1RP-1728

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 11, 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 Monitoring Results
DCP Midstream, LP J-4-2 Pipeline Release (1RP-1728)
Unit C, Section 27, Township 19 South, Range 35 East
Lea County, New Mexico

Dear Mr. Lowe:

DCP Midstream, LP (DCP) is pleased to submit for your review, a copy of the 3rd Quarter 2009 Groundwater Monitoring Results for the DCP J-4-2 Pipeline Release located in Lea County, New Mexico (Unit C, Section 27, Township 19 South, Range 35 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 6, 2009

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

Re: Summary of the Third Quarter 2009 Groundwater Monitoring Results for the DCP J-4-2 Pipeline Release, Lea County New Mexico **(1RP-1728)**
Unit C, Section 27 Township 19 South, Range 35 East

Dear Mr. Weathers:

This report summarizes the third quarter 2009 groundwater monitoring activities completed at the J-4-2 release location for DCP Midstream, LP. The site is located in the northeastern quarter of the northwestern quarter (Unit C) of Section 27, Township 19 South, Range 35 East approximately 3 miles south of the of intersection of US Highway 82 and State Highway 483 in Lea County New Mexico (Figure 1). The approximate coordinates are 32.647 degrees north and 103.447 degrees west.

The monitoring network includes the seven groundwater monitoring wells shown on Figure 2. Table 1 summarizes construction information for each well. Monitoring well MW-5 was not installed because of drilling refusal. Five wells were sampled. Wells MW-1 and MW-2 were not sampled because they contained free phase hydrocarbons (FPH).

GROUNDWATER SAMPLING

Groundwater sampling was completed on September 24, 2009. The depth to water and, if present, free phase hydrocarbons (FPH) were measured in each well prior to completing the purging and sampling activities. The water-table elevations for the wells containing FPH were adjusted using the following formula:

$GWE_{corr} = MGWE + (PT*PD)$: where

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

The calculated groundwater elevations for all monitoring episodes are summarized in Table 2. FPH was measured at thicknesses of 0.32 feet in MW-1 and 0.26 feet in MW-2. The historic FPH thickness values are summarized in Table 3. The September 2009 thicknesses were similar to the March 2009 and May 2009 values.

Wells MW-3, MW-4, MW-6, MW-7 and MW-8 were purged and sampled with dedicated bailers. Purging continued until a minimum of three casing volumes of water was removed and the field parameters temperature, pH and conductivity stabilized. The well purging forms are attached. The affected purge water was disposed of at the DCP Linam Ranch facility.

Unfiltered samples were collected following stabilization using the dedicated bailers. All samples were placed in an ice-filled chest immediately upon collection and delivered to Accutest Laboratories using standard chain-of-custody protocol. The samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) by method SW846 8260B and chlorides by method SM 4500 CL.

RESULTS AND INTERPRETATIONS

The laboratory report is attached. The QA/QC evaluation included:

- The method blanks and blank spikes were all within their respective control limits.
- All of the individual surrogate spikes were within their control limits.
- The matrix spike and matrix spike duplicate results from MW-7 were within the control limits for all four constituents.
- There were no BTEX detects in the trip blanks or the primary and field duplicate samples from MW-3.
- The 30.4 relative percentage difference for chlorides from the primary and field duplicate samples from MW-3 is high but acceptable because the data is to be used for routine groundwater monitoring evaluation..

The above information indicates that the data is suitable for use as periodic groundwater monitoring data.

The laboratory analysis for the third quarter 2009 sampling episode are summarized in Table 4. Tables 5, 6, 7 and 8 summarize all of the data collected during this project for benzene, toluene, ethylbenzene and xylenes respectively. Table 9 summarizes the chloride data. The New Mexico Water Quality Control Commission (NMWQCC) groundwater standards are reproduced at the top of each table. The constituents that exceed these standards are highlighted as bold text. Note that the chlorides standard is a secondary (non-health based) standard.

Groundwater Flow

Figure 3 shows the hydrographs for the corrected water-table elevations for the site wells. The water table declined in all wells with the highest rate in MW-7 and MW-8. The water table has declined between approximately 2 and 3 feet in in all of the wells since measurements began in February 2006.
The third quarter 2009 calculated water table elevation contours as generated using the Surfer® program with the kriging option are shown on Figure 4. Groundwater flow is

toward the southeast. The groundwater flow direction has remained constant over the duration of the project.

The relative FPH thickness in MW-1 and MW-2 has remained relatively constant over the first, second and third quarter 2009 sampling events (Table 3). Periodic FPH removal will be initiated in these two wells during the fourth quarter of 2009.

Groundwater Chemistry

Examination of Table 4 shows that none of the BTEX constituents were detected in the sampled wells. The benzene concentrations are plotted on Figure 5 along with the wells that contained FPH. Comparison of Figure 4 with Figure 5 demonstrates that any dissolved-phase BTEX constituents from MW-1 and MW-2 attenuate to concentrations that are below the method reporting limits before reaching MW-7 or MW-8.

It is also important to note that:

- The toluene, ethylbenzene and total xylenes concentrations have never exceeded the NMWQCC standards in wells MW-3 through MW-8;
- Benzene has not been detected in MW-4 since March 2007; and
- Benzene has never been detected in down-gradient wells MW-6, MW-7 and MW-8.

Examination of Table 9, the historical chlorides data, indicates that the chlorides concentrations in all wells exceed the NMWQCC secondary standard of 250 mg/l except for the fourth quarter 2008 value from MW-4 which appears to have been anomalously low. The chloride concentrations are plotted verses the sampling dates on Figure 6 with the anomalous fourth quarter MW-4 value deleted. There does not appear to be an increasing chloride trend in any of the wells.

A chloride isopleth map generated from the third quarter 2009 data using the Surfer® program is included as Figure 7. The chloride distribution indicates a source to the west and outside of the DCP release area. This pattern had remained constant throughout the duration of the project.

CONCLUSIONS AND RECOMMENDATIONS

Based upon the data collected to date, AEC concludes that:

1. Groundwater flow remains constant toward the southeast;
2. The presence of dissolved phase BTEX constituents is limited to the original release area as defined by MW-1 and MW-2;
3. The dissolved-phase hydrocarbon plume associated with the DCP J-4-2 pipeline release is either stable or contracting;

4. The third quarter 2009 data continue to confirm that the chlorides that are present in the groundwater did not originate from the DCP release.

The next groundwater-monitoring event is scheduled for the fourth quarter of 2009. Do not hesitate to contact me if you have any questions or comments on this letter.

Sincerely,
AMERICAN ENVIRONMENTAL CONSULTING, LLC

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

MHS/tbm

attachment

TABLES

Table 1 – Summary of Monitoring Well Completions at the J-4-2 Site

Name	Date Installed	Stickup	Casing Diameter (inches)	Total Depth (btoc)	Screen Interval (ground)	Sand Interval
MW-1	2/06	3.17	2	43.05	19-39	17-39
MW-2	2/06	3.08	4	43.30	19-39	17-39
MW-3	2/06	3.21	2	43.00	19-39	17-39
MW-4	9/06	3.12	2	38.12	20-35	18-35
MW-5	Not installed because of drilling refusal					
MW-6	9/06	3.32	2	38.32	20-35	18-35
MW-7	9/06	2.95	2	39.45	21.5-36.5	19.5-36.5
MW-8	9/06	3.32	2	38.32	20-35	18-35

All units are feet except as noted
btoc: Below top of casing

Table 2 - Summary of Water Table Elevations for the J-4-2 Site

Well	2/15/06	9/25/06	12/21/06	3/14/07	6/26/07	9/25/07	11/30/07
MW-1	3713.61	3712.60	3712.63	3712.29	3712.15	3711.86	3712.42
MW-2	3713.93	3713.48	3712.49	3712.75	3712.63	3712.34	3712.91
MW-3	3713.36	3712.57	3712.57	3712.55	3712.79	3711.50	3712.09
MW-4		3712.80	3712.82	3712.78	3713.25	3712.98	3713.48
MW-6		3711.76	3712.00	3711.96	3711.87	3711.56	3711.92
MW-7		3711.03	3710.80	3710.73	3710.50	3709.87	3710.33
MW-8		3709.22	3708.95	3708.79	3708.54	3708.06	3708.33

Well	3/20/08	6/27/08	9/16/08	12/3/08	3/11/09	5/18/09	9/24/09
MW-1	3713.48	NM	NM	3711.94	3712.19	3712.05	3711.48
MW-2	3713.40	NM	NM	3712.14	3711.99	3711.87	3711.28
MW-3	3713.30	3713.09	3712.34	3712.25	3712.10	3711.90	3711.35
MW-4	3713.70	3713.13	3712.18	3712.10	3712.36	3712.13	3711.69
MW-6	3712.53	3712.20	3711.86	3711.70	3711.57	3711.42	3711.22
MW-7	3711.38	3710.95	3710.11	3710.00	3709.84	3709.51	3708.55
MW-8	3709.17	3708.78	3708.23	3708.13	3707.95	3708.10	3706.79

Units are feet
Blank cells: wells not installed
NM: Not measured because of probe malfunction.

Table 3 - Summary of Free Phase Hydrocarbon Thickness Values for MW-1 and MW-2

Date	MW-1	MW-2
02/15/06	0.00	0.57
09/25/06	0.00	0.15
12/21/06	0.09	0.13
03/14/07	0.07	0.10
06/26/07	0.09	0.00
09/25/07	0.09	0.03
11/30/07	0.00	0.00
03/20/08	0.00	0.00
06/27/08	0.04	0.01
09/16/08	0.08	0.02
12/03/08	0.21	0.17
03/11/09	0.32	0.27
05/18/09	0.35	0.26
09/24/09	0.32	0.26

Units are feet

Table 4 - Summary of Third Quarter 2009 Groundwater Sampling Results

Well	Benzene	Toluene	Ethyl benzene	Total Xylene	Chlorides
NMWQCC Groundwater Standard	0.01	0.75	0.75	0.62	250*
MW-3	<0.002	<0.002	<0.002	<0.006	**2,710**
MW-3 Duplicate	<0.002	<0.002	<0.002	<0.006	**3,680**
MW-4	<0.002	<0.002	<0.002	<0.006	**1,490**
MW-6	<0.002	<0.002	<0.002	<0.006	**373**
MW-7	<0.002	<0.002	<0.002	<0.006	**1,140**
MW-8	<0.002	<0.002	<0.002	<0.006	**403**
Trip Blank	<0.002	<0.002	<0.002	<0.006	NA

Notes: Units are mg/l,
MW-1 and MW-2 not sampled because free phase hydrocarbons were present
MW-5 was not installed because of drilling refusal
NMWQCC: New Mexico Water Quality Control Commission
Values above the NMWQCC standard are highlighted as bold text.
* Secondary (aesthetics) rather than primary (health-based) standards.
NA: the trip blank was not analyzed for chlorides.

Table 5 – Summary of Benzene Groundwater Data

Well	2/06	9/06	12/06	3/07	6/07	9/07	11/07	3/08	6/08	9/08	12/08	3/11/09	5/18/09	9/24/09
MW-1	0.139	0.0487	FPH	FPH	FPH	0.011	0.107	0.037	FPH	FPH	FPH	FPH	FPH	FPH
MW-2	0.026	0.0045	0.006	0.188	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH
MW-3	<0.001	<0.002	<0.002	<0.002	0.003	<0.001	0.0011J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-4	NI	0.0086	0.025	0.004	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-6	NI	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-7	NI	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-8	NI	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Notes: Units are mg/l,
MW-5 was not installed
Duplicates are averaged together
J modifiers are not included in this table
FPH: Free phase hydrocarbons present so well not sampled
NI: Well not installed

Table 6 – Summary of Toluene Groundwater Data

Well	2/06	9/06	12/06	3/07	6/07	9/07	11/07	3/08	6/08	9/08	12/08	3/11/09	5/18/09	9/24/09
MW-1	0.326	0.0058	FPH	FPH	FPH	0.003	0.024	0.0155	FPH	FPH	FPH	FPH	FPH	FPH
MW-2	0.038	<0.001	0.003	0.006	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH
MW-3	<0.001	<0.002	<0.002	<0.002	0.005	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-4	NI	0.00093J	0.005	6E-04	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-6	NI	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-7	NI	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-8	NI	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Notes: Units are mg/l.
MW-5 was not installed
Duplicates are averaged together
J modifiers are not included in this table
FPH: Free phase hydrocarbons present so well not sampled
NI: Well not installed

Table 7 – Summary of Ethylbenzene Groundwater Data

Well	2/06	9/06	12/06	3/07	6/07	9/07	11/07	3/08	6/08	9/08	12/08	3/11/09	5/18/09	9/24/09
MW-1	0.34	0.0284	FPH	FPH	FPH	0.004	0.04	0.014	FPH	FPH	FPH	FPH	FPH	FPH
MW-2	0.04	0.0027	0.003	0.026	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH
MW-3	<0.001	<0.002	<0.002	<0.002	0.002	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-4	NI	0.0092	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-6	NI	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-7	NI	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
MW-8	NI	<0.002	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Notes: Units are mg/l.
MW-5 was not installed
Duplicates are averaged together
J modifiers are not included in this table
FPH: Free phase hydrocarbons present so well not sampled
NI: Well not installed

Table 8 – Summary of Total Xylenes Groundwater Data

Well	2/06	9/06	12/06	3/07	6/07	9/07	11/07	3/08	6/08	9/08	12/08	3/11/09	5/18/09	9/24/09
MW-1	0.31	0.0694	FPH	FPH	FPH	0.098	0.39	0.215	FPH	FPH	FPH	FPH	FPH	FPH
MW-2	0.335	0.0471	0.0613	0.125	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH	FPH
MW-3	<0.002	<0.006	<0.006	<0.006	0.01	<0.001	<0.006	<0.006	0.007	<0.006	<0.006	<0.002	<0.002	<0.002
MW-4	NI	0.0061	0.0065	0.003	0.003	<0.001	<0.006	<0.006	<0.006	0.0041J	<0.006	<0.002	<0.002	<0.002
MW-6	NI	<0.006	<0.006	<0.006	<0.001	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.002	<0.002	<0.002
MW-7	NI	<0.006	<0.006	<0.006	0.003	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.002	<0.002	<0.002
MW-8	NI	<0.006	<0.006	<0.006	<0.001	<0.001	<0.006	<0.006	<0.006	<0.006	<0.006	<0.002	<0.002	<0.002

Notes: Units are mg/l.
MW-5 was not installed
Duplicates are averaged together
J modifiers are not included in this table
FPH: Free phase hydrocarbons present so well not sampled
NI: Well not installed

Table 9 – Summary of Chlorides Groundwater Data

Well	3/14/07	6/26/07	9/16/08	12/3/08	3/11/09	5/18/09	9/24/09
MW-3	7,800	10,800	4,070	2,625	2,860	3,270	3,195
MW-4	1,300	1,380	1,440	70	1,390	1,440	1,490
MW-6	669	544	537	391	363	383	373
MW-7	1,230	1,150	1,180	1,050	944	1,090	1,140
MW-8	609	617	735	480	417	378	403

Notes: Units are mg/l
Duplicates are averaged together
Values above the 250 NMWQCC secondary standard are highlighted as bold text

FIGURES

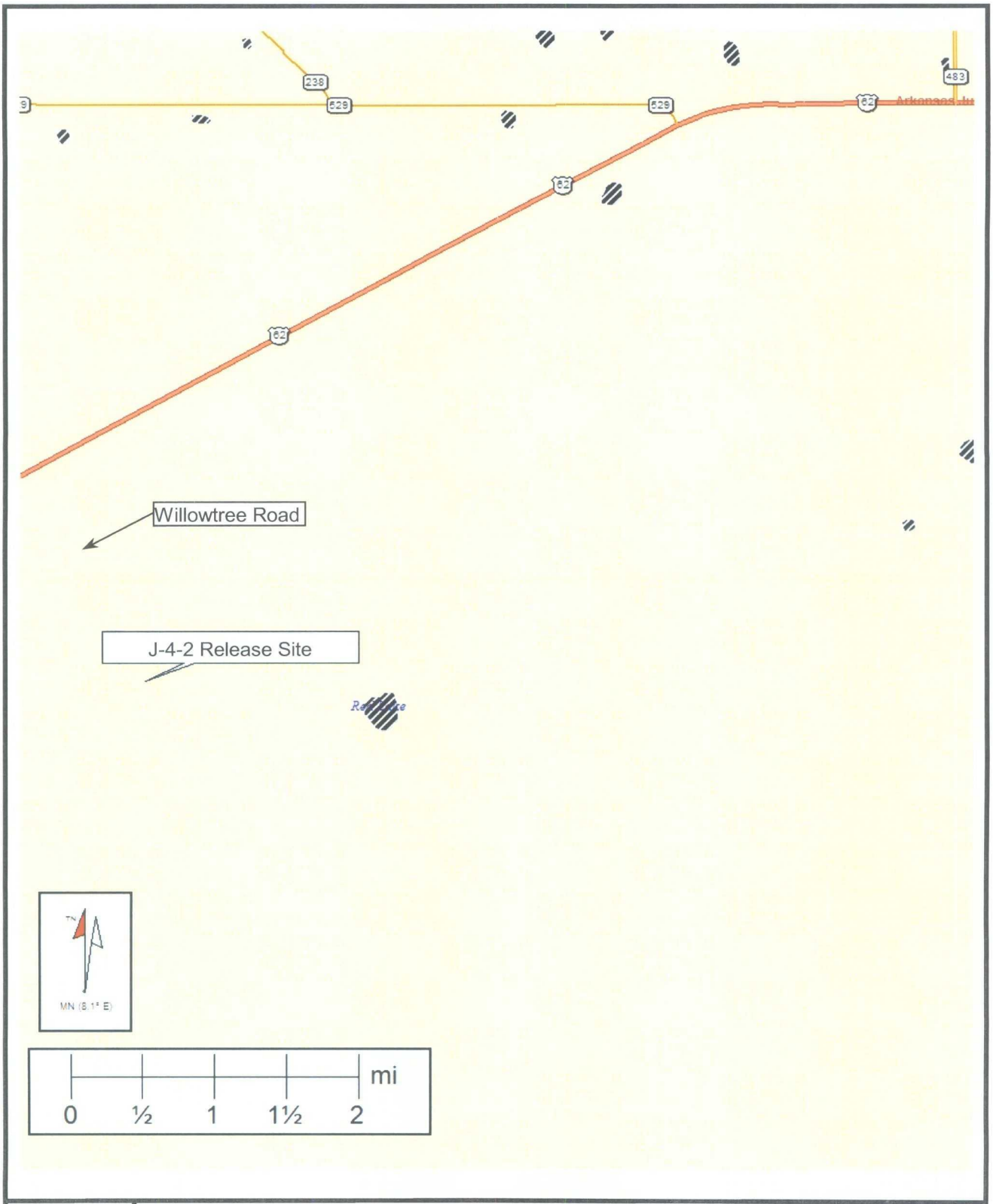


Figure 1 – Site Location

J-4-2 Groundwater Monitoring

dcp Midstream

DRAWN BY: MHS

REVISED:

DATE: 5/06

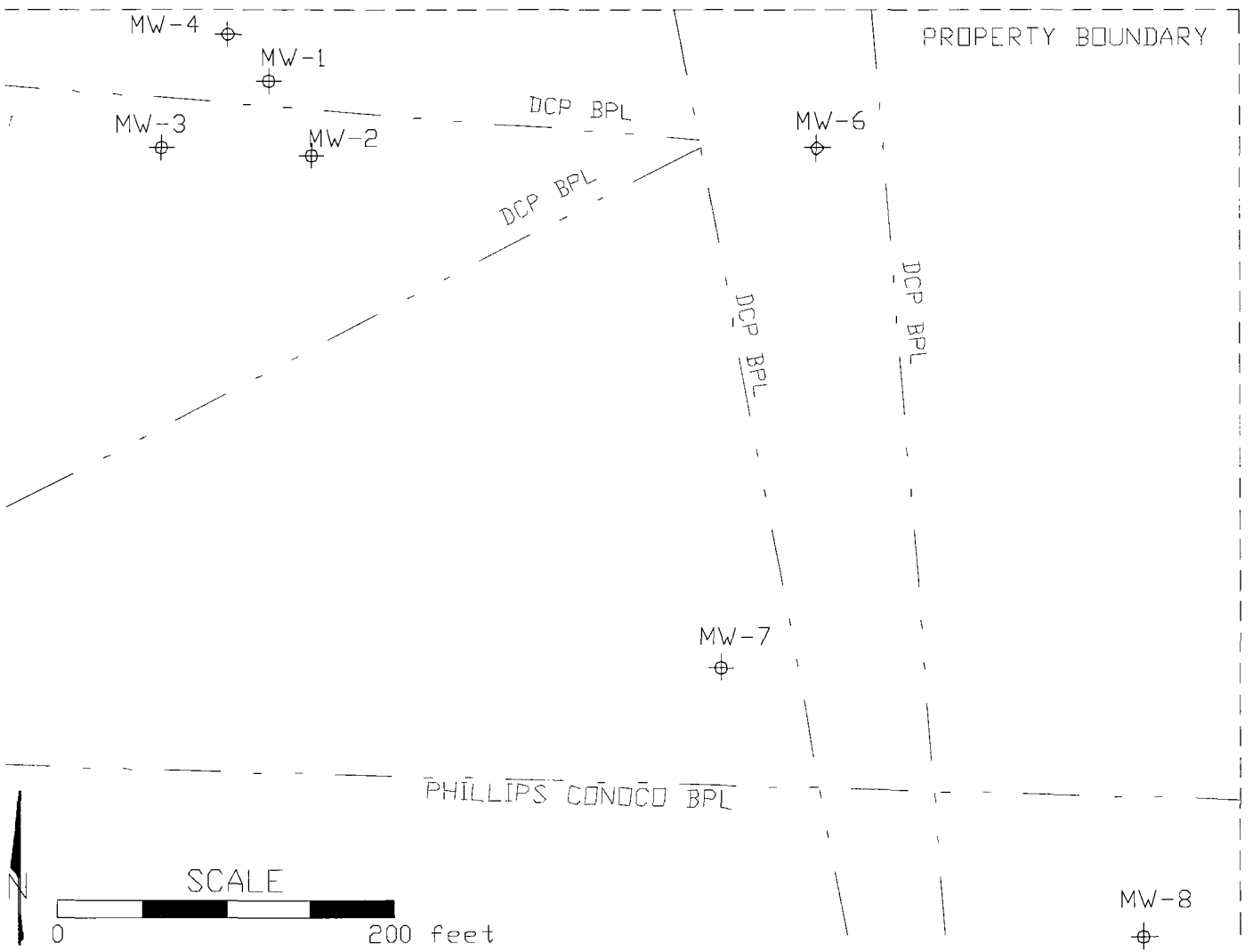


Figure 2 – Site Details

J-4-2 Groundwater Monitoring

DRAWN BY: MHS

DATE: 10/08

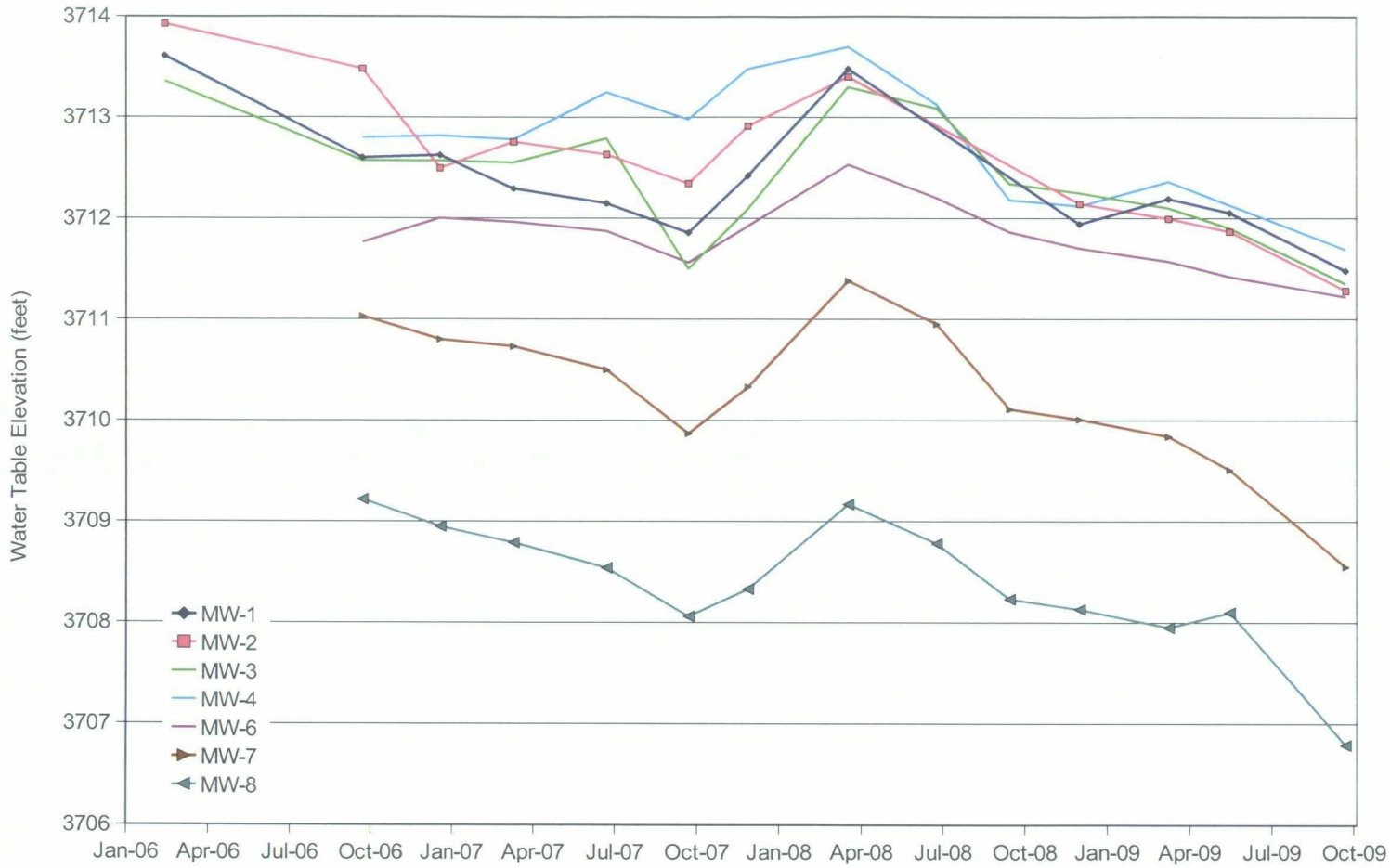


Figure 3 – Monitoring Well Hydrographs

J-4-2 Groundwater Monitoring

dcp Midstream.

DRAWN BY: MHS

DATE: 10/09

Contour interval is 1 foot

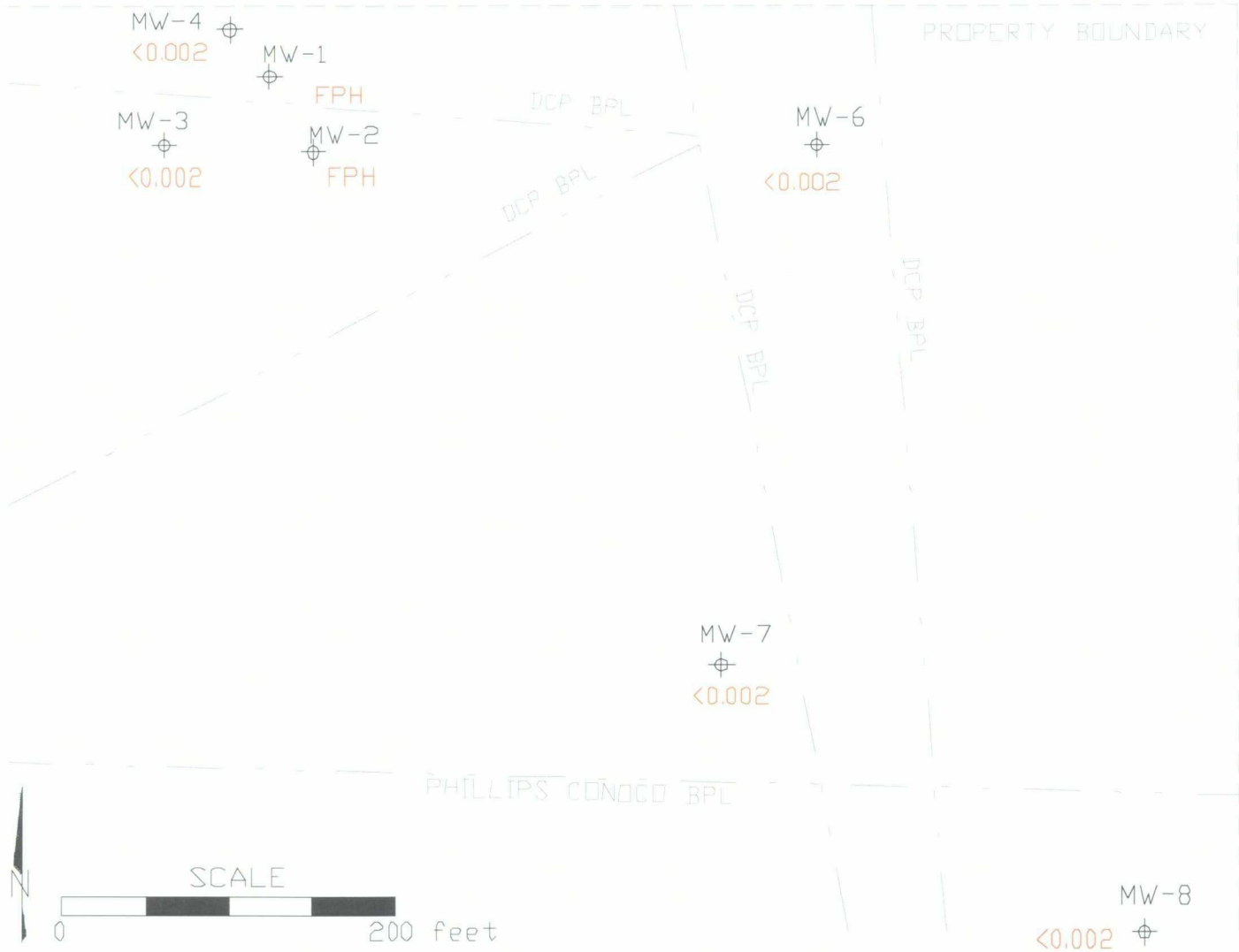
Figure 4 – Third Quarter 2009 Water Table Elevations

J-4-2 Groundwater Monitoring

dcp Midstream.

DRAWN BY: MHS

DATE: 10/09



Units are mg/l
FPH: free phase hydrocarbons

Figure 5 – Third Quarter 2009 Benzene Results

J-4-2 Groundwater Monitoring

DRAWN BY: MHS

DATE: 10/09

Note: The December 2008 value of 70 mg/l for MW-4 is not shown because it is believed to be an outlier

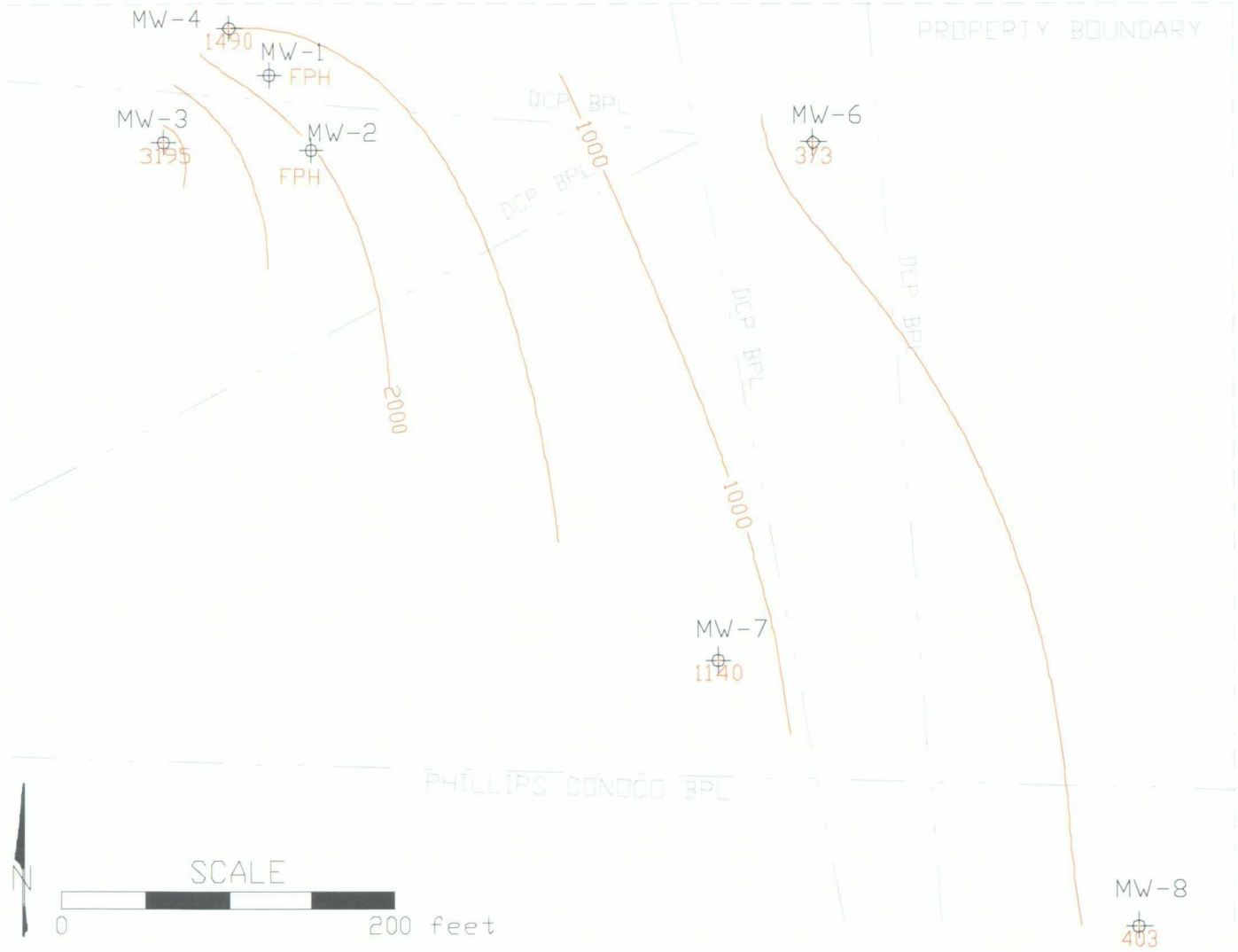
Figure 6 – Chloride Concentrations Verses Sampling Date

J-4-2 Groundwater Monitoring

dcp Midstream.

DRAWN BY: MHS

DATE: 10/09



Units are mg/l
FPH: well not sampled because of free phase hydrocarbons

Figure 7 – Third Quarter 2009 Chloride Isopleths

J-4-2 Groundwater Monitoring

dcp Midstream.

DRAWN BY: MHS

DATE: 10/09

WELL SAMPLING DATA

AND LABORATORY ANALYTICAL REPORT

WELL SAMPLING DATA FORM

CLIENT: **DCP Midstream** WELL ID: **MW-1**

SITE NAME: J 4 2 DATE: 9/24/2009

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

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

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

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other:

TOTAL DEPTH OF WELL: 43.05 Feet
DEPTH TO WATER: 28.97 Feet
HEIGHT OF WATER COLUMN: 14.08 Feet
WELL DIAMETER: 4.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. *m* S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
	0.0	--	--	--			No Sampe / Free Product Present
0.0	: Total volume purged						

SAMPLE NO.: MW-1

ANALYSES:

COMMENTS: No Sampe / Free Product Present

WELL SAMPLING DATA FORM

CLIENT: **DCP Midstream** WELL ID: **MW-2**

SITE NAME: J 4 2 DATE: 9/24/2009

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

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

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

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other:

TOTAL DEPTH OF WELL: 43.30 Feet
DEPTH TO WATER: 29.34 Feet
HEIGHT OF WATER COLUMN: 13.96 Feet
WELL DIAMETER: 2.0 Inch

6.8 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 / Free Product Present
0.0	: Total volume purged						

SAMPLE NO.: MW-2

ANALYSES:

COMMENTS: No Sample / Free Product Present

WELL SAMPLING DATA FORM

CLIENT: **DCP Midstream** WELL ID: **MW-3**

SITE NAME: J 4 2 DATE: 9/24/2009

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

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

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

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

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

TOTAL DEPTH OF WELL: 43.00 Feet
DEPTH TO WATER: 28.04 Feet
HEIGHT OF WATER COLUMN: 14.96 Feet
WELL DIAMETER: 2.0 Inch

7.3 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
	2.5	18.8	4.38	6.91			
	5	18.6	5.93	6.91			
	7.5	18.3	7.66	6.92			
	10	18.3	6.81	6.94			Sampled at 1845
10.0	: Total volume purged						

SAMPLE NO.: MW-3

ANALYSES: BTEX (8260)

COMMENTS: Collected duplicate sample DUP

WELL SAMPLING DATA FORM

CLIENT: **DCP Midstream** WELL ID: **MW-4**

SITE NAME: J 4 2 DATE: 9/24/2009

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

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

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

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☑ Alconox ☑ Distilled Water Rinse ☐ Other:

TOTAL DEPTH OF WELL: 38.12 Feet
DEPTH TO WATER: 28.55 Feet
HEIGHT OF WATER COLUMN: 9.57 Feet
WELL DIAMETER: 2.0 Inch

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

TIME	VOLUME PURGED	TEMP. °C	COND. *m*S/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
	1.6	19.4	3.61	6.92			
	3.2	18.9	3.68	7.01			
	4.8	18.6	3.82	7.06			Sampled at 1835
4.8	: Total volume purged						

SAMPLE NO.: MW-4

ANALYSES: BTEX (8260)

COMMENTS:

WELL SAMPLING DATA FORM

CLIENT: **DCP Midstream** WELL ID: **MW-6**

SITE NAME: J 4 2 DATE: 9/24/2009

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

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

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

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

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

TOTAL DEPTH OF WELL: 34.35 Feet
DEPTH TO WATER: 28.74 Feet
HEIGHT OF WATER COLUMN: 5.61 Feet
WELL DIAMETER: 2.0 Inch

2.7 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
	1.6	18.5	1.78	7.23			
	3.2	18.7	1.70	7.21			
	4.8	18.9	1.66	7.18			Sampled at 1900
4.8	: Total volume purged						

SAMPLE NO.: MW-6

ANALYSES: BTEX (8260)

COMMENTS: _____

WELL SAMPLING DATA FORM

CLIENT: **DCP Midstream** WELL ID: **MW-7**

SITE NAME: J 4 2 DATE: 9/24/2009

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

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

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

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

☑ Gloves ☐ Alconox ☐ Distilled Water Rinse ☐ Other:

TOTAL DEPTH OF WELL: 39.45 Feet
DEPTH TO WATER: 32.18 Feet
HEIGHT OF WATER COLUMN: 7.27 Feet
WELL DIAMETER: 2.0 Inch

3.6 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
	1.3	18.9	1.06	7.04			
	2.9	18.9	1.07	7.06			
	3.9	17.9	1.06	7.03			Sampled at 1920
3.9	: Total volume purged						

SAMPLE NO.: MW-7

ANALYSES: BTEX (8260)

COMMENTS: Collected MS/MSD

WELL SAMPLING DATA FORM

CLIENT: **DCP Midstream** WELL ID: **MW-8**

SITE NAME: J 4 2 DATE: 9/24/2009

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

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

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

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL:

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

TOTAL DEPTH OF WELL: 38.32 Feet

DEPTH TO WATER: 30.53 Feet

HEIGHT OF WATER COLUMN: 7.79 Feet

WELL DIAMETER: 2.0 Inch

3.8 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
	1.3	18.4	1.6	7.09			
	2.6	18.4	1.63	7.17			
	3.9	18.4	1.61	7.23			Sampled at 1940
3.9	: Total volume purged						

SAMPLE NO.: MW-8

ANALYSES: BTEX (8260)

COMMENTS: _____

Gulf Coast ACCUTEST Laboratories

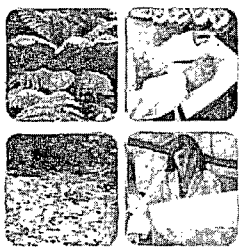
IT'S ALL IN THE CHEMISTRY

10/24/09

Technical Report for

DCP Midstream, LLC

AECCOLI: DEFS J-4-2



Accutest Job Number: T38409

Sampling Date: 09/24/09

Report to:

American Environmental Consulting

mstewart@aecdenver.com

ATTN: Mike Stewart

Total number of pages in report: 32

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

ACCUTEST LABORATORIES 50 YEARS 1956-2006

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)

Sections: 1 2 3 4 5

Table of Contents

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Sample Summary

DCP Midstream, LLC

Job No: T38409

AECCOLI: DEFS J-4-2

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
T38409-1	09/24/09	06:45		09/26/09	AQ	Ground Water	MW-3
T38409-2	09/24/09	06:35		09/26/09	AQ	Ground Water	MW-4
T38409-3	09/24/09	07:00		09/26/09	AQ	Ground Water	MW-6
T38409-4	09/24/09	07:20		09/26/09	AQ	Ground Water	MW-7
T38409-4D	09/24/09	07:20		09/26/09	AQ	Water Dup/MSD	MW-7 MSD
T38409-4S	09/24/09	07:20		09/26/09	AQ	Water Dup/MSD	MW-7 MS
T38409-5	09/24/09	07:40		09/26/09	AQ	Ground Water	MW-8
T38409-6	09/24/09	00:00		09/26/09	AQ	Ground Water	DUP
T38409-7	09/24/09	00:00		09/26/09	AQ	Trip Blank Water	TRIP BLANK

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	T38409-1	Date Sampled:	09/24/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: DEFS J-4-2		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0003565.D	1	10/01/09	AP	n/a	n/a	VC157
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	110%		79-122%
17060-07-0	1,2-Dichloroethane-D4	103%		75-121%
2037-26-5	Toluene-D8	100%		87-119%
460-00-4	4-Bromofluorobenzene	84%		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:	T38409-1	Date Sampled:	09/24/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
		Percent Solids:	n/a
Project:	AECCOLI: DEFS J-4-2		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	2710	100	mg/l	100	10/03/09 09:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	T38409-2	Date Sampled:	09/24/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: DEFS J-4-2		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0003566.D	1	10/01/09	AP	n/a	n/a	VC157
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	113%		79-122%
17060-07-0	1,2-Dichloroethane-D4	101%		75-121%
2037-26-5	Toluene-D8	101%		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-4		
Lab Sample ID:	T38409-2	Date Sampled:	09/24/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
		Percent Solids:	n/a
Project:	AECCOLI: DEFS J-4-2		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	1490	100	mg/l	100	10/03/09 09:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	T38409-3	Date Sampled:	09/24/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: DEFS J-4-2		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0003567.D	1	10/01/09	AP	n/a	n/a	VC157
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	113%		79-122%
17060-07-0	1,2-Dichloroethane-D4	102%		75-121%
2037-26-5	Toluene-D8	102%		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-6		
Lab Sample ID:	T38409-3	Date Sampled:	09/24/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
		Percent Solids:	n/a
Project:	AECCOLI: DEFS J-4-2		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	373	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:	T38409-4	Date Sampled:	09/24/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: DEFS J-4-2		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0003576.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	100%		75-121%
2037-26-5	Toluene-D8	101%		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-7		
Lab Sample ID:	T38409-4	Date Sampled:	09/24/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
		Percent Solids:	n/a
Project:	AECCOLI: DEFS J-4-2		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	1140	100	mg/l	100	10/03/09 09:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-8		
Lab Sample ID:	T38409-5	Date Sampled:	09/24/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: DEFS J-4-2		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0003580.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	101%		75-121%
2037-26-5	Toluene-D8	102%		87-119%
460-00-4	4-Bromofluorobenzene	91%		80-133%

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

Report of Analysis

Client Sample ID:	MW-8		
Lab Sample ID:	T38409-5	Date Sampled:	09/24/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
		Percent Solids:	n/a
Project:	AECCOLI: DEFS J-4-2		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	403	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:	T38409-6	Date Sampled:	09/24/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: DEFS J-4-2		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0003581.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	112%		79-122%
17060-07-0	1,2-Dichloroethane-D4	104%		75-121%
2037-26-5	Toluene-D8	102%		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:	DUP		
Lab Sample ID:	T38409-6	Date Sampled:	09/24/09
Matrix:	AQ - Ground Water	Date Received:	09/26/09
		Percent Solids:	n/a
Project:	AECCOLI: DEFS J-4-2		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	3680	100	mg/l	1	10/03/09 09:00	KD	SM 4500 CL C

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	T38409-7	Date Sampled:	09/24/09
Matrix:	AQ - Trip Blank Water	Date Received:	09/26/09
Method:	SW846 8260B	Percent Solids:	n/a
Project:	AECCOLI: DEFS J-4-2		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0003562.D	1	10/01/09	AP	n/a	n/a	VC157
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	99%		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

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 # T38409

Client / Reporting Information | **Project Information**

Company Name: DCP Midstream	Project Name / No.: DCP J-4-2
Project Contact: Stephen Weathers	E-Mail: SWWeathers@dcpmidstream.com
Bill to: Same	Invoice Attn:
Address: 370 Seventeenth Street, Suite 2500	Address:
City: Denver	State: CO	Zip: 80202
City	State	Zip
Phone No.: 303-605-1718	Fax No.
Phone No.	Fax No.
Samplers's Name	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	Collection Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH	HNO3	H2SO4	ENCORE	NaHSO4	MEOH	NONE	BTEX 8260B	Chlorides	LAB USE ONLY
	MW-1	X	X	GW	X	X								X	X	
	MW-2	X	X	GW	X	X								X	X	
1	MW-3	9/24	645	GW	4	3							1	X	X	
2	MW-4	9/24	635	GW	4	3							1	X	X	
3	MW-6	9/24	700	GW	4	3							1	X	X	
4	MW-7	9/24	720	GW	4	3							1	X	X	
5	MW-8	9/24	740	GW	4	3							1	X	X	
6	DUP	9/24	—	GW	4	3							1	X	X	
7	Trip Blank	Yes	—	WTB	3	—								X		
4	MW-7MS/MSD7	9/24	720	GW	6 ~~8~~	3							X	X		

Turnaround Time (Business days) | Data Deliverable Information | Comments / Remarks

- [ ] 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

- [ ] 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

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

Relinquished by Sampler: 1	Date Time: 9/25/09	Received By: 1	Relinquished By: 2	Date Time: 9/26/9	Received By: 2		
Relinquished By: 3	Date Time: 500 pm	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4		
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable ☐	On Ice ☒	Cooler Temp. 2.4°C	

3.1 (30)

SAMPLE INSPECTION FORM

Accutest Job Number: T38409 Client: DCP Midstream Date/Time Received: 9-26-9 1045

# of Coolers Received: 1 Thermometer #: IR-1 Temperature Adjustment Factor: +.4

Cooler Temps: #1: 2.4°C #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] 9-26-9

INFORMATION AND SAMPLE LABELING VERIFIED BY: [signature]

CORRECTIVE ACTIONS

Client Representative Notified: **Date:**

By Accutest Representative: **Via:** Phone Email

Client Instructions:

i:/vmwalken/forms/samplemanagement

T38409: Chain of Custody

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SAMPLE RECEIPT LOG

JOB #: T38409 DATE/TIME RECEIVED: 9.26-9 1045

CLIENT: DCP Midstream INITIALS: EC

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH
1	1	MW-3	9.24 645	W	P500	1	I-B	(1) 2 3 4 5 6 7 8	<2 >12
	"				40	2-4	VR	1 (5) 3 4 5 6 7 8	<2 >12
	2	MW-4	635		P500	1	I-B	(1) 2 3 4 5 6 7 8	<2 >12
	"				40	2-4	VR	1 (5) 3 4 5 6 7 8	<2 >12
	3	MW-6	720		P500	1	I-B	(1) 2 3 4 5 6 7 8	<2 >12
	"				40	2-4	VR	1 (2) 3 4 5 6 7 8	<2 >12
	4	MW-7	720		P500	1	I-B	(1) 2 3 4 5 6 7 8	<2 >12
					40	2-4	VR	1 (2) 3 4 5 6 7 8	<2 >12
		-7MS			40	5-7	VR	1 (5) 3 4 5 6 7 8	<2 >12
	V	-7MSD	V	(K	40	8-10	"	1 (5) 3 4 5 6 7 8	<2 >12
	5	MW-8	740	W	P500	1	I-B	(1) 2 3 4 5 6 7 8	<2 >12
	"			"	40	2-4	VR	1 (5) 3 4 5 6 7 8	<2 >12
	6	~~Dup~~	—	W	P500	1	I-B	(1) 2 3 4 5 6 7 8	<2 >12
	"			"	40	2-4	VR	1 (5) 3 4 5 6 7 8	<2 >12
V	7	Trip Blank	—	—	40ml	1-2	VR	1 (5) 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
								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

9.26-9

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

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T38409: 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: T38409
Account: DUKE DCP Midstream, LLC
Project: AECCOLI: DEFS J-4-2

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC157-MB	C0003553.D	1	10/01/09	AP	n/a	n/a	VC157

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

T38409-1, T38409-2, T38409-3, T38409-7

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	99%	75-121%
2037-26-5	Toluene-D8	102%	87-119%
460-00-4	4-Bromofluorobenzene	82%	80-133%

Method Blank Summary

Job Number: T38409
Account: DUKE DCP Midstream, LLC
Project: AECCOLI: DEFS J-4-2

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

T38409-4, T38409-5, T38409-6

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%

Blank Spike Summary

Job Number: T38409
Account: DUKE DCP Midstream, LLC
Project: AECCOLI: DEFS J-4-2

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC157-BS	C0003551.D	1	10/01/09	AP	n/a	n/a	VC157

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

T38409-1, T38409-2, T38409-3, T38409-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	25.8	103	76-118
100-41-4	Ethylbenzene	25	25.9	104	75-112
108-88-3	Toluene	25	26.4	106	77-114
1330-20-7	Xylene (total)	75	76.2	102	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	109%	79-122%
17060-07-0	1,2-Dichloroethane-D4	97%	75-121%
2037-26-5	Toluene-D8	104%	87-119%
460-00-4	4-Bromofluorobenzene	86%	80-133%

Blank Spike Summary

Job Number: T38409
Account: DUKE DCP Midstream, LLC
Project: AECCOLI: DEFS J-4-2

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

T38409-4, T38409-5, T38409-6

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%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T38409
Account: DUKE DCP Midstream, LLC
Project: AECCOLI: DEFS J-4-2

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T38015-7MS	C0003555.D	1	10/01/09	AP	n/a	n/a	VC157
T38015-7MSD	C0003556.D	1	10/01/09	AP	n/a	n/a	VC157
T38015-7	C0003554.D	1	10/01/09	AP	n/a	n/a	VC157

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

T38409-1, T38409-2, T38409-3, T38409-7

CAS No.	Compound	T38015-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		25	23.0	92	22.1	88	4	76-118/16
100-41-4	Ethylbenzene	ND		25	22.3	89	22.3	89	0	75-112/12
108-88-3	Toluene	ND		25	22.9	92	23.0	92	0	77-114/12
1330-20-7	Xylene (total)	ND		75	64.6	86	65.2	87	1	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T38015-7	Limits
1868-53-7	Dibromofluoromethane	107%	106%	112%	79-122%
17060-07-0	1,2-Dichloroethane-D4	98%	96%	102%	75-121%
2037-26-5	Toluene-D8	100%	104%	101%	87-119%
460-00-4	4-Bromofluorobenzene	81%	82%	82%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T38409
Account: DUKE DCP Midstream, LLC
Project: AECCOLI: DEFS J-4-2

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

T38409-4, T38409-5, T38409-6

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%

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: T38409
Account: DUKE - DCP Midstream, LLC
Project: AECCOLI: DEFS J-4-2

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP6965/GN18202	1.0	0.0	mg/l	1000	1010	100.6	92-107%

Associated Samples:
Batch GP6965: T38409-1, T38409-2, T38409-3, T38409-4, T38409-5, T38409-6
(*) Outside of QC limits

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DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T38409
Account: DUKE - DCP Midstream, LLC
Project: AECCOLI: DEFS J-4-2

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chloride	GP6965/GN18202	T38409-4	mg/l	1140	1140	0.0	0-5%

Associated Samples:
Batch GP6965: T38409-1, T38409-2, T38409-3, T38409-4, T38409-5, T38409-6
(*) Outside of QC limits

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MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T38409
Account: DUKE - DCP Midstream, LLC
Project: AECCOLLI: DEFS J-4-2

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP6965/GN18202	T38409-4	mg/l	1140	1000	2090	94.4	81-119%

Associated Samples:
Batch GP6965: T38409-1, T38409-2, T38409-3, T38409-4, T38409-5, T38409-6
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits