

AP-55

1st Quarter 2013 Semi Annual Groundwater Monitoring Results

DATE:
06.11.13



DCP Midstream
370 17th Street, Suite 2500
Denver, CO 80202
303-595-3331
303-605-2226 FAX

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2013 JUN 12 A 10: 39

June 11, 2013

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

**RE: 1st Quarter 2013 Groundwater Results
DCP Midstream, LP RR Ext. Pipeline Release (AP #55)
Unit C, Section 19, Township 20 South, Range 37 East
Lea County, New Mexico**

Dear Mr. Lowe:

DCP Midstream, LP (DCP) is pleased to submit for your review, one copy of the 1st Quarter 2013 Groundwater Results for the DCP RR Ext. Pipeline Release located in Lea County, New Mexico (Unit C, Section 19, Township 20 South, Range 37 East).

If you have any questions regarding the report, please call at 303-605-1718 or e-mail me swweathers@dcpmidstream.com.

Sincerely

DCP Midstream, LP

A handwritten signature in black ink, appearing to read "Stephen Weathers", followed by a horizontal line.

Stephen Weathers, PG
Principal Environmental Specialist

cc: Geoffrey Leking, Hobbs District (Copy on CD)
Environmental Files

First Quarter 2013 Groundwater Monitoring and Activities Summary Report

RR Extension Pipeline Release Lea County, New Mexico AP #55

Prepared for:



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

Prepared by:



6899 Pecos Street, Unit C
Denver, Colorado 80221

April 30, 2013

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1. Introduction

This report summarizes the remediation and groundwater monitoring activities conducted during the first quarter 2013, at the RR-Extension pipeline release (Site) in Lea County, New Mexico (Figure 1). Tasman Geosciences, LLC (Tasman) conducted these activities on behalf of DCP Midstream, LP (DCP). The field activities were conducted with the purpose of monitoring groundwater flow and quality conditions and assessing the presence of light non-aqueous phase liquid (LNAPL) hydrocarbons in the Site subsurface. Current Site conditions were evaluated from field data and analytical laboratory results collected during the reporting period.

2. Site Location and Background

The Site is located in the northeastern quarter of the northwestern quarter of Section 19, Township 20 South, Range 37 East (approximate coordinates 32.562339 degrees north and 103.291739 degrees west). It is approximately 4.25 miles south of the intersection of US Highway 322 and County Road 41. The area is sparsely populated and land use is primarily associated with livestock grazing and oil and gas production and gathering.

Based on information included in historical Site investigation reports, a natural gas condensate release of approximately 30 barrels (bbl) was reported on December 13, 2006 (Assigned Site Reference #130040). Subsequent to preliminary investigation and characterization activities, an excavation was conducted at the Site (November 10, 2008 to December 7, 2008) whereby approximately 11,356 cubic yards of impacted material were removed. The excavation extended to approximately 20-feet below ground surface over a surface area of approximately 14,800 square feet. Backfill material was placed into the excavation and surface restoration was completed by January 12, 2009. These activities are described within the document *Closure Report – RR Extension Release Site* dated February 2009 prepared by Environmental Plus, Inc.

LNAPL has been identified immediately above the water table, which is at a depth of approximately 30-feet below the ground surface. LNAPL continues to be observed at monitoring well locations to the south and east of the original release and excavation limits.

Investigation activities conducted at the Site include installation of groundwater monitoring wells and excavation during the time periods listed below:

- MW-1 through MW-5: Installed March 2008.
- MW-6 through MW-8: Installed June 2008.
- Excavation and Backfill: Initiated – November 10, 2008; Completed – January 12, 2009.
- MW-9 through MW-12: Installed June 2010.
- MW-13 through MW-16: Installed January 2011.

Ongoing monitoring and sampling of the Site wells listed above has been conducted on an approximate quarterly basis following installation. The historical monitoring data indicate the presence of LNAPL and dissolved-phase impacts in the area of the original release. Progressive installation of monitoring wells has delineated the area in which these impacts are observed.

Boring logs for the Site monitoring wells indicate that the subsurface geology is typical of unconsolidated fine-grained sand, silt, and clay sediments. This general characteristic has been utilized in evaluating the historic and current LNAPL behavior.

3. Groundwater Monitoring

This section describes the groundwater field and laboratory activities performed during the first quarter 2013 monitoring event on February 22nd, 2013. Monitoring activities included Site-wide groundwater gauging, LNAPL measurements, and groundwater sampling. 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 seasonal fluctuations in groundwater elevations at the Site. During the first quarter 2013, groundwater levels were measured at sixteen 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 level data were later converted to elevation (feet above mean sea level [AMSL]). Measured groundwater levels and calculated groundwater elevation data are presented in Table 1 and a first quarter 2013 groundwater elevation contour map is illustrated on Figure 3. LNAPL levels, where detected by the IP, are also presented in Table 1.

Groundwater elevations ranged from 3,504.38 feet AMSL at monitoring well MW-4 to 3,506.14 feet AMSL at monitoring well MW-13. As illustrated on Figure 3, groundwater flow at the Site generally trends to the southeast with a gradient of approximately 0.0013 foot per foot between monitoring wells MW-8 and MW-11.

Groundwater elevations from the highest and lowest measured wells were not used in calculating hydraulic gradient due to the presence of LNAPL and corrections required. The selected elevations were directly measured and are representative of the general observed gradient and flow direction.

LNAPL was detected at the following locations, with measured thickness indicated in parenthesis:

- MW-3 (0.56-ft)
- MW-4 (0.90-ft)
- MW-5 (0.84-ft)
- MW-9 (0.81-ft)
- MW-10 (0.16-ft)

3.2 Groundwater Quality Monitoring

Subsequent to recording groundwater level measurements at each monitoring well, groundwater samples were collected for each of the eleven monitoring wells that did not contain measurable LNAPL.

During sampling, a minimum of three well casing volumes of groundwater were purged from each monitoring well prior to collecting groundwater samples. Groundwater samples were collected using 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 to the laboratory. Groundwater samples were then shipped under chain-of-custody procedures to Accutest Laboratories (Accutest) in Wheat Ridge, Colorado, for analysis.

Water quality samples were submitted for analysis of benzene, toluene, ethylbenzene, and xylene (BTEX) by United States Environmental Protection Agency (USEPA) Method 8260B and chloride by USEPA Method 300.

Detections/observations which exceed the applicable remediation standard are summarized below:

- Benzene was in exceedance of New Mexico Water Quality Control Commission (NMWQCC) Standards at one location, MW-2.
- Benzene was detected at nine monitoring well locations
- LNAPL was detected at five locations as indicated in Section 3.1 above.

Figure 4 displays analytical results from the first quarter 2013 event as well as the fourth quarter 2012 analytical results. Table 2 presents first quarter 2013 monitoring data along with data collected during the previous 4 quarters. Laboratory analytical reports for the event are included as Appendix A and historical analytical results up to and including the February 2013 event are contained in Appendix B.

Chloride was detected in all eleven (11) of the sampled wells with concentrations ranging from 333 mg/L in MW-15 to 553 mg/L in MW-14. Chloride values in all of the wells exceeded the NMWQCC suggested guideline of 250 mg/L.

Water quality parameters were collected during the first quarter 2013 monitoring event and were used to confirm groundwater stabilization prior to sample collection. Monitoring wells did not require collection of more than three (3) purge volumes to achieve parameter stabilization. As such, the analytical data are considered to be representative of Site conditions in that a minimum 3 purge volumes were evacuated from all sampled monitoring wells during the first quarter 2013 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 MW-1 were collected during the sampling event. The trip blank was fully in control, having no detection of targets.

The duplicate sample collected at MW-1 was in compliance with QA/QC standards. MW-1 and duplicate sample returned results for benzene of 0.0063 mg/L and 0.0054 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

An assessment of previously performed LNAPL bail down and recovery test conducted at the Site was ongoing during the reporting period.

A passive LNAPL collection bailer is installed at monitoring well MW-4. During the first quarter 2013 monitoring event, approximately 0.2 gallons of LNAPL were recovered from the bailer. The recovered LNAPL was collected during elevation monitoring and temporarily disposed of in a 55-gallon purge drum located within secondary containment at the Hobbs Booster Station site. The LNAPL collection bailer was subsequently replaced at the level of the product/water interface.

5. Conclusions

Comparison of the first quarter 2013 monitoring data and historic information provides the following general observations:

The groundwater elevation beneath the Site has remained stable with minor seasonal and annual fluctuations since monitoring was initiated in 2008. There was no significant deviation from this trend during the first quarter 2013.

During the first quarter 2013, benzene concentrations in MW-1 decreased below NMWQCC standards for the first time since groundwater monitoring commenced in 2008. However, benzene detected in MW-2 was elevated to concentrations that have not been observed since September 2011. Benzene was observed below NMWQCC standards in seven wells which historically exhibit non-detect BTEX concentrations.

LNAPL persists in monitoring wells MW-3, MW-4, MW-5, MW-9 and MW-10. The observed LNAPL and dissolved phase detections (current and historic) indicate that the contaminant mass has continued migrating towards the southeast in the direction of the approximate groundwater gradient. Dissolved-phase impacts precede LNAPL observations over a relatively short period of time with minor lateral dispersion. This indicates that the dissolved phase BTEX plume has not extended well in advance of the

LNAPL, possibly due to attenuation, low permeability aquifer material, low hydraulic gradient, and/or a combination of these factors.

6. Recommendations

Based on evaluation of the first quarter 2013 and historical Site observations and monitoring results, recommendations for future activities include:

- Continue quarterly groundwater monitoring and sampling at the monitoring locations illustrated on Figure 2.
- Continue assessment of the LNAPL bail-down and recovery tests conducted at the Site.
- Continue to monitor and recover LNAPL from the passive collection bailer installed at MW-4.

Tables

TABLE 1
FIRST QUARTER 2013
SUMMARY OF GROUNDWATER ELEVATION DATA
RR-EXTENSION PIPELINE RELEASE
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	3/10/2012	29.55			39.05	3534.57	3505.02	0.06
MW-1	6/5/2012	29.61			39.05	3534.57	3504.96	-0.06
MW-1	9/9/2012	29.75			39.05	3534.57	3504.82	-0.14
MW-1	12/4/2012	29.75			39.05	3534.57	3504.82	0.00
MW-1	2/22/2013	29.62			39.05	3534.57	3504.95	0.13
MW-2	3/10/2012	30.30			39.81	3535.18	3504.88	0.05
MW-2	6/5/2012	30.38			39.81	3535.18	3504.80	-0.08
MW-2	9/9/2012	30.51			39.81	3535.18	3504.67	-0.13
MW-2	12/4/2012	30.50			39.81	3535.18	3504.68	0.01
MW-2	2/22/2013	30.39			39.81	3535.18	3504.79	0.11
MW-3*	3/10/2012	32.00	31.43	0.57		3536.57	3505.00	-0.05
MW-3*	6/5/2012	32.00	31.47	0.53		3536.57	3504.97	-0.03
MW-3*	9/9/2012	32.33	31.50	0.83		3536.57	3504.86	-0.11
MW-3*	12/4/2012	32.40	31.50	0.90		3536.57	3504.85	-0.02
MW-3*	2/22/2013	32.03	31.47	0.56		3536.57	3504.96	0.11
MW-4*	3/10/2012	31.20	30.42	0.78		3535.20	3504.59	-0.10
MW-4*	6/5/2012	31.24	30.58	0.66		3535.20	3504.46	-0.13
MW-4*	9/9/2012	31.74	30.70	1.04		3535.20	3504.24	-0.21
MW-4*	12/4/2012	31.60	30.62	0.98		3535.20	3504.34	0.09
MW-4*	2/22/2013	31.50	30.60	0.90		3535.20	3504.38	0.04
MW-5*	3/10/2012	31.92	31.02	0.90		3535.92	3504.68	0.00
MW-5*	6/5/2012	31.92	31.12	0.80		3535.92	3504.60	-0.08
MW-5*	9/9/2012	32.30	31.17	1.13		3535.92	3504.47	-0.13
MW-5*	12/4/2012	32.31	31.18	1.13		3535.92	3504.46	-0.01
MW-5*	2/22/2013	31.98	31.14	0.84		3535.92	3504.57	0.11
MW-6	3/10/2012	31.56			40.35	3536.16	3504.60	-0.01
MW-6	6/5/2012	31.66			40.35	3536.16	3504.50	-0.10
MW-6	9/9/2012	31.78			40.35	3536.16	3504.38	-0.12
MW-6	12/4/2012	31.81			40.35	3536.16	3504.35	-0.03
MW-6	2/22/2013	31.71			40.35	3536.16	3504.45	0.10
MW-7	3/10/2012	32.30			40.25	3537.09	3504.79	0.11
MW-7	6/5/2012	32.39			40.25	3537.09	3504.70	-0.09
MW-7	9/9/2012	32.53			40.25	3537.09	3504.56	-0.14
MW-7	12/4/2012	32.52			40.25	3537.09	3504.57	0.01
MW-7	2/22/2013	32.41			40.25	3537.09	3504.68	0.11
MW-8	3/10/2012	31.25			39.42	3536.41	3505.16	0.01
MW-8	6/5/2012	31.31			39.42	3536.41	3505.10	-0.06
MW-8	9/9/2012	31.45			39.42	3536.41	3504.96	-0.14
MW-8	12/4/2012	31.45			39.42	3536.41	3504.96	0.00
MW-8	2/22/2013	31.33			39.42	3536.41	3505.08	0.12
MW-9*	3/10/2012	29.81	28.90	0.91		3534.20	3505.07	0.03
MW-9*	6/5/2012	29.88	29.00	0.88		3534.20	3504.98	-0.09
MW-9*	9/9/2012	30.10	29.09	1.01		3534.20	3504.86	-0.12
MW-9*	12/4/2012	30.03	29.10	0.93		3534.20	3504.87	0.01
MW-9*	2/22/2013	29.83	29.02	0.81		3534.20	3504.98	0.11

TABLE 1
FIRST QUARTER 2013
SUMMARY OF GROUNDWATER ELEVATION DATA
RR-EXTENSION PIPELINE RELEASE
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-10*	3/10/2012	29.52	29.31	0.21		3534.21	3504.85	0.05
MW-10*	6/5/2012	29.66	29.40	0.26		3534.21	3504.75	-0.10
MW-10*	9/9/2012	29.88	29.51	0.37		3534.21	3504.61	-0.14
MW-10*	12/4/2012	29.80	29.54	0.26		3534.21	3504.61	0.00
MW-10*	2/22/2013	29.60	29.44	0.16		3534.21	3504.73	0.13
MW-11	3/10/2011	31.47			39.69	3536.19	3504.72	0.03
MW-11	6/5/2012	31.56			39.69	3536.19	3504.63	-0.09
MW-11	9/9/2012	31.71			39.69	3536.19	3504.48	-0.15
MW-11	12/4/2012	31.73			39.69	3536.19	3504.46	-0.02
MW-11	2/22/2013	31.62			39.69	3536.19	3504.57	0.11
MW-12	3/10/2012	29.74			38.56	3534.47	3504.73	0.03
MW-12	6/5/2012	29.83			38.56	3534.47	3504.64	-0.09
MW-12	9/9/2012	29.97			38.56	3534.47	3504.50	-0.14
MW-12	12/4/2012	30.00			38.56	3534.47	3504.47	-0.03
MW-12	2/22/2013	29.88			38.56	3534.47	3504.59	0.12
MW-13	3/10/2012	30.81			39.31	3536.08	3505.27	0.03
MW-13	6/5/2012	30.89			39.31	3536.08	3505.19	-0.08
MW-13	9/9/2012	31.03			39.31	3536.08	3505.05	-0.14
MW-13	12/4/2012	31.03			39.31	3536.08	3505.05	0.00
MW-13	2/22/2013	29.94			39.31	3536.08	3506.14	1.09
MW-14	3/10/2012	29.95			42.05	3534.96	3505.01	0.05
MW-14	6/5/2012	30.09			42.05	3534.96	3504.87	-0.14
MW-14	9/9/2012	30.17			42.05	3534.96	3504.79	-0.08
MW-14	12/4/2012	30.18			42.05	3534.96	3504.78	-0.01
MW-14	2/22/2013	30.10			42.05	3534.96	3504.86	0.08
MW-15	3/10/2012	30.16			36.55	3534.90	3504.74	0.03
MW-15	6/5/2012	30.26			36.55	3534.90	3504.64	-0.10
MW-15	9/9/2012	30.40			36.55	3534.90	3504.50	-0.14
MW-15	12/4/2012	30.40			36.55	3534.90	3504.50	0.00
MW-15	2/22/2013	30.29			36.55	3534.90	3504.61	0.11
MW-16	3/10/2012	29.00			42.91	3533.68	3504.68	0.04
MW-16	6/5/2012	29.17			42.91	3533.68	3504.51	-0.17
MW-16	9/9/2012	29.25			42.91	3533.68	3504.43	-0.08
MW-16	12/4/2012	29.29			42.91	3533.68	3504.39	-0.04
MW-16	2/22/2013	29.15			42.91	3533.68	3504.53	0.14
Average change in groundwater elevation since the previous monitoring event								0.17

Notes:

- 1- Depths measured from the north edge of the well casing.
- 2- Total depths were collected and recorded during the first quarter 2013 monitoring event (with the exception of wells that contained LNAPL).
- 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 well locations includes previous four sampling events, when available. Historic groundwater elevation data 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

* For wells that contained LNAPL, groundwater elevation was corrected for product thickness using the following calculation:

Groundwater elevation = (TOC Elevation - Measured Depth to Water) + (LNAPL Thickness in Well * LNAPL Density)

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

TABLE 2
FIRST QUARTER 2013
SUMMARY OF BTEX AND CHLORIDE CONCENTRATIONS IN GROUNDWATER
RR-EXTENSION PIPELINE RELEASE
LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Chlorides* (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	250	
MW-1	3/10/2012	0.029	<0.002	0.0072	<0.004	497	Duplicate sample collected
MW-1	6/5/2012	0.003	0.0014	0.0112	<0.003	470	Duplicate sample collected
MW-1	9/9/2012	0.0216	<0.002	0.0029	<0.003	465	Duplicate sample collected
MW-1	12/4/2012	0.0194	<0.002	0.0024	<0.003	445	Duplicate sample collected
MW-1	2/22/2013	0.0063	<0.002	0.00066	<0.003	474	Duplicate sample collected
MW-2	3/10/2012	1.04	<0.04	0.134	<0.08	444	
MW-2	6/5/2012	1.25	0.106	0.158	0.0885	346	
MW-2	9/9/2012	1.53	0.203	0.138	0.14	393	
MW-2	12/4/2012	1.26	0.115	0.0854	0.116	385	
MW-2	2/22/2013	4.53 ⁽³⁾	0.474	0.298	0.482	386	
MW-3	3/10/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-3	6/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-3	9/9/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-3	12/4/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-3	2/22/2013	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	3/10/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	6/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	9/9/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	12/4/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	2/22/2013	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	3/10/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	6/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	9/9/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	12/4/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	2/22/2013	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-6	3/10/2012	<0.001	<0.002	<0.002	<0.004	406	
MW-6	6/5/2012	<0.001	<0.002	<0.002	<0.003	381	
MW-6	9/9/2012	<0.001	<0.002	<0.002	<0.003	377	
MW-6	12/4/2012	<0.001	<0.002	<0.002	<0.003	358	
MW-6	2/22/2013	<0.001	<0.002	<0.002	<0.003	385	
MW-7	3/10/2012	<0.001	<0.002	<0.002	<0.004	392	
MW-7	6/5/2012	<0.001	<0.002	<0.002	<0.003	381	
MW-7	9/9/2012	<0.001	<0.002	<0.002	<0.003	362	
MW-7	12/4/2012	<0.001	<0.002	<0.002	<0.003	334	
MW-7	2/22/2013	0.00059	<0.002	<0.002	<0.003	363	
MW-8	3/10/2012	<0.001	<0.002	<0.002	<0.004	528	
MW-8	6/5/2012	<0.001	<0.002	<0.002	<0.003	527	
MW-8	9/9/2012	<0.001	<0.002	<0.002	<0.003	509	
MW-8	12/4/2012	<0.001	<0.002	<0.002	<0.003	500	
MW-8	2/22/2013	0.00048	<0.002	<0.002	<0.003	530	
MW-9	3/10/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-9	6/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-9	9/9/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-9	12/4/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-9	2/22/2013	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	

TABLE 2
FIRST QUARTER 2013
SUMMARY OF BTEX AND CHLORIDE CONCENTRATIONS IN GROUNDWATER
RR-EXTENSION PIPELINE RELEASE
LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Chlorides* (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	250	
MW-10	3/10/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-10	6/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-10	9/9/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-10	12/4/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-10	2/22/2013	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-11	3/10/2012	<0.001	<0.002	<0.002	<0.004	403	
MW-11	6/5/2012	<0.001	<0.002	<0.002	<0.003	417	
MW-11	9/9/2012	<0.001	<0.002	<0.002	<0.003	399	
MW-11	12/4/2012	<0.001	<0.002	<0.002	<0.003	382	
MW-11	2/22/2013	0.0004	<0.002	<0.002	<0.003	419	
MW-12	3/10/2012	<0.001	<0.002	<0.002	<0.004	513	
MW-12	6/5/2012	<0.001	<0.002	<0.002	<0.003	507	
MW-12	9/9/2012	<0.001	<0.002	<0.002	<0.003	487	
MW-12	12/4/2012	<0.001	<0.002	<0.002	<0.003	469	
MW-12	2/22/2013	0.00041	<0.002	<0.002	<0.003	484	
MW-13	3/10/2012	<0.001	<0.002	<0.002	<0.004	331	
MW-13	6/5/2012	<0.001	<0.002	<0.002	<0.003	335	
MW-13	9/9/2012	<0.001	<0.002	<0.002	<0.003	321	
MW-13	12/4/2012	<0.001	<0.002	<0.002	<0.003	317	
MW-13	2/22/2013	0.00073	<0.002	<0.002	<0.003	337	
MW-14	3/10/2012	<0.001	<0.002	<0.002	<0.004	528	
MW-14	6/5/2012	<0.001	<0.002	<0.002	<0.003	513	
MW-14	9/9/2012	<0.001	<0.002	<0.002	<0.003	536	
MW-14	12/4/2012	<0.001	<0.002	<0.002	<0.003	544	
MW-14	2/22/2013	0.00034	<0.002	<0.002	<0.003	553	
MW-15	3/10/2012	<0.001	<0.002	<0.002	<0.004	308	
MW-15	6/5/2012	<0.001	<0.002	<0.002	<0.003	276	
MW-15	9/9/2012	<0.001	<0.002	<0.002	<0.003	318	
MW-15	12/4/2012	<0.001	<0.002	<0.002	<0.003	313	
MW-15	2/22/2013	0.00034	<0.002	<0.002	<0.003	333	
MW-16	3/10/2012	<0.001	<0.002	<0.002	<0.004	322	
MW-16	6/5/2012	<0.001	<0.002	<0.002	<0.003	334	
MW-16	9/9/2012	<0.001	<0.002	<0.002	<0.003	334	
MW-16	12/4/2012	<0.001	<0.002	<0.002	<0.003	339	
MW-16	2/22/2013	<0.001	<0.002	<0.002	<0.003	358	

Notes:

The environmental cleanup standards for water that are applicable to this Site are the New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards. 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. Benzene concentration result from first quarter 2013 was from the second analytical run, as indicated in the laboratory report.

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

* Chlorides are subject to the National Secondary Drinking Water Regulations (NSDWR) secondary maximum contaminant levels (SMCLs) and not an enforceably regulated constituent. The 250 mg/L standard is established only as a guideline to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color, and odor.

LNAPL = Light Non-Aqueous Phase Liquid

NM = Not measured.

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


RR - EXTENSION PIPELINE RELEASE

SITE LOCATION

**FIGURE
1**



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



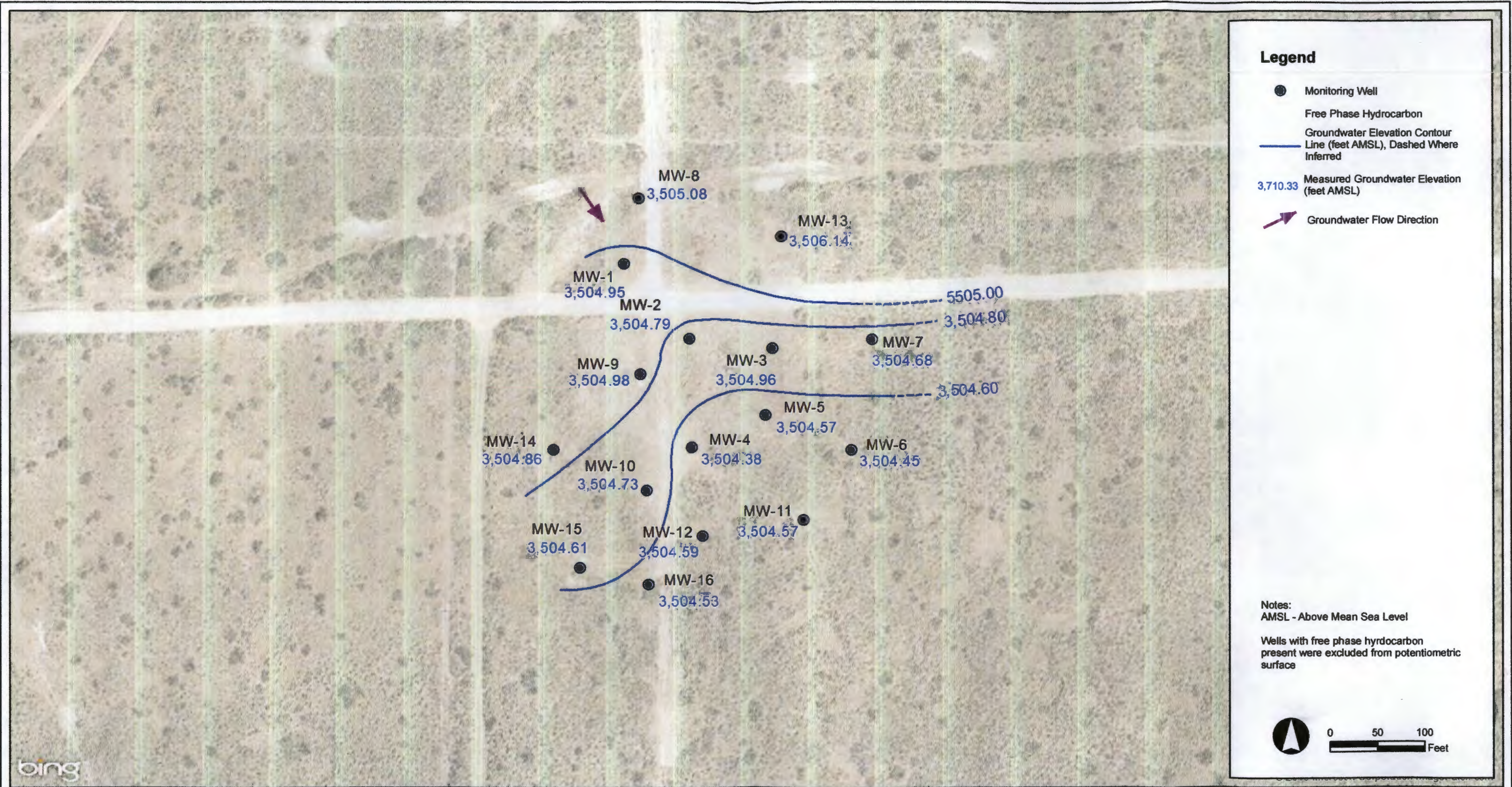
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Denver, CO 80221
303 487 1228

RR - EXTENSION PIPELINE RELEASE

SITE MAP

FIGURE
2



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 SHEET CHK'D BY: _____
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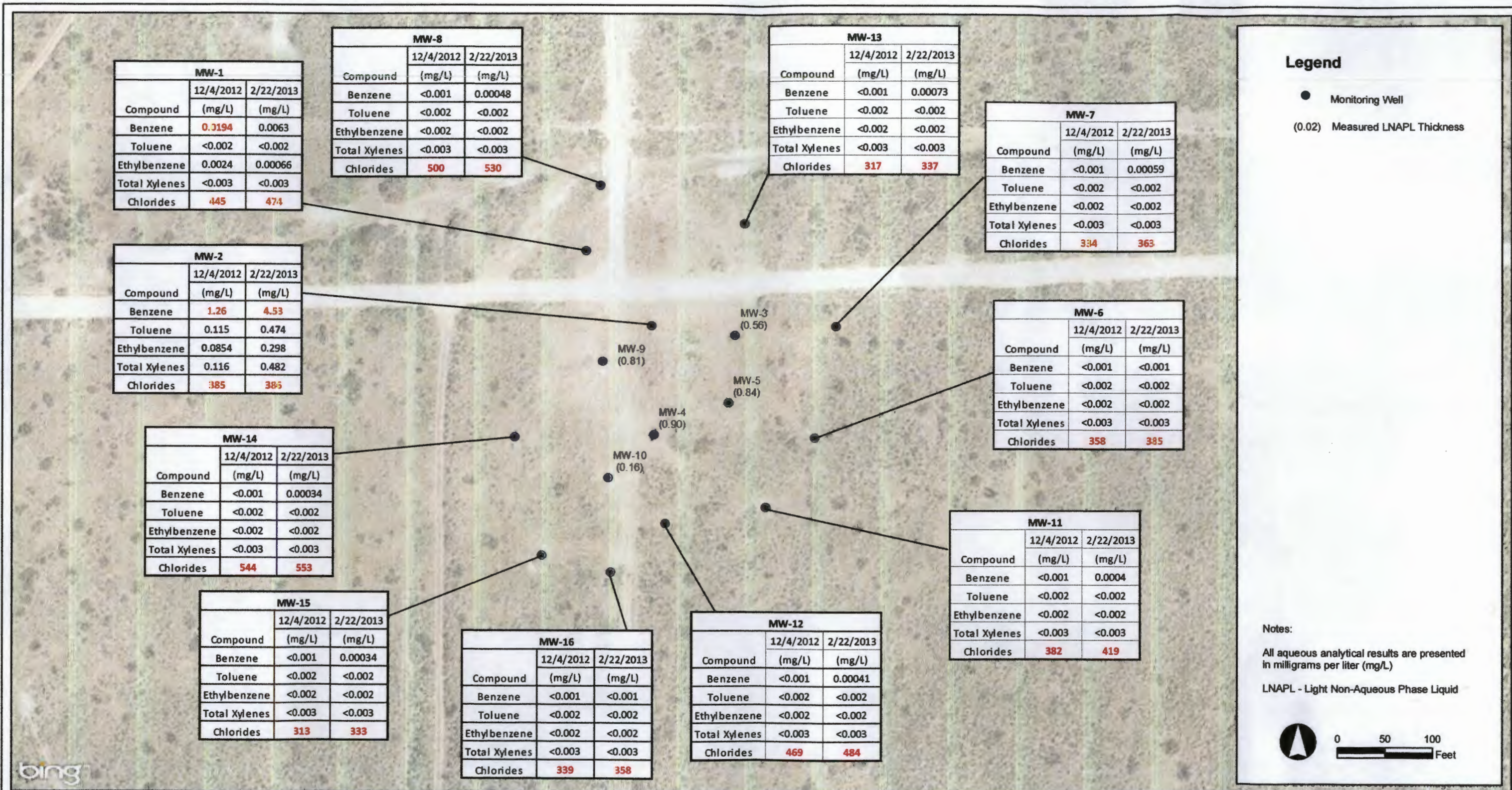
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RR - EXTENSION PIPELINE RELEASE

*First Quarter 2013 Groundwater Monitoring
Summary Report*

**GROUNDWATER ELEVATION
CONTOUR MAP
(FEBRUARY 22, 2013)**

**FIGURE
3**



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DRAWN BY: J. Clonts

SHEET CHK'D BY:

CROSS CHK'D BY:

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303 487 1228

RR - EXTENSION PIPELINE RELEASE

First Quarter 2013 Groundwater Monitoring Summary Report

ANALYTICAL RESULTS MAP

FIGURE 4

Appendix A
Laboratory Analytical Reports



03/04/13

Technical Report for

DCP Midstream, LP

TASMCOA:DCP RR EXT

RC-GN00 Project-390761103

Accutest Job Number: D43744

Sampling Date: 02/22/13

Report to:

Tasman Geosciencec LLC
6899 Pecos Street Unit C
Denver, CO 80221
swweathers@dcpmidstream.com; jimdawe@tasman-geo.com;
cwasko@tasman-geo.com
ATTN: Jim Dawe

Total number of pages in report: 48



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.


Brad Madadian
Laboratory Director

Client Service contact: Shea Greiner 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW), UT (NELAP CO00049), TX (T104704511-12-1)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

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Sample Summary

DCP Midstream, LP

Job No: D43744

TASMCOA:DCP RR EXT

Project No: RC-GN00 Project-390761103

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D43744-1	02/22/13	12:40 CW	02/23/13	AQ	Ground Water	MW-1
D43744-2	02/22/13	12:45 CW	02/23/13	AQ	Ground Water	MW-2
D43744-3	02/22/13	11:50 CW	02/23/13	AQ	Ground Water	MW-6
D43744-4	02/22/13	12:00 CW	02/23/13	AQ	Ground Water	MW-7
D43744-5	02/22/13	12:25 CW	02/23/13	AQ	Ground Water	MW-8
D43744-6	02/22/13	11:40 CW	02/23/13	AQ	Ground Water	MW-11
D43744-7	02/22/13	11:30 CW	02/23/13	AQ	Ground Water	MW-12
D43744-8	02/22/13	12:10 CW	02/23/13	AQ	Ground Water	MW-13
D43744-8D	02/22/13	12:10 CW	02/23/13	AQ	Water Dup/MSD	MW-13
D43744-8M	02/22/13	12:10 CW	02/23/13	AQ	Water Matrix Spike	MW-13
D43744-9	02/22/13	11:20 CW	02/23/13	AQ	Ground Water	MW-14
D43744-10	02/22/13	11:15 CW	02/23/13	AQ	Ground Water	MW-15
D43744-11	02/22/13	11:00 CW	02/23/13	AQ	Ground Water	MW-16



Sample Summary
(continued)

DCP Midstream, LP

Job No: D43744

TASMCOA:DCP RR EXT
Project No: RC-GN00 Project-390761103

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
D43744-12	02/22/13	12:10 CW	02/23/13	AQ	Ground Water	DUP
D43744-13	02/22/13	00:00 CW	02/23/13	AQ	Trip Blank Water	TRIP BLANK



CASE NARRATIVE / CONFORMANCE SUMMARY

Client: DCP Midstream, LP

Job No D43744

Site: TASMCOA:DCP RR EXT

Report Date 3/4/2013 8:15:42 AM

On 02/23/2013, 12 sample(s), 1 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 5 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D43744 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ

Batch ID: V7V1020

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D43744-8MS, D43744-8MSD were used as the QC samples indicated.

Matrix AQ

Batch ID: V7V1021

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D43746-6MS, D43746-6MSD were used as the QC samples indicated.

Wet Chemistry By Method EPA 300.0/SW846 9056

Matrix AQ

Batch ID: GP9419

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D43384-1MS, D43384-1MSD were used as the QC samples for the Chloride analysis.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Summary of Hits

Job Number: D43744
Account: DCP Midstream, LP
Project: TASMCOA:DCP RR EXT
Collected: 02/22/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D43744-1	MW-1					
Benzene		0.0063	0.0010	0.00027	mg/l	SW846 8260B
Ethylbenzene		0.00066 J	0.0020	0.00033	mg/l	SW846 8260B
Chloride		474	10		mg/l	EPA 300.0/SW846 9056
D43744-2	MW-2					
Benzene		4.53	0.050	0.014	mg/l	SW846 8260B
Toluene		0.474	0.020	0.010	mg/l	SW846 8260B
Ethylbenzene		0.298	0.020	0.0033	mg/l	SW846 8260B
Xylene (total)		0.482	0.030	0.020	mg/l	SW846 8260B
Chloride		386	10		mg/l	EPA 300.0/SW846 9056
D43744-3	MW-6					
Chloride		385	10		mg/l	EPA 300.0/SW846 9056
D43744-4	MW-7					
Benzene		0.00059 J	0.0010	0.00027	mg/l	SW846 8260B
Chloride		363	10		mg/l	EPA 300.0/SW846 9056
D43744-5	MW-8					
Benzene		0.00048 J	0.0010	0.00027	mg/l	SW846 8260B
Chloride		530	10		mg/l	EPA 300.0/SW846 9056
D43744-6	MW-11					
Benzene		0.00040 J	0.0010	0.00027	mg/l	SW846 8260B
Chloride		419	10		mg/l	EPA 300.0/SW846 9056
D43744-7	MW-12					
Benzene		0.00041 J	0.0010	0.00027	mg/l	SW846 8260B
Chloride		484	10		mg/l	EPA 300.0/SW846 9056
D43744-8	MW-13					
Benzene		0.00073 J	0.0010	0.00027	mg/l	SW846 8260B
Chloride		337	10		mg/l	EPA 300.0/SW846 9056

Summary of Hits

Page 2 of 2

Job Number: D43744
Account: DCP Midstream, LP
Project: TASMCOA:DCP RR EXT
Collected: 02/22/13



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
--------------------------	------------------	-----------------	----	-----	-------	--------

D43744-9 MW-14

Benzene	0.00034 J	0.0010	0.00027	mg/l	SW846 8260B
Chloride	553	10		mg/l	EPA 300.0/SW846 9056

D43744-10 MW-15

Benzene	0.00034 J	0.0010	0.00027	mg/l	SW846 8260B
Chloride	333	10		mg/l	EPA 300.0/SW846 9056

D43744-11 MW-16

Chloride	358	10		mg/l	EPA 300.0/SW846 9056
----------	-----	----	--	------	----------------------

D43744-12 DUP

Benzene	0.0054	0.0010	0.00027	mg/l	SW846 8260B
Ethylbenzene	0.00051 J	0.0020	0.00033	mg/l	SW846 8260B
Chloride	467	10		mg/l	EPA 300.0/SW846 9056

D43744-13 TRIP BLANK

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	D43744-1	Date Sampled:	02/22/13
Matrix:	AQ - Ground Water	Date Received:	02/23/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	TASMCOA:DCP RR EXT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V18648.D	1	02/27/13	JL	n/a	n/a	V7V1020
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.0063	0.0010	0.00027	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	0.00066	0.0020	0.00033	mg/l	J
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	92%		62-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	93%		69-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1	Date Sampled:	02/22/13
Lab Sample ID:	D43744-1	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	TASMCOA:DCP RR EXT		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	474	10	mg/l	20	02/25/13 12:55	GH	EPA 300.0/SW846 9056

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-2	Date Sampled:	02/22/13
Lab Sample ID:	D43744-2	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	TASMSOA:DCP RR EXT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V18649.D	10	02/27/13	JL	n/a	n/a	V7V1020
Run #2	7V18678.D	50	02/28/13	JL	n/a	n/a	V7V1021

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	4.53 ^a	0.050	0.014	mg/l	
108-88-3	Toluene	0.474	0.020	0.010	mg/l	
100-41-4	Ethylbenzene	0.298	0.020	0.0033	mg/l	
1330-20-7	Xylene (total)	0.482	0.030	0.020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	94%	93%	62-130%
2037-26-5	Toluene-D8	99%	99%	70-130%
460-00-4	4-Bromofluorobenzene	95%	94%	69-130%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2	Date Sampled:	02/22/13
Lab Sample ID:	D43744-2	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	TASMCOA:DCP RR EXT		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	386	10	mg/l	20	02/25/13 13:07	GH	EPA 300.0/SW846 9056

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-6	Date Sampled:	02/22/13
Lab Sample ID:	D43744-3	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	TASMCOA:DCP RR EXT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V18679.D	1	02/28/13	JL	n/a	n/a	V7V1021
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00027	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00033	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	97%		62-130%
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	96%		69-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-6	Date Sampled:	02/22/13
Lab Sample ID:	D43744-3	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	TASMCOA:DCP RR EXT		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	385	10	mg/l	20	02/25/13 13:18	GH	EPA 300.0/SW846 9056

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-7	Date Sampled:	02/22/13
Lab Sample ID:	D43744-4	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	TASMCOA:DCP RR EXT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V18651.D	1	02/27/13	JL	n/a	n/a	V7V1020
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.00059	0.0010	0.00027	mg/l	J
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00033	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	95%		62-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	95%		69-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-7	Date Sampled:	02/22/13
Lab Sample ID:	D43744-4	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	TASMCOA:DCP RR EXT		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	363	10	mg/l	20	02/25/13 13:29	GH	EPA 300.0/SW846 9056

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-8	Date Sampled:	02/22/13
Lab Sample ID:	D43744-5	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	TASMCOA:DCP RR EXT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V18652.D	1	02/27/13	JL	n/a	n/a	V7V1020
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.00048	0.0010	0.00027	mg/l	J
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00033	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	96%		62-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	94%		69-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-8	Date Sampled:	02/22/13
Lab Sample ID:	D43744-5	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	TASMCOA:DCP RR EXT		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	530	10	mg/l	20	02/25/13 13:40	GH	EPA 300.0/SW846 9056

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-11	Date Sampled:	02/22/13
Lab Sample ID:	D43744-6	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	TASMCOA:DCP RR EXT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V18653.D	1	02/27/13	JL	n/a	n/a	V7V1020
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.00040	0.0010	0.00027	mg/l	J
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00033	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	96%		62-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	95%		69-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11	Date Sampled:	02/22/13
Lab Sample ID:	D43744-6	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	TASMCOA:DCP RR EXT		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	419	10	mg/l	20	02/25/13 13:51	GH	EPA 300.0/SW846 9056

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-12	Date Sampled:	02/22/13
Lab Sample ID:	D43744-7	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	TASMCOA:DCP RR EXT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V18654.D	1	02/27/13	JL	n/a	n/a	V7V1020
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.00041	0.0010	0.00027	mg/l	J
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00033	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	94%		62-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	94%		69-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-12	Date Sampled:	02/22/13
Lab Sample ID:	D43744-7	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	TASMCOA:DCP RR EXT		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	484	10	mg/l	20	02/25/13 14:02	GH	EPA 300.0/SW846 9056

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-13	Date Sampled:	02/22/13
Lab Sample ID:	D43744-8	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	TASMCOA:DCP RR EXT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V18647.D	1	02/27/13	JL	n/a	n/a	V7V1020
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.00073	0.0010	0.00027	mg/l	J
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00033	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	94%		62-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	94%		69-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-13	Date Sampled:	02/22/13
Lab Sample ID:	D43744-8	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	TASMCOA:DCP RR EXT		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	337	10	mg/l	20	02/25/13 14:14	GH	EPA 300.0/SW846 9056

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-14	Date Sampled:	02/22/13
Lab Sample ID:	D43744-9	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	TASMCOA:DCP RR EXT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V18655.D	1	02/27/13	JL	n/a	n/a	V7V1020
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.00034	0.0010	0.00027	mg/l	J
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00033	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	99%		62-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	95%		69-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-14	Date Sampled:	02/22/13
Lab Sample ID:	D43744-9	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	TASMCOA:DCP RR EXT		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	553	10	mg/l	20	02/25/13 15:09	GH	EPA 300.0/SW846 9056

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-15	Date Sampled:	02/22/13
Lab Sample ID:	D43744-10	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	TASMCOA:DCP RR EXT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V18656.D	1	02/27/13	JL	n/a	n/a	V7V1020
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.00034	0.0010	0.00027	mg/l	J
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00033	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	94%		62-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	95%		69-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-15	Date Sampled:	02/22/13
Lab Sample ID:	D43744-10	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	TASMCOA:DCP RR EXT		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	333	10	mg/l	20	02/25/13 15:21	GH	EPA 300.0/SW846 9056

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-16	Date Sampled:	02/22/13
Lab Sample ID:	D43744-11	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	TASMCOA:DCP RR EXT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V18657.D	1	02/27/13	JL	n/a	n/a	V7V1020
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00027	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00033	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	92%		62-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	94%		69-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-16	Date Sampled:	02/22/13
Lab Sample ID:	D43744-11	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	TASMCOA:DCP RR EXT		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	358	10	mg/l	20	02/25/13 15:32	GH	EPA 300.0/SW846 9056

RL = Reporting Limit

Report of Analysis

Client Sample ID:	DUP	Date Sampled:	02/22/13
Lab Sample ID:	D43744-12	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	TASMCOA:DCP RR EXT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V18658.D	1	02/27/13	JL	n/a	n/a	V7V1020
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.0054	0.0010	0.00027	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	0.00051	0.0020	0.00033	mg/l	J
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	94%		62-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	94%		69-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP	Date Sampled:	02/22/13
Lab Sample ID:	D43744-12	Date Received:	02/23/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	TASMCOA:DCP RR EXT		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	467	10	mg/l	20	02/25/13 15:43	GH	EPA 300.0/SW846 9056

RL = Reporting Limit

4.12
4

Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	02/22/13
Lab Sample ID:	D43744-13	Date Received:	02/23/13
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	TASMCOA:DCP RR EXT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V18659.D	1	02/27/13	JL	n/a	n/a	V7V1020
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00027	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00033	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	92%		62-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	94%		69-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

PAGE 1 OF 2

4036 Youngfield Street, Wheat Ridge, CO 80033
TEL: 303-425-6021 FAX: 303-425-6854
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # D43744

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)												Matrix Codes		
Company Name Tasman Geosciences		Project Name: DCP RR EXT		<div>V8260BTX</div> <div>CHL</div> <div>MS/MSD for V8260BTX</div>												<div>DW - Drinking Water</div> <div>GW - Ground Water</div> <div>WW - Water</div> <div>SW - Surface Water</div> <div>SO - Soil</div> <div>SL - Sludge</div> <div>SED - Sediment</div> <div>OL - Oil</div> <div>LIQ - Other Liquid</div> <div>AIR - Air</div> <div>SOL - Other Solid</div> <div>WP - Wipe</div> <div>FB - Field Blank</div> <div>EB - Equipment Blank</div> <div>RB - Rinse Blank</div> <div>TB - Trip Blank</div>		
Street Address 6899 Pecos Street Unit C		Street																
City Denver CO 80221		State																
Project Contact Christine Wasko cwasco@tasman-geo.com		Project # RC - GN00 Project - 390761103																
Phone # 720-409-8791		Client Purchase Order #																
Sampler(s) Name(s) Christine Wasko		Project Manager Jim Dawe jimdawe@tasman-geo.com		Attention: Steve Weathers SWWeathers@dcprmidstream.com												LAB USE ONLY		
Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Date	Time	Sampled by	Matrix	# of bottles	Q	MS/MSD	H2SO4	HNO3	NO3	DI Water	MS/MSD	ENCORE			
	MW-1	N/A	2/22/13	1240	DW	GW	4	3										
	MW-2			1245		GW	4	3										
	MW-6			1150		GW	4	3										
	MW-7			1200		GW	4	3										
	MW-8			1205		GW	4	3										
	MW-11			1140		GW	4	3										
	MW-12			1130		GW	4	3										
	MW-13			1210		GW	4	3										
	MW-14			1120		GW	4	3										
	MW-15			1115		GW	4	3										
	MW-16			1100		GW	4	3										
	MS/MSD MW-13			1210		GW	6	6										
Turnaround Time (Business days)		Data Deliverable Information		Comments / Special Instructions														
<input type="checkbox"/> Std. 15 Business Days <input type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day Emergency <input type="checkbox"/> 2 Day Emergency <input type="checkbox"/> 1 Day Emergency <input checked="" type="checkbox"/> STD 5 business Days per contract Emergency & Rush T/A data available VIA Lablink		Approved By (Accutest PM): / Date: _____ _____ _____		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input checked="" type="checkbox"/> COMMBN <input type="checkbox"/> COMMBN+ <input type="checkbox"/> Commercial "A" = Results Only Commercial "B" = Results + QC Summary Commercial BN = Results/QC/Narrative (+ = chromatograms)												Email results to Steve Weathers _____ _____ _____		
Sample Custody must be documented below each time samples change possession, including courier delivery.																		
Relinquished by Sampler: 3	Date Time: 2/22/13 1600	Received By: 1	Date Time: 2/22/13 1600	Relinquished By: 2	Date Time: 2/22/13 1600	Received By: 3	Date Time: 2/22/13 1600	Relinquished By: 4	Date Time: 2/22/13 1600	Received By: 5	Date Time: 2/22/13 1600	Custody Seal # <input type="checkbox"/> Intact <input type="checkbox"/> Not Intact					On Ice <input checked="" type="checkbox"/>	Cooler Temp. 5.0

D43744: Chain of Custody

Page 1 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D43744

Client: TASMAN

Immediate Client Services Action Required: No

Date / Time Received: 2/23/2013 11:45:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: DCP RR EXT

Airbill #'s: CO

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | Infrared gun | |
| 3. Cooler media: | Ice (bag) | |

Quality Control Preservation

Y or N

N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Trip Blank listed on COC: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume rec'd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

Accutest Laboratories
V:(303) 425-6021

4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
www.accutest.com

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D43744

Account: DCPMCOA DCP Midstream, LP

Project: TASMCOA:DCP RR EXT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V7V1020-MB	7V18643.D	1	02/27/13	JL	n/a	n/a	V7V1020

The QC reported here applies to the following samples:

Method: SW846 8260B

D43744-1, D43744-2, D43744-4, D43744-5, D43744-6, D43744-7, D43744-8, D43744-9, D43744-10, D43744-11, D43744-12, D43744-13

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.27	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.33	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
17060-07-0	1,2-Dichloroethane-D4	94% 62-130%
2037-26-5	Toluene-D8	99% 70-130%
460-00-4	4-Bromofluorobenzene	93% 69-130%

Method Blank Summary

Page 1 of 1

Job Number: D43744

Account: DCPMCOA DCP Midstream, LP

Project: TASMCOA:DCP RR EXT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V7V1021-MB	7V18664.D	1	02/27/13	JL	n/a	n/a	V7V1021

The QC reported here applies to the following samples:

Method: SW846 8260B

D43744-2, D43744-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.27	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.33	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
17060-07-0	1,2-Dichloroethane-D4	95% 62-130%
2037-26-5	Toluene-D8	100% 70-130%
460-00-4	4-Bromofluorobenzene	95% 69-130%

Blank Spike Summary

Page 1 of 1

Job Number: D43744

Account: DCPMCOA DCP Midstream, LP

Project: TASMCOA:DCP RR EXT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V7V1020-BS	7V18644.D	1	02/27/13	JL	n/a	n/a	V7V1020

The QC reported here applies to the following samples:

Method: SW846 8260B

D43744-1, D43744-2, D43744-4, D43744-5, D43744-6, D43744-7, D43744-8, D43744-9, D43744-10, D43744-11, D43744-12, D43744-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	49.0	98	70-130
100-41-4	Ethylbenzene	50	49.5	99	70-130
108-88-3	Toluene	50	48.3	97	70-130
1330-20-7	Xylene (total)	150	152	101	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	95%	62-130%
2037-26-5	Toluene-D8	98%	70-130%
460-00-4	4-Bromofluorobenzene	102%	69-130%

* = Outside of Control Limits.

Blank Spike Summary

Page 1 of 1

Job Number: D43744

Account: DCPMCOA DCP Midstream, LP

Project: TASMCOA:DCP RR EXT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V7V1021-BS	7V18665.D	1	02/27/13	JL	n/a	n/a	V7V1021

The QC reported here applies to the following samples:

Method: SW846 8260B

D43744-2, D43744-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	46.4	93	70-130
100-41-4	Ethylbenzene	50	48.0	96	70-130
108-88-3	Toluene	50	46.9	94	70-130
1330-20-7	Xylene (total)	150	148	99	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	94%	62-130%
2037-26-5	Toluene-D8	98%	70-130%
460-00-4	4-Bromofluorobenzene	102%	69-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D43744
Account: DCPMCOA DCP Midstream, LP
Project: TASMCOA:DCP RR EXT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D43744-8MS	7V18645.D	1	02/27/13	JL	n/a	n/a	V7V1020
D43744-8MSD	7V18646.D	1	02/27/13	JL	n/a	n/a	V7V1020
D43744-8	7V18647.D	1	02/27/13	JL	n/a	n/a	V7V1020

The QC reported here applies to the following samples:

Method: SW846 8260B

D43744-1, D43744-2, D43744-4, D43744-5, D43744-6, D43744-7, D43744-8, D43744-9, D43744-10, D43744-11, D43744-12, D43744-13

CAS No.	Compound	D43744-8 ug/l	Spike Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	0.73	J	50	47.2	93	47.0	93	0	62-130/30
100-41-4	Ethylbenzene	ND		50	46.7	93	48.3	97	3	63-130/30
108-88-3	Toluene	ND		50	46.2	92	47.2	94	2	60-130/30
1330-20-7	Xylene (total)	ND		150	144	96	149	99	3	67-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D43744-8	Limits
17060-07-0	1,2-Dichloroethane-D4	94%	96%	94%	62-130%
2037-26-5	Toluene-D8	98%	99%	98%	70-130%
460-00-4	4-Bromofluorobenzene	102%	102%	94%	69-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D43744
Account: DCPMCOA DCP Midstream, LP
Project: TASMCOA:DCP RR EXT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D43746-6MS	7V18666.D	1	02/27/13	JL	n/a	n/a	V7V1021
D43746-6MSD	7V18667.D	1	02/27/13	JL	n/a	n/a	V7V1021
D43746-6	7V18668.D	1	02/27/13	JL	n/a	n/a	V7V1021

The QC reported here applies to the following samples:

Method: SW846 8260B

D43744-2, D43744-3

CAS No.	Compound	D43746-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	0.27	J	50	47.2	94	46.2	92	2	62-130/30
100-41-4	Ethylbenzene	ND		50	48.7	97	47.5	95	2	63-130/30
108-88-3	Toluene	ND		50	47.2	94	46.8	94	1	60-130/30
1330-20-7	Xylene (total)	ND		150	150	100	147	98	2	67-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D43746-6	Limits
17060-07-0	1,2-Dichloroethane-D4	97%	98%	97%	62-130%
2037-26-5	Toluene-D8	97%	98%	99%	70-130%
460-00-4	4-Bromofluorobenzene	102%	101%	92%	69-130%

* = Outside of Control Limits.

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D43744
Account: DCPMCOA - DCP Midstream, LP
Project: TASMCOA:DCP RR EXT

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP9419/GN19028	0.50	0.0	mg/l	20	20.4	102.0	90-110%

Associated Samples:
Batch GP9419: D43744-1, D43744-2, D43744-3, D43744-4, D43744-5, D43744-6, D43744-7, D43744-8, D43744-9, D43744-10, D43744-11, D43744-12
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D43744
Account: DCPMCDN - DCP Midstream, LP
Project: TASMCOA:DCP RR EXT

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP9419/GN19028	D43384-1	mg/l	152	100	264	112.0	80-120%

Associated Samples:

Batch GP9419: D43744-1, D43744-2, D43744-3, D43744-4, D43744-5, D43744-6, D43744-7, D43744-8, D43744-9, D43744-10, D43744-11, D43744-12

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D43744
Account: DCPMCDN - DCP Midstream, LP
Project: TASMCOA:DCP RR EXT

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Chloride	GP9419/GN19028	D43384-1	mg/l	152	100	264	0.0	20%

Associated Samples:
Batch GP9419: D43744-1, D43744-2, D43744-3, D43744-4, D43744-5, D43744-6, D43744-7, D43744-8, D43744-9, D43744-10, D43744-11, D43744-12
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Appendix B
Historical Analytical Results

APPENDIX B
HISTORICAL DATA
SUMMARY OF BTEX AND CHLORIDE CONCENTRATIONS IN GROUNDWATER
RR-EXTENSION PIPELINE RELEASE
LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Chlorides* (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	250	
MW-1	3/1/2008	1.4	0.0395	0.948	0.128		
MW-1	3/19/2008	1.4	0.948	0.0395	0.128		
MW-1	6/1/2008	2.75	0.054	2.17	0.232		
MW-1	9/1/2008	1.1	0.0375	0.845	0.131	507	
MW-1	12/1/2008	0.869	0.0385	0.581	0.0709	447	
MW-1	12/3/2008	0.869	0.581	0.0385	0.0709		
MW-1	3/1/2009	0.288	0.0149	0.107	0.0395	432	
MW-1	3/11/2009	0.288	0.107	0.0149	0.0395		
MW-1	5/1/2009	1.38	0.0705	0.175	0.065	462	
MW-1	5/19/2009	1.38	0.175	0.0705	0.065		
MW-1	9/1/2009	0.267	0.024	0.0332	0.0078	422	
MW-1	9/23/2009	0.267	0.0332	0.024	0.0078		
MW-1	12/1/2009	0.819	0.088	0.0267	0.012	363	
MW-1	12/20/2009	0.819	0.0267	0.088	0.012		
MW-1	3/1/2010	0.726	0.0879	0.107	0.0278	800	
MW-1	3/22/2010	0.726	0.107	0.0879	0.0278		
MW-1	6/1/2010	0.339	0.0539	0.0329	0.0079	510	
MW-1	6/17/2010	0.34	0.033	0.054	-		
MW-1	9/1/2010	1.99	0.0951	0.084	0.0219	442	
MW-1	9/28/2010	1.99	0.0837	0.0951	-		
MW-1	12/1/2010	0.708	0.0796	0.0099	0.0047	448	
MW-1	12/9/2010	0.708	0.0099	0.0796	-		
MW-1	3/30/2011	0.0241	<0.001	0.0136	0.0055	457	
MW-1	3/30/2011	0.0241	<0.0050	0.0136	0.0055		
MW-1	6/22/2011	0.0735	<0.01	0.0293	<0.02	467	
MW-1	6/22/2011	0.0735	<0.0050	0.0293	<0.010		
MW-1	9/17/2011	0.144	0.038	0.0069	0.0087	472	Duplicate sample collected
MW-1	12/8/2011	0.076	0.002	0.0227	0.0024	462	Duplicate sample collected
MW-1	3/10/2012	0.029	<0.002	0.0072	<0.004	497	Duplicate sample collected
MW-1	6/5/2012	0.069	0.0014	0.0112	<0.003	470	Duplicate sample collected
MW-1	9/9/2012	0.0216	<0.002	0.0029	<0.003	465	Duplicate sample collected
MW-1	12/4/2012	0.0194	<0.002	0.0024	<0.003	445	Duplicate sample collected
MW-1	2/22/2013	0.0063	<0.002	0.00066	<0.003	474	Duplicate sample collected

APPENDIX B
HISTORICAL DATA
SUMMARY OF BTEX AND CHLORIDE CONCENTRATIONS IN GROUNDWATER
RR-EXTENSION PIPELINE RELEASE
LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Chlorides* (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	250	
MW-2	3/1/2008	8.98	0.135	6.58	0.765		
MW-2	3/19/2008	8.98	6.58	0.135	0.765		
MW-2	6/1/2008	24.3	0.319	18.5	2.58		
MW-2	9/1/2008	21.7	0.443	9.79	4.25	109	
MW-2	12/1/2008	Not Sampled: Remediation Activities					
MW-2	3/1/2009	23.7	0.538	2.34	1.25	114	
MW-2	3/11/2009	23.7	2.34	0.583	1.25		
MW-2	5/1/2009	32.7	0.791	1.31	1.69	109	
MW-2	5/19/2009	32.7	1.31	0.791	1.69		
MW-2	9/1/2009	29.3	0.491	0.771	0.371	139	
MW-2	9/23/2009	29.3	0.771	0.491	0.371		
MW-2	12/1/2009	28.5	0.57	0.347	0.177	199	
MW-2	12/20/2009	28.5	0.347	0.57	0.177		
MW-2	3/1/2010	23.8	0.529	0.71	<1.2	700	
MW-2	3/22/2010	23.8	0.71	0.529	<0.33		
MW-2	6/1/2010	22.9	0.485	0.39	0.128	233	
MW-2	6/17/2010	22.9	0.39	0.49	-		
MW-2	9/1/2010	17	0.329	0.257	<0.8	263	
MW-2	9/28/2010	17.00	0.257	0.329	-		
MW-2	12/1/2010	16.9	0.458	0.399	0.0926	278	
MW-2	12/9/2010	16.9	0.399	0.458	-		
MW-2	3/30/2011	16.6	0.165	0.403	0.116	320	
MW-2	3/30/2011	16.6	0.165	0.403	0.116		
MW-2	6/22/2011	9.21	0.0231	0.377	<0.4	370	
MW-2	6/22/2011	9.21	0.231	0.377	<0.20		
MW-2	9/17/2011	4.07	0.415	0.329	0.203	375	
MW-2	12/8/2011	1.5	0.0436	0.33	0.0254	392	
MW-2	3/10/2012	1.04	<0.04	0.134	<0.08	444	
MW-2	6/5/2012	1.25	0.106	0.158	0.0885	346	
MW-2	9/9/2012	1.53	0.203	0.138	0.14	393	
MW-2	12/4/2012	1.26	0.115	0.0854	0.116	385	
MW-2	2/22/2013	4.53 ⁽³⁾	0.474	0.298	0.482	386	

APPENDIX B
HISTORICAL DATA
SUMMARY OF BTEX AND CHLORIDE CONCENTRATIONS IN GROUNDWATER
RR-EXTENSION PIPELINE RELEASE
LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Chlorides* (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	250	
MW-3	3/1/2008	0.759	0.0355	0.849	0.0786		
MW-3	3/19/2008	0.759	0.849	0.0355	0.0786		
MW-3	6/1/2008	6.18	0.287	9.46	1.23		
MW-3	9/1/2008	2.45	0.145	3.62	114	363	
MW-3	12/1/2008	0.761	0.0492	0.938	0.158	301	
MW-3	3/1/2009	4.03	0.18	2.83	0.61	273	
MW-3	12/3/2008	0.761	0.938	0.0492	0.158		
MW-3	3/11/2009	4.03	2.83	0.18	0.61		
MW-3	5/1/2009	14.7	0.808	12.6	1.64	313	
MW-3	5/19/2009	14.7	12.6	0.808	1.64		
MW-3	9/1/2009	5.5	0.271	1.09	<0.006	363	
MW-3	9/23/2009	5.5	1.09	0.271	<0.17		
MW-3	12/1/2009	13.1	1.2	9.08	2.87	398	
MW-3	12/20/2009	13.1	9.08	1.2	2.87		
MW-3	3/1/2010	8.43	1.01	9.14	2.71	440	
MW-3	3/22/2010	8.43	9.14	1.01	2.71		
MW-3	6/1/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-3	9/1/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-3	12/1/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-3	3/30/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-3	6/22/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-3	9/17/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-3	12/8/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-3	3/10/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-3	6/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-3	9/9/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-3	12/4/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-3	2/22/2013	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	3/1/2008	0.0102	<0.002	0.0093	0.0023		
MW-4	3/19/2008	0.0102	0.0093	<0.00045	0.0023		
MW-4	6/1/2008	0.0439	0.0068	0.0256	0.0147		
MW-4	9/1/2008	0.514	0.0203	0.443	0.125	318	
MW-4	12/1/2008	1.32	0.0812	1.35	0.239	281	
MW-4	12/3/2008	1.32	1.35	0.0812	0.239		
MW-4	3/1/2009	3.61	0.164	3.4	0.831	229	
MW-4	3/11/2009	3.61	3.4	0.164	0.831		
MW-4	5/1/2009	4.7	0.428	2.94	1.03	226	
MW-4	5/19/2009	4.7	2.94	0.428	1.03		
MW-4	9/1/2009	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	12/1/2009	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	3/1/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	6/1/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	9/1/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	12/1/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	3/30/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	6/22/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	9/17/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	12/8/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	3/10/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	6/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	9/9/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	12/4/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	2/22/2013	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	

**APPENDIX B
HISTORICAL DATA
SUMMARY OF BTEX AND CHLORIDE CONCENTRATIONS IN GROUNDWATER
RR-EXTENSION PIPELINE RELEASE
LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Chlorides* (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	250	
MW-5	3/1/2008	0.0019	<0.002	0.0012	<0.006		
MW-5	3/19/2008	0.0019	0.0012	<0.00045	<0.0014		
MW-5	6/1/2008	0.0037	<0.002	0.0037	<0.006		
MW-5	9/1/2008	0.0038	<0.002	0.0037	<0.006	373	
MW-5	12/1/2008	0.0031	<0.002	0.004	<0.006	318	
MW-5	12/3/2008	0.0031	0.0041	<0.00045	<0.0014		
MW-5	3/1/2009	0.0067	<0.002	0.0074	<0.006	288	
MW-5	3/11/2009	0.0067	0.0074	<0.00045	<0.0014		
MW-5	5/1/2009	0.0064	<0.002	0.0089	<0.006	363	
MW-5	5/19/2009	0.0064	0.0089	0.0025	0.0045		
MW-5	9/1/2009	0.0082	0.00066	0.0132	<0.006	358	
MW-5	9/23/2009	0.0082	0.0132	0.00066	<0.0017		
MW-5	12/1/2009	0.0096	0.0013	0.0155	0.0021	313	
MW-5	12/20/2009	0.0096	0.0155	0.0013	0.0021		
MW-5	3/1/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	6/1/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	9/1/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	12/1/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	3/30/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	6/22/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	9/17/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	12/8/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	3/10/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	6/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	9/9/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	12/4/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	2/22/2013	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	

APPENDIX B
HISTORICAL DATA
SUMMARY OF BTEX AND CHLORIDE CONCENTRATIONS IN GROUNDWATER
RR-EXTENSION PIPELINE RELEASE
LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Chlorides* (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	250	
MW-6	6/1/2008	<0.002	<0.002	<0.002	<0.006		
MW-6	9/1/2008	<0.002	<0.002	<0.002	<0.006	363	
MW-6	12/1/2008	<0.002	<0.002	<0.002	<0.006	325	
MW-6	12/3/2008	<0.00046	<0.00048	<0.00045	<0.0014		
MW-6	3/1/2009	<0.002	<0.002	<0.002	<0.006	298	
MW-6	3/11/2009	<0.00046	<0.00048	<0.00045	<0.0014		
MW-6	5/1/2009	<0.002	<0.002	<0.002	<0.006	308	
MW-6	5/19/2009	<0.00046	<0.00048	<0.00045	<0.0014		
MW-6	9/1/2009	<0.002	<0.002	<0.002	<0.006	296	
MW-6	9/23/2009	<0.00050	<0.00043	<0.00055	<0.0017		
MW-6	12/1/2009	<0.002	<0.002	<0.002	<0.006	393	
MW-6	12/20/2009	<0.00050	<0.00043	<0.00055	<0.0017		
MW-6	3/1/2010	<0.002	<0.002	<0.002	<0.006	700	
MW-6	3/22/2010	<0.00050	<0.00043	<0.00055	<0.0017		
MW-6	6/1/2010	<0.001	<0.002	<0.002	<0.002	402	
MW-6	6/17/2010	<0.30	<1.0	<0.30	-		
MW-6	9/1/2010	<0.001	<0.002	<0.002	<0.004	337	
MW-6	9/28/2010	<0.00030	<0.0010	<0.00030	-		
MW-6	12/1/2010	<0.001	<0.002	<0.002	<0.004	359	
MW-6	12/9/2010	<0.00030	<0.0010	<0.00030	-		
MW-6	3/29/2011	<0.00030	<0.0010	<0.00030	0.00084		
MW-6	3/30/2011	<0.001	<0.002	<0.002	<0.002	386	
MW-6	6/22/2011	<0.001	<0.002	<0.002	<0.004	376	
MW-6	6/22/2011	<0.00025	<0.0010	<0.00050	<0.0020		
MW-6	9/17/2011	<0.001	<0.002	<0.002	<0.004	383	
MW-6	12/8/2011	<0.0005	<0.001	<0.001	<0.001	372	
MW-6	3/10/2012	<0.001	<0.002	<0.002	<0.004	406	
MW-6	6/5/2012	<0.001	<0.002	<0.002	<0.003	381	
MW-6	9/9/2012	<0.001	<0.002	<0.002	<0.003	377	
MW-6	12/4/2012	<0.001	<0.002	<0.002	<0.003	358	
MW-6	2/22/2013	<0.001	<0.002	<0.002	<0.003	385	

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Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Chlorides* (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	250	
MW-7	6/1/2008	<0.002	<0.002	<0.002	<0.006		
MW-7	9/1/2008	<0.002	<0.002	<0.002	<0.006	378	
MW-7	12/1/2008	<0.002	<0.002	<0.002	<0.006	348	
MW-7	12/3/2008	<0.00046	<0.00048	<0.00045	<0.0014		
MW-7	3/1/2009	<0.002	<0.002	<0.002	<0.006	283	
MW-7	3/11/2009	<0.00046	<0.00048	<0.00045	<0.0014		
MW-7	5/1/2009	<0.002	<0.002	<0.002	<0.006	298	
MW-7	5/19/2009	<0.00046	<0.00048	<0.00045	<0.0014		
MW-7	9/1/2009	<0.002	<0.002	<0.002	<0.006	273	
MW-7	9/23/2009	<0.00050	<0.00043	<0.00055	<0.0017		
MW-7	12/1/2009	<0.002	<0.002	<0.002	<0.006	328	
MW-7	3/1/2010	<0.00050	<0.00043	<0.00055	<0.0017		
MW-7	3-2010	<0.002	<0.002	<0.002	<0.006	750	
MW-7	3/22/2010	<0.00050	<0.00043	<0.00055	<0.0017		
MW-7	6/1/2010	0.0005	<0.002	<0.002	<0.006	385	
MW-7	6/17/2010	0.0005	<1.0	<0.30	-		
MW-7	9/1/2010	0.00042	<0.002	<0.002	<0.004	326	
MW-7	9/28/2010	0.00042	<0.0010	<0.00030	-		
MW-7	12/1/2010	<0.002	<0.002	<0.002	<0.006	345	
MW-7	12/9/2010	<0.00030	<0.0010	<0.00030	-		
MW-7	3/29/2011	<0.00030	<0.0010	<0.00030	<0.00060		
MW-7	3/30/2011	<0.001	<0.002	<0.002	<0.002	382	
MW-7	6/22/2011	<0.001	<0.002	<0.002	<0.004	390	
MW-7	6/22/2011	<0.00025	<0.0010	<0.00050	<0.0020		
MW-7	9/17/2011	<0.001	<0.002	<0.002	<0.004	374	
MW-7	12/8/2011	<0.0005	<0.001	<0.001	<0.001	376	
MW-7	3/10/2012	<0.001	<0.002	<0.002	<0.004	392	
MW-7	6/5/2012	<0.001	<0.002	<0.002	<0.003	381	
MW-7	9/9/2012	<0.001	<0.002	<0.002	<0.003	362	
MW-7	12/4/2012	<0.001	<0.002	<0.002	<0.003	334	
MW-7	2/22/2013	0.00059	<0.002	<0.002	<0.003	363	

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Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Chlorides* (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	250	
MW-8	12/3/2008	0.0233	0.0107	<0.00045	<0.0014		
MW-8	6/1/2008	0.0384	0.00049	0.0255	0.0016		
MW-8	9/1/2008	0.0301	<0.002	0.0161	0.002	512	
MW-8	12/1/2008	0.00233	<0.002	0.011	<0.006	393	
MW-8	3/1/2009	0.0218	<0.002	0.0066	<0.006	472	
MW-8	3/11/2009	0.0218	0.0066	<0.00045	<0.0014		
MW-8	5/1/2009	0.0098	<0.002	0.0049	<0.006	450	
MW-8	5/19/2009	0.0098	0.0049	<0.00045	<0.0014		
MW-8	9/1/2009	<0.002	<0.002	<0.002	<0.006	477	
MW-8	9/23/2009	<0.00050	<0.00043	<0.00055	<0.0017		
MW-8	12/1/2009	<0.002	<0.002	<0.002	<0.006	472	
MW-8	12/20/2009	<0.00050	<0.00043	<0.00055	<0.0017		
MW-8	3/1/2010	<0.002	<0.002	<0.002	<0.006	800	
MW-8	3/22/2010	<0.00050	<0.00043	<0.00055	<0.0017		
MW-8	6/1/2010	<0.001	<0.002	<0.002	<0.002	553	
MW-8	6/17/2010	<0.30	<1.0	<0.30	-		
MW-8	9/1/2010	<0.001	<0.002	<0.002	<0.004	486	
MW-8	9/28/2010	<0.00030	<0.0010	<0.00030	-		
MW-8	12/1/2010	<0.001	<0.002	<0.002	<0.004	533	
MW-8	12/9/2010	<0.00030	<0.0010	<0.00030	-		
MW-8	3/30/2011	<0.001	<0.002	<0.002	<0.002	529	
MW-8	3/30/2011	<0.00030	<0.0010	<0.00030	<0.00060		
MW-8	6/22/2011	<0.001	<0.002	<0.002	<0.004	524	
MW-8	6/22/2011	<0.00025	<0.0010	<0.00050	<0.0020		
MW-8	9/17/2011	<0.001	<0.002	<0.002	<0.004	507	
MW-8	12/8/2011	<0.0005	<0.001	<0.001	<0.001	521	
MW-8	3/10/2012	<0.001	<0.002	<0.002	<0.004	528	
MW-8	6/5/2012	<0.001	<0.002	<0.002	<0.003	527	
MW-8	9/9/2012	<0.001	<0.002	<0.002	<0.003	509	
MW-8	12/4/2012	<0.001	<0.002	<0.002	<0.003	500	
MW-8	2/22/2013	0.00048	<0.002	<0.002	<0.003	530	
MW-9	6/1/2010	LNAPL	LNAPL	LNAPL	LNAPL	532**	
MW-9	9/1/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-9	12/1/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-9	3/30/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-9	6/22/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-9	9/17/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-9	12/8/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-9	3/10/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-9	6/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-9	9/9/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-9	12/4/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-9	2/22/2013	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	

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Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Chlorides* (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	250	
MW-10	6/1/2010	LNAPL	LNAPL	LNAPL	LNAPL	656**	
MW-10	9/1/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-10	12/1/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-10	3/30/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-10	6/22/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-10	9/17/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-10	12/8/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-10	3/10/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-10	6/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-10	9/9/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-10	12/4/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-10	2/22/2013	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-11	6/1/2010	<0.001	<0.002	<0.002	<0.004	407	
MW-11	9/1/2010	<0.001	<0.002	<0.002	<0.004	365	
MW-11	9/28/2010	<0.00030	<0.0010	<0.00030	-		
MW-11	12/9/2010	<0.00030	<0.0010	<0.00030	-		
MW-11	12/1/2010	<0.001	<0.002	<0.002	<0.004	383	
MW-11	3/29/2011	<0.00030	<0.0010	<0.00030	<0.00060		
MW-11	3/30/2011	<0.001	<0.002	<0.002	<0.002	406	
MW-11	6/22/2011	<0.001	<0.002	<0.002	<0.004	405	
MW-11	6/22/2011	<0.00025	<0.0010	<0.00050	<0.0020		
MW-11	9/17/2011	<0.001	<0.002	<0.002	<0.004	390	
MW-11	12/8/2011	<0.0005	<0.001	<0.001	<0.001	399	
MW-11	3/10/2012	<0.001	<0.002	<0.002	<0.004	403	
MW-11	6/5/2012	<0.001	<0.002	<0.002	<0.003	417	
MW-11	9/9/2012	<0.001	<0.002	<0.002	<0.003	399	
MW-11	12/4/2012	<0.001	<0.002	<0.002	<0.003	382	
MW-11	2/22/2013	0.0004	<0.002	<0.002	<0.003	419	
MW-12	6/1/2010	<0.001	<0.002	<0.002	<0.004	514	
MW-12	9/1/2010	<0.001	<0.002	<0.002	<0.004	464	
MW-12	9/28/2010	<0.00030	<0.0010	<0.00030	-		
MW-12	12/9/2010	<0.00030	<0.0010	<0.00030	-		
MW-12	12/1/2010	<0.001	<0.002	<0.002	<0.004	501	
MW-12	3/29/2011	<0.00030	<0.0010	<0.00030	<0.00060		
MW-12	3/30/2011	<0.001	<0.002	<0.002	<0.002	498	
MW-12	6/22/2011	<0.00025	<0.0010	<0.00050	<0.0020		
MW-12	6/22/2011	<0.001	<0.002	<0.002	<0.004	497	
MW-12	9/17/2011	<0.001	<0.002	<0.002	<0.004	493	
MW-12	12/8/2011	<0.0005	<0.001	<0.001	<0.001	493	
MW-12	3/10/2012	<0.001	<0.002	<0.002	<0.004	513	
MW-12	6/5/2012	<0.001	<0.002	<0.002	<0.003	507	
MW-12	9/9/2012	<0.001	<0.002	<0.002	<0.003	487	
MW-12	12/4/2012	<0.001	<0.002	<0.002	<0.003	469	
MW-12	2/22/2013	0.00041	<0.002	<0.002	<0.003	484	

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Location Identification	Sample Date	Benzene (mg/l)	Tolnene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Chlorides* (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	250	
MW-13	3/30/2011	<0.001	<0.002	<0.002	<0.002	326	
MW-13	3/30/2011	<0.00030	<0.0010	<0.00030	<0.00060		
MW-13	6/22/2011	<0.00025	<0.0010	<0.00050	<0.0020		
MW-13	6/22/2011	<0.001	<0.002	<0.002	<0.004	340	
MW-13	9/17/2011	<0.001	<0.002	<0.002	<0.004	317	
MW-13	12/8/2011	<0.0005	<0.001	<0.001	<0.001	328	
MW-13	3/10/2012	<0.001	<0.002	<0.002	<0.004	331	
MW-13	6/5/2012	<0.001	<0.002	<0.002	<0.003	335	
MW-13	9/9/2012	<0.001	<0.002	<0.002	<0.003	321	
MW-13	12/4/2012	<0.001	<0.002	<0.002	<0.003	317	
MW-13	2/22/2013	0.00073	<0.002	<0.002	<0.003	337	
MW-14	3/29/2011	<0.00030	<0.0010	<0.00030	<0.00060		
MW-14	6/22/2011	<0.00025	<0.0010	<0.00050	<0.0020		
MW-14	3/30/2011	<0.001	<0.002	<0.002	<0.002	520	
MW-14	6/22/2011	<0.001	<0.002	<0.002	<0.004	494	
MW-14	9/17/2011	<0.001	<0.002	<0.002	<0.004	478	
MW-14	12/8/2011	<0.0005	<0.001	<0.001	<0.001	521	
MW-14	3/10/2012	<0.001	<0.002	<0.002	<0.004	528	
MW-14	6/5/2012	<0.001	<0.002	<0.002	<0.003	513	
MW-14	9/9/2012	<0.001	<0.002	<0.002	<0.003	536	
MW-14	12/4/2012	<0.001	<0.002	<0.002	<0.003	544	
MW-14	2/22/2013	0.00034	<0.002	<0.002	<0.003	553	
MW-15	3/29/2011	<0.00030	<0.0010	<0.00030	<0.00060		
MW-15	6/22/2011	<0.00025	<0.0010	<0.00050	<0.0020		
MW-15	3/30/2011	<0.001	<0.002	<0.002	<0.002	303	
MW-15	6/22/2011	<0.001	<0.002	<0.002	<0.004	297	
MW-15	9/17/2011	<0.001	<0.002	<0.002	<0.004	294	
MW-15	12/8/2011	<0.0005	<0.001	<0.001	<0.001	288	
MW-15	3/10/2012	<0.001	<0.002	<0.002	<0.004	308	
MW-15	6/5/2012	<0.001	<0.002	<0.002	<0.003	276	
MW-15	9/9/2012	<0.001	<0.002	<0.002	<0.003	318	
MW-15	12/4/2012	<0.001	<0.002	<0.002	<0.003	313	
MW-15	2/22/2013	0.00034	<0.002	<0.002	<0.003	333	
MW-16	3/29/2011	<0.00030	<0.0010	<0.00030	<0.00060		
MW-16	6/22/2011	<0.00025	<0.0010	<0.00050	<0.0020		
MW-16	3/30/2011	<0.001	<0.002	<0.002	<0.002	295	
MW-16	6/22/2011	<0.001	<0.002	<0.002	<0.004	292	
MW-16	9/17/2011	<0.001	<0.002	<0.002	<0.004	295	
MW-16	12/8/2011	<0.0005	<0.001	<0.001	<0.001	313	
MW-16	3/10/2012	<0.001	<0.002	<0.002	<0.004	322	
MW-16	6/5/2012	<0.001	<0.002	<0.002	<0.003	334	
MW-16	9/9/2012	<0.001	<0.002	<0.002	<0.003	334	
MW-16	12/4/2012	<0.001	<0.002	<0.002	<0.003	339	
MW-16	2/22/2013	<0.001	<0.002	<0.002	<0.003	358	

**APPENDIX B
HISTORICAL DATA
SUMMARY OF BTEX AND CHLORIDE CONCENTRATIONS IN GROUNDWATER
RR-EXTENSION PIPELINE RELEASE
LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Chlorides* (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	250	
PW-9	6/17/2010	17.00	29.8	2.4	-		
PW-10	6/17/2010	9.3	15.2	2.6	-		
PW-11	6/17/2010	<0.30	<1.0	<0.30	-		
PW-12	6/17/2010	<0.30	<1.0	<0.30	-		

Notes:

- 1.) The environmental cleanup standards for water that are applicable to this Site are the New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards.
- 2.) Data presented for all well locations includes previous four sampling events, when available. Historic groundwater analytical results for these locations may be found in **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.

* Chlorides are subject to the National Secondary Drinking Water Regulations (NSDWR) secondary maximum contaminant levels (SMCLs) and not an enforceably regulated

** Chloride sample was collected with LNAPL in well.

LNAPL = Light Non-Aqueous Phase Liquid

NM = Not measured.

mg/L = milligrams per liter.