



**DCP Midstream**  
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January 25, 2013

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

**RE: 3rd Quarter 2012 Groundwater Monitoring Results  
DCP Hobbs Gas Plant (AP-122)  
Unit G, Section 36, Township 18 South, Range 36 East  
Lea County, New Mexico**

Dear Mr. Lowe:

DCP Midstream, LP (DCP) is pleased to submit for your review, one copy of the 3rd Quarter 2012 Groundwater Monitoring Results for the DCP Hobbs Gas Plant located in Lea County, New Mexico (Unit G, Section 36, Township 18 South, Range 36 East).

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

Sincerely

**DCP Midstream, LP**

Stephen Weathers, P.G.  
Principal Environmental Specialist

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



## THIRD QUARTER 2012 GROUNDWATER MONITORING REPORT

DCP HOBBS GAS PLANT

AP-122

LATITUDE: N 32.70533° LONGITUDE: W 103.3066°

LEA COUNTY, NEW MEXICO

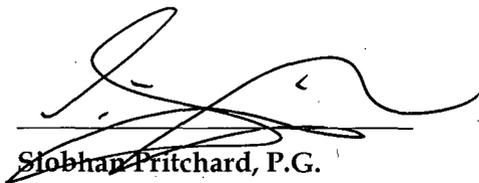
**Prepared For:**

Mr. Steve Weathers

DCP Midstream, LP

370 17<sup>th</sup> Street, Suite 2500

Denver, Colorado 80202



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JANUARY 24, 2013  
REF. NO. 059097 (15)

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## 1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) is submitting this *Third Quarter 2012 Groundwater Monitoring Report* to DCP Midstream, LP (DCP) for the Hobbs Gas Plant in Lea County, New Mexico. This report summarizes the September 2012 groundwater sampling event. Groundwater monitoring and sampling details, analytical results, and conclusions are presented below.

### **Site Background**

The site is a cryogenic processing plant located in Lea County, New Mexico approximately nine miles west of Hobbs, New Mexico (Figure 1). The site occupies approximately 3.5 acres in an undeveloped area. Facilities include a laboratory, an amine unit, compressors, sumps, mol sieve dehydration, tank batteries and an onsite water production well used for non-potable water. The DCP Apex Compressor Station is located approximately 750 feet (ft) north of the Hobbs Gas Plant. There are six groundwater monitoring wells onsite.

### **Hydrogeology**

Historical static groundwater depths have ranged between 60.13 (MW-A) and 64.60 ft below ground surface (bgs) (MW-B). Static groundwater depths ranged from 61.71 (MW-A) to 64.60 ft bgs (MW-B) on September 24, 2012. Groundwater flows to the southeast with a gradient of 0.004 ft/ft (Figure 2).

## 2.0 GROUNDWATER MONITORING AND SAMPLING

CRA gauged and collected samples from groundwater monitoring wells MW-A and MW-C through MW-F on September 24, 2012. Light non-aqueous phase liquids (LNAPL) was measured at a thickness of 2.10 ft in well MW-B; a sample was not collected. Each well cap was removed to allow groundwater levels to stabilize and equilibrate prior to gauging. All sampled groundwater monitoring wells were purged of approximately three well-casing volumes while temperature, pH, and conductivity were measured. Groundwater samples, including a duplicate sample, were collected using clean disposable bailers and decanted into clean containers supplied by the analytical laboratory. Groundwater samples were submitted under chain-of-custody to Accutest Laboratories of Texas. CRA's standard operating procedures for groundwater monitoring and sampling are presented as Appendix A.

### **Purged Groundwater**

Purged groundwater was transported to the DCP Linam Ranch Facility, where purged groundwater was disposed in the onsite sump.

## **3.0 ANALYTICAL RESULTS**

### **Groundwater Analytical Methods**

Groundwater samples collected from MW-A and MW-C through MW-F were analyzed for:

- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by SW-846 8260B.

### **Groundwater Sampling Results**

No BTEX was detected above New Mexico Water Quality Control Commission (NMWQCC) cleanup levels in any collected groundwater sample. Groundwater sample MW-C contained the highest benzene concentration 2.1 micrograms per liter ( $\mu\text{g}/\text{l}$ ). BTEX concentrations in groundwater are presented on Figure 3. Current groundwater analytical results are summarized in Table 1. Historical groundwater analytical results are summarized in Table 2. The laboratory analytical report is presented as Appendix B.

## **4.0 CONCLUSIONS**

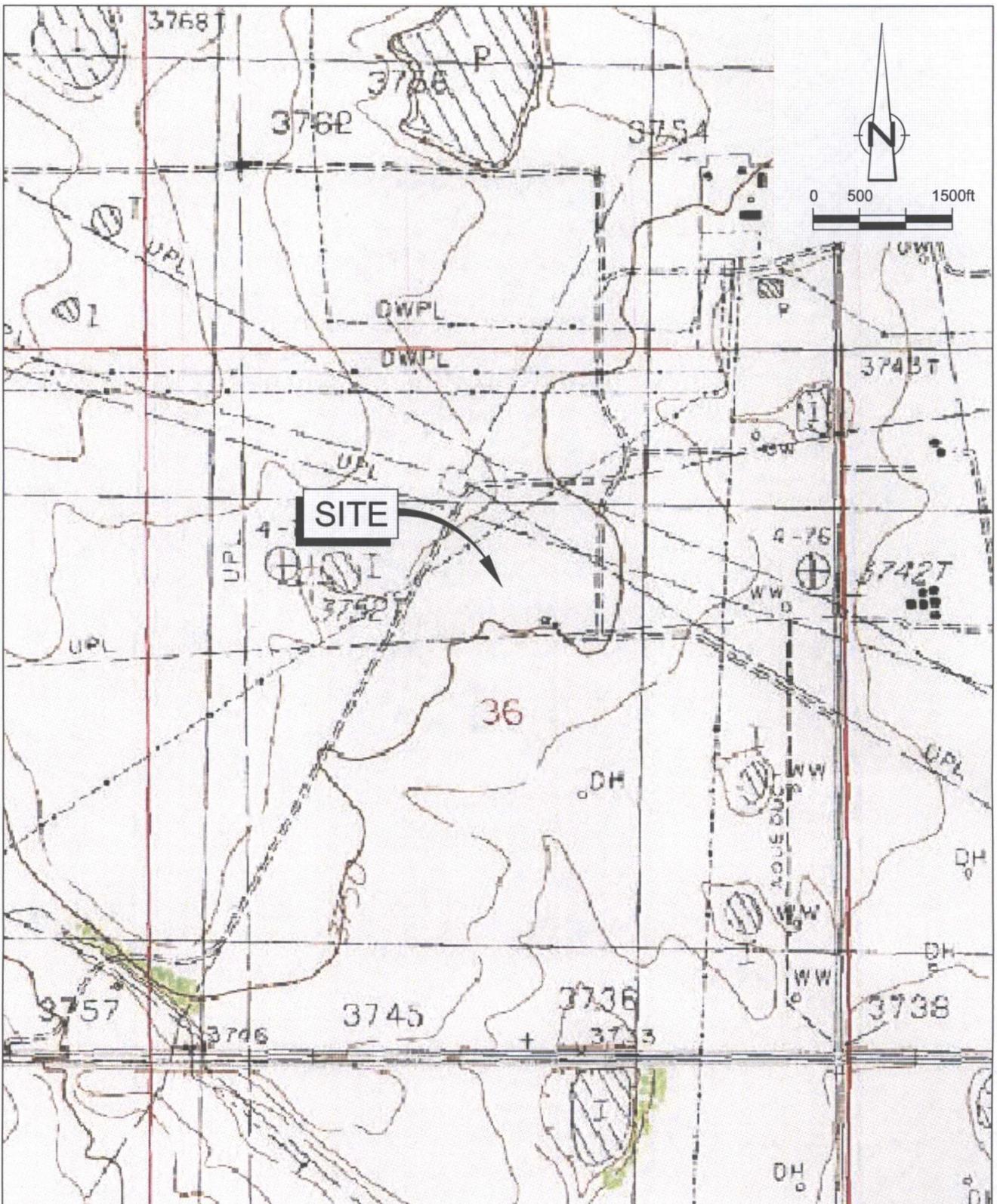
No BTEX has been detected above NMWQCC cleanup levels in samples MW-A, MW-D, MW-E, or MW-F since 2008. LNAPL was measured in well MW-B at a thickness of 2.10 ft. DCP will continue quarterly monitoring and sampling in 2012 to evaluate site groundwater conditions.

FIGURES

FIGURE 1: VICINITY MAP

FIGURE 2: GROUNDWATER ELEVATION CONTOUR MAP

FIGURE 3: GROUNDWATER BTEX ANALYTICAL RESULTS



QUAD: USGS MONUMENT NORTH

Figure 1

VICINITY MAP  
 HOBBS GAS PLANT  
 LEA COUNTY, NEW MEXICO  
 DCP Midstream



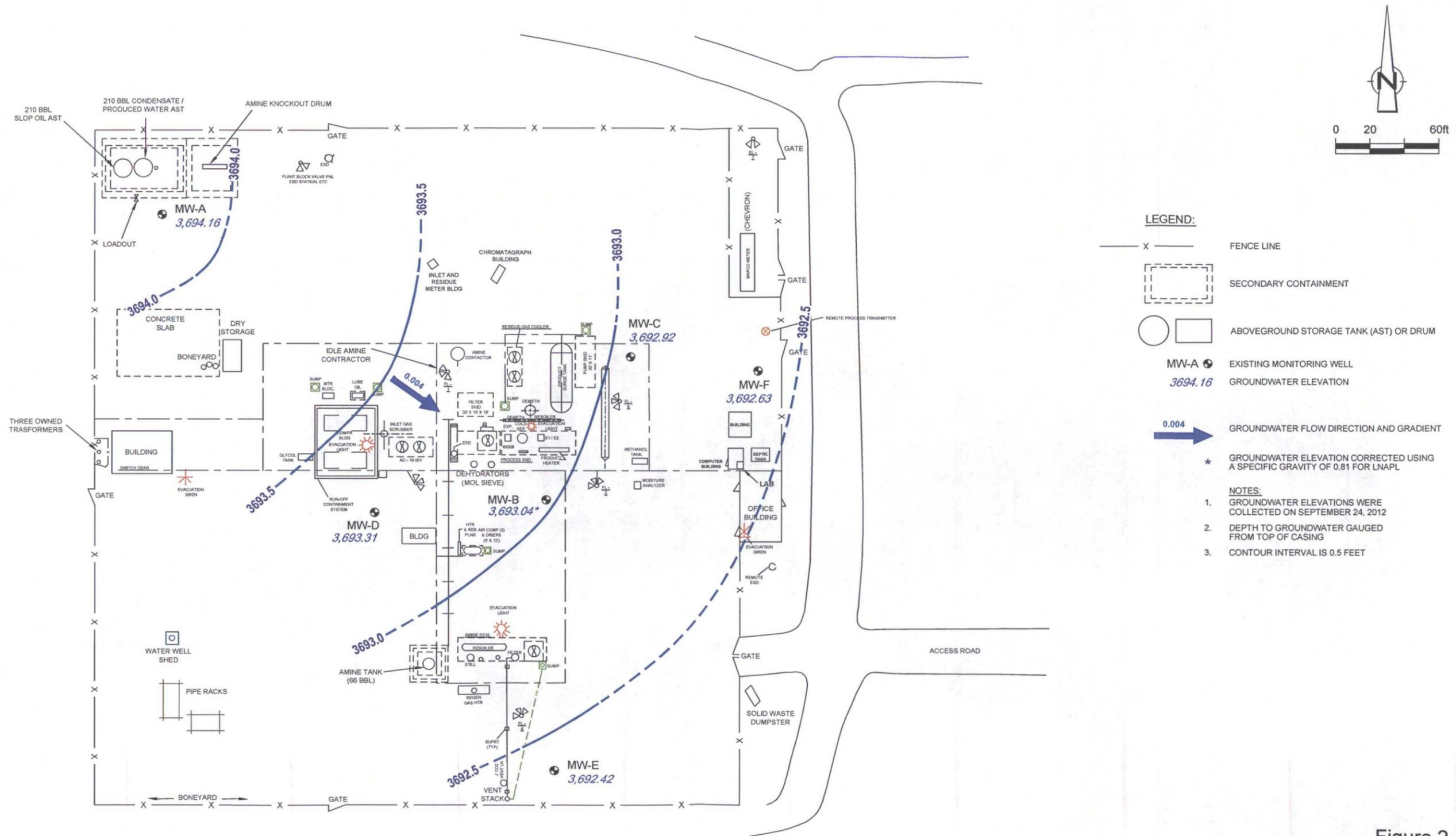
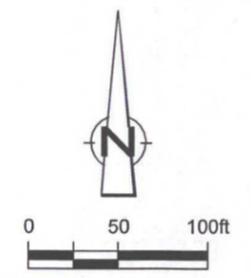
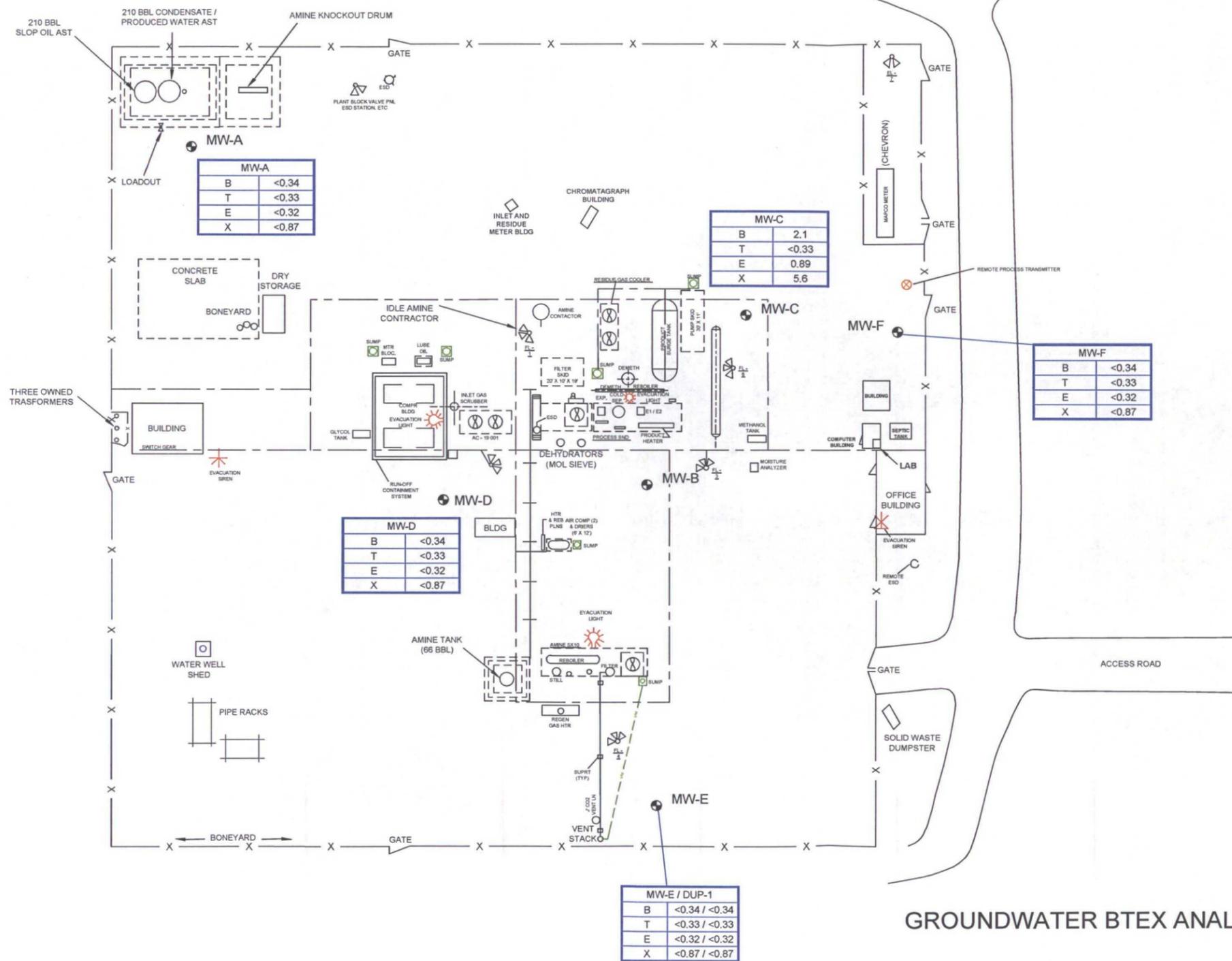


Figure 2  
 GROUNDWATER ELEVATION CONTOUR MAP - THIRD QUARTER 2012  
 DCP HOBBS GAS PLANT  
 LEA COUNTY, NEW MEXICO  
 DCP Midstream  
 September 24, 2012





**LEGEND:**

X ————— FENCE LINE

————— SECONDARY CONTAINMENT

○ □ ABOVEGROUND STORAGE TANK (AST) OR DRUM

● MW-A EXISTING MONITORING WELL

MW-C		CONCENTRATION IN $\mu\text{g/L}$	
BENZENE	B		<1.0
TOLUENE	T		<1.0
ETHYLBENZENE	E		<1.0
XYLENES	X	<3.0	

- NOTES:**
- GROUNDWATER SAMPLES WERE COLLECTED ON SEPTEMBER 24, 2012.
  - BTEX ANALYSIS WAS BY EPA METHOD 8260 AND REPORTED IN  $\mu\text{g/L}$ .
  - MW-B NOT SAMPLED DUE TO LIGHT NON-AQUEOUS PHASE LIQUID (LNAPL).

**Figure 3**  
**GROUNDWATER BTEX ANALYTICAL RESULTS - THIRD QUARTER 2012**  
**DCP HOBBS GAS PLANT**  
**LEA COUNTY, NEW MEXICO**  
*DCP Midstream*  
*September 24, 2012*



TABLES

TABLE 1: CURRENT GROUNDWATER ANALYTICAL RESULTS

TABLE 2: HISTORICAL GROUNDWATER ANALYTICAL RESULTS

## CONESTOGA-ROVERS & ASSOCIATES

**Table 1. Current Groundwater Analytical Results - DCP Hobbs Gas Plant, Lea County, New Mexico**

Well ID	Date	TOC (ft msl)	DTW (ft bgs)	GWE (ft msl)	Concentrations in µg/l			
					Benzene	Toluene	Ethyl -benzene	Total Xylenes
<b>NMWQCC Cleanup Levels</b>					<b>10</b>	<b>750</b>	<b>750</b>	<b>620</b>
MW-A	9/24/2012	3755.87	61.71	3694.16	<0.34	<0.33	<0.32	<0.87
MW-B*	9/24/2012	3755.94	64.60	3693.04	<b>LNAPL present</b>			
MW-C	9/24/2012	3755.59	62.67	3692.92	2.1	<0.33	0.89	5.6
MW-D	9/24/2012	3755.43	62.12	3693.31	<0.34	<0.33	<0.32	<0.87
MW-E	9/24/2012	3754.36	61.94	3692.42	<0.34/<0.34	<0.33<0.33	<0.32/<0.32	<0.87<0.87
MW-F	9/24/2012	3756.13	63.50	3692.63	<0.34	<0.33	<0.32	<0.87

**Notes and Abbreviations:**

ID = Identification

TOC = Top of casing

DTW = Depth to water

GWE = Groundwater elevation

BTEX = Benzene, toluene, ethylbenzene, and total xylenes by SW-846 8021 or 8260B

ft msl = Feet above mean sea level

ft bgs = Feet below ground surface

µg/l = Micrograms per liter

x/y = Sample results/blind duplicate results

<x = Not detected above x µg/l

**BOLD** = Indicates concentration above the NMWQCC Cleanup Levels

a = results from run #2

NMWQCC = New Mexico Water Quality Control Commission

\* = Groundwater elevation corrected using a LNAPL specific gravity of 0.81

## CONESTOGA-ROVERS & ASSOCIATES

**Table 2. Historical Groundwater Analytical Results - DCP Hobbs Gas Plant, Lea County, New Mexico**

Well ID	Date	TOC (ft msl)	DTW (ft bgs)	LNAPL thickness feet	GWE (ft msl)	pH s.u.	Conductivity µS/cm	Temperature °C	DO mg/l	ORP mV	Concentrations in µg/l			
											Benzene 10	Toluene 750	Ethyl - benzene 750	Total Xylenes 620
<b>NMWQCC Cleanup Levels</b>														
MW-A	3/5/2008	3755.87	60.18	--	3693.44	7.20	431	17.46	11.42	21.3	11	<5.0	3.8	15.0
MW-A	6/2/2008	3755.87	60.19	--	3693.87	7.31	573	20.57	5.49	31.1	<0.46	<0.48	<0.45	<1.4
MW-A	9/15/2008	3755.87	60.58	--	3694.32	6.81	533	19.27	4.96	238.7	<0.46	<0.48	<0.45	<1.4
MW-A	12/3/2008	3755.87	60.41	--	3694.44	7.37	505	18.20	7.17	183.9	<0.46	<0.48	<0.45	<1.4
MW-A	2/27/2009	3755.87	60.18	--	3693.02	7.29	505	19.34	8.15	64.1	<0.46	<0.48	<0.45	<1.4
MW-A	6/25/2009	3755.87	60.21	--	3695.66	6.90	660	19.80	8.20	145.0	<2.0	<2.0	<2.0	<6.0
MW-A	9/1/2009	3755.87	60.37	--	3695.50	7.07	670	19.86	8.11	69.0	<2.0	<2.0	<2.0	<6.0
MW-A	11/17/2009	3755.87	60.40	--	3695.47	7.82	576	17.67	--	--	<2.0	<2.0	<2.0	<6.0
MW-A	3/25/2010	3755.87	60.40	--	3695.47	7.51	567	21.70	--	--	<2.0	<2.0	<2.0	<6.0
MW-A	6/8/2010	3755.87	60.39	--	3695.48	7.36	513	--	--	--	<2.0	<2.0	<2.0	<6.0
MW-A	9/21/2010	3755.87	60.13	--	3695.74	7.11	585.0	20.30	--	--	<0.50	<0.43	<0.55	<1.7
MW-A	12/16/2010	3755.87	60.24	--	3695.63	7.27	225.7	18.00	--	--	<0.50	<0.43	<0.55	<1.7
MW-A	3/11/2011	3755.87	60.39	--	3695.48	7.31	556.5	19.40	--	--	<2.0	<2.0	<2.0	<6.0
MW-A	6/14/2011	3755.87	60.63	--	3695.24	6.93	582.3	21.00	--	--	<1.0	<1.0	<1.0	<3.0
MW-A	9/27/2011	3755.87	61.04	--	3694.83	7.65	538.6	20.80	--	--	<1.0	<1.0	<1.0	<3.0
MW-A	12/13/2011	3755.87	61.24	--	3694.63	7.50	574.1	17.5	--	--	<1.0	<1.0	<1.0	<3.0
MW-A	3/27/2012	3755.87	61.39	--	3694.48	7.79	515.8	19.7	--	--	<1.0	<1.0	<1.0	<3.0
MW-A	6/19/2012	3755.87	61.54	--	3694.33	7.53	518.1	20.2	--	--	<1.0	<1.0	<1.0	<3.0
MW-A	9/24/2012	3755.87	61.71	--	3694.16	7.86	553.6	20.5	--	--	<0.34	<0.33	<0.32	<0.87
MW-B	3/5/2008	3755.94	61.66	--	3694.28	6.67	836	16.99	2.49	-214.1	550	64	130	730
MW-B	6/2/2008	3755.94	61.69	--	3694.25	7.08	868	19.99	1.09	-150.1	444	86.5	155	716
MW-B	9/15/2008	3755.94	62.04	--	3693.90	6.60	902	19.63	0.56	-151.6	398	36.6	157	947
MW-B(d)	9/15/2008	3755.94	62.04	--	3693.90	6.60	902	19.63	0.56	-151.6	488	46.0	200	1,210
MW-B	12/3/2008	3755.94	61.93	--	3694.01	6.93	889	18.39	1.57	-161.4	25.6	0.56	7.1	29.2
MW-B	2/27/2009	3755.94	61.68	--	3694.26	6.87	921	18.83	0.96	-115.7	592	86.3	176	1,230
MW-B	6/25/2009	3755.94	61.63	--	3694.31	6.60	130	19.80	2.50	-131.0	1,490	270	411	2,750
MW-B	9/1/2009	3755.94	61.81	--	3694.13	6.60	130	20.36	1.92	-206.0	1,420	195	380	2,930
MW-B	11/17/2009	3755.94	61.85	--	3694.09	6.99	822	17.50	--	--	199	2.9	68.5	159
MW-B	3/25/2010	3755.94	61.70	--	3694.24	6.99	1007	20.80	--	--	199	7.8	112	375
MW-B	6/8/2010	3755.94	61.77	--	3694.17	6.98	866	21.56	--	--	438	20.2	161	836
MW-B(d)	6/8/2010	3755.94	61.77	--	3694.17	6.98	866	21.56	--	--	631	26.8	191	1,230
MW-B	9/21/2010	3755.94	61.58	--	3694.36	6.73	981.4	19.70	--	--	572 a	21.7	167	885
MW-B	12/16/2010	3755.94	61.61	--	3694.33	7.04	994.3	17.50	--	--	154	14.6	52.8	239
MW-B	3/11/2011	3755.94	61.74	--	3694.20	6.89	945.9	19.5	--	--	360 a	19.9	175	742
MW-B	6/14/2011	3755.94	61.95	--	3693.99	6.69	997.8	20.1	--	--	295 a	9.2	135	584
MW-B(d)	6/14/2011	3755.94	61.95	--	3693.99	6.69	997.8	20.1	--	--	448 a	11.0	162	932 a
MW-B	9/27/2011	3755.94	62.43	--	3693.51	7.3	872.7	20.8	--	--	225 a	0.8	147	464 a
MW-B	12/13/2011	3755.94	62.60	--	3705.19	7.07	1006	18.2	--	--	357 a	10	157	581 a
MW-B*	3/27/2012	3755.94	62.94	0.29	3693.23									
MW-B*	6/19/2012	3755.94	64.10	1.65	3693.17									
MW-B*	9/24/2012	3755.94	64.60	2.10	3693.04									

LNAPL present

LNAPL present

LNAPL present

## CONESTOGA-ROVERS & ASSOCIATES

**Table 2. Historical Groundwater Analytical Results - DCP Hobbs Gas Plant, Lea County, New Mexico**

Well ID	Date	TOC	DTW	LNAPL	GWE	pH	Conductivity	Temperature	DO	ORP	Benzene	Toluene	Ethyl - benzene	Total Xylenes
		(ft msl)	(ft bgs)	thickness feet	(ft msl)	s.u.	µS/cm	°C	mg/l	mV	Concentrations in µg/l			
NMWQCC Cleanup Levels											10	750	750	620
MW-C	3/5/2008	3755.59	61.18	--	3694.41	6.91	535	17.46	6.50	-104.1	61	5.3	19.0	78.0
MW-C(d)	3/5/2008	3755.59	61.18	--	3694.41	6.91	535	17.46	6.50	-104.1	160	< 25	160	140
MW-C	6/2/2008	3755.59	61.22	--	3694.37	6.90	781	20.00	2.64	-121.2	75.4	4.9	26.3	121
MW-C(d)	6/2/2008	3755.59	61.22	--	3694.37	6.90	781	20.00	2.64	-121.2	103	8.1	36.9	170
MW-C	9/15/2008	3755.59	61.54	--	3694.05	6.51	679	18.99	1.97	160.3	130	5.7	47.3	222
MW-C	12/3/2008	3755.59	61.48	--	3694.11	6.88	621	18.24	2.31	-17.8	39.0	< 0.48	10.5	33.3
MW-C(d)	12/3/2008	3755.59	61.48	--	3694.11	6.88	621	18.24	2.31	-17.8	50.6	< 0.48	13.6	44.5
MW-C	2/27/2009	3755.59	61.15	--	3694.44	6.90	614	18.56	1.96	-8.7	69.9	0.78 J	20.1	86.8
MW-C(d)	2/27/2009	3755.59	61.15	--	3694.44	6.90	614	18.56	1.96	-8.7	36.6	< 0.48	10.0	43.3
MW-C	6/25/2009	3755.59	61.16	--	3694.43	6.60	760	19.60	4.42	54.0	54.3	0.72 J	11.9	53.0
MW-C(d)	6/25/2009	3755.59	61.16	--	3694.43	6.60	760	19.60	4.42	54.0	64.2	0.87 J	19.0	82.4
MW-C	9/1/2009	3755.59	61.35	--	3694.24	6.78	990	19.27	2.66	40.0	82.8	1.3 J	23.1	132
MW-C(d)	9/1/2009	3755.59	61.35	--	3694.24	6.78	990	19.27	2.66	40.0	71.5	1.0 J	19.8	110
MW-C	11/17/2009	3755.59	61.37	--	3694.22	7.26	631	17.17	--	--	30	< 2.0	9.3	53
MW-C(d)	11/17/2009	3755.59	61.37	--	3694.22	7.26	631	17.17	--	--	25.7	< 2.0	7.7	44.3
MW-C	3/25/2010	3755.59	61.27	--	3694.32	7.13	686	19.20	--	--	48.2	3.0	16.9	141
MW-C(d)	3/25/2010	3755.59	61.27	--	3694.32	7.13	686	19.20	--	--	52.2	2.9	20.3	123
MW-C	6/8/2010	3755.59	61.33	--	3694.26	6.92	621	23.06	--	--	20.4	1.1	8.5	52.3
MW-C	9/21/2010	3755.59	61.10	--	3694.49	6.58	741.8	19.2	--	--	124	3.1	50.4	276
MW-C	12/16/2010	3755.59	61.15	--	3694.44	6.95	760.5	18.1	--	--	10.7	0.59	5.1	25.2
MW-C(d)	12/16/2010	3755.59	61.15	--	3694.44	6.95	760.5	18.1	--	--	5.4	<0.43	2.8	12.6
MW-C	3/11/2011	3755.59	61.28	--	3694.31	6.80	725.3	19.3	--	--	95.8	5.7	42.4	235
MW-C	6/14/2011	3755.59	61.52	--	3694.07	6.60	737.1	21.2	--	--	66.0	2.8	29.8	145
MW-C	9/27/2011	3755.59	62.00	--	3693.59	7.34	677.2	20.5	--	--	40.3	0.7	19.9	94.4
MW-C	12/13/2011	3755.59	62.20	--	3693.39	7.06	730.1	16.5	--	--	112	4.3	29.8	200
MW-C(d)	12/13/2011	3755.59	62.20	--	3693.39	7.06	730.1	16.5	--	--	44.1	1.9	14.4	97.7
MW-C	3/27/2012	3755.59	62.33	--	3693.26	7.26	652.3	19.2	--	--	37.0	1.2	11.4	75.8
MW-C(d)	3/27/2012	3755.59	62.33	--	3693.26	7.26	652.3	19.2	--	--	52.0	1.8	15.0	104
MW-C	6/19/2012	3755.59	62.45	--	3693.14	7.15	701.2	20.0	--	--	66.8	1.9	20.1	135
MW-C	9/24/2012	3755.59	62.67	--	3692.92	7.76	732.2	20.6	--	--	2.1	<0.33	0.89	5.6

## CONESTOGA-ROVERS & ASSOCIATES

**Table 2. Historical Groundwater Analytical Results - DCP Hobbs Gas Plant, Lea County, New Mexico**

Well ID	Date	TOC	DTW	LNAPL	GWE	pH	Conductivity	Temperature	DO	ORP	Benzene	Toluene	Ethyl - benzene	Total Xylenes
		(ft msl)	(ft bgs)	thickness feet	(ft msl)	s.u.	µS/cm	°C	mg/l	mV	Concentrations in µg/l			
NMWQCC Cleanup Levels											10	750	750	620
MW-D	3/5/2008	3755.43	60.77	--	3694.66	6.85	507	17.23	9.66	22.5	<1.0	<5.0	<1.0	<3.0
MW-D	6/2/2008	3755.43	60.77	--	3694.66	7.13	668	19.99	5.39	29.2	<0.46	<0.48	<0.45	<1.4
MW-D	9/15/2008	3755.43	61.10	--	3694.33	6.64	646	19.42	3.65	233.1	<0.46	<0.48	<0.45	<1.4
MW-D	12/3/2008	3755.43	61.08	--	3694.35	7.09	587	17.95	5.46	175.5	<0.46	<0.48	<0.45	<1.4
MW-D	2/27/2009	3755.43	60.79	--	3694.64	7.01	589	19.59	7.22	77.1	<0.46	<0.48	<0.45	<1.4
MW-D	6/25/2009	3755.43	60.77	--	3694.66	6.70	820	20.10	6.38	177.0	<2.0	<2.0	<2.0	<6.0
MW-D	9/1/2009	3755.43	60.96	--	3694.47	6.81	860	19.90	6.11	118.0	<2.0	<2.0	<2.0	<6.0
MW-D	11/17/2009	3755.43	60.96	--	3694.47	7.67	658	16.67	--	--	<2.0	<2.0	<2.0	<6.0
MW-D	3/25/2010	3755.43	60.89	--	3694.54	7.18	706	19.50	--	--	<2.0	<2.0	<2.0	<6.0
MW-D	6/8/2010	3755.43	60.91	--	3694.52	7.09	636	22.28	--	--	<2.0	<2.0	<2.0	<6.0
MW-D	9/21/2010	3755.43	60.66	--	3694.77	6.84	730.5	19.30	--	--	<0.50	<0.43	<0.55	<1.7
MW-D	12/16/2010	3755.43	60.72	--	3694.71	7.03	794.7	18.70	--	--	<0.50	<0.43	<0.55	<1.7
MW-D	3/11/2011	3755.43	60.84	--	3694.59	6.82	760.7	19.40	--	--	<2.0	<2.0	<2.0	<6.0
MW-D	6/14/2011	3755.43	61.09	--	3694.34	6.65	842.4	20.00	--	--	<1.0	<1.0	<1.0	<3.0
MW-D	9/27/2011	3755.43	61.55	--	3693.88	7.21	708.7	20.60	--	--	<1.0	<1.0	<1.0	<3.0
MW-D	12/13/2011	3755.43	61.70	--	3693.73	7.28	771.7	16.7	--	--	<1.0	<1.0	<1.0	<3.0
MW-D	3/27/2012	3755.43	61.84	--	3693.59	7.18	659.7	20.5	--	--	<1.0	<1.0	<1.0	<3.0
MW-D	6/19/2012	3755.43	61.97	--	3693.46	7.26	706.4	21.1	--	--	<1.0	<1.0	<1.0	<3.0
MW-D	9/24/2012	3755.43	62.12	--	3693.31	8.18	717.9	23.0	--	--	<0.34	<0.33	<0.32	<0.87
MW-E	3/5/2008	3754.36	60.75	--	3693.61	6.89	487	17.29	8.99	38.4	14	<5.0	3.9	14
MW-E	6/2/2008	3754.36	60.78	--	3693.58	7.07	633	19.91	3.72	9.4	<0.46	<0.48	<0.45	<1.4
MW-E	9/15/2008	3754.36	61.21	--	3693.15	6.74	601	19.27	4.02	228.3	<0.46	<0.48	<0.45	<1.4
MW-E	12/3/2008	3754.36	61.13	--	3693.23	7.03	592	18.58	5.25	186.2	<0.46	<0.48	<0.45	<1.4
MW-E	2/27/2009	3754.36	60.81	--	3693.55	7.01	590	19.10	6.29	91.2	<0.46	<0.48	<0.45	<1.4
MW-E	6/25/2009	3754.36	60.74	--	3693.62	6.80	270	20.10	5.19	60.0	<2.0	<2.0	<2.0	<6.0
MW-E	9/1/2009	3754.36	60.93	--	3693.43	6.84	780	20.94	5.95	16.0	<2.0	<2.0	<2.0	<6.0
MW-E	11/17/2009	3754.36	60.94	--	3693.42	7.32	610	17.06	--	--	<2.0	<2.0	<2.0	<6.0
MW-E	3/25/2010	3754.36	60.82	--	3693.54	7.14	654	19.50	--	--	<2.0	<2.0	<2.0	<6.0
MW-E	6/8/2010	3754.36	60.83	--	3693.53	7.00	612	22.50	--	--	<2.0	<2.0	<2.0	<6.0
MW-E	9/21/2010	3754.36	60.65	--	3693.71	6.72	730	19.40	--	--	<0.50	<0.43	<0.55	<1.7
MW-E(d)	9/21/2010	3754.36	60.65	--	3693.71	6.72	730	19.40	--	--	<0.50	<0.43	<0.55	<1.7
MW-E	12/16/2010	3754.36	60.65	--	3693.71	7.01	698.8	18.10	--	--	<0.50	<0.43	<0.55	<1.7
MW-E	3/11/2011	3754.36	60.75	--	3693.61	6.82	684.9	19.30	--	--	<2.0	<2.0	<2.0	<6.0
MW-E(d)	3/11/2011	3754.36	60.75	--	3693.61	6.82	684.9	19.30	--	--	<2.0	<2.0	<2.0	<6.0
MW-E	6/14/2011	3754.36	60.91	--	3693.45	6.63	727.9	21.00	--	--	<1.0	<1.0	<1.0	<3.0
MW-E	9/27/2011	3754.36	61.43	--	3692.93	7.42	607.3	20.90	--	--	<1.0	<1.0	<1.0	<3.0
MW-E(d)	9/27/2011	3754.36	61.43	--	3692.93	7.42	607.3	20.90	--	--	<1.0	<1.0	<1.0	<3.0
MW-E	12/13/2011	3754.36	61.59	--	3692.77	7.19	682.3	15.9	--	--	<1.0	<1.0	<1.0	<3.0
MW-E	3/27/2012	3754.36	61.66	--	3692.70	7.55	630.1	20.0	--	--	<1.0	<1.0	<1.0	<3.0
MW-E	6/19/2012	3754.36	61.81	--	3692.55	7.25	641.0	19.9	--	--	<1.0	<1.0	<1.0	<3.0
MW-E(d)	6/19/2012	3754.36	61.81	--	3692.55	7.25	641.0	19.9	--	--	<1.0	<1.0	<1.0	<3.0
MW-E	9/24/2012	3754.36	61.94	--	3692.42	7.83	706.9	23.0	--	--	<0.34	<0.33	<0.32	<0.87
MW-E(d)	9/24/2012	3754.36	61.94	--	3692.42	7.83	706.9	23.0	--	--	<0.34	<0.33	<0.32	<0.87

## CONESTOGA-ROVERS & ASSOCIATES

**Table 2. Historical Groundwater Analytical Results - DCF Hobbs Gas Plant, Lea County, New Mexico**

Well ID	Date	TOC (ft msl)	DTW (ft bgs)	LNAPL thickness feet	GWE (ft msl)	pH s.u.	Conductivity $\mu\text{S}/\text{cm}$	Temperature $^{\circ}\text{C}$	DO mg/l	ORP mV	Concentrations in $\mu\text{g}/\text{l}$			
											Benzene 10	Toluene 750	Ethyl- benzene 750	Total Xylenes 620
MW-F	3/5/2008	3756.13	62.01	--	3694.12	6.76	657	17.01	9.71	3.6	1.9	< 5.0	< 1.0	3.8
MW-F	6/2/2008	3756.13	62.06	--	3694.07	6.76	879	19.00	3.08	21.4	< 0.46	< 0.48	< 0.45	< 1.4
MW-F	9/15/2008	3756.13	62.44	--	3693.69	6.43	876	19.17	2.52	234.3	< 0.46	< 0.48	< 0.45	< 1.4
MW-F	12/3/2008	3756.13	62.22	--	3693.91	6.76	917	17.79	3.79	188.4	< 0.46	< 0.48	< 0.45	< 1.4
MW-F	2/27/2009	3756.13	61.97	--	3694.16	6.77	857	18.61	3.85	93.4	< 0.46	< 0.48	< 0.45	< 1.4
MW-F	6/25/2009	3756.13	61.96	--	3694.17	6.20	100	19.80	5.56	221.0	< 2.0	< 2.0	< 2.0	< 6.0
MW-F	9/1/2009	3756.13	62.18	--	3693.95	6.51	110	19.25	5.27	108.0	< 2.0	< 2.0	< 2.0	< 6.0
MW-F	11/17/2009	3756.13	62.13	--	3694.00	6.93	1,030	18.67	--	--	< 2.0	< 2.0	< 2.0	< 6.0
MW-F	3/25/2010	3756.13	62.02	--	3694.11	6.94	1,053	19.00	--	--	< 2.0	< 2.0	< 2.0	< 6.0
MW-F	6/8/2010	3756.13	62.12	--	3694.01	7.03	900	22.06	--	--	< 2.0	< 2.0	< 2.0	< 6.0
MW-F	9/21/2010	3756.13	61.92	--	3694.21	6.67	1,003	19.10	--	--	< 0.50	< 0.43	< 0.55	< 1.7
MW-F	12/16/2010	3756.13	61.93	--	3694.20	6.90	1,058	17.60	--	--	< 0.50	< 0.43	< 0.55	< 1.7
MW-F	3/11/2011	3756.13	62.05	--	3694.08	6.84	1,017	19.00	--	--	< 2.0	< 2.0	< 2.0	< 6.0
MW-F	6/14/2011	3756.13	62.35	--	3693.78	6.53	1,053	20.10	--	--	< 1.0	< 1.0	< 1.0	< 3.0
MW-F	9/27/2011	3756.13	62.85	--	3693.28	7.05	890	20.40	--	--	< 1.0	< 1.0	< 1.0	< 3.0
MW-F	12/13/2011	3756.13	63.05	--	3693.08	7.12	922.0	16.7	--	--	< 1.0	< 1.0	< 1.0	< 3.0
MW-F	3/27/2012	3756.13	63.16	--	3692.97	7.20	754.8	20.6	--	--	< 1.0	< 1.0	< 1.0	< 3.0
MW-F	6/19/2012	3756.13	63.30	--	3692.83	7.23	776.1	19.7	--	--	< 1.0	< 1.0	< 1.0	< 3.0
MW-F	9/24/2012	3756.13	63.50	--	3692.63	7.64	769.8	21.6	--	--	< 0.34	< 0.33	< 0.32	< 0.87

**Notes and Abbreviations:**

ID = Identification  
 TOC = Top of casing  
 DTW = Depth to water  
 LNAPL = Light non-aqueous phase liquids  
 GWE = Groundwater elevation  
 DO = Dissolved oxygen  
 ORP = Oxidation reduction potential  
 BTEX = Benzene, toluene, ethylbenzene, and total xylenes by SW-846 8021 or 8260B  
 ft msl = Feet above mean sea level  
 ft bgs = Feet below ground surface  
 s.u. = Standard unit  
 $\mu\text{S}/\text{cm}$  = Microsiemens per centimeter  
 $^{\circ}\text{C}$  = Degrees Celcius  
 mg/l = Milligrams per liter  
 mV = Millivolts  
 $\mu\text{g}/\text{l}$  = Micrograms per liter  
 NMWQCC = New Mexico Water Quality Control Commission  
 a = Result is from run # 2  
**BOLD** = Indicates concentration above the NMWQCC Cleanup Levels  
 <x = Not detected above x  $\mu\text{g}/\text{l}$   
 -- = Not measured/not analyzed  
 (d) = Duplicate sample  
 \* = Groundwater elevation corrected using a LNAPL specific gravity of 0.81

APPENDIX A

STANDARD OPERATING PROCEDURES FOR GROUNDWATER  
MONITORING AND SAMPLING



**CONESTOGA-ROVERS  
& ASSOCIATES**

## **STANDARD FIELD PROCEDURES FOR GROUNDWATER MONITORING AND SAMPLING**

This document presents standard field methods for groundwater monitoring, purging and sampling, and well development. These procedures are designed to comply with Federal, State and local regulatory guidelines. Conestoga-Rovers & Associates' specific field procedures are summarized below.

### **Groundwater Monitoring**

Prior to performing monitoring activities, the historical monitoring and analytical data of each monitoring well shall be reviewed to determine if any of the wells are likely to contain separate phase hydrocarbons (SPH) and to determine the order in which the wells will be monitored (i.e. cleanest to dirtiest). Groundwater monitoring should not be performed when the potential exists for surface water to enter the well (i.e. flooding during a rainstorm).

Prior to monitoring, each well shall be opened and the well cap removed to allow water levels to stabilize and equilibrate. The condition of the well box and well cap shall be observed and recommended repairs noted. Any surface water that may have entered and flooded the well box should be evacuated prior to removing the well cap. In wells with no history of SPH, the static water level and total well depth shall be measured to the nearest 0.01 foot with an electronic water level meter. Wells with the highest contaminant concentrations shall be monitored last. In wells with a history of SPH, the SPH level/thickness and static water level shall be measured to the nearest 0.01 foot using an electronic interface probe. The water level meter and/or interface probe shall be thoroughly cleaned and decontaminated at the beginning of the monitoring event and between each well. Monitoring equipment shall be washed using soapy water consisting of Liqui-nox™ or Alconox™ followed by one rinse of clean tap water and then two rinses of distilled water.

### **Groundwater Purging and Sampling**

Prior to groundwater purging and sampling, the historical analytical data of each monitoring well shall be reviewed to determine the order in which the wells should be purged and sampled (i.e. cleanest to dirtiest). No purging or groundwater sampling shall be performed on wells with a measurable thickness of SPH or floating SPH globules. If a sheen is observed, the well should be purged and a groundwater sample collected only if no SPH is present. Wells shall be purged either by hand using a disposal or PVC bailer or by using an aboveground pump (e.g. peristaltic or Wattera™) or down-hole pump (e.g. Grundfos™ or DC Purger pump).

Groundwater wells shall be purged approximately three to ten well-casing volumes (depending on the regulatory agency requirements) or until groundwater parameters of temperature, pH, and conductivity have stabilized to within 10% for three consecutive readings. Temperature, pH, and conductivity shall be measured and recorded at the start of purging, once per well casing volume removed, and at the completion of purging. The total volume of groundwater removed shall be recorded along with any other notable physical characteristic such as color and odor. If required, field parameters such as turbidity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) shall be measured prior to collection of each groundwater sample.

Groundwater samples shall be collected after the well has been purged and allowed to recharge to 80% of the pre-purging static water level, or if the well is slow to recharge, after waiting a minimum of 2 hours. Groundwater samples shall be collected using clean disposable bailers or



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pumps (if an operating remediation system exists on site and the project manager approves of its use for sampling) and shall be decanted into clean containers supplied by the analytical laboratory. New latex gloves and disposable tubing or bailers shall be used for sampling each well. If a PVC bailer or down-hole pump is used for groundwater purging, it shall be decontaminated before purging each well by using soapy water consisting of Liqui-nox™ or Alconox™ followed by one rinse of clean tap water and then two rinses of distilled water. If a submersible pump with non-dedicated discharge tubing is used for groundwater purging, both the inside and outside of pump and discharge tubing shall be decontaminated as described above.

**Sample Handling**

Except for samples that will be tested in the field, or that require special handling or preservation, samples shall be stored in coolers chilled to 4° C for shipment to the analytical laboratory. Samples shall be labeled, placed in protective foam sleeves or bubble wrap as needed, stored on crushed ice at or below 4° C, and submitted under chain-of-custody (COC) to the laboratory. The laboratory shall be notified of the sample shipment schedule and arrival time. Samples shall be shipped to the laboratory within a time frame to allow for extraction and analysis to be performed within the standard sample holding times.

Sample labels shall be filled out using indelible ink and must contain the site name; field identification number; the date, time, and location of sample collection; notation of the type of sample; identification of preservatives used; remarks; and the signature of the sampler. Field identification must be sufficient to allow easy cross-reference with the field datasheet.

All samples submitted to the laboratory shall be accompanied by a COC record to ensure adequate documentation. One copy of the COC shall be kept in the QA/QC file and another copy shall be retained in the project file. Information on the COC shall consist of the project name and number; project location; sample numbers; sampler/recorder's signature; date and time of collection of each sample; sample type; analyses requested; name of person receiving the sample; and date of receipt of sample.

Laboratory-supplied trip blanks shall accompany the samples and be analyzed to check for cross-contamination, if requested by the project manager.

**Well Development**

Wells shall be developed using a combination of groundwater surging and extraction. A surge block shall be used to swab the well and agitate the groundwater in order to dislodge any fine sediment from the sand pack. After approximately ten minutes of swabbing the well, groundwater shall be extracted from the well using a bailer, pump and/or reverse air-lifting through a pipe to remove the sediments from the well. Alternating surging and extraction shall continue until the sediment volume in the groundwater (i.e. turbidity) is negligible, which typically requires extraction of approximately ten well-casing volumes of groundwater. Preliminary well development usually is performed during well installation prior to placing the sanitary surface seal to ensure sand pack stabilization. Well development that is performed after surface seal installation, should occur 72 hours after seal installation to ensure that the cement has had adequate time to set.



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**Waste Handling and Disposal**

Groundwater extracted during development and sampling shall be stored onsite in sealed U.S. DOT H17 55-gallon drums. Each drum shall be labeled with the contents, date of generation, generator identification and consultant contact. If hydrocarbon concentrations in the purged groundwater are below ADEC cleanup levels or the site is in a remote area (pending ADEC approval) groundwater will be discharged to the ground surface, at least 100 feet from the nearest surface water body.

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APPENDIX B  
LABORATORY ANALYTICAL REPORT



10/09/12

Technical Report for

DCP Midstream, LLC

CRA:Hobbs Gas Plant

Accutest Job Number: TC17207

Sampling Date: 09/24/12

Report to:

DCP Midstream, L.P.  
370 17th Street Suite 2500  
Denver, CO 80202  
SWeatherers@dcpmidstream.com; spritchard@croworld.com  
ATTN: Mr. Steve Weathers

Total number of pages in report: 24



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.

  
Richard Rodriguez  
Laboratory Director

Client Service contact: Sylvia Garza 713-271-4700

Certifications: TX (T104704220-12-8) AR (11-028-0) AZ (AZ0769) FL (E87628) KS (E-10366)  
LA (85695/04004) OK (211-035)

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Test results relate only to samples analyzed.

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### Sample Summary

DCP Midstream, LLC

Job No: TC17207

CRA:Hobbs Gas Plant

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
TC17207-1	09/24/12	16:00	09/28/12	AQ	Ground Water	MWA
TC17207-2	09/24/12	17:30	09/28/12	AQ	Ground Water	MWC
TC17207-3	09/24/12	16:15	09/28/12	AQ	Ground Water	MWD
TC17207-4	09/24/12	16:45	09/28/12	AQ	Ground Water	MWE
TC17207-5	09/24/12	17:15	09/28/12	AQ	Ground Water	MWF
TC17207-6	09/24/12	00:00	09/28/12	AQ	Ground Water	DUP1



## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** DCP Midstream, LLC

**Job No** TC17207

**Site:** CRA:Hobbs Gas Plant

**Report Date** 10/9/2012 8:57:22 AM

6 Samples were collected on 09/24/2012 and received intact at Accutest on 09/28/2012 and properly preserved in 1 cooler at 0.7 Deg C. These Samples received an Accutest job number of TC17207. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

<b>Matrix</b> AQ	<b>Batch ID:</b> VG659
------------------	------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC17419-2MS, TC17419-2MSD were used as the QC samples indicated.
- RPD(s) for MSD for Benzene, Ethylbenzene, Toluene, Xylene (total) are outside control limits for sample TC17419-2MSD. Probable cause due to matrix interference.

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used

# Summary of Hits

**Job Number:** TC17207  
**Account:** DCP Midstream, LLC  
**Project:** CRA:Hobbs Gas Plant  
**Collected:** 09/24/12



Lab Sample ID	Client Sample ID	Result/ Qual	ML	SDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

**TC17207-1**      **MWA**

No hits reported in this sample.

**TC17207-2**      **MWC**

Benzene	0.0021	0.0010	0.00034	mg/l	SW846 8260B
Ethylbenzene	0.00089 J	0.0010	0.00032	mg/l	SW846 8260B
Xylene (total)	0.0056	0.0030	0.00087	mg/l	SW846 8260B

**TC17207-3**      **MWD**

No hits reported in this sample.

**TC17207-4**      **MWE**

No hits reported in this sample.

**TC17207-5**      **MWF**

No hits reported in this sample.

**TC17207-6**      **DUP1**

No hits reported in this sample.



Gulf Coast

ACCUTEST

LABORATORIES

Sample Results

Report of Analysis

---

## Report of Analysis

<b>Client Sample ID:</b> MWA	<b>Date Sampled:</b> 09/24/12
<b>Lab Sample ID:</b> TC17207-1	<b>Date Received:</b> 09/28/12
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> CRA:Hobbs Gas Plant	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G014994.D	1	10/06/12	AK	n/a	n/a	VG659
Run #2							

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

**Purgeable Aromatics**

CAS No.	Compound	Result	MQL	SDL	Units	Q
71-43-2	Benzene	0.00034 U	0.0010	0.00034	mg/l	
108-88-3	Toluene	0.00033 U	0.0010	0.00033	mg/l	
100-41-4	Ethylbenzene	0.00032 U	0.0010	0.00032	mg/l	
1330-20-7	Xylene (total)	0.00087 U	0.0030	0.00087	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		72-122%
17060-07-0	1,2-Dichloroethane-D4	90%		68-124%
2037-26-5	Toluene-D8	91%		80-119%
460-00-4	4-Bromofluorobenzene	88%		72-126%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation 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

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b> MWC	<b>Date Sampled:</b> 09/24/12
<b>Lab Sample ID:</b> TC17207-2	<b>Date Received:</b> 09/28/12
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> CRA:Hobbs Gas Plant	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G014995.D	1	10/06/12	AK	n/a	n/a	VG659
Run #2							

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

**Purgeable Aromatics**

CAS No.	Compound	Result	MQL	SDL	Units	Q
71-43-2	Benzene	0.0021	0.0010	0.00034	mg/l	
108-88-3	Toluene	0.00033 U	0.0010	0.00033	mg/l	
100-41-4	Ethylbenzene	0.00089	0.0010	0.00032	mg/l	J
1330-20-7	Xylene (total)	0.0056	0.0030	0.00087	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		72-122%
17060-07-0	1,2-Dichloroethane-D4	89%		68-124%
2037-26-5	Toluene-D8	91%		80-119%
460-00-4	4-Bromofluorobenzene	88%		72-126%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation 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

4.2  
4

## Report of Analysis

<b>Client Sample ID:</b> MWD	<b>Date Sampled:</b> 09/24/12
<b>Lab Sample ID:</b> TC17207-3	<b>Date Received:</b> 09/28/12
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> CRA:Hobbs Gas Plant	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G014996.D	1	10/06/12	AK	n/a	n/a	VG659
Run #2							

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

**Purgeable Aromatics**

CAS No.	Compound	Result	MQL	SDL	Units	Q
71-43-2	Benzene	0.00034 U	0.0010	0.00034	mg/l	
108-88-3	Toluene	0.00033 U	0.0010	0.00033	mg/l	
100-41-4	Ethylbenzene	0.00032 U	0.0010	0.00032	mg/l	
1330-20-7	Xylene (total)	0.00087 U	0.0030	0.00087	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		72-122%
17060-07-0	1,2-Dichloroethane-D4	90%		68-124%
2037-26-5	Toluene-D8	90%		80-119%
460-00-4	4-Bromofluorobenzene	87%		72-126%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation 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

4.3  
4

## Report of Analysis

<b>Client Sample ID:</b> MWE	<b>Date Sampled:</b> 09/24/12
<b>Lab Sample ID:</b> TC17207-4	<b>Date Received:</b> 09/28/12
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> CRA:Hobbs Gas Plant	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G014997.D	1	10/06/12	AK	n/a	n/a	VG659
Run #2							

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

**Purgeable Aromatics**

CAS No.	Compound	Result	MQL	SDL	Units	Q
71-43-2	Benzene	0.00034 U	0.0010	0.00034	mg/l	
108-88-3	Toluene	0.00033 U	0.0010	0.00033	mg/l	
100-41-4	Ethylbenzene	0.00032 U	0.0010	0.00032	mg/l	
1330-20-7	Xylene (total)	0.00087 U	0.0030	0.00087	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		72-122%
17060-07-0	1,2-Dichloroethane-D4	90%		68-124%
2037-26-5	Toluene-D8	91%		80-119%
460-00-4	4-Bromofluorobenzene	87%		72-126%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation 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

4.4  
4

## Report of Analysis

<b>Client Sample ID:</b> MWF	<b>Date Sampled:</b> 09/24/12
<b>Lab Sample ID:</b> TC17207-5	<b>Date Received:</b> 09/28/12
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> CRA:Hobbs Gas Plant	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G014998.D	1	10/06/12	AK	n/a	n/a	VG659
Run #2							

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

**Purgeable Aromatics**

CAS No.	Compound	Result	MQL	SDL	Units	Q
71-43-2	Benzene	0.00034 U	0.0010	0.00034	mg/l	
108-88-3	Toluene	0.00033 U	0.0010	0.00033	mg/l	
100-41-4	Ethylbenzene	0.00032 U	0.0010	0.00032	mg/l	
1330-20-7	Xylene (total)	0.00087 U	0.0030	0.00087	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		72-122%
17060-07-0	1,2-Dichloroethane-D4	92%		68-124%
2037-26-5	Toluene-D8	91%		80-119%
460-00-4	4-Bromofluorobenzene	88%		72-126%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation 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

4.5  
4

## Report of Analysis

<b>Client Sample ID:</b> DUP1	<b>Date Sampled:</b> 09/24/12
<b>Lab Sample ID:</b> TC17207-6	<b>Date Received:</b> 09/28/12
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> CRA:Hobbs Gas Plant	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G014999.D	1	10/06/12	AK	n/a	n/a	VG659
Run #2							

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

**Purgeable Aromatics**

CAS No.	Compound	Result	MQL	SDL	Units	Q
71-43-2	Benzene	0.00034 U	0.0010	0.00034	mg/l	
108-88-3	Toluene	0.00033 U	0.0010	0.00033	mg/l	
100-41-4	Ethylbenzene	0.00032 U	0.0010	0.00032	mg/l	
1330-20-7	Xylene (total)	0.00087 U	0.0030	0.00087	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		72-122%
17060-07-0	1,2-Dichloroethane-D4	90%		68-124%
2037-26-5	Toluene-D8	91%		80-119%
460-00-4	4-Bromofluorobenzene	88%		72-126%

U = Not detected      SDL - Sample Detection Limit  
 MQL = Method Quantitation 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

4.6  
4



Misc. Forms



Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody
- LRC Form



10165 Lantini, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

CHAIN OF CUSTODY

**Client Reporting Information**

Client Name: Southwest CC    Project Name: 0309097  
 Contact: James    Phone: 713-271-4700  
 Address: 235 South Loop West    City: Houston    State: TX    Zip: 77028  
 Midland    Texas    Project No: 0309097    Date: 9/24/12

**Project Information**

Project Name: 0309097  
 Project No: 0309097  
 Project Date: 9/24/12

**Specimen Information**

Specimen #	Field ID / Point of Collection	Date	Time	Matrix	Volume	Number of Containers	Number of Containers Sealed	Number of Containers Labeled
1	MVA	9-24-12	16:30	SW	3	X	X	X
2	MVA	9-24-12	17:30	SW	3	X	X	X
3	MVA	9-24-12	17:30	SW	3	X	X	X
4	MVA	9-24-12	17:30	SW	3	X	X	X
5	MVA	9-24-12	17:30	SW	3	X	X	X
6	MVA	9-24-12	17:30	SW	3	X	X	X
7	MVA	9-24-12	17:30	SW	3	X	X	X
8	MVA	9-24-12	17:30	SW	3	X	X	X
9	MVA	9-24-12	17:30	SW	3	X	X	X

**Analysis Information**

Analysis: GC/MS  
 Method: GC/MS  
 Instrument: GC/MS  
 Analyst: TC17207

**Chain of Custody**

Prepared By: James    Date: 9/24/12  
 Approved By: James    Date: 9/24/12  
 Received By: James    Date: 9/24/12  
 Released By: James    Date: 9/24/12



Job #: TC17207

Date / Time Received: 9/28/2012 9:20:00 AM

Initials: CH

Client: CONESTOGA ROVERS & ASSOCIATES

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	TC17207-1	40ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN5	1.1	-0.4	0.7
1	TC17207-1	40ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN5	1.1	-0.4	0.7
1	TC17207-1	40ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN5	1.1	-0.4	0.7
1	TC17207-2	40ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN5	1.1	-0.4	0.7
1	TC17207-2	40ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN5	1.1	-0.4	0.7
1	TC17207-2	40ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN5	1.1	-0.4	0.7
1	TC17207-3	40ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN5	1.1	-0.4	0.7
1	TC17207-3	40ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN5	1.1	-0.4	0.7
1	TC17207-3	40ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN5	1.1	-0.4	0.7
1	TC17207-4	40ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN5	1.1	-0.4	0.7
1	TC17207-4	40ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN5	1.1	-0.4	0.7
1	TC17207-4	40ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN5	1.1	-0.4	0.7
1	TC17207-5	40ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN5	1.1	-0.4	0.7
1	TC17207-5	40ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN5	1.1	-0.4	0.7
1	TC17207-5	40ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN5	1.1	-0.4	0.7
1	TC17207-6	40ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN5	1.1	-0.4	0.7
1	TC17207-6	40ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN5	1.1	-0.4	0.7
1	TC17207-6	40ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN5	1.1	-0.4	0.7

5.1  
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TC17207: Chain of Custody

Page 3 of 3

# Appendix A Laboratory Data Package Cover Page

TC17207 This data package consists of

- This signature page, the laboratory review checklist, and the following reportable data:
- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) The amount of analyte measured in the duplicate,
  - b) The calculated RPD, and
  - c) The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each
- R10 Other problems or anomalies.

5.2  
5

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

**Release Statement:** I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Report. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld.

**Check, if applicable:** This laboratory meets an exception under 30 TAC&25.6 and was last inspection by

[X] TCEQ or  \_\_\_\_\_ on April 2011. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

**QA Manager**

Name (Printed)	Signature	Official Title (printed)	Date
Richard Rodriguez		Laboratory Director	10/9/2012

LABORATORY REVIEW CHECKLIST: REPORTABLE DATA						
Laboratory Name:		Accutest Gulf Coast	LRC Date:		10/9/2012	
Project Name:		CRA:Hobbs Gas Plant	Laboratory Project Number:		TC17207	
Reviewer Name:		Anita Patel	Prep Batch Number(s):		VG659	
# <sup>1</sup>	A <sup>2</sup>	DESCRIPTION	YES	NO	NA <sup>3</sup>	NR <sup>4</sup> ER # <sup>5</sup>
R1	OI	<b>CHAIN-OF-CUSTODY (C-O-C):</b>				
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X			
		Were all departures from standard conditions described in an exception report?	X			
R2	OI	<b>Sample and quality control (QC) identification</b>				
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X			
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X			
R3	OI	<b>Test reports</b>				
		Were samples prepared and analyzed within holding times?	X			
		Other than those results <MQL, were all other raw values bracketed by calibration standards?	X			
		Were calculations checked by a peer or supervisor?	X			
		Were all analyte identifications checked by a peer or supervisor?	X			
		Were sample detection limits reported for all analytes not detected?	X			
		Were all results for soil and sediment samples reported on a dry weight basis?			X	
		Were % moisture (or solids) reported for all soil and sediment samples?			X	
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X	
		If required for the project, are TIC's reported?			X	
R4	O	<b>Surrogate recovery data</b>				
		Were surrogates added prior to extraction?	X			
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X			
R5	OI	<b>Test reports/summary forms for blank samples</b>				
		Were appropriate type(s) of blanks analyzed?	X			
		Were blanks analyzed at the appropriate frequency?	X			
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X			
		Were blank concentrations <MQL?	X			
R6	OI	<b>Laboratory control samples (LCS):</b>				
		Were all COCs included in the LCS?	X			
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X			
		Were LCSs analyzed at required frequency?	X			
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X			
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X			
		Was the LCSD RPD within QC limits?			X	
R7	OI	<b>Matrix spike (MS) and matrix spike duplicate (MSD) data</b>				
		Were the project/method specified analytes included in the MS and MSD?	X			
		Were MS/MSD analyzed at the appropriate frequency?	X			
		Were MS (and MSD, if applicable) %Rs within the laboratory QC Limits?	X			
		Were the MS/MSD RPDs within laboratory QC limits?		X		4
R8	OI	<b>Analytical duplicate data</b>				
		Were appropriate analytical duplicates analyzed for each matrix?			X	
		Were analytical duplicates analyzed at the appropriate frequency?			X	
		Were RPDs or relative standard deviations within the laboratory QC limits?			X	
R9	OI	<b>Method quantitation limits (MQLs):</b>				
		Are the MQLs for each method analyte included in the laboratory data package?	X			
		Do the MQLs correspond to the concentration of the lowest non-zero calibration	X			
		Are unadjusted MQLs and DCSS included in the laboratory data package?		X		2
R10	OI	<b>Other problems/anomalies</b>				
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X			
		Was applicable and available technology used to lower the SDL to minimize the	X			
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices, and methods associated with this laboratory data package?	X			3

Laboratory Name:		Accutest Gulf Coast	LRC Date:		10/8/2012		
Project Name:		CRA:Hobbs Gas Plant	Laboratory Project Number:		TC17207		
Reviewer Name:		Anita Patel	Prep Batch Number(s):		VG659		
# <sup>1</sup>	A <sup>2</sup>	DESCRIPTION	YES	NO	NA <sup>3</sup>	NR <sup>4</sup>	ER # <sup>5</sup>
S1	OI	<b>Initial calibration (ICAL)</b>					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	<b>Initial and continuing calibration verification (ICCV AND CCV) and continuing</b>					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB<MDL?			X		
S3	O	<b>Mass spectral tuning</b>					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	<b>Internal standards (IS)</b>					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	<b>Raw data (NELAC Section 5.5.10)</b>					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	<b>Dual column confirmation</b>					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	<b>Tentatively identified compounds (TICs):</b>					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	<b>Interference Check Sample (ICS) results</b>					
		Were percent recoveries within method QC limits?			X		
S9	I	<b>Serial dilutions, post digestion spikes, and method of standard additions</b>					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	<b>Method detection limit (MDL) studies</b>					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	<b>Proficiency test reports</b>					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	<b>Standards documentation</b>					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate source?	X				
S13	OI	<b>Compound/analyte identification procedures</b>					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	<b>Demonstration of analyst competency (DOC)</b>					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	<b>Verification/validation documentation for methods (NELAC Chapter 5)</b>					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	<b>Laboratory standard operating procedures (SOPs)</b>					
		Are laboratory SOPs current and on file for each method performed?	X				

5.2



<b>LABORATORY REVIEW CHECKLIST (continued): Exception Reports</b>			
Laboratory Name:	<b>Accutest Gulf Coast</b>	LRC Date:	<b>10/9/2012</b>
Project Name:	<b>CRA:Hobbs Gas Plant</b>	Laboratory Project Number:	<b>TC17207</b>
Reviewer Name:	<b>Anita Patel</b>	Prep Batch Number(s):	<b>VG659</b>
<b>ER#</b>	<b>Description</b>		
<b>1</b>	For reporting purposes, the MQL is defined in the report as the RL. The unadjusted MQL/RL is reported in the method blank. The SDL is defined in the report as the MDL.		
<b>2</b>	For reporting purposes, the method blank represents the unadjusted MQL. The DCS is on file in the laboratory and is not included in the laboratory data package.		
<b>3</b>	The laboratory is NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices, and methods associated with this laboratory data package for analytes that are listed in the Texas Fields of Accreditation.		
<b>4</b>	All anomalies are discussed in the case narrative.		

1ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on

5.2  
5



GC/MS Volatiles

6

QC Data Summaries

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Includes the following where applicable:

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

# Method Blank Summary

Job Number: TC17207  
 Account: DUKE DCP Midstream, LLC  
 Project: CRA:Hobbs Gas Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG659-MB	G014987.D	1	10/05/12	AK	n/a	n/a	VG659

The QC reported here applies to the following samples:

Method: SW846 8260B

TC17207-1, TC17207-2, TC17207-3, TC17207-4, TC17207-5, TC17207-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.34	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.32	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.87	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	92% 72-122%
17060-07-0	1,2-Dichloroethane-D4	90% 68-124%
2037-26-5	Toluene-D8	92% 80-119%
460-00-4	4-Bromofluorobenzene	89% 72-126%

6.1.1  
6

# Blank Spike Summary

Job Number: TC17207  
 Account: DUKE DCP Midstream, LLC  
 Project: CRA:Hobbs Gas Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG659-BS	G014985.D	1	10/05/12	AK	n/a	n/a	VG659

The QC reported here applies to the following samples:

Method: SW846 8260B

TC17207-1, TC17207-2, TC17207-3, TC17207-4, TC17207-5, TC17207-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	26.2	105	68-119
100-41-4	Ethylbenzene	25	25.4	102	71-117
108-88-3	Toluene	25	25.4	102	73-119
1330-20-7	Xylene (total)	75	78.2	104	74-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	91%	72-122%
17060-07-0	1,2-Dichloroethane-D4	88%	68-124%
2037-26-5	Toluene-D8	92%	80-119%
460-00-4	4-Bromofluorobenzene	86%	72-126%

\* = Outside of Control Limits.

6.2.1  
6

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC17207  
 Account: DUKE DCP Midstream, LLC  
 Project: CRA:Hobbs Gas Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC17419-2MS	G014991.D	5	10/06/12	AK	n/a	n/a	VG659
TC17419-2MSD	G014992.D	5	10/06/12	AK	n/a	n/a	VG659
TC17419-2 <sup>a</sup>	G014990.D	5	10/05/12	AK	n/a	n/a	VG659

The QC reported here applies to the following samples:

Method: SW846 8260B

TC17207-1, TC17207-2, TC17207-3, TC17207-4, TC17207-5, TC17207-6

CAS No.	Compound	TC17419-2 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	5.3	125	105	80	137	105	26*	68-119/12
100-41-4	Ethylbenzene	5.0 U	125	96.7	77	133	106	32*	71-117/12
108-88-3	Toluene	9.1	125	107	78	143	107	29*	73-119/13
1330-20-7	Xylene (total)	15 U	375	296	79	408	109	32*	74-119/13

CAS No.	Surrogate Recoveries	MS	MSD	TC17419-2	Limits
1868-53-7	Dibromofluoromethane	90%	93%	93%	72-122%
17060-07-0	1,2-Dichloroethane-D4	91%	89%	90%	68-124%
2037-26-5	Toluene-D8	90%	94%	90%	80-119%
460-00-4	4-Bromofluorobenzene	88%	88%	86%	72-126%

(a) Sample was not preserved to a pH < 2

\* = Outside of Control Limits.

6.3.1  
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