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Denver, Colorado 80202
303-605-1893 – main
303-605-1957 – fax

RECEIVED OCD
2013 MAY 34 A 11: 21

May 30, 2013

Mr. Leonard Lowe
Environmental Bureau Chief
New Mexico Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

**RE: First 2013 Semi Annual Groundwater Monitoring Report
DCP Monument Booster Station (1RP-156-0)
Unit B Section 33, Township 19 South, Range 37 East**

Dear Mr. Lowe:

DCP Midstream, LP (DCP) is pleased to submit for your review one copy of the First 2013 Semi Annual Groundwater Monitoring Report for the DCP Monument Booster Station located in Lea County, New Mexico (Unit B Section 33, Township 19 South, Range 37 East).

Groundwater monitoring activities were completed on February 21, 2013. The data indicate that the groundwater conditions remain stable. The next semi-annual monitoring event is scheduled for the second half of 2013.

If you have any questions regarding the report, please call at 303-605-1695 or e-mail me CECole@dcpmidstream.com.

Sincerely,

DCP Midstream, LP

A handwritten signature in black ink that reads "Chandler E. Cole".

Chandler E Cole
Senior Environmental Specialist

Enclosure

cc: Larry Johnson – OCD District Office, Hobbs
Environmental Files

First Half 2013 Semi-Annual Groundwater Monitoring Summary Report

Monument Booster Station
Lea County, New Mexico
1RP-156-0

Prepared for:



370 17th St., Suite 2500
Denver, CO 80202

Prepared by:



6899 Pecos Street, Unit C
Denver, CO 80221

April 25, 2013

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1. Introduction

This report summarizes semi-annual groundwater monitoring and remediation activities conducted during the first half of 2013 at the Monument Booster Station (Site) in Lea County, New Mexico (Figure 1). Tasman Geosciences, LLC (Tasman) conducted these activities on behalf of DCP Midstream (DCP). The field activities described herein were performed with the purpose of: a) determining the presence of light non-aqueous phase liquid (LNAPL) hydrocarbons; b) measuring groundwater levels; c) obtaining groundwater samples for chemical analysis; and d) evaluating groundwater flow and quality conditions. The field data and laboratory analytical results were used to develop a groundwater elevation map, an analytical results map, and LNAPL versus time and groundwater elevation graphs, to evaluate current conditions at the Site.

2. Site Location and Background

The Site is located in New Mexico Oil Conservation Division (OCD) designated Unit B, Section 33, Township 19 South, Range 37 East (Figure 1). The facility coordinates are 32.6240 degrees north and 103.2555 degrees west. This facility is active and continues to be used for gas compression and other activities. DCP also owns the property to the south and east that is contiguous to the fenced facility boundary (Figure 2).

In 1992 three underground storage tanks (USTs) that formerly contained used oil and pipeline liquids (oil and/or natural gas liquid condensate) near the main compressor building were removed. At that time and again in 1994, hydrocarbon-impacted soils (approximately 1,000 cubic yards) were excavated and removed from the Site. Also in 1994, subsurface soil and groundwater investigation activities were initiated to define the horizontal and vertical extent of residual hydrocarbon impacts. In 1994, two groundwater monitoring wells were installed and six soil borings were advanced. In 1995, six additional monitoring wells were installed and one soil boring was advanced.

Hand bailing of LNAPL was initiated in monitoring wells MW-1 and MW-5 in 1995/1996. In 1997, the LNAPL remediation technique was modified to an automated pneumatic product recovery pumping system (Xitech system) in these wells. Around 1999/2000, the Xitech system was taken out of service at both wells and replaced by product absorbent socks and hand bailing. Sometime in mid-2000, the product removal activities ceased while groundwater monitoring continued.

The Site currently has eight groundwater monitoring wells (MW-1, MW-1D, MW-2, MW-3, MW-4, MW-5, MW-6 and MW-7). Seven of the wells are located on the gas compressor facility, and MW-3 is located in the southeast corner of the adjacent DCP owned property. Well MW-2 is located in the northwest corner of the gas compressor facility and is considered the up-gradient well for the Site. Based on previous data, it appears that a release occurred near the former pipeline liquids aboveground storage tank (AST) located near wells MW-1 and MW-1D in the center of the gas compressor facility along the

eastern property boundary (Figure 2). Since 1994/1995, monitoring wells MW-1 and MW-5 have continued to exhibit measurable LNAPL.

3. Groundwater Monitoring

This section describes the field groundwater monitoring activities as well as the laboratory analyses performed during the reporting period. Monitoring activities included Site-wide groundwater gauging, LNAPL measurements, groundwater purging and sampling, and subsequent packaging and shipping of the samples to the laboratory for chemical analyses. Figure 2 illustrates the groundwater monitoring network utilized to perform these activities at the Site.

3.1 Groundwater and LNAPL Elevation Monitoring

Groundwater and LNAPL levels were measured in order to evaluate hydraulic characteristics and provide information regarding fluctuations in groundwater and LNAPL elevations at the Site. In addition, wells that did not have LNAPL present were measured for total depth in order to estimate groundwater purge volumes. During the first half 2013 semi-annual monitoring event, groundwater levels and LNAPL thickness was measured at eight Site monitoring well locations.

Groundwater levels were measured on the north side of the well casing to the nearest 0.01-foot using an oil-water interface probe (IP). Groundwater levels were later converted to elevations (feet above mean sea level [AMSL]). LNAPL levels, where indicated by the IP, were also recorded.

Groundwater level measurements collected during the first half 2013 semi-annual monitoring event are presented in Table 1, and the first half 2013 semi-annual groundwater elevation contour map is illustrated on Figure 3. Groundwater elevations ranged from 3,559.65 feet AMSL at monitoring well MW-3 to 3,566.01 feet AMSL at monitoring well MW-2. As illustrated on Figure 3, groundwater flow at the Site generally trends to the southeast with a gradient of approximately 0.0065 foot per foot between monitoring wells MW-2 and MW-3.

LNAPL was detected at MW-1 (1.39-feet) and MW-5 (1.31-feet) with measured thicknesses indicated in parenthesis.

3.2 Groundwater Quality Monitoring

Groundwater levels, the presence of LNAPL, and total depth (in wells without LNAPL) were measured in Site monitoring wells prior to sampling. Subsequently, a minimum of three well casing volumes of groundwater (calculated from total depth of the well and groundwater level measurements) were purged using polyethylene bailers from the subject well prior to collecting groundwater samples. Groundwater samples were collected using the same dedicated polyethylene bailers, placed in clean laboratory supplied containers for the selected analytical methods, packed in an ice-filled cooler and maintained at approximately four (4) degrees Celsius ($^{\circ}\text{C}$) for transportation. Groundwater samples

were then shipped under chain-of-custody procedures to ALS Environmental (ALS) in Houston, Texas for analysis.

Water quality samples were collected from six of eight wells. MW-1 and MW-5 were not sampled due to the presence of measurable LNAPL detected in the well. Water quality samples were submitted to ALS for benzene, toluene, ethylbenzene, and xylene (BTEX) analyses by United States Environmental Protection Agency (USEPA) Method 8260B.

Table 2 summarizes BTEX concentrations in groundwater samples collected during the February 2013 event. Analytical results were compared to the New Mexico Water Quality Control Commission (NMWQCC) groundwater standards. Laboratory analytical reports for the event are included in Appendix A and analytical results are summarized on Figure 4. The analytical results for monitoring wells sampled are as follows:

- MW-2, MW-3, MW-4 and MW-6: BTEX concentrations were below laboratory detection limits at these sample locations;
- MW-7: Benzene and ethylbenzene were detected above laboratory detection limits but below NMWQCC groundwater standards;
- MW-1D: Benzene was detected over the NMWQCC groundwater standards limit of 0.01 mg/L at a concentration of 0.016 mg/L.

A table of historical analytical results through the February 2013 event may be found in Appendix B.

Water quality parameters were collected during the first half 2013 monitoring event. Monitoring wells did not require collection of more than three purge volumes to achieve parameter stabilization. As such, the analytical data are considered to be representative of Site conditions in that a minimum of 3 purge volumes were removed from all sampled monitoring wells during the first half 2013 semi-annual event.

3.3 Data Quality Assurance / Quality Control

The data were reviewed for compliance with the analytical method and the associated quality assurance/quality control (QA/QC) procedures. All samples were analyzed using the correct analytical methods and within the correct holding times. Chain of custody forms were in order and properly executed and indicate that samples were received at the proper temperature with no headspace. All data were reported using the correct method number and reporting units. A trip blank, matrix spike or matrix spike duplicate (MS/MSD) and field duplicate sample from well MW-7 were collected during the sampling event. The trip blank was fully in control, having no detections of targets.

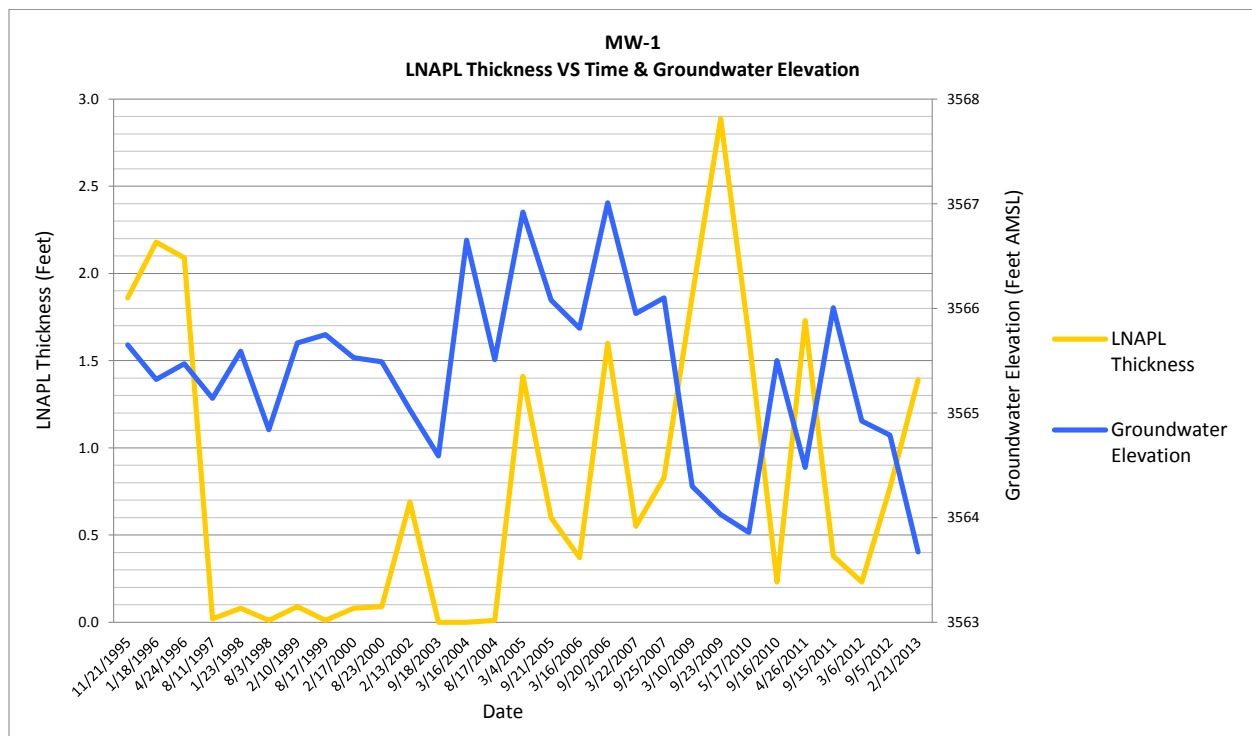
The duplicate sample collected at MW-7 was in compliance with QA/QC standards. MW-7 and associated duplicate sample returned results for benzene of 0.0057 mg/l and 0.0059 mg/l, respectively.

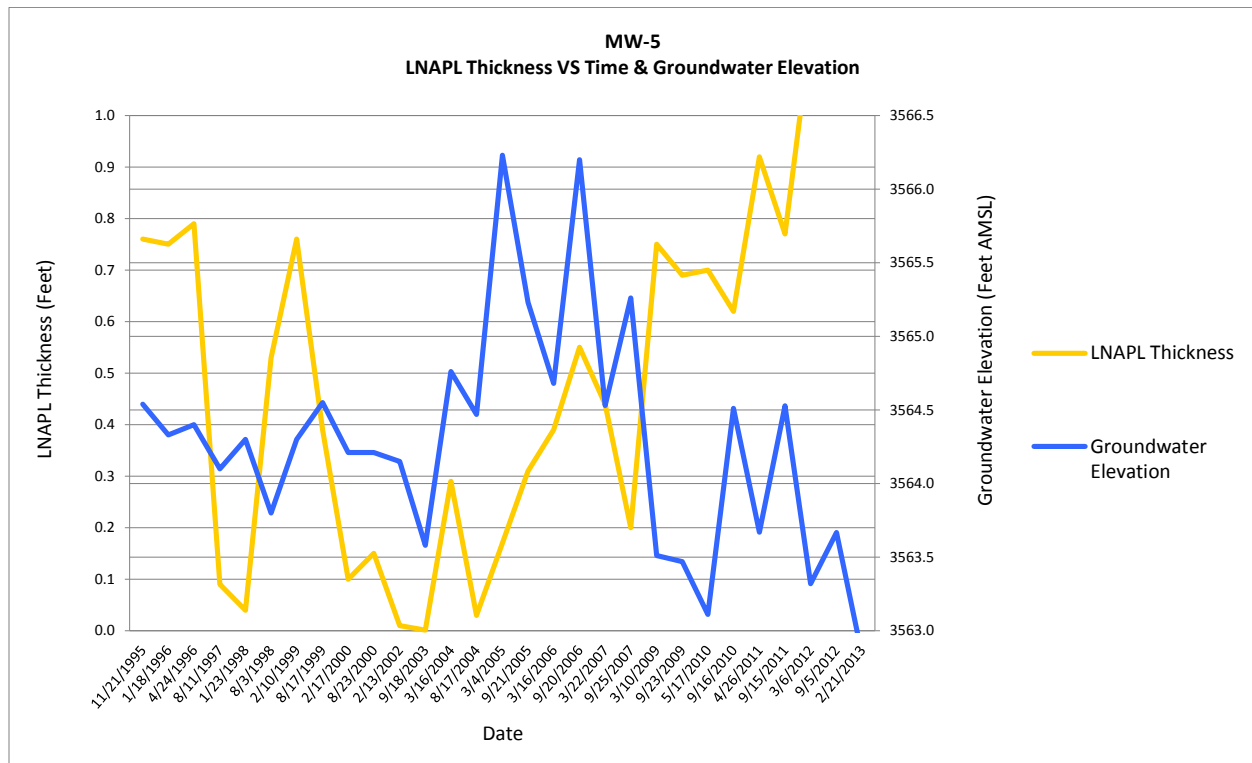
The overall QA/QC assessment of the data, based on the data review, indicate that both field precision and overall data precision and accuracy are acceptable.

4. Remediation Activities

Based on the historic and recent data, natural attenuation remains an effective remediation strategy for the dissolved and free phase petroleum hydrocarbon plumes on Site. Down-gradient monitoring wells MW-3, MW-4 and MW-6, which act as “point of compliance” wells along continue to exhibit non-detect dissolved-phase BTEX concentrations in groundwater.

As illustrated in the graphs below, LNAPL thickness in MW-1 and MW-5 does not appear to exhibit any seasonal fluctuation trends or a relationship to groundwater levels.





5. Conclusions

During the first half 2013 semi-annual event, only one of the six monitoring wells (MW-1D) sampled contained dissolved-phase hydrocarbon impacts above the NMWQCC groundwater standards. This monitoring well has been non-detect since sampling was initiated in May 1995. It is located immediately up-gradient to both MW-1 and MW-7, which exhibits persistent LNAPL and intermittently dissolved petroleum hydrocarbon concentrations above NMWQCC groundwater standards, respectively. During the first half 2013, the groundwater elevation observed at MW-1D was approximately one foot lower than the September 2012 groundwater elevation. However, there does not appear to be a significant correlation between groundwater elevation and detected benzene concentrations.

Measurable LNAPL remains at MW-1 and MW-5. Considering the apparent minimal subsurface aerial extent of LNAPL and minimal extent of dissolved-phase hydrocarbons at the Site, the residual source material does not appear significant in terms of emplaced volume. The persistence of LNAPL in the vicinity of MW-1 and MW-5 (detected at these well for approximately 15 years) and absence of down gradient free phase hydrocarbons and dissolved-phase impacts in groundwater indicates that the residual constituents of concern are not particularly mobile in the subsurface and natural attenuation is continuing at the Site.

Key factors that may be affecting mobility of LNAPL at the Site likely include the transmissivity of the subsurface formation and the hydraulic gradient across the Site. There appears to be minimal hydraulic gradient potential at the Site, so even though the subsurface may be transmissive the overall plume velocity is slow and therefore does not influence LNAPL mobility. Biodegradation of source material over distance and time from the point of release are likely occurring because dissolved-phase BTEX constituents in groundwater are minimal near the residual LNAPL and further are confirmed (“point of compliance” wells along the down gradient property boundary continue to be non-detect for all BTEX constituents) to be maintained on Site.

Ongoing semi-annual groundwater sampling activities will provide for continued monitoring of Site dissolved-phase BTEX concentrations and LNAPL trends.

6. Recommendations

Based on evaluation of first half 2013 Site observations and monitoring results, continued semi-annual groundwater monitoring and sampling at existing monitoring locations illustrated on Figure 2 is recommended.

Tables

TABLE 1
FIRST HALF 2013 SEMI-ANNUAL
SUMMARY OF GROUNDWATER ELEVATION DATA
MONUMENT BOOSTER STATION
LEA COUNTY, NEW MEXICO

Location	Date	Depth to Groundwater (1) (feet)	Depth to Product (1) (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth (2) (feet)	TOC Elevation (feet amsl)	Groundwater Elevation (feet amsl)	Change in Groundwater Elevation Since Previous Event (3) (feet)
MW-1	4/26/2011	27.97	26.24	1.73		3591.15	3564.48	-1.02
MW-1	9/15/2011	25.43	25.05	0.38		3591.15	3566.01	1.53
MW-1	3/6/2012	26.40	26.17	0.23		3591.15	3564.92	-1.08
MW-1	9/5/2012	26.94	26.17	0.77		3591.15	3564.79	-0.14
MW-1	2/21/2013	28.52	27.13	1.39		3591.15	3563.67	-1.11
MW-1D	4/26/2011	26.49				3591.31	3564.82	-0.86
MW-1D	9/15/2011	25.17			36.36	3591.31	3566.14	1.32
MW-1D	3/6/2012	26.67			36.36	3591.31	3564.64	-1.50
MW-1D	9/5/2012	26.40			36.36	3591.31	3564.91	0.27
MW-1D	2/21/2013	27.43			36.36	3591.31	3563.88	-1.03
MW-2	4/26/2011	29.49				3596.30	3566.81	-0.45
MW-2	9/15/2011	28.99			43.26	3596.30	3567.31	0.50
MW-2	3/6/2012	29.71			43.26	3596.30	3566.59	-0.72
MW-2	9/5/2012	29.36			43.26	3596.30	3566.94	0.35
MW-2	2/21/2013	30.29			43.26	3596.30	3566.01	-0.93
MW-3	4/26/2011	22.65				3583.86	3561.21	-0.17
MW-3	9/15/2011	23.51			35.70	3583.86	3560.35	-0.86
MW-3	3/6/2012	23.57			35.70	3583.86	3560.29	-0.06
MW-3	9/5/2012	23.88			35.70	3583.86	3559.98	-0.31
MW-3	2/21/2013	24.21			35.70	3583.86	3559.65	-0.33
MW-4	4/26/2011	26.60				3588.77	3562.17	-0.70
MW-4	9/15/2011	26.65			38.99	3588.77	3562.12	-0.05
MW-4	3/6/2012	26.91			38.99	3588.77	3561.86	-0.26
MW-4	9/5/2012	26.95			38.99	3588.77	3561.82	-0.04
MW-4	2/21/2013	27.35			38.99	3588.77	3561.42	-0.40
MW-5	4/26/2011	29.18	28.26	0.92		3592.16	3563.67	-0.84
MW-5	9/15/2011	28.21	27.44	0.77		3592.16	3564.53	0.86
MW-5	3/6/2012	29.71	28.55	1.16		3592.16	3563.32	-1.21
MW-5	9/5/2012	29.40	28.19	1.21		3592.16	3563.67	0.35
MW-5	2/21/2013	30.31	29.00	1.31		3592.16	3562.83	-0.83
MW-6	4/26/2011	25.47				3587.93	3562.46	-1.08
MW-6	9/15/2011	25.28			39.51	3587.93	3562.65	0.19
MW-6	3/6/2012	25.99			39.51	3587.93	3561.94	-0.71
MW-6	9/5/2012	25.81			39.51	3587.93	3562.12	0.18
MW-6	2/21/2013	26.26			39.51	3587.93	3561.67	-0.45
MW-7	4/26/2011	26.00				3589.40	3563.40	-0.76
MW-7	9/15/2011	25.07			35.85	3589.40	3564.33	0.93
MW-7	3/6/2012	26.30			35.85	3589.40	3563.10	-1.23
MW-7	9/5/2012	25.97			35.85	3589.40	3563.43	0.33
MW-7	2/21/2013	26.97			35.85	3589.40	3562.43	-1.00
Average change in groundwater elevation since the previous monitoring event								-0.76

Notes:

1- Depths measured from the north edge of the well casing.

2- Total depths were collected and recorded during the first 2013 semi-annual monitoring event.

3- Changes in groundwater elevation calculated by subtracting the measurement collected during the previous monitoring event from the measurement collected during the most recent monitoring event.

Data presented for all well locations includes previous four sampling events, when available. Historic groundwater analytical results for these locations may be found in Appendix B.

Sample locations are shown on Figure 2 and a groundwater elevation contour map is shown on Figure 3.

amsl - feet above mean sea level.

TOC - top of casing

NM - not measured

* Groundwater elevation was corrected for product thickness using the following calculation:

Water table elevation = Water Elevation in Well + ([LNAPL Thickness in Well] * [LNAPL Density])

LNAPL density was assumed to be approximately 0.75 grams per cubic centimeter

TABLE 2
FIRST HALF 2013 SEMI-ANNUAL
SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER
MONUMENT BOOSTER STATION
LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-1	9/15/2011	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	3/6/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	9/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	2/21/2013	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1D	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-1D	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-1D	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-1D	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-1D	2/21/2013	0.016	<0.001	<0.001	<0.003	
MW-2	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-2	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-2	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-2	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-2	2/21/2013	<0.001	<0.001	<0.001	<0.003	
MW-3	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-3	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-3	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-3	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-3	2/21/2013	<0.001	<0.001	<0.001	<0.003	
MW-4	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-4	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-4	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-4	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-4	2/21/2013	<0.001	<0.001	<0.001	<0.003	
MW-5	9/15/2011	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	3/6/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	9/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	2/21/2013	LNAPL	LNAPL	LNAPL	LNAPL	
MW-6	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-6	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-6	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-6	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-6	2/21/2013	<0.001	<0.001	<0.001	<0.003	
MW-7	4/26/2011	0.0091/0.0104	<0.01/<0.01	0.0042/0.0041	<0.01/<0.01	
MW-7	9/15/2011	0.394	<0.01	0.149	0.0442	Duplicate sample collected
MW-7	3/6/2012	0.0098	<0.005	0.0088	<0.015	
MW-7	9/5/2012	0.014	<0.005	0.01	<0.015	Duplicate sample collected
MW-7	2/21/2013	0.0059	<0.001	0.0049	<0.003	Duplicate sample collected

Notes:

1.) The environmental cleanup standards for water that are applicable to the Monument Booster Station are the New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards.

2.) Monitoring well locations MW-1 and MW-5 have historically exhibited measurable LNAPL during groundwater monitoring events. Therefore, those wells have not been sampled.

3.) Data presented for well locations include previous four sampling events, when available. Historic groundwater analytical results for these locations may be found in Appendix B.

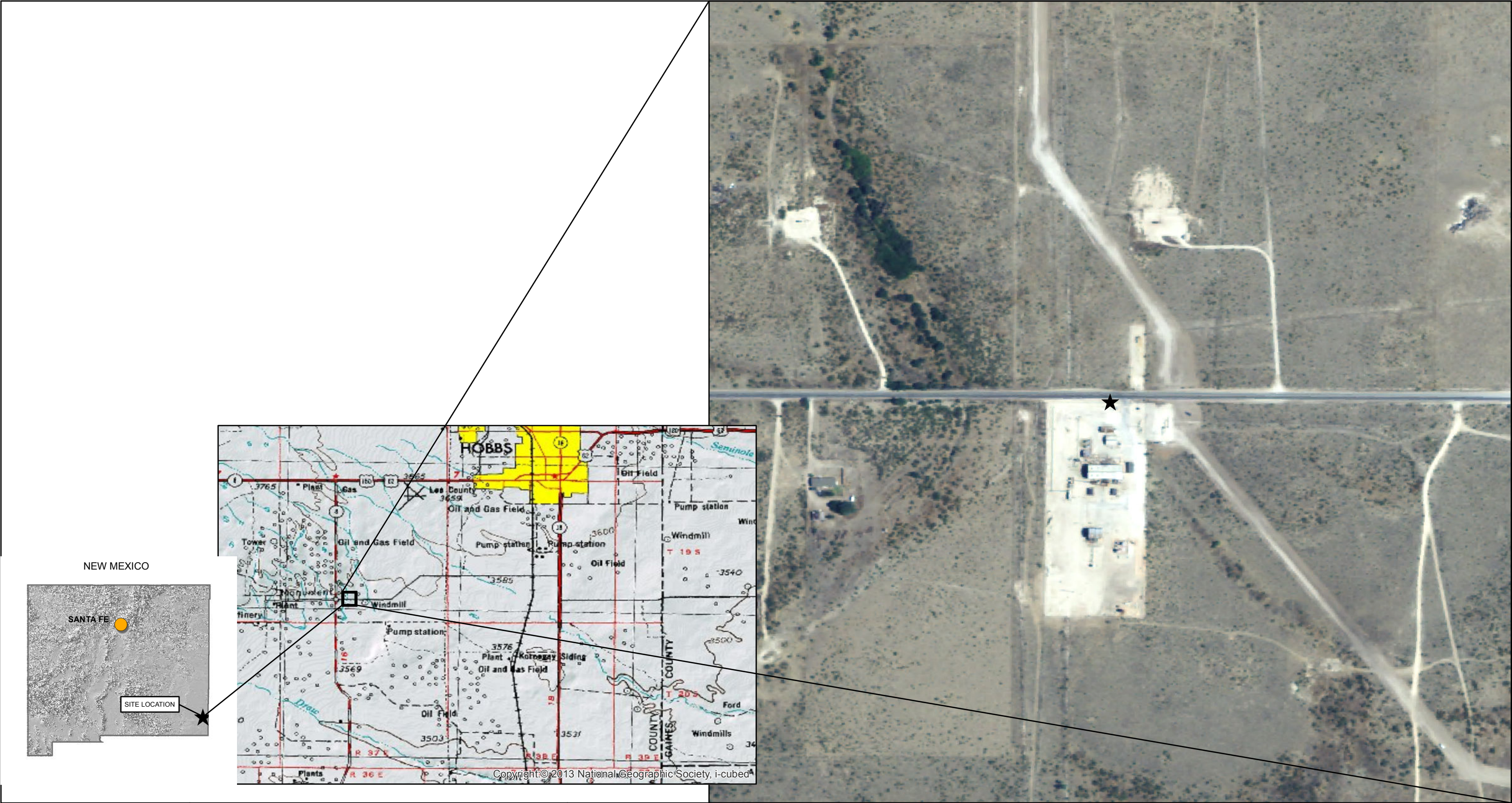
Bold red values indicate an exceedance of the NMWQCC groundwater standards for the Site.

Sample locations are shown on Figure 2 and analytical results are illustrated on Figure 4.

LNAPL = Light Non-Aqueous Phase Liquid

mg/L = milligrams per liter.

Figures



DESIGNED BY: C. Wasko
DRAWN BY: J. Clonts
SHEET CHK'D BY: _____
CROSS CHK'D BY: _____
APPROVED BY: _____
APPROVED BY: _____



Tasman Geosciences, LLC
6899 Pecos Street - Unit C
Denver, CO 80221
303 487 1228

MONUMENT BOOSTER STATION

*Groundwater Monitoring
Summary Report*

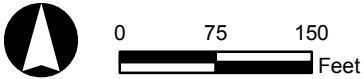
SITE LOCATION

FIGURE
1



Legend

● Monitoring Well



DESIGNED BY: C. Wasko
DRAWN BY: J. Clonts
SHEET CHK'D BY: _____
CROSS CHK'D BY: _____
APPROVED BY: _____
APPROVED BY: _____



Tasman Geosciences, LLC
6899 Pecos Street - Unit C
Denver, CO 80221
303 487 1228

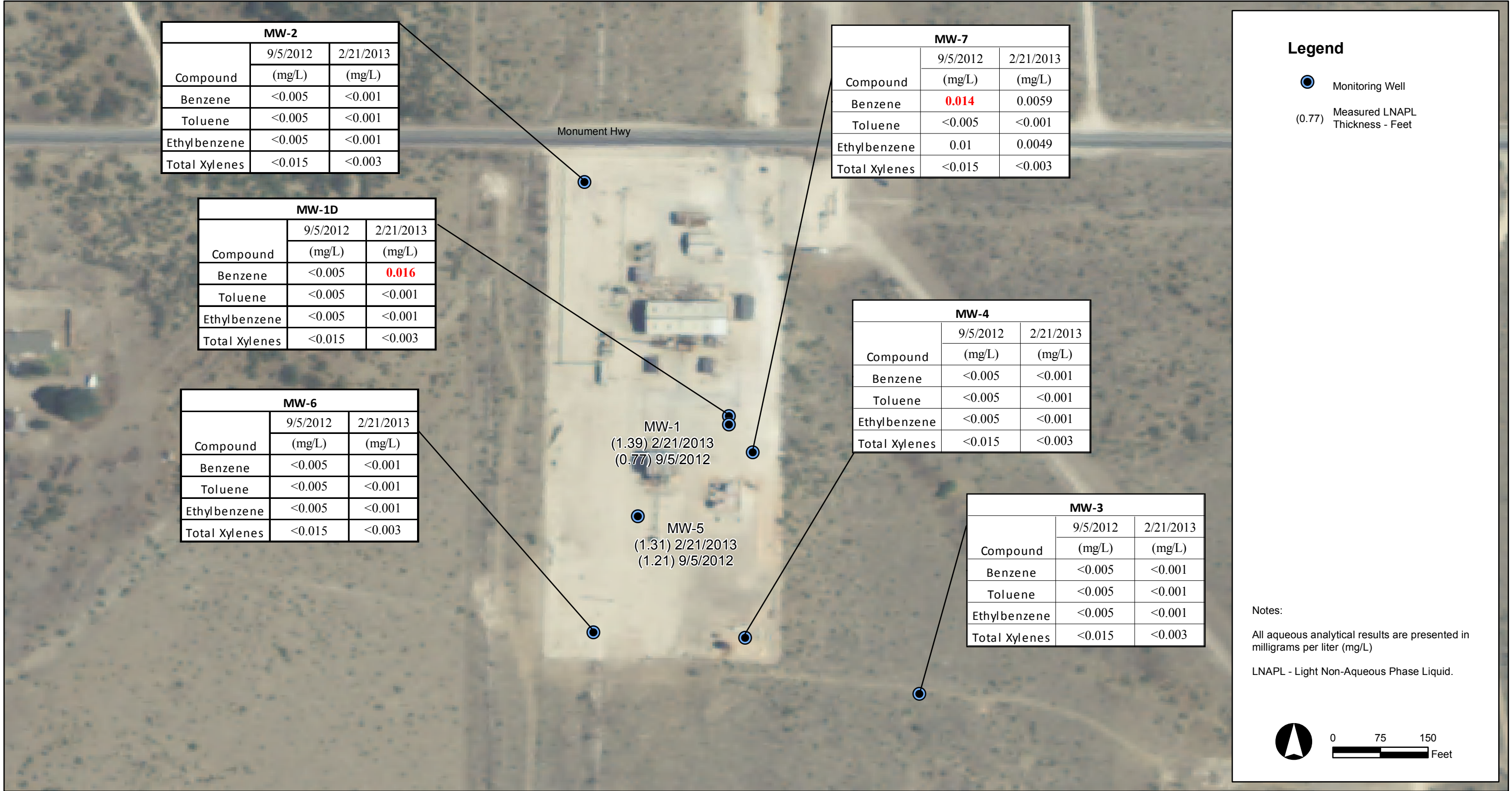
MONUMENT BOOSTER STATION

*Groundwater Monitoring
Summary Report*

SITE MAP

FIGURE
2





DESIGNED BY: C. Wasko

DRAWN BY: J. Clonts

SHEET CHK'D BY: _____

CROSS CHK'D BY: _____

APPROVED BY: _____

APPROVED BY: _____



TASMAN
GEOSCIENCES

Tasman Geosciences, LLC
6899 Pecos Street - Unit C
Denver, CO 80221
303 487 1228

MONUMENT BOOSTER STATION

First Half 2013 Groundwater Monitoring
Summary Report

ANALYTICAL RESULTS
MAP

FIGURE
4

Appendix A

Laboratory Analytical Report



26-Feb-2013

Christine Wasko
Tasman Geosciences
5690 Webster Street
Arvada, CO 80002

Tel: (720) 988-2024
Fax:

Re: Monument Booster Station

Work Order: **1302791**

Dear Christine,

ALS Environmental received 8 samples on 23-Feb-2013 09:20 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 17.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink that reads "Sonia West".

Electronically approved by: Luke F. Hernandez

Sonia West
Project Manager



Certificate No: T104704231-12-10

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

DOV#J UR X S#K VD /#R US#Sdu#h: i#kch#DOV#J ur xs##D q#DOV#Dp l#hg#F rp s dq |

Environmental

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: Tasman Geosciences
Project: Monument Booster Station
Work Order: 1302791

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1302791-01	MW-1D	Water		2/21/2013 11:35	2/23/2013 09:20	☐
1302791-02	MW-2	Water		2/21/2013 09:30	2/23/2013 09:20	☐
1302791-03	MW-3	Water		2/21/2013 08:20	2/23/2013 09:20	☐
1302791-04	MW-4	Water		2/21/2013 10:15	2/23/2013 09:20	☐
1302791-05	MW-6	Water		2/21/2013 09:40	2/23/2013 09:20	☐
1302791-06	MW-7	Water		2/21/2013 11:20	2/23/2013 09:20	☐
1302791-07	DUPLICATE	Water		2/21/2013	2/23/2013 09:20	☐
1302791-08	Trip Blank	Water		2/21/2013	2/23/2013 09:20	☐

ALS Environmental

Date: 26-Feb-13

Client: Tasman Geosciences
Project: Monument Booster Station
Work Order: 1302791

Case Narrative

No exceptions.

ALS Environmental

Date: 26-Feb-13

Client: Tasman Geosciences
Project: Monument Booster Station
Sample ID: MW-1D
Collection Date: 2/21/2013 11:35 AM

Work Order: 1302791
Lab ID: 1302791-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
LOW LEVEL VOLATILES - SW8260C			SW8260			Analyst: AKP
Benzene	0.016		0.0010	mg/L	1	2/26/2013 03:33 AM
Ethylbenzene	ND		0.0010	mg/L	1	2/26/2013 03:33 AM
Toluene	ND		0.0010	mg/L	1	2/26/2013 03:33 AM
Xylenes, Total	ND		0.0030	mg/L	1	2/26/2013 03:33 AM
Surr: 1,2-Dichloroethane-d4	111		71-125	%REC	1	2/26/2013 03:33 AM
Surr: 4-Bromofluorobenzene	101		70-125	%REC	1	2/26/2013 03:33 AM
Surr: Dibromofluoromethane	102		74-125	%REC	1	2/26/2013 03:33 AM
Surr: Toluene-d8	103		78-123	%REC	1	2/26/2013 03:33 AM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 26-Feb-13

Client: Tasman Geosciences
Project: Monument Booster Station
Sample ID: MW-2
Collection Date: 2/21/2013 09:30 AM

Work Order: 1302791
Lab ID: 1302791-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
LOW LEVEL VOLATILES - SW8260C			SW8260			Analyst: AKP
Benzene	ND		0.0010	mg/L	1	2/25/2013 11:07 PM
Ethylbenzene	ND		0.0010	mg/L	1	2/25/2013 11:07 PM
Toluene	ND		0.0010	mg/L	1	2/25/2013 11:07 PM
Xylenes, Total	ND		0.0030	mg/L	1	2/25/2013 11:07 PM
Surr: 1,2-Dichloroethane-d4	112		71-125	%REC	1	2/25/2013 11:07 PM
Surr: 4-Bromofluorobenzene	101		70-125	%REC	1	2/25/2013 11:07 PM
Surr: Dibromofluoromethane	104		74-125	%REC	1	2/25/2013 11:07 PM
Surr: Toluene-d8	103		78-123	%REC	1	2/25/2013 11:07 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 26-Feb-13

Client: Tasman Geosciences
Project: Monument Booster Station
Sample ID: MW-3
Collection Date: 2/21/2013 08:20 AM

Work Order: 1302791
Lab ID: 1302791-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
LOW LEVEL VOLATILES - SW8260C			SW8260			Analyst: AKP
Benzene	ND		0.0010	mg/L	1	2/26/2013 03:58 AM
Ethylbenzene	ND		0.0010	mg/L	1	2/26/2013 03:58 AM
Toluene	ND		0.0010	mg/L	1	2/26/2013 03:58 AM
Xylenes, Total	ND		0.0030	mg/L	1	2/26/2013 03:58 AM
Surr: 1,2-Dichloroethane-d4	108		71-125	%REC	1	2/26/2013 03:58 AM
Surr: 4-Bromofluorobenzene	102		70-125	%REC	1	2/26/2013 03:58 AM
Surr: Dibromofluoromethane	101		74-125	%REC	1	2/26/2013 03:58 AM
Surr: Toluene-d8	103		78-123	%REC	1	2/26/2013 03:58 AM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 26-Feb-13

Client: Tasman Geosciences
Project: Monument Booster Station
Sample ID: MW-4
Collection Date: 2/21/2013 10:15 AM

Work Order: 1302791
Lab ID: 1302791-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
LOW LEVEL VOLATILES - SW8260C			SW8260			Analyst: AKP
Benzene	ND		0.0010	mg/L	1	2/26/2013 04:22 AM
Ethylbenzene	ND		0.0010	mg/L	1	2/26/2013 04:22 AM
Toluene	ND		0.0010	mg/L	1	2/26/2013 04:22 AM
Xylenes, Total	ND		0.0030	mg/L	1	2/26/2013 04:22 AM
Surr: 1,2-Dichloroethane-d4	109		71-125	%REC	1	2/26/2013 04:22 AM
Surr: 4-Bromofluorobenzene	103		70-125	%REC	1	2/26/2013 04:22 AM
Surr: Dibromofluoromethane	103		74-125	%REC	1	2/26/2013 04:22 AM
Surr: Toluene-d8	102		78-123	%REC	1	2/26/2013 04:22 AM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 26-Feb-13

Client: Tasman Geosciences
Project: Monument Booster Station
Sample ID: MW-6
Collection Date: 2/21/2013 09:40 AM

Work Order: 1302791
Lab ID: 1302791-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
LOW LEVEL VOLATILES - SW8260C			SW8260			Analyst: AKP
Benzene	ND		0.0010	mg/L	1	2/26/2013 04:46 AM
Ethylbenzene	ND		0.0010	mg/L	1	2/26/2013 04:46 AM
Toluene	ND		0.0010	mg/L	1	2/26/2013 04:46 AM
Xylenes, Total	ND		0.0030	mg/L	1	2/26/2013 04:46 AM
Surr: 1,2-Dichloroethane-d4	110		71-125	%REC	1	2/26/2013 04:46 AM
Surr: 4-Bromofluorobenzene	106		70-125	%REC	1	2/26/2013 04:46 AM
Surr: Dibromofluoromethane	102		74-125	%REC	1	2/26/2013 04:46 AM
Surr: Toluene-d8	102		78-123	%REC	1	2/26/2013 04:46 AM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 26-Feb-13

Client: Tasman Geosciences
Project: Monument Booster Station
Sample ID: MW-7
Collection Date: 2/21/2013 11:20 AM

Work Order: 1302791
Lab ID: 1302791-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
LOW LEVEL VOLATILES - SW8260C			SW8260			Analyst: AKP
Benzene	0.0057		0.0010	mg/L	1	2/26/2013 05:10 AM
Ethylbenzene	0.0049		0.0010	mg/L	1	2/26/2013 05:10 AM
Toluene	ND		0.0010	mg/L	1	2/26/2013 05:10 AM
Xylenes, Total	ND		0.0030	mg/L	1	2/26/2013 05:10 AM
Surr: 1,2-Dichloroethane-d4	108		71-125	%REC	1	2/26/2013 05:10 AM
Surr: 4-Bromofluorobenzene	105		70-125	%REC	1	2/26/2013 05:10 AM
Surr: Dibromofluoromethane	100		74-125	%REC	1	2/26/2013 05:10 AM
Surr: Toluene-d8	103		78-123	%REC	1	2/26/2013 05:10 AM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 26-Feb-13

Client: Tasman Geosciences
Project: Monument Booster Station
Sample ID: DUPLICATE
Collection Date: 2/21/2013

Work Order: 1302791
Lab ID: 1302791-07
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
LOW LEVEL VOLATILES - SW8260C			SW8260			Analyst: AKP
Benzene	0.0059		0.0010	mg/L	1	2/26/2013 05:34 AM
Ethylbenzene	0.0049		0.0010	mg/L	1	2/26/2013 05:34 AM
Toluene	ND		0.0010	mg/L	1	2/26/2013 05:34 AM
Xylenes, Total	ND		0.0030	mg/L	1	2/26/2013 05:34 AM
Surr: 1,2-Dichloroethane-d4	109		71-125	%REC	1	2/26/2013 05:34 AM
Surr: 4-Bromofluorobenzene	105		70-125	%REC	1	2/26/2013 05:34 AM
Surr: Dibromofluoromethane	102		74-125	%REC	1	2/26/2013 05:34 AM
Surr: Toluene-d8	103		78-123	%REC	1	2/26/2013 05:34 AM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Environmental

Date: 26-Feb-13

Client: Tasman Geosciences
Project: Monument Booster Station
Sample ID: Trip Blank
Collection Date: 2/21/2013

Work Order: 1302791
Lab ID: 1302791-08
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
LOW LEVEL VOLATILES - SW8260C			SW8260			Analyst: AKP
Benzene	ND		0.0010	mg/L	1	2/25/2013 10:42 PM
Ethylbenzene	ND		0.0010	mg/L	1	2/25/2013 10:42 PM
Toluene	ND		0.0010	mg/L	1	2/25/2013 10:42 PM
Xylenes, Total	ND		0.0030	mg/L	1	2/25/2013 10:42 PM
Surr: 1,2-Dichloroethane-d4	109		71-125	%REC	1	2/25/2013 10:42 PM
Surr: 4-Bromofluorobenzene	102		70-125	%REC	1	2/25/2013 10:42 PM
Surr: Dibromofluoromethane	103		74-125	%REC	1	2/25/2013 10:42 PM
Surr: Toluene-d8	102		78-123	%REC	1	2/25/2013 10:42 PM

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences

Work Order: 1302791

Project: Monument Booster Station

QC BATCH REPORT

Batch ID: **R143252** Instrument ID **VOA4** Method: **SW8260**

MBLK		Sample ID: VBLKW2-130225-R143252				Units: µg/L		Analysis Date: 2/25/2013 10:18 PM		
Client ID:		Run ID: VOA4_130225C				SeqNo: 3123594		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	1.0								
<i>Surr: 1,2-Dichloroethane-d4</i>	53.1	1.0	50	0	106	71-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	51.42	1.0	50	0	103	70-125	0			
<i>Surr: Dibromofluoromethane</i>	50.53	1.0	50	0	101	74-125	0			
<i>Surr: Toluene-d8</i>	51.7	1.0	50	0	103	78-123	0			

LCS		Sample ID: VLC SW2-130225-R143252				Units: µg/L		Analysis Date: 2/25/2013 09:06 PM		
Client ID:		Run ID: VOA4_130225C				SeqNo: 3123592		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	49.77	1.0	50	0	99.5	80-120	0			
Ethylbenzene	52.76	1.0	50	0	106	80-120	0			
Toluene	52.07	1.0	50	0	104	80-121	0			
Xylenes, Total	157.5	1.0	150	0	105	80-124	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	51.92	1.0	50	0	104	71-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	56.01	1.0	50	0	112	70-125	0			
<i>Surr: Dibromofluoromethane</i>	49.84	1.0	50	0	99.7	74-125	0			
<i>Surr: Toluene-d8</i>	51.2	1.0	50	0	102	78-123	0			

LCSD		Sample ID: VLCSDW2-130225-R143252				Units: µg/L		Analysis Date: 2/25/2013 09:30 PM		
Client ID:		Run ID: VOA4_130225C				SeqNo: 3123593		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	48.21	1.0	50	0	96.4	80-120	49.77	3.18	20	
Ethylbenzene	51.1	1.0	50	0	102	80-120	52.76	3.18	20	
Toluene	51.03	1.0	50	0	102	80-121	52.07	2.03	20	
Xylenes, Total	152.7	1.0	150	0	102	80-124	157.5	3.13	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	53.04	1.0	50	0	106	71-125	51.92	2.14	20	
<i>Surr: 4-Bromofluorobenzene</i>	55.37	1.0	50	0	111	70-125	56.01	1.15	20	
<i>Surr: Dibromofluoromethane</i>	50.54	1.0	50	0	101	74-125	49.84	1.4	20	
<i>Surr: Toluene-d8</i>	51.77	1.0	50	0	104	78-123	51.2	1.11	20	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tasman Geosciences
Work Order: 1302791
Project: Monument Booster Station

QC BATCH REPORT

Batch ID: **R143252** Instrument ID **VOA4** Method: **SW8260**

MS		Sample ID: 1302791-02AMS				Units: µg/L		Analysis Date: 2/25/2013 11:31 PM		
Client ID: MW-2		Run ID: VOA4_130225C				SeqNo: 3123597		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	52.9	1.0	50	0	106	80-120	0			
Ethylbenzene	55.6	1.0	50	0	111	80-120	0			
Toluene	55.86	1.0	50	0	112	80-121	0			
Xylenes, Total	167	1.0	150	0	111	80-124	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	52.43	1.0	50	0	105	71-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	55.78	1.0	50	0	112	70-125	0			
<i>Surr: Dibromofluoromethane</i>	50.19	1.0	50	0	100	74-125	0			
<i>Surr: Toluene-d8</i>	51.72	1.0	50	0	103	78-123	0			

MSD		Sample ID: 1302791-02AMSD				Units: µg/L		Analysis Date: 2/25/2013 11:55 PM		
Client ID: MW-2		Run ID: VOA4_130225C				SeqNo: 3123598		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	53.88	1.0	50	0	108	80-120	52.9	1.85	20	
Ethylbenzene	56.69	1.0	50	0	113	80-120	55.6	1.94	20	
Toluene	55.98	1.0	50	0	112	80-121	55.86	0.204	20	
Xylenes, Total	169.7	1.0	150	0	113	80-124	167	1.59	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	52.6	1.0	50	0	105	71-125	52.43	0.322	20	
<i>Surr: 4-Bromofluorobenzene</i>	55.38	1.0	50	0	111	70-125	55.78	0.727	20	
<i>Surr: Dibromofluoromethane</i>	50.25	1.0	50	0	100	74-125	50.19	0.109	20	
<i>Surr: Toluene-d8</i>	51.41	1.0	50	0	103	78-123	51.72	0.605	20	

The following samples were analyzed in this batch:

1302791-01A	1302791-02A	1302791-03A
1302791-04A	1302791-05A	1302791-06A
1302791-07A	1302791-08A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tasman Geosciences
Project: Monument Booster Station
WorkOrder: 1302791

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter

Sample Receipt Checklist

Client Name: **TASMAN GEOSCIENCES**

Date/Time Received: **23-Feb-13 09:20**

Work Order: **1302791**

Received by: **RDN**

Checklist completed by Rishel D. Naran
eSignature

23-Feb-13
Date

Reviewed by: Sonia West
eSignature

25-Feb-13
Date

Matrices: **water**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	<u>2.1c u/c</u> <u>005</u>		
Cooler(s)/Kit(s):	<u>4889</u>		
Date/Time sample(s) sent to storage:	<u>2/23/13 11:08</u>		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:	<u>-</u>		
Login Notes:			

Client Contacted:

Date Contacted:

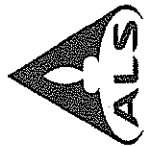
Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



Cincinnati, OH
+1 513 733 5336
Everett, WA
+1 425 356 2600

Fort Collins, CO
+1 970 490 1511
Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 1

COC ID: 75667

Environmental

ALS Project Manager:

Customer Information

Project Information

Customer Information		Project Information															
Purchase Order	Project Name	Monument Booster Station	A														
Work Order	Project Number	400128008 GN00	B														
Company Name	Bill To Company	DCP Midstream, LP	C														
Send Report To	Invoice Attn	Chandler Cole	D														
Address	Address	370 17th Street, Suite 2500	E														
City/State/Zip	City/State/Zip	Denver, Colorado 80102	F														
Phone	Phone		G														
Fax	Fax		H														
e-Mail Address	e-Mail Address		I														
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1D	2/21/13	135	Water	HCl	3	X										
2	MW-2		130	Water													
3	MW-2 MS		130	Water													
4	MW-2 MSD		130	Water													
5	MW-3		820	Water													
6	MW-4		1015	Water													
7	MW-6		940	Water													
8	MW-7		1120	Water													
9	Duplicate			Water													
10																	

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Relinquished by:	Date:	Time:	Relinquished by:	Date:	Time:	Other	Notes:
Christine Wasko	2/21/13	1530	Christine Wasko	2/21/13	09:10	☒ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour	10 Day TAT
Relinquished by:	Date:	Time:	Relinquished by:	Date:	Time:		
Relinquished by:	Date:	Time:	Relinquished by:	Date:	Time:		
Relinquished by:	Date:	Time:	Relinquished by:	Date:	Time:		

Preservative Key:		QC Package: (Check One Box Below)	
1-HCl	2-HNO ₃	Level II Std QC	Level III Std QC/Raw Data
3-H ₂ SO ₄	4-NaOH	☒ Level II Std QC	☐ Level III Std QC/Raw Data
5-Na ₂ S ₂ O ₃	6-NaHSO ₃	☐ Level IV SWB46/CLP	☐ TRRP Level IV
7-Other	8-4°C	☐ Other / EDD	

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental. 2. This record is a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.

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**ALS Environmental**

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Houston, Texas 77099
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Fax. +1 281 530 5887

BURTON

CUSTODY SEAL

Date: *2/23/13* Time: *15:45*
Name: *Christopher*
Company: *former*

Seal Broken By: *R*Date: *2/23/13*

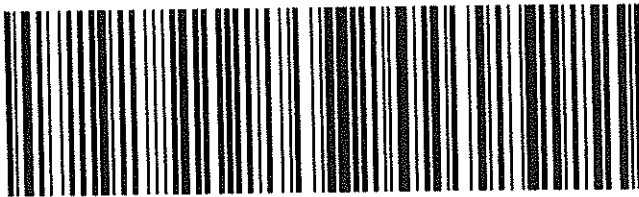
1 of 2

TRK#
0215**8013 7024 9422**

MASTER

XO SGRA**### SATURDAY ### A1
PRIORITY OVERNIGHT****77099**TX-US **IAH**

1302791



Appendix B

Historical Analytical Results

**APPENDIX B
HISTORICAL DATA
SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER
MONUMENT BOOSTER STATION
LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-1	9/15/2011	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	3/6/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	9/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	2/21/2013	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1D	5/16/1995	0.018	0.015	0.006	0.016	
MW-1D	11/15/1995	0.003	0.002	<0.001	0.001	
MW-1D	1/18/1996	0.004	0.003	<0.001	0.009	
MW-1D	4/24/1996	<0.001	<0.001	<0.001	<0.001	
MW-1D	1/22/1997	0.001	0.001	<0.001	<0.001	
MW-1D	8/11/1997	<0.001	<0.001	<0.001	<0.001	
MW-1D	1/23/1998	<0.001	<0.001	<0.001	<0.001	
MW-1D	8/3/1998	<0.001	<0.001	<0.001	<0.001	
MW-1D	2/10/1999	<0.001	<0.001	<0.001	<0.001	
MW-1D	8/17/1999	<0.001	<0.001	<0.001	<0.001	
MW-1D	2/17/2000	0.002	0.003	<0.001	0.001	
MW-1D	8/23/2000	<0.005	<0.005	<0.005	<0.005	
MW-1D	2/8/2001	<0.001	<0.001	<0.001	0.001	
MW-1D	7/30/2001	<0.001	<0.001	<0.001	<0.001	
MW-1D	2/13/2002	<0.001	<0.001	<0.001	<0.001	
MW-1D	9/27/2002	<0.001	<0.001	<0.001	<0.001	
MW-1D	4/25/2003	<0.005	<0.005	<0.005	<0.005	
MW-1D	9/18/2003	0.002	<0.001	<0.001	<0.001	
MW-1D	3/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-1D	8/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-1D	3/4/2005	<0.001	<0.001	<0.001	<0.001	
MW-1D	9/21/2005	<0.001	<0.001	<0.001	<0.001	
MW-1D	3/16/2006	<0.001	<0.001	<0.001	<0.001	
MW-1D	9/20/2006	<0.001	<0.001	<0.001	<0.001	
MW-1D	3/22/2007	<0.001	<0.001	<0.001	<0.001	
MW-1D	9/25/2007	<0.001	<0.001	<0.001	<0.001	
MW-1D	3/19/2008	<0.00046	<0.00048	<0.00045	<0.0014	
MW-1D	3/20/2008	<0.002	<0.002	<0.002	<0.006	
MW-1D	9/17/2008	<0.002	<0.002	<0.002	<0.002	
MW-1D	3/10/2009	<0.002/<0.002	<0.002/<0.002	<0.002/<0.002	<0.006/<0.006	
MW-1D	3/11/2009	<0.00046	<0.00048	<0.00045	<0.0014	
MW-1D	9/23/2009	<0.002	<0.002	<0.002	<0.006	
MW-1D	9/23/2009	<0.00050	<0.00043	<0.00055	<0.0017	
MW-1D	5/17/2010	<0.002	<0.002	<0.002	<0.006	
MW-1D	5/17/2010	<0.00050	<0.00043	<0.00055	<0.0017	
MW-1D	9/16/2010	<0.002	<0.002	<0.002	<0.004	
MW-1D	9/16/2010	<0.00030	<0.0010	<0.00030	-	
MW-1D	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-1D	4/26/2011	<0.00030	<0.0010	<0.00030	<0.00060	
MW-1D	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-1D	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-1D	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-1D	2/21/2013	0.016	<0.001	<0.001	<0.003	

**APPENDIX B
HISTORICAL DATA
SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER
MONUMENT BOOSTER STATION
LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-2	5/16/1995	<0.001	<0.001	<0.001	<0.001	
MW-2	11/15/1995	NS	0.006	0.002		
MW-2	1/18/1996	<0.001	<0.001	<0.001	<0.001	
MW-2	4/24/1996	<0.001	<0.001	<0.001	<0.001	
MW-2	1/22/1997	<0.001	<0.001	<0.001	<0.001	
MW-2	8/11/1997	<0.001	<0.001	<0.001	<0.001	
MW-2	1/23/1998	<0.001	<0.001	<0.001	<0.001	
MW-2	8/3/1998	<0.001	<0.001	<0.001	<0.001	
MW-2	2/10/1999	<0.001	<0.001	<0.001	<0.001	
MW-2	8/17/1999	0.017	0.002	0.013	0.003	
MW-2	2/17/2000	<0.001	<0.001	<0.001	<0.001	
MW-2	8/23/2000	<0.001	<0.001	<0.001	<0.001	
MW-2	2/8/2001	<0.001	<0.001	<0.001	<0.001	
MW-2	7/30/2001	<0.001	<0.001	<0.001	<0.001	
MW-2	2/13/2002	<0.001	<0.001	<0.001	<0.001	
MW-2	9/27/2002	<0.001	<0.001	<0.001	<0.001	
MW-2	4/25/2003	<0.001	<0.001	<0.001	<0.001	
MW-2	9/18/2003	0.002	<0.001	<0.001	<0.001	
MW-2	3/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-2	8/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-2	3/4/2005	<0.001	<0.001	<0.001	<0.001	
MW-2	9/21/2005	<0.001	<0.001	<0.001	<0.001	
MW-2	3/16/2006	<0.001	<0.001	<0.001	<0.001	
MW-2	9/20/2006	<0.001	<0.001	<0.001	<0.001	
MW-2	3/22/2007	<0.001	<0.001	<0.001	<0.001	
MW-2	9/25/2007	<0.001	<0.001	<0.001	<0.001	
MW-2	3/19/2008	<0.00046	<0.00048	<0.00045	<0.0014	
MW-2	3/20/2008	<0.002	<0.002	<0.002	<0.006	
MW-2	9/17/2008	<0.002	<0.002	<0.002	<0.006	
MW-2	3/10/2009	<0.002	<0.002	<0.002	<0.006	
MW-2	3/11/2009	<0.00046	<0.00048	<0.00045	<0.0014	
MW-2	9/23/2009	<0.002	<0.002	<0.002	<0.006	
MW-2	9/23/2009	<0.00050	<0.00043	<0.00055	<0.0017	
MW-2	5/17/2010	<0.002	<0.002	<0.002	<0.006	
MW-2	5/17/2010	<0.00050	<0.00043	<0.00055	<0.0017	
MW-2	9/16/2010	<0.001	<0.002	<0.002	<0.004	
MW-2	9/16/2010	<0.00030	<0.0010	<0.00030	-	
MW-2	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-2	4/26/2011	<0.00030	<0.0010	<0.00030	<0.00060	
MW-2	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-2	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-2	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-2	2/21/2013	<0.001	<0.001	<0.001	<0.003	

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MONUMENT BOOSTER STATION
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Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-3	5/16/1995	<0.001	<0.001	<0.001	<0.001	
MW-3	11/15/1995	<0.001	<0.001	<0.001	<0.001	
MW-3	1/18/1996	<0.001	<0.001	<0.001	<0.001	
MW-3	4/24/1996	<0.001	<0.001	<0.001	<0.001	
MW-3	1/22/1997	<0.001	<0.001	<0.001	<0.001	
MW-3	8/11/1997	<0.001	<0.001	<0.001	<0.001	
MW-3	1/23/1998	<0.001	<0.001	<0.001	<0.001	
MW-3	8/3/1998	0.007	<0.001	<0.001	<0.001	
MW-3	2/10/1999	<0.005	<0.005	<0.005	<0.005	
MW-3	8/17/1999	0.043	<0.005	<0.005	<0.005	
MW-3	2/17/2000	0.021	<0.005	<0.005	<0.005	
MW-3	8/23/2000	0.006	<0.005	<0.005	<0.005	
MW-3	2/8/2001	0.004	0.001	0.002	0.005	
MW-3	7/30/2001	0.002	<0.001	<0.001	<0.001	
MW-3	2/13/2002	0.002	<0.001	<0.001	<0.001	
MW-3	9/27/2002	<0.005	<0.005	<0.005	<0.005	
MW-3	4/25/2003	<0.005	<0.005	<0.005	<0.005	
MW-3	9/18/2003	0.002	<0.001	<0.001	<0.001	
MW-3	3/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-3	8/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-3	3/4/2005	<0.001	<0.001	<0.001	<0.001	
MW-3	9/21/2005	<0.001	<0.001	<0.001	<0.001	
MW-3	3/16/2006	<0.001	<0.001	<0.001	<0.001	
MW-3	9/20/2006	<0.001	<0.001	<0.001	<0.001	
MW-3	3/22/2007	<0.001	<0.001	<0.001	<0.001	
MW-3	9/25/2007	<0.001	<0.001	<0.001	<0.001	
MW-3	3/19/2008	<0.00046	<0.00048	<0.00045	<0.0014	
MW-3	3/20/2008	<0.002	<0.002	<0.002	<0.006	
MW-3	9/17/2008	<0.002	<0.002	<0.002	<0.006	
MW-3	3/10/2009	<0.002	<0.002	<0.002	<0.006	
MW-3	3/11/2009	<0.00046	<0.00048	<0.00045	<0.0014	
MW-3	9/23/2009	<0.002	<0.002	<0.002	<0.006	
MW-3	9/23/2009	<0.00050	<0.00043	<0.00055	<0.0017	
MW-3	5/17/2010	<0.002	<0.002	<0.002	<0.006	
MW-3	5/17/2010	<0.00050	<0.00043	<0.00055	<0.0017	
MW-3	9/16/2010	<0.001	<0.002	<0.002	<0.004	
MW-3	9/16/2010	<0.00030	<0.0010	<0.00030	-	
MW-3	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-3	4/26/2011	<0.00030	<0.0010	<0.00030	<0.00060	
MW-3	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-3	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-3	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-3	2/21/2013	<0.001	<0.001	<0.001	<0.003	

**APPENDIX B
HISTORICAL DATA
SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER
MONUMENT BOOSTER STATION
LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-4	5/16/1995	<0.001	<0.001	<0.001	<0.001	
MW-4	11/15/1995	NS	0.006	0.002	0.1	
MW-4	1/18/1996	0.003	<0.001	<0.001	<0.001	
MW-4	4/24/1996	<0.002	<0.002	<0.002	<0.002	
MW-4	1/22/1997	0.002	<0.001	<0.001	<0.001	
MW-4	8/11/1997	0.001	<0.001	<0.001	<0.001	
MW-4	1/23/1998	<0.001	<0.001	<0.001	<0.001	
MW-4	8/3/1998	<0.001	<0.001	<0.001	<0.001	
MW-4	2/10/1999	<0.001	<0.001	<0.001	<0.001	
MW-4	8/17/1999	<0.001	<0.001	<0.001	0.001	
MW-4	2/17/2000	<0.005	<0.005	<0.005	<0.005	
MW-4	8/23/2000	<0.005	<0.005	<0.005	<0.005	
MW-4	2/8/2001	0.002	<0.001	<0.001	0.002	
MW-4	7/30/2001	<0.001	<0.001	<0.001	<0.001	
MW-4	2/13/2002	NS	NS	NS	NS	
MW-4	9/27/2002	NS	NS	NS	NS	
MW-4	4/25/2003	<0.001	<0.001	<0.001	<0.001	
MW-4	9/18/2003	<0.001	<0.001	<0.001	<0.001	
MW-4	3/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-4	8/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-4	3/4/2005	<0.001	<0.001	<0.001	<0.001	
MW-4	9/21/2005	<0.001	<0.001	<0.001	<0.001	
MW-4	3/16/2006	<0.001	<0.001	<0.001	<0.001	
MW-4	9/20/2006	<0.002	<0.001	<0.001	0.0043	
MW-4	3/22/2007	<0.002	<0.001	<0.001	0.0036	
MW-4	9/25/2007	<0.002	<0.001	<0.001	<0.001	
MW-4	3/19/2008	<0.00046	<0.00048	<0.00045	<0.0014	
MW-4	3/20/2008	<0.002	<0.002	<0.002	<0.006	
MW-4	9/17/2008	<0.002	<0.002	<0.002	<0.006	
MW-4	3/10/2009	<0.002	<0.002	<0.002	<0.006	
MW-4	3/11/2009	<0.00046	<0.00048	<0.00045	<0.0014	
MW-4	9/23/2009	<0.002	<0.002	<0.002	<0.006	
MW-4	9/23/2009	<0.00050	<0.00043	<0.00055	<0.0017	
MW-4	5/17/2010	<0.002	<0.002	<0.002	<0.006	
MW-4	5/17/2010	<0.00050	<0.00043	<0.00055	<0.0017	
MW-4	9/16/2010	<0.001	<0.002	<0.002	<0.004	
MW-4	9/16/2010	<0.00030	<0.0010	<0.00030	-	
MW-4	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-4	6/2/2011	<0.00025	<0.0010	<0.00050	<0.0020	
MW-4	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-4	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-4	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-4	2/21/2013	<0.001	<0.001	<0.001	<0.003	
MW-5	9/15/2011	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	3/6/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	9/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	2/21/2013	LNAPL	LNAPL	LNAPL	LNAPL	

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SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER
MONUMENT BOOSTER STATION
LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-6	11/15/1995	0.003	0.001	<0.001	0.003	
MW-6	1/18/1996	0.002	<0.001	<0.001	<0.001	
MW-6	4/24/1996	<0.001	<0.001	<0.001	<0.001	
MW-6	1/22/1997	0.001	<0.001	<0.001	<0.001	
MW-6	8/11/1997	<0.001	<0.001	<0.001	0.001	
MW-6	1/23/1998	<0.001	<0.001	<0.001	<0.001	
MW-6	8/3/1998	<0.001	<0.001	<0.001	<0.001	
MW-6	2/10/1999	<0.001	<0.001	<0.001	0.014	
MW-6	8/17/1999	0.002	<0.001	<0.001	0.012	
MW-6	2/17/2000	<0.001	0.004	<0.001	0.006	
MW-6	8/23/2000	<0.001	0.004	<0.001	0.011	
MW-6	2/8/2001	<0.001	<0.001	<0.001	0.011	
MW-6	7/30/2001	<0.001	<0.001	<0.001	<0.001	
MW-6	2/13/2002	<0.001	<0.001	<0.001	<0.001	
MW-6	9/27/2002	<0.005	<0.005	<0.005	<0.005	
MW-6	4/25/2003	<0.001	<0.001	<0.001	<0.001	
MW-6	9/18/2003	0.002	<0.001	0.002	0.001	
MW-6	3/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-6	8/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-6	3/4/2005	0.0061	<0.001	0.0032	<0.001	
MW-6	9/21/2005	<0.001	<0.001	<0.001	<0.001	
MW-6	3/16/2006	<0.001	<0.001	<0.001	<0.001	
MW-6	9/20/2006	0.0391	<0.001	0.0287	0.0194	
MW-6	3/22/2007	<0.001	<0.001	<0.001	0.0013	
MW-6	9/25/2007	<0.001	<0.001	<0.001	<0.001	
MW-6	3/20/2008	NS	NS	NS	NS	
MW-6	9/17/2008	NS	NS	NS	NS	
MW-6	3/10/2009	NS	NS	NS	NS	
MW-6	9/23/2009	0.035	<0.002	0.0215	.0052J	
MW-6	9/23/2009	0.035	<0.00043	0.0215	0.0052	
MW-6	5/17/2010	<0.002	<0.002	<0.002	<0.006	
MW-6	5/17/2010	<0.00050	<0.00043	<0.00055	<0.0017	
MW-6	9/16/2010	<0.001	<0.002	<0.002	<0.004	
MW-6	9/16/2010	<0.00030	<0.0010	<0.00030	-	
MW-6	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-6	6/2/2011	<0.00025	<0.0010	<0.00050	<0.0020	
MW-6	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-6	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-6	2/21/2013	<0.001	<0.001	<0.001	<0.003	

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Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-7	11/15/1995	0.465	0.205	<0.001	0.163	
MW-7	1/18/1996	1.13	0.476	0.003	0.365	
MW-7	4/24/1996	0.585	0.251	<0.002	0.013	
MW-7	1/22/1997	0.896	0.24	<0.005	0.33	
MW-7	8/11/1997	0.317	0.155	0.2	0.049	
MW-7	1/23/1998	0.876	0.486	<0.005	0.181	
MW-7	8/3/1998	0.094	0.064	<0.005	0.007	
MW-7	2/10/1999	0.597	0.44	<0.005	0.12	
MW-7	8/17/1999	0.705	0.06	<0.005	0.556	
MW-7	2/17/2000	0.573	0.49	<0.005	0.226	
MW-7	8/23/2000	0.546	0.484	0.006	0.177	
MW-7	2/8/2001	0.355	0.424	<0.005	0.052	
MW-7	7/30/2001	0.017	0.058	<0.005	<0.005	
MW-7	2/13/2002	0.228	0.094	<0.005	0.5	
MW-7	9/27/2002	0.015	0.017	<0.005	<0.005	
MW-7	4/25/2003	0.157	0.192	<0.005	0.02	
MW-7	9/18/2003	0.018	0.023	<0.001	0.004	
MW-7	3/17/2004	0.125	0.108	<0.10	0.033	
MW-7	8/17/2004	0.237	0.081	<0.20	<0.020	
MW-7	3/4/2005	.125/.121	<0.001	0.0467/0.0453	0.0202	
MW-7	9/21/2005	.15/0.148	<0.001	0.079/0.0789	0.0248	
MW-7	3/16/2006	0.191	0.0032	0.073	<0.001	
MW-7	9/20/2006	0.236	<0.001	0.176	0.187	
MW-7	3/22/2007	0.209/0.215	<0.05/<0.01	.149/.121	0.116/0.0532	
MW-7	9/25/2007	0.465/0.458	<0.01/<0.01	.318/.314	.0307/0.302	
MW-7	3/19/2008	0.161	<0.00048	0.057	0.0295	
MW-7	3/20/2008	0.161/0.169	<0.002/<0.002	.057/.0637	0.0295/0.0325	
MW-7	9/17/2008	0.083	<0.002	0.0475	0.0204	
MW-7	3/10/2009	0.039	<0.002	0.0177	0.0052 J	
MW-7	3/11/2009	0.0339	<0.00048	0.0177	0.0052	
MW-7	9/23/2009	0.0332	<0.00043	0.0176	0.0033	
MW-7	9/23/2009	0.0332/<0.002	<0.002/<0.002	.0176/<0.002	0.0033J/<0.006	
MW-7	5/17/2010	0.0201/0.0198	<0.002/<0.002	.0095/.0092	0.0033J/0.0033J	
MW-7	5/17/2010	0.0201	<0.00043	0.0095	0.0033	
MW-7	9/16/2010	0.522/0.512	<0.01/<0.01	0.294/0.289	0.0383/0.0378	
MW-7	9/16/2010	0.522	<0.0050	0.294	-	
MW-7	4/26/2011	0.0091/0.0104	<0.01/<0.01	0.0042/0.0041	<0.01/<0.01	
MW-7	4/26/2011	0.0091	<0.0050	0.0042	<0.0030	
MW-7	9/15/2011	0.394	<0.01	0.149	0.0442	Duplicate sample collected
MW-7	3/6/2012	0.0098	<0.0050	0.0088	<0.015	
MW-7	9/5/2012	0.014	<0.005	0.01	<0.015	Duplicate sample collected
MW-7	2/21/2013	0.0059	<0.001	0.0049	<0.003	Duplicate sample collected

Notes:
The environmental cleanup standards for water that are applicable to the Monument Booster Station are the New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards.
Monitoring well locations MW-1 and MW-5 have historically exhibited measurable LNAPL during groundwater monitoring events. Therefore, those wells have not been sampled.
Data presented for well locations include previous four sampling events, when available. Historic groundwater analytical results for these locations may be found in Appendix B.
Bold red values indicate an exceedance of the NMWQCC groundwater standards for the Site.
Sample locations are shown on Figure 2 and analytical results are illustrated on Figure 4.
LNAPL = Light Non-Aqueous Phase Liquid
NM = Not measured.
mg/L = milligrams per liter.