

AP-055

**4th QTR 2009 GW Mon.
Results**

**DATE:
February 25, 2010**



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

February 25, 2010

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

**RE: 4th 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 4th 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

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

Stephen Weathers, PG
Principal Environmental Specialist

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

February 16, 2010
Mr. Stephen Weathers
DCP Midstream, LP
370 17th Street, Suite 2500
Denver, CO 80202

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

Dear Mr. Weathers:

This letter report summarizes the fourth quarter 2009 groundwater monitoring event that was completed on December 20, 2009 at the DCP Midstream (DCP) RR Ext Site (Figure 1). The approximate site coordinates are 32° 33' 44.74", 103° 17' 32.41" (32.5624, -103.2923). 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 contained free phase hydrocarbon (FPH). This is the second consecutive quarter where FPH was measured. Well MW-4 was not purged and sampled.

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 for chlorides using Method SM 4500 CL C. A field duplicate from MW-2 and a matrix spike/matrix spike duplicate (MS/MSD) from MW-8 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 at a consistent rate across the site with the decline in MW-8 less than the rest of the wells.

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 almost due south down gradient of MW-5. The groundwater flow pattern is similar to that exhibited in the past.

The quality control evaluation can be summarized as follows:

- None of the constituents were detected in the trip blank sample.
- The method blanks were all within their control limits.
- The blank spikes were all within their control limits.
- All reported values were from analytical runs where the individual sample surrogates results were within the method ranges with one exceptions. That surrogate was not associated with any detected constituents.
- The matrix spike and matrix spike duplicate values from MW-8 were acceptable.
- The relative percentage difference (RPD) values were all within normal ranges except ethylbenzene which was elevated in the duplicate.

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

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. Well MW-3 exceeded the toluene and xylenes standards. The MW-2 duplicate and MW-3 exceeded the ethylbenzene standard. There were no BTEX exceedences in wells MW-5, MW-6, MW-7 and MW-8.

Figure 5 shows the benzene isopleths for the fourth quarter 2009 based upon contouring with the Surfer program using the kriging option. The 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 and MW-5. The following trends are evident:

1. The concentrations in MW-1 and MW-3 both rebounded after falling the third quarter;
2. The concentration in MW-2 has remained relatively constant over the duration of the project; and
3. The concentration in MW-5 appears to be increasing and it is now just slightly below the NMWQCC groundwater standards.

Well MW-4 contained 1.88 feet of FPH. This is the second consecutive event that it contained FPH after the dissolved-phase benzene concentrations steadily increased between March 2008 and May 2009.

The benzene trend in MW-5 and the verification of the FPH in MW-4 indicates that the dissolved phase hydrocarbon plume is probably expanding down gradient.

The concentrations in MW-8 have declined over the duration of the project to the point where the BTEX constituents were undetected. This trend indicates that the dissolved-phase plume is contracting on its up-gradient boundary.

The samples were also submitted for chlorides analysis. Chloride data are summarized in Table 5. Figure 7 shows the chlorides isopleths for the fourth 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 the infiltration of lower salinity water.

The chloride concentrations versus time are plotted on Figure 8. The chloride concentrations do 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 increasing dissolved-phase benzene trend in MW-5 and the FPH in MW-4 indicate that either the groundwater plume is expanding to the south. A work plan that presents an expanded characterization program will be submitted under separate cover concurrently with this report.

The next sampling event will be completed during the first quarter of 2010. 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 December 20, 2009 Water Table Data

Well	Depth to Water	Depth to Product	Water Table Elevation
MW-1	30.25		3,504.32
MW-2	31.02		3,504.16
MW-3	32.22		3,504.35
MW-4	32.73	30.85	3,503.88
MW-5	31.93		3,503.99
MW-6	32.31		3,503.85
MW-7	32.98		3,504.11
MW-8	31.86		3,504.55

Units are Feet

Table 3 - RR Ext third Quarter 2009 Groundwater Sampling Results

Well	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Chlorides
NMWQCC Standards	0.010	0.75	0.75	0.62	250*
MW-1	0.819	0.0267	0.088	0.012	363
MW-2	28.5	0.347	0.57	0.177J	209
MW-2 Dup	31.8	0.397J	0.829	0.193	189
MW-3	13.1	9.08	1.2	2.87	398
MW-4	Not sampled because free phase hydrocarbons were present				
MW-5	0.0096	0.0155	0.0013J	0.0021J	313
MW-6	<0.002	<0.002	<0.002	<0.006	393
MW-7	<0.002	<0.002	<0.002	<0.006	328
MW-8	<0.002	<0.002	<0.002	<0.006	472
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

* Chlorides is a secondary (non-health based) standard.

Table 4 - RR Ext BTEX Groundwater Monitoring Results Summary

Well	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes
NMWQCC 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
	12/09	0.819	0.0267	0.088	0.012
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
	12/09	28.5	0.347	0.57	0.177J
Duplicate	12/09	31.8	0.397J	0.829	0.193
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
	12/09	13.1	9.08	1.2	2.87
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			
	12/09	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
NMWQCC 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
	12/09	0.0096	0.0155	0.0013J	0.0021J
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
	12/09	<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
	12/09	<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
	12/09	<0.002	<0.002	<0.002	<0.006

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	12/09
MW-1	507	447	432	462	422	363
MW-2	109	NS	114	109	139	199
MW-3	363	301	273	313	363	398
MW-4	318	281	229	226	FPH	FPH
MW-5	373	318	288	363	358	313
MW-6	363	325	298	308	296	393
MW-7	378	348	283	298	273	328
MW-8	512	393	472	450	477	472

Notes: Units are mg/l
 Duplicate values averaged together
 FPH free phase hydrocarbons present

FIGURES

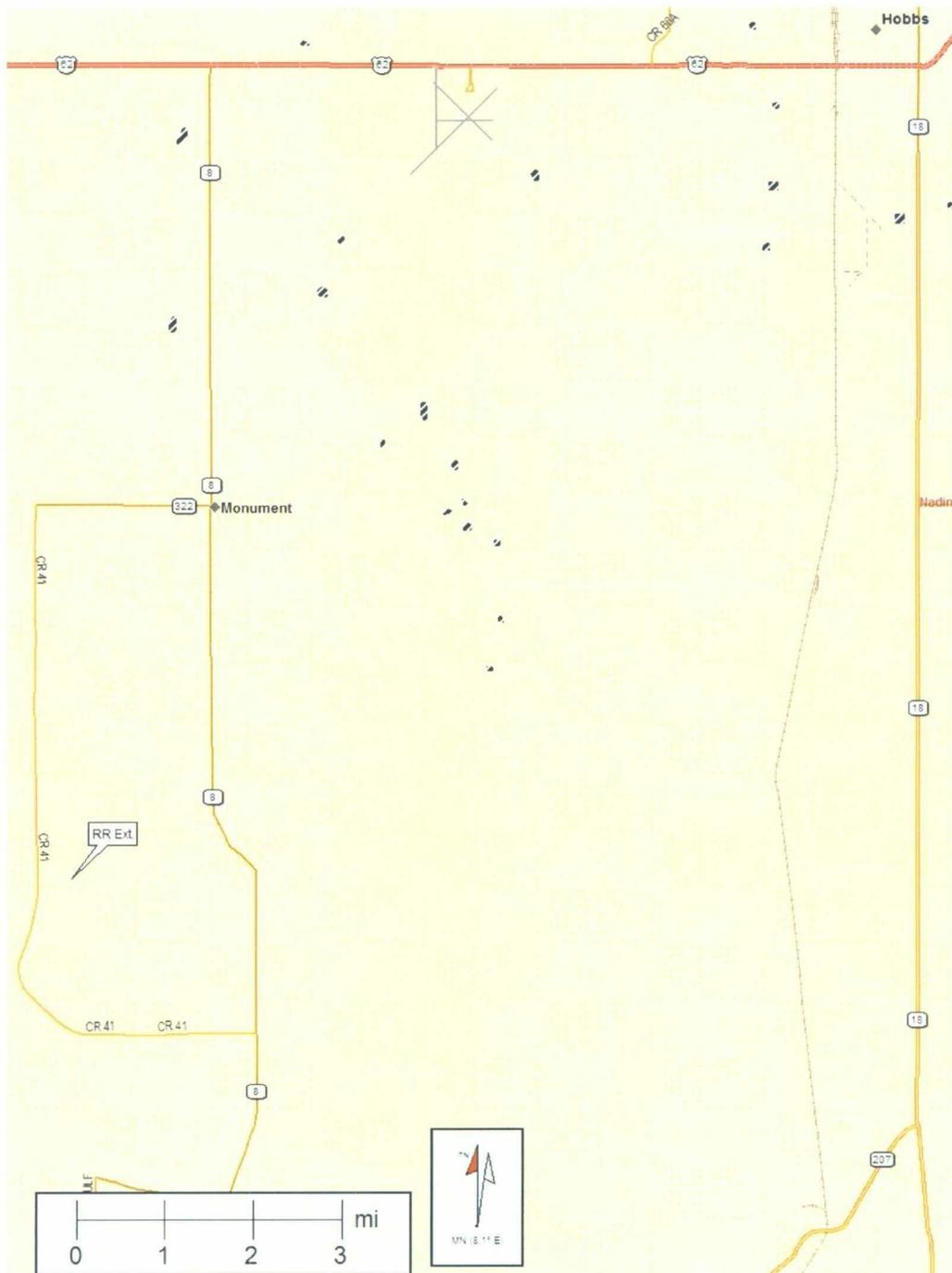


Figure 1 – Site Location
 RR Ext. AP 55



DRAWN BY: MHS

REVISID:

DATE: 5/06

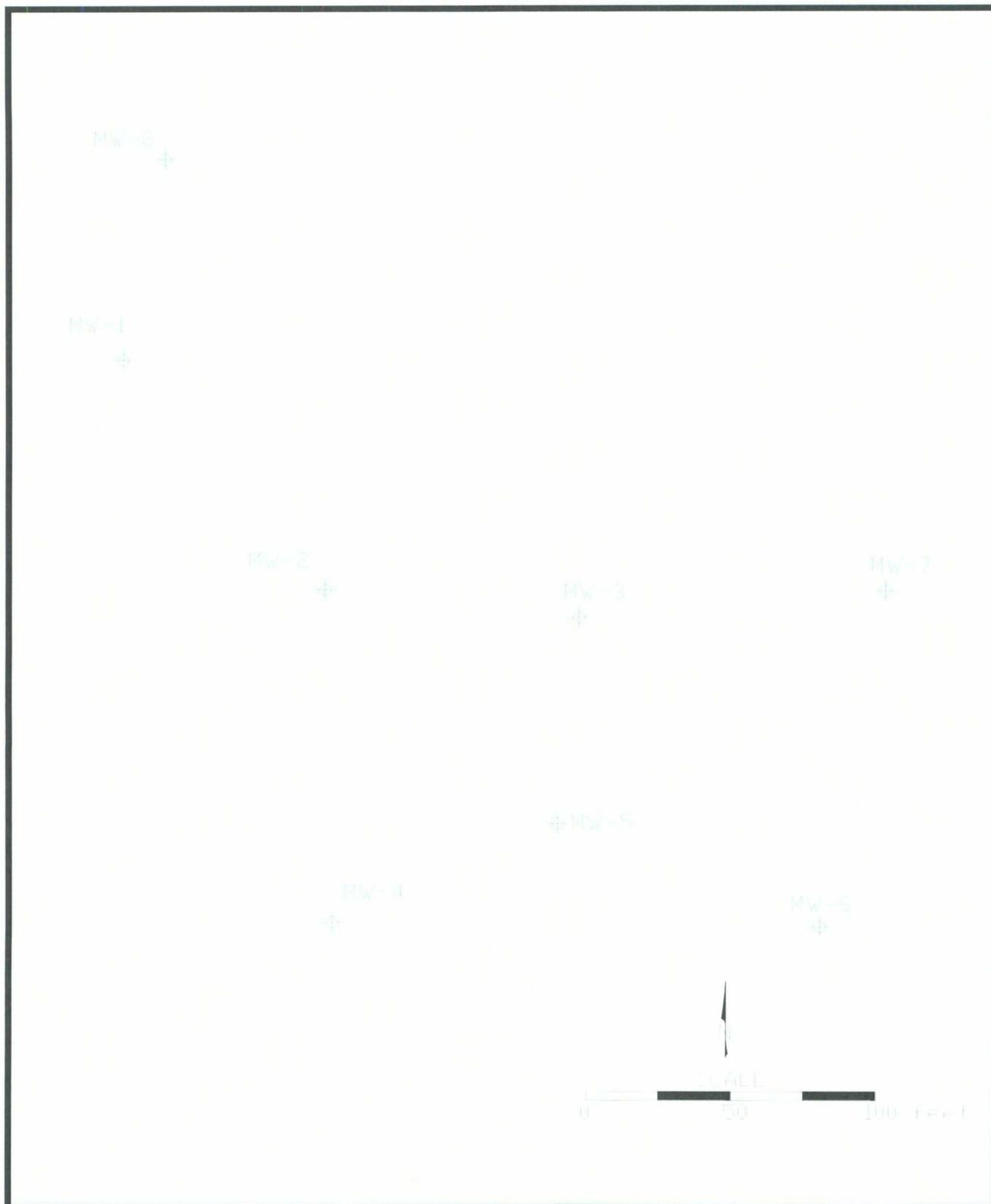


Figure 2 – Monitoring Well Locations
RR Ext. AP 55



DRAWN BY: MHS

REVISID:

DATE: 1/09

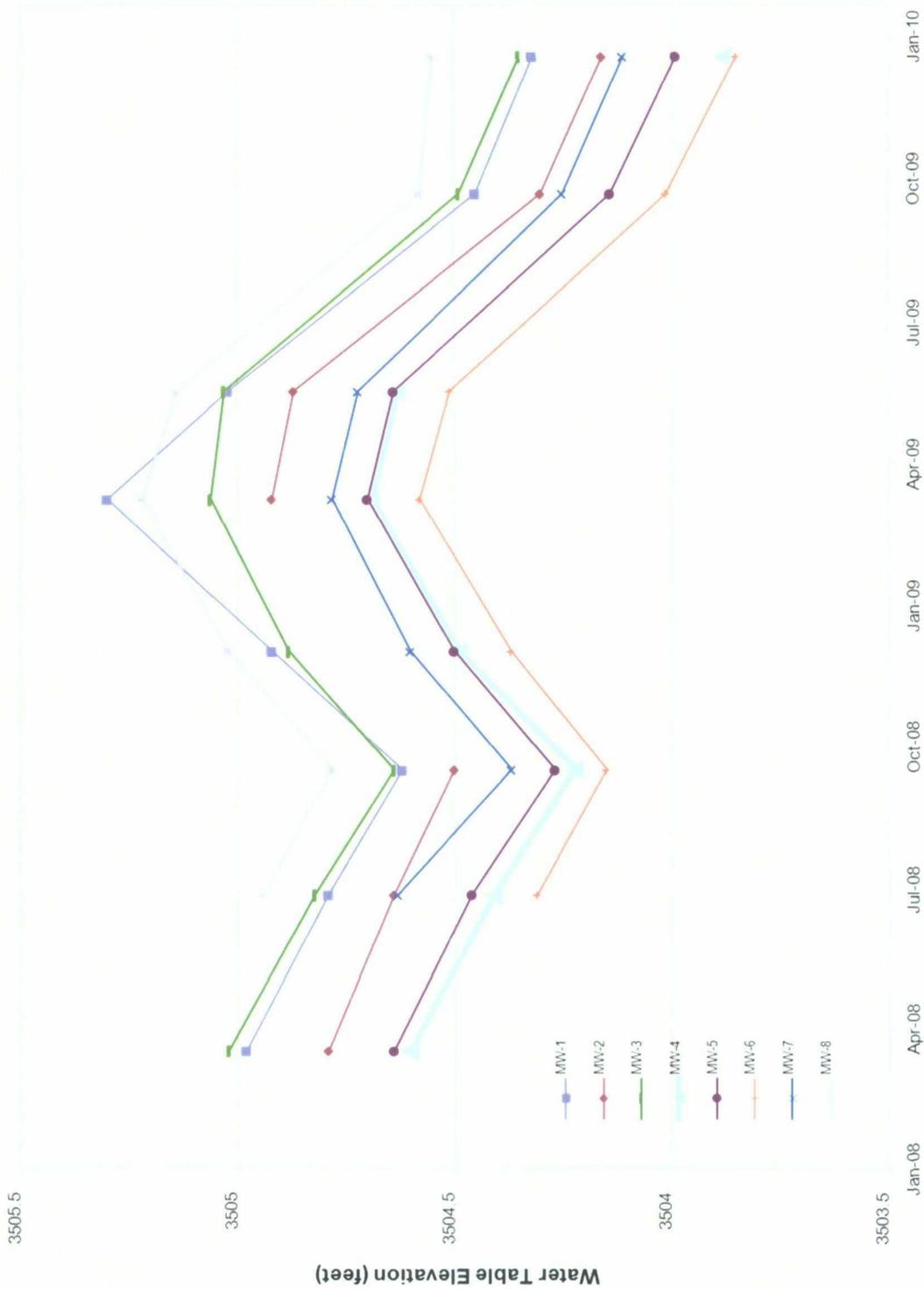


Figure 3 – Monitoring Well Hydrographs

RR EXTAP 55



DRAWN BY: MHS
DATE: 2/10

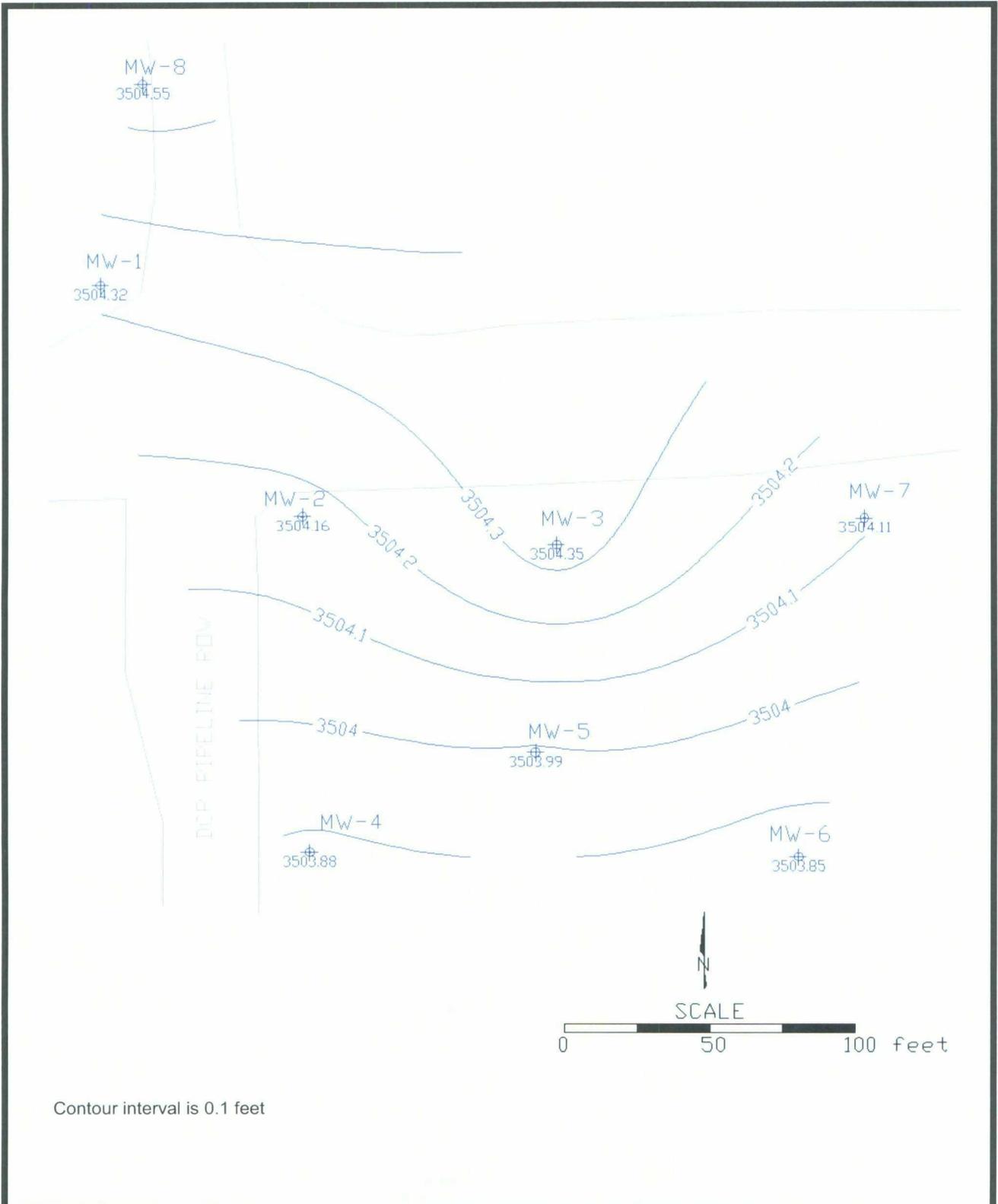
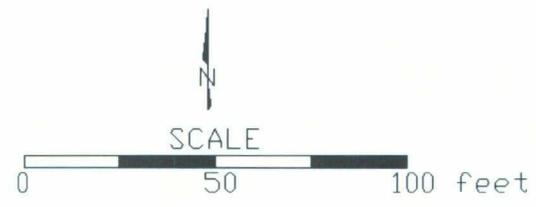
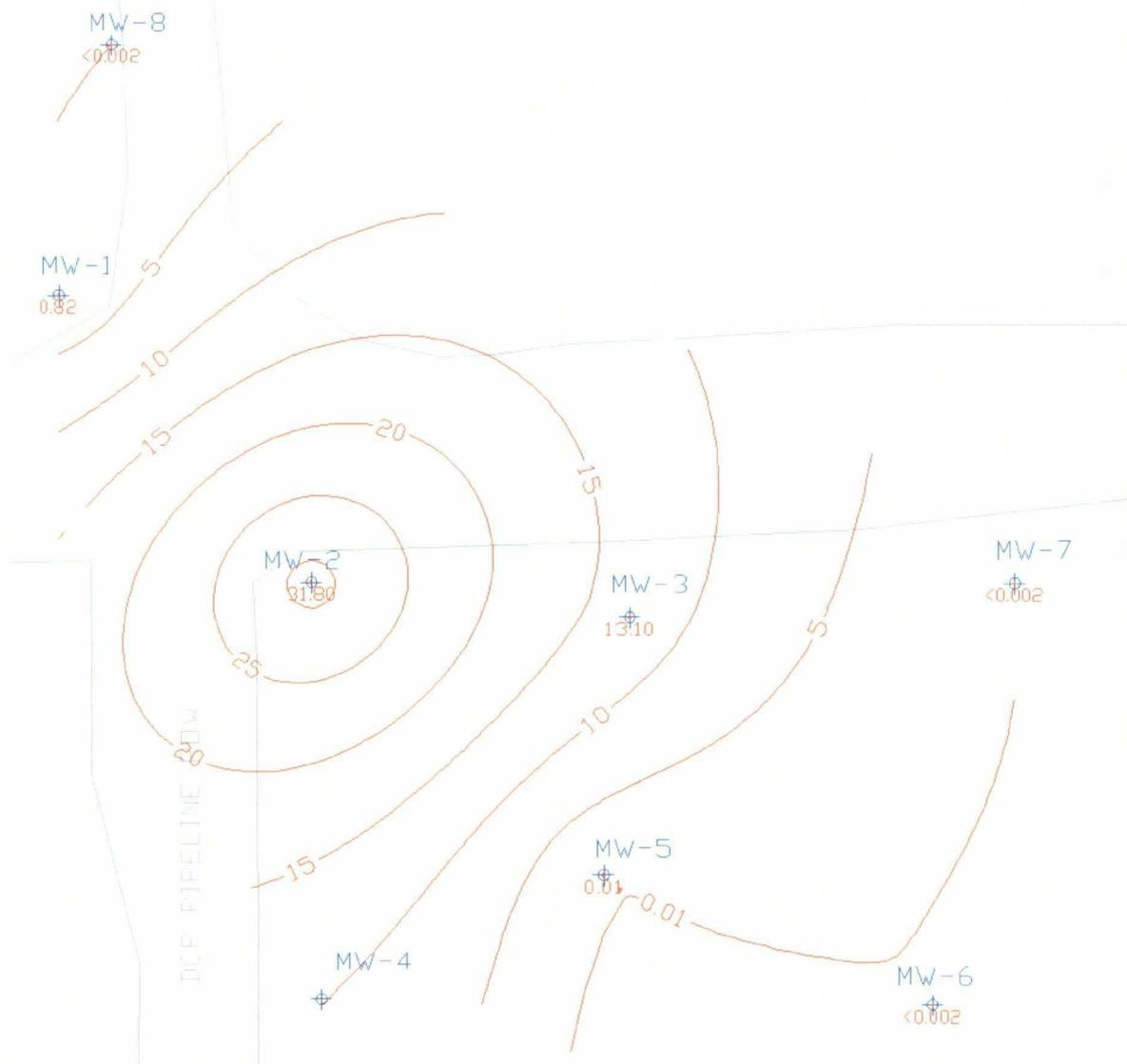


Figure 4 – Fourth Quarter 2009 Water Table Contours
RR Ext. AP | 55



DRAWN BY: MHS
REVISER:
DATE: 2/10



Notes

1. Contour interval is 5 mg/l with an additional 0.01 mg/l isopleth
2. MW-4 was not sampled because it contained free phase hydrocarbons

Figure 5 - Fourth Quarter 2009 Benzene Concentrations
RR Ext. AP 55



DRAWN BY: MHS
REVISER:
2/10

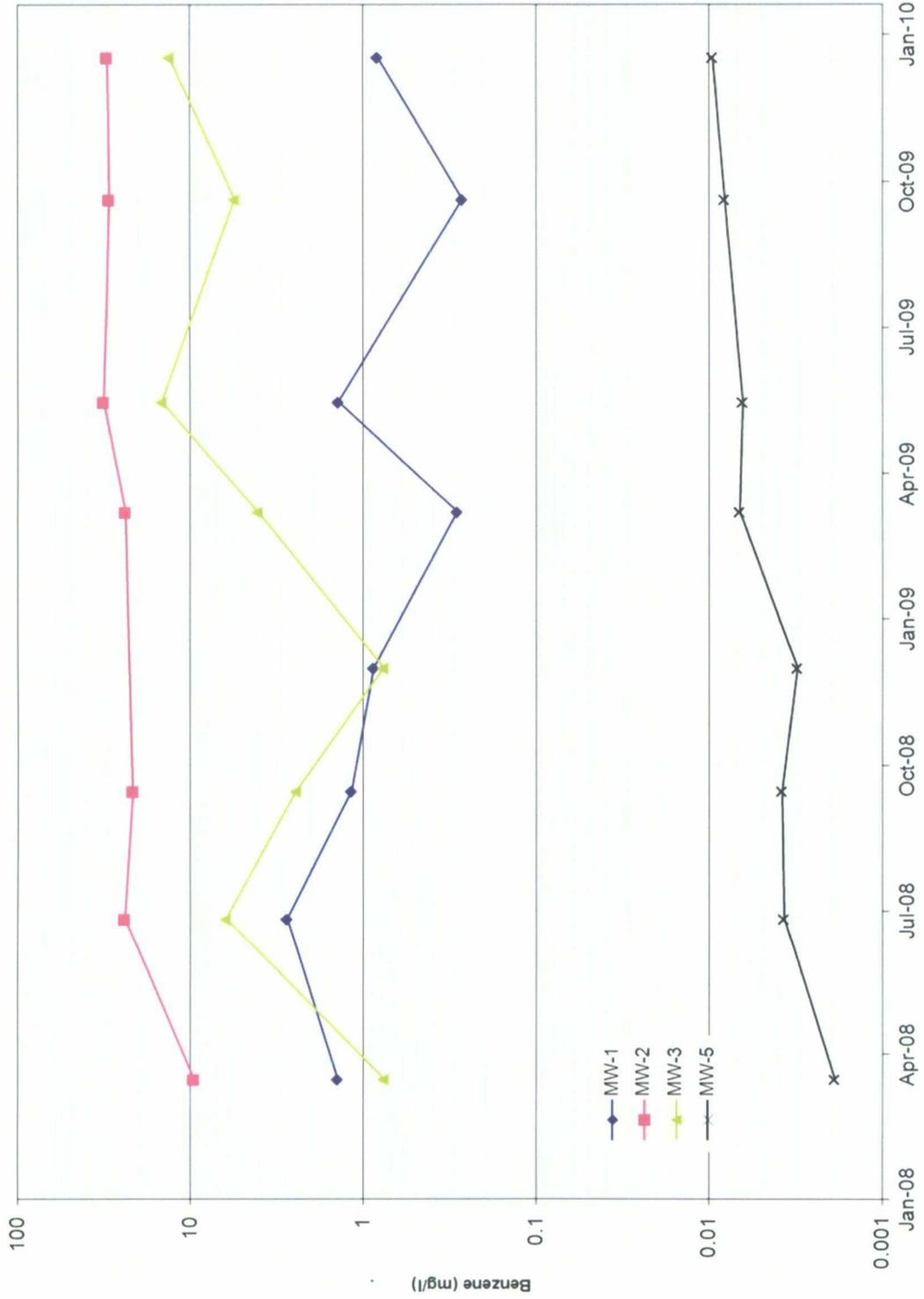


Figure 6 – Benzene Concentrations erses
Time

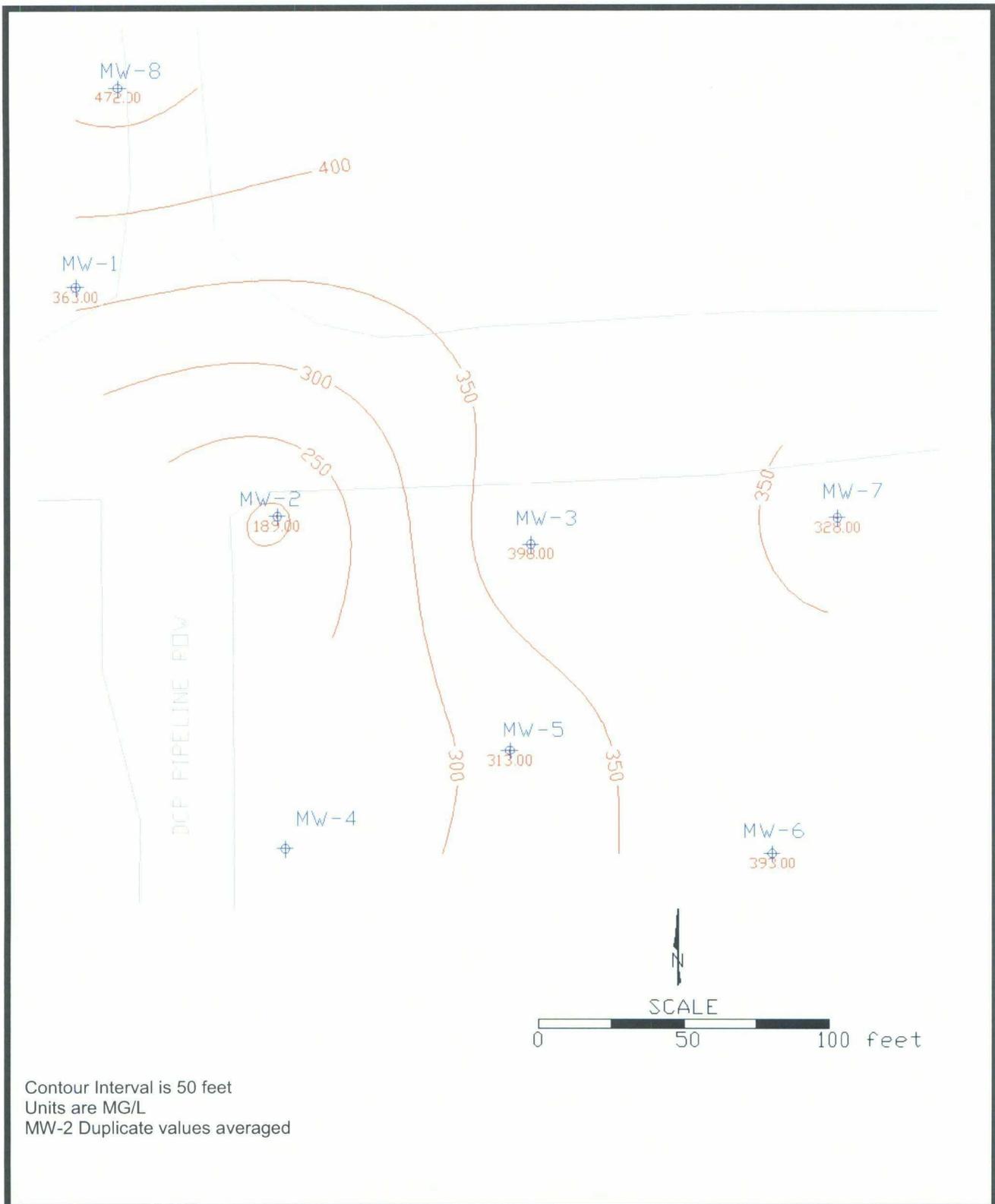


Figure 7 – Fourth Quarter 2009 Chlorides Concentrations
 RR Ext. AP 55



DRAWN BY: MHS
REVISER:
DATE: 2/10

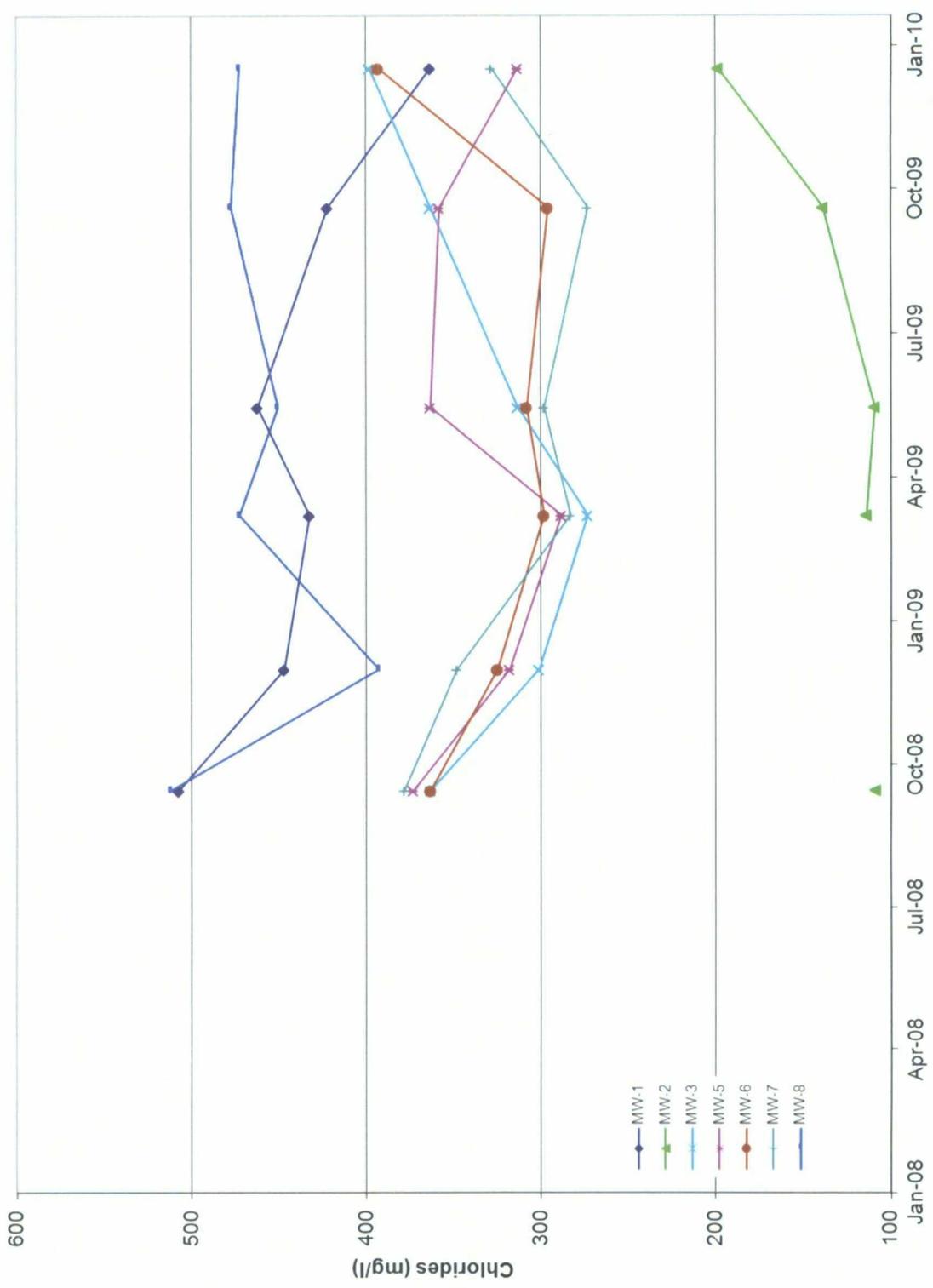


Figure 8 – Chloride Concentrations [mg/l] versus Time

RR EXT AP 55



DRAWN BY: MHS
DATE: 2/10

ATTACHMENT

WELL SAMPLING DATA AND
ANALYTICAL LABORATORY REPORT

WELL SAMPLING DATA FORM

CLIENT: DCP Midstream WELL ID: MW-3
 SITE NAME: RR-EXT DATE: 12/20/2009
 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: _____

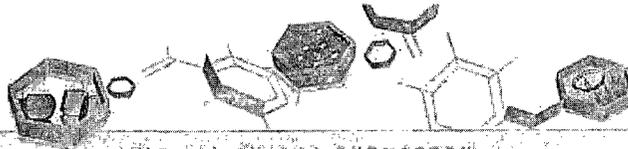
TOTAL DEPTH OF WELL: 37.50 Feet
 DEPTH TO WATER: 32.22 Feet
 HEIGHT OF WATER COLUMN: 5.28 Feet
 WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg/L	Turb	PHYSICAL APPEARANCE AND REMARKS
	1						
	2	17.7	1.55	7.37			
	3	17.8	1.55	7.40			Sampled at 0820

3.0 Volume: (gallons)

SAMPLE NO.: Collected Sample No.: MW-3
 ANALYSES: BTEX (8260)
 COMMENTS: _____



02/10/10

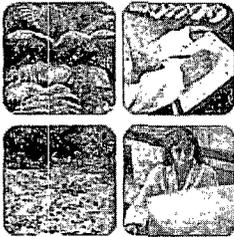
Technical Report for

DCP Midstream, LLC

AECCOLI: DCP Midstream RR Ext

Accutest Job Number: T44570

Sampling Date: 12/20/09



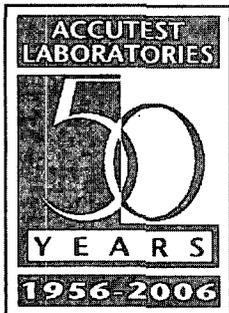
Report to:

American Environmental Consulting

mstewart@aecdenver.com

ATTN: Mike Stewart

Total number of pages in report: 37



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)

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

Table of Contents

Sections:



Section 1: Sample Summary	3
Section 2: Sample Results	4
2.1: T44570-1: MW-1	5
2.2: T44570-2: MW-2	7
2.3: T44570-3: MW-3	9
2.4: T44570-4: MW-5	11
2.5: T44570-5: MW-6	13
2.6: T44570-6: MW-7	15
2.7: T44570-7: MW-8	17
2.8: T44570-8: DUP	19
2.9: T44570-9: TRIP BLANK	21
Section 3: Misc. Forms	22
3.1: Chain of Custody	23
Section 4: GC/MS Volatiles - QC Data Summaries	27
4.1: Method Blank Summary	28
4.2: Blank Spike Summary	30
4.3: Matrix Spike/Matrix Spike Duplicate Summary	32
Section 5: General Chemistry - QC Data Summaries	34
5.1: Method Blank and Spike Results Summary	35
5.2: Duplicate Results Summary	36
5.3: Matrix Spike Results Summary	37



Sample Summary

DCP Midstream, LLC

Job No: T44570

AECCOLI: DCP Midstream RR Ext

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
T44570-1	12/20/09	08:50	12/22/09	AQ Ground Water	MW-1
T44570-2	12/20/09	08:40	12/22/09	AQ Ground Water	MW-2
T44570-3	12/20/09	08:20	12/22/09	AQ Ground Water	MW-3
T44570-4	12/20/09	08:20	12/22/09	AQ Ground Water	MW-5
T44570-5	12/20/09	08:00	12/22/09	AQ Ground Water	MW-6
T44570-6	12/20/09	08:05	12/22/09	AQ Ground Water	MW-7
T44570-7	12/20/09	09:00	12/22/09	AQ Ground Water	MW-8
T44570-7D	12/20/09	09:00	12/22/09	AQ Water Dup/MSD	MW-8 MSD
T44570-7S	12/20/09	09:00	12/22/09	AQ Water Matrix Spike	MW-8 MS
T44570-8	12/20/09	00:00	12/22/09	AQ Ground Water	DUP
T44570-9	12/20/09	00:00	12/22/09	AQ Trip Blank Water	TRIP BLANK



IT'S ALL IN THE CHEMISTRY

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: MW-1	Date Sampled: 12/20/09
Lab Sample ID: T44570-1	Date Received: 12/22/09
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: AECCOLI: DCP Midstream RR Ext	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F022891.D	1	12/31/09	AP	n/a	n/a	VF3706
Run #2	F022892.D	10	12/31/09	AP	n/a	n/a	VF3706

Run #	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	0.819 ^a	0.020	0.0050	mg/l	
108-88-3	Toluene	0.0267	0.0020	0.00043	mg/l	
100-41-4	Ethylbenzene	0.0880	0.0020	0.00055	mg/l	
1330-20-7	Xylene (total)	0.0120	0.0060	0.0017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	120%	122%	79-122%
17060-07-0	1,2-Dichloroethane-D4	123% ^b	119%	75-121%
2037-26-5	Toluene-D8	95%	96%	87-119%
460-00-4	4-Bromofluorobenzene	97%	97%	80-133%

(a) Result is from Run# 2

(b) Outside control limits due to matrix interference. Confirmed by reanalysis.

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

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

Report of Analysis

Client Sample ID:	MW-1	Date Sampled:	12/20/09
Lab Sample ID:	T44570-1	Date Received:	12/22/09
Matrix:	AQ - Ground Water	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	01/06/10 12:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-2	Date Sampled: 12/20/09
Lab Sample ID: T44570-2	Date Received: 12/22/09
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: AECCOLI: DCP Midstream RR Ext	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F022893.D	100	12/31/09	AP	n/a	n/a	VF3706
Run #2	F022894.D	200	12/31/09	AP	n/a	n/a	VF3706

Run #	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	28.5 ^a	0.40	0.10	mg/l	
108-88-3	Toluene	0.347	0.20	0.043	mg/l	
100-41-4	Ethylbenzene	0.570	0.20	0.055	mg/l	
1330-20-7	Xylene (total)	0.177	0.60	0.17	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	121%	122%	79-122%
17060-07-0	1,2-Dichloroethane-D4	123% ^b	121%	75-121%
2037-26-5	Toluene-D8	96%	96%	87-119%
460-00-4	4-Bromofluorobenzene	95%	98%	80-133%

- (a) Result is from Run# 2
- (b) Outside control limits due to matrix interference. Confirmed by reanalysis.

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

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

Report of Analysis

Client Sample ID:	MW-2	Date Sampled:	12/20/09
Lab Sample ID:	T44570-2	Date Received:	12/22/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	209	10	mg/l	10	01/06/10 12:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-3	Date Sampled: 12/20/09
Lab Sample ID: T44570-3	Date Received: 12/22/09
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: AECCOLI: DCP Midstream RR Ext	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F022895.D	100	12/31/09	AP	n/a	n/a	VF3706
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	13.1	0.20	0.050	mg/l	
108-88-3	Toluene	9.08	0.20	0.043	mg/l	
100-41-4	Ethylbenzene	1.20	0.20	0.055	mg/l	
1330-20-7	Xylene (total)	2.87	0.60	0.17	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	125% ^a		79-122%
17060-07-0	1,2-Dichloroethane-D4	120%		75-121%
2037-26-5	Toluene-D8	96%		87-119%
460-00-4	4-Bromofluorobenzene	95%		80-133%

(a) Outside control limits biased high. There are 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

2.3
2

Client Sample ID:	MW-3	Date Sampled:	12/20/09
Lab Sample ID:	T44570-3	Date Received:	12/22/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	398	10	mg/l	10	01/06/10 12:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-5	Date Sampled: 12/20/09
Lab Sample ID: T44570-4	Date Received: 12/22/09
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: AECCOLI: DCP Midstream RR Ext	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F022838.D	1	12/29/09	AP	n/a	n/a	VF3704
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	0.0096	0.0020	0.00050	mg/l	
108-88-3	Toluene	0.0155	0.0020	0.00043	mg/l	
100-41-4	Ethylbenzene	0.0013	0.0020	0.00055	mg/l	J
1330-20-7	Xylene (total)	0.0021	0.0060	0.0017	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	114%		79-122%
17060-07-0	1,2-Dichloroethane-D4	114%		75-121%
2037-26-5	Toluene-D8	96%		87-119%
460-00-4	4-Bromofluorobenzene	99%		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	Date Sampled:	12/20/09
Lab Sample ID:	T44570-4	Date Received:	12/22/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	313	10	mg/l	10	01/06/10 12:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-6	Date Sampled: 12/20/09
Lab Sample ID: T44570-5	Date Received: 12/22/09
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: AECCOLI: DCP Midstream RR Ext	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F022839.D	1	12/29/09	AP	n/a	n/a	VF3704
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	113%		79-122%
17060-07-0	1,2-Dichloroethane-D4	114%		75-121%
2037-26-5	Toluene-D8	96%		87-119%
460-00-4	4-Bromofluorobenzene	97%		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: T44570-5

Matrix: AQ - Ground Water

Project: AECCOLI: DCP Midstream RR Ext

Date Sampled: 12/20/09

Date Received: 12/22/09

Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	393	10	mg/l	10	01/06/10 12:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-7	Date Sampled:	12/20/09
Lab Sample ID:	T44570-6	Date Received:	12/22/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECCOLI: DCP Midstream RR Ext		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F022840.D	1	12/29/09	AP	n/a	n/a	VF3704
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	114%		79-122%
17060-07-0	1,2-Dichloroethane-D4	115%		75-121%
2037-26-5	Toluene-D8	96%		87-119%
460-00-4	4-Bromofluorobenzene	99%		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	Date Sampled:	12/20/09
Lab Sample ID:	T44570-6	Date Received:	12/22/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	328	10	mg/l	10	01/06/10 12:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-8	Date Sampled:	12/20/09
Lab Sample ID:	T44570-7	Date Received:	12/22/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECCOLI: DCP Midstream RR Ext		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F022841.D	1	12/29/09	AP	n/a	n/a	VF3704
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	115%		79-122%
17060-07-0	1,2-Dichloroethane-D4	116%		75-121%
2037-26-5	Toluene-D8	97%		87-119%
460-00-4	4-Bromofluorobenzene	99%		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	Date Sampled:	12/20/09
Lab Sample ID:	T44570-7	Date Received:	12/22/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	472	10	mg/l	10	01/06/10 12:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID: DUP	Date Sampled: 12/20/09
Lab Sample ID: T44570-8	Date Received: 12/22/09
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: AECCOLI: DCP Midstream RR Ext	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F022896.D	1	12/31/09	AP	n/a	n/a	VF3706
Run #2	F022897.D	200	12/31/09	AP	n/a	n/a	VF3706

Run #	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	31.8 ^a	0.40	0.10	mg/l	
108-88-3	Toluene	0.397 ^a	0.40	0.087	mg/l	J
100-41-4	Ethylbenzene	0.829 ^a	0.40	0.11	mg/l	
1330-20-7	Xylene (total)	0.193	0.0060	0.0017	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	126% ^b	117%	79-122%
17060-07-0	1,2-Dichloroethane-D4	80%	116%	75-121%
2037-26-5	Toluene-D8	91%	96%	87-119%
460-00-4	4-Bromofluorobenzene	89%	97%	80-133%

(a) Result is from Run# 2

(b) Outside control limits biased high. There are 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	Date Sampled:	12/20/09
Lab Sample ID:	T44570-8	Date Received:	12/22/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	AECCOLI: DCP Midstream RR Ext		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	189	10	mg/l	10	01/06/10 12:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	12/20/09
Lab Sample ID:	T44570-9	Date Received:	12/22/09
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	AECCOLI: DCP Midstream RR Ext		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F022883.D	1	12/31/09	AP	n/a	n/a	VF3706
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	119%		79-122%
17060-07-0	1,2-Dichloroethane-D4	114%		75-121%
2037-26-5	Toluene-D8	96%		87-119%
460-00-4	4-Bromofluorobenzene	97%		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

SAMPLE INSPECTION FORM

09:00

Accutest Job Number: T44570 Client: DCP MIDStream Date/Time Received: 12/22/09

of Coolers Received: 1 Thermometer #: 1R1 Temperature Adjustment Factor: +0.4

Cooler Temps: #1: 4.8 #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

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 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

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

CHAIN OF CUSTODY

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

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

Summary of Discrepancies:

TECHNICIAN SIGNATURE/DATE: Total 12/22/09

INFORMATION AND SAMPLE LABELING VERIFIED BY: EC 12.22.09

CORRECTIVE ACTIONS

Client Representative Notified: Date:

By Accutest Representative: Via: Phone Email

Client Instructions:

SAMPLE RECEIPT LOG

JOB #: T44570 DATE/TIME RECEIVED: 12/22/09 09:00
 CLIENT: DUP midstream INITIALS: TC

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH
	1	MW-1	12/20/09 8:50	W	P-500	1	3-K	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	12/20/09 8:40		P-500	1	3-K	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	12/20/09 8:20		P-500	1	3-K	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	12/20/09 8:20		P-500	1	3-K	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	12/20/09 8:00		P-500	1	3-K	① 2 3 4 5 6 7 8	<2 >12
					40ml	2-4	VR	1 2 3 4 5 6 7 8	<2 >12
	6	MW-7	12/20/09 8:05		P-500	1	3-K	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	12/20/09 9:00		P-500	1	3-K	① 2 3 4 5 6 7 8	<2 >12
					40ml	2-4	VR	1 2 3 4 5 6 7 8	<2 >12
		MS			40ml	5-7	VR	1 2 3 4 5 6 7 8	<2 >12
		MSD			40ml	8-10	VR	1 2 3 4 5 6 7 8	<2 >12
	8	DUP	12/20/09		P-500	1	3-K	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
			TC 12/22/09					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 (Solts) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer
 Rev R/13/01 am

T44570: Chain of Custody
 Page 4 of 4



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: T44570
Account: DUKE DCP Midstream, LLC
Project: AECCOLI: DCP Midstream RR Ext

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF3704-MB	F022827.D	1	12/29/09	AP	n/a	n/a	VF3704

The QC reported here applies to the following samples:

Method: SW846 8260B

T44570-4, T44570-5, T44570-6, T44570-7

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	108% 79-122%
17060-07-0	1,2-Dichloroethane-D4	108% 75-121%
2037-26-5	Toluene-D8	98% 87-119%
460-00-4	4-Bromofluorobenzene	101% 80-133%

Method Blank Summary

Job Number: T44570
Account: DUKE DCP Midstream, LLC
Project: AECCOLI: DCP Midstream RR Ext

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF3706-MB	F022882.D	1	12/31/09	AP	n/a	n/a	VF3706

4.1.2
4

The QC reported here applies to the following samples:

Method: SW846 8260B

T44570-1, T44570-2, T44570-3, T44570-8, T44570-9

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	116% 79-122%
17060-07-0	1,2-Dichloroethane-D4	113% 75-121%
2037-26-5	Toluene-D8	97% 87-119%
460-00-4	4-Bromofluorobenzene	98% 80-133%

Blank Spike Summary

Job Number: T44570
Account: DUKE DCP Midstream, LLC
Project: AECCOLI: DCP Midstream RR Ext

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF3704-BS	F022825.D	1	12/29/09	AP	n/a	n/a	VF3704

The QC reported here applies to the following samples:

Method: SW846 8260B

T44570-4, T44570-5, T44570-6, T44570-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	22.8	91	76-118
100-41-4	Ethylbenzene	25	22.3	89	75-112
108-88-3	Toluene	25	20.4	82	77-114
1330-20-7	Xylene (total)	75	64.5	86	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	108%	79-122%
17060-07-0	1,2-Dichloroethane-D4	108%	75-121%
2037-26-5	Toluene-D8	97%	87-119%
460-00-4	4-Bromofluorobenzene	98%	80-133%

Blank Spike Summary

Job Number: T44570
Account: DUKE DCP Midstream, LLC
Project: AECCOLI: DCP Midstream RR Ext

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF3706-BS	F022880.D	1	12/31/09	AP	n/a	n/a	VF3706

4.2.2
4

The QC reported here applies to the following samples:

Method: SW846 8260B

T44570-1, T44570-2, T44570-3, T44570-8, T44570-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	24.0	96	76-118
100-41-4	Ethylbenzene	25	21.0	84	75-112
108-88-3	Toluene	25	19.3	77	77-114
1330-20-7	Xylene (total)	75	60.4	81	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	113%	79-122%
17060-07-0	1,2-Dichloroethane-D4	110%	75-121%
2037-26-5	Toluene-D8	98%	87-119%
460-00-4	4-Bromofluorobenzene	97%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T44570
 Account: DUKE DCP Midstream, LLC
 Project: AECCOLI: DCP Midstream RR Ext

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T44570-7MS	F022842.D	1	12/29/09	AP	n/a	n/a	VF3704
T44570-7MSD	F022843.D	1	12/29/09	AP	n/a	n/a	VF3704
T44570-7	F022841.D	1	12/29/09	AP	n/a	n/a	VF3704

The QC reported here applies to the following samples:

Method: SW846 8260B

T44570-4, T44570-5, T44570-6, T44570-7

CAS No.	Compound	T44570-7 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	25	22.7	91	23.4	94	3	76-118/16
100-41-4	Ethylbenzene	ND	25	22.4	90	22.5	90	0	75-112/12
108-88-3	Toluene	ND	25	19.9	80	20.1	80	1	77-114/12
1330-20-7	Xylene (total)	ND	75	65.0	87	64.9	87	0	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T44570-7	Limits
1868-53-7	Dibromofluoromethane	116%	112%	115%	79-122%
17060-07-0	1,2-Dichloroethane-D4	116%	112%	116%	75-121%
2037-26-5	Toluene-D8	96%	98%	97%	87-119%
460-00-4	4-Bromofluorobenzene	95%	95%	99%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T44570
 Account: DUKE DCP Midstream, LLC
 Project: AECCOLI: DCP Midstream RR Ext

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T44945-1MS	F022886.D	1	12/31/09	AP	n/a	n/a	VF3706
T44945-1MSD	F022887.D	1	12/31/09	AP	n/a	n/a	VF3706
T44945-1	F022885.D	1	12/31/09	AP	n/a	n/a	VF3706

4.3.2
4

The QC reported here applies to the following samples:

Method: SW846 8260B

T44570-1, T44570-2, T44570-3, T44570-8, T44570-9

CAS No.	Compound	T44945-1 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	7.1	25	31.0	96	31.4	97	1	76-118/16
100-41-4	Ethylbenzene	ND	25	21.0	84	21.1	84	0	75-112/12
108-88-3	Toluene	ND	25	18.6	74*	19.1	76*	3	77-114/12
1330-20-7	Xylene (total)	ND	75	61.4	82	61.1	81	0	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T44945-1	Limits
1868-53-7	Dibromofluoromethane	122%	117%	123%* a	79-122%
17060-07-0	1,2-Dichloroethane-D4	115%	112%	117%	75-121%
2037-26-5	Toluene-D8	93%	94%	96%	87-119%
460-00-4	4-Bromofluorobenzene	93%	93%	98%	80-133%

(a) Outside control limits biased high. There are no target compounds associated with this surrogate.



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: T44570
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	GP7617/GN19965	1.0	0.0	mg/l	1000	969	96.9	92-107%

Associated Samples:

Batch GP7617: T44570-1, T44570-2, T44570-3, T44570-4, T44570-5, T44570-6, T44570-7, T44570-8
(* Outside of QC limits)

5.1



DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T44570
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	GP7617/GN19965	T44570-1	mg/l	363	363	0.0	0-5%

Associated Samples:

Batch GP7617: T44570-1, T44570-2, T44570-3, T44570-4, T44570-5, T44570-6, T44570-7, T44570-8

(*) Outside of QC limits

5.2

5

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T44570
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	GP7617/GN19965	T44570-1	mg/l	363	100	457	94.4	81-119%

Associated Samples:

Batch GP7617: T44570-1, T44570-2, T44570-3, T44570-4, T44570-5, T44570-6, T44570-7, T44570-8

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

5.3

