AP-055

3rd QTR GW Mon. Report

DATE:
2009

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

November 20, 2009

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

RE: 3rd Quarter 2009 Groundwater Results
DCP Midstream, LP RR Ext. Pipeline Release (AP #55)
Unit C, Section 19, Township 20 South, Range 37 East
Lea County, New Mexico

Dear Mr. Lowe:

DCP Midstream, LP (DCP) is pleased to submit for your review, one copy of the 3rd Quarter 2009 Groundwater Results for the DCP RR Ext. Pipeline Release located in Lea County, New Mexico (Unit C, Section 19, Township 20 South, Range 37 East).

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

Sincerely

DCP Midstream, LP

Stephen Weathers, PG
Principal Environmental Specialist

cc: Larry Johnson, OCD Hobbs District Office (Copy on CD)
Environmental Files

AEC AMERICAN ENVIRONMENTAL CONSULTING, LLC

November 18, 2009

Mr. Stephen Weathers
DCP Midstream, LP
370 17th Street, Suite 2500
Denver, CO 80202

Re: Third Quarter 2009 Groundwater Monitoring Report for the
RR Ext Pipeline Release
Unit C, Section 19 Township 20 South, Range 37 East (AP #55)

Dear Mr. Weathers:

This letter report summarizes the third quarter 2009 groundwater monitoring event that was completed on September 23, 2009 at the DCP Midstream (DCP) RR Ext Site (Figure 1). The well locations are shown on Figure 2. The construction information for the wells is summarized in Table 1.

The fluid levels were first measured to calculate the casing volumes. Well MW-4 was found to contain free phase hydrocarbon (FPH). This is the first instance where FPH was measured at this site. The discovery was made after purging began so the equilibrated thickness could not be measured.

The remaining seven wells were first purged to equilibration using dedicated bailers based on the field parameters of temperature, pH and conductivity. They were then sampled for benzene, toluene, ethylbenzene, xylenes (BTEX), using EPA Method SW846 8260B and Method SM 4500 CL C for chlorides. A field duplicate from MW-8 and a matrix spike/matrix spike duplicate (MS/MSD) from MW-6 were also collected to evaluate quality control. All affected purge water was disposed of at the DCP Linam Ranch facility.

The water gauging data are summarized in Table 2. Well hydrographs are plotted on Figure 3. Figure 3 indicates that the water table declined about 0.5 feet in all of the wells. The MW-1 hydrograph shows that the September 2009 value remained in its historic position near to MW-3 showing that the temporary groundwater mounding from the open remediation excavation has completely dissipated.

The measured water table elevations were also used to generate a groundwater contour map using the Surfer program with a kriging option. This map is included as Figure 4. Groundwater appears to flow to the south-southeast down gradient MW-5 and MW-7. The groundwater flow pattern is similar to that exhibited in the past.

The quality control evaluation can be summarized as follows:

- The method blanks were all within their control limits.
- The blank spikes were all within their control limits.
- The individual sample surrogates results were within the method ranges with two exceptions, and those two surrogates were not associated with any detected constituents.
- The matrix spike and matrix spike duplicate values were acceptable.
- The constituents from the primary and the duplicate samples were all below their respective method reporting limits. The duplicate sample limits were elevated because the duplicate sample was diluted.

The above results indicate that the data are suitable for evaluation as groundwater monitoring data.

The sampling data are summarized in Table 3. The measured field parameters and a copy of the laboratory report are attached. The New Mexico Water Quality Control Commission (NMWQCC) groundwater standards are included at the top of Table 3. Wells MW-1, MW-2 and MW-3 exceeded the benzene standard. Wells MW-2 and MW-3 exceeded the toluene standard. There were no exceedences in wells MW-5, MW-6, MW-7 and MW-8.

Figure 5 shows the benzene isopleths for the third quarter 2009 based upon contouring with the Surfer program using the kriging option. There extent of benzene effects is delineated to the east, at MW-7, and to the southeast at MW-6. Additional control is necessary to delineate the extent of the FPH now present in MW-4 and the affected groundwater to the south and southwest.

The BTEX data collected for this project are summarized in Table 4. Figure 6 graphs the benzene concentration verses time for MW-1, MW-2, MW-3, MW-4, and MW-5. The following trends are evident:

1. The concentrations in MW-2 have remained relatively constant over the duration of the project.
2. The concentrations in MW-5 appear to be increasing but they remain below the NMWQCC groundwater standards
3. The concentrations in MW-1 and MW-3 both decreased in a similar fashion; and
4. The FPH in MW-4 follows a steady increase in the dissolved phase concentration over the duration of the project. This trend indicates that the dissolved phase hydrocarbon plume has expanded to the south.

The samples were also submitted for chlorides analysis. Chloride data are summarized in Table 5. Figure 7 shows the chlorides isopleths for the third quarter 2009 based upon contouring with the Surfer program using the kriging option. The distribution is similar to that shown for the benzene except the lowest chloride concentration is at MW-2. This

pattern is opposite of that shown for benzene where the highest concentration was present at MW-2. This distribution may have resulted from fresh water infiltration in the source area into an area of overall higher chloride concentrations.

The chloride concentrations verses time are plotted on Figure 8. The chloride concentrations did not exhibit a uniform trend across the site. The fact that the lowest concentration is found at the initial release point indicates that the chlorides that are present in the groundwater are probably not from the DCP release.

RECOMMENDATIONS

The FPH in MW-4 indicates that either hydrocarbons are either expanding to the south or an unidentified leak is present. AEC is working with DCP to identify the property boundaries to determine if additional access permission is necessary. A work plan that presents an expanded characterization program will be prepared and submitted in the near future..

The next sampling event will be completed during the fourth quarter of 2009. Do not hesitate to contact me if you have any questions or comments on this document.

Respectfully Submitted,
AMERICAN ENVIRONMENTAL CONSULTING, LLC

Michael H. Stewart

Michael H. Stewart, P.E., C.P.G.
Principal Engineer

attachments

TABLES

Table 1 – Summary of Well Construction at the DCP RR Ext Location

Well	Date Installed	Stickup	Total Depth (ground)	Screen Interval (ground)	Sand Interval
MW-1	3/08	2.06	37.5	17.5-37.5	16-37.5
MW-2	3/08	2.41	37.5	17.5-37.5	16-37.5
MW-3	3/08	2.53	37.5	17.5-37.5	16-37.5
MW-4	3/08	3.16	37.5	17.5-37.5	16-37.5
MW-5	3/08	2.15	37.5	17.5-37.5	16-37.5
MW-6	6/08	2.18	37.5	17.5-37.5	16-37.5
MW-7	6/08	2.36	37.5	17.5-37.5	16-37.5
MW-8	6/08	2.76	37.5	17.5-37.5	16-37.5

Notes: Units are feet
All wells are 2-inch diameter
Wells were grouted to the surface with hydrated bentonite pellets and completed with above-ground well protectors

Table 2 - Summary of September 23, 2009 Water Table Data

Well	Depth to Water	Depth to Product	Water Table Elevation
MW-1	30.12		3504.45
MW-2	30.88		3504.30
MW-3	32.08		3504.49
MW-4	31.82	*	3504.13
MW-5	31.78		3504.14
MW-6	32.15		3504.01
MW-7	32.84		3504.25
MW-8	31.83		3504.58

Units are Feet

* Present but thickness not measured. Will be measured fourth quarter 2009

Table 3 - RR Ext third Quarter 2009 Groundwater Sampling Results

Well	Benzene	Toluene	Ethylbenzene	Total Xylenes	Chlorides
NMWQCC Standards	.010	0.75	0.75	0.62	250*
MW-1	**0.267**	0.0332	0.024	0.0078	**422**
MW-2	**29.3**	**0.771**	0.491	0.371J	139
MW-3	**5.5**	**1.09**	0.271	<0.006	**363**
MW-4	Not sampled because free phase hydrocarbons were present				
MW-5	0.0082	0.0132	0.00066J	<0.006	**358**
MW-6	<0.002	<0.002	<0.002	<0.006	**296**
MW-7	<0.002	<0.002	<0.002	<0.006	**273**
MW-8	<0.002	<0.002	<0.002	<0.006	**467**
MW-8 Dup	<0.4	<0.4	<0.4	<1.2	**487**
TRIP BLANK	<0.002	<0.002	<0.002	<0.006	

Notes: Units mg/l
NMWQCC Standards New Mexico Water Quality Control Commission Groundwater Standards
J qualifier: Estimated value that falls between the method detection and method reporting limits
Bold values exceed the New Mexico Water Quality Control Commission Groundwater Standards
* The chloride is a secondary (non-health based) standard.

Table 4 - RR Ext BTEX Groundwater Monitoring Results Summary

Well	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes
WQCC Standards		.010	0.75	0.75	0.62
MW-1	3/08	**1.4**	**0.948**	0.0395	0.128
	6/08	**2.75**	**2.17**	0.054	0.232
	9/08	**1.1**	**0.845**	0.0375	0.131
Dup	9/08	**1.22**	**0.883**	0.0506	0.197
	12/08	**0.869**	0.581	0.0385	0.0709
	3/09	**0.288**	0.107	0.0149	0.0395
	5/09	**1.38**	0.175	0.0705	0.065
	9/09	0.267	0.0332	0.024	0.0078
MW-2	3/08	**8.98**	**6.58**	0.135J	**0.765**
Duplicate	3/08	**10**	**7**	0.156J	**0.93**
	6/08	**24.3**	**18.5**	0.319	**2.58**
Duplicate	6/08	**23.5**	**19.2**	0.309	**2.36**
	9/08	**21.7**	**9.79**	0.443	**4.25**
	12/08	Not sampled: Remediation activities			
	3/09	**23.7**	**2.34**	0.583	**1.25**
Duplicate	3/09	**4.07**	**1.91**	0.268 J	0.49 J
	5/09	**32.7**	**1.31**	**0.791**	**1.69**
Duplicate	5/09	**30.7**	**1.43**	**0.907**	**2.14**
	9/09	29.3	0.771	0.491	0.371J
MW-3	3/08	**0.759**	**0.849**	0.0355	0.0786
	6/08	**6.18**	**9.46**	0.287	**1.23**
	9/08	**2.45**	**3.62**	0.145	**1.14**
	12/08	**0.761**	**0.938**	0.0492	0.158
	3/09	**4.03**	**2.83**	0.18 J	0.61
	5/09	**14.7**	**12.6**	**0.808**	**1.64**
	9/09	5.5	1.09	0.271	<0.006
MW-4	3/08	**0.0102**	0.0093	<0.002	0.0023J
	6/08	**0.0439**	0.0256	0.0068	0.0147
	9/08	**0.514**	0.443	0.0203	0.125
	12/08	**1.32**	**1.35**	0.0812	0.239J
	3/09	**3.61**	**3.4**	0.164 J	**0.831**
	5/09	**4.7**	**2.94**	0.428	**1.03**
	9/09	Free Phase Hydrocarbons Present			

Notes: Units mg/l
NMWQCC Standards New Mexico Water Quality Control Commission Groundwater Standards
J qualifiers indicate an estimated concentration between the method detection and method reporting limits.
Bold values exceed the New Mexico Water Quality Control Commission Groundwater Standards

Table 4 - RR Ext BTEX Groundwater Monitoring Results Summary (continued)

Well	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes
WQCC Standards		.010	0.75	0.75	0.62
MW-5	3/08	0.0019J	0.0012J	<0.002	<0.006
	6/08	0.0037	0.0037	<0.002	<0.006
	9/08	0.0038	0.0037	<0.002	<0.006
	12/08	0.0031	0.004	<0.002	<0.006
	3/09	0.0067	0.0074	<0.002	<0.006
	5/09	0.0064	0.0089	0.0025	0.0045 J
	9/09	0.0082	0.0132	0.00066J	<0.006
MW-6	6/08	<0.002	<0.002	<0.002	<0.006
	9/08	<0.002	<0.002	<0.002	<0.006
	12/08	<0.002	<0.002	<0.002	<0.006
	3/09	<0.002	<0.002	<0.002	<0.006
	5/09	<0.002	<0.002	<0.002	<0.006
	9/09	<0.002	<0.002	<0.002	<0.006
MW-7	6/08	<0.002	<0.002	<0.002	<0.006
	9/08	<0.002	<0.002	<0.002	<0.006
	12/08	<0.002	<0.002	<0.002	<0.006
	3/09	<0.002	<0.002	<0.002	<0.006
	5/09	<0.002	<0.002	<0.002	<0.006
	9/09	<0.002	<0.002	<0.002	<0.006
MW-8	6/08	**0.0384**	0.0255	0.00049J	0.0016J
	9/08	**0.0301**	0.0161	<0.002	0.002 J
	12/08	**0.0233**	0.011	<0.002	<0.006
Dup	12/08	**0.0122**	0.006	<0.002	<0.006
	3/09	**0.0218**	0.0066	<0.002	<0.006
	5/09	0.0098	0.0049	<0.002	<0.006
	9/09	<0.002	<0.002	<0.002	<0.006
Dup	9/09	<0.4	<0.4	<0.4	<1.2

Notes: Units mg/l
NMWQCC Standards New Mexico Water Quality Control Commission Groundwater Standards
J qualifiers are not included
Bold values exceed the New Mexico Water Quality Control Commission Groundwater Standards

Table 5 - RR Ext Chlorides Groundwater Monitoring Results Summary

Client ID	9/08	12/08	3/09	5/09	9/09
MW-1	507	447	432	462	422
MW-2	109	NS	114	109	139
MW-3	363	301	273	313	363
MW-4	318	281	229	226	
MW-5	373	318	288	363	358
MW-6	363	325	298	308	296
MW-7	378	348	283	298	273
MW-8	512	393	472	450	477

Notes: Units are mg/l
Duplicate values averaged together

FIGURES

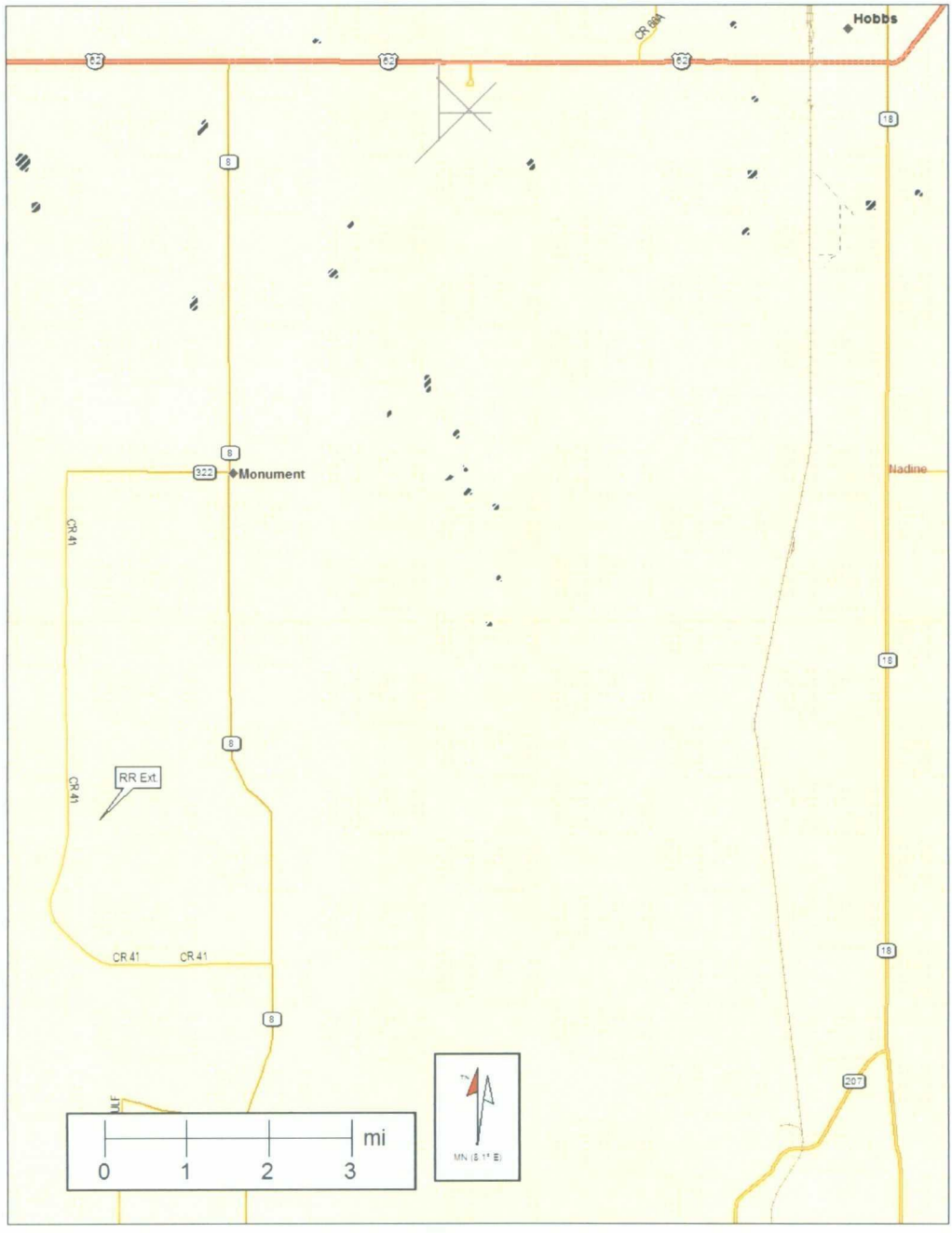


Figure 1 – Site Location
RR Ext. AP #55

dcp Midstream

DRAWN BY: MHS
REVISED:
DATE: 5/06

Figure 2 – Monitoring Well Locations
RR Ext. AP #55

dcp Midstream

DRAWN BY:MHS
DATE: 1/09

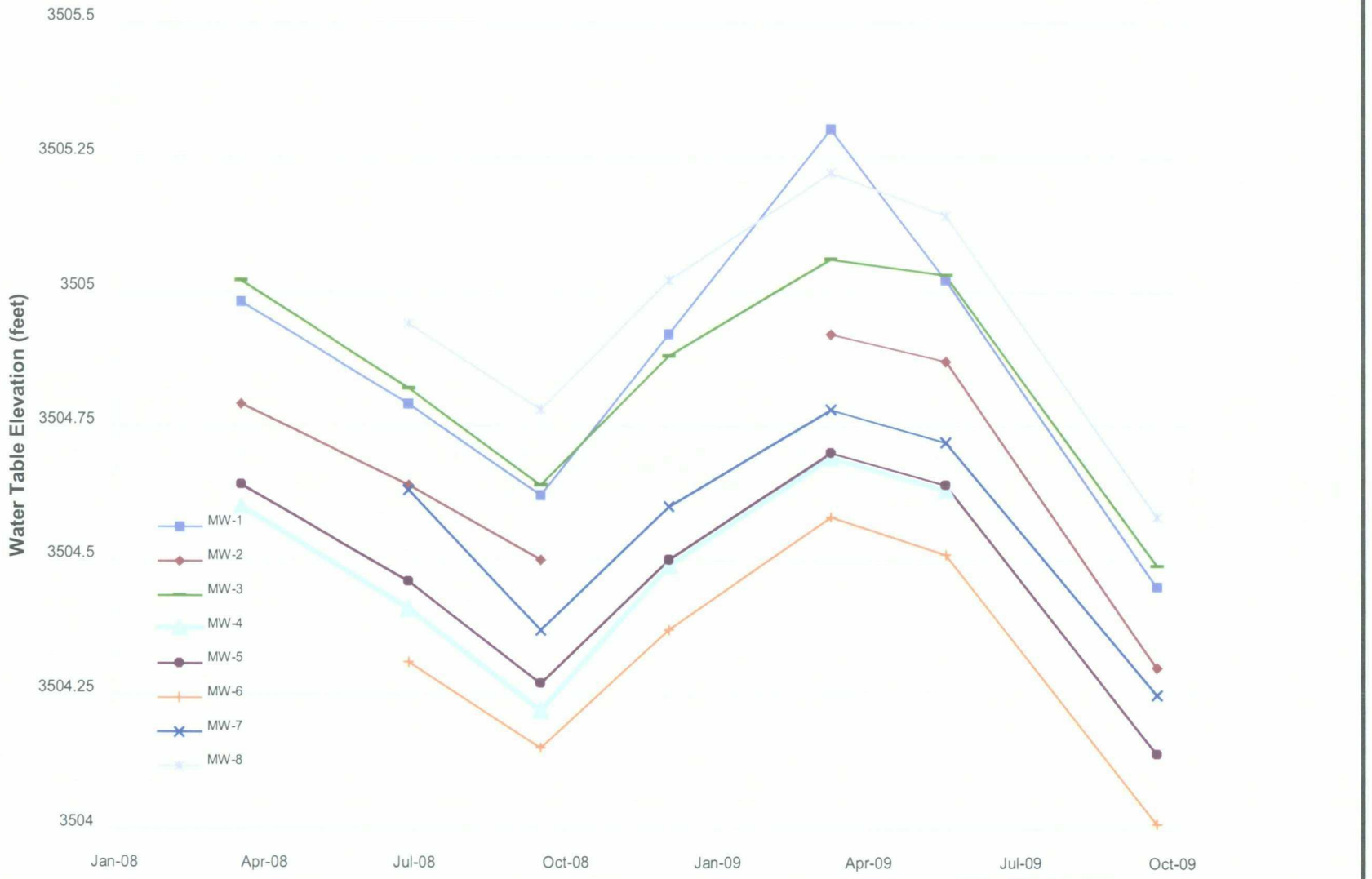


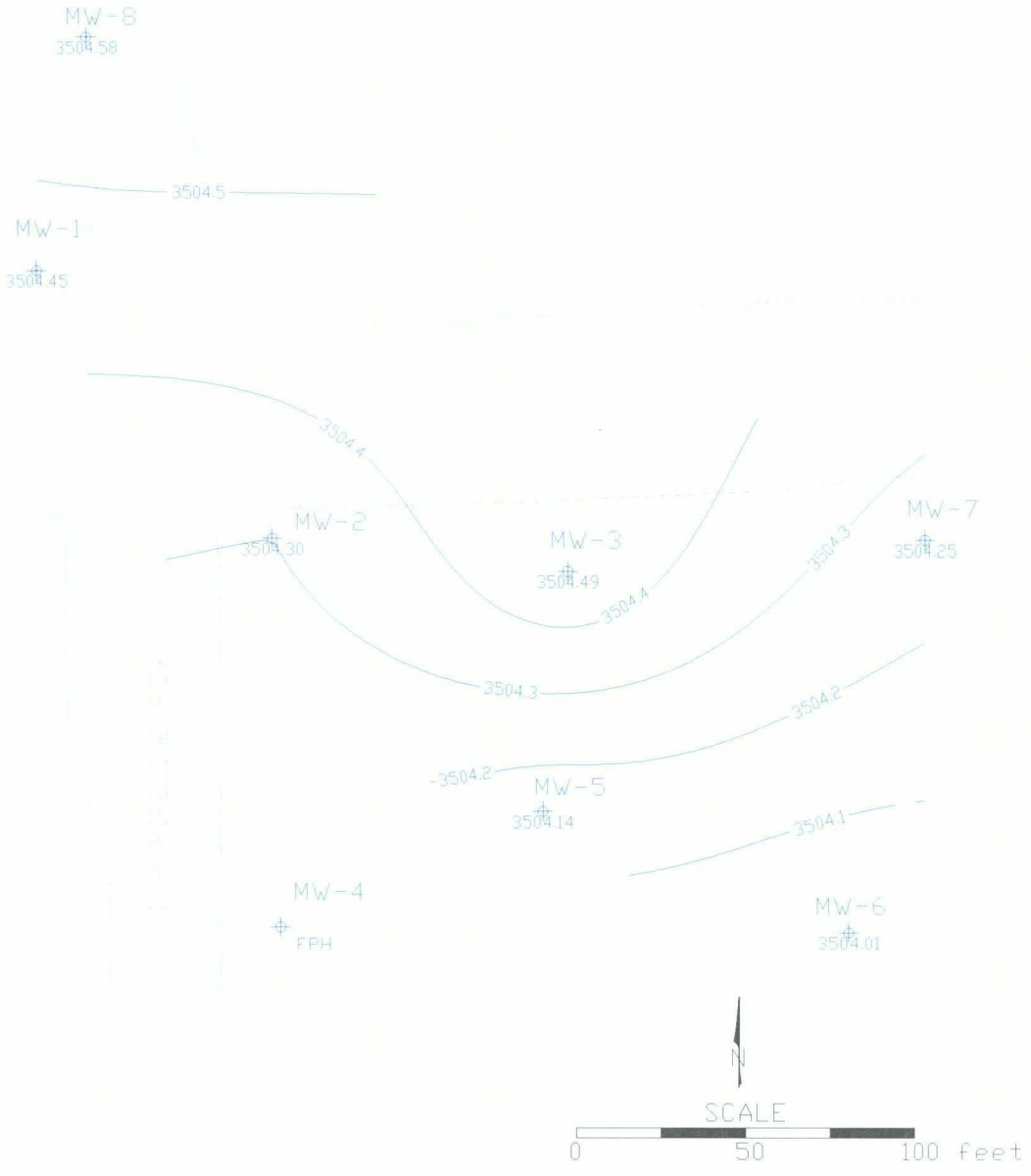
Figure 3 – Monitoring Well Hydrographs

RR EXT AP #55

dcp Midstream.

DRAWN BY:MHS

DATE: 11/09

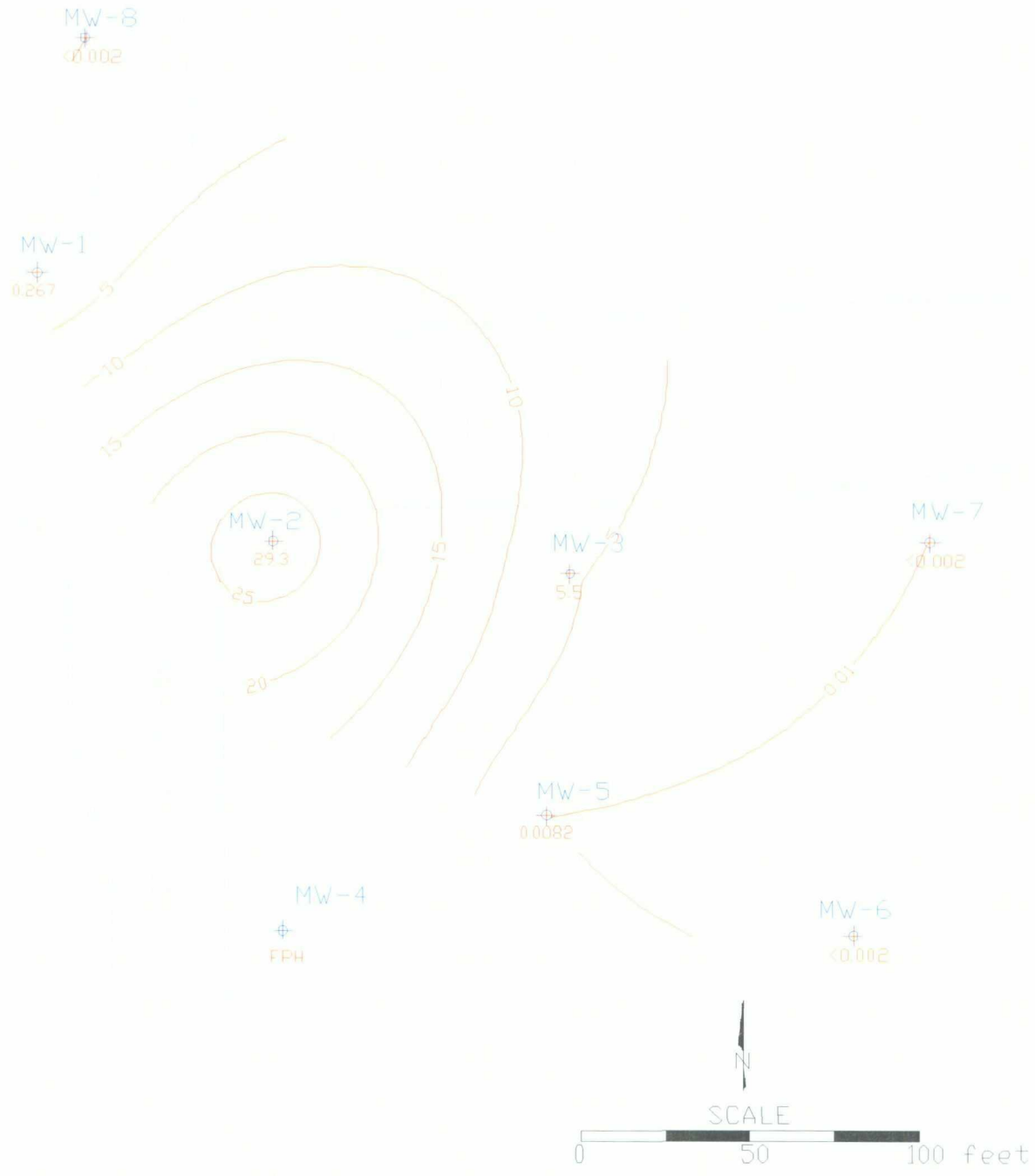


Contour interval is 0.1 feet

Figure 4 – September 23, 2009 Water Table Contours
RR Ext. AP #55

dcp Midstream

DRAWN BY:MHS
DATE: 11/09



Contour interval is 5 mg/l with an additional 5 mg/l isopleth

Figure 5 – Third Quarter 2009 Benzene Concentrations
RR Ext. AP #55

dcp Midstream

DRAWN BY:MHS
DATE: 11/09

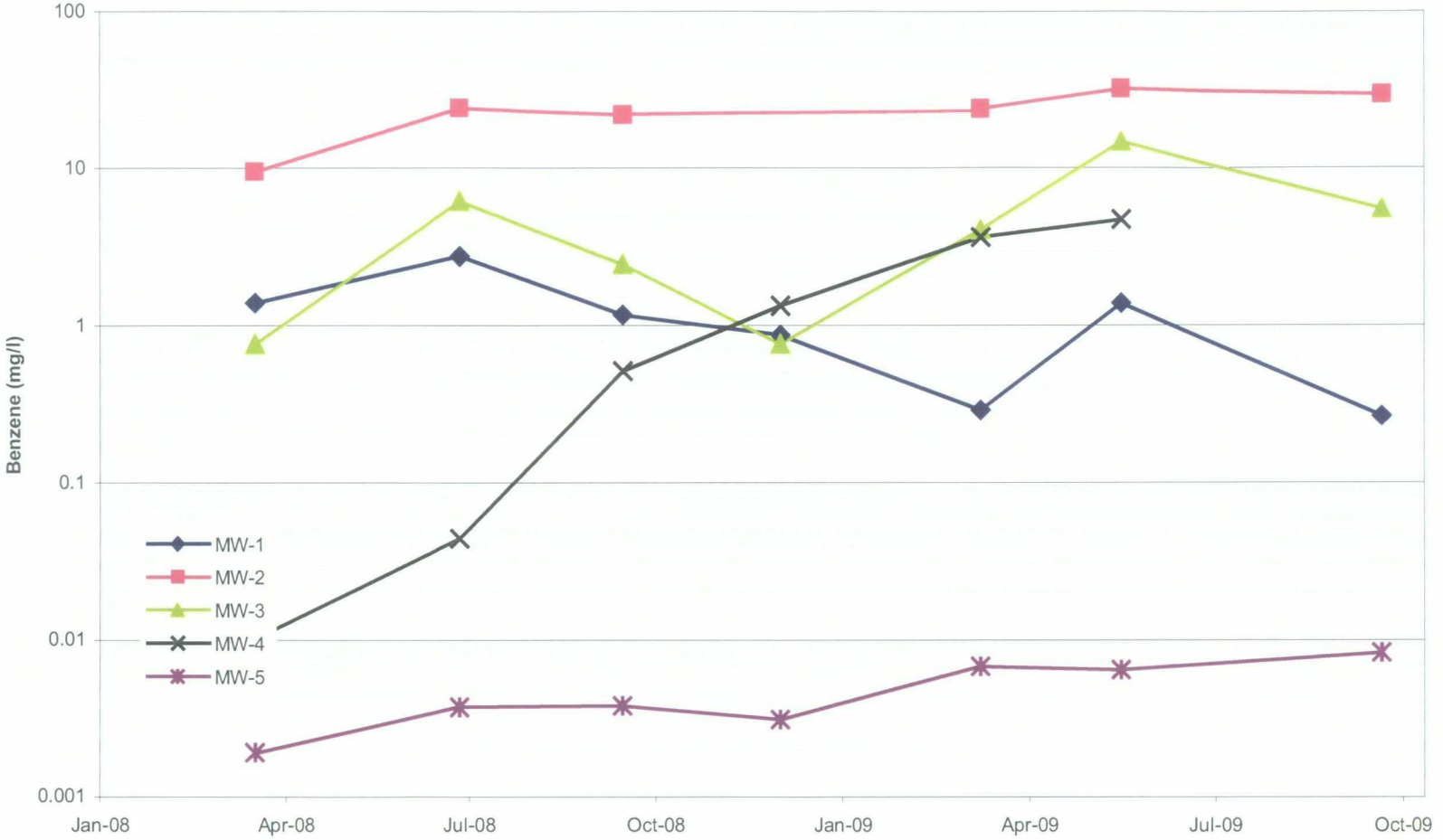


Figure 6 – Benzene Concentrations Verses Time

RR EXT AP #55

dcp Midstream.

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DATE: 11/09

Contour Interval is 50 mg/l

Figure 7 – Third Quarter 2009 Chlorides Concentrations
RR Ext. AP #55

dcp Midstream

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DATE: 11/09

Figure 8 – Chloride Concentrations Verses Time

RR EXT AP #55

dcp Midstream.

DRAWN BY:MHS

DATE: 11/09

ATTACHMENT

WELL SAMPLING DATA AND
ANALYTICAL LABORATORY REPORT

WELL SAMPLING DATA FORM

CLIENT: DCP Midstream WELL ID: MW-1

SITE NAME: RR-EXT DATE: 9/23/2009

PROJECT NO. SAMPLER: M. Stewart/A. Taylor

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

SAMPLING METHOD: ☑ Dedicated Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other:

TOTAL DEPTH OF WELL: 39.56 Feet
DEPTH TO WATER: 30.12 Feet
HEIGHT OF WATER COLUMN: 9.44 Feet
WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. *m*S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
	1.5	17.9	2.07	7.25			
	3.0	18.0	2.07	7.27			
	4.5	18.1	2.07	7.29			Sampled at 1655
	4.5	Volume: (gallons)					

SAMPLE NO.: Collected Sample No.: MW-1

ANALYSES: BTEX (8260)

COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: DCP Midstream WELL ID: MW-2

SITE NAME: RR-EXT DATE: 9/23/2009

PROJECT NO. SAMPLER: M. Stewart/A. Taylor

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

SAMPLING METHOD: ☑ Dedicated Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other:

TOTAL DEPTH OF WELL: 39.91 Feet
DEPTH TO WATER: 30.88 Feet
HEIGHT OF WATER COLUMN: 9.03 Feet
WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. *m* S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
	2.0	18.3	1.1	7.47			
	4.0	17.7	1.13	7.39			
	6.0	17.4	1.18	7.31			Sampled at 1640
	6.0	Volume: (gallons)					

SAMPLE NO.: Collected Sample No.: MW-2

ANALYSES: BTEX (8260)

COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: DCP Midstream WELL ID: MW-3

SITE NAME: RR-EXT DATE: 9/23/2009

PROJECT NO. _____ SAMPLER: M. Stewart/A. Taylor

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

SAMPLING METHOD: ☑ Dedicated Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

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

TOTAL DEPTH OF WELL: 40.03 Feet
DEPTH TO WATER: 32.08 Feet
HEIGHT OF WATER COLUMN: 7.95 Feet
WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. *m* S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
	1.6	19.4	1.69	7.3			
	3.2	18.8	1.71	7.36			
	4.8	18.8	1.71	7.35			Sampled at 1555

4.8 Volume: (gallons)

SAMPLE NO.: Collected Sample No.: MW-3

ANALYSES: BTEX (8260)

COMMENTS: _____

WELL SAMPLING DATA FORM

CLIENT: DCP Midstream WELL ID: MW-4

SITE NAME: RR-EXT DATE: 9/23/2009

PROJECT NO. _____ SAMPLER: M. Stewart/A. Taylor

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

SAMPLING METHOD: ☑ Dedicated Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

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

TOTAL DEPTH OF WELL: 40.66 Feet
DEPTH TO WATER: 31.82 Feet
HEIGHT OF WATER COLUMN: 8.84 Feet
WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. *m* S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
							No sample because of FPH
0.0	Volume: (gallons)						

SAMPLE NO.: Collected Sample No.: No sample because of ~1 foot FPH

ANALYSES: _____

COMMENTS: _____

WELL SAMPLING DATA FORM

CLIENT: DCP Midstream WELL ID: MW-5

SITE NAME: RR-EXT DATE: 9/23/2009

PROJECT NO. _____ SAMPLER: M. Stewart/A. Taylor

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

SAMPLING METHOD: ☑ Dedicated Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

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

TOTAL DEPTH OF WELL: 42.15 Feet
DEPTH TO WATER: 31.78 Feet
HEIGHT OF WATER COLUMN: 10.37 Feet
WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. *m* S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
	2.0	18.9	1.63	7.51			
	4.0	18.8	1.64	7.48			
	6.0	18.8	1.64	7.49			Sampled at 1550
6.0	Volume: (gallons)						

SAMPLE NO.: Collected Sample No.: MW-5

ANALYSES: BTEX (8260)

COMMENTS: _____

WELL SAMPLING DATA FORM

CLIENT: DCP Midstream WELL ID: MW-6

SITE NAME: RR-EXT DATE: 9/23/2009

PROJECT NO. _____ SAMPLER: M. Stewart/A. Taylor

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

SAMPLING METHOD: ☑ Dedicated Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

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

TOTAL DEPTH OF WELL: 39.68 Feet
DEPTH TO WATER: 32.15 Feet
HEIGHT OF WATER COLUMN: 7.53 Feet
WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. *m* S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
	1.6	19.4	1.6	7.4			
	3.2	18.9	1.59	7.42			
	4.8	18.8	1.59	7.43			Sampled at 1520
	4.8	Volume: (gallons)					

SAMPLE NO.: Collected Sample No.: MW-6

ANALYSES: BTEX (8260)

COMMENTS: Collected samples for MS and MSD analyses

WELL SAMPLING DATA FORM

CLIENT: DCP Midstream WELL ID: MW-7

SITE NAME: RR-EXT DATE: 9/23/2009

PROJECT NO. _____ SAMPLER: M. Stewart/A. Taylor

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

SAMPLING METHOD: ☑ Dedicated Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

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

TOTAL DEPTH OF WELL: 39.86 Feet
DEPTH TO WATER: 32.84 Feet
HEIGHT OF WATER COLUMN: 7.02 Feet
WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. *m* S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
	1.6	19.8	1.68	7.38			
	3.2	18.8	1.68	7.38			
	4.8	18.7	1.65	7.49			Sampled at 1520
	4.8	Volume: (gallons)					

SAMPLE NO.: Collected Sample No.: MW-7

ANALYSES: BTEX (8260)

COMMENTS: _____

WELL SAMPLING DATA FORM

CLIENT: DCP Midstream WELL ID: MW-8

SITE NAME: RR-EXT DATE: 9/23/2009

PROJECT NO. SAMPLER: M. Stewart/A. Taylor

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

SAMPLING METHOD: ☑ Dedicated Bailer ☐ Direct from Discharge Hose ☐ Other:

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other:

TOTAL DEPTH OF WELL: 40.26 Feet
DEPTH TO WATER: 31.83 Feet
HEIGHT OF WATER COLUMN: 8.43 Feet
WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. *m* S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
	2.0	18.7	2.11	7.37			
	4.0	18.9	2.11	7.38			
	6.0	18.7	2.11	7.37			Sampled at 1730
	6.0	Volume: (gallons)					

SAMPLE NO.: Collected Sample No.: MW-8

ANALYSES: BTEX (8260)

COMMENTS: Collected duplicate sample DUP

Gulf Coast ACCUTEST Laboratories

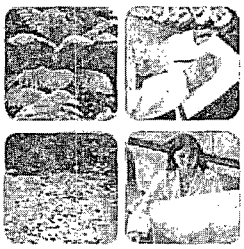
IT'S ALL IN THE CHEMISTRY

11/10/09

Technical Report for

DCP Midstream, LLC

AECCOLI: DCP Midstream RR Ext



Accutest Job Number: T38394

Sampling Date: 09/23/09

Report to:

American Environmental Consulting

mstewart@aecdenver.com

ATTN: Mike Stewart

Total number of pages in report: 39

ACCUTEST LABORATORIES 50 YEARS 1956-2006

ACCREDITED IN ACCORDANCE WITH nelac

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)

Table of Contents

Sections: 1 2 3 4 5

Sample Summary

DCP Midstream, LLC

Job No: T38394

AECCOLI: DCP Midstream RR Ext

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
T38394-1	09/23/09	16:55	09/26/09	AQ	Ground Water	MW-1
T38394-2	09/23/09	16:40	09/26/09	AQ	Ground Water	MW-2
T38394-3	09/23/09	15:55	09/26/09	AQ	Ground Water	MW-3
T38394-4	09/23/09	15:50	09/26/09	AQ	Ground Water	MW-5
T38394-5	09/23/09	15:20	09/26/09	AQ	Ground Water	MW-6
T38394-5D	09/23/09	15:20	09/26/09	AQ	Water Dup/MSD	MW-6 MSD
T38394-5S	09/23/09	15:20	09/26/09	AQ	Water Matrix Spike	MW-6 MS
T38394-6	09/23/09	15:20	09/26/09	AQ	Ground Water	MW-7
T38394-7	09/23/09	17:35	09/26/09	AQ	Ground Water	MW-8
T38394-8	09/23/09	00:00	09/26/09	AQ	Ground Water	DUP
T38394-9	09/23/09	00:00	09/26/09	AQ	Trip Blank Water	TRIP BLANK

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	T38394-1	Date Sampled:	09/23/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0003601.D	1	10/03/09	AP	n/a	n/a	VC159
Run #2	C0003602.D	10	10/03/09	AP	n/a	n/a	VC159

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

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.267 [a]	0.020	0.0050	mg/l	
108-88-3	Toluene	0.0332	0.0020	0.00043	mg/l	
100-41-4	Ethylbenzene	0.0240	0.0020	0.00055	mg/l	
1330-20-7	Xylene (total)	0.0078	0.0060	0.0017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%	113%	79-122%
17060-07-0	1,2-Dichloroethane-D4	105%	108%	75-121%
2037-26-5	Toluene-D8	102%	101%	87-119%
460-00-4	4-Bromofluorobenzene	84%	79% [b]	80-133%

(a) Result is from Run# 2

(b) Outside control limits due to matrix interference. There were no target compounds associated with this surrogate.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1		
Lab Sample ID:	T38394-1	Date Sampled:	09/23/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
		Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	422	10	mg/l	10	10/03/09 09:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-2		
Lab Sample ID:	T38394-2	Date Sampled:	09/23/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0003603.D	100	10/03/09	AP	n/a	n/a	VC159
Run #2	C0003604.D	200	10/03/09	AP	n/a	n/a	VC159

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

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	29.3 [a]	0.40	0.10	mg/l	
108-88-3	Toluene	0.771	0.20	0.043	mg/l	
100-41-4	Ethylbenzene	0.491	0.20	0.055	mg/l	
1330-20-7	Xylene (total)	0.371	0.60	0.17	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%	111%	79-122%
17060-07-0	1,2-Dichloroethane-D4	105%	107%	75-121%
2037-26-5	Toluene-D8	102%	101%	87-119%
460-00-4	4-Bromofluorobenzene	86%	81%	80-133%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2		
Lab Sample ID:	T38394-2	Date Sampled:	09/23/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
		Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	139	10	mg/l	10	10/03/09 09:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	T38394-3	Date Sampled:	09/23/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0003605.D	100	10/03/09	AP	n/a	n/a	VC159
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	5.50	0.20	0.050	mg/l	
108-88-3	Toluene	1.09	0.20	0.043	mg/l	
100-41-4	Ethylbenzene	0.271	0.20	0.055	mg/l	
1330-20-7	Xylene (total)	ND	0.60	0.17	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		79-122%
17060-07-0	1,2-Dichloroethane-D4	109%		75-121%
2037-26-5	Toluene-D8	100%		87-119%
460-00-4	4-Bromofluorobenzene	85%		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

Client Sample ID:	MW-3		
Lab Sample ID:	T38394-3	Date Sampled:	09/23/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
		Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	363	10	mg/l	10	10/03/09 09:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-5		
Lab Sample ID:	T38394-4	Date Sampled:	09/23/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0003582.D	1	10/02/09	AP	n/a	n/a	VC158
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	0.0082	0.0020	0.00050	mg/l	
108-88-3	Toluene	0.0132	0.0020	0.00043	mg/l	
100-41-4	Ethylbenzene	0.00066	0.0020	0.00055	mg/l	J
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	110%		79-122%
17060-07-0	1,2-Dichloroethane-D4	101%		75-121%
2037-26-5	Toluene-D8	103%		87-119%
460-00-4	4-Bromofluorobenzene	86%		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

Client Sample ID:	MW-5		
Lab Sample ID:	T38394-4	Date Sampled:	09/23/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
		Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	358	10	mg/l	10	10/03/09 09:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	T38394-5	Date Sampled:	09/23/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F020393.D	1	10/03/09	AP	n/a	n/a	VF3583
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	89%		75-121%
2037-26-5	Toluene-D8	94%		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

Client Sample ID:	MW-6		
Lab Sample ID:	T38394-5	Date Sampled:	09/23/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
		Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	296	10	mg/l	10	10/03/09 09:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-7		
Lab Sample ID:	T38394-6	Date Sampled:	09/23/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0003583.D	1	10/02/09	AP	n/a	n/a	VC158
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	111%		79-122%
17060-07-0	1,2-Dichloroethane-D4	102%		75-121%
2037-26-5	Toluene-D8	101%		87-119%
460-00-4	4-Bromofluorobenzene	89%		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

Client Sample ID:	MW-7		
Lab Sample ID:	T38394-6	Date Sampled:	09/23/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
		Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	273	10	mg/l	10	10/03/09 09:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-8		
Lab Sample ID:	T38394-7	Date Sampled:	09/23/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0003584.D	1	10/02/09	AP	n/a	n/a	VC158
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	115%		79-122%
17060-07-0	1,2-Dichloroethane-D4	103%		75-121%
2037-26-5	Toluene-D8	102%		87-119%
460-00-4	4-Bromofluorobenzene	87%		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

Client Sample ID:	MW-8		
Lab Sample ID:	T38394-7	Date Sampled:	09/23/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
		Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	467	10	mg/l	10	10/03/09 09:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	DUP		
Lab Sample ID:	T38394-8	Date Sampled:	09/23/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0003606.D	200	10/03/09	AP	n/a	n/a	VC159
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	0.40	0.10	mg/l	
108-88-3	Toluene	ND	0.40	0.087	mg/l	
100-41-4	Ethylbenzene	ND	0.40	0.11	mg/l	
1330-20-7	Xylene (total)	ND	1.2	0.33	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	120%		79-122%
17060-07-0	1,2-Dichloroethane-D4	114%		75-121%
2037-26-5	Toluene-D8	102%		87-119%
460-00-4	4-Bromofluorobenzene	78% [a]		80-133%

(a) Outside control limits due to matrix interference. There were no target compounds associated with this surrogate.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP		
Lab Sample ID:	T38394-8	Date Sampled:	09/23/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
		Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	487	10	mg/l	10	10/03/09 09:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	T38394-9	Date Sampled:	09/23/09
Matrix:	AQ - Trip Blank Water	Date Received:	09/26/09
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F020390.D	1	10/03/09	AP	n/a	n/a	VF3583
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	99%		79-122%
17060-07-0	1,2-Dichloroethane-D4	88%		75-121%
2037-26-5	Toluene-D8	95%		87-119%
460-00-4	4-Bromofluorobenzene	89%		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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST

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

Page ___ of

FED-EX Tracking # | Bottle Order Control #

Accutest Quote # | Accutest Job # T38394

Client / Reporting Information

Company Name: DCP Midstream

Project Contact: Stephen Weathers | E-Mail: SWWeathers@dcpmidstream.com

Address: 370 Seventeenth Street, Suite 2500

City: Denver | State: CO | Zip: 80202

Phone No.: 303-605-1718 | Fax No.:

Sampler's Name:

Project Information

Project Name / No.: DCP Midstream RR EXT

Bill to: Same | Invoice Attn.:

Address:

City | State | Zip

Phone No. | Fax No.

Client Purchase Order #

Requested Analyses

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Wastewater
SO - Soil
SL - Sludge
OI - Oil
LIQ - Liquid
SOL - Other Solid

Accutest Sample #	Field ID / Point of Collection	Collection Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH	HNO3	H2SO4	EnCore	NaHSO4	MEOH	NONE	BTEX 8260B	Chlorides	LAB USE ONLY
1	MW-1	2009 9/23	455	GW	4								1	X	X	
2	MW-2	9/23	440	GW	4								1	X	X	
3	MW-3	9/23	355	GW	4								1	X	X	
	~~MW-4~~	No Sample	—	GW	~~4~~								1	X	X	
4	MW-5	9/23	350	GW	4								1	X	X	
5	MW-6	9/23	320	GW	3 4 3								1	X	X	
6	MW-7	9/23	320	GW	3 4 3								1	X	X	
7	MW-8	9/23	335	GW	4								1	X	X	
8	Dup	9/23	—	GW	3								—	X	X	
5	MW-6 MS/MSD	9/23	320	GW	6	6							—	X		

Turnaround Time (Business days)

- [ ] 10 Day STANDARD — Approved By:/ Date:
- [X] 7 Day
- [ ] 4 Day *RUSH*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*
- [ ] Other

Real time analytical data available via Lablink

Data Deliverable Information

- [ ] Commercial "A"
- [X] Commercial "B"
- [ ] Reduced Tier 1
- [ ] Full Data Package
- [ ] TRRP-13
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results & Standard QC

Comments / Remarks

Please Run Trip Blank

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	9/24/09	1	2 Fed Ex	9/25/09	2
Relinquished by:	Date Time: 600 pm	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice: Y — Cooler Temp: 3.6
5		5		☐	

T38394: Chain of Custody
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SAMPLE INSPECTION FORM

Accutest Job Number: T 38394 Client: DCP Midstream Date/Time Received: 02/25/05 0945

# of Coolers Received: 1 Thermometer #: IR-1 Temperature Adjustment Factor: +0.1

Cooler Temps: #1: 3.6 #2: #3: #4: #5: #6: #7: #8:

Method of Delivery: (FEDEX) UPS Accutest Courier Greyhound Delivery Other

Airbill Numbers:

COOLER INFORMATION

- [ ] Custody seal missing or not intact
- [ ] Temperature criteria not met
- [ ] Wet ice received in cooler

CHAIN OF CUSTODY

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

SAMPLE INFORMATION

- [ ] 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 rcvd 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

TRIP BLANK INFORMATION

- [ ] Trip Blank on COC but not received
- [ ] Trip Blank received but not on COC
- [ ] Trip Blank not intact
- [ ] Received Water Trip Blank
- [ ] Received Soil TB

Number of Encores?

Number of 5035 kits?

Number of lab-filtered metals?

Summary of Discrepancies:

TECHNICIAN SIGNATURE/DATE: [signature]

INFORMATION AND SAMPLE LABELING VERIFIED BY:

CORRECTIVE ACTIONS

Client Representative Notified: **Date:**

By Accutest Representative: Via: Phone Email

Client Instructions:

c:\wpsh\forms\samplemanagement

3.1

T38394: Chain of Custody

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SAMPLE RECEIPT LOG

JOB #: T38794 DATE/TIME RECEIVED: 09/25/09 945

CLIENT: DCP Midstream INITIALS: FF

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH
1	1	MW-1	9/23/09 455	W	P500	1	1A	(1) 2 3 4 5 6 7 8	<2 >12
					40ml	2-4	VR	1 (2) 3 4 5 6 7 8	<2 >12
	2	MW-2	440		P500	1	1A	(1) 2 3 4 5 6 7 8	<2 >12
					40ml	2-4	VR	1 (2) 3 4 5 6 7 8	<2 >12
	3	MW-3	355		P500	1	1A	(1) 2 3 4 5 6 7 8	<2 >12
					40ml	2-4	VR	1 (2) 3 4 5 6 7 8	<2 >12
	4	MW-5	350		P500	1	1A	(1) 2 3 4 5 6 7 8	<2 >12
					40ml	2-4	VR	1 (2) 3 4 5 6 7 8	<2 >12
	5	MW-6 MS/MSD	320		P500	1	1A	(1) 2 3 4 5 6 7 8	<2 >12
					40ml	2-10	VR	1 (2) 3 4 5 6 7 8	<2 >12
	6	MW-7	320		P500	1	1A	(1) 2 3 4 5 6 7 8	<2 >12
					40ml	2-4	VR	1 (2) 3 4 5 6 7 8	<2 >12
	7	MW-8	285		P500	1	1A	(1) 2 3 4 5 6 7 8	<2 >12
					40ml	2-4	VR	1 (2) 3 4 5 6 7 8	<2 >12
	8	Dup	—		P500	1	1A	(1) 2 3 4 5 6 7 8	<2 >12
					40ml	2-4	VR	1 (2) 3 4 5 6 7 8	<2 >12
	9	Trip Blank	—		40ml	1-2	VR	1 (2) 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
				FI	9/25/09			1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other

LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

Rev 8/13/01 evg

T38394: Chain of Custody
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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

Job Number: T38394
Account: DUKE DCP Midstream, LLC
Project: AECCOLI: DCP Midstream RR Ext

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC158-MB	C0003575.D	1	10/02/09	AP	n/a	n/a	VC158

The QC reported here applies to the following samples: Method: SW846 8260B

T38394-4, T38394-6, T38394-7

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	111%	79-122%
17060-07-0	1,2-Dichloroethane-D4	101%	75-121%
2037-26-5	Toluene-D8	102%	87-119%
460-00-4	4-Bromofluorobenzene	87%	80-133%

Method Blank Summary

Job Number: T38394
Account: DUKE DCP Midstream, LLC
Project: AECCOLI: DCP Midstream RR Ext

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC159-MB	C0003596.D	1	10/02/09	AP	n/a	n/a	VC159

The QC reported here applies to the following samples: Method: SW846 8260B

T38394-1, T38394-2, T38394-3, T38394-8

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	116%	79-122%
17060-07-0	1,2-Dichloroethane-D4	109%	75-121%
2037-26-5	Toluene-D8	99%	87-119%
460-00-4	4-Bromofluorobenzene	80%	80-133%

Method Blank Summary

Job Number: T38394
Account: DUKE DCP Midstream, LLC
Project: AECCOLI: DCP Midstream RR Ext

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF3583-MB	F020389.D	1	10/03/09	AP	n/a	n/a	VF3583

The QC reported here applies to the following samples: Method: SW846 8260B

T38394-5, T38394-9

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	97%	79-122%
17060-07-0	1,2-Dichloroethane-D4	84%	75-121%
2037-26-5	Toluene-D8	92%	87-119%
460-00-4	4-Bromofluorobenzene	87%	80-133%

Blank Spike Summary

Job Number: T38394
Account: DUKE DCP Midstream, LLC
Project: AECCOLI: DCP Midstream RR Ext

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC158-BS	C0003573.D	1	10/02/09	AP	n/a	n/a	VC158

The QC reported here applies to the following samples: Method: SW846 8260B

T38394-4, T38394-6, T38394-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	21.1	84	76-118
100-41-4	Ethylbenzene	25	22.0	88	75-112
108-88-3	Toluene	25	22.0	88	77-114
1330-20-7	Xylene (total)	75	63.9	85	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	108%	79-122%
17060-07-0	1,2-Dichloroethane-D4	99%	75-121%
2037-26-5	Toluene-D8	105%	87-119%
460-00-4	4-Bromofluorobenzene	95%	80-133%

Blank Spike Summary

Job Number: T38394
Account: DUKE DCP Midstream, LLC
Project: AECCOLI: DCP Midstream RR Ext

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC159-BS	C0003594.D	1	10/02/09	AP	n/a	n/a	VC159

The QC reported here applies to the following samples: Method: SW846 8260B

T38394-1, T38394-2, T38394-3, T38394-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	24.4	98	76-118
100-41-4	Ethylbenzene	25	22.5	90	75-112
108-88-3	Toluene	25	23.8	95	77-114
1330-20-7	Xylene (total)	75	64.7	86	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	112%	79-122%
17060-07-0	1,2-Dichloroethane-D4	108%	75-121%
2037-26-5	Toluene-D8	104%	87-119%
460-00-4	4-Bromofluorobenzene	88%	80-133%

Blank Spike Summary

Job Number: T38394
Account: DUKE DCP Midstream, LLC
Project: AECCOLI: DCP Midstream RR Ext

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF3583-BS	F020387.D	1	10/03/09	AP	n/a	n/a	VF3583

The QC reported here applies to the following samples: Method: SW846 8260B

T38394-5, T38394-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	29.4	118	76-118
100-41-4	Ethylbenzene	25	24.9	100	75-112
108-88-3	Toluene	25	26.4	106	77-114
1330-20-7	Xylene (total)	75	75.1	100	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	79-122%
17060-07-0	1,2-Dichloroethane-D4	85%	75-121%
2037-26-5	Toluene-D8	92%	87-119%
460-00-4	4-Bromofluorobenzene	86%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T38394
Account: DUKE DCP Midstream, LLC
Project: AECCOLI: DCP Midstream RR Ext

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T38409-4MS	C0003577.D	1	10/02/09	AP	n/a	n/a	VC158
T38409-4MSD	C0003578.D	1	10/02/09	AP	n/a	n/a	VC158
T38409-4	C0003576.D	1	10/02/09	AP	n/a	n/a	VC158

The QC reported here applies to the following samples: Method: SW846 8260B

T38394-4, T38394-6, T38394-7

CAS No.	Compound	T38409-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		25	19.9	80	19.1	76	4	76-118/16
100-41-4	Ethylbenzene	ND		25	22.0	88	21.5	86	2	75-112/12
108-88-3	Toluene	ND		25	20.9	84	20.4	82	2	77-114/12
1330-20-7	Xylene (total)	ND		75	64.1	85	63.3	84	1	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T38409-4	Limits
1868-53-7	Dibromofluoromethane	108%	107%	111%	79-122%
17060-07-0	1,2-Dichloroethane-D4	97%	100%	100%	75-121%
2037-26-5	Toluene-D8	104%	104%	101%	87-119%
460-00-4	4-Bromofluorobenzene	89%	88%	87%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T38394
Account: DUKE DCP Midstream, LLC
Project: AECCOLI: DCP Midstream RR Ext

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T38249-1MS	C0003598.D	1	10/02/09	AP	n/a	n/a	VC159
T38249-1MSD	C0003599.D	1	10/03/09	AP	n/a	n/a	VC159
T38249-1 [a]	C0003597.D	1	10/02/09	AP	n/a	n/a	VC159

The QC reported here applies to the following samples: Method: SW846 8260B

T38394-1, T38394-2, T38394-3, T38394-8

CAS No.	Compound	T38249-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		25	26.7	107	25.8	103	3	76-118/16
100-41-4	Ethylbenzene	ND		25	23.4	94	23.2	93	1	75-112/12
108-88-3	Toluene	ND		25	24.6	98	24.4	98	1	77-114/12
1330-20-7	Xylene (total)	ND		75	67.9	91	67.9	91	0	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T38249-1	Limits
1868-53-7	Dibromofluoromethane	116%	112%	115%	79-122%
17060-07-0	1,2-Dichloroethane-D4	112%	108%	115%	75-121%
2037-26-5	Toluene-D8	102%	103%	103%	87-119%
460-00-4	4-Bromofluorobenzene	84%	85%	81%	80-133%

(a) Reported for QC purposes only.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T38394
Account: DUKE DCP Midstream, LLC
Project: AECCOLI: DCP Midstream RR Ext

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T38394-5MS	F020394.D	1	10/03/09	AP	n/a	n/a	VF3583
T38394-5MSD	F020395.D	1	10/03/09	AP	n/a	n/a	VF3583
T38394-5	F020393.D	1	10/03/09	AP	n/a	n/a	VF3583

The QC reported here applies to the following samples: Method: SW846 8260B

T38394-5, T38394-9

CAS No.	Compound	T38394-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		25	26.9	108	26.5	106	1	76-118/16
100-41-4	Ethylbenzene	ND		25	23.1	92	22.6	90	2	75-112/12
108-88-3	Toluene	ND		25	24.1	96	23.6	94	2	77-114/12
1330-20-7	Xylene (total)	ND		75	70.3	94	67.9	91	3	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T38394-5	Limits
1868-53-7	Dibromofluoromethane	100%	96%	101%	79-122%
17060-07-0	1,2-Dichloroethane-D4	91%	87%	89%	75-121%
2037-26-5	Toluene-D8	93%	92%	94%	87-119%
460-00-4	4-Bromofluorobenzene	88%	87%	90%	80-133%

General Chemistry

QC Data Summaries

Includes the following where applicable:

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

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T38394
Account: DUKE - DCP Midstream, LLC
Project: AECCOLI: DCP Midstream RR Ext

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP6964/GN18201	1.0	0.0	mg/l	1000	1010	100.6	92-107%

Associated Samples:
Batch GP6964: T38394-1, T38394-2, T38394-3, T38394-4, T38394-5, T38394-6, T38394-7, T38394-8
(*) Outside of QC limits

5.1

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T38394
Account: DUKE - DCP Midstream, LLC
Project: AECCOLI: DCP Midstream RR Ext

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chloride	GP6964/GN1820i	T38394-5	mg/l	296	298	0.8	0-5%

Associated Samples:
Batch GP6964: T38394-1, T38394-2, T38394-3, T38394-4, T38394-5, T38394-6, T38394-7, T38394-8
(*) Outside of QC limits

5.2

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T38394
Account: DUKE - DCP Midstream, LLC
Project: AECCOLI: DCP Midstream RR Ext

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP6964/GN18201	T38394-5	mg/l	296	100	403	106.8	81-119%

Associated Samples:
Batch GP6964: T38394-1, T38394-2, T38394-3, T38394-4, T38394-5, T38394-6, T38394-7, T38394-8
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

5.3