/L		3.0	1		10/06/12 05:00	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	100 %		80-120	1		10/06/12 05:00	1868-53-7	
Toluene-d8 (S)	96 %		80-120	1		10/06/12 05:00	2037-26-5	
4-Bromofluorobenzene (S)	100 %		80-120	1		10/06/12 05:00	460-00-4	
1,2-Dichloroethane-d4 (S)	102 %		80-120	1		10/06/12 05:00	17060-07-0	
Preservation pH	1.0		1.0	1		10/06/12 05:00		



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ANALYTICAL RESULTS

Project: NM GW ICE & JIC

Pace Project No.: 60130478

Sample: 145427SEP12		Lab ID: 60130478009	Collected: 09/27/12 14:54		Received: 10/04/12 08:20	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	2070	ug/L	20.0	20		10/06/12 05:15	71-43-2	
Ethylbenzene	194	ug/L	20.0	20		10/06/12 05:15	100-41-4	
Toluene	4380	ug/L	50.0	50		10/08/12 00:28	108-88-3	
Xylene (Total)	2690	ug/L	60.0	20		10/06/12 05:15	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	102	%	80-120	20		10/06/12 05:15	1868-53-7	
Toluene-d8 (S)	103	%	80-120	20		10/06/12 05:15	2037-26-5	
4-Bromofluorobenzene (S)	105	%	80-120	20		10/06/12 05:15	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	80-120	20		10/06/12 05:15	17060-07-0	
Preservation pH	1.0		1.0	20		10/06/12 05:15		



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ANALYTICAL RESULTS

Project: NM GW ICE & JIC

Pace Project No.: 60130478

Sample: 150727SEP12		Lab ID: 60130478010		Collected: 09/27/12 15:07		Received: 10/04/12 08:20		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV UST, Water		Analytical Method: EPA 8260							
Benzene	10300	ug/L	100	100		10/06/12 05:31	71-43-2		
Ethylbenzene	360	ug/L	100	100		10/06/12 05:31	100-41-4		
Toluene	3430	ug/L	100	100		10/06/12 05:31	108-88-3		
Xylene (Total)	2070	ug/L	300	100		10/06/12 05:31	1330-20-7		
Surrogates									
Dibromofluoromethane (S)	98	%	80-120	100		10/06/12 05:31	1868-53-7	HS	
Toluene-d8 (S)	95	%	80-120	100		10/06/12 05:31	2037-26-5		
4-Bromofluorobenzene (S)	105	%	80-120	100		10/06/12 05:31	460-00-4		
1,2-Dichloroethane-d4 (S)	102	%	80-120	100		10/06/12 05:31	17060-07-0		
Preservation pH	7.0		1.0	100		10/06/12 05:31		pH	



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ANALYTICAL RESULTS

Project: NM GW ICE & JIC

Pace Project No.: 60130478

Sample: 152127SEP12		Lab ID: 60130478011	Collected: 09/27/12 15:21	Received: 10/04/12 08:20	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND	ug/L	1.0	1		10/06/12 05:46	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		10/06/12 05:46	100-41-4	
Toluene	ND	ug/L	1.0	1		10/06/12 05:46	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		10/06/12 05:46	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	99 %		80-120	1		10/06/12 05:46	1868-53-7	HS
Toluene-d8 (S)	109 %		80-120	1		10/06/12 05:46	2037-26-5	
4-Bromofluorobenzene (S)	103 %		80-120	1		10/06/12 05:46	460-00-4	
1,2-Dichloroethane-d4 (S)	105 %		80-120	1		10/06/12 05:46	17060-07-0	
Preservation pH	1.0		1.0	1		10/06/12 05:46		



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QUALITY CONTROL DATA

Project: NM GW ICE & JIC

Pace Project No.: 60130478

QC Batch: MSV/49022

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV UST-WATER

Associated Lab Samples: 60130478001, 60130478002, 60130478003

METHOD BLANK: 1074070

Matrix: Water

Associated Lab Samples: 60130478001, 60130478002, 60130478003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	10/05/12 23:31	
Ethylbenzene	ug/L	ND	1.0	10/05/12 23:31	
Toluene	ug/L	ND	1.0	10/05/12 23:31	
Xylene (Total)	ug/L	ND	3.0	10/05/12 23:31	
1,2-Dichloroethane-d4 (S)	%	101	80-120	10/05/12 23:31	
4-Bromofluorobenzene (S)	%	105	80-120	10/05/12 23:31	
Dibromofluoromethane (S)	%	100	80-120	10/05/12 23:31	
Toluene-d8 (S)	%	104	80-120	10/05/12 23:31	

LABORATORY CONTROL SAMPLE: 1074071

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.8	94	74-123	
Ethylbenzene	ug/L	20	19.6	98	76-123	
Toluene	ug/L	20	20.6	103	75-123	
Xylene (Total)	ug/L	60	57.9	97	76-123	
1,2-Dichloroethane-d4 (S)	%			96	80-120	
4-Bromofluorobenzene (S)	%			100	80-120	
Dibromofluoromethane (S)	%			99	80-120	
Toluene-d8 (S)	%			103	80-120	



QUALITY CONTROL DATA

Project: NM GW ICE & JIC
Pace Project No.: 60130478

QC Batch: MSV/49035 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 60130478004, 60130478005, 60130478006, 60130478007, 60130478008, 60130478009, 60130478010, 60130478011

METHOD BLANK: 1074431 Matrix: Water
Associated Lab Samples: 60130478004, 60130478005, 60130478006, 60130478007, 60130478008, 60130478009, 60130478010, 60130478011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	10/06/12 00:37	
Ethylbenzene	ug/L	ND	1.0	10/06/12 00:37	
Toluene	ug/L	ND	1.0	10/06/12 00:37	
Xylene (Total)	ug/L	ND	3.0	10/06/12 00:37	
1,2-Dichloroethane-d4 (S)	%	98	80-120	10/06/12 00:37	
4-Bromofluorobenzene (S)	%	98	80-120	10/06/12 00:37	
Dibromofluoromethane (S)	%	99	80-120	10/06/12 00:37	
Toluene-d8 (S)	%	101	80-120	10/06/12 00:37	

LABORATORY CONTROL SAMPLE: 1074432

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	17.9	89	74-123	
Ethylbenzene	ug/L	20	18.4	92	76-123	
Toluene	ug/L	20	17.6	88	75-123	
Xylene (Total)	ug/L	60	52.1	87	76-123	
1,2-Dichloroethane-d4 (S)	%			100	80-120	
4-Bromofluorobenzene (S)	%			100	80-120	
Dibromofluoromethane (S)	%			101	80-120	
Toluene-d8 (S)	%			102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1074433 1074434

Parameter	Units	60130008014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Benzene	ug/L	ND	20	20	18.7	18.2	93	91	40-155	2	45
Ethylbenzene	ug/L	ND	20	20	20.4	19.8	102	99	40-158	3	48
Toluene	ug/L	ND	20	20	20.4	19.6	102	98	42-151	4	46
Xylene (Total)	ug/L	ND	60	60	59.4	58.8	99	98	40-151	1	45
1,2-Dichloroethane-d4 (S)	%						97	101	80-120		
4-Bromofluorobenzene (S)	%						101	99	80-120		
Dibromofluoromethane (S)	%						99	101	80-120		
Toluene-d8 (S)	%						106	98	80-120		
Preservation pH		1.0			1.0	1.0				0	



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QUALITY CONTROL DATA

Project: NM GW ICE & JIC

Pace Project No.: 60130478

QC Batch: MSV/49051

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV UST-WATER

Associated Lab Samples: 60130478009

METHOD BLANK: 1075346

Matrix: Water

Associated Lab Samples: 60130478009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Toluene	ug/L	ND	1.0	10/08/12 00:12	
1,2-Dichloroethane-d4 (S)	%	100	80-120	10/08/12 00:12	
4-Bromofluorobenzene (S)	%	99	80-120	10/08/12 00:12	
Dibromofluoromethane (S)	%	101	80-120	10/08/12 00:12	
Toluene-d8 (S)	%	110	80-120	10/08/12 00:12	

LABORATORY CONTROL SAMPLE: 1075347

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	20	16.9	85	75-123	
1,2-Dichloroethane-d4 (S)	%			99	80-120	
4-Bromofluorobenzene (S)	%			91	80-120	
Dibromofluoromethane (S)	%			98	80-120	
Toluene-d8 (S)	%			98	80-120	

QUALIFIERS

Project: NM GW ICE & JIC
Pace Project No.: 60130478

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.
ND - Not Detected at or above adjusted reporting limit.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PRL - Pace Reporting Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/49022

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/49051

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

HS Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).
pH Post-analysis pH measurement indicates insufficient VOA sample preservation.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NM GW ICE & JIC
Pace Project No.: 60130478

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60130478001	121027SEP12	EPA 8260	MSV/49022		
60130478002	122127SEP12	EPA 8260	MSV/49022		
60130478003	125627SEP12	EPA 8260	MSV/49022		
60130478004	134427SEP12	EPA 8260	MSV/49035		
60130478005	135227SEP12	EPA 8260	MSV/49035		
60130478006	142227SEP12	EPA 8260	MSV/49035		
60130478007	142927SEP12	EPA 8260	MSV/49035		
60130478008	143927SEP12	EPA 8260	MSV/49035		
60130478009	145427SEP12	EPA 8260	MSV/49035		
60130478009	145427SEP12	EPA 8260	MSV/49051		
60130478010	150727SEP12	EPA 8260	MSV/49035		
60130478011	152127SEP12	EPA 8260	MSV/49035		

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Pace Analytical
www.pacelabs.com

Section A Required Client Information: Company: <u>MILE HIGHT</u> Address: <u>221 S MAIN</u> Email To: <u>ARTEC, NM</u> Phone: <u>505-402-1958</u> Fax: _____ Requested Due Date/TAT: _____		Section B Required Project Information: Report To: <u>M. HARVEY</u> Copy To: _____ Purchase Order No.: _____ Project Name: <u>NM GW</u> Project Number: <u>ICB + JIC</u>		Section C Invoice Information: Attention: _____ Company Name: _____ Address: _____ Pace Quote Reference: _____ Pace Project Manager: _____ Pace Profile #: _____	
Page: <u>1</u> of <u>1</u> 1564128		REGULATORY AGENCY ☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER _____ Site Location: <u>NM</u> STATE: <u>NM</u>			

ITEM #	Section D Required Client Information	Matrix Codes MATRIX CODE Drinking Water DIW Water WT Waste Water VW Product P Soil/Solid SL Oil OL Wipe WP Air AR Tissue TS Other OT	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS	Temp in °C	Received on	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
			COMPOSITE START	COMPOSITE END/GRAB													
1	121027SEP12	WT	9:27	12:10	2	WT	M HARVEY	10-3-12	10:30	FEQ-EX	10-3	10:30					
2	122127SEP12	WT		12:21	2	WT											
3	125627SEP12	WT		12:56	2	WT											
4	134427SEP12	WT		13:44	2	WT											
5	135227SEP12	WT		13:52	2	WT											
6	142227SEP12	WT		14:22	2	WT											
7	142927SEP12	WT		14:29	2	WT											
8	143927SEP12	WT		14:39	2	WT											
9	145427SEP12	WT		14:54	2	WT											
10	150727SEP12	WT		15:07	2	WT											
11	152127SEP12	WT		15:21	2	WT											
12																	



Samp

Upon Receipt

Client Name: Mile HighProject # 60130478Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ OtherTracking #: 900092844088 Pace Shipping Label Used? ☐ Yes ☒ NoCustody Seal on Cooler/Box Present: ☒ Yes ☐ No Seals intact: ☒ Yes ☐ NoPacking Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☒ Other 2P/CThermometer Used: (T-191) T-194Type of Ice: (Wet) Blue None☐ Samples on ice, cooling process has begunCooler Temperature: 3.8

Temperature should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: pu/10/14/12

Chain of Custody present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody filled out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler name & signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples arrived within holding time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time analyses (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient volume:	☒ Yes ☐ No ☐ N/A	8.
Correct containers used:	☒ Yes ☐ No ☐ N/A	9.
-Pace containers used:	☒ Yes ☐ No ☐ N/A	
Containers intact:	☒ Yes ☐ No ☐ N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐ Yes ☐ No ☒ N/A	11.
Filtered volume received for dissolved tests	☐ Yes ☐ No ☒ N/A	12.
Sample labels match COC:	☒ Yes ☐ No ☐ N/A	13.
-Includes date/time/ID/analyses Matrix:	<u>WT</u>	
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	14.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
Exceptions: <u>VOA</u> , coliform, TOC, O&G, WI-DRO (water), Phenolics	☒ Yes ☐ No	Initial when completed
Trip Blank present:	☐ Yes ☒ No ☐ N/A	Lot # of added preservative
Pace Trip Blank lot # (if purchased):		
Headspace in VOA vials (>6mm):	☒ Yes ☐ No ☐ N/A	16.
		<u>2 of 2: 0694 1507, 1521</u>
Project sampled in USDA Regulated Area:	☐ Yes ☐ No ☒ N/A	17. List State:

Client Notification/ Resolution:

Copy COC to Client?

☒ Y ☐ N

Field Data Required?

☐ Y ☐ NPerson Contacted: mark HarveyDate/Time: 10/4/12Comments/ Resolution: Email about vials w/ headspace Amw 10/4/12
Per mark Harvey analyze headspace samples Amw 10/4/12Project Manager Review: AmwDate: 10/5/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



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December 21, 2012

Mr. Mark Harvey
Mile High Environmental
811 B West Apache
Farmington, NM 87401

RE: Project: NM GW JIC + FLR47X
Pace Project No.: 60135457

Dear Mr. Harvey:

Enclosed are the analytical results for sample(s) received by the laboratory on December 14, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Heather Wilson

heather.wilson@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: NM GW JIC + FLR47X

Pace Project No.: 60135457

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219

A2LA Certification #: 2456.01

Arkansas Certification #: 12-019-0

Illinois Certification #: 002885

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055

Nevada Certification #: KS000212008A

Oklahoma Certification #: 9205/9935

Texas Certification #: T104704407-12-3

Utah Certification #: KS000212012-2

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: NM GW JIC + FLR47X
Pace Project No.: 60135457

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60135457001	EDD	Water	12/07/12 13:00	12/14/12 08:30
60135457002	130007DEC12	Water	12/07/12 13:00	12/14/12 08:30
60135457003	131307DEC12	Water	12/07/12 13:13	12/14/12 08:30
60135457004	132007DEC12	Water	12/07/12 13:20	12/14/12 08:30
60135457005	132907DEC12	Water	12/07/12 13:29	12/14/12 08:30
60135457006	134307DEC12	Water	12/07/12 13:43	12/14/12 08:30
60135457007	134807DEC12	Water	12/07/12 13:48	12/14/12 08:30
60135457008	140007DEC12	Water	12/07/12 14:00	12/14/12 08:30
60135457009	144106DEC12	Water	12/06/12 14:41	12/14/12 08:30
60135457010	145006DEC12	Water	12/06/12 14:50	12/14/12 08:30
60135457011	145906DEC12	Water	12/06/12 14:59	12/14/12 08:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: NM GW JIC + FLR47X
Pace Project No.: 60135457

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60135457002	130007DEC12	EPA 8260	PRG	9
60135457003	131307DEC12	EPA 8260	PRG	9
60135457004	132007DEC12	EPA 8260	PRG	9
60135457005	132907DEC12	EPA 8260	PRG	9
60135457006	134307DEC12	EPA 8260	JTS, PRG	9
60135457007	134807DEC12	EPA 8260	RNS	9
60135457008	140007DEC12	EPA 8260	RNS	9
60135457009	144106DEC12	EPA 8260	RNS	9
60135457010	145006DEC12	EPA 8260	RNS	9
60135457011	145906DEC12	EPA 8260	RNS	9

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NM GW JIC + FLR47X

Pace Project No.: 60135457

Sample: 130007DEC12		Lab ID: 60135457002	Collected: 12/07/12 13:00	Received: 12/14/12 08:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND	ug/L	1.0	1		12/18/12 04:48	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/18/12 04:48	100-41-4	
Toluene	ND	ug/L	1.0	1		12/18/12 04:48	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		12/18/12 04:48	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	98 %		80-120	1		12/18/12 04:48	1868-53-7	
Toluene-d8 (S)	109 %		80-120	1		12/18/12 04:48	2037-26-5	
4-Bromofluorobenzene (S)	103 %		80-120	1		12/18/12 04:48	460-00-4	
1,2-Dichloroethane-d4 (S)	101 %		80-120	1		12/18/12 04:48	17060-07-0	
Preservation pH	1.0		1.0	1		12/18/12 04:48		



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ANALYTICAL RESULTS

Project: NM GW JIC + FLR47X

Pace Project No.: 60135457

Sample: 131307DEC12		Lab ID: 60135457003		Collected: 12/07/12 13:13		Received: 12/14/12 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV UST, Water		Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/18/12 05:03	71-43-2		
Ethylbenzene	ND	ug/L	1.0	1		12/18/12 05:03	100-41-4		
Toluene	ND	ug/L	1.0	1		12/18/12 05:03	108-88-3		
Xylene (Total)	ND	ug/L	3.0	1		12/18/12 05:03	1330-20-7		
Surrogates									
Dibromofluoromethane (S)	101	%	80-120	1		12/18/12 05:03	1868-53-7		
Toluene-d8 (S)	108	%	80-120	1		12/18/12 05:03	2037-26-5		
4-Bromofluorobenzene (S)	98	%	80-120	1		12/18/12 05:03	460-00-4		
1,2-Dichloroethane-d4 (S)	110	%	80-120	1		12/18/12 05:03	17060-07-0		
Preservation pH	1.0		1.0	1		12/18/12 05:03			



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ANALYTICAL RESULTS

Project: NM GW JIC + FLR47X

Pace Project No.: 60135457

Sample: 132007DEC12		Lab ID: 60135457004		Collected: 12/07/12 13:20		Received: 12/14/12 08:30		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260							
Benzene		ND	ug/L	1.0	1		12/18/12 05:18	71-43-2	
Ethylbenzene		ND	ug/L	1.0	1		12/18/12 05:18	100-41-4	
Toluene		ND	ug/L	1.0	1		12/18/12 05:18	108-88-3	
Xylene (Total)		ND	ug/L	3.0	1		12/18/12 05:18	1330-20-7	
Surrogates									
Dibromofluoromethane (S)		110	%	80-120	1		12/18/12 05:18	1868-53-7	
Toluene-d8 (S)		105	%	80-120	1		12/18/12 05:18	2037-26-5	
4-Bromofluorobenzene (S)		102	%	80-120	1		12/18/12 05:18	460-00-4	
1,2-Dichloroethane-d4 (S)		103	%	80-120	1		12/18/12 05:18	17060-07-0	
Preservation pH		1.0		1.0	1		12/18/12 05:18		



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ANALYTICAL RESULTS

Project: NM GW JIC + FLR47X

Pace Project No.: 60135457

Sample: 132907DEC12		Lab ID: 60135457005		Collected: 12/07/12 13:29		Received: 12/14/12 08:30		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260							
Benzene	ND	ug/L	1.0	1		12/18/12 05:32	71-43-2		
Ethylbenzene	ND	ug/L	1.0	1		12/18/12 05:32	100-41-4		
Toluene	ND	ug/L	1.0	1		12/18/12 05:32	108-88-3		
Xylene (Total)	ND	ug/L	3.0	1		12/18/12 05:32	1330-20-7		
Surrogates									
Dibromofluoromethane (S)	104	%	80-120	1		12/18/12 05:32	1868-53-7		
Toluene-d8 (S)	105	%	80-120	1		12/18/12 05:32	2037-26-5		
4-Bromofluorobenzene (S)	98	%	80-120	1		12/18/12 05:32	460-00-4		
1,2-Dichloroethane-d4 (S)	100	%	80-120	1		12/18/12 05:32	17060-07-0		
Preservation pH	1.0		1.0	1		12/18/12 05:32			



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ANALYTICAL RESULTS

Project: NM GW JIC + FLR47X

Pace Project No.: 60135457

Sample: 134307DEC12		Lab ID: 60135457006	Collected: 12/07/12 13:43	Received: 12/14/12 08:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	1650	ug/L	20.0	20		12/18/12 19:57	71-43-2	
Ethylbenzene	145	ug/L	1.0	1		12/18/12 05:47	100-41-4	
Toluene	1810	ug/L	20.0	20		12/18/12 19:57	108-88-3	
Xylene (Total)	1630	ug/L	60.0	20		12/18/12 19:57	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	99 %		80-120	1		12/18/12 05:47	1868-53-7	
Toluene-d8 (S)	98 %		80-120	1		12/18/12 05:47	2037-26-5	
4-Bromofluorobenzene (S)	100 %		80-120	1		12/18/12 05:47	460-00-4	
1,2-Dichloroethane-d4 (S)	107 %		80-120	1		12/18/12 05:47	17060-07-0	
Preservation pH	1.0		1.0	1		12/18/12 05:47		



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ANALYTICAL RESULTS

Project: NM GW JIC + FLR47X

Pace Project No.: 60135457

Sample: 134807DEC12		Lab ID: 60135457007	Collected: 12/07/12 13:48		Received: 12/14/12 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	10200	ug/L	50.0	50		12/20/12 11:02	71-43-2	E,P2
Ethylbenzene	315	ug/L	50.0	50		12/20/12 11:02	100-41-4	
Toluene	1540	ug/L	50.0	50		12/20/12 11:02	108-88-3	
Xylene (Total)	1760	ug/L	150	50		12/20/12 11:02	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	99	%	80-120	50		12/20/12 11:02	1868-53-7	HS
Toluene-d8 (S)	99	%	80-120	50		12/20/12 11:02	2037-26-5	
4-Bromofluorobenzene (S)	101	%	80-120	50		12/20/12 11:02	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	80-120	50		12/20/12 11:02	17060-07-0	
Preservation pH	6.0		1.0	50		12/20/12 11:02		pH



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ANALYTICAL RESULTS

Project: NM GW JIC + FLR47X

Pace Project No.: 60135457

Sample: 140007DEC12		Lab ID: 60135457008	Collected: 12/07/12 14:00	Received: 12/14/12 08:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND	ug/L	1.0	1		12/20/12 12:48	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/20/12 12:48	100-41-4	
Toluene	ND	ug/L	1.0	1		12/20/12 12:48	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		12/20/12 12:48	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	101	%	80-120	1		12/20/12 12:48	1868-53-7	
Toluene-d8 (S)	98	%	80-120	1		12/20/12 12:48	2037-26-5	
4-Bromofluorobenzene (S)	101	%	80-120	1		12/20/12 12:48	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	80-120	1		12/20/12 12:48	17060-07-0	
Preservation pH	1.0		1.0	1		12/20/12 12:48		



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ANALYTICAL RESULTS

Project: NM GW JIC + FLR47X

Pace Project No.: 60135457

Sample: 144106DEC12		Lab ID: 60135457009	Collected: 12/06/12 14:41		Received: 12/14/12 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND	ug/L	1.0	1		12/20/12 13:03	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/20/12 13:03	100-41-4	
Toluene	ND	ug/L	1.0	1		12/20/12 13:03	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		12/20/12 13:03	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	102	%	80-120	1		12/20/12 13:03	1868-53-7	
Toluene-d8 (S)	99	%	80-120	1		12/20/12 13:03	2037-26-5	
4-Bromofluorobenzene (S)	101	%	80-120	1		12/20/12 13:03	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	80-120	1		12/20/12 13:03	17060-07-0	
Preservation pH	1.0		1.0	1		12/20/12 13:03		



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ANALYTICAL RESULTS

Project: NM GW JIC + FLR47X

Pace Project No.: 60135457

Sample: 145006DEC12		Lab ID: 60135457010	Collected: 12/06/12 14:50	Received: 12/14/12 08:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	8280	ug/L	50.0	50		12/20/12 13:18	71-43-2	
Ethylbenzene	722	ug/L	50.0	50		12/20/12 13:18	100-41-4	
Toluene	ND	ug/L	50.0	50		12/20/12 13:18	108-88-3	
Xylene (Total)	5610	ug/L	150	50		12/20/12 13:18	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	103	%	80-120	50		12/20/12 13:18	1868-53-7	
Toluene-d8 (S)	101	%	80-120	50		12/20/12 13:18	2037-26-5	
4-Bromofluorobenzene (S)	102	%	80-120	50		12/20/12 13:18	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	80-120	50		12/20/12 13:18	17060-07-0	
Preservation pH	1.0		1.0	50		12/20/12 13:18		



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ANALYTICAL RESULTS

Project: NM GW JIC + FLR47X

Pace Project No.: 60135457

Sample: 145906DEC12		Lab ID: 60135457011	Collected: 12/06/12 14:59		Received: 12/14/12 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water		Analytical Method: EPA 8260						
Benzene	ND	ug/L	1.0	1		12/20/12 13:33	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		12/20/12 13:33	100-41-4	
Toluene	ND	ug/L	1.0	1		12/20/12 13:33	108-88-3	
Xylene (Total)	6.0	ug/L	3.0	1		12/20/12 13:33	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	103	%	80-120	1		12/20/12 13:33	1868-53-7	
Toluene-d8 (S)	102	%	80-120	1		12/20/12 13:33	2037-26-5	
4-Bromofluorobenzene (S)	104	%	80-120	1		12/20/12 13:33	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	80-120	1		12/20/12 13:33	17060-07-0	
Preservation pH	1.0		1.0	1		12/20/12 13:33		



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QUALITY CONTROL DATA

Project: NM GW JIC + FLR47X
Pace Project No.: 60135457

QC Batch: MSV/50853 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 60135457002, 60135457003, 60135457004, 60135457005, 60135457006

METHOD BLANK: 1116016 Matrix: Water
Associated Lab Samples: 60135457002, 60135457003, 60135457004, 60135457005, 60135457006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	12/18/12 01:39	
Ethylbenzene	ug/L	ND	1.0	12/18/12 01:39	
Toluene	ug/L	ND	1.0	12/18/12 01:39	
Xylene (Total)	ug/L	ND	3.0	12/18/12 01:39	
1,2-Dichloroethane-d4 (S)	%	105	80-120	12/18/12 01:39	
4-Bromofluorobenzene (S)	%	100	80-120	12/18/12 01:39	
Dibromofluoromethane (S)	%	102	80-120	12/18/12 01:39	
Toluene-d8 (S)	%	111	80-120	12/18/12 01:39	

LABORATORY CONTROL SAMPLE: 1116017

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.2	101	74-123	
Ethylbenzene	ug/L	20	22.6	113	76-123	
Toluene	ug/L	20	22.1	110	75-123	
Xylene (Total)	ug/L	60	67.6	113	76-123	
1,2-Dichloroethane-d4 (S)	%			108	80-120	
4-Bromofluorobenzene (S)	%			96	80-120	
Dibromofluoromethane (S)	%			107	80-120	
Toluene-d8 (S)	%			107	80-120	



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QUALITY CONTROL DATA

Project: NM GW JIC + FLR47X
Pace Project No.: 60135457

QC Batch:	MSV/50879	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV UST-WATER
Associated Lab Samples:	60135457006		

METHOD BLANK: 1116579 Matrix: Water
Associated Lab Samples: 60135457006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	12/18/12 17:43	
Toluene	ug/L	ND	1.0	12/18/12 17:43	
Xylene (Total)	ug/L	ND	3.0	12/18/12 17:43	
1,2-Dichloroethane-d4 (S)	%	105	80-120	12/18/12 17:43	
4-Bromofluorobenzene (S)	%	104	80-120	12/18/12 17:43	
Dibromofluoromethane (S)	%	100	80-120	12/18/12 17:43	
Toluene-d8 (S)	%	99	80-120	12/18/12 17:43	

LABORATORY CONTROL SAMPLE: 1116580

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.1	95	74-123	
Toluene	ug/L	20	20.9	105	75-123	
Xylene (Total)	ug/L	60	60.4	101	76-123	
1,2-Dichloroethane-d4 (S)	%			103	80-120	
4-Bromofluorobenzene (S)	%			105	80-120	
Dibromofluoromethane (S)	%			101	80-120	
Toluene-d8 (S)	%			101	80-120	



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QUALITY CONTROL DATA

Project: NM GW JIC + FLR47X
Pace Project No.: 60135457

QC Batch: MSV/50893 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Associated Lab Samples: 60135457007, 60135457008, 60135457009, 60135457010, 60135457011

METHOD BLANK: 1116780 Matrix: Water
Associated Lab Samples: 60135457007, 60135457008, 60135457009, 60135457010, 60135457011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	12/20/12 10:32	
Ethylbenzene	ug/L	ND	1.0	12/20/12 10:32	
Toluene	ug/L	ND	1.0	12/20/12 10:32	
Xylene (Total)	ug/L	ND	3.0	12/20/12 10:32	
1,2-Dichloroethane-d4 (S)	%	101	80-120	12/20/12 10:32	
4-Bromofluorobenzene (S)	%	101	80-120	12/20/12 10:32	
Dibromofluoromethane (S)	%	98	80-120	12/20/12 10:32	
Toluene-d8 (S)	%	100	80-120	12/20/12 10:32	

LABORATORY CONTROL SAMPLE: 1116781

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.2	101	74-123	
Ethylbenzene	ug/L	20	20.5	103	76-123	
Toluene	ug/L	20	19.7	99	75-123	
Xylene (Total)	ug/L	60	58.8	98	76-123	
1,2-Dichloroethane-d4 (S)	%			106	80-120	
4-Bromofluorobenzene (S)	%			104	80-120	
Dibromofluoromethane (S)	%			100	80-120	
Toluene-d8 (S)	%			100	80-120	

QUALIFIERS

Project: NM GW JIC + FLR47X

Pace Project No.: 60135457

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/50853

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/50879

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: MSV/50893

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.

HS Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).

P2 Re-extraction or re-analysis could not be performed due to insufficient sample amount.

pH Post-analysis pH measurement indicates insufficient VOA sample preservation.



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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NM GW JIC + FLR47X

Pace Project No.: 60135457

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60135457002	130007DEC12	EPA 8260	MSV/50853		
60135457003	131307DEC12	EPA 8260	MSV/50853		
60135457004	132007DEC12	EPA 8260	MSV/50853		
60135457005	132907DEC12	EPA 8260	MSV/50853		
60135457006	134307DEC12	EPA 8260	MSV/50853		
60135457006	134307DEC12	EPA 8260	MSV/50879		
60135457007	134807DEC12	EPA 8260	MSV/50893		
60135457008	140007DEC12	EPA 8260	MSV/50893		
60135457009	144106DEC12	EPA 8260	MSV/50893		
60135457010	145006DEC12	EPA 8260	MSV/50893		
60135457011	145906DEC12	EPA 8260	MSV/50893		



WO#: 60135457

Client Name: Mile HighCourier: Fed Ex ☒ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other ☐Tracking #: 6022 4483 7980Pace Shipping Label Used? Yes ☐ No ☒

Optional

Proj Due Date: 12/21

Proj Name:

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐Packing Material: Bubble Wrap ☒ Bubble Bags ☐ Foam ☐ None ☐ Other ☐Thermometer Used: T-191 / T-194Type of Ice: Yes Blue None ☐ Samples received on ice, cooling process has begun.
(circle one)Cooler Temperature: 1.1Date and initials of person examining contents: 12/19/12 lho

Temperature should be above freezing to 6°C

Chain of Custody present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody filled out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler name & signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples arrived within holding time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time analyses (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient volume:	☒ Yes ☐ No ☐ N/A	8.
Correct containers used:	☒ Yes ☐ No ☐ N/A	
Pace containers used:	☒ Yes ☐ No ☐ N/A	9.
Containers intact:	☒ Yes ☐ No ☐ N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐ Yes ☐ No ☒ N/A	11.
Filtered volume received for dissolved tests?	☐ Yes ☐ No ☒ N/A	12.
Sample labels match COC:	☒ Yes ☐ No ☐ N/A	
Includes date/time/ID/analyses	Matrix: <u>water</u>	13.
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	
All containers needing preservation are found to be in compliance with EPA recommendation	☐ Yes ☐ No ☒ N/A	14.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	☒ Yes ☐ No	Initial when completed <u>lho</u>
Trip Blank present:	☐ Yes ☒ No ☐ N/A	Lot # of added preservative
Pace Trip Blank lot # (if purchased): <u>lho</u>		
Headspace in VOA vials (>6mm):	☒ Yes ☐ No ☐ N/A	<u>1340 DEC 12</u> <u>1340 07 DEC 12</u> <u>1st 2 vials</u>
		16.
Project sampled in USDA Regulated Area:	☐ Yes ☐ No ☒ N/A	17. List State

Client Notification/ Resolution:

Copy COC to Client? Y ☒ N ☐Field Data Required? Y ☐ N ☐

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: AMT for HMWDate: 12/19/12

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	MILK HIGH	Report To:	MARK HARVEY	Attention:	
Address:	221 S. MAIN AVE	Copy To:		Company Name:	
	AZTBC, NM 87410			Address:	
Email To:		Purchase Order No.:		Pace Quote Reference:	
Phone:	505-402-1658	Project Name:	NM GW	Pace Project Manager:	
Fax:		Project Number:	JIC + FLR 47X	Pace Profile #:	
Requested Due Date/TAT:					

[illegible]

DATE SIGNED (MM/DD/YYYY)	12-13-12	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)	SAMPLER NAME AND SIGNATURE	
						PRINT NAME of SAMPLER: M. HARRVEY SIGNATURE of SAMPLER: <i>M. HARRVEY</i>	



*Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com*

March 13, 2013

Julie Linn

LTE

2243 Main Ave Suite 3

Durango, CO 81301

TEL: (970) 385-1096

FAX

RE: Jicarilla Contract 147-6

OrderNo.: 1303302

Dear Julie Linn:

Hall Environmental Analysis Laboratory received 6 sample(s) on 3/7/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical ReportLab Order **1303302**

Date Reported: 3/13/2013

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** LTE**Client Sample ID:** MW-1**Project:** Jicarilla Contract 147-6**Collection Date:** 3/4/2013 12:51:00 PM**Lab ID:** 1303302-001**Matrix:** AQUEOUS**Received Date:** 3/7/2013 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	1.0		µg/L	1	3/8/2013 2:59:31 AM
Toluene	ND	1.0		µg/L	1	3/8/2013 2:59:31 AM
Ethylbenzene	ND	1.0		µg/L	1	3/8/2013 2:59:31 AM
Xylenes, Total	ND	2.0		µg/L	1	3/8/2013 2:59:31 AM
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	3/8/2013 2:59:31 AM
Surr: 4-Bromofluorobenzene	92.5	69.5-130		%REC	1	3/8/2013 2:59:31 AM
Surr: Dibromofluoromethane	92.9	70-130		%REC	1	3/8/2013 2:59:31 AM
Surr: Toluene-d8	90.8	70-130		%REC	1	3/8/2013 2:59:31 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303302

Date Reported: 3/13/2013

CLIENT: LTE

Client Sample ID: MW-8

Project: Jicarilla Contract 147-6

Collection Date: 3/4/2013 2:20:00 PM

Lab ID: 1303302-002

Matrix: AQUEOUS

Received Date: 3/7/2013 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	1.0		µg/L	1	3/8/2013 4:04:11 AM
Toluene	ND	1.0		µg/L	1	3/8/2013 4:04:11 AM
Ethylbenzene	ND	1.0		µg/L	1	3/8/2013 4:04:11 AM
Xylenes, Total	ND	2.0		µg/L	1	3/8/2013 4:04:11 AM
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	3/8/2013 4:04:11 AM
Surr: 4-Bromofluorobenzene	96.8	69.5-130		%REC	1	3/8/2013 4:04:11 AM
Surr: Dibromofluoromethane	92.9	70-130		%REC	1	3/8/2013 4:04:11 AM
Surr: Toluene-d8	90.6	70-130		%REC	1	3/8/2013 4:04:11 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Analytical Report

Lab Order 1303302

Date Reported: 3/13/2013

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: MW-3

Project: Jicarilla Contract 147-6

Collection Date: 3/4/2013 3:15:00 PM

Lab ID: 1303302-003

Matrix: AQUEOUS

Received Date: 3/7/2013 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: DJF
Benzene	1200	20		µg/L	20	3/8/2013 11:34:00 AM
Toluene	720	20		µg/L	20	3/8/2013 11:34:00 AM
Ethylbenzene	88	2.0		µg/L	2	3/8/2013 5:08:52 AM
Xylenes, Total	680	40		µg/L	20	3/8/2013 11:34:00 AM
Surr: 1,2-Dichloroethane-d4	99.0	70-130		%REC	2	3/8/2013 5:08:52 AM
Surr: 4-Bromofluorobenzene	94.5	69.5-130		%REC	2	3/8/2013 5:08:52 AM
Surr: Dibromofluoromethane	94.1	70-130		%REC	2	3/8/2013 5:08:52 AM
Surr: Toluene-d8	86.5	70-130		%REC	2	3/8/2013 5:08:52 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303302

Date Reported: 3/13/2013

CLIENT: LTE

Client Sample ID: MW-4

Project: Jicarilla Contract 147-6

Collection Date: 3/4/2013 3:25:00 PM

Lab ID: 1303302-004

Matrix: AQUEOUS

Received Date: 3/7/2013 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	2.0		µg/L	2	3/9/2013 6:58:24 AM
Toluene	ND	2.0		µg/L	2	3/9/2013 6:58:24 AM
Ethylbenzene	ND	2.0		µg/L	2	3/9/2013 6:58:24 AM
Xylenes, Total	ND	4.0		µg/L	2	3/9/2013 6:58:24 AM
Surr: 1,2-Dichloroethane-d4	114	70-130		%REC	2	3/9/2013 6:58:24 AM
Surr: 4-Bromofluorobenzene	97.7	69.5-130		%REC	2	3/9/2013 6:58:24 AM
Surr: Dibromofluoromethane	101	70-130		%REC	2	3/9/2013 6:58:24 AM
Surr: Toluene-d8	82.8	70-130		%REC	2	3/9/2013 6:58:24 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Analytical ReportLab Order **1303302**

Date Reported: 3/13/2013

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** LTE**Client Sample ID:** MW-6**Project:** Jicarilla Contract 147-6**Collection Date:** 3/4/2013 3:57:00 PM**Lab ID:** 1303302-005**Matrix:** AQUEOUS**Received Date:** 3/7/2013 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: DJF
Benzene	7900	500		µg/L	500	3/8/2013 12:38:53 PM
Toluene	180	2.0		µg/L	2	3/8/2013 6:13:36 AM
Ethylbenzene	5.4	2.0		µg/L	2	3/8/2013 6:13:36 AM
Xylenes, Total	300	4.0		µg/L	2	3/8/2013 6:13:36 AM
Surr: 1,2-Dichloroethane-d4	96.5	70-130		%REC	2	3/8/2013 6:13:36 AM
Surr: 4-Bromofluorobenzene	112	69.5-130		%REC	2	3/8/2013 6:13:36 AM
Surr: Dibromofluoromethane	98.3	70-130		%REC	2	3/8/2013 6:13:36 AM
Surr: Toluene-d8	97.5	70-130		%REC	2	3/8/2013 6:13:36 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1303302

Date Reported: 3/13/2013

CLIENT: LTE

Client Sample ID: MW-9

Project: Jicarilla Contract 147-6

Collection Date: 3/4/2013 4:30:00 PM

Lab ID: 1303302-006

Matrix: AQUEOUS

Received Date: 3/7/2013 9:56:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: DJF
Benzene	ND	2.0		µg/L	2	3/8/2013 1:11:10 PM
Toluene	ND	2.0		µg/L	2	3/8/2013 1:11:10 PM
Ethylbenzene	ND	2.0		µg/L	2	3/8/2013 1:11:10 PM
Xylenes, Total	ND	4.0		µg/L	2	3/8/2013 1:11:10 PM
Surr: 1,2-Dichloroethane-d4	99.9	70-130		%REC	2	3/8/2013 1:11:10 PM
Surr: 4-Bromofluorobenzene	88.2	69.5-130		%REC	2	3/8/2013 1:11:10 PM
Surr: Dibromofluoromethane	86.0	70-130		%REC	2	3/8/2013 1:11:10 PM
Surr: Toluene-d8	88.9	70-130		%REC	2	3/8/2013 1:11:10 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303302

13-Mar-13

Client: LTE

Project: Jicarilla Contract 147-6

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260: Volatiles Short List					
Client ID:	PBW	Batch ID:	R9048	RunNo:	9048					
Prep Date:		Analysis Date:	3/7/2013	SeqNo:	257989	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.6	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.6	69.5	130			
Surr: Dibromofluoromethane	9.1		10.00		91.4	70	130			
Surr: Toluene-d8	9.4		10.00		94.3	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260: Volatiles Short List					
Client ID:	LCSW	Batch ID:	R9048	RunNo:	9048					
Prep Date:		Analysis Date:	3/7/2013	SeqNo:	257990	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzene	20	1.0	20.00	0	97.7	70	130			
Toluene	19	1.0	20.00	0	93.5	80	120			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.3	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	69.5	130			
Surr: Dibromofluoromethane	9.3		10.00		93.1	70	130			
Surr: Toluene-d8	8.6		10.00		86.1	70	130			

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260: Volatiles Short List					
Client ID:	PBW	Batch ID:	R9082	RunNo:	9082					
Prep Date:		Analysis Date:	3/8/2013	SeqNo:	258668	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	11		10.00		105	70	130			
Surr: 4-Bromofluorobenzene	8.5		10.00		85.0	69.5	130			
Surr: Dibromofluoromethane	9.4		10.00		94.0	70	130			
Surr: Toluene-d8	9.6		10.00		95.5	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260: Volatiles Short List					
Client ID:	LCSW	Batch ID:	R9082	RunNo:	9082					
Prep Date:		Analysis Date:	3/8/2013	SeqNo:	258669	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzene	20	1.0	20.00	0	100	70	130			
---------	----	-----	-------	---	-----	----	-----	--	--	--

Qualifiers:

- | | |
|--|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| P Sample pH greater than 2 | R RPD outside accepted recovery limits |
| RL Reporting Detection Limit | S Spike Recovery outside accepted recovery limits |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1303302

13-Mar-13

Client: LTE

Project: Jicarilla Contract 147-6

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260: Volatiles Short List					
Client ID:	LCSW	Batch ID:	R9082	RunNo:	9082					
Prep Date:		Analysis Date:	3/8/2013	SeqNo:	258669	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	19	1.0	20.00	0	92.6	80	120			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.6	69.5	130			
Surr: Dibromofluoromethane	9.0		10.00		89.5	70	130			
Surr: Toluene-d8	8.7		10.00		87.2	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
RL Reporting Detection Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87105
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: LTE

Work Order Number: 1303302

Received by/date:

AG

03/07/13

Logged By: Lindsay Mangin

3/7/2013 9:56:00 AM

[Signature]

Completed By: Lindsay Mangin

3/7/2013 12:51:08 PM

[Signature]

Reviewed By:

IO

03/07/2013

Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? ~~Client~~ COURIER of 03/07/13

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
10. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
11. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH: ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ (<2 or >12 unless noted)
15. Is it clear what analyses were requested? Yes ☒ No ☐ Adjusted? ☐
16. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by: ☐

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via:

eMail ☐

Phone ☐

Fax ☐

In Person ☐

Regarding:

Client Instructions:

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.2	Good	Yes			

APPENDIX B
MARCH 2013 FIELD NOTES



Water Sample Collection Form

Sample Location	<u>Jicarilla Contract 147-6</u>	Client	<u>Williams Field Services, LLC</u>
Sample Date	<u>3/4/2013</u>	Project Name	<u>Historical Groundwater</u>
Sample Time	<u>12:51</u>	Project #	<u>034013001</u>
Sample ID	<u>MW-1</u>	Sampler	<u>Brooke Herb</u>
Analyses	<u>BTEX 8021</u>		
Matrix	<u>Groundwater</u>	Laboratory	<u>Hall Environmental</u>
Turn Around Time	<u>Standard</u>	Shipping Method	<u>Hand delivery</u>
Depth to Water	<u>21.85</u>	TD of Well	<u>27.00</u>
Time	<u>11:00</u>	Depth to Product	<u>NA</u>
Vol. of H2O to purge	<u>$5.15 * 0.16 = 0.824 * 3 = 2.47$</u> <u>(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols</u>		
Method of Purging	<u>PVC Bailer</u>		
Method of Sampling	<u>PVC Bailer</u>		

Time	Vol. Removed (gallons)	Total Vol H2O removed (gallons)	pH (standard units)	Temp. (°C)	Conductivity (µs)	Comments
12:40	0.25	0.25	7.17	12.0	1,117	light brown, minor silt
	0.25	0.50	7.74	12.1	1,119	no change
	0.25	0.75	7.98	12.1	1,097	no change
	0.25	1.00	8.14	12.0	1,139	no change
	0.50	1.50	8.14	12.0	1,113	no change
	0.25	1.75	8.18	11.7	1,126	no change
	0.25	2.00	8.18	11.7	1,137	no change
	0.25	2.25	8.19	11.7	1,139	no change
12:51	0.25	2.50	8.19	11.7	1,126	no change

Comments: _____

Describe Deviations from SOP: _____

Signature: _____

Brooke Herb

Date: _____

3/4/2013



Water Sample Collection Form

Sample Location	Jicarilla Contract 147-6	Client	Williams Field Services, LLC
Sample Date	3/4/2013	Project Name	Historical Groundwater
Sample Time	NA	Project #	034013001
Sample ID	MW-2	Sampler	Brooke Herb
Analyses	NA		
Matrix	NA	Laboratory	NA
Turn Around Time	NA	Shipping Method	NA
Depth to Water	22.34	TD of Well	NM
Time	12:58	Depth to Product	22.335
Vol. of H2O to purge	<i>(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols</i>		
Method of Purging	NA		
Method of Sampling	NA		

Time	Vol. Removed (gallons)	Total Vol H2O removed (gallons)	pH (standard units)	Temp. (°C)	Conductivity (µs)	Comments

Comments: No sample was collected due to the presence of product.

Product recovery sock in well. Returned sock to well after measurment was taken.

PVC casing is higher than the metal surface completion, preventing locking of the surface completion.

Describe Deviations from SOP: _____

Signature: Brooke Herb Date: 3/4/2013



Water Sample Collection Form

Sample Location	<u>Jicarilla Contract 147-6</u>	Client	<u>Williams Field Services, LLC</u>
Sample Date	<u>3/4/2013</u>	Project Name	<u>Historical Groundwater</u>
Sample Time	<u>15:15</u>	Project #	<u>034013001</u>
Sample ID	<u>MW-3</u>	Sampler	<u>Brooke Herb</u>
Analyses	<u>BTEX 8021</u>		
Matrix	<u>Groundwater</u>	Laboratory	<u>Hall Environmental</u>
Turn Around Time	<u>Standard</u>	Shipping Method	<u>Hand delivery</u>
Depth to Water	<u>21.26</u>	TD of Well	<u>23.64</u>
Time	<u>14:45</u>	Depth to Product	<u>NA</u>
Vol. of H2O to purge	<u>2.38 * 0.16 = 0.38 * 3 = 1.14</u> <i>(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols</i>		
Method of Purging	<u>PVC Bailer</u>		
Method of Sampling	<u>PVC Bailer</u>		

Time	Vol. Removed (gallons)	Total Vol H2O removed (gallons)	pH (standard units)	Temp. (°C)	Conductivity (ms)	Comments
14:55	0.25	0.25	7.83	13.1	3.32	Black, HC odor, no sheen
	0.25	0.50	7.86	12.5	3.55	Darker black
	0.10	0.60	7.99	12.7	3.52	No change
15:00						Bailed Dry

Comments:

Well has metal surface completion sunk in concrete; however, due to erosion, the concrete is
no longer set in the ground surface. Erosion threatens the structural integrity of this well.

Describe Deviations from SOP: Bailed dry before 3 casing volumes were purged.

Signature: _____

Brooke Herb

Date: _____

3/4/2013



Water Sample Collection Form

Sample Location	Jicarilla Contract 147-6	Client	Williams Field Services, LLC
Sample Date	3/4/2013	Project Name	Historical Groundwater
Sample Time	15:25	Project #	034013001
Sample ID	Unknown Well #3	Sampler	Brooke Herb
Analyses	BTEX 8021		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard	Shipping Method	Hand delivery
Depth to Water	17.05	TD of Well	18.80
Time	15:20	Depth to Product	NA
Vol. of H2O to purge	$1.75 * 0.16 = 0.28 * 3 = 0.84$ <i>(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols</i>		
Method of Purging	PVC Bailer		
Method of Sampling	PVC Bailer		

Time	Vol. Removed (gallons)	Total Vol H2O removed (gallons)	pH (standard units)	Temp. (°C)	Conductivity (ms)	Comments
15:20	0.20	0.20	8.02	12.2	3.21	Dark grayish black, bailed dry

Comments: Unsure of well name/ #. Down in wash, just PVC stick up, no surface completion; well is not labeled. PVC looks relatively new.

Well immediately bailed dry, was able to collect enough groundwater to fill 3 VOAs.

Given Sample ID "MW-4".

Describe Deviations from SOP: Bailed dry before 3 casing volumes were purged.

Signature: Brooke Herb Date: 3/4/2013



Water Sample Collection Form

Sample Location	<u>Jicarilla Contract 147-6</u>	Client	<u>Williams Field Services, LLC</u>
Sample Date	<u>3/4/2013</u>	Project Name	<u>Historical Groundwater</u>
Sample Time	<u>15:57</u>	Project #	<u>034013001</u>
Sample ID	<u>MW-6</u>	Sampler	<u>Brooke Herb</u>
Analyses	<u>BTEX 8021</u>		
Matrix	<u>Groundwater</u>	Laboratory	<u>Hall Environmental</u>
Turn Around Time	<u>Standard</u>	Shipping Method	<u>Hand delivery</u>
Depth to Water	<u>25.61</u>	TD of Well	<u>31.50</u>
Time	<u>15:28</u>	Depth to Product	<u>NA</u>
Vol. of H2O to purge	<u>5.89 * 0.16 = 0.94 * 3 = 2.82</u> <i>(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols</i>		
Method of Purging	<u>PVC Bailer</u>		
Method of Sampling	<u>PVC Bailer</u>		

Time	Vol. Removed (gallons)	Total Vol H2O removed (gallons)	pH (standard units)	Temp. (°C)	Conductivity (ms)	Comments
15:30	0.25	0.25	8.77	12.8	5.79	strong HC odor, jet black
	0.25	0.50	8.77	12.8	6.09	no change
	0.25	0.75	8.70	13.0	6.10	no change
	0.25	1.00	8.72	12.9	6.25	no change
	1.00	2.00	8.75	12.7	6.42	no change
	0.25	2.25	8.75	12.6	6.43	no change
	0.25	2.50	8.76	12.6	6.42	bailing down
	0.25	2.75	8.76	12.7	6.37	no change
15:57	0.25	3.00	8.77	12.7	6.39	no change

Comments: No surface completion; PVC casing is duct-taped near the base.

Describe Deviations from SOP: _____

Signature: _____

Brooke Herb

Date: _____

3/4/2013



Water Sample Collection Form

Sample Location	Jicarilla Contract 147-6	Client	Williams Field Services, LLC
Sample Date	3/4/2013	Project Name	Historical Groundwater
Sample Time	14:20	Project #	034013001
Sample ID	MW-8	Sampler	Brooke Herb
Analyses	BTEX 8021		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard	Shipping Method	Hand delivery
Depth to Water	16.36	TD of Well	26.44
Time	13:45	Depth to Product	NA
Vol. of H2O to purge	10.08 * 0.16 = 1.61 * 3 = 4.84 <i>(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols</i>		
Method of Purging	PVC Bailer		
Method of Sampling	PVC Bailer		

Time	Vol. Removed (gallons)	Total Vol H2O removed (gallons)	pH (standard units)	Temp. (°C)	Conductivity (µs)	Comments
13:56	0.25	0.25	8.21	12.6	876	clear, no odor, no sheen
	0.25	0.50	7.94	12.3	872	no change
	0.25	0.75	7.94	12.2	878	no change
	0.25	1.00	7.94	12.0	870	no change
	1.00	2.00	7.95	12.1	885	silty, light gray
	0.50	2.50	7.89	11.7	910	siltier, darker, bailing down
	0.75	3.25	7.91	11.7	897	no change
	0.25	3.50	7.92	11.9	876	cloudy, darker
	0.50	4.00	7.91	11.7	873	no change
	0.25	4.25	7.96	12.1	877	no change
	0.25	4.50	7.98	12.1	883	no change
	0.25	4.75	7.99	12.1	878	no change
14:20	0.25	5.00	7.99	12.1	878	no change

Comments: _____

Describe Deviations from SOP: _____

Signature: Brooke Herb Date: 3/4/2013



Water Sample Collection Form

Sample Location	<u>Jicarilla Contract 147-6</u>	Client	<u>Williams Field Services, LLC</u>
Sample Date	<u>3/4/2013</u>	Project Name	<u>Historical Groundwater</u>
Sample Time	<u>16:30</u>	Project #	<u>034013001</u>
Sample ID	<u>MW-9</u>	Sampler	<u>Brooke Herb</u>
Analyses	<u>BTEX 8021</u>		
Matrix	<u>Groundwater</u>	Laboratory	<u>Hall Environmental</u>
Turn Around Time	<u>Standard</u>	Shipping Method	<u>Hand delivery</u>
Depth to Water	<u>28.55</u>	TD of Well	<u>32.05</u>
Time	<u>16:00</u>	Depth to Product	<u>NA</u>
Vol. of H2O to purge	<u>3.5* 0.16 = 0.56* 3 = 1.68</u> <u>(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols</u>		
Method of Purging	<u>PVC Bailer</u>		
Method of Sampling	<u>PVC Bailer</u>		

Time	Vol. Removed (gallons)	Total Vol H2O removed (gallons)	pH (standard units)	Temp. (°C)	Conductivity (ms)	Comments
16:15	0.25	0.25	7.70	12.8	3.53	light brown, minor silt
	0.25	0.50	7.73	12.7	3.55	silty, brownish-black
	0.25	0.75	7.76	12.7	3.69	no change
	0.25	1.00	7.77	12.6	3.59	no change
	0.25	1.25	7.80	12.6	3.62	no change
	0.25	1.50	7.80	12.6	3.62	no change
16:30	0.25	1.75	7.80	12.6	3.65	no change

Comments: _____

Describe Deviations from SOP: _____

Signature: Brooke Herb Date: 3/4/2013



Water Sample Collection Form

Sample Location	Jicarilla Contract 147-6	Client	Williams Field Services, LLC
Sample Date	3/4/2013	Project Name	Historical Groundwater
Sample Time	NA	Project #	034013001
Sample ID	MW-10	Sampler	Brooke Herb
Analyses	NA		
Matrix	NA	Laboratory	NA
Turn Around Time	NA	Shipping Method	NA
Depth to Water	20.90	TD of Well	NM
Time	12:58	Depth to Product	20.89
Vol. of H2O to purge	(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols		
Method of Purging	NA		
Method of Sampling	NA		

Time	Vol. Removed (gallons)	Total Vol H2O removed (gallons)	pH (standard units)	Temp. (°C)	Conductivity (µs)	Comments

Comments: No sample was collected due to the presence of product.

Describe Deviations from SOP:

Signature: Brooke Herb **Date:** 3/4/2013

