

1RP-156-0

**2nd Semi Annual GW Mon.
Report**

**DATE:
2009**



370 17th Street, Suite 2500
Denver, Colorado 80202
303-605-1893 – main
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2009 NOV 19 A 11:41

November 17, 2009

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

**RE: 2nd 2009 Semi Annual Groundwater Monitoring Report
DCP Monument Booster Station (1RP-156-0)
Unit B Section 33, Township 19 South, Range 37 East**

Dear Mr. Lowe:

DCP Midstream, LP (DCP) is pleased to submit for your review one copy of the 2nd 2009 Semi Annual Groundwater Monitoring Report for the DCP Monument Booster Station located in Lea County, New Mexico (Unit B Section 33, Township 19 South, Range 37 East).

Groundwater monitoring activities were completed on September 23, 2009. The data indicate that the groundwater conditions remain stable. The next semi-annual monitoring event is scheduled for the first half of 2010.

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

Sincerely,

DCP Midstream, LP

Chandler E Cole.
Senior Environmental Specialist

Enclosure

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

November 9, 2009

Mr. Chandler Cole
DCP Midstream, LP
370 Seventeenth Street, Suite 2500
Denver, Colorado 80202

Subject: Summary of the Second 2009 Semi-Annual Groundwater Monitoring Event,
Monument Booster Station, Lea County, New Mexico (**1RP-156-0**)
Unit B, Section 33, Township 19 South, Range 37 East

Dear Chandler:

This letter summarizes the activities completed and the data generated and provides recommendations and conclusions for the second 2009 semiannual groundwater sampling event that was completed September 23, 2009 at the DCP Midstream, LP Monument Booster Station facility in Lea County New Mexico. The activities completed included the measurement of fluid levels and the sampling of all wells that did not contain measurable free phase hydrocarbons (FPH).

The facility is located in New Mexico Oil Conservation Division (OCD) designated Unit B, Section 33, Township 19 South, Range 37 East (Figure 1). The coordinates are 32.6238 degrees north 103.2550 degrees west. This active facility is used for gas compression as well as other activities. DCP owns additional property to the south and east of the facility boundaries (Figure 2).

The eight monitoring well locations are shown on Figure 2. Construction information is included in Table 1.

A characterization program was completed prior to AEC managing the project identified and delineated low-permeability red beds on the eastern boundary of the property (Figure 2). This material restricts groundwater flow and prevents dissolved constituents from migrating down gradient from the eastern site boundary.

Depths to groundwater and, if present, FPH were measured at each well prior to purging. Wells MW-1 and MW-5 contained FPH so they were not sampled.

Six wells were purged and sampled using the standard protocols for this project. The wells were purged using dedicated bailers until a minimum of three casing volumes of water were removed and the field parameters temperature, pH and conductivity had stabilized. The well purging forms are attached. The affected purge water was disposed of at the DCP Linam Ranch facility.

Unfiltered samples were collected following purging using the same dedicated bailers. All of the samples were placed in an ice-filled chest immediately upon collection and delivered to the analytical laboratory using standard chain-of-custody protocols. The

samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method SW846 8260.

The corrected groundwater elevations are shown on Table 2. The water-table elevations for the wells containing FPH were adjusted using the following formula:

$$GWE_{\text{corr}} = MGWE + (PT \cdot PD); \text{ where}$$

- MGWE is the actual measured groundwater elevation;
- PT is the measured free-phase hydrocarbon thickness; and
- PD is the free phase hydrocarbon density (assumed 0.75 depending upon the well location).

Hydrographs for select wells throughout the study area are included in Figure 3. These hydrographs show that the water table declined in all of wells at the site. Overall, the water table now approximates the pre-fall 2003 levels when increased precipitation substantially raised the groundwater elevation.

The FPH thickness measurements over the duration of the project are summarized in Table 3. The FPH thickness increased in MW-1 and decreased in MW-5 since the last measurement in March 2009. The FPH thickness values appear to be increasing over time in MW-1 as shown in Figure 4. The FPH thickness has varied in MW-5 but it has remained within a range since FPH collection activities ceased prior to January 2004.

A water-table contour map generated by the program Surfer with the kriging option is included as Figure 5. The groundwater flow maintained its historic direction toward the south-southeast. This flow direction remains unchanged from prior sampling events. The groundwater flow direction is also toward and then across the permeability discontinuity associated with the redbeds.

The analytical results for the second 2009 semiannual episode are summarized in Table 4. The laboratory report is attached. The quality control evaluation can be summarized as follows:

- All samples were analyzed within required holding time;
- All surrogates were within their acceptable ranges;
- The method blank and blank spike results were acceptable;
- BTEX constituents were not detected in the trip blank;
- The BTEX results for the duplicate sample for MW-7 were all below the method reporting limit (MRL). The benzene and ethylbenzene values were at least an order of magnitude greater than the MRL in the primary sample resulting in poor correlation between the two samples. The higher values from the primary sample will be used in the evaluation; and
- The matrix spike and matrix spike duplicate samples from MW-7 were acceptable

The benzene concentrations in MW-6 and MW-7 exceeded the New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards (Table 4). None of the other constituents exceeded those standards.

The September 2009 benzene distribution is plotted on Figure 6. Benzene, as well as toluene, ethylbenzene and xylenes, were not detected in down-gradient boundary wells MW-3 and MW-4. BTEX was also not detected in up-gradient well MW-2 or in MW-1D, and this well taps the same approximate saturated interval as MW-1.

The historical values are summarized for benzene in Table 5, toluene in Table 6, ethylbenzene in Table 7 and xylenes in Table 8. The historic BTEX concentrations for MW-7 are plotted on Figure 7. MW-7 is directly down-gradient from well MW-1 that contains FPH (Figure 2). Examination of Figure 7 indicates that the benzene concentrations have declined over the duration of the project. The benzene trend showed a marked decline between September 2007 and March 2009 before it leveled off in September 2009.

The historic BTEX concentrations for MW-6 are also plotted on Figure 7. MW-6 is south of the flare, and this is the first time that the well could be safely sampled since September 2007. Examination of Figure 7 shows that the presence of benzene at concentrations above the method reporting limit (MRL) is a recent phenomenon with concentrations only measured above the NMWQCC groundwater standard in September 2006 and September 2009. The fact that these two events are separated by samples from March 2007 and September 2007 that did not contain benzene above the MRL indicates the absence of an established trend. In addition, MW-6 is approximately 100 feet from the closest property boundary so offsite migration above the NMWQCC Groundwater Standards appears to be unlikely based upon attenuation trends that are present at sites with similar subsurface conditions within the region.

There is no correlation between FPH thickness and the benzene concentrations in MW-6 and MW-7. Comparison of Figures 4 and 7 establishes that the benzene concentrations in MW-7 have been declining while the measured FPH thickness in neighboring MW-1 has increased. The FPH thickness in MW-5 has remained within a defined range since January 2004 while the benzene has behaved as described above. Based upon those relationships, AEC concludes that the periodic removal of FPH will probably not affect benzene concentrations in the adjacent monitoring wells.

The next semi-annual groundwater-monitoring episode is scheduled for the first half of 2010. AEC recommends that the MW-6 be sampled even if site conditions have to be monitored until it can be safely accessed on a return visit.

Mr. Chandler Cole
November 8, 2009
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Do not hesitate to contact me if you have any questions or comments on this report or any other aspects of the project.

Sincerely,
AMERICAN ENVIRONMENTAL CONSULTING, LLC

Michael H. Stewart

Michael H. Stewart, PE, CPG
Principal Engineer

MHS/tbm
attachments

TABLES

Table 1 – Monument Booster Well Construction Summary

Well	Ground Surface Elevation (feet)	Top of Casing Elevation (feet)	Installation Date	Well Depth (TOC) (feet)	Well Diameter (inches)
MW-1	3588.85	3,591.15	2/94	37.00	4
MW-1D	3589.06	3,591.31	5/95	36.25	2
MW-2	3594.13	3,596.30	2/94	43.25	4
MW-3	3581.46	3,583.86	5/95	35.65	4
MW-4	3586.10	3,588.77	5/95	38.95	4
MW-5	3589.62	3,592.16	5/95	37.00	4
MW-6	3586.15	3,587.93	11/95	38.45	4
MW-7	3588.06	3,589.40	11/95	38.45	4

Table 2 – Monument Booster Summary of Water Table Elevations

Well	5/16/95	11/21/95	1/18/96	4/24/96	1/22/97	8/11/97	1/23/98	8/3/98	2/10/99	8/17/99	2/17/00	8/23/00	2/8/01	7/30/01	2/13/02	9/27/02	4/25/03
MW-1	3565.17	3565.65	3565.32	3565.47	3565.27	3565.14	3565.59	3564.84	3565.67	3565.75	3565.53	3565.49	3565.34	3564.97	3565.03	3564.95	3565.36
MW-1D	3565.27	3565.77	3565.42	3565.61	3565.46	3565.28	3565.65	3564.96	3565.77	3565.81	3565.59	3565.55	3565.55	3565.07	3565.46	3564.99	3565.46
MW-2	3567.02	3567.21	3567.15	3567.20	3567.15	3566.92	3567.32	3566.76	3567.37	3567.24	3567.23	3567.08	3567.18	3566.78	3567.29	3566.81	3567.14
MW-3	3561.14	3561.74	3561.61	3561.61	3560.84	3560.68	3560.49	3560.37	3560.29	3560.73	3560.53	3560.83	3560.85	3560.61	3560.22	3560.09	3560.37
MW-4	3562.32	3562.98	3562.87	3562.79	3562.27	3562.00	3562.23	3562.00	3562.09	3562.63	3562.27	3562.58	3562.54	3562.27	3562.01	3561.87	3562.13
MW-5	3564.06	3564.54	3564.33	3564.40	3564.18	3564.10	3564.30	3563.80	3564.30	3564.55	3564.21	3564.21	3564.25	3563.94	3564.15	3563.88	3564.21
MW-6		3563.22	3563.82	3562.99	3562.49	3562.29	3562.68	3562.20	3562.57	3563.28	3562.69	3563.15	3562.99	3562.57	3562.45	3562.19	3562.54
MW-7		3564.24	3563.92	3564.07	3563.84	3563.67	3564.02	3563.39	3564.08	3564.21	3563.97	3563.98	3563.97	3563.55	3563.82	3563.45	3563.84

Well	9/18/03	3/16/04	8/17/04	3/4/05	9/21/05	3/16/06	9/20/06	3/22/07	9/25/07	3/20/08	09/17/08	3/10/09	9/23/09
MW-1	3564.59	3566.65	3565.51	3566.92	3566.08	3565.81	3567.01	3565.95	3566.10	NM	NM	3564.30	3564.03
MW-1D	3564.74	3566.71	3565.60	3566.92	3566.79	3565.98	3567.35	3566.16	3566.34	3565.23	3565.15	3564.60	3564.63
MW-2	3566.71	3567.75	3567.13	3567.63	3567.44	3567.51	3567.79	3567.58	3567.46	3567.02	3567.02	3566.75	3566.73
MW-3	3559.92	3560.52	3561.33	3564.34	3563.24	3562.55	3563.71	3563.22	3562.66	3562.06	3561.47	3561.04	3560.62
MW-4	3561.72	3562.36	3562.87	3565.42	3564.11	3563.47	3564.65	3564.02	3563.44	3562.89	3562.60	3562.21	3561.99
MW-5	3563.58	3564.76	3564.47	3566.23	3565.23	3564.68	3566.20	3564.53	3565.26	NM	NM	3563.51	3563.47
MW-6	3561.98	3562.81	3563.14	3566.08	3564.38	3563.53	3565.92	3564.82	3563.63	NM	3562.60	NM	3562.12
MW-7	3563.22	3564.92	3564.11	3565.51	3564.83	3564.44	3565.94	3564.72	3564.85	3563.75	3563.71	3563.24	3563.17

Units are feet

Blank cells denote wells not installed

NM: Well installed but not measured

Table 3 - Summary of Free Phase Hydrocarbon Thickness in MW-1 and MW-5

Date	MW-1	MW-5		Date	MW-1	MW-5		Date	MW-1	MW-5
7/24/95	2.48			4/4/00	0.13	0.16		8/20/03	0.15	0.001
7/27/95	0.53			4/24/00	0.22	0.01		9/18/03	0	0.001
11/15/95	1.35	0.77		6/15/00	0.46	0.01		10/28/03	0	0.001
11/21/95	1.86	0.76		7/19/00	0.12	0.15		11/21/03	0.17	0.001
12/20/95	2.14	0.75		8/23/00	0.09	0.15		12/8/03	0.3	0.001
1/18/96	2.18	0.75		10/3/00	0.5	0.19		1/15/04	0.1	0.09
4/24/96	2.09	0.79		12/14/00	0.17	0.42		2/20/04	0	0.37
6/14/96	2.27	0.82		1/23/01	0.31	0.22		3/16/04	0	0.29
1/27/97	2.21	0.59		2/9/01	0.62	0.01		4/29/04	0.71	0.75
8/11/97	0.02	0.09		4/4/01	0.11	0.16		5/26/04	0.38	0.45
8/9/97	0.03	0.08		5/16/01	0.36	0.08		8/17/04	0.01	0.03
9/18/97	0.04			6/19/01	0.83	0.01		3/4/05	1.41	0.17
10/22/97		0.04		7/20/01	0.57	0.001		9/21/05	0.6	0.31
11/25/97		0.09		9/10/01	0.22	0.001		3/16/06	0.37	0.39
12/9/97		0.22		10/9/01	0.13	0.001		9/20/06	1.6	0.55
1/23/98	0.08	0.04		11/8/01	0.19	0.001		3/22/07	0.55	0.44
2/24/98	0.03	0.33		12/11/01	0.24	0.01		9/25/07	0.83	0.20
3/23/98	0	0.38		1/18/02	0.12	0.2		3/10/09	1.87	0.75
6/23/98	0.03	0.58		2/13/02	0.69	0.01		9/23/09	2.89	0.69
8/3/98	0.01	0.53		3/14/02	0.14	0.001				
9/18/98	0.09	0.36		4/10/02	0.08	0.001				
10/28/98	0.07	0.31		5/14/02	0.22	0.01				
11/17/98	0.03	0.27		6/18/02	0.69	0.01				
2/10/99	0.09	0.76		7/12/02	0.37	0.001				
3/24/99	0.27	1.2		8/14/02	0.75	0.02				
4/20/99	0.49	1.64		9/24/02	0.69	0.001				
5/13/99	0.02	0.19		10/24/02	0.27	0.001				
6/14/99	0.02	0.32		11/22/02	0.08	0.001				
8/4/99	0.03	0.51		12/17/02	0.08	0.02				
8/17/99	0.01	0.39		1/15/03	0.05	0.05				
9/14/99	0.04	0.37		2/18/03	0.11	0.1				
10/26/99	0.22	0.53		3/28/03	0.6	0.09				
11/22/99	0.24	0.37		4/23/03	0.09	0.001				
12/20/99	0.01	0.32		5/29/03	0.66	0.06				
1/26/00	0.06	0.28		6/23/03	0.41	0.001				
2/17/00	0.08	0.1		7/30/03	0.31	0.001				

Notes: Units in feet, some data compiled from historical reports generated by others

Table 4 – Monument Booster Second Half 2009 Sampling Results

Well	Benzene	Toluene	Ethylbenzene	Xylenes
NMWQCC	0.01	0.75	0.75	0.62
MW-1D	<0.002	<0.002	<0.002	<0.006
MW-2	<0.002	<0.002	<0.002	<0.006
MW-3	<0.002	<0.002	<0.002	<0.006
MW-4	<0.002	<0.002	<0.002	<0.006
MW-6	0.035	<0.002	0.0215	0.0052J
MW-7	0.0332	<0.002	0.0176	0.0033J
MW-7 Dup	<0.002	<0.002	<0.002	<0.006
Trip Blank	<0.002	<0.002	<0.002	<0.006

All units mg/l

NMWQCC: New Mexico Water Quality Control Commission groundwater standards.

All constituents that exceed the above standards are highlighted as bold text

Table 5 - Monument Booster Summary of Historical Results for Benzene

Sample Date	MW-1D	MW-2	MW-3	MW-4	MW-6	MW-7
05/16/95	0.018	<0.001	<0.001	<0.001		
11/15/95	0.003		<0.001		0.003	0.465
01/18/96	0.004	<0.001	<0.001	0.003	0.002	1.13
04/24/96	<0.001	<0.001	<0.001	<0.002	<0.001	0.585
01/22/97	0.001	<0.001	<0.001	0.002	0.001	0.896
08/11/97	<0.001	<0.001	<0.001	0.001	<0.001	0.317
01/23/98	<0.001	<0.001	<0.001	<0.001	<0.001	0.876
08/03/98	<0.001	<0.001	0.007	<0.001	<0.001	0.094
02/10/99	<0.001	<0.001	<0.005	<0.001	<0.001	0.597
08/17/99	<0.001	0.017	0.043	<0.001	0.002	0.705
02/18/00	0.002	<0.001	0.021	<0.005	<0.001	0.573
08/23/00	<0.005	<0.001	0.006	<0.005	<0.001	0.546
02/09/01	<0.001	<0.001	0.004	0.002	<0.001	0.355
07/30/01	<0.001	<0.001	0.002	<0.001	<0.001	0.017
02/13/02	<0.001	<0.001	0.002		<0.001	0.228
09/27/02	<0.001	<0.001	<0.005		<0.005	0.015
04/25/03	<0.005	<0.001	<0.005	<0.001	<0.001	0.157
09/18/03	0.002	0.002	0.002	<0.001	0.002	0.018
03/17/04	<0.001	<0.001	<0.001	<0.001	<0.001	0.125
08/17/04	<0.001	<0.001	<0.001	<0.001	<0.001	0.237
03/04/05	<0.001	<0.001	<0.001	<0.001	0.0061	0.125/0.121
09/21/05	<0.001	<0.001	<0.001	<0.001	<0.001	0.15/0.148
03/16/06	<0.001	<0.001	<0.001	<0.001	<0.001	0.191
09/20/06	<0.001	<0.001	<0.001	<0.001	0.0391	0.236
03/22/07	<0.001	<0.001	<0.001	<0.001	<0.001	0.209/0.215
09/25/07	<0.001	<0.001	<0.001	<0.001	<0.001	0.465/0.458
03/20/08	<0.002	<0.002	<0.002	<0.002		0.161/0.169
09/17/08	<0.002	<0.002	<0.002	<0.002		0.083
03/10/09	<0.002/<0.002	<0.002	<0.002	<0.002		0.0339
9/23/09	<0.002	<0.002	<0.002	<0.002	0.035	0.0332/<0.002

All units mg/l

Blank cells note samples for wells that were either not install or not sampled

Table 6 - Monument Booster Summary of Historical Results for Toluene

Sample Date	MW-1D	MW-2	MW-3	MW-4	MW-6	MW-7
05/16/95	0.015	<0.001	<0.001	<0.001		
11/15/95	0.002	0.006	<0.001	0.006	0.001	0.205
01/18/96	0.003	<0.001	<0.001	<0.001	<0.001	0.476
04/24/96	<0.001	<0.001	<0.001	<0.002	<0.001	0.251
01/22/97	0.001	<0.001	<0.001	<0.001	<0.001	0.240
08/11/97	<0.001	<0.001	<0.001	<0.001	<0.001	0.155
01/23/98	<0.001	<0.001	<0.001	<0.001	<0.001	0.486
08/03/98	<0.001	<0.001	<0.001	<0.001	<0.001	0.064
02/10/99	<0.001	<0.001	<0.005	<0.001	<0.001	0.440
08/17/99	<0.001	0.002	<0.005	<0.001	<0.001	0.060
02/18/00	0.003	<0.001	<0.005	<0.005	0.004	0.490
08/23/00	<0.005	<0.001	<0.005	<0.005	0.004	0.484
02/08/01	<0.001	<0.001	0.001	<0.001	<0.001	0.424
07/30/01	<0.001	<0.001	<0.001	<0.001	<0.001	0.058
02/13/02	<0.001	<0.001	<0.001		<0.001	0.094
09/27/02	<0.001	<0.001	<0.005		<0.005	0.017
04/25/03	<0.005	<0.001	<0.005	<0.001	<0.001	0.192
09/18/03	<0.001	<0.001	<0.001	<0.001	<0.001	0.023
03/17/04	<0.001	<0.001	<0.001	<0.001	<0.001	0.108
08/17/04	<0.001	<0.001	<0.001	<0.001	<0.001	0.081
03/04/05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
09/21/05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
03/16/06	<0.001	<0.001	<0.001	<0.001	<0.001	0.0032
09/20/06	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
03/22/07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.05/<0.01
09/25/07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01/<0.01
03/20/08	<0.002	<0.002	<0.002	<0.002		<0.002/<0.002
09/17/08	<0.002	<0.002	<0.002	<0.002		<0.002
03/10/09	<0.002/<0.002	<0.002	<0.002	<0.002		<0.002
9/23/09	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002/<0.002

All units mg/l

Blank cells note samples for wells that were either not install or not sampled

Table 7 - Monument Booster Summary of Historical Results for Ethylbenzene

Sample Date	MW-1D	MW-2	MW-3	MW-4	MW-6	MW-7
05/16/95	0.006	<0.001	<0.001	<0.001		
11/15/95	<0.001	0.002	<0.001	0.002	<0.001	<0.001
01/18/96	<0.001	<0.001	<0.001	<0.001	<0.001	0.003
04/24/96	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002
01/22/97	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
08/11/97	<0.001	<0.001	<0.001	<0.001	<0.001	0.020
01/23/98	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
08/03/98	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
02/10/99	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005
08/17/99	<0.001	0.013	<0.005	<0.001	<0.001	<0.005
02/18/00	<0.001	<0.001	<0.005	<0.005	<0.001	<0.005
08/23/00	<0.005	<0.001	<0.005	<0.005	<0.001	0.006
02/09/01	<0.001	<0.001	0.002	<0.001	<0.001	<0.005
07/30/01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
02/13/02	<0.001	<0.001	<0.001		<0.001	<0.005
09/27/02	<0.001	<0.001	<0.005		<0.005	<0.005
04/25/03	<0.005	<0.001	<0.005	<0.001	<0.001	<0.005
09/18/03	<0.001	<0.001	<0.001	<0.001	0.002	<0.001
03/17/04	<0.001	<0.001	<0.001	<0.001	<0.001	<0.010
08/17/04	<0.001	<0.001	<0.001	<0.001	<0.001	<0.020
03/04/05	<0.001	<0.001	<0.001	<0.001	0.0032	0.0467/0.0453
09/21/05	<0.001	<0.001	<0.001	<0.001	<0.001	0.0794/0.0789
03/16/06	<0.001	<0.001	<0.001	<0.001	<0.001	0.0733
09/20/06	<0.001	<0.001	<0.001	<0.001	0.0287	0.176
03/22/07	<0.001	<0.001	<0.001	<0.001	<0.001	0.149/0.121
09/25/07	<0.001	<0.001	<0.001	<0.001	<0.001	0.318/0.314
03/20/08	<0.002	<0.002	<0.002	<0.002		0.057/0.0637
09/17/08	<0.002	<0.002	<0.002	<0.002		0.0475
03/10/09	<0.002/<0.002	<0.002	<0.002	<0.002		0.0177
9/23/09	<0.002	<0.002	<0.002	<0.002	0.0215	0.0176/<0.002

All units mg/l

Blank cells note samples for wells that were either not install or not sampled

Table 8 - Monument Booster Summary of Historical Results for Total Xylenes

Sample Date	MW-1D	MW-2	MW-3	MW-4	MW-6	MW-7
05/16/95	0.016	<0.001	<0.001	<0.001		
11/15/95	0.001	0.009*	<0.001	0.010*	0.003	0.163
01/18/96	0.009	<0.001	<0.001	<0.001	<0.001	0.365
04/24/96	<0.001	<0.001	<0.001	<0.002	<0.001	0.013
01/22/97	<0.001	<0.001	<0.001	<0.001	<0.001	0.330
08/11/97	<0.001	<0.001	<0.001	<0.001	0.001	0.049
01/23/98	<0.001	<0.001	<0.001	<0.001	<0.001	0.181
08/03/98	<0.001	<0.001	<0.001	<0.001	<0.001	0.007
02/10/99	<0.001	<0.001	<0.005	<0.001	0.014	0.120
08/17/99	<0.001	0.003	<0.005	0.001	0.012	0.556
02/17/00	0.001	<0.001	<0.005	<0.005	0.006	0.226
08/23/00	<0.005	<0.001	<0.005	<0.005	0.011	0.177
02/08/01	0.001	<0.001	0.005	0.002	0.011	0.052
07/30/01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
02/13/02	<0.001	<0.001	<0.001		<0.001	0.050
09/27/02	<0.001	<0.001	<0.005		<0.005	<0.005
04/25/03	<0.005	<0.001	<0.005	<0.001	<0.001	0.020
09/18/03	<0.001	<0.001	<0.001	<0.001	0.001	0.004
03/17/04	<0.001	<0.001	<0.001	<0.001	<0.001	0.033
08/17/04	<0.001	<0.001	<0.001	<0.001	<0.001	<0.020
03/04/05	<0.001	<0.001	<0.001	<0.001	<0.001	0.0202
09/21/05	<0.001	<0.001	<0.001	<0.001	<0.001	0.0248
03/16/06	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
09/20/06	<0.001	<0.001	<0.001	0.0043	0.0194	0.187
03/22/07	<0.001	<0.001	<0.001	0.0036	0.0013	0.116/0.0532
09/25/07	<0.001	<0.001	<0.001	<0.001	<0.001	0.307/0.302
03/20/08	<0.006	<0.006	<0.006	<0.006		0.0295/0.0325
09/17/08	<0.002	<0.006	<0.006	<0.006		0.0204
03/10/09	<0.006/<0.006	<0.006	<0.006	<0.006		0.0052 J
9/23/09	<0.006	<0.006	<0.006	<0.006	0.0052J	0.0033J/<0.006

All units mg/l

Blank cells note samples for wells that were either not install or not sampled

FIGURES

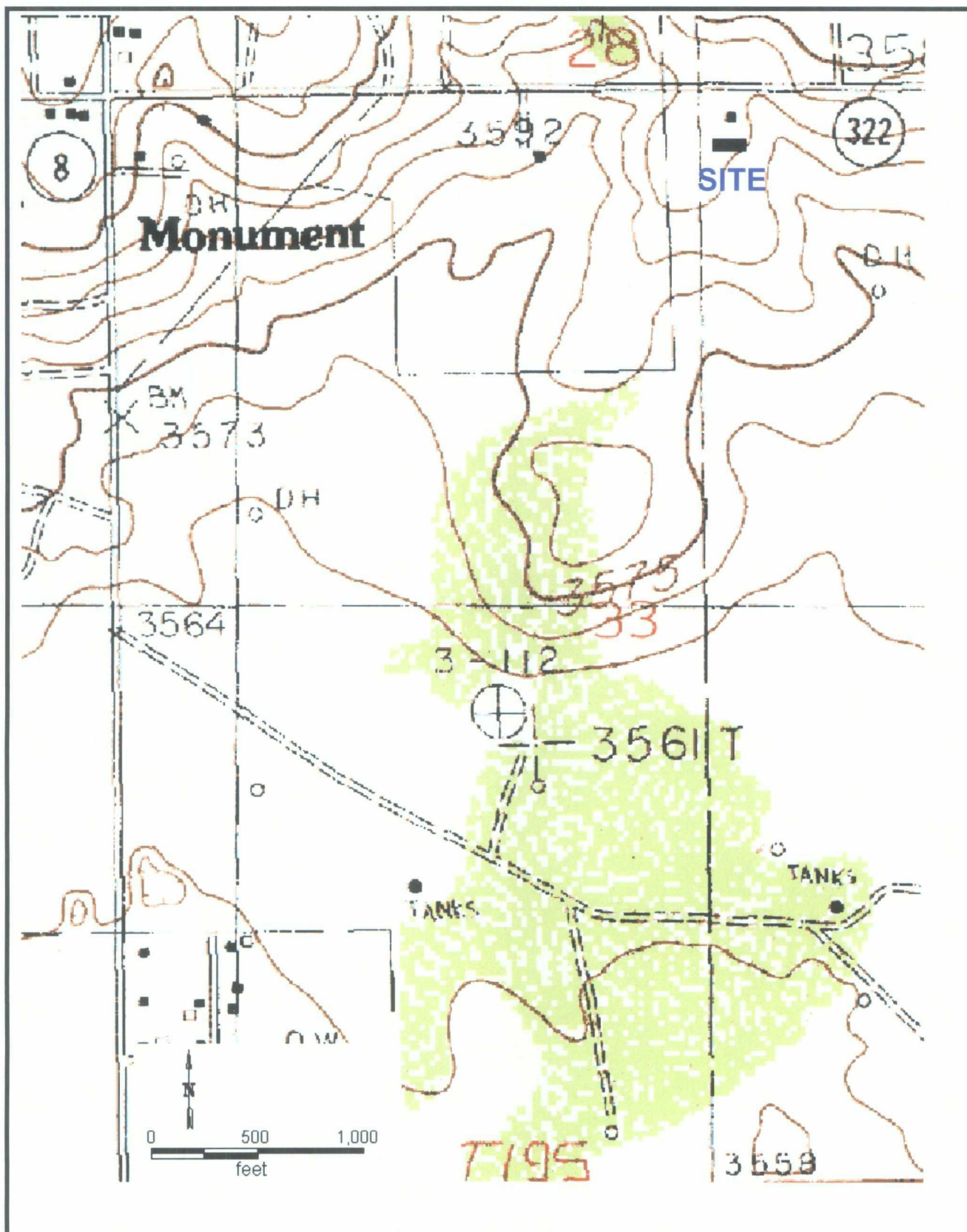


Figure 1 – Facility Location
Monument Booster Station Groundwater Monitoring

dcp
Midstream.

DRAWN BY: MHS

REVISED:

DATE: 1/07

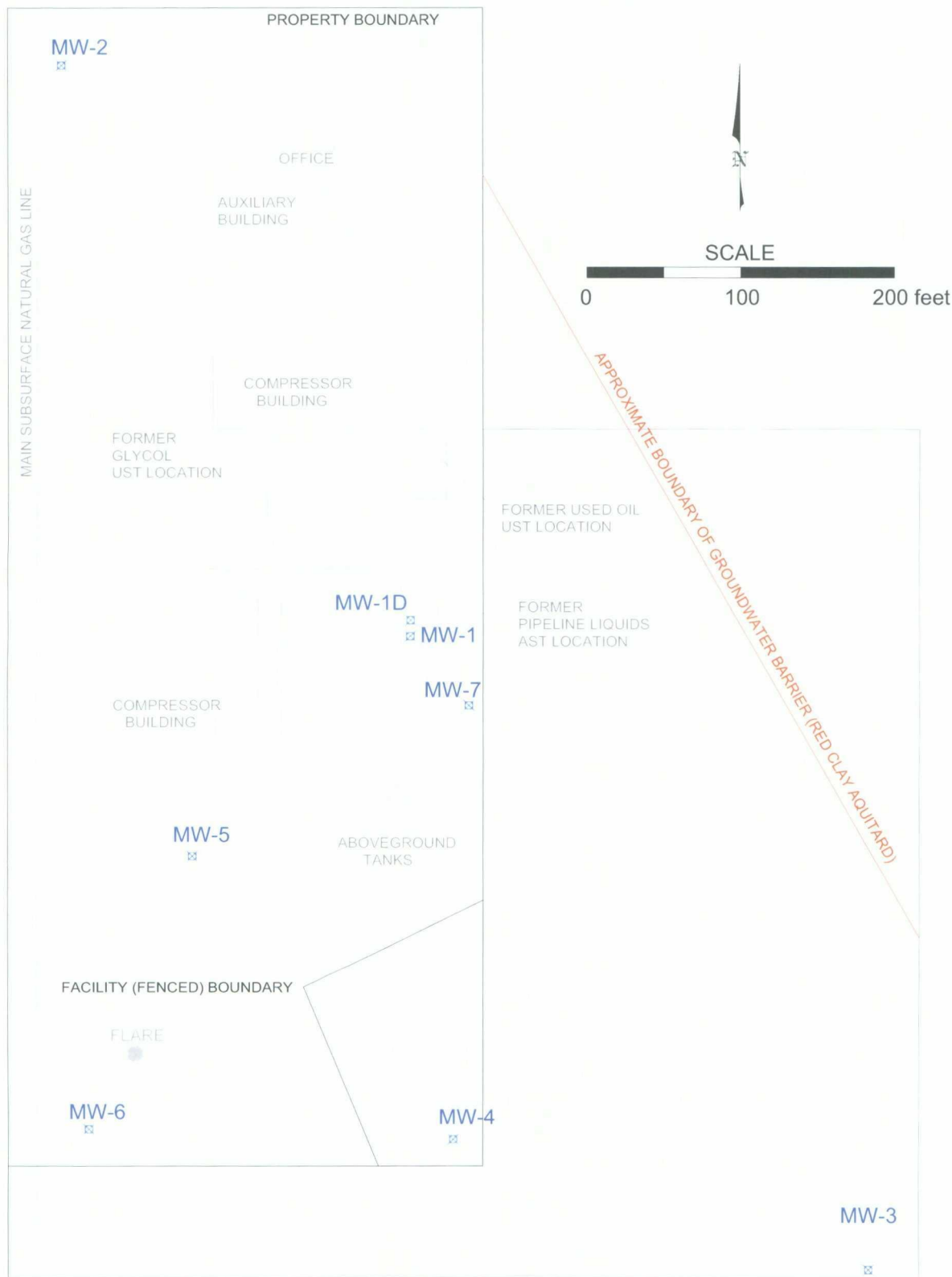


Figure 2 – Monitor Well Locations
Monument Booster Station Groundwater Monitoring



DRAWN BY: MHS

REVISED: 4/09

DATE: 5/07

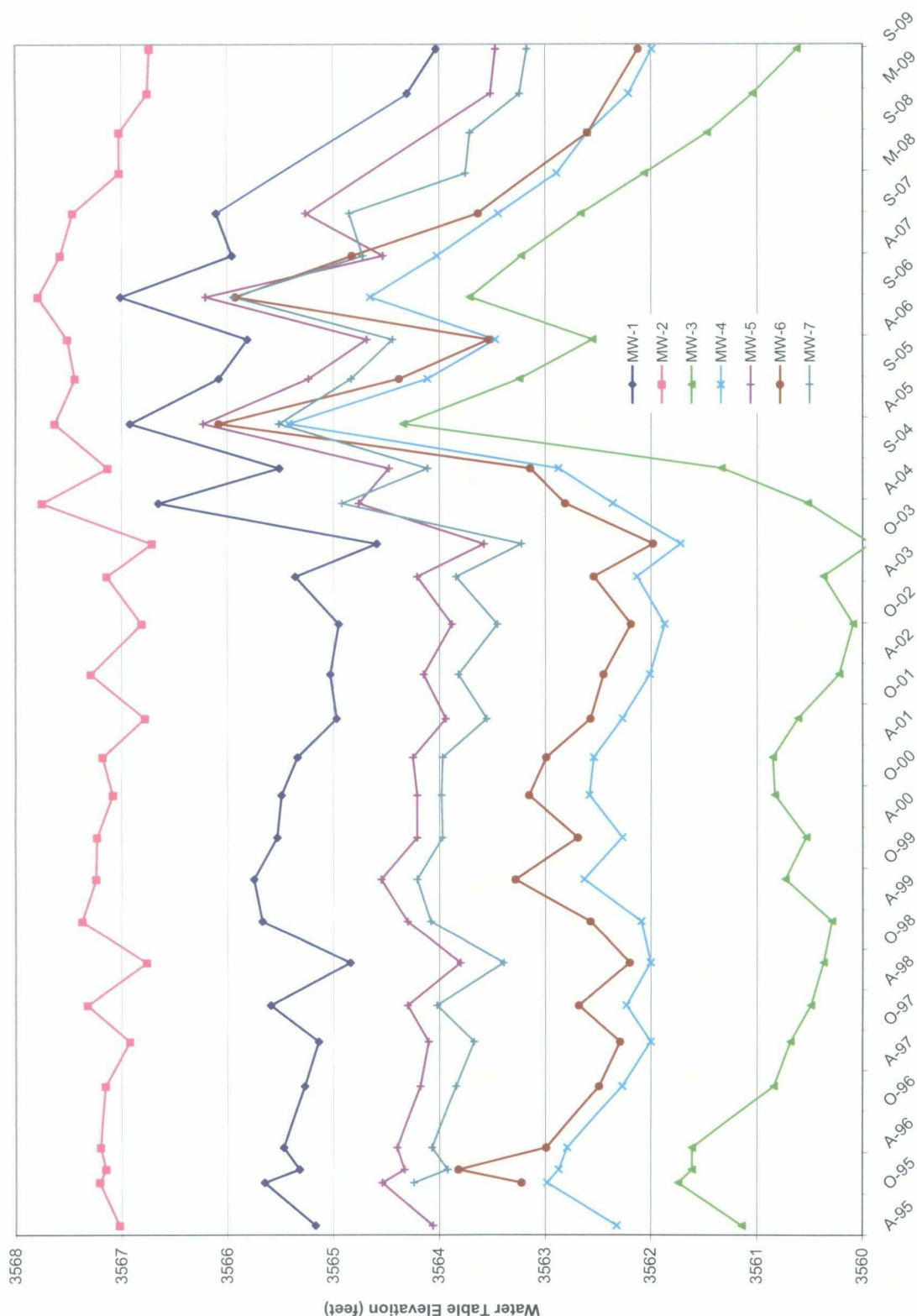


Figure 3 – Monument Booster Hydrographs

Monument Booster Station Groundwater Monitoring

dcp
Midstream

DRAWN BY: MHS

DATE: 10/09

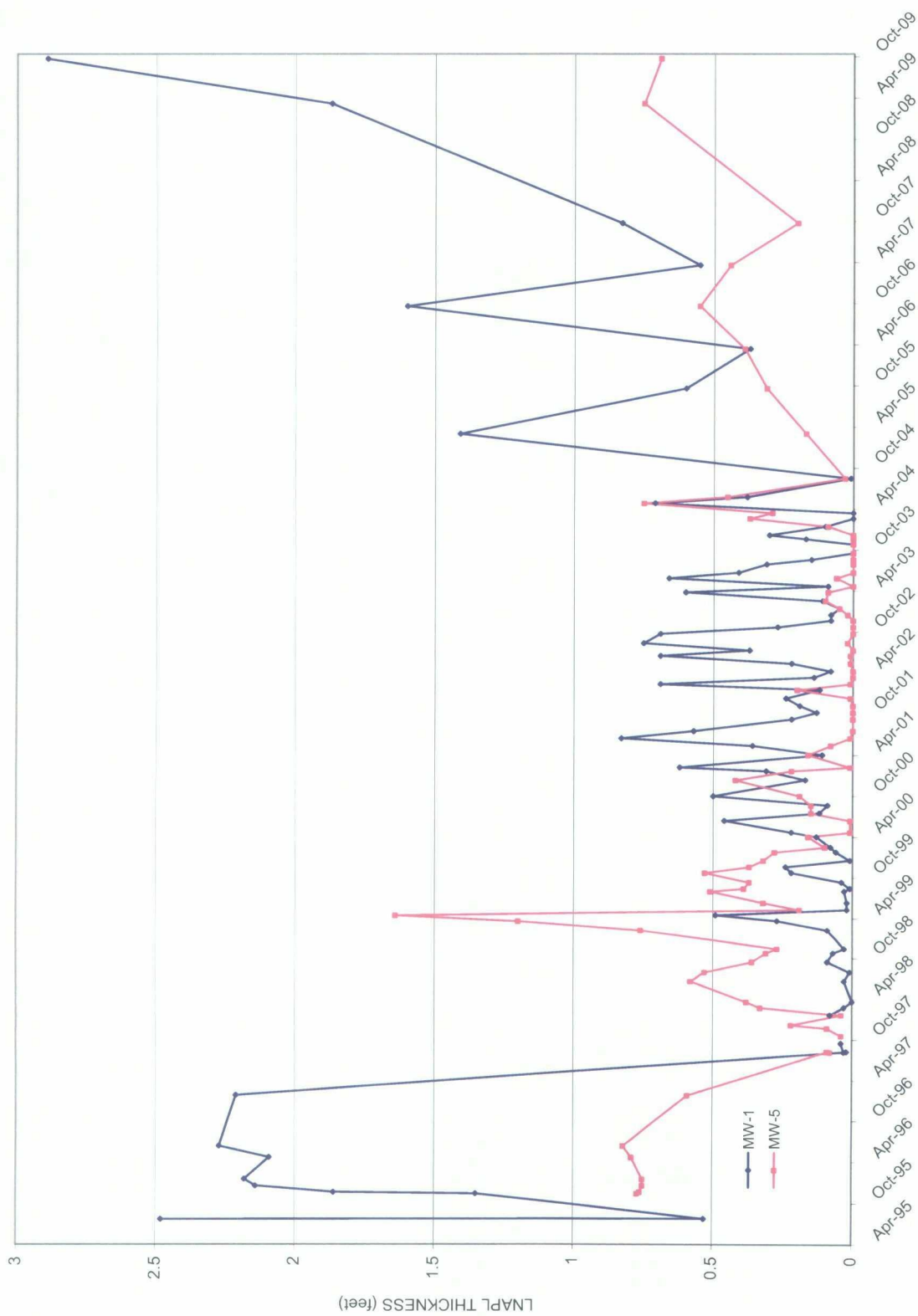


Figure 4 – Free Phase Hydrocarbon Thickness

Monument Booster Station Groundwater Monitoring

DRAWN BY: MHS

DATE: 10/09

dcp
Midstream

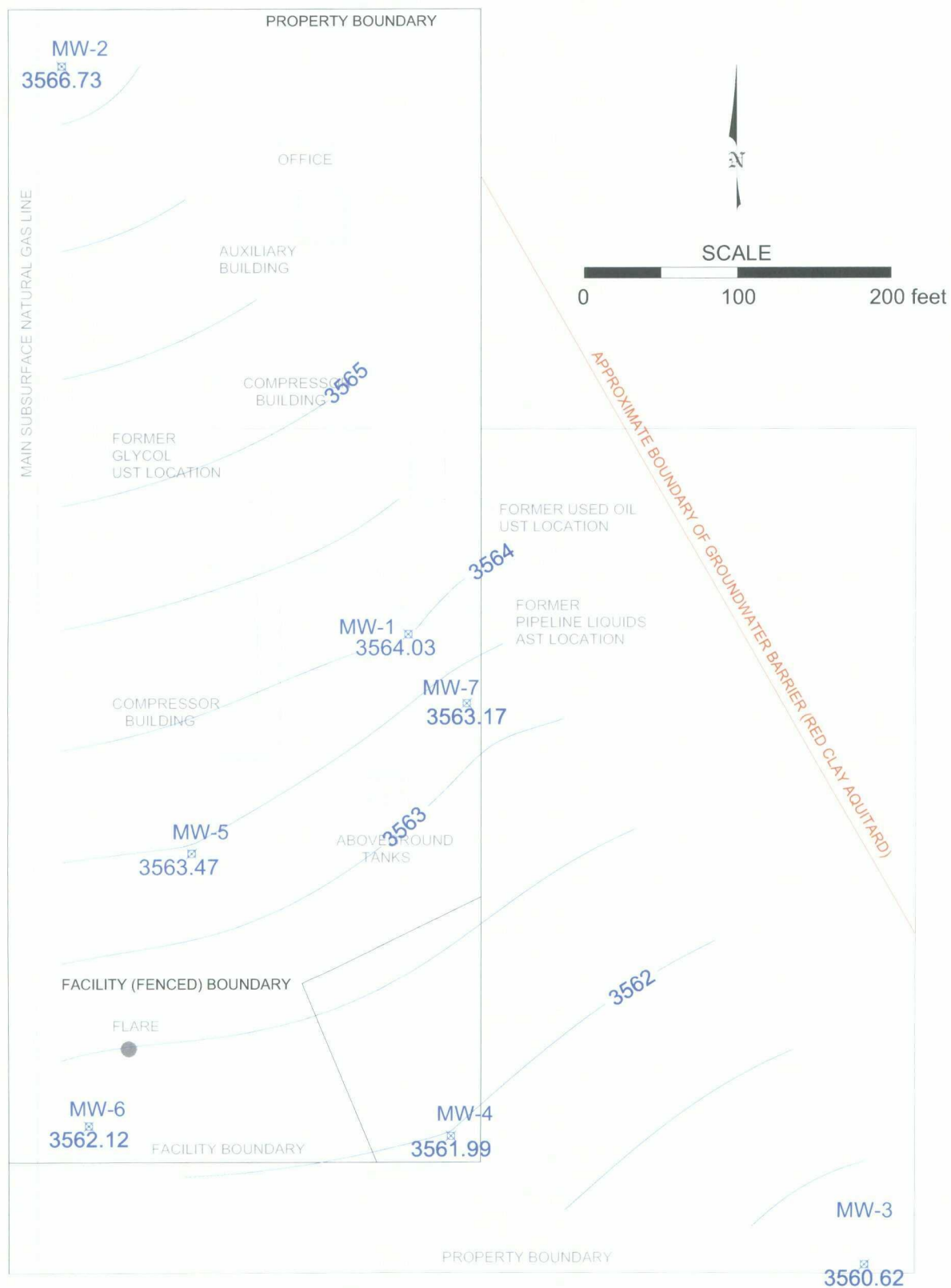


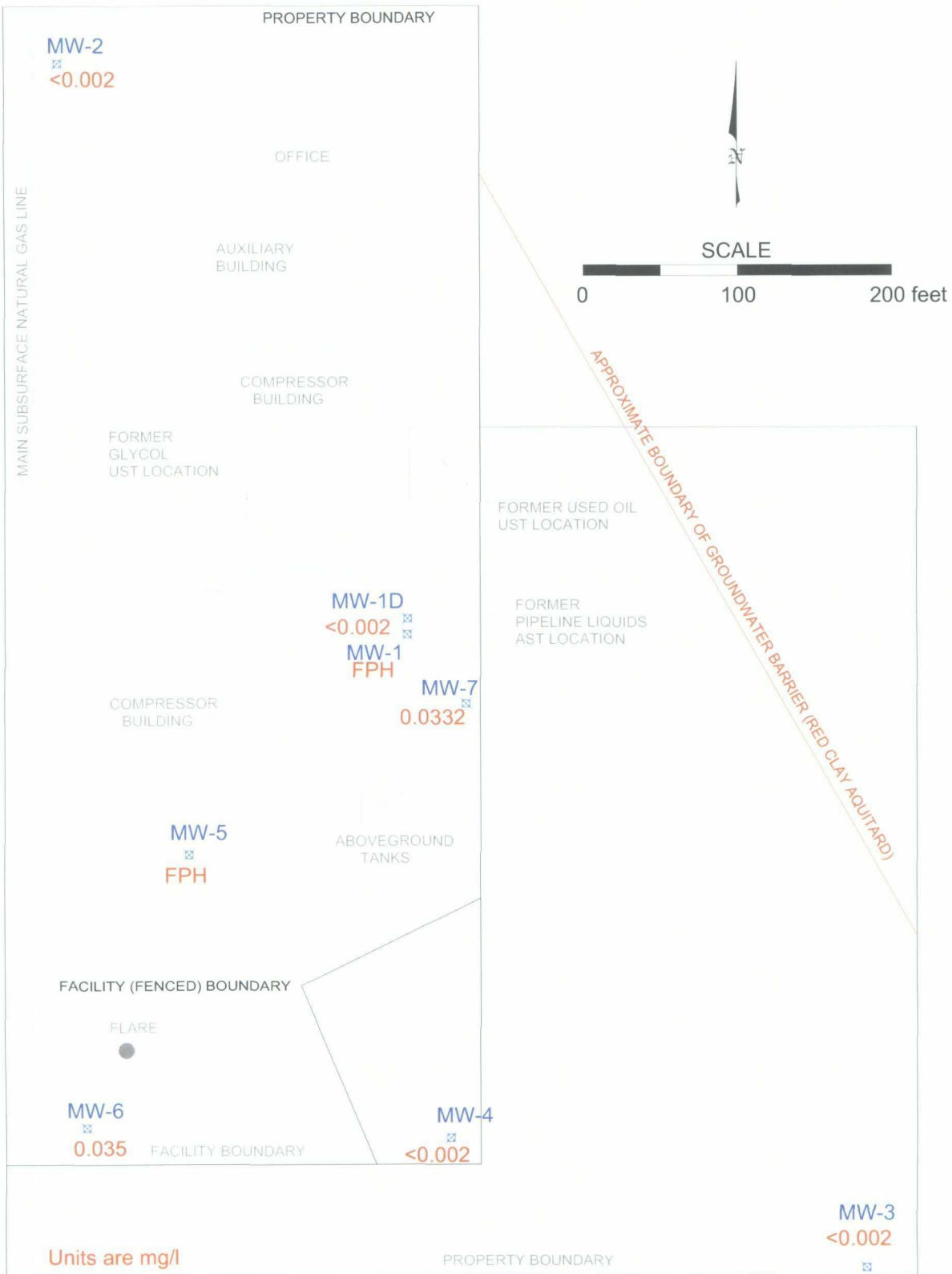
Figure 5 – September 2009 Water Table Elevation Contours
Monument Booster Station Groundwater Monitoring



DRAWN BY: MHS

REVISED:

DATE: 10/09



FPH free-phase hydrocarbons

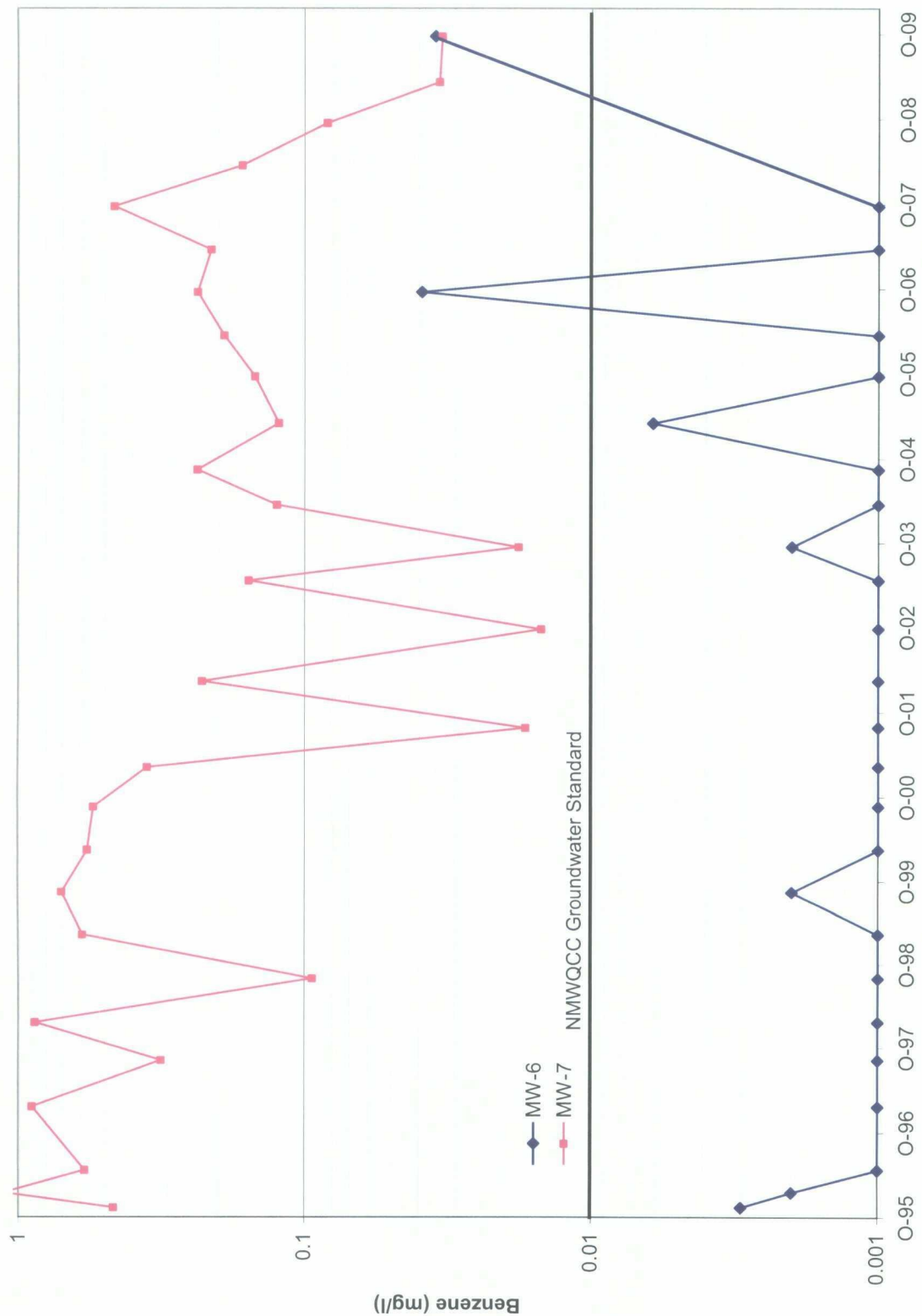
Figure 6 – September 2009 Benzene Distribution
Monument Booster Station Groundwater Monitoring



DRAWN BY: MHS

REVISED:

DATE: 10/09



Notes

- NMWQCC: New Mexico Water Quality Control Commission
- Values that were reported as below the method reporting limit are plotted at concentrations of 0.001 mg/l

Figure 7 – MW-6 and MW-7 Benzene Concentrations

WELL SAMPLING DATA AND
LABORATORY ANALYTICAL REPORTS

WELL SAMPLING DATA FORM

CLIENT: DCP Midstream
SITE NAME: Monument Booster
PROJECT NO. _____

WELL ID: **MW-1**
DATE: 9/23/2009
SAMPLER: A. Taylor/M Stewart

PURGING METHOD: ☐ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☐ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: _____

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☐ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other:

TOTAL DEPTH OF WELL: 37.00 Feet

DEPTH TO WATER: _____ Feet

HEIGHT OF WATER COLUMN: _____ Feet

WELL DIAMETER: 4.0 Inch

Minimum Gallons to
purge 3 well volumes
(Water Column Height x 1.96)

[illegible]

0 Total Volume (gal)

SAMPLE NO.: MW-1

ANALYSES: BTEX (8260)

COMMENTS: DID NOT SAMPLE DUE TO 2.89 FEET OF FREE PHASE HYDROCARBONS IN WELL

WELL SAMPLING DATA FORM

CLIENT: DCP Midstream
 SITE NAME: Monument Booster
 PROJECT NO. _____

WELL ID:	MW-1D
DATE:	9/23/2009
SAMPLER:	A. Taylor/M Stewart

PURGING METHOD: ☒ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☒ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: _____

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☒ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other:

TOTAL DEPTH OF WELL: 36.30 Feet
DEPTH TO WATER: 26.68 Feet
HEIGHT OF WATER COLUMN: 9.62 Feet
WELL DIAMETER: 2.0 Inch

4.7 Minimum Gallons to
purge 3 well volumes
(Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °C	COND. <i>mS/cm</i>	pH	DO mg/L	Turb	(Water Column Height X 0.16) PHYSICAL APPEARANCE AND REMARKS
	1.6	20.7	1.03	7.42			
	3.2	19.6	1.06	7.23			
	4.8	19.7	1.05	7.26			Sampled at 1305
4.8 Total Volume (gal)							

SAMPLE NO.: MW-1D

ANALYSES: BTEX (8260)

COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: DCP Midstream
 SITE NAME: Monument Booster
 PROJECT NO.

WELL ID: MW-2
 DATE: 9/23/2009
 SAMPLER: A. Taylor/M Stewart

PURGING METHOD: ☒ Hand Bailed ☐ Pump If Pump, Type:

SAMPLING METHOD: ☒ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☒ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other:

TOTAL DEPTH OF WELL: 43.30 Feet
 DEPTH TO WATER: 29.57 Feet
 HEIGHT OF WATER COLUMN: 13.73 Feet
 WELL DIAMETER: 4.0 Inch

26.9 Minimum Gallons to
 purge 3 well volumes
 (Water Column Height x 1.96)

TIME	VOLUME PURGED	TEMP. °C	COND. m S/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
	9.1	19.9	1.45	7.12			
	18.2	19.5	1.50	7.20			
	27.3	19.5	1.51	7.26			Sampled 1255

27.3 Total Volume (gal)

SAMPLE NO.: MW-2
 ANALYSES: BTEX (8260)
 COMMENTS:

CLIENT:	<u>DCP Midstream</u>	WELL ID:	<u>MW-3</u>
SITE NAME:	<u>Monument Booster</u>	DATE:	<u>9/23/2009</u>
PROJECT NO.		SAMPLER:	A. Taylor/M Stewart

☒ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other:

16.6 Minimum Gallons to
purge 3 well volumes
(Water Column Height x 1.96)

COMMENTS:

WELL ID: MW-4
DATE: 9/23/2009
SAMPLER: A. Taylor/M Stewart

SAMPLING METHOD: ☒ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other:

☒ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other:

23.7 Minimum Gallons to
purge 3 well volumes
(Water Column Height x 1.96)



SAMPLE NO.: MW-4

COMMENTS: Collected samples for MS/MSD evaluation

COMMENTS: Collected samples for MS/MSD evaluation

WELL SAMPLING DATA FORM

CLIENT: DCP Midstream
 SITE NAME: Monument Booster
 PROJECT NO. _____

WELL ID: **MW-5**
DATE: 9/23/2009
SAMPLER: A. Taylor/M Stewart

PURGING METHOD: ☒ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☒ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: _____

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☒ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other: _____

TOTAL DEPTH OF WELL: 37.00 Feet

DEPTH TO WATER: _____ Feet

HEIGHT OF WATER COLUMN: _____ Feet

WELL DIAMETER: 4.0 Inch

Minimum Gallons to
purge 3 well volumes

(Water Column Height x 1.96)

[illegible]

0 Total Volume (gal)

SAMPLE NO.: MW-5

ANALYSES: BTEX (8260)

COMMENTS: DID NOT SAMPLE DUE TO 0.69 FEET OF FREE PHASE HYDROCARBONS IN WELL

WELL SAMPLING DATA FORM

CLIENT: DCP Midstream
SITE NAME: Monument Booster
PROJECT NO. _____

WELL ID: **MW-6**
 DATE: 9/23/2009
 SAMPLER: A. Taylor/M Stewart

PURGING METHOD: ☒ Hand Bailed ☐ Pump If Pump, Type:

SAMPLING METHOD: ☒ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: _____

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☒ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other:

TOTAL DEPTH OF WELL: 38.50 Feet

DEPTH TO WATER: 25.81 Feet

HEIGHT OF WATER COLUMN: 12.69 Feet

WELL DIAMETER: 4.0 Inch

24.9 Minimum Gallons to
purge 3 well volumes
(Water Column Height x 1.96)

[illegible]

SAMPLE NO.: MW-6

ANALYSES: BTEX (8260)

COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: DCP Midstream
 SITE NAME: Monument Booster
 PROJECT NO. _____

WELL ID: MW-7

DATE: 9/23/2009

SAMPLER: A. Taylor/M Stewart

PURGING METHOD: ☒ Hand Bailed ☐ Pump If Pump, Type: _____

SAMPLING METHOD: ☒ Disposable Bailer ☐ Direct from Discharge Hose ☐ Other: _____

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☒ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other: _____

TOTAL DEPTH OF WELL:	<u>36.40</u>	Feet
DEPTH TO WATER:	<u>26.23</u>	Feet
HEIGHT OF WATER COLUMN:	<u>10.17</u>	Feet
WELL DIAMETER:	4.0	Inch

19.9 Minimum Gallons to
purge 3 well volumes
(Water Column Height x 1.96)

[illegible]

SAMPLE NO.: MW-7

ANALYSES: BTEX (8260)

COMMENTS: Collected duplicate sample

Journal Pre-proof



10/20/09

Technical Report for

DCP Midstream, LLC

AECCOLI: DCP Midstream Monument Booster Station/Lea County, NM

Accutest Job Number: T38383

Sampling Date: 09/23/09

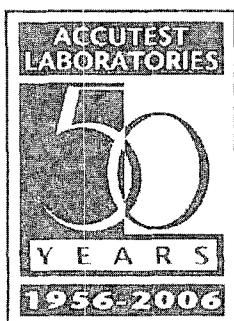
Report to:

American Environmental Consulting

mstewart@aecdenver.com

ATTN: Mike Stewart

Total number of pages in report: 23



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.

Paul K Canevaro

Paul Canevaro
Laboratory Director

Client Service contact: Georgia Jones 713-271-4700

Certifications: TX (T104704220-06-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004)
OK (9103) UT(7132714700)

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Test results relate only to samples analyzed.

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Sample Summary

DCP Midstream, LLC

Job No: T38383

AECCOLI: DCP Midstream Monument Booster Station/Lea County, NM

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
T38383-1	09/23/09	13:35	09/25/09	AQ	Ground Water	MW-1D
T38383-2	09/23/09	12:55	09/25/09	AQ	Ground Water	MW-2
T38383-3	09/23/09	14:35	09/25/09	AQ	Ground Water	MW-3
T38383-4	09/23/09	14:15	09/25/09	AQ	Ground Water	MW-4
T38383-4D	09/23/09	14:15	09/25/09	AQ	Water Dup/MSD	MW-4 MSD
T38383-4S	09/23/09	14:15	09/25/09	AQ	Water Matrix Spike	MW-4 MS
T38383-5	09/23/09	12:15	09/25/09	AQ	Ground Water	MW-6
T38383-6	09/23/09	13:45	09/25/09	AQ	Ground Water	MW-7
T38383-7	09/23/09	00:00	09/25/09	AQ	Ground Water	DUP
T38383-8	09/23/09	00:00	09/25/09	AQ	Ground Water	TRIP BLANK



IT'S ALL IN THE CHEMISTRY.

Sample Results

Report of Analysis

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-1D	Date Sampled:	09/23/09
Lab Sample ID:	T38383-1	Date Received:	09/25/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECCOLI: DCP Midstream Monument Booster Station/Lea County, NM		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y0035965.D	1	10/01/09	AP	n/a	n/a	VY2324
Run #2							

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

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0020	0.00050	mg/l	
108-88-3	Toluene	ND	0.0020	0.00043	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00055	mg/l	
1330-20-7	Xylene (total)	ND	0.0060	0.0017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		79-122%
17060-07-0	1,2-Dichloroethane-D4	97%		75-121%
2037-26-5	Toluene-D8	104%		87-119%
460-00-4	4-Bromofluorobenzene	122%		80-133%

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

Page 1 of 1

Client Sample ID:	MW-2	Date Sampled:	09/23/09
Lab Sample ID:	T38383-2	Date Received:	09/25/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B	Project: AECCOLI: DCP Midstream Monument Booster Station/Lea County, NM	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y0035952.D	1	10/01/09	AP	n/a	n/a	VY2324
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	0.0020	0.00050	mg/l	
108-88-3	Toluene	ND	0.0020	0.00043	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00055	mg/l	
1330-20-7	Xylene (total)	ND	0.0060	0.0017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		79-122%
17060-07-0	1,2-Dichloroethane-D4	97%		75-121%
2037-26-5	Toluene-D8	109%		87-119%
460-00-4	4-Bromofluorobenzene	121%		80-133%

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

Page 1 of 1

Client Sample ID:	MW-3	
Lab Sample ID:	T38383-3	Date Sampled: 09/23/09
Matrix:	AQ - Ground Water	Date Received: 09/25/09
Method:	SW846 8260B	Percent Solids: n/a
Project:	AECCOLI: DCP Midstream Monument Booster Station/Lea County, NM	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F020355.D	1	10/02/09	AP	n/a	n/a	VF3581
Run #2							

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

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0020	0.00050	mg/l	
108-88-3	Toluene	ND	0.0020	0.00043	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00055	mg/l	
1330-20-7	Xylene (total)	ND	0.0060	0.0017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-122%
17060-07-0	1,2-Dichloroethane-D4	93%		75-121%
2037-26-5	Toluene-D8	94%		87-119%
460-00-4	4-Bromofluorobenzene	91%		80-133%

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

Page 1 of 1

Client Sample ID:	MW-4	Date Sampled:	09/23/09
Lab Sample ID:	T38383-4	Date Received:	09/25/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECCOLI: DCP Midstream Monument Booster Station/Lea County, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F020351.D	1	10/02/09	AP	n/a	n/a	VF3581
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	0.0020	0.00050	mg/l	
108-88-3	Toluene	ND	0.0020	0.00043	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00055	mg/l	
1330-20-7	Xylene (total)	ND	0.0060	0.0017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		79-122%
17060-07-0	1,2-Dichloroethane-D4	92%		75-121%
2037-26-5	Toluene-D8	96%		87-119%
460-00-4	4-Bromofluorobenzene	92%		80-133%

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

Page 1 of 1

Client Sample ID:	MW-6	Date Sampled:	09/23/09
Lab Sample ID:	T38383-5	Date Received:	09/25/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECCOLI: DCP Midstream Monument Booster Station/Lea County, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F020356.D	1	10/02/09	AP	n/a	n/a	VF3581
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	0.0350	0.0020	0.00050	mg/l	
108-88-3	Toluene	ND	0.0020	0.00043	mg/l	
100-41-4	Ethylbenzene	0.0215	0.0020	0.00055	mg/l	
1330-20-7	Xylene (total)	0.0052	0.0060	0.0017	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-122%
17060-07-0	1,2-Dichloroethane-D4	97%		75-121%
2037-26-5	Toluene-D8	93%		87-119%
460-00-4	4-Bromofluorobenzene	90%		80-133%

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

Page 1 of 1

Client Sample ID:	MW-7	Date Sampled:	09/23/09
Lab Sample ID:	T38383-6	Date Received:	09/25/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECCOLI: DCP Midstream Monument Booster Station/Lea County, NM		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F020357.D	1	10/02/09	AP	n/a	n/a	VF3581
Run #2							

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

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.0332	0.0020	0.00050	mg/l	
108-88-3	Toluene	ND	0.0020	0.00043	mg/l	
100-41-4	Ethylbenzene	0.0176	0.0020	0.00055	mg/l	
1330-20-7	Xylene (total)	0.0033	0.0060	0.0017	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-122%
17060-07-0	1,2-Dichloroethane-D4	91%		75-121%
2037-26-5	Toluene-D8	95%		87-119%
460-00-4	4-Bromofluorobenzene	92%		80-133%

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

Page 1 of 1

Client Sample ID:	DUP	Date Sampled:	09/23/09
Lab Sample ID:	T38383-7	Date Received:	09/25/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECCOLI: DCP Midstream Monument Booster Station/Lea County, NM		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F020358.D	1	10/02/09	AP	n/a	n/a	VF3581
Run #2							

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

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0020	0.00050	mg/l	
108-88-3	Toluene	ND	0.0020	0.00043	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00055	mg/l	
1330-20-7	Xylene (total)	ND	0.0060	0.0017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		79-122%
17060-07-0	1,2-Dichloroethane-D4	96%		75-121%
2037-26-5	Toluene-D8	93%		87-119%
460-00-4	4-Bromofluorobenzene	92%		80-133%

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

Page 1 of 1

Client Sample ID:	TRIP BLANK	Date Sampled:	09/23/09
Lab Sample ID:	T38383-8	Date Received:	09/25/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECCOLI: DCP Midstream Monument Booster Station/Lea County, NM		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y0035951.D	1	10/01/09	AP	n/a	n/a	VY2324
Run #2							

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

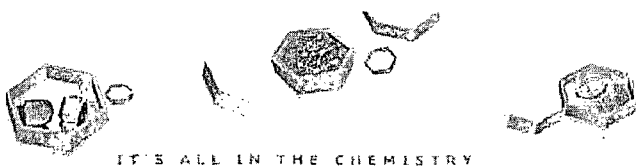
Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0020	0.00050	mg/l	
108-88-3	Toluene	ND	0.0020	0.00043	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00055	mg/l	
1330-20-7	Xylene (total)	ND	0.0060	0.0017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		79-122%
17060-07-0	1,2-Dichloroethane-D4	97%		75-121%
2037-26-5	Toluene-D8	102%		87-119%
460-00-4	4-Bromofluorobenzene	122%		80-133%

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



IT'S ALL IN THE CHEMISTRY

Section 3

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Fresh Ponds Corporate Village, Building B
2235 Route 130, Dayton, NJ 08810
732-329-0200 FAX: 732-329-3499/3480

Accutest Quote #:

3.1

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ACCUTEST
 T38383 Laboratory

Accutest Job Number: T38383 Client: DLP Midstream Date/Time Received: 07/25/09 0945
of Coolers Received: 1 Thermometer #: 1R-1 Temperature Adjustment Factor: +0.9
Cooler Temps: #1: 2.2 #2: #3: #4: #5: #6: #7: #8:
Method of Delivery: ☒ FEDEX ☐ UPS ☐ Accutest Courier ☐ Greyhound ☐ Delivery ☐ Other
Airbill Numbers:

<input type="checkbox"/>	Custody seal missing or not intact
<input type="checkbox"/>	Temperature criteria not met
<input type="checkbox"/>	Wet ice received in cooler

	Chain of Custody not received
	Sample D/T unclear or missing
	Analyses unclear or missing
	COC not properly executed

	Sample containers received broken
	VOC vials have headspace
	Sample labels missing or illegible
	ID on COC does not match label(s)
	D/T on COC does not match label(s)
	Sample/Bottles rec'd but no analysis on COC
	Sample listed on COC, but not received
	Bottles missing for requested analysis
	Insufficient volume for analysis
	Sample received improperly preserved

<input type="checkbox"/>	Trip Blank on COC but not received
<input type="checkbox"/>	Trip Blank received but not on COC
<input type="checkbox"/>	Trip Blank not intact
<input type="checkbox"/>	Received Water Trip Blank
<input type="checkbox"/>	Received Soil TB

Number of Encores? _____
 Number of 5035 kits? _____
 Number of lab-filtered metals? _____

Summary of Discrepancies:

TECHNICIAN SIGNATURE/DATE:

INFORMATION AND SAMPLE LABELING VERIFIED BY:

CORRECTIVE ACTIONS

Client Representative Notified: _____

Date: .

By Accutest Representative: _____

Via: Phone Email

Client Instructions:

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Rev 8/13/11 cwn

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IT'S ALL IN THE CHEMISTRY

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: T38383

Account: DUKE DCP Midstream, LLC

Project: AECCOLI: DCP Midstream Monument Booster Station/Lea County, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY2324-MB	Y0035949.D	1	10/01/09	AP	n/a	n/a	VY2324

The QC reported here applies to the following samples:

Method: SW846 8260B

T38383-1, T38383-2, T38383-8

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.55	ug/l	
108-88-3	Toluene	ND	2.0	0.43	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.7	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	90% 79-122%
17060-07-0	1,2-Dichloroethane-D4	95% 75-121%
2037-26-5	Toluene-D8	109% 87-119%
460-00-4	4-Bromofluorobenzene	126% 80-133%



Method Blank Summary

Page 1 of 1

Job Number: T38383

Account: DUKE DCP Midstream, LLC

Project: AECCOLI: DCP Midstream Monument Booster Station/Lea County, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF3581-MB	F020349.D	1	10/01/09	AP	n/a	n/a	VF3581

The QC reported here applies to the following samples:

Method: SW846 8260B

T38383-3, T38383-4, T38383-5, T38383-6, T38383-7

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.55	ug/l	
108-88-3	Toluene	ND	2.0	0.43	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.7	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	102% 79-122%
17060-07-0	1,2-Dichloroethane-D4	92% 75-121%
2037-26-5	Toluene-D8	95% 87-119%
460-00-4	4-Bromofluorobenzene	92% 80-133%

Blank Spike Summary

Page 1 of 1

Job Number: T38383

Account: DUKE DCP Midstream, LLC

Project: AECCOLI: DCP Midstream Monument Booster Station/Lea County, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY2324-BS	Y0035947.D	1	10/01/09	AP	n/a	n/a	VY2324

The QC reported here applies to the following samples:

Method: SW846 8260B

T38383-1, T38383-2, T38383-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	22.3	89	76-118
100-41-4	Ethylbenzene	25	23.3	93	75-112
108-88-3	Toluene	25	24.0	96	77-114
1330-20-7	Xylene (total)	75	63.3	84	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	90%	79-122%
17060-07-0	1,2-Dichloroethane-D4	97%	75-121%
2037-26-5	Toluene-D8	106%	87-119%
460-00-4	4-Bromofluorobenzene	120%	80-133%

Blank Spike Summary

Page 1 of 1

Job Number: T38383

Account: DUKE DCP Midstream, LLC

Project: AECCOLI: DCP Midstream Monument Booster Station/Lea County, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF3581-BS	F020347.D	1	10/01/09	AP	n/a	n/a	VF3581

The QC reported here applies to the following samples:

Method: SW846 8260B

T38383-3, T38383-4, T38383-5, T38383-6, T38383-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	22.1	88	76-118
100-41-4	Ethylbenzene	25	20.3	81	75-112
108-88-3	Toluene	25	20.8	83	77-114
1330-20-7	Xylene (total)	75	61.7	82	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	95%	79-122%
17060-07-0	1,2-Dichloroethane-D4	84%	75-121%
2037-26-5	Toluene-D8	94%	87-119%
460-00-4	4-Bromofluorobenzene	92%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T38383

Account: DUKE DCP Midstream, LLC

Project: AECCOLI: DCP Midstream Monument Booster Station/Lea County, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T38383-2MS	Y0035953.D	1	10/01/09	AP	n/a	n/a	VY2324
T38383-2MSD	Y0035954.D	1	10/01/09	AP	n/a	n/a	VY2324
T38383-2	Y0035952.D	1	10/01/09	AP	n/a	n/a	VY2324

The QC reported here applies to the following samples:

Method: SW846 8260B

T38383-1, T38383-2, T38383-8

CAS No.	Compound	T38383-2 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	25	22.7	91	22.8	91	0	76-118/16
100-41-4	Ethylbenzene	ND	25	23.6	94	22.8	91	3	75-112/12
108-88-3	Toluene	ND	25	23.8	95	23.9	96	0	77-114/12
1330-20-7	Xylene (total)	ND	75	64.9	87	63.3	84	2	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T38383-2	Limits
1868-53-7	Dibromofluoromethane	89%	91%	88%	79-122%
17060-07-0	1,2-Dichloroethane-D4	100%	99%	97%	75-121%
2037-26-5	Toluene-D8	105%	107%	109%	87-119%
460-00-4	4-Bromofluorobenzene	115%	116%	121%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T38383

Account: DUKE DCP Midstream, LLC

Project: AECCOLI: DCP Midstream Monument Booster Station/Lea County, NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T38383-4MS	F020352.D	1	10/02/09	AP	n/a	n/a	VF3581
T38383-4MSD	F020353.D	1	10/02/09	AP	n/a	n/a	VF3581
T38383-4	F020351.D	1	10/02/09	AP	n/a	n/a	VF3581

The QC reported here applies to the following samples:

Method: SW846 8260B

T38383-3, T38383-4, T38383-5, T38383-6, T38383-7

CAS No.	Compound	T38383-4 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	25	24.0	96	24.5	98	2	76-118/16
100-41-4	Ethylbenzene	ND	25	23.0	92	22.7	91	1	75-112/12
108-88-3	Toluene	ND	25	23.2	93	22.8	91	2	77-114/12
1330-20-7	Xylene (total)	ND	75	69.8	93	69.7	93	0	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T38383-4	Limits
1868-53-7	Dibromofluoromethane	102%	102%	101%	79-122%
17060-07-0	1,2-Dichloroethane-D4	94%	95%	92%	75-121%
2037-26-5	Toluene-D8	95%	95%	96%	87-119%
460-00-4	4-Bromofluorobenzene	89%	91%	92%	80-133%