1RP-1728

2nd QTR GW monitoring results

DATE:
September 17, 2010

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

September 17, 2010

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

RE: 2nd Quarter 2010 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 2nd Quarter 2010 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

September 11, 2010

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

Re: Summary of the Second Quarter 2010 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 second quarter 2010 groundwater monitoring activities completed at the J-4-2 release location on June 13, 2010 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. Six wells were sampled. Well MW-2 was not sampled because it contained free phase hydrocarbons (FPH).

GROUNDWATER SAMPLING

The depth to water and, if present, the 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 a thickness of 0.05 feet in MW-2. The historic FPH thickness values are summarized in Table 3. The residual FPH thickness of less than 0.1 feet in both wells indicates that the majority of mobile FPH have probably been removed.

Wells MW-1, 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. The laboratory report is attached.

RESULTS AND INTERPRETATIONS

A field duplicate sample was collected from MW-8. Matrix spike, matrix spike duplicate samples were collected from MW-7. The QA/QC evaluation included:

- All of the individual surrogate spikes were within their control limits.
- All samples were analyzed within the method holding times.
- The method blanks and blank spikes were all within their respective control limits.
- The matrix spike and matrix spike duplicate results from MW-7 were all within their respective control limits.
- There were no BTEX detects in the trip blank or the primary and field duplicate samples from MW-8.
- The 2.2 relative percentage difference for chlorides between the primary and duplicate samples from MW-4 is acceptable.

The above information indicates that the data is suitable for evaluating the quarterly groundwater monitoring data.

The laboratory analyses from this sampling event are summarized in Table 4. The New Mexico Water Quality Control Commission (NMWQCC) groundwater standards are reproduced at the top of Table 4. The constituents that exceed these standards are highlighted as bold text. Note that the chlorides standard is a secondary (non-health based) standard. 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. Examination of the field data indicates that samples MW-3 and MW-4 were mislabeled so the results as shown on the laboratory report were corrected.

Groundwater Flow

Figure 3 shows the hydrographs for the corrected water-table elevations for the site wells. The water table declined in all wells at the same approximate rate except MW-1 where it increased. The water table has declined between approximately 2 and 3 feet in in all of the wells since measurements began in February 2006.

The calculated water table elevation contours for this event 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.

Groundwater Chemistry

Examination of Table 4 shows that none of the BTEX constituents were detected in wells MW-3 to MW-8. Benzene and xylenes were detected in MW-1 at concentrations below the NMWQCC standards.

The benzene concentrations are plotted on Figure 5 along with well MW-2 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:

1. The toluene, ethylbenzene and total xylenes concentrations have never exceeded the NMWQCC standards in wells MW-3 through MW-8;
2. Benzene has not been detected in MW-4 since March 2007; and
3. 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. The chloride concentration decreased in wells MW-3 and MW-6 and increased slightly or remained relatively constant in the other wells.

A chloride isopleth map generated from data for this event 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 has 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 residual FPH is probably immobile and only a minimal volume remains given the historic remediation activities;
3. The presence of dissolved phase BTEX constituents is limited to the original release area;

4. The dissolved-phase hydrocarbon plume associated with the DCP J-4-2 pipeline release is either stable or contracting;
5. The chloride data from this event 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 third quarter of 2010. Do not hesitate to contact me if you have any questions or comments on this letter.

Sincerely,
AMERICAN ENVIRONMENTAL CONSULTING, LLC

Michael H. Stewart

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	3/20/08
MW-1	3713.61	3712.60	3712.63	3712.29	3712.15	3711.86	3712.42	3713.48
MW-2	3713.93	3713.48	3712.49	3712.75	3712.63	3712.34	3712.91	3713.40
MW-3	3713.36	3712.57	3712.57	3712.55	3712.79	3711.50	3712.09	3713.30
MW-4		3712.80	3712.82	3712.78	3713.25	3712.98	3713.48	3713.70
MW-6		3711.76	3712.00	3711.96	3711.87	3711.56	3711.92	3712.53
MW-7		3711.03	3710.80	3710.73	3710.50	3709.87	3710.33	3711.38
MW-8		3709.22	3708.95	3708.79	3708.54	3708.06	3708.33	3709.17

Well	6/27/08	9/16/08	12/3/08	3/11/09	5/18/09	9/24/09	12/20/09	3/10/10	6/13/10
MW-1	NM	NM	3711.94	3712.19	3712.05	3711.48	3711.50	3711.45	3711.31
MW-2	NM	NM	3712.14	3711.99	3711.87	3711.28	3711.17	NM	3710.89
MW-3	3713.09	3712.34	3712.25	3712.10	3711.90	3711.35	3711.28	3711.19	3711.01
MW-4	3713.13	3712.18	3712.10	3712.36	3712.13	3711.69	3711.61	3711.56	3711.41
MW-6	3712.20	3711.86	3711.70	3711.57	3711.42	3711.22	3710.72	3710.67	3710.61
MW-7	3710.95	3710.11	3710.00	3709.84	3709.51	3708.55	3708.37	3708.35	3708.11
MW-8	3708.78	3708.23	3708.13	3707.95	3708.10	3706.79	3706.73	3706.71	3707.46

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	0.29	0.24
12/20/09	0.00	0.05
03/10/10	0.03	0.04
06/13/10	0.00	0.05

Units are feet

Table 4 - Summary of Second Quarter 2010 Groundwater Results

Well	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Chlorides
NMWQCC Groundwater Standard	0.01	0.75	0.75	0.62	250*
MW-1	0.0016	<0.001	<0.0003	0.0095	2,300
MW-3	<0.0003	<0.001	<0.0003	<0.0006	2,150
MW-4	<0.0003	<0.001	<0.0003	<0.0006	1,800
MW-6	<0.0003	<0.001	<0.0003	<0.0006	533
MW-7	<0.0003	<0.001	<0.0003	<0.0006	1,280
MW-8	<0.0003	<0.001	<0.0003	<0.0006	419
MW-8 DUP	<0.0003	<0.001	<0.0003	<0.0006	409
trip	<0.0003	<0.001	<0.0003	<0.0006	NA

Notes: Units are mg/l,
MW-2 was 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: not analyzed

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

Well	12/20/09	3/10/10	6/13/10
MW-1	<0.002	FPH	0.0016
MW-2	FPH	FPH	FPH
MW-3	<0.002	<0.001	<0.0003
MW-4	<0.002	<0.001	<0.0003
MW-6	<0.002	NA	<0.0003
MW-7	<0.002	<0.001	<0.0003
MW-8	<0.002	<0.001	<0.0003

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
NA: Not analyzed due to well obstruction

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

Well	12/20/09	3/10/10	6/13/10
MW-1	<0.002	FPH	<0.001
MW-2	FPH	FPH	FPH
MW-3	<0.002	<0.002	<0.001
MW-4	<0.002	<0.002	<0.001
MW-6	<0.002	NA	<0.001
MW-7	<0.002	<0.002	<0.001
MW-8	<0.002	<0.002	<0.001

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
NA: Not analyzed due to well obstruction

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

Well	12/20/09	3/10/10	6/13/10
MW-1	0.0014J	FPH	<0.0003
MW-2	FPH	FPH	FPH
MW-3	<0.002	<0.002	<0.0003
MW-4	<0.002	<0.002	<0.0003
MW-6	<0.002	NA	<0.0003
MW-7	<0.002	<0.002	<0.0003
MW-8	<0.002	<0.002	<0.0003

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
NA: Not analyzed due to well obstruction

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	<0.006
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	<0.006
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	<0.006
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	<0.006
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	<0.006

Well	12/20/09	3/10/10	6/13/10
MW-1	0.0418	FPH	0.0095
MW-2	FPH	FPH	FPH
MW-3	<0.006	<0.004	<0.0006
MW-4	<0.006	<0.004	<0.0006
MW-6	<0.006	NA	<0.0006
MW-7	<0.006	<0.004	<0.0006
MW-8	<0.006	<0.004	<0.0006

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
NA: Not analyzed due to well obstruction

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	12/20/09	3/10/10	6/13/10
MW-1	FPH	FPH	FPH	FPH	FPH	FPH	FPH	2,680	FPH	1,800
MW-3	7,800	10,800	4,070	2,625	2,860	3,270	3,195	3,605	3,030	2,130
MW-4	1,300	1,380	1,440	70	1,390	1,440	1,490	1,740	1,950	2,150
MW-6	669	544	537	391	363	383	373	1,090	NA	533
MW-7	1,230	1,150	1,180	1,050	944	1,090	1,140	1,440	1,230	1,280
MW-8	609	617	735	480	417	378	403	308	414	415

Notes: Units are mg/l
Duplicates are averaged together
NA: Not analyzed due to well obstruction

FIGURES

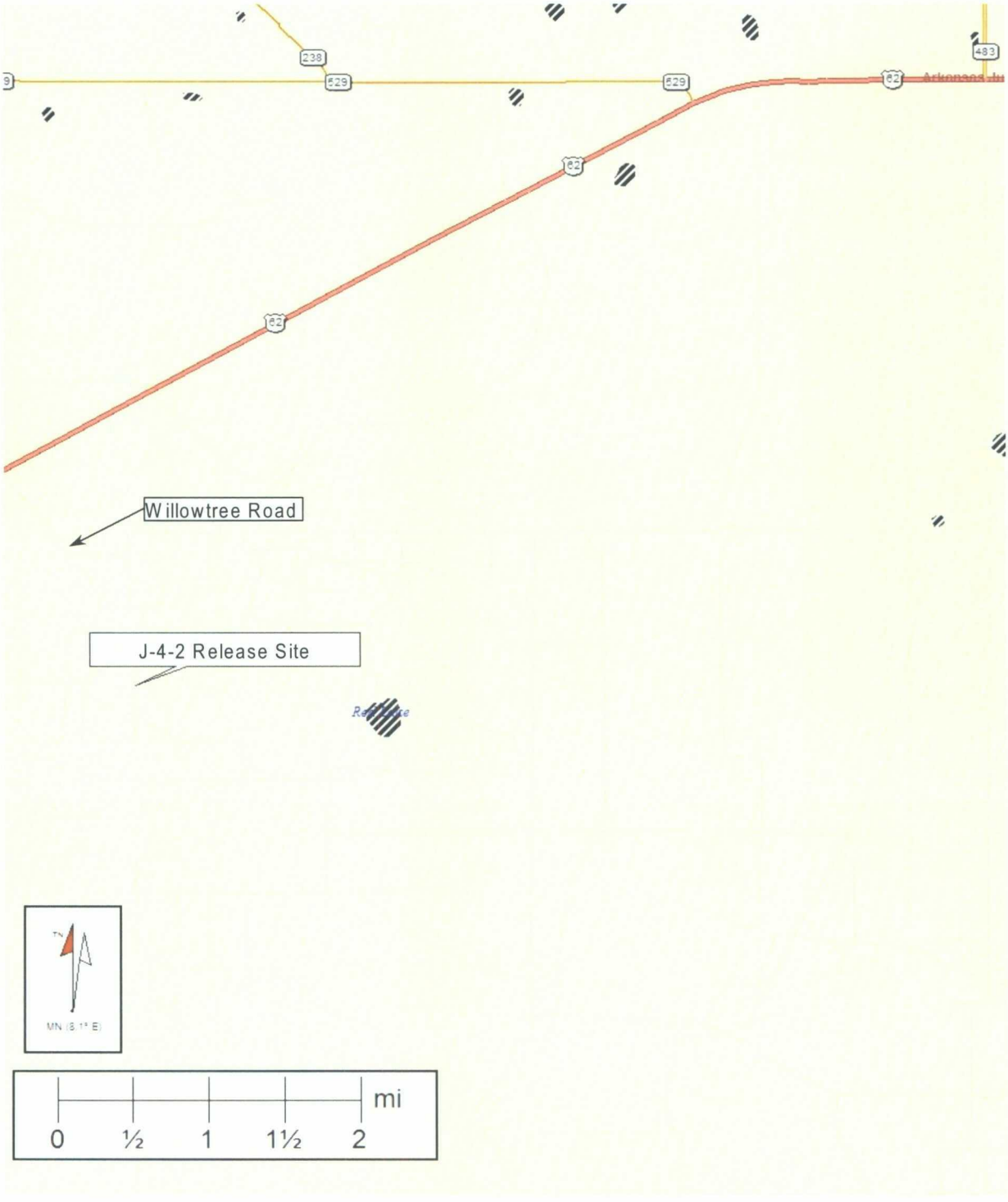


Figure 1 – Site Location
J-4-2 Groundwater Monitoring

dcp Midstream

DRAWN BY:	MHS
REVISED:	
DATE:	5/06

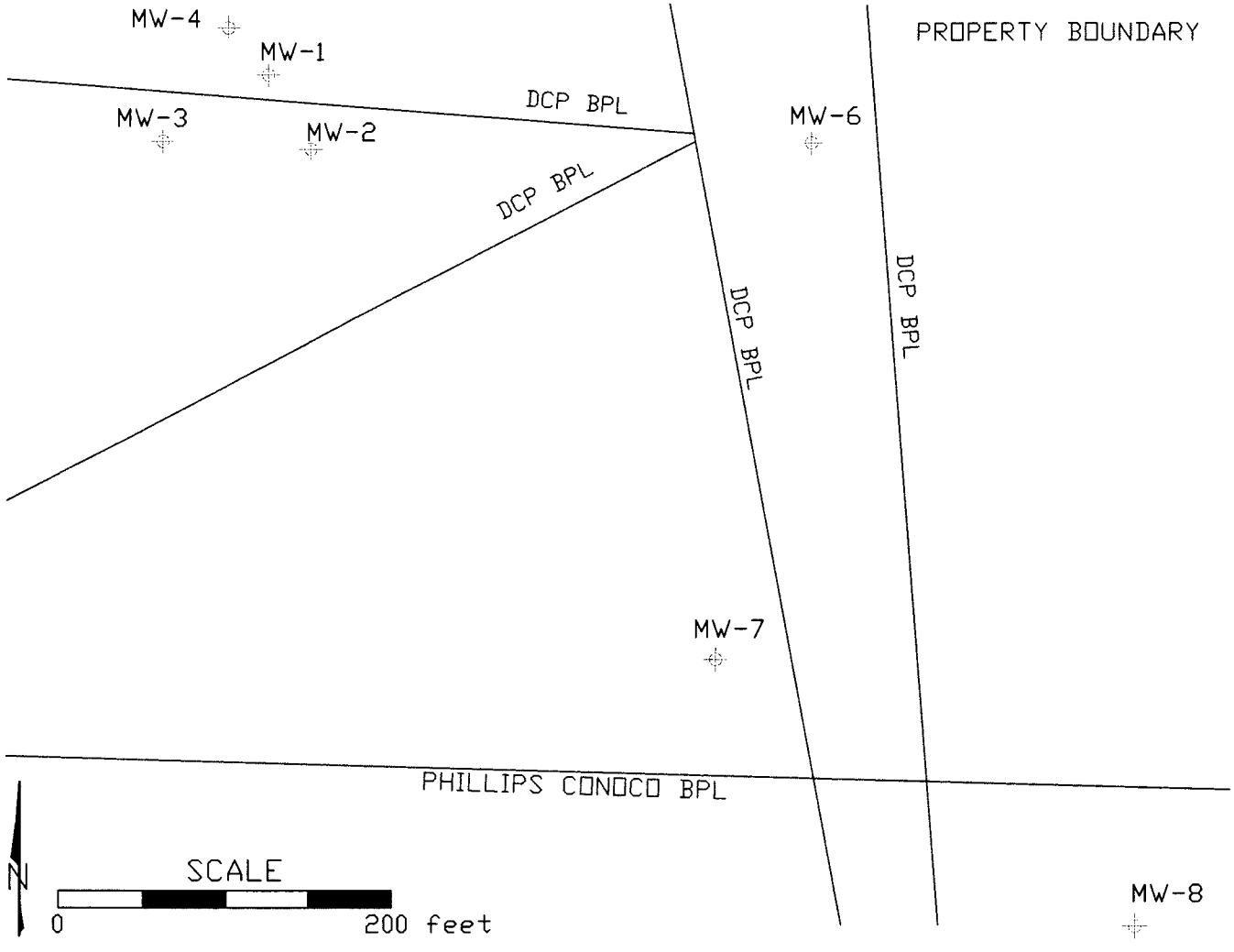


Figure 2 - Site Details

J-4-2 Groundwater Monitoring

dcp Midstream

DRAWN BY: MHS
REVISED:
DATE: 8/10

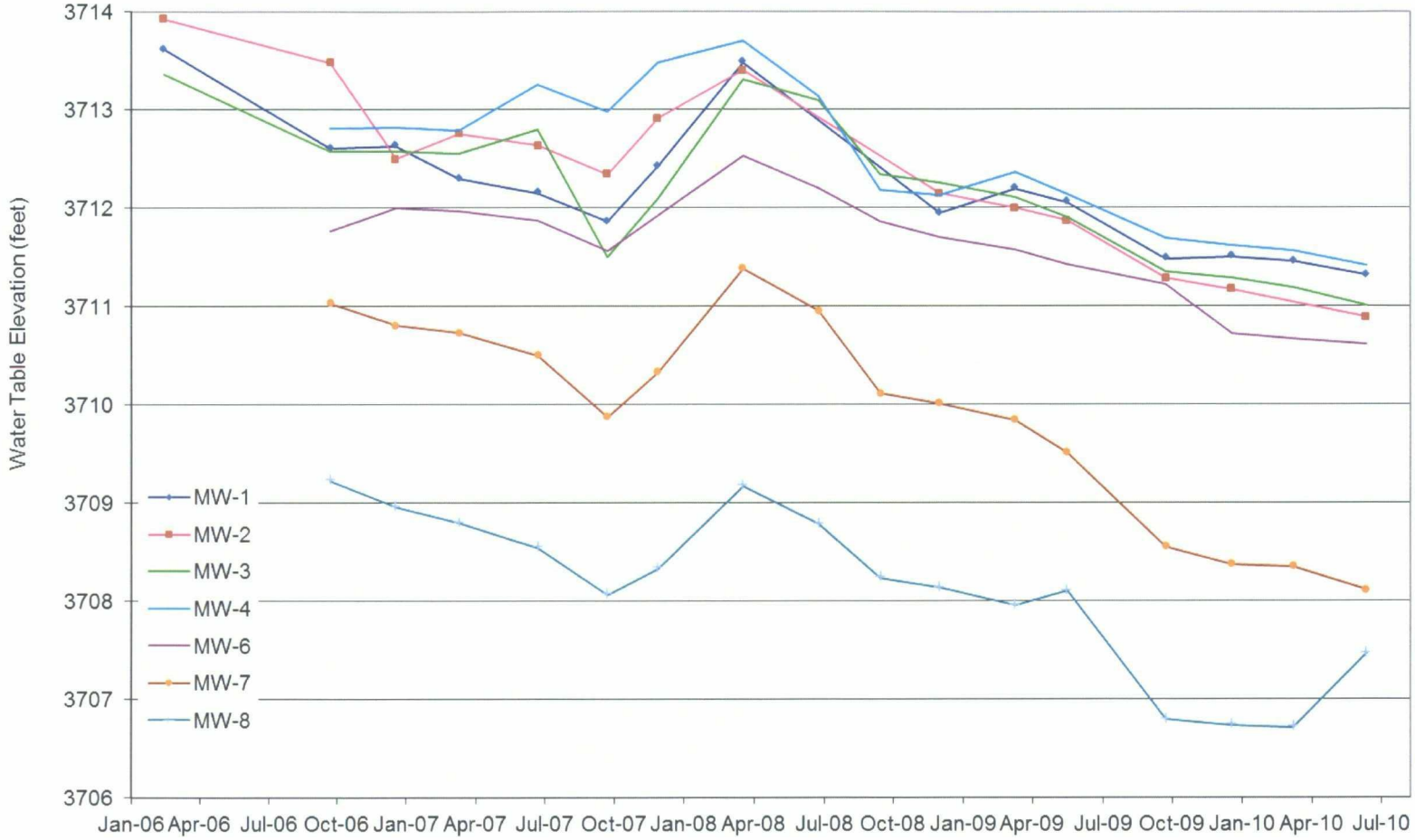


Figure 3 – Monitoring Well Hydrographs

J-4-2 Groundwater Monitoring

dcp Midstream.

DRAWN BY: MHS

DATE: 8/10

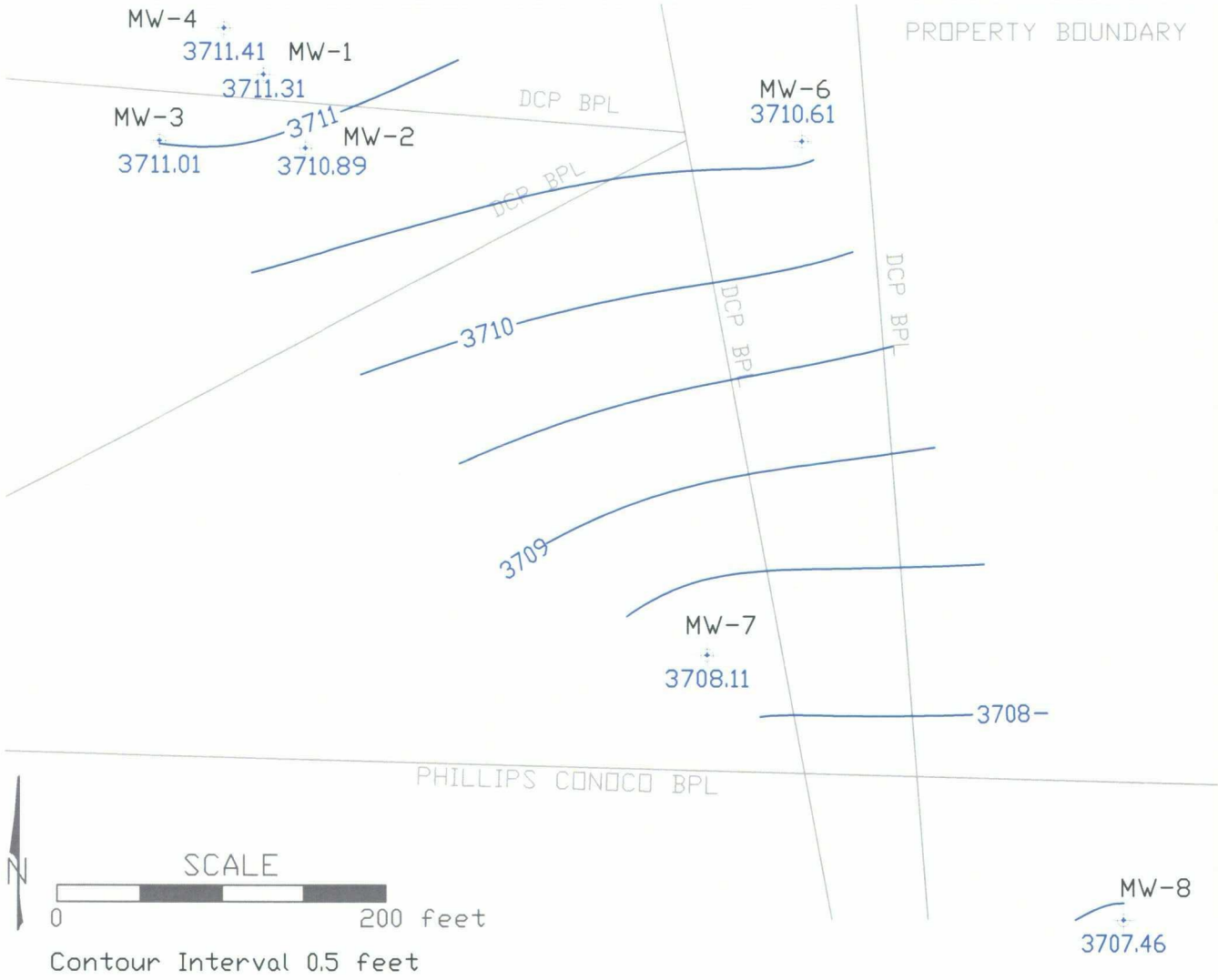
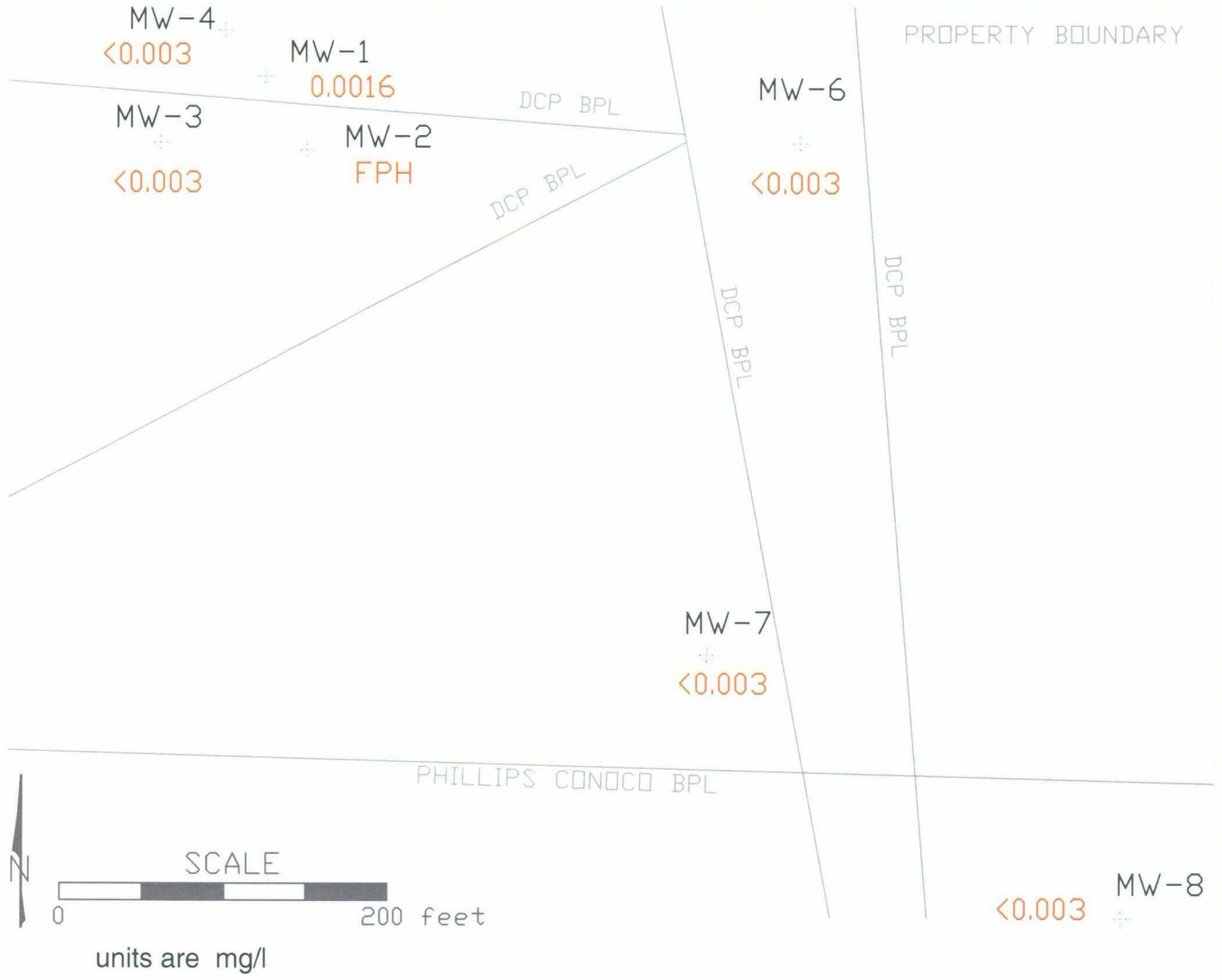


Figure 4 - Second Quarter 2010 Water Table Contours

J-4-2 Groundwater Monitoring

dcp Midstream

DRAWN BY: MHS
REVISED:
DATE: 8/10



units are mg/l

Figure 5 - Second Quarter 2010 Benzene Concentrations

J-4-2 Groundwater Monitoring

dcp Midstream

DRAWN BY: MHS

REVISED:

DATE: 8/10

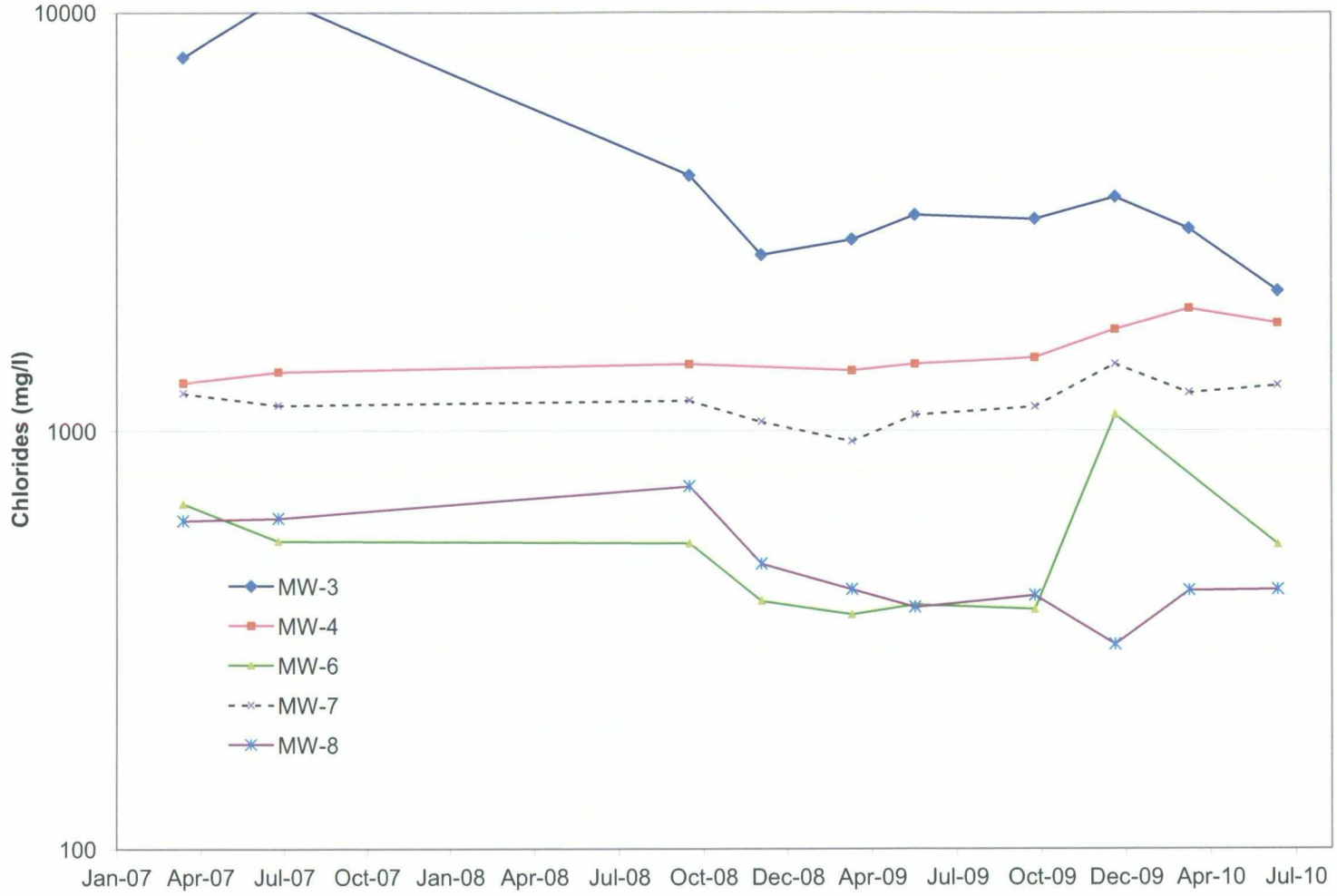


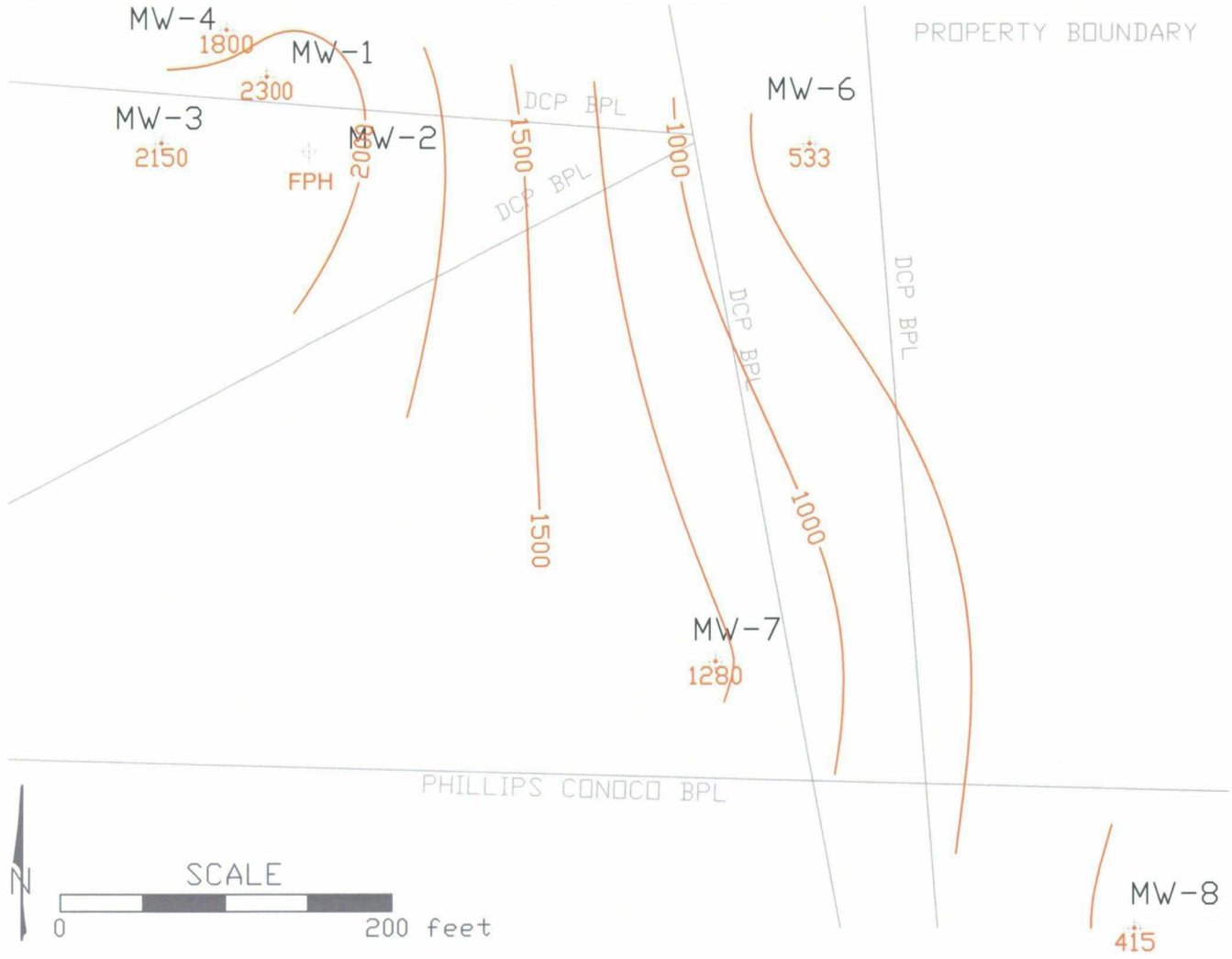
Figure 6 – Chloride Concentrations Verses Sampling Date

J-4-2 Groundwater Monitoring

dcp Midstream.

DRAWN BY: MHS

DATE: 6/10



Contour interval 250 mg/l

Figure 7 - Second Quarter 2010 Chloride Isopleths

J-4-2 Groundwater Monitoring

dcp Midstream

DRAWN BY: MHS
REVISED:
DATE: 8/10

WELL SAMPLING DATA

AND LABORATORY ANALYTICAL REPORT

WELL SAMPLING DATA FORM

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

SITE NAME: J 4 2 DATE: 6/13/2010

PROJECT NO. _____ SAMPLER: 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: 29.14 Feet
HEIGHT OF WATER COLUMN: 14.16 Feet
WELL DIAMETER: 2.0 Inch

6.9 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	22.1	1.6	7.52			
	5.0	21.9	1.59	7.32			
	7.5	21.0	1.62	7.09			
7.5	: Total volume purged						

SAMPLE NO.: MW-1

ANALYSES: _____

COMMENTS: _____

WELL SAMPLING DATA FORM

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

SITE NAME: J 4 2 DATE: 6/13/2010

PROJECT NO. _____ SAMPLER: 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: 29.73 Feet
HEIGHT OF WATER COLUMN: 13.32 Feet
WELL DIAMETER: 4.0 Inch

26.1 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	: Total volume purged						

SAMPLE NO.: MW-2

ANALYSES: _____

COMMENTS: Not sampled FPH

WELL SAMPLING DATA FORM

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

SITE NAME: J 4 2 DATE: 6/13/2010

PROJECT NO. _____ SAMPLER: 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: 28.38 Feet
HEIGHT OF WATER COLUMN: 14.62 Feet
WELL DIAMETER: 2.0 Inch

7.2 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
	2.5	20.6	2.68	6.99			
	5.0	20.1	2.68	7.00			
	7.5	19.8	2.71	6.92			
7.5	: Total volume purged						

SAMPLE NO.: MW-3

ANALYSES: BTEX (8260)

COMMENTS: _____

WELL SAMPLING DATA FORM

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

SITE NAME: J 4 2 DATE: 6/13/2010

PROJECT NO. _____ SAMPLER: 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: 28.83 Feet

HEIGHT OF WATER COLUMN: *9.29 Feet* *4.5* *Minimum Gallons to purge 5 well volumes*

WELL DIAMETER: 2.0 Inch (Water Column Height x 0.49)

TIME	VOLUME PURGED	TEMP. °C	COND. mS/cm	pH	DO mg\L	Turb	PHYSICAL APPEARANCE AND REMARKS
	1.6	20.6	1.56	7.1			
	3.2	20.4	1.49	7.13			
	4.8	20.0	1.56	7.00			
4.8	: Total volume purged						

SAMPLE NO.: MW-4

ANALYSES: BTEX (8260)

COMMENTS: Duplicate sample collected

WELL SAMPLING DATA FORM

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

SITE NAME: J 4 2 DATE: 6/13/2010

PROJECT NO. _____ SAMPLER: 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: 29.35 Feet
HEIGHT OF WATER COLUMN: 5.00 Feet
WELL DIAMETER: 2.0 Inch

2.4 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
	1.6	20.9	1.41	7.2			
	3.2	20.7	1.30	7.11			Bailed down
3.2	: Total volume purged						

SAMPLE NO.: _____

ANALYSES: BTEX (8260)

COMMENTS: _____

WELL SAMPLING DATA FORM

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

SITE NAME: J 4 2 DATE: 6/13/2010

PROJECT NO. _____ SAMPLER: 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: 32.62 Feet
HEIGHT OF WATER COLUMN: 6.83 Feet
WELL DIAMETER: 2.0 Inch

3.3 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
	1.3	21	2.15	7.09			
	2.9	20.6	2.19	7.00			
	3.9	20.4	2.21	6.95			
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: 6/13/2010

PROJECT NO: SAMPLER: 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: 29.86 Feet
HEIGHT OF WATER COLUMN: 8.46 Feet
WELL DIAMETER: 2.0 Inch

4.1 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	21.1	1.22	6.89			
	3.0	20.5	1.14	6.90			
	4.5	20.2	1.13	6.95			
4.5	: Total volume purged						

SAMPLE NO.: MW-8

ANALYSES: BTEX (8260)

COMMENTS: Collected duplicate sample

Mountain States ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

08/24/10

Technical Report for

DCP Midstream, LP

AECCOL: J-4-2 Proj#390660601

Accutest Job Number: D14407

Sampling Dates: 06/13/10 - 06/14/10

Report To:

American Environmental Consulting, LLC

mstewart@aecdenver.com

ATTN: Michael Stewart

Total Number of Pages in Report: 31

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.

Jesse L. Smith
Laboratory Director

Client Service Contact: Amanda Kissell 303-425-6021

Certifications: ICO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

Test Results Relate Only To Samples Analyzed.

Table of Contents

Sections:

Sample Summary

DCP Midstream, LP

Job No: D14407

AECCOL: J-4-2 Proj#390660601

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
D14407-1	06/14/10	08:30	AT	06/18/10	AQ	Ground Water	MW-1
D14407-2	06/13/10	05:25	AT	06/18/10	AQ	Ground Water	MW-3
D14407-3	06/13/10	06:20	AT	06/18/10	AQ	Ground Water	MW-4
D14407-4	06/13/10	05:00	AT	06/18/10	AQ	Ground Water	MW-6
D14407-5	06/13/10	04:20	AT	06/18/10	AQ	Ground Water	MW-7
D14407-5D	06/13/10	04:20	AT	06/18/10	AQ	Water Dup/MSD	MW-7
D14407-5M	06/13/10	04:20	AT	06/18/10	AQ	Water Matrix Spike	MW-7
D14407-6	06/13/10	03:45	AT	06/18/10	AQ	Ground Water	MW-8
D14407-7	06/13/10	00:00	AT	06/18/10	AQ	Water Dup/MSD	DUP
D14407-8	06/13/10	00:00	AT	06/18/10	AQ	Trip Blank Water	TRIP BLANK

ACCUTEST Laboratories

CASE NARRATIVE/QC CONFORMANCE SUMMARY

Client: DCP Midstream, LP **Job No** D14407

Site: AECCOL: C-4-2 Proj#390660601 **Report Dat** 6/23/2010 2:48:52 PM

On 06/18/2010, seven (7) samples, 1 Trip Blank, and 0 Field Blanks were received at Accutest Mountain States (AMS) at a temperature of 2.5°C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D14407 was assigned to the project. The lab sample IDs, client sample IDs, and dates of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles By GC/MS By Method SW846 8260B

Matrix	AQ	Batch ID:	V5V456

- All Samples Were Analyzed Within The Recommended Method Holding Time.
- All Method Blanks For This Batch Meet Method Specific Criteria.
- Samples D14407-5MS And D14407-5MSD Were Used As The QC Samples Indicated.

Wet Chemistry By Method EPA 300/SW846 9056

Matrix	AQ	Batch ID:	GP2188

- All Samples Were Prepared Within The Recommended Method Holding Time.
- All Samples Were Analyzed Within The Recommended Method Holding Time.
- All Method Blanks For This Batch Meet Method Specific Criteria.
- Samples D14074-3MS And D14074-3MSD Were Used As The QC Samples For The Chloride Analysis.

Matrix	AQ	Batch ID:	GP2200

- All Samples Were Prepared Within The Recommended Method Holding Time.
- All Samples Were Analyzed Within The Recommended Method Holding Time.
- All Method Blanks For This Batch Meet Method Specific Criteria.

AMS Certifies That Data Reported For Samples Received, Listed On The Associated Custody Chain Or Analytical Task Order, Were Produced C to Specifications Meeting AMS's Quality System Precision, Accuracy And Completeness Objectives Except As Noted.

Estimated Non-standard Method Measurement Uncertainty Data Is Available On Request, Based On Quality Control Bias And Implicit For C standard Methods. Acceptable Uncertainty Requires Tested Parameter Quality Control Data To Meet Method Criteria.

AMS Is Not Responsible For Data Quality Assumptions Or Partial Reports Are Used And Recommends That This Report Be Used In Its Entirety. C This Report Is Authorized By AMS Indicated Via Signature On The Report Cover.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-1C		
Lab Sample ID:	D14407-1	**Date Sampled:**	06/14/10
Matrix:	AQ - Ground Water	**Date Received:**	06/18/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	AECCOL: C-4-2 Proj#390660601		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V08474.D	1	06/20/10	DC	n/a	n/a	V5V456
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	1.6	1.0	0.30	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
	m,p-Xylene	9.5	4.0	0.60	ug/l	
95-47-6	o-Xylene	5.6	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	96%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	104%		70-130%

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

Report of Analysis

3.1

Client Sample ID:	MW-1		
Lab Sample ID:	D14407-1	**Date Sampled:**	06/14/10
Matrix:	AQ - Ground Water	**Date Received:**	06/18/10
		Percent Solids:	n/a
Project:	AECCOL: C-4-2 Proj#390660601		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	2300	25	mg/l	50	06/21/10 16:15	GH	EPA 300/SW846 9056

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-3C		
Lab Sample ID:	D14407-2	**Date Sampled:**	06/13/10
Matrix:	AQ - Ground Water	**Date Received:**	06/18/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	AECCOL: C-4-2 Proj#390660601		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V08475.D	1	06/20/10	DC	n/a	n/a	V5V456
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	1.0	0.30	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
	m,p-Xylene	ND	4.0	0.60	ug/l	
95-47-6	o-Xylene	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	90%		70-130%
2037-26-5	Toluene-D8	90%		70-130%
460-00-4	4-Bromofluorobenzene	87%		70-130%

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

3.2

Client Sample ID:	MW-3C		
Lab Sample ID:	D14407-2	**Date Sampled:**	06/13/10
Matrix:	AQ - Ground Water	**Date Received:**	06/18/10
		Percent Solids:	n/a
Project:	AECCOL: C-4-2 Proj#390660601		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	1800	25	mg/l	50	06/21/10 16:29	GH	EPA 300/SW846 9056

RL = Reporting Limit

ACCUTEST Laboratories

D14407

Report of Analysis

Client Sample ID:	MW-4C		
Lab Sample ID:	D14407-3	**Date Sampled:**	06/13/10
Matrix:	AQ - Ground Water	**Date Received:**	06/18/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	AECCOL: C-4-2 Proj#390660601		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V08476.D	1	06/20/10	DC	n/a	n/a	V5V456
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	1.0	0.30	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
	m,p-Xylene	ND	4.0	0.60	ug/l	
95-47-6	o-Xylene	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	98%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	84%		70-130%

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:	D14407-3	**Date Sampled:**	06/13/10
Matrix:	AQ - Ground Water	**Date Received:**	06/18/10
		Percent Solids:	n/a
Project:	AECOM: I-4-2 Proj#390660601		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	2150	25	mg/l	50	06/21/10 16:42	GH	EPA 300/SW846 9056

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-6		
Lab Sample ID:	D14407-4	**Date Sampled:**	06/13/10
Matrix:	AQ - Ground Water	**Date Received:**	06/18/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	AECCOL: C-4-2 Proj#390660601		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V08477.D	1	06/20/10	DC	n/a	n/a	V5V456
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	1.0	0.30	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
	m,p-Xylene	ND	4.0	0.60	ug/l	
95-47-6	o-Xylene	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	100%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	83%		70-130%

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:	D14407-4	**Date Sampled:**	06/13/10
Matrix:	AQ - Ground Water	**Date Received:**	06/18/10
		Percent Solids:	n/a
Project:	AECCOL: C-4-2 Proj#390660601		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	533	10	mg/l	20	06/21/10 13:32	GH	EPA 300/SW846 9056

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-7C		
Lab Sample ID:	D14407-5	**Date Sampled:**	06/13/10
Matrix:	AQ - Ground Water	**Date Received:**	06/18/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	AECCOL: C-4-2 Proj#390660601		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V08471.D	1	06/20/10	DC	n/a	n/a	V5V456
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	1.0	0.30	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
	m,p-Xylene	ND	4.0	0.60	ug/l	
95-47-6	o-Xylene	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	92%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	83%		70-130%

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

3.5

Client Sample ID:	MW-7		
Lab Sample ID:	D14407-5	**Date Sampled:**	06/13/10
Matrix:	AQ - Ground Water	**Date Received:**	06/18/10
		Percent Solids:	n/a
Project:	AECCOL: C-4-2 Proj#390660601		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	1280	25	mg/l	50	06/22/10 09:33	GH	EPA 300/SW846 9056

RL = Reporting Limit

ACCUTEST Laboratories

D14407

Report of Analysis

Client Sample ID:	MW-8C		
Lab Sample ID:	D14407-6	**Date Sampled:**	06/13/10
Matrix:	AQ - Ground Water	**Date Received:**	06/18/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	AECCOL:C-4-2 Proj#390660601		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V08478.D	1	06/20/10	DC	n/a	n/a	V5V456
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	1.0	0.30	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
	m,p-Xylene	ND	4.0	0.60	ug/l	
95-47-6	o-Xylene	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	93%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	84%		70-130%

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-8C		
Lab Sample ID:	D14407-6	**Date Sampled:**	06/13/10
Matrix:	AQ - Ground Water	**Date Received:**	06/18/10
		Percent Solids:	n/a
Project:	AECCOL: C-4-2 Proj#390660601		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	419	5.0	mg/l	10	06/21/10 13:59	GH	EPA 300/SW846 9056

RL - Reporting Limit

Report of Analysis

Client Sample ID:	DUPC		
Lab Sample ID:	D14407-7	**Date Sampled:**	06/13/10
Matrix:	AQ - Water Dup/MSD	**Date Received:**	06/18/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	AECCOL: C-4-2 Proj#390660601		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V08479.D	1	06/20/10	DC	n/a	n/a	V5V456
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	1.0	0.30	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
	m,p-Xylene	ND	4.0	0.60	ug/l	
95-47-6	o-Xylene	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	95%		70-130%
2037-26-5	Toluene-D8	90%		70-130%
460-00-4	4-Bromofluorobenzene	82%		70-130%

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

3.7 G

Client Sample ID:	DUP		
Lab Sample ID:	D14407-7	**Date Sampled:**	06/13/10
Matrix:	AQ - Water Dup/MSD	**Date Received:**	06/18/10
		Percent Solids:	n/a
Project:	AECCOL: C-4-2 Proj#390660601		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	409	5.0	mg/l	10	06/21/10 14:13	GH	EPA 300/SW846 9056

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	D14407-8	**Date Sampled:**	06/13/10
Matrix:	AQ - Trip Blank Water	**Date Received:**	06/18/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	AECCOL: C-4-2 Proj#390660601		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V08480.D	1	06/20/10	DC	n/a	n/a	V5V456
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	1.0	0.30	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
	m,p-Xylene	ND	4.0	0.60	ug/l	
95-47-6	o-Xylene	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	97%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	83%		70-130%

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

4

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST Laboratories

CHAIN OF CUSTODY

D14407

PAGE ___ OF ___

4036 Youngfield Street, Wheat Ridge, CO 80033
TEL: 303-425-6021 FAX: 303-425-6854
www.accutest.com

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #:

Client / Reporting Information

Company Name: DCP Midstream
Street Address: 370 Seventeenth Street, Suite 2500
City: Denver, CO State: 80202
Project Contact: Stephen Weathers
Phone #: 303-605-1718
Sampler(s) Name(s): A. Taylor

Project Information

Project Name: DCP J-4-2
Street:
City: State:
Project #: DCP J-4-2
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name:
Street Address:
City:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	BTEX 8260B	CHLORIDE	LAB USE ONLY
	MW-1		6/14	830	AT	GW	4	x								X	X	01
	MW-2		—	—		GW	—	x								X	X	
	MW-3		6/13	525		GW	4	x								X	X	02
	MW-4		6/13	620		GW	4	x								X	X	03
	MW-5		—	—		GW	—	x								X	X	
	MW-6		6/13	500		GW	4	x								X	X	04
	MW-7		6/13	420		GW	4	x								X	X	05
	MW-7 MS		6/13	420		GW	4	x								X		05MS
	MW-7 MSD		6/13	420		GW	4	x								X		05SD
	MW-8		6/13	345		GW	4	x								X	X	06
	[redacted] DUP		6/13	000	✓	GW	4	x								X	X	07
	Trip Blank		Yes	Lab	X	TB	2	x								X		08

Turnaround Time (Business days)

- ☐ Std. 15 Business Days
- ☐ Std. 10 Business Days
- ☒ 5 Day RUSH
- ☐ 3 Day Emergency
- ☐ 2 Day Emergency
- ☐ 1 Day Emergency
- ☐ Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- ☐ Commercial "A" (Level 1)
- ☒ Commercial "B" (Level 2)
- ☐ COMMBN
- ☐ COMMBN+
- ☐
- ☐ State Forms Required
- ☐ Send Forms to State
- ☐ Report by Fax
- ☐ Report by PDF
- ☐ EDD Format

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial BN = Results/QC/Narration (+ = chromatograms)

Comments / Special Instructions

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	6/17/10 600	1	2		2 6-18-10 900
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	☑ Intact ☐ Not Intact	Preserved where applicable ☑ On Ice ☑ Cooler Temp. 2.5
5		5			

D14407: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D14407 **Client:** DCP MIDSTREAM **Immediate Client Services Action Required:** No

Date/Time Received: 6/18/2010 9:30:00 AM **No. Coolers:** 1 **Client Service Action Required at Login:** No

Project: DCP D-4-2 **Airbill #'s:** fedex

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	Infared gun
3. Cooler media:	Ice (bag)

Quality Control Preservation	Y or N		N/A
1. Trip blank present / cooler:	☐	☐	
2. Trip blank listed on COC:	☐	☐	
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y or N	
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y or N	
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y or N		N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume rec'd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:(303) 425-6021
4036 Youngfield Street
F:(303) 425-6854
Wheat Ridge, CO
www/accutest.com

D14407: Chain of Custody
Page 1 of 1

4.1

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: D14407
Account: DCPMCODN DCP Midstream, LP
Project: AECCOL: J-4-2 Proj#390660601

Sample	FileID	DF	Analyzed	By	PrepDate	PrepBatch	AnalyticalBatch
V5V456-MB1	5V08469.D	1	06/20/10	DC	n/a	n/a	V5V456

5.1.1

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

D14407-1, D14407-2, D14407-3, D14407-4, D14407-5, D14407-6, D14407-7, D14407-8

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.30	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
	m,p-Xylene	ND	4.0	0.60	ug/l	
95-47-6	o-Xylene	ND	2.0	0.60	ug/l	

CAS No.	Surrogate Recoveries		Limits
17060-07-0	1,2-Dichloroethane-D4	93%	70-130%
2037-26-5	Toluene-D8	90%	70-130%
460-00-4	4-Bromofluorobenzene	82%	70-130%

Blank Spike Summary

Job Number: D14407
Account: DCPMCODN DCP Midstream, LP
Project: AECCOL: J-4-2 Proj#390660601

Sample	FileID	DF	Analyzed	By	PrepDate	PrepBatch	AnalyticalBatch
V5V456-BS1	5V08470.D	1	06/20/10	DC	n/a	n/a	V5V456

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

D14407-1, D14407-2, D14407-3, D14407-4, D14407-5, D14407-6, D14407-7, D14407-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	51.3	103	70-130
100-41-4	Ethylbenzene	50	55.2	110	70-130
108-88-3	Toluene	50	52.9	106	70-140
	m,p-Xylene	50	48.6	97	55-134
95-47-6	o-Xylene	50	48.5	97	55-134

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	85%	70-130%
2037-26-5	Toluene-D8	90%	70-130%
460-00-4	4-Bromofluorobenzene	97%	70-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D14407
Account: DCPMCODN DCP Midstream, LP
Project: AECCOL: J-4-2 Proj#390660601

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D14407-5MS	5V08472.D	1	06/20/10	DC	n/a	n/a	V5V456
D14407-5MSD	5V08473.D	1	06/20/10	DC	n/a	n/a	V5V456
D14407-5	5V08471.D	1	06/20/10	DC	n/a	n/a	V5V456

5.3.1

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

D14407-1, D14407-2, D14407-3, D14407-4, D14407-5, D14407-6, D14407-7, D14407-8

CAS No.	Compound	D14407-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		50	53.2	106	53.5	107	1	59-132/30
100-41-4	Ethylbenzene	ND		50	57.5	115	57.1	114	1	68-130/30
108-88-3	Toluene	ND		50	55.8	112	55.2	110	1	56-142/30
	m,p-Xylene	ND		50	50.0	100	50.4	101	1	36-146/30
95-47-6	o-Xylene	ND		50	49.8	100	51.3	103	3	36-146/30

CAS No.	Surrogate Recoveries	MS	MSD	D14407-5	Limits
17060-07-0	1,2-Dichloroethane-D4	85%	93%	92%	70-130%
2037-26-5	Toluene-D8	92%	91%	91%	70-130%
460-00-4	4-Bromofluorobenzene	97%	98%	83%	70-130%

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: D14407
Account: DCPMCODN - DCP Midstream, LP
Project: AECCOL: J-4-2 Proj#390660601

Analyte	BatchID	RL	Result	Units	Amount	Result	%Recov	Limits
			MB		Spike	BSP	BSP	QC
Chloride	GP2188/GN4964	0.50	0.20	mg/l	20	19.1	95.5	90-110
Chloride	GP2200/GN4984	0.50	0.21	mg/l	20	19.1	95.5	90-110
Fluoride	GP2188/GN4964	0.20	0.0	mg/l	10	9.65	96.5	90-110
Fluoride	GP2200/GN4984	0.20	0.0	mg/l	10	9.73	97.3	90-110

AssociatedpSamples:p
BatchpGP2188:pD14407-1,pD14407-2,pD14407-3,pD14407-4,pD14407-6,pD14407-7
BatchpGP2200:pD14407-5
(*)pOutsidepofpQCplimits

6.1

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D14407
Account: DCPMCODN - DCP Midstream, LP
Project: AECCOL: J-4-2 Proj#390660601

Analyte	BatchID	Sample	Units	Result	Amount	Result	%Rec	Limits
				QC Original		Spike MS		
Chloride	GP2188/GN4964	D14074-3	mg/l	1.4		10	95.0	80-120%
Fluoride	GP2188/GN4964	D14074-3	mg/l	0.29		2.5	92.4	80-120%

Associated Samples:
Batch GP2188: D14407-1, D14407-2, D14407-3, D14407-4, D14407-6, D14407-7
(*) Outside of QC limits
(N) Matrix Spike Rec. Outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D14407
Account: DCPMCODN - DCP Midstream, LP
Project: AECCOL: J-4-2 Proj#390660601

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Chloride	GP2188/GN4964	D14074-3	mg/l	1.4	10	10.9	0.0	20%
Fluoride	GP2188/GN4964	D14074-3	mg/l	0.29	2.5	2.6	0.0	20%

AssociatedQSamples:Q
BatchQGP2188:QD14407-1,QD14407-2,QD14407-3,QD14407-4,QD14407-6,QD14407-7
(*)QOutsideQofQQCQlimits
(N)QMatrixQSpikeQRec.QoutsideQofQQCQlimits

6.3

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