AP-122

1st QTR Groundwater Mon.
Report Results and
Proposed Well
Decommission and
Installation WORK PLAN

DATE: 06.17.13



DCP Midstream370 17th Street, Suite 2500
Denver, CO 80202
303-595-3331
303-605-2226 *FAX*

RECEIVED OCD

June 17, 2013

7013 JUN 18 P 2: 1

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

RE: 1st Quarter 2013 Groundwater Monitoring Results and Proposed Well Decommission and

Installation Work Plan.

DCP Hobbs Gas Plant (AP-122)

Unit G, Section 36, Township 18 South, Range 36 East

Lea County, New Mexico

Dear Mr. Lowe:

DCP Midstream, LP (DCP) is pleased to submit for your review, one copy of the 1st Quarter 2013 Groundwater Monitoring Results and Proposed Well Decommission and Installation Work Plan for the DCP Hobbs Gas Plant located in Lea County, New Mexico (Unit G, Section 36, Township 18 South, Range 36 East).

In the Proposed Well Decommission and Installation Work Plan, DCP will be abandoning a monitor well (MW-A) that was damaged when a contractor upgraded our secondary containment. When the upgrade was completed, the damaged well was located inside the secondary containment. Based on this, DCP will over drill the damaged well and properly abandon it to prevent any potential pathway to groundwater. The replacement well (MW-AR) will be drilled outside the secondary containment. Also an additional monitor well (MW-G) will be installed along the fence line near the entrance gate to the plant. Figure 4 in the work plan shows the locations of the monitor wells.

The field work is scheduled to start on June 24th and is anticipated to last 2 -3 days. Sorry for the short notice but with the damaged well located inside our secondary containment, I felt it necessary to mobilize a drill rig as soon as practical to minimize any risk to groundwater with the potential pathway open to groundwater.

If you have any questions regarding the report or work plan, please call me at 303-605-1718.

Sincerely

DCP Midstream, LP

Stephen Weathers, P.G.

Principal Environmental Specialist

cc: Geoffrey Leking, OCD Hobbs District Office (Copy on CD)

Environmental Files



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7013 JUN 18 P 2: 19

FIRST QUARTER 2013 GROUNDWATER MONITORING REPORT AND PROPOSED WELL DECOMISSIONING AND INSTALLATION WORKPLAN

DCP HOBBS GAS PLANT AP-122 LATITUDE: North 32.70533° LONGITUDE: West 103.3066° LEA COUNTY, NEW MEXICO

Prepared For:

Mr. Steve Weathers DCP Midstream, LP 370 17th Street, Suite 2500 Denver, Colorado 80202

Stobhan Pritchard, P.G.

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June 13, 2013 Ref. no. 059097 (17) Prepared by: Conestoga-Rovers & Associates

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1.0 <u>INTRODUCTION</u>

Conestoga-Rovers & Associates (CRA) is submitting this First Quarter 2013 Groundwater Monitoring Report and Proposed Well Decommissioning and Installation Workplan to DCP Midstream, LP (DCP) for the Hobbs Gas Plant in Lea County, New Mexico. This report summarizes the March 2013 groundwater sampling event. Groundwater monitoring and sampling details, analytical results, and conclusions are presented below.

Site Background

The site is a cryogenic processing plant located in Lea County, New Mexico approximately nine miles west of Hobbs, New Mexico (Figure 1). The site occupies approximately 3.5 acres in an undeveloped area. Facilities include a laboratory, an amine unit, compressors, sumps, mol sieve dehydration, tank batteries and an onsite water production well used for non-potable water. The DCP Apex Compressor Station is located approximately 750 feet (ft) north of the Hobbs Gas Plant. There are five groundwater monitoring wells onsite.

Hydrogeology

Historical static groundwater depths have ranged between 60.13 (MW-A) and 65.07 ft below ground surface (bgs) (MW-B). Static groundwater depths ranged from 61.70 (MW-C) to 65.00 ft bgs (MW-B) on March 11, 2013. Groundwater flows to the south with a gradient of 0.01 ft/ft (Figure 2).

2.0 GROUNDWATER MONITORING AND SAMPLING

CRA gauged and collected samples from groundwater monitoring wells MW-C through MW-F on March 11, 2013. Well MW-A could not be located during the sampling event and was determined to have been destroyed during site activities. CRA field personnel identified well MW-A on May 15, 2013 during site reconnaissance. A cement well pad and well vault were located near the former well location and presumed to be from well MW-A. Light non-aqueous phase liquids (LNAPL) was measured at a thickness of 3.60 ft in well MW-B; a sample was not collected. Each well cap was removed to allow groundwater levels to stabilize and equilibrate prior to gauging. All sampled groundwater monitoring wells were purged of approximately three well-casing volumes while temperature, pH, and conductivity were measured. Groundwater samples, including a duplicate sample, were collected using clean disposable bailers and decanted into clean containers supplied by the analytical laboratory. Groundwater

samples were submitted under chain-of-custody to Accutest Laboratories of Texas. CRA's standard operating procedures for groundwater monitoring and sampling are presented as Appendix A.

Purged Groundwater

Purged groundwater from monitoring wells MW-D through MW-F was discharged to the surface. Purged groundwater from well MW-C is stored in a United States Department of Transportation approved 55-gallon drum within secondary containment.

3.0 ANALYTICAL RESULTS

Groundwater Analytical Methods

Groundwater samples collected from MW-C through MW-F were analyzed for:

Benzene, toluene, ethylbenzene, and xylenes (BTEX) by SW-846 8260B

Groundwater Sampling Results

No BTEX was detected above New Mexico Water Quality Control Commission (NMWQCC) cleanup levels in groundwater samples MW-C through MW-F. Groundwater sample MW-C contained the highest benzene concentration 8.6 micrograms per liter (μ g/l). BTEX concentrations in groundwater are presented on Figure 3. Current groundwater analytical results are summarized in Table 1. Historical groundwater analytical results are summarized in Table 2. The laboratory analytical report is presented as Appendix B.

4.0 PROPOSED MONITORING WELL DECOMMISSIONINGAND INSTALLATION

Monitoring Well Installation Rationale

Monitoring well MW-A was destroyed during site upgrades. CRA proposes to decommission and re-install MW-A and install one monitoring well in the historical downgradient of well MW-B (Figure 4).

Monitoring Well Abandonment and Installation

Well MW-A will be decommissioned by overdrilling the remaining well casing and filling the borehole with bentonite grout. The monitoring well will be installed as 2-inch wells, screened by 5 ft above to 10 ft below the potentiometric surface. Soil samples will be collected for analyses based on lithological changes, signs of subsurface impact, and the capillary fringe.

5.0 <u>CONCLUSIONS</u>

No BTEX was detected above NMWQCC cleanup levels in any collected groundwater sample. LNAPL was measured in well MW-B at a thickness of 3.60 ft. DCP will continue quarterly monitoring and sampling in 2013 to evaluate site groundwater conditions. CRA will abandon and re-install monitoring well MW-A and install well MW-G on June 24, 2013.

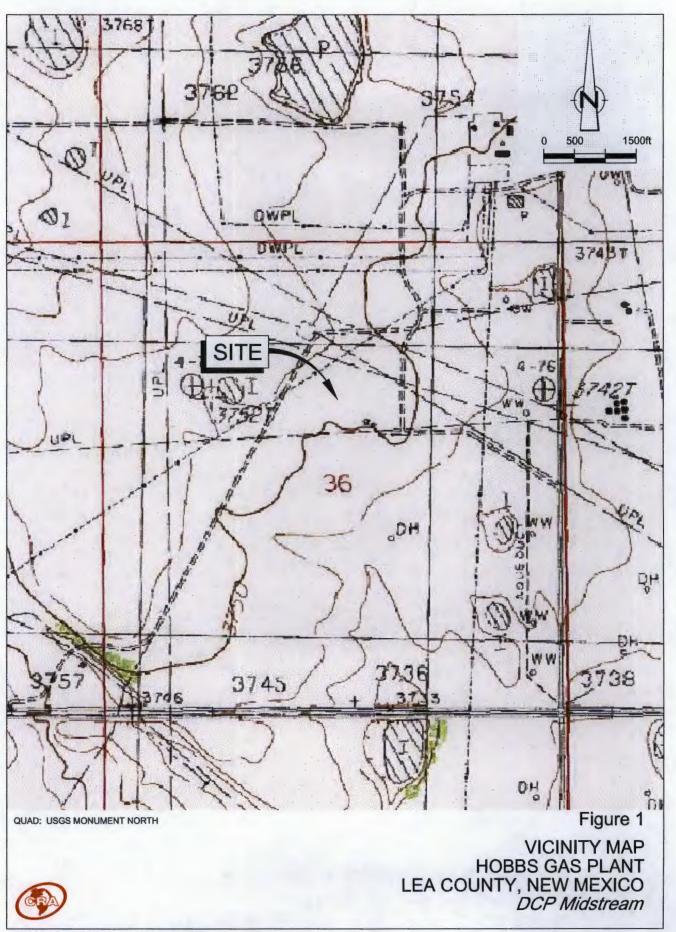
FIGURES

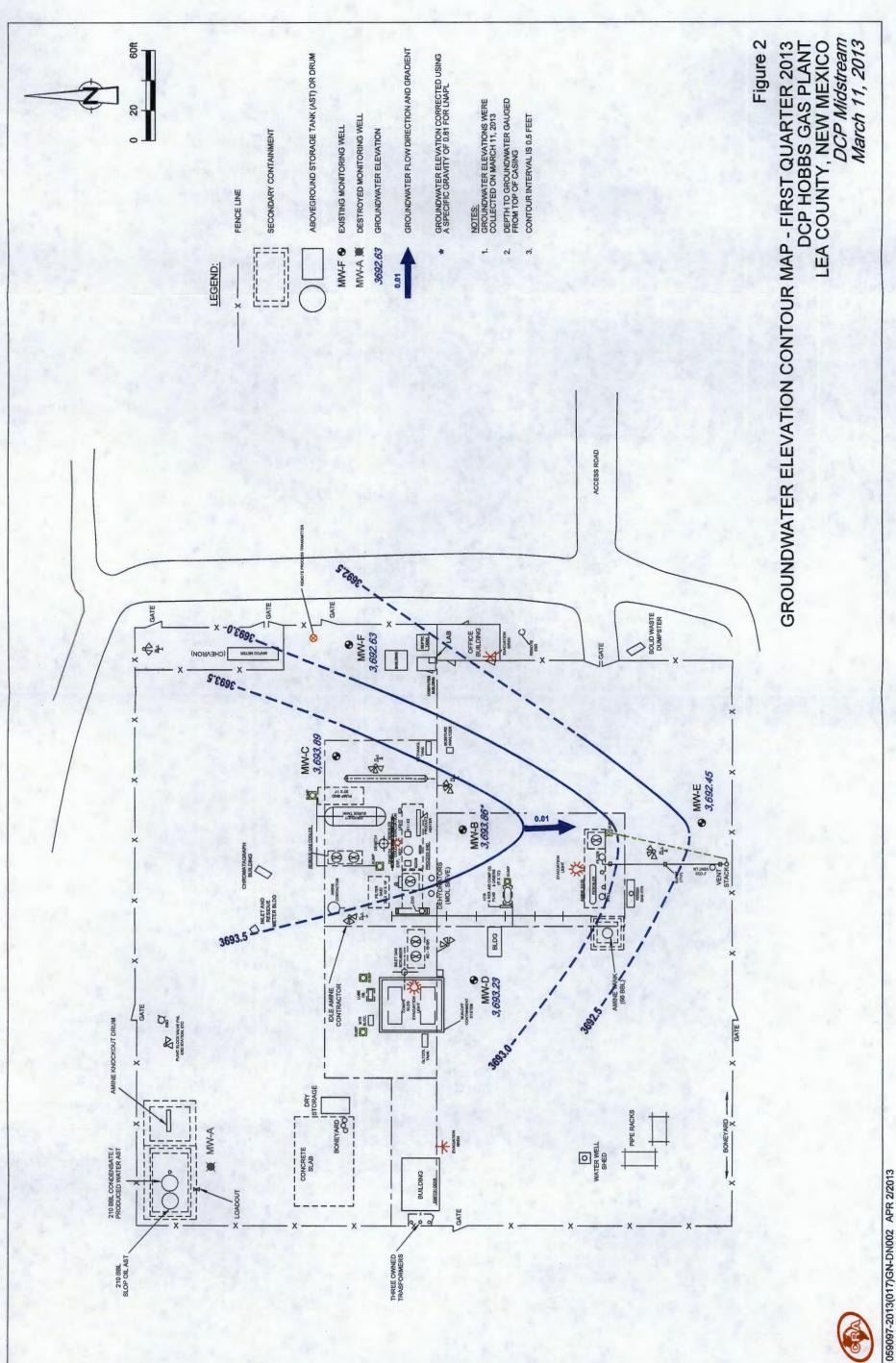
FIGURE 1: VICINITY MAP

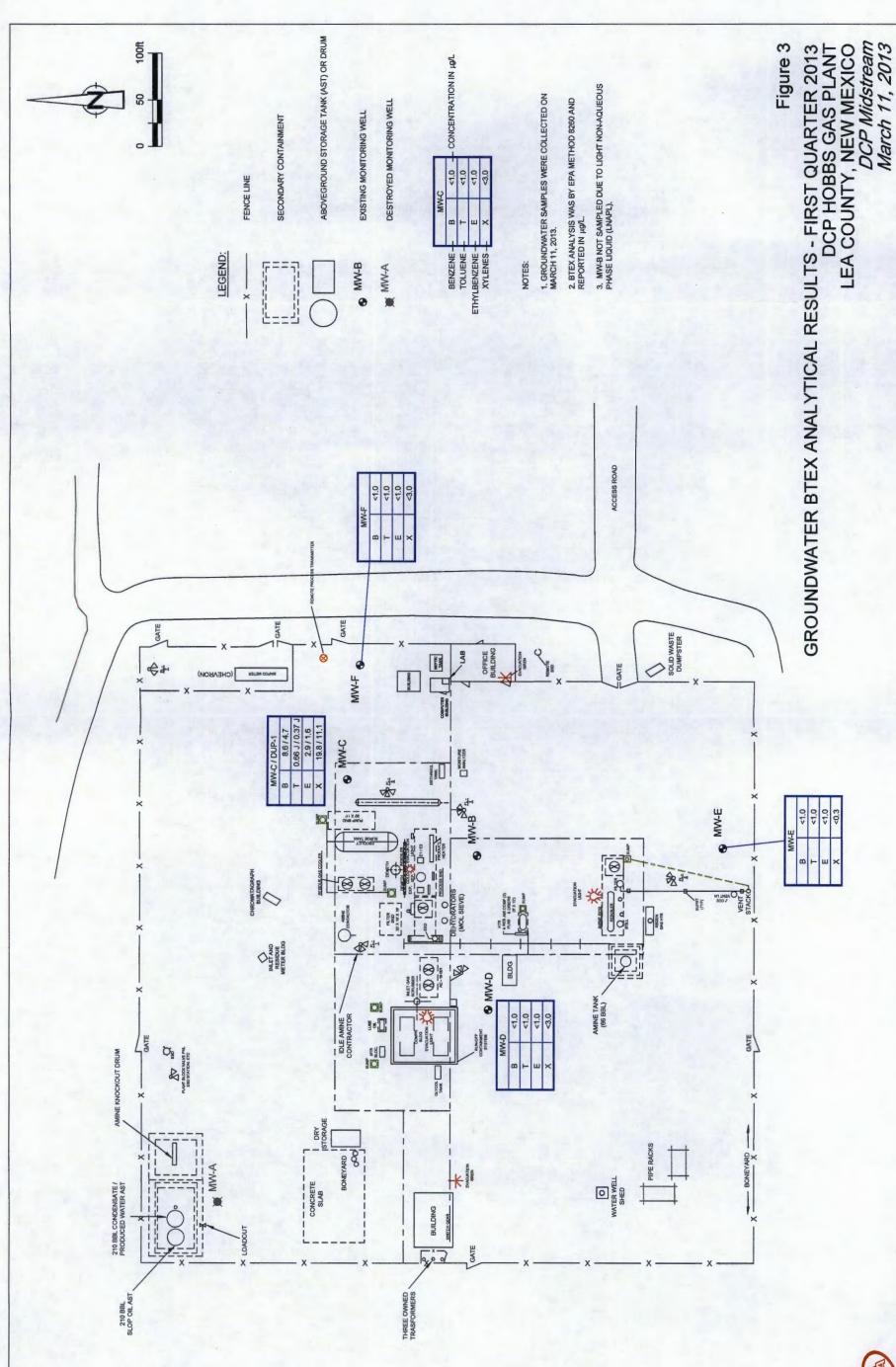
FIGURE 2: GROUNDWATER ELEVATION CONTOUR MAP-FIRST QUARTER 2013

FIGURE 3: GROUNDWATER BTEX ANALYTICAL RESULTS-FIRST QUARTER 2013

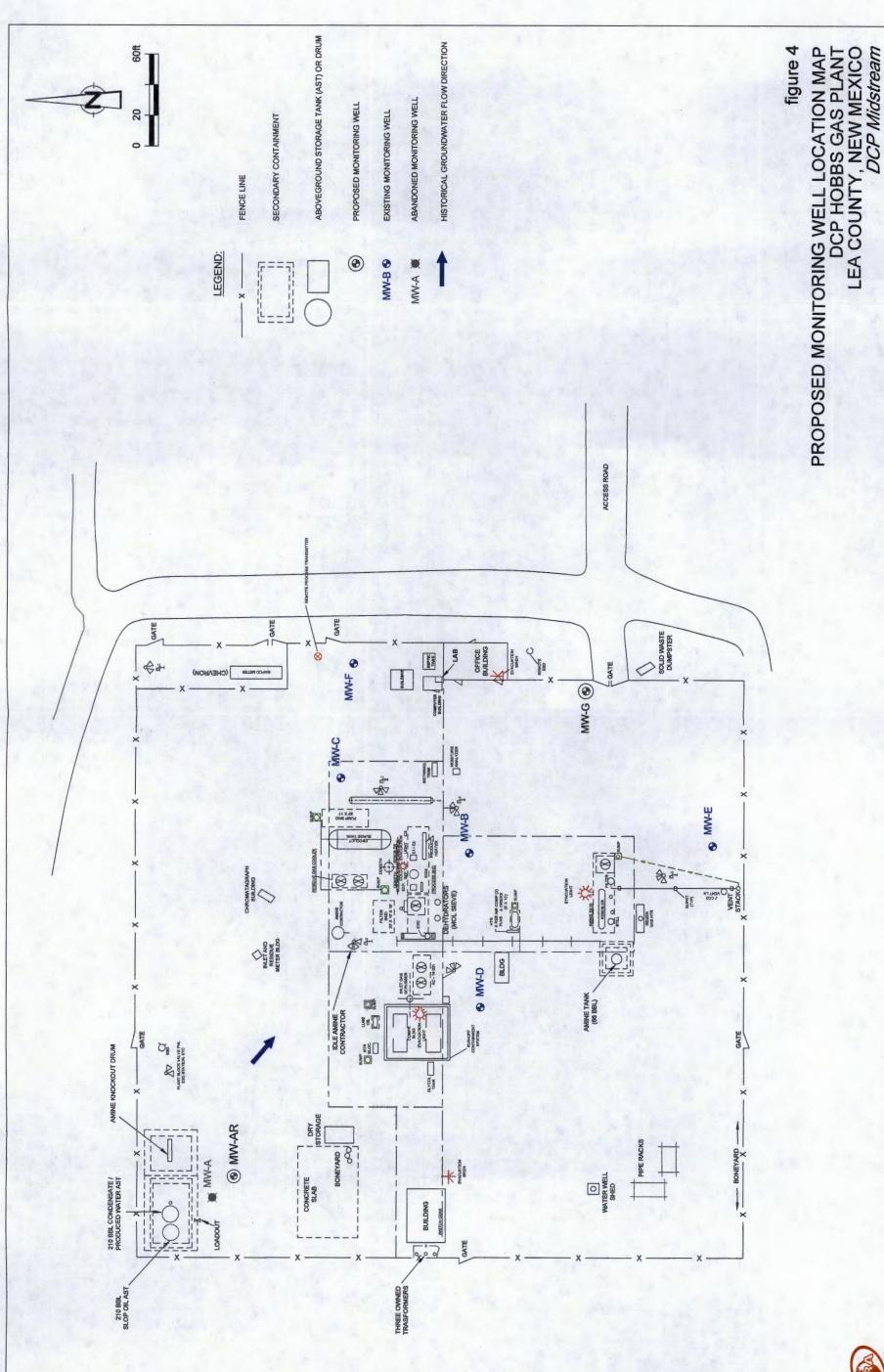
FIGURE 4: PROPOSED MONITORING WELL LOCATION MAP













059097-10(017)GN-DN004 JUN 13/2013

TABLES

TABLE 1: CURRENT GROUNDWATER ANALYTICAL RESULTS

TABLE 2: HISTORICAL GROUNDWATER ANALYTICAL RESULTS

Table 1.	Current Grou	ındwater A	nalytical R	esults - DC	P Hobbs Ga	as Plant, Lea C	ounty, Nev	v Mexico
	Date	TOC	DTW	GWE	Benzene	Toluene	Ethyl -	Total
Well ID	Date	100	DIVV	GWE	benzene	roruene	benzene	Xylenes
		(ft msl)	(ft bgs)	(ft msl)	←	Concentration	ns in µg/l	
NMWQC	C Cleanup Lev	els			10	750	750	620
MW-A	3/11/2013			٦	Well Destro	yed		
MW-B*	3/11/2013	3755.94	65.00	3693.86		LNAPL p	resent	
MW-C	3/11/2013	3755.59	61.70	3693.89	8.6/4.7	0.66 J/0.37 J	2.9/1.6	19.8/11.1
MW-D	3/11/2013	3755.43	62.20	3693.23	<1.0	<1.0	<1.0	<3.0
MW-E	3/11/2013	3754.36	61.91	3692.45	<1.0	<1.0	<1.0	<3.0
MW-F	3/11/2013	3756.13	63.50	3692.63	<1.0	<1.0	<1.0	<3.0

Notes and Abbreviations:

ID = Identification

TOC = Top of casing

DTW = Depth to water

GWE = Groundwater elevation

BTEX = Benzene, toluene, ethylbenzene, and total xylenes by SW-846 8021 or 8260B

ft msl = Feet above mean sea level

ft bgs = Feet below ground surface

 $\mu g/l$ = Micrograms per liter

x/y = Sample results/blind duplicate results

 $< x = Not detected above x \mu g/1$

BOLD = Indicates concentration above the NMQCC Cleanup Levels

J = Estimated value

NMWQCC = New Mexico Water Quality Control Commission

* = Groundwater elevation corrected using a LNAPL specific gravity of 0.81

	Date	707	MTG	LNAPL	GWE	Hď	Conductivitiy	Temperature	2	ORP	Benzene	Toluene	Penzene	Xvlenes
well ID		(fr mel)	(ft hos)	feet	(ft msl)	n's	uS/cm	γ	mg/1	νm	1	Concentrations in µg/1	Ins in µg/1	
NMWQCC	NMWQCC Cleanup Levels		(-0								10	750	750	929
MW-A	3/5/2008	3755.87	60.18	ŀ	3693.44	7.20	431	17.46	11.42	21.3	11	<5.0	3.8	15.0
MW-A	6/2/2008	3755.87	60.19	ı	3693.87	7.31	573	20.57	5.49	31.1	< 0.46	< 0.48	< 0.45	< 1.4
MW-A	9/15/2008	3755.87	60.58	ı	3694.32	6.81	533	19.27	4.96	238.7	< 0.46	< 0.48	< 0.45	< 1.4
MW-A	12/3/2008	3755.87	60.41	1	3694.44	7.37	202	18.20	7.17	183.9	< 0.46	< 0.48	< 0.45	< 1.4
MW-A	2/27/2009	3755.87	60.18	1	3693.02	7.29	202	19.34	8.15	64.1	< 0.46	< 0.48	< 0.45	< 1.4
MW-A	6/25/2009	3755.87	60.21	1	3695.66	6.90	099	19.80	8.20	145.0	< 2.0	< 2.0	< 2.0	< 6.0
MW-A	9/1/2009	3755.87	60.37	1	3695.50	7.07	029	19.86	8.11	0.69	< 2.0	< 2.0	< 2.0	< 6.0
TW-A	11/17/2009	3755.87	60.40	1	3695.47	7.82	226	17.67	1	ı	< 2.0	< 2.0	< 2.0	< 6.0
fw-A	3/25/2010	3755.87	60.40	1	3695.47	7.51	292	21.70	ı	I	< 2.0	< 2.0	< 2.0	< 6.0
TW-A	6/8/2010	3755.87	60.39	ı	3695.48	7.36	513		ı	1	< 2.0	< 2.0	< 2.0	< 6.0
IW-A	9/21/2010	3755.87	60.13	ı	3695.74	7.11	585.0	20.30	:	ı	<0.50	<0.43	<0.55	△1.7
TW-A	12/16/2010	3755.87	60.24	1	3695.63	7.27	225.7	18.00	ı	1	<0.50	<0.43	<0.55	7.7
TW-A	3/11/2011	3755.87	60.39	1	3695.48	7.31	556.5	19.40	ı	1	< 2.0	< 2.0	< 2.0	< 6.0
MW-A	6/14/2011	3755.87	60.63	;	3695.24	6.93	582.3	21.00	ı	ı	7.0	7.0	4.0	<3.0
MW-A	9/27/2011	3755.87	61.04	1	3694.83	7.65	538.6	20.80	1	ı	0.1	4.0	√1.0	<3.0
MW-A	12/13/2011	3755.87	61.24	1	3694.63	7.50	574.1	17.5	1	1	7.0	⊲7.0	7.0	<3.0
IW-A	3/27/2012	3755.87	61.39	1	3694.48	7.79	515.8	19.7	ı	1	7.0	7.0	7.0	<3.0
MW-A	6/19/2012	3755.87	61.54	1	3694.33	7.53	518.1	20.2	1	i	7.0	4.0	7.0	3.0
MW-A	9/24/2012	3755.87	61.71	1	3694.16	7.86	553.6	20.5	1	1	4.0	<1.0	7.0	<3.0
IW-A	12/10/2012	3755.87	61.91	ı	3693.96	7.10	554.2	19.7	ı	1	7.0	0.1	7.0	<3.0
MW-A	3/11/2013						Well	Well Destroyed						
ATA/ B	3/2/3008	3755 94	99 19	ı	3694 28	29 9	836	16.99	2.49	-214.1	220	64	130	730
MW.B	8002/6/9	3755 94	61 69	ı	3694.25	2.08	898	19.99	1.09	-150.1	4	86.5	155	716
TW-B	9/15/2008	3755 94	62.04	1	3693.90	09'9	902	19.63	0.56	-151.6	398	36.6	157	947
MIM.B(d)	9/15/2008	3755 94	62 04	1	3693.90	09.9	902	19.63	0.56	-151.6	488	46.0	200	1,210
(TA) D	12/3/2008	3755 04	61 03		3694 01	6 93	688	18 39	1.57	-1614	25.6	0.56 I	7.1	29.2
G-AAT/	2/27/2009	3755.04	61.68		3604.26	6.87	62	18.83	96 0	-1157	265	86.3	176	1,230
7.W-D	6/22/2003	3755 94	61.63	1 1	3694 31	999	13.5	19.80	2.50	-131.0	1.490	270	411	2,750
AW-B	9/1/2009	3755 94	61.87	ı	3694 13	09.9	130	20.36	1.92	-206.0	1,420	195	380	2,93
MW.B	11/17/2009	3755 94	61.85	1	3694.09	66.9	822	17.50	1	1	138	2.9	68.5	159
MW-B	3/25/2010	3755.94	61.70	ì	3694.24	66.9	1007	20.80	ı	1	199	7.8	112	375
IW-B	6/8/2010	3755.94	61.77	1	3694.17	6.98	998	21.56	ı	1	438	20.2	161	836
VIW-B(d)	6/8/2010	3755.94	61.77	1	3694.17	96.9	998	21.56	ł	ı	631	26.8	191	1,23
JW-B	9/21/2010	3755.94	61.58	1	3694.36	6.73	981.4	19.70	ı	1	572 a	21.7	167	882
√W-B	12/16/2010	3755.94	61.61	1	3694.33	7.04	994.3	17.50	t	ı	1 2	14.6	52.8	239
dw-B	3/11/2011	3755,94	61.74	1	3694.20	689	945.9	19.5	ı	1	360 a	19.9	175	742
AW-B	6/14/2011	3755.94	61.95	1	3693.99	69.9	8.766	20.1	1	1	295 a	9.2	135	8 6
(P)-B(d)	6/14/2011	3755.94	61.95	ı	3693.99	69'9	8'266	20.1	ı	ı	448 a	11.0	162	932 a
/IW-B	9/27/2011	3755.94	62.43	ı	3693.51	7.3	872.7	20.8	ı	1	225 a	8.0	147	464 a
AW-B	12/13/2011	3755.94	62.60	1	3705.19	7.07	1006	18.2	1	1	357 a	10	157	281
MW-B*	3/27/2012	3755.94	62.94	0.29	3693.23				LNAPL	NAPL present				
MW-B*	6/19/2012	3755.94	64.10	1.65	3693.17				LNAPL	NAPL present				
«IM-B*	9/24/2012	3755.94	64.60	2.10	3693.04				LNAPL	LNAPL present				
MW-B*	12/10/2012	2755 04	45.07	0,17	20 0076				1 N A DI	HODOWN				
	/ /	37.00.74	5.00	5.5	2077.73					INALL present				

CCleanup Levels (ft.msi)	Table 2.	Historical Groundwater Analytical Results - DCP Hobbs Gas Plant, Lea County, New Mexico	dwater Analyl	tical Results	- DCP Hobbs	s Gas Plant, Le	a County, Ne	ew Mexico							
Cleaning Levels (it high)	Well ID	Date	TOC	DTW	LNAPL	GWE	Н	Conductivitiy		00	ORP	Benzene	Toluene	Ethyl - benzene	Total Xylenes
3/5/2008 375.59 61.18 — 3694.41 691 335 17.46 6.50 -104.1 61 3/5/2008 3755.59 61.18 — 3694.41 691 335 17.46 6.50 -104.1 61 6/2/2008 3755.59 61.18 — 3694.41 691 335 17.46 6.50 -104.1 61 6/2/2008 3755.59 61.22 — 3694.37 6.90 781 2000 2.64 -121.2 103 104 61 12/3/2008 3755.59 61.48 — 3694.11 6.88 621 182.4 231 -17.8 306 12/3/2008 3755.59 61.18 — 3694.41 6.89 621 182.4 231 -17.8 306 2/2/2/2009 3755.99 61.15 — 3694.44 6.90 6.14 18.56 1.90 4.42 5.40 5.42 6/2/2/2009 3755.90 61.15 — 3694.44 6.90 6.14 1.15 1.73 1.74 </th <th></th> <th></th> <th>(ft msl)</th> <th>(ft bgs)</th> <th>feet</th> <th>(ft msl)</th> <th>S.u.</th> <th>μS/cm</th> <th>Ş</th> <th>mg/1</th> <th>υN</th> <th>1</th> <th>Concentrati</th> <th>ns in μg/1</th> <th></th>			(ft msl)	(ft bgs)	feet	(ft msl)	S.u.	μS/cm	Ş	mg/1	υN	1	Concentrati	ns in μg/1	
3/5/2008 3755.90 6118 - 3694.41 691 335 17.46 650 104.1 16 3/5/2008 3755.90 61.18 - 3694.41 691 335 17.46 650 104.1 160 6/2/2008 3755.90 61.12 - 3694.05 690 781 2000 264 -1121 104 160 9/15/2008 3755.90 61.22 - 3694.01 688 621 1824 -131 173 130 12/3/2008 3755.90 61.48 - 3694.41 688 621 1824 -131 -178 390 12/3/2008 3755.90 61.18 - 3694.44 690 614 185 6.19 1824 190 190 190 190 190 190 190 190 190 190 190 190 190 190 190 190 190 190 190 190 190 190<	NMWQCC	Cleanup Leve	ls									10	750	750	620
ý5/2008 375.596 6118 - 3694.41 6.91 335 17.46 6.50 104.1 160 6/2/2008 3755.95 61.12 - 3694.37 6.90 781 20.00 264 121.2 134 6/2/2008 3755.95 61.24 - 3694.37 6.90 781 20.00 264 121.2 103 11/3/2008 3755.95 61.48 - 3694.11 6.88 621 18.24 2.31 1.78 39.0 12/3/2008 3755.95 61.15 - 3694.41 6.88 621 18.24 2.31 1.78 39.0 2/2/2008 3755.95 61.15 - 3694.42 6.90 61.4 1.85 1.96 4.42 34.0 4.22 2/2/2009 3755.95 61.15 - 3694.42 6.90 61.4 1.85 1.96 4.42 34.0 4.22 4.42 34.0 4.42 34.0 4.42 34.0 <td>MW-C</td> <td>3/5/2008</td> <td>3755.59</td> <td>61.18</td> <td>ı</td> <td>3694.41</td> <td>6.91</td> <td>535</td> <td>17.46</td> <td>6.50</td> <td>-104.1</td> <td>61</td> <td>5.3</td> <td>19.0</td> <td>78.0</td>	MW-C	3/5/2008	3755.59	61.18	ı	3694.41	6.91	535	17.46	6.50	-104.1	61	5.3	19.0	78.0
6/2/2008 3755.9 6112 - 3694.37 6.90 781 2000 264 -121.2 754 6/2/2008 3755.9 61.22 - 3694.37 6.90 781 2000 264 -121.2 108 9/1/2008 3755.9 61.48 - 5694.11 6.88 621 1824 2.31 -17.8 39.0 12/3/2008 3755.9 61.48 - 6904.41 6.88 621 1824 2.31 -17.8 39.0 2/2/2009 3755.9 61.15 - 694.44 6.90 614 18.56 1.96 -8.7 30.0 2/2/2009 3755.9 61.15 - 3694.43 6.60 760 19.60 442 54.0 54.0 6/25/2009 3755.9 61.16 - 3694.43 6.60 760 19.60 442 54.0 54.0 6/25/2009 3755.9 61.18 - 3694.43 6.60 760 19.60 442 54.0 54.0 6/25/2009	MW-C(d)	3/5/2008	3755.59	61.18	ı	3694.41	6.91	535	17.46	6.50	-104.1	160	< 25	160	140
6/2/2008 3755.9 61.2 - 3694.37 6.90 781 20.00 264 -121.2 103 9/15/2008 3755.9 61.54 - 3694.05 6.51 679 18.99 1.97 160.3 130 12/3/2008 3755.99 61.48 - 3694.11 6.88 621 18.24 2.31 -17.8 506 2/2/2/2009 3755.99 61.15 - 3694.44 6.90 614 18.56 1.96 -8.7 506 2/2/2/2009 3755.99 61.15 - 3694.44 6.90 614 18.56 1.96 4.42 54.0 64.2 2/2/2/2009 3755.99 61.15 - 3694.44 6.90 614 18.56 1.96 4.42 54.0 64.2 9/1/2009 3755.99 61.35 - 3694.44 6.90 614 18.5 6.40 6.42 6.42 6.42 6.42 6.42 6.42 6.42 6.	MW-C	6/2/2008	3755.59	61.22	ı	3694.37	6.90	781	20.00	2.64	-121.2	75.4	4.9	26.3	121
9/15/2008 3755.9 61.54 — 3694.05 65.1 679 18.99 1.97 160.3 130 12/3/2008 3755.9 61.48 — 3694.11 6.88 62.1 182.4 2.31 1.78 390 12/3/2008 3755.9 61.48 — 3694.41 6.98 62.1 182.4 2.31 1.78 360 2/27/2009 3755.9 61.15 — 3694.44 6.90 61.4 1.86 8.7 360 1.96 8.7 360 1.96 8.7 360 1.96 8.7 360 1.96 8.7 360 1.96 8.7 360 8.7 360 1.96 4.42 360 360 4.1 1.7 360 9.0 1.96 4.42 360 4.2 3.6 4.2 3.6 4.2 3.6 4.2 3.6 4.2 3.6 4.2 3.6 4.2 3.6 4.2 3.6 4.2 3.6 4.2	MW-C(d)	6/2/2008	3755.59	61.22	1	3694.37	6.90	781	20.00	2.64	-121.2	103	8.1	36.9	170
12/3/2008 3755.9 6.1.48 — 3644.11 6.88 6.21 18.24 2.31 -17.8 390 12/3/2008 3755.9 6.1.48 — 3644.11 6.88 6.21 18.24 2.31 -17.8 390 2/27/2009 3755.9 6.1.15 — 3644.44 6.90 6.14 18.56 1.96 4.42 5.40 5.60 6/25/2009 3755.9 6.1.15 — 3644.43 6.60 760 19.60 4.42 54.0 54.0 9/1/2009 3755.9 61.16 — 3644.24 6.00 760 19.60 4.42 54.0 54.0 9/1/2009 3755.9 61.13 — 3644.2 6.78 990 19.27 2.66 40.0 54.0 11/17/2009 3755.9 61.37 — 364.22 7.26 63.1 17.17 — 36.1 11/17/2009 3755.9 61.37 — 364.32 7.26 <t< td=""><td>MW-C</td><td>9/15/2008</td><td>3755.59</td><td>61.54</td><td>ı</td><td>3694.05</td><td>6.51</td><td>629</td><td>18.99</td><td>1.97</td><td>160.3</td><td>130</td><td>5.7</td><td>47.3</td><td>222</td></t<>	MW-C	9/15/2008	3755.59	61.54	ı	3694.05	6.51	629	18.99	1.97	160.3	130	5.7	47.3	222
12/3/2008 3755.9 61.48 - 3694.11 6.88 621 18.24 231 -17.8 506 2/2//2009 3755.90 61.15 - 3694.44 6.90 614 18.56 1.96 8.7 699 6/25/2009 3755.90 61.15 - 3694.44 6.90 61.4 18.56 1.96 8.7 699 6/25/2009 3755.90 61.16 - 3694.43 6.60 760 19.60 4.42 54.0 64.2 9/1/2009 3755.90 61.35 - 3694.24 6.60 760 19.60 4.42 54.0 64.2 9/1/2009 3755.90 61.37 - 3694.22 7.26 631 17.17 - 25.7 11/1/2/2009 3755.90 61.37 - 3694.22 7.26 631 17.17 - 25.7 3/2/2/2010 3755.90 61.37 - 3694.32 7.13 686 19.20 -<	MW-C	12/3/2008	3755.59	61.48	1	3694.11	88.9	621	18.24	2.31	-17.8	39.0	< 0.48	10.5	33.3
2/27/2009 3755.99 6115 — 3694.44 6.90 614 18.56 1.96 8.7 669 2/27/2009 3755.39 61.15 — 3694.44 6.90 614 18.56 1.96 8.7 369 6/25/2009 3755.39 61.16 — 3694.43 6.60 760 19.60 4.42 54.0 54.2 9/1/2009 3755.39 61.16 — 3694.24 6.78 990 19.27 2.66 40.0 71.5 9/1/2009 3755.99 61.37 — 3694.24 6.78 990 19.27 2.66 40.0 71.5 11/17/2009 3755.99 61.37 — 3694.24 6.78 990 19.27 2.66 40.0 71.5 11/17/2009 3755.99 61.37 — 3694.24 6.78 990 19.27 2.66 40.0 71.5 3/2/2010 375.39 61.37 — 3694.32 7.13 <td< td=""><td>MW-C(d)</td><td>12/3/2008</td><td>3755.59</td><td>61.48</td><td>1</td><td>3694.11</td><td>88.9</td><td>621</td><td>18.24</td><td>2.31</td><td>-17.8</td><td>20.6</td><td>< 0.48</td><td>13.6</td><td>44.5</td></td<>	MW-C(d)	12/3/2008	3755.59	61.48	1	3694.11	88.9	621	18.24	2.31	-17.8	20.6	< 0.48	13.6	44.5
2/27/2009 3755.99 61.15 - 3694.44 6.90 614 18.56 1.96 4.42 54.0 54.0 54.0 54.0 54.0 64.2 54.0 54.0 54.0 54.0 64.2 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0 54.0	MW-C	2/27/2009	3755.59	61.15	ł	3694.44	9.90	614	18.56	1.96	-8.7	6.69	0.78 J	20.1	8.98
(725/2009) 3755.99 61.16 — 3694.43 6.60 760 19.60 4.42 54.0 64.3 6/25/2009 3755.99 61.16 — 3694.43 6.60 760 19.60 4.42 54.0 64.2 9/1/2009 3755.99 61.35 — 3694.24 6.78 990 19.27 2.66 40.0 84.2 11/17/2009 3755.99 61.37 — 3694.22 7.26 631 17.17 — 36 11/17/2009 3755.99 61.37 — 3694.22 7.26 631 17.17 — 36 3/25/2010 3755.99 61.37 — 3694.22 7.26 631 17.17 — 36 3/25/2010 3755.99 61.37 — 3694.24 6.32 631 17.17 — 36 3/25/2010 3755.99 61.13 — 3694.44 6.95 760.5 18.1 — 36	MW-C(d)	2/27/2009	3755.59	61.15	ł	3694.44	90.90	614	18.56	1.96	-8.7	36.6	< 0.48	10.0	43.3
6/25/2009 3755.99 61.16 — 3694.43 6.60 760 19.60 44.2 54.0 64.2 9/1/2009 3755.99 61.35 — 3694.24 6.78 990 19.27 2.66 4.00 828 9/1/2009 3755.99 61.35 — 3694.22 7.26 631 17.17 — 264 40.0 828 11/17/2009 3755.99 61.37 — 3694.22 7.26 631 17.17 — 264 3/25/2010 3755.99 61.37 — 3694.22 7.13 686 19.20 — 25.2 6/8/2010 3755.99 61.13 — 3694.26 6.92 621 23.06 — 48.2 9/21/2010 3755.99 61.13 — 3694.44 6.95 760.5 18.1 — 52.4 12/16/2010 3755.99 61.15 — 3694.44 6.95 760.5 18.1 — 48.2	MW-C	6/22/2009	3755.59	61.16	1	3694.43	09'9	260	19.60	4.42	54.0	54.3	0.72 J	11.9	53.0
9/1/2009 3755.59 61.35 - 3694.24 6.78 990 19.27 2.66 4.00 828 9/1/2009 3755.59 61.35 - 3694.24 6.78 990 19.27 2.66 40.0 715 1/1/2/2009 3755.59 61.37 - 3694.22 7.26 631 17.17 - 30 3/1/2/2009 3755.59 61.37 - 3694.22 7.25 631 17.17 - 264 3/25/2010 3755.99 61.27 - 3694.26 6.22 621 23.06 - 264 9/21/2010 3755.99 61.13 - 3694.49 6.58 74.18 19.20 - 264 9/21/2010 3755.99 61.15 - 3694.44 6.56 760.5 18.1 - 264 9/21/2010 3755.99 61.15 - 3694.44 6.95 760.5 18.1 - 26.4 9/1/2/2/2/2/2 <td>MW-C(d)</td> <td>6/22/2009</td> <td>3755.59</td> <td>61.16</td> <td>1</td> <td>3694.43</td> <td>9.90</td> <td>260</td> <td>19.60</td> <td>4.42</td> <td>54.0</td> <td>64.2</td> <td>0.87</td> <td>19.0</td> <td>82.4</td>	MW-C(d)	6/22/2009	3755.59	61.16	1	3694.43	9.90	260	19.60	4.42	54.0	64.2	0.87	19.0	82.4
9/1/2009 3755.59 61.35 - 3694.24 6.78 990 19.27 2.66 40.0 71.5 11/17/2009 3755.59 61.37 - 3694.22 7.26 631 17.17 - - 30 11/17/2009 3755.59 61.37 - 3694.22 7.26 631 17.17 - - 30 3/25/2010 3755.99 61.37 - 3694.32 7.13 686 19.20 - - 48.2 9/21/2010 3755.99 61.33 - 3694.44 6.92 621 23.06 - 5.24 12/16/2010 3755.99 61.13 - 3694.44 6.95 76.05 18.1 - 54.2 12/16/2010 3755.99 61.15 - 3694.44 6.95 76.05 18.1 - 5.4 11/16/2011 3755.99 61.12 - 3694.44 6.95 76.05 18.1 - 2.2	MW-C	9/1/2009	3755.59	61.35	ı	3694.24	6.78	066	19.27	2,66	40.0	87.8	1.3 J	23.1	132
11/17/2009 375.59 61.37 - 3694.22 7.26 631 17.17 - 30 11/17/2009 3755.99 61.37 - 3694.22 7.26 631 17.17 - - 25.7 3/55/2010 3755.99 61.27 - 3694.32 7.13 686 19.20 - - 25.7 3/55/2010 3755.99 61.27 - 3694.49 6.58 741.8 19.20 - - 25.7 9/21/2010 3755.99 61.13 - 3694.44 6.58 741.8 19.20 - 5.4 25.4 12/16/2010 3755.99 61.15 - 3694.44 6.58 760.5 18.1 - 5.4 3/11/2011 3755.99 61.15 - 3694.44 6.95 760.5 18.1 - 5.4 3/11/2011 3755.99 61.28 - 3694.44 6.95 760.5 18.1 - 5.4	MW-C(d)	9/1/2009	3755.59	61,35	ł	3694.24	82.9	066	19.27	5.66	40.0	71.5	1.0 J	19.8	110
11/17/2009 375.59 61.37 - 3694.22 7.26 631 17.17 - 25.7 3/25/2010 3755.99 61.27 - 3694.32 7.13 686 19.20 - - 48.2 3/25/2010 3755.99 61.27 - 3694.32 7.13 686 19.20 - - 48.2 6/8/2010 3755.99 61.13 - 3694.49 6.58 741.8 19.20 - - 25.4 12/16/2010 3755.99 61.15 - 3694.44 6.95 760.5 18.1 - 5.4 12/16/2010 3755.99 61.15 - 3694.44 6.95 760.5 18.1 - 5.4 3/11/2011 3755.99 61.12 - 3694.34 6.95 760.5 18.1 - 5.4 3/11/2011 3755.99 61.12 - 3694.34 6.95 76.5 18.3 - 5.4 9/2/	MW-C	11/17/2009	3755.59	61.37	ŀ	3694.22	7.26	631	17.17	ı	1	30	< 2.0	6.3	23
3/25/2010 3755.90 61.27 - 3694.32 7.13 686 19.20 - 48.2 3/25/2010 3755.90 61.27 - 3694.32 7.13 686 19.20 - - 48.2 6/8/2010 3755.90 61.33 - 3694.49 6.58 741.8 19.20 - - 48.2 9/11/2010 3755.90 61.15 - 3694.44 6.56 760.5 181 - 20.4 12/16/2010 3755.90 61.15 - 3694.44 6.56 760.5 181 - 12.4 12/16/2011 3755.90 61.15 - 3694.31 6.80 757.1 21.2 - 12.4 9/17/2011 3755.90 61.20 - 3694.31 6.80 737.1 21.2 - 40.3 12/13/2011 3755.90 62.20 - 3694.31 6.80 737.1 21.2 - 40.3 12/13/2011	MW-C(d)	11/17/2009	3755.59	61.37	ì	3694.22	7.26	631	17.17	ı	1	25.7	< 2.0	7.7	44.3
3/25/2010 3755.90 61.27 - 3694.32 7.13 686 1920 - 522 6/8/2010 3755.90 61.33 - 3694.49 6.58 741.8 19.20 - - 204 9/12/2010 3755.90 61.10 - 3694.44 6.95 760.5 181 - 124 12/16/2010 3755.90 61.15 - 3694.44 6.95 760.5 181 - 124 12/16/2010 3755.90 61.15 - 3694.31 6.80 75.3 181 - 124 3/11/2011 3755.90 61.28 - 3694.31 6.80 75.3 19.3 - 5.4 9/27/2011 3755.90 62.00 - 3694.37 6.60 737.1 21.2 6.00 9/27/2011 3755.90 62.00 - 3694.37 6.60 737.1 16.5 - 40.3 12/13/2011 3755.90 62.20	MW-C	3/25/2010	3755.59	61.27	1	3694.32	7.13	989	19.20	ì	1	48.2	3.0	16.9	141
6/8/2010 3755.59 61.33 - 3694.26 6.92 621 23.06 - 204 9/21/2010 3755.59 61.10 - 3694.49 6.58 741.8 19.2 - 124 12/16/2010 3755.59 61.15 - 3694.44 6.95 760.5 18.1 - 124 12/16/2010 3755.59 61.15 - 3694.44 6.95 760.5 18.1 - 10.3 3/11/2011 3755.59 61.28 - 3694.07 6.60 737.1 21.2 - 10.3 9/27/2011 3755.59 61.52 - 3694.07 6.60 737.1 21.2 - 6.00 9/27/2011 3755.59 62.00 - 3693.59 7.34 677.2 20.5 - 40.3 12/13/2011 3755.59 62.20 - 3693.36 7.06 730.1 16.5 - 40.3 3/27/2012 3755.59 62.33	MW-C(d)	3/25/2010	3755.59	61.27	1	3694.32	7.13	989	19.20	ı	1	52.2	2.9	20.3	123
9/21/2010 3755.59 61.10 — 3694.49 6.58 741.8 19.2 — 124 12/16/2010 3755.59 61.15 — 3694.44 6.95 760.5 18.1 — — 10.7 12/16/2010 3755.59 61.15 — 3694.44 6.95 760.5 18.1 — — 10.7 12/16/2010 3755.99 61.15 — 3694.47 6.80 725.3 19.3 — — 5.4 9/27/2011 3755.99 61.52 — 3694.97 6.60 737.1 21.2 — 60.3 12/13/2011 3755.99 62.00 — 3693.59 7.06 730.1 16.5 — 44.1 3/27/2012 3755.9 62.00 — 3693.26 7.26 652.3 19.2 — 44.1 3/27/2012 3755.9 62.33 — 3693.26 7.26 652.3 19.2 — 52.0 <t< td=""><td>MW-C</td><td>6/8/2010</td><td>3755.59</td><td>61.33</td><td>1</td><td>3694.26</td><td>6.92</td><td>621</td><td>23.06</td><td>ı</td><td>1</td><td>20.4</td><td>1.1</td><td>8.5</td><td>52.3</td></t<>	MW-C	6/8/2010	3755.59	61.33	1	3694.26	6.92	621	23.06	ı	1	20.4	1.1	8.5	52.3
12/16/2010 3755.99 61.15 — 3694.44 6.95 760.5 18.1 — — 10.7 12/16/2010 3755.99 61.15 — 3694.44 6.95 760.5 18.1 — — 10.7 12/16/2010 3755.99 61.15 — 3694.97 6.60 737.1 — 95.8 6/14/2011 3755.99 61.20 — 3693.99 7.34 677.2 20.5 — 95.8 12/13/2011 3755.99 62.20 — 3693.99 7.06 730.1 16.5 — 44.1 3/27/2012 3755.99 62.33 — 3693.26 7.26 652.3 19.2 — 44.1 3/27/2012 3755.99 62.43 — 3693.26 7.26 652.3 19.2 — 44.1 3/27/2012 3755.99 62.45 — 3693.26 7.26 652.3 19.2 — 45.0 11/10/2012 3755.59	MW-C	9/21/2010	3755.59	61.10	1	3694,49	6.58	741.8	19.2	ı	ı	124	3.1	50.4	276
12/16/2010 3755.59 6.1.15 — 3694.44 6.95 760.5 18.1 — 5.4 3/11/2011 3755.59 6.1.28 — 3644.31 6.80 775.3 19.3 — 5.4 6/14/2011 3755.59 6.1.22 — 3694.07 6.60 737.1 21.2 — 6.0 12/13/2011 3755.59 6.20 — 3693.99 7.06 730.1 16.5 — 40.3 12/13/2011 3755.99 6.20 — 3693.26 7.06 730.1 16.5 — 44.1 3/27/2012 3755.99 6.23 — 3693.26 7.26 652.3 19.2 — 44.1 3/27/2012 3755.99 6.245 — 3693.26 7.26 652.3 19.2 — 52.0 6/19/2012 3755.99 6.267 — 3693.26 7.76 652.3 19.2 — 52.0 11/10/2012 3755.59 6.	MW-C	12/16/2010	3755.59	61.15	1	3694.44	6.95	760.5	18.1	ı	ı	10.7	0.59	5.1	25.2
3/11/2011 3755.9 61.28 — 3694.31 6.80 725.3 19.3 — 95.8 6/14/2011 3755.9 61.52 — 3694.07 6.60 737.1 21.2 — 95.8 9/27/2011 3755.9 62.00 — 3693.9 7.34 677.2 20.5 — 40.3 12/13/2011 3755.9 62.00 — 3693.9 7.06 730.1 16.5 — 40.3 12/13/2011 3755.9 62.03 — 3693.0 7.06 730.1 16.5 — 40.3 3/27/2012 3755.9 62.03 — 3693.0 7.26 652.3 19.2 — 520 6/19/2012 3755.9 62.45 — 3693.0 7.26 652.3 19.2 — 520 9/34/2012 3755.9 62.76 — 3693.0 7.76 652.3 19.2 — 520 12/10/2012 3755.9 62.7	MW-C(d)	12/16/2010	3755.59	61.15	ı	3694.44	6.95	760.5	18.1	1	1	5.4	<0.43	2.8	12.6
6/14/2011 3755.59 61.52 - 3694.07 6.60 737.1 21.2 - 66.0 9/27/2011 3755.59 62.00 - 3693.59 7.34 677.2 20.5 - 40.3 12/13/2011 3755.59 62.20 - 3693.39 7.06 730.1 16.5 - - 40.3 12/13/2011 3755.59 62.33 - 3693.26 7.06 730.1 16.5 - 40.3 3/27/2012 3755.59 62.33 - 3693.26 7.26 652.3 19.2 - 40.3 6/19/2012 3755.59 62.45 - 3693.14 7.15 701.2 20.0 - 520 6/19/2012 3755.59 62.45 - 3693.14 7.15 701.2 20.0 - 520 12/10/2012 3755.59 62.77 - 3692.86 7.08 669.6 - 26.8 11/1/2013 3755.59 61.70	MW-C	3/11/2011	3755.59	61.28	1	3694.31	98.9	725.3	19.3	ì	1	92.8	5.7	42.4	235
9/Z7/2011 3755.59 6.2.00 - 3693.59 7.34 677.2 20.5 - 40.3 12/13/2011 3755.59 6.2.0 - 3693.39 7.06 730.1 16.5 - - 40.3 12/13/2011 3755.59 6.2.0 - 3693.39 7.06 730.1 16.5 - - 44.1 3/27/2012 3755.59 6.2.3 - 3693.26 7.26 652.3 19.2 - - 44.1 3/27/2012 3755.59 6.245 - 3693.26 7.26 652.3 19.2 - - 46.8 9/24/2012 3755.59 6.245 - 3693.4 7.76 732.2 20.0 - 66.8 12/10/2012 3755.59 6.276 - 3692.86 7.76 732.2 20.6 - 21 12/10/2012 3755.59 6.1.70 - 3693.89 7.64 800.5 18.4 - - <t< td=""><td>MW-C</td><td>6/14/2011</td><td>3755.59</td><td>61.52</td><td>ı</td><td>3694.07</td><td>09.9</td><td>737.1</td><td>21.2</td><td>ı</td><td>1</td><td>0.99</td><td>2.8</td><td>29.8</td><td>145</td></t<>	MW-C	6/14/2011	3755.59	61.52	ı	3694.07	09.9	737.1	21.2	ı	1	0.99	2.8	29.8	145
12/13/2011 3755.59 62.20 - 3693.39 7.06 730.1 16.5 - 44.1 12/13/2011 3755.59 62.20 - 3693.39 7.06 730.1 16.5 - 44.1 3/27/2012 3755.59 62.33 - 3693.26 7.26 652.3 19.2 - - 44.1 3/27/2012 3755.59 62.45 - 3693.46 7.26 652.3 19.2 - - 520 6/19/2012 3755.59 62.45 - 3693.49 7.76 732.2 20.0 - 66.8 9/24/2012 3755.59 62.67 - 3692.86 7.76 732.2 20.6 - 21 12/10/2012 3755.59 61.70 - 3693.89 7.64 800.5 18.4 - - 26.8 3/11/2013 3755.59 61.70 - 3693.89 7.64 800.5 18.4 - - 4.7 <	MW-C	9/27/2011	3755.59	62.00	ı	3693.59	7.34	677.2	20.5	1	1	40.3	0.7	19.9	94.4
12/13/2011 3755.59 62.20 - 3693.39 7.06 730.1 16.5 - 44.1 3/27/2012 3755.59 62.33 - 3693.26 7.26 652.3 19.2 - - 44.1 3/27/2012 3755.59 62.33 - 3693.26 7.26 652.3 19.2 - - 520 6/19/2012 3755.59 62.45 - 3693.14 7.15 701.2 20.0 - - 66.8 9/24/2012 3755.59 62.67 - 3692.86 7.76 669.6 17.6 - 2.1 12/10/2012 3755.59 61.70 - 3693.89 7.64 800.5 18.4 - - 26.8 3/11/2013 3755.59 61.70 - 3693.89 7.64 800.5 18.4 - - 4.7	MW-C	12/13/2011	3755.59	62.20	ı	3693.39	7.06	730.1	16.5	ı	1	112	4.3	29.8	200
3/27/2012 375.59 62.33 - 3693.26 7.26 652.3 19.2 - - 37.0 3/27/2012 3755.59 62.33 - 3693.26 7.26 652.3 19.2 - - 520 6/19/2012 3755.59 62.45 - 3693.14 7.15 701.2 20.0 - - 66.8 12/10/2012 3755.59 62.67 - 3692.92 7.76 732.2 20.6 - - 21 12/10/2012 3755.59 62.73 - 3692.86 7.08 669.6 17.6 - 2.1 3/11/2013 3755.59 61.70 - 3693.89 7.64 800.5 18.4 - - 4.7	MW-C(d)	12/13/2011	3755.59	62.20	ŀ	3693.39	7.06	730.1	16.5	1	ı	44.1	1.9	14.4	97.7
3/27/2012 3755.59 62.33 - 3693.26 7.26 652.3 19.2 - - 520 6/19/2012 3755.59 62.45 - 3693.14 7.15 701.2 20.0 - - 66.8 9/24/2012 3755.59 62.67 - 3692.86 7.76 732.2 20.6 - - 21 12/10/2012 3755.59 62.73 - 3692.86 7.08 669.6 17.6 - 26.6 3/11/2013 3755.59 61.70 - 3693.89 7.64 800.5 18.4 - - 4.7	MW-C	3/27/2012	3755.59	62.33	ŀ	3693.26	7.26	652.3	19.2	1	ı	37.0	1.2	11.4	75.8
6/19/2012 3755.59 6245 3693.14 7.15 701.2 20.0 66.8 9/24/2012 3755.59 62.67 3692.92 7.76 732.2 20.6 2.1 12/10/2012 3755.59 62.73 3692.86 7.08 669.6 17.6 26.6 3/11/2013 3755.59 61.70 3693.89 7.64 800.5 18.4 8.7 8.6	MW-C(d)	3/27/2012	3755.59	62.33	1	3693.26	7.26	652.3	19.2	ı	1	52.0	1.8	15.0	104
9/24/2012 3755.59 62.67 - 3692.92 7.76 732.2 20.6 - 2.1 12/10/2012 3755.59 62.73 - 3692.86 7.08 669.6 17.6 - 26.6 3/11/2013 3755.59 61.70 - 3693.89 7.64 800.5 18.4 - 8.6 3/11/2013 3755.59 61.70 - 3693.89 7.64 800.5 18.4 - 4.7	MW-C	6/19/2012	3755.59	62.45	1	3693.14	7.15	701.2	20.0	ı	1	8.99	1.9	20.1	135
12/10/2012 3755.59 62.73 - 3692.86 7.08 669.6 17.6 - 26.6 3/11/2013 3755.59 61.70 - 3693.89 7.64 800.5 18.4 - 8.6 8.6 3/11/2013 3755.59 61.70 - 3693.89 7.64 800.5 18.4 - 4.7	MW-C	9/24/2012	3755.59	62.67	1	3692.92	7.76	732.2	20.6	ı	1	2.1	<0.33	0.89	9.6
3/11/2013 3755.59 61.70 - 3693.89 7.64 800.5 18.4 8.6 3/11/2013 3755.59 61.70 - 3693.89 7.64 800.5 18.4 4.7	MW-C	12/10/2012	3755.59	62.73	ı	3692.86	7.08	9.699	17.6	ı	ı	56.6	2.2	8.2	57.8
3/11/2013 3755.59 61.70 - 3693.89 7.64 800.5 18.4 4.7	MW-C	3/11/2013	3755.59	61.70	ı	3693.89	7.64	800.5	18.4	ı	1	9.6	0.66 J	2.9	19.8
	MW-C(d)	3/11/2013	3755.59	61.70	ı	3693.89	7.64	800.5	18.4	t	1	4.7	0.37 J	1.6	11.1

Sify 2008 Sizista Girary Registry Sizista S	Well ID	Date	TOC	DTW	LNAPL	GWE	μd	Conductivitiy Temperature	Temperature	ОО	ORP	Benzene	Toluene	Ethyl - benzene	Total
VCCC ampp Aecks SPA TAP			(ft msl)	(ft bgs)	feet	(ft msl)	S.U.	μS/cm	ړ	I/gm	Λm	Ţ	Concentrati	ons in µg/1	
1,7,7,008 375-43 60.77 - 1	MWQC		els									10	750	750	620
6/15/2008 3755.43 6.67 9.99 5.59 5.49 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 7.04 6.04 7.04 6.04 7.04 6.04 7.04 6.04 7.04 6.04 7.04 6.04 7.04 6.04 7.04 6.04 7.04 6.04 7.04 6.04 7.04 6.04 7.04 6.04 6.04 6.04 7.04 6.04 6.04 6.04 6.04 6.04 7.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04	IW-D	3/5/2008	3755.43	60.77	1	3694.66	6.85	202	17.23	99.6	22.5	< 1.0	< 5.0	< 1.0	< 3.0
19/15/2008 375-35 6110 - 389433 664 646 646 1942 346 775 704 704 704 2/2/2/2008 375-35 6108 - 389444 761 889 1959 572 775 704 60.6 704 705 704 705 704 705 704 705 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704 704	IW-D	6/2/2008	3755.43	60.77	1	3694.66	7.13	899	19.99	5.39	29.2	< 0.46	< 0.48	< 0.45	< 1.4
11/1/2009 375.45 61.08 3 994.45 7.09 389 17.95 5.46 77.55 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 6.04 <td>fw-D</td> <td>9/15/2008</td> <td>3755.43</td> <td>61.10</td> <td>:</td> <td>3694.33</td> <td>6.64</td> <td>646</td> <td>19.42</td> <td>3.65</td> <td>233.1</td> <td>< 0.46</td> <td>< 0.48</td> <td>< 0.45</td> <td>< 1.4</td>	fw-D	9/15/2008	3755.43	61.10	:	3694.33	6.64	646	19.42	3.65	233.1	< 0.46	< 0.48	< 0.45	< 1.4
4/2/2/2009 375543 60.79 3 89444 7.01 889 1959 72.7 7.04 6.04 6.05 9.9447 6.81 880 1959 7.27 6.04 6.04 6.05 6.05 6.05 6.05 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02 7.02	IW-D	12/3/2008	3755.43	61.08	:	3694.35	7.09	287	17.95	5.46	175.5	< 0.46	< 0.48	< 0.45	< 1.4
\$\(\(\)\(\)\(\)\(\)\(\)\(\)\(\)\(\)\(\)\	IW-D	2/27/2009	3755.43	60.79	1	3694.64	7.01	289	19.59	7.22	77.1	< 0.46	< 0.48	< 0.45	< 1.4
1/17/1009 3755.49 6.08 - 5.084.77 6.81 860 19.90 6.11 118.0 < 2.0 < 2.0	IW-D	6/25/2009	3755.43	60.77	ı	3694.66	6.70	820	20.10	6.38	177.0	< 2.0	< 2.0	< 2.0	< 6.0
11/17/2019 375543 6.09 - 369444 7.67 658 16.67 - < 2.0 < 2.0	IW-D	9/1/2009	3755.43	96.09	:	3694.47	6.81	098	19.90	6.11	118.0	< 2.0	< 2.0	< 2.0	< 6.0
9/2/2010 3755.43 60.95 - 3.694.23 7.05 - 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0	IW-D	11/17/2009	3755.43	96.09	1	3694.47	2.67	658	16.67	;	:	< 2.0	< 2.0	< 2.0	< 6.0
6/19/2010 3755-43 6.06 - 3694-72 7.00 6.25 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - <th< td=""><td>W-D</td><td>3/25/2010</td><td>3755.43</td><td>68.09</td><td>1</td><td>3694.54</td><td>7.18</td><td>206</td><td>19.50</td><td>:</td><td>1</td><td>< 2.0</td><td>< 2.0</td><td>< 2.0</td><td>< 6.0</td></th<>	W-D	3/25/2010	3755.43	68.09	1	3694.54	7.18	206	19.50	:	1	< 2.0	< 2.0	< 2.0	< 6.0
12/17/2010 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470 757.5470	W-D	6/8/2010	3755.43	60.91	1	3694.52	7.09	989	22.28	;	1	< 2.0	< 2.0	< 2.0	< 6.0
1/11/2010 3755.43 60.07 364.39 6.67 194.7 18.7 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	W-D	9/21/2010	3755.43	99.09	ı	3694.77	6.84	730.5	19.30	1	١	<0.50	<0.43	<0.55	<1.7
3/11/2011 3755.45 6.084 - 5664/4.3 6.684 - 5664/4.3 6.684 - 5664/4.3 6.684 - 5664/4.3 6.684 - 5664/4.3 6.684 - 5664/4.3 6.684 - 5664/4.3 6.684 - 5664/4.3 6.684 - 5664/4.3 6.684 - 5664/4.3 6.684 - 5664/4.3 6.684 - 5664/4.3 6.68 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	IW-D	12/16/2010	3755.43	60.72	;	3694.71	7.03	794.7	18.70	:	:	<0.50	<0.43	<0.55	<1.7
(5) (14) (2011) 3755.45 (61.69) - 5694.34 665 88.24 2000 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	IW-D	3/11/2011	3755.43	60.84	1	3694.59	6.82	7.097	19.40	:	:	<2.0	<2.0	<2.0	0.9>
17/17/2012 3755.43 61.55 - 3699.88 721 738,7 20.60 -	M-D	6/14/2011	3755.43	61.09	ı	3694.34	6.65	842.4	20.00	1	١	4.0	<1.0	<1.0	<3.0
1.2/13/2011 3755.43 61.89	IW-D	9/27/2011	3755.43	61.55	ı	3693.88	7.21	708.7	20.60	1	1	0.₽	<1.0	<1.0	3.0
3/27/2012 3752/2012 3752/2012 3752/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 4727/2012 <t< td=""><td>M-D</td><td>12/13/2011</td><td>3755.43</td><td>61.70</td><td>ı</td><td>3693.73</td><td>7.28</td><td>771.7</td><td>16.7</td><td>1</td><td>ı</td><td>47.0</td><td><1.0</td><td><1.0</td><td>3.0</td></t<>	M-D	12/13/2011	3755.43	61.70	ı	3693.73	7.28	771.7	16.7	1	ı	47.0	<1.0	<1.0	3.0
(1/2)/2012 375543 61.97 - 3693.46 7.26 706.4 21.1 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	W-D	3/27/2012	3755.43	61.84	:	3693.59	7.18	659.7	20.5	ı	1	<1.0	4.0	<1.0	<3.0
9/34/2012 9754.4 6.21.2 - 969.31 8.18 717.9 23.0 - 6.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10<	W-D	6/19/2012	3755.43	61.97	1	3693.46	7.26	706.4	21.1	ŀ	ı	<1.0	4.0	<1.0	<3.0
12/10/2012 375543 6226	M-D	9/24/2012	3755.43	62.12	:	3693.31	8.18	717.9	23.0	;	ŀ	<1.0	47.0	<1.0	<3.0
(4) 12/10/2012 375543 62.26 - 369317 692 6764 183 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	M-D	12/10/2012	3755.43	62.26	1	3693.17	6.92	676.4	18.3	1	:	<1.0	4.0	<1.0	<3.0
3/11/2013 3755.43 6.2.0 - 3693.23 8.14 706.9 18.8 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	(M-D(d)	12/10/2012	3755.43	62.26	ı	3693.17	6.92	676.4	18.3	ł	1	<1.0	<1.0	7.0	<3.0
3/5/2008 3754.36 60.75 - 3693.61 689 487 17.29 8.99 384 14 <50 3.9 9/15/2008 3754.36 60.78 - 3693.58 7.07 633 19.91 3.72 9.4 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048 6.048	W-D	3/11/2013	3755.43	62.20	:	3693.23	8.14	6.902	18.8	ŧ	1	<1.0	<1.0	<1.0	<3.0
6/2/2008 3754.36 60.78 - 3693.38 707 633 19.91 3.72 9.4 < 0.46 < 0.48 < 0.45 9/15/2008 3754.36 61.13 - 3693.15 674 601 19.77 402 52.83 60.46 < 0.48	W-E	3/5/2008	3754.36	60.75	1	3693.61	689	487	17.29	8.99	38.4	14	< 5.0	3.9	14
9/15/2008 3754.36 61.21 - 3693.15 6.74 601 19.27 402 228.3 < 0.46 < 0.45 < 0.45 12/3/2008 3754.36 61.13 - 3693.25 7.01 590 18.88 5.25 186.2 < 0.46	W-E	6/2/2008	3754.36	80.78	t	3693.58	7.07	633	19.91	3.72	9.4	< 0.46	< 0.48	< 0.45	< 1.4
12/3/2008 3754.36 61.13 - 3693.23 7.03 592 18.58 5.25 186.2 < 0.46 < 0.48 < 0.45 2/27/2009 3754.36 60.31 - 3693.53 7.01 590 19.10 6.29 91.2 < 0.46	W-E	9/15/2008	3754.36	61.21	ı	3693.15	6.74	601	19.27	4.02	228.3	< 0.46	< 0.48	< 0.45	< 1.4
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	W-E	12/3/2008	3754.36	61.13	t	3693.23	7.03	592	18.58	5.25	186.2	< 0.46	< 0.48	< 0.45	< 1.4
(5/2)/2009 3754.36 60.74 - 3693.62 6.80 270 20.10 5.19 60.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 <th< td=""><td>IW-E</td><td>2/27/2009</td><td>3754.36</td><td>60.81</td><td>ı</td><td>3693.55</td><td>7.01</td><td>290</td><td>19.10</td><td>6.29</td><td>91.2</td><td>< 0.46</td><td>< 0.48</td><td>< 0.45</td><td>< 1.4</td></th<>	IW-E	2/27/2009	3754.36	60.81	ı	3693.55	7.01	290	19.10	6.29	91.2	< 0.46	< 0.48	< 0.45	< 1.4
9/1/2009 353.43 6.84 780 20.94 5.95 16.0 < 2.0 < 2.0 11/17/2009 3754.36 60.94 - 3693.42 7.32 610 17.06 - - < 2.0	IW-E	6/25/2009	3754.36	60.74	:	3693.62	6.80	270	20.10	5.19	0.09	< 2.0	< 2.0	< 2.0	< 6.0
11/17/2009 3754.36 60.94 - 3693.42 7.32 610 17.06 - < 2.0 < 2.0 < 2.0 3/25/2010 3754.36 60.82 - 3693.54 7.14 664 19.50 - - < 2.0	IW-E	9/1/2009	3754.36	60.93	ı	3693.43	6.84	780	20.94	5.95	16.0	< 2.0	< 2.0	< 2.0	< 6.0
3/25/2010 3743436 60.82 - 3693.34 7.14 654 19.50 - < 2.0 < 2.0 < 2.0 6/8/2010 3754.36 60.83 - 3693.34 7.14 654 19.50 - < 2.0 < 2.0 < 2.0 6/8/2010 3754.36 60.65 - 3693.71 6.72 730 19.40 - < 2.0 < 2.0 < 2.0 12/16/2010 3754.36 60.65 - 3693.71 7.0 688 18.10 - < 2.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 < 4.05 <td>W-E</td> <td>11/17/2009</td> <td>3754.36</td> <td>60.94</td> <td>ı</td> <td>3693.42</td> <td>7.32</td> <td>610</td> <td>17.06</td> <td>ł</td> <td>1</td> <td>< 2.0</td> <td>< 2.0</td> <td>< 2.0</td> <td>< 6.0</td>	W-E	11/17/2009	3754.36	60.94	ı	3693.42	7.32	610	17.06	ł	1	< 2.0	< 2.0	< 2.0	< 6.0
6/8/2010 3754.36 60.83 - 3693.33 7.00 612 22.50 - < 2.0 < 2.0 9/21/2010 3754.36 60.65 - 3693.71 6.72 730 19.40 - - 6.50 < 2.0	IW-E	3/25/2010	3754.36	60.82	ı	3693.54	7.14	654	19.50	ı	ı	< 2.0	< 2.0	< 2.0	< 6.0
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1,71/2010 3754.36 60.65 - 3693.71 672 730 19.40	IW-E	9/21/2010	3754.36	60.65	ŀ	3693.71	6.72	730	19.40	ı	:	<0.50	<0.43	<0.55	√1.7
12/16/2010 3754.36 60.65 - 3693.71 7.01 698.8 18.10 - 60.50 60.45 60.55 60.43 60.55 60.43 60.55 684.9 18.10 - 60.50 60.45 60.55 60.45 60.55 60.45 60.55 60.45 60.55 60.45 60.55 60.45 60.55 60.45 60.55 60.45 60.55 60.45 60.55 60.45 60.55 60.45 60.55 60.45 60.55 60.45 60.55 60.45 60.55 60.45 60.55 60.45 60.55 60.45 60.55 60.45 60.55 60.45 60.55 60.45 60.55 60.45 60.55 60.45 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55 60.55	W-E(d)	9/21/2010	3754.36	60.65	:	3693.71	6.72	730	19.40	ı	:	<0.50	<0.43	<0.55	4.7
3/11/2011 3754.36 60.75 - 3693.61 682 684.9 19.30 - - <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0	IW-E	12/16/2010	3754.36	90.65	ı	3693.71	7.01	8.869	18.10	;	:	<0.50	<0.43	<0.55	4.7
3/11/2011 3754.36 60.75 - 3693.61 682 684.9 19.30 - < < < < < < > < < < > < < < > < < < <	IW-E	3/11/2011	3754.36	60.75	1	3693.61	6.82	684.9	19.30	ı	t	<2.0	<2.0	<2.0	<6.0
6/14/2011 3754.36 60.91 - 3693.45 66.3 727.9 21.00 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	W-E(d)	3/11/2011	3754.36	60.75	ı	3693.61	6.82	684.9	19.30	1	1	<2.0	<2.0	<2.0	0.9>
9/27/2011 3754.36 614.3 - 3692.93 7.42 607.3 20.90 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	W-E	6/14/2011	3754.36	60.91	t	3693.45	6.63	727.9	21.00	1	:	0.1>	<1.0	<1.0	<3.0
d) 9/27/2011 3754.36 61.43 - 3692.93 7.42 607.3 20.90 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	W-E	9/27/2011	3754.36	61.43	ı	3692.93	7.42	607.3	20.90	ı	ı	<1.0	<1.0	<1.0	<3.0
12/13/2011 3754.36 61.59 - 3692.77 7.19 682.3 15.9 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	IW-E(d)	9/27/2011	3754.36	61.43	1	3692.93	7.42	607.3	20.90	,	ı	⊄.0	<1.0	<1.0	<3.0
3/27/2012 3754.36 61.66 — 3692.70 7.55 630.1 20.0 —	IW-E	12/13/2011	3754.36	61.59	1	3692.77	7.19	682.3	15.9	ŀ	١	4.0	7.0	<1.0	<3.0
6/19/2012 3754.36 61.81 - 3692.55 7.25 641.0 19.9 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	IW-E	3/27/2012	3754.36	99.19	ŀ	3692.70	7.55	630.1	20.0	ŀ	ı	<1.0	<1.0	7.0	<3.0
d) 6/19/2012 3754.36 61.81 - 3692.55 7.25 641.0 19.9 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	IW-E	6/19/2012	3754.36	61.81	t	3692.55	7.25	641.0	19.9	ı	ł	<1.0	7.0	√1.0	<3.0
9/24/2012 3754.36 61.94 - 3692.42 7.83 706.9 23.0 - < <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1	IW-E(d)	6/19/2012	3754.36	61.81	ı	3692.55	7.25	641.0	19.9	ŀ	1	<1.0	47.0	7.0	<3.0
d) 9/24/2012 3754.36 61.94 3692.42 7.83 706.9 23.0 < <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1	IW-E	9/24/2012	3754.36	61.94	ì	3692.42	7.83	6.902	23.0	ı	:	⊄.0	⊄7.0	√1.0	3.0
12/10/2012 3754.36 62.90 - 3691.46 6.21 652.7 17.1 <1.0 <1.0 <1.0	IW-E(d)	9/24/2012	3754.36	61.94	:	3692.42	7.83	6.902	23.0	ı	1	4.0	7.0	7.0	<3.0
	IW-E	12/10/2012	3754.36	62.90	ı	3691.46	6.21	652.7	17.1	ı	١	<1.0	4.0	7.0	<3.0

Table 2.	Historical Groundwater Analytical Results - DCP Hobbs Gas Plant, Lea County, New Mexico	ndwater Analyti	cal Results	- DCP Hobbs	Gas Plant, Lea	a County, Ne	ew Mexico							
Well ID	Date	TOC	WTC	LNAPL	GWE	Нd	Conductivitiy	Temperature	OQ	ORP	Benzene	Toluene	Ethyl - benzene	Total Xylenes
		(ft msl)	(ft bgs)	feet	(ft msl)	s.u.	mS/cm	ů	mg/1	νm	ļ	Concentrations in µg/1	ons in µg/1	1
NMWOC	NMWQCC Cleanup Levels	sls									10	750	750	620
			;			į	ļ	į	i	·	,	L	7	
MW-F	3/5/2008	3756.13	62.01	1	3694.12	97.9	657	17.01	9.71	3.6	1.9	< 5.0	< T.0	3.8
MW-F	6/2/2008	3756.13	90.79	ı	3694.07	92.9	829	19.00	3.08	21.4	< 0.46	< 0.48	< 0.45	< 1.4
MW-F	9/15/2008	3756.13	62.44	ı	3693.69	6.43	928	19.17	2.52	234.3	< 0.46	< 0.48	< 0.45	< 1.4
MW-F	12/3/2008	3756.13	62.22	ı	3693.91	92.9	917	17.79	3.79	188.4	< 0.46	< 0.48	< 0.45	< 1.4
MW-F	2/27/2009	3756.13	61.97	1	3694.16	6.77	857	18.61	3.85	93.4	< 0.46	< 0.48	< 0.45	< 1.4
MW-F	6/25/2009	3756.13	61.96	1	3694.17	6.20	100	19.80	5.56	221.0	< 2.0	< 2.0	< 2.0	< 6.0
MW-F	9/1/2009	3756.13	62.18	1	3693.95	6.51	110	19.25	5.27	108.0	< 2.0	< 2.0	< 2.0	0.9 >
MW-F	11/17/2009	3756.13	62.13	1	3694.00	6.93	1,030	18.67	1	ı	< 2.0	< 2.0	< 2.0	< 6.0
MW-F	3/25/2010	3756.13	62.02	ı	3694.11	6.94	1,053	19.00	1	ı	< 2.0	< 2.0	< 2.0	< 6.0
MW-F	6/8/2010	3756.13	62.12	ı	3694.01	7.03	006	22.06	ı	:	< 2.0	< 2.0	< 2.0	< 6.0
MW-F	9/21/2010	3756.13	61.92	ı	3694.21	6.67	1,003	19.10	١	:	<0.50	<0.43	<0.55	4.7
MW-F	12/16/2010	3756.13	61.93	1	3694.20	6.90	1,058	17.60		ı	<0.50	<0.43	<0.55	<1.7
MW-F	3/11/2011	3756.13	62.05	1	3694.08	6.84	1,017	19.00	1	ı	<2.0	<2.0	<2.0	0.9>
MW-F	6/14/2011	3756.13	62.35	ι	3693.78	6.53	1,053	20.10	ı	ı	⊄7.0	47.0	<1.0	<3.0
MW-F	9/27/2011	3756.13	62.85	ı	3693.28	7.05	890	20.40	ı	1	<1.0	4.0	0.₽	<3.0
MW-F	12/13/2011	3756.13	63.05	ı	3693.08	7.12	922.0	16.7	ŀ	1	<1.0	<1.0	<1.0	<3.0
MW-F	3/27/2012	3756.13	63.16	ŀ	3692.97	7.20	754.8	20.6	1	l	7.0	<1.0	7.0	<3.0
MW-F	6/19/2012	3756.13	63.30	ı	3692.83	7.23	776.1	19.7	1	ì	7.0	4.0	<1.0	<3.0
MW-F	9/24/2012	3756.13	63.50	ŀ	3692.63	7.64	8.692	21.6	ł	1	<0.34	<0.33	<0.32	<0.87
MW-F	12/10/2012	3756.13	63.65	;	3692.48	6.97	753.7	15.8	ì	1	<1.0	0.∆	7.0	<3.0
MW-F	3/11/2013	3756.13	63.50	1	3692.63	2.96	829.7	18.4	:		<1.0	<1.0	<1.0	<3.0

Notes and Abbreviations:

ID = Identification

TOC = Top of casing

DTW = Depth to water

LVAPP = Light non-aqueous phase liquids

GWE = Groundwater elevation

DO = Discourdwater elevation

DO = Discourdwater oxygen

OR = Octation relution potential

BTEX = Benzene, toluene, ethylbronzone, and total xylenes by SW-846 8021 or 826/B

fit mal = Feet above mean see level

It hyse = Feet above mean see level

It hyse = Feet chow ground surface

s.u. = Standard until

ps/cm = Microsiemens per centimeler

"C = Degrees Celvius

mg/1 = Milligenus per liter

n/ = Milliwotte

NMWQCC = New Mexico Water Quality Control Commission BOLD = Indicates concentration above the NMWQCC Cleanup Levels μg/1 = Micrograms per liter

 $< x = Not detected above x \mu g/1$

-- = Not measured/not analyzed

(d) = Duplicate sample

] = Estimated value

- = Groundwater elevation corrected using a LNAPL specific gravity of 0.81
\\Den 41\start\Proper Bits\(G90)(99097-HOBES\(09097-RPORES\(099097-RPTI1-3Q_2011 G90MR\)|09097-11-T1 good xels|Groundwater Analytical Results

APPENDIX A

STANDARD OPERATING PROCEDURES FOR GROUNDWATER MONITORING AND SAMPLING



STANDARD FIELD PROCEDURES FOR GROUNDWATER MONITORING AND SAMPLING

This document presents standard field methods for groundwater monitoring, purging and sampling, and well development. These procedures are designed to comply with Federal, State and local regulatory guidelines. Conestoga-Rovers & Associates' specific field procedures are summarized below.

Groundwater Monitoring

Prior to performing monitoring activities, the historical monitoring and analytical data of each monitoring well shall be reviewed to determine if any of the wells are likely to contain separate phase hydrocarbons (SPH) and to determine the order in which the wells will be monitored (i.e. cleanest to dirtiest). Groundwater monitoring should not be performed when the potential exists for surface water to enter the well (i.e. flooding during a rainstorm).

Prior to monitoring, each well shall be opened and the well cap removed to allow water levels to stabilize and equilibrate. The condition of the well box and well cap shall be observed and recommended repairs noted. Any surface water that may have entered and flooded the well box should be evacuated prior to removing the well cap. In wells with no history of SPH, the static water level and total well depth shall be measured to the nearest 0.01 foot with an electronic water level meter. Wells with the highest contaminant concentrations shall be monitored last. In wells with a history of SPH, the SPH level/thickness and static water level shall be measured to the nearest 0.01 foot using an electronic interface probe. The water level meter and/or interface probe shall be thoroughly cleaned and decontaminated at the beginning of the monitoring event and between each well. Monitoring equipment shall be washed using soapy water consisting of Liqui-noxTM or AlconoxTM followed by one rinse of clean tap water and then two rinses of distilled water.

Groundwater Purging and Sampling

Prior to groundwater purging and sampling, the historical analytical data of each monitoring well shall be reviewed to determine the order in which the wells should be purged and sampled (i.e. cleanest to dirtiest). No purging or groundwater sampling shall be performed on wells with a measurable thickness of SPH or floating SPH globules. If a sheen is observed, the well should be purged and a groundwater sample collected only if no SPH is present. Wells shall be purged either by hand using a disposal or PVC bailer or by using an aboveground pump (e.g. peristaltic or WatteraTM) or down-hole pump (e.g. GrundfosTM or DC Purger pump).

Groundwater wells shall be purged approximately three to ten well-casing volumes (depending on the regulatory agency requirements) or until groundwater parameters of temperature, pH, and conductivity have stabilized to within 10% for three consecutive readings. Temperature, pH, and conductivity shall be measured and recorded at the start of purging, once per well casing volume removed, and at the completion of purging. The total volume of groundwater removed shall be recorded along with any other notable physical characteristic such as color and odor. If required, field parameters such as turbidity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) shall be measured prior to collection of each groundwater sample.

Groundwater samples shall be collected after the well has been purged and allowed to recharge to 80% of the pre-purging static water level, or if the well is slow to recharge, after waiting a minimum of 2 hours. Groundwater samples shall be collected using clean disposable bailers or



pumps (if an operating remediation system exists on site and the project manager approves of its use for sampling) and shall be decanted into clean containers supplied by the analytical laboratory. New latex gloves and disposable tubing or bailers shall be used for sampling each well. If a PVC bailer or down-hole pump is used for groundwater purging, it shall be decontaminated before purging each well by using soapy water consisting of Liqui-noxTM or AlconoxTM followed by one rinse of clean tap water and then two rinses of distilled water. If a submersible pump with non-dedicated discharge tubing is used for groundwater purging, both the inside and outside of pump and discharge tubing shall be decontaminated as described above.

Sample Handling

Except for samples that will be tested in the field, or that require special handling or preservation, samples shall be stored in coolers chilled to 4° C for shipment to the analytical laboratory. Samples shall be labeled, placed in protective foam sleeves or bubble wrap as needed, stored on crushed ice at or below 4° C, and submitted under chain-of-custody (COC) to the laboratory. The laboratory shall be notified of the sample shipment schedule and arrival time. Samples shall be shipped to the laboratory within a time frame to allow for extraction and analysis to be performed within the standard sample holding times.

Sample labels shall be filled out using indelible ink and must contain the site name; field identification number; the date, time, and location of sample collection; notation of the type of sample; identification of preservatives used; remarks; and the signature of the sampler. Field identification must be sufficient to allow easy cross-reference with the field datasheet.

All samples submitted to the laboratory shall be accompanied by a COC record to ensure adequate documentation. One copy of the COC shall be kept in the QA/QC file and another copy shall be retained in the project file. Information on the COC shall consist of the project name and number; project location; sample numbers; sampler/recorder's signature; date and time of collection of each sample; sample type; analyses requested; name of person receiving the sample; and date of receipt of sample.

Laboratory-supplied trip blanks shall accompany the samples and be analyzed to check for cross-contamination, if requested by the project manager.

Well Development

Wells shall be developed using a combination of groundwater surging and extraction. A surge block shall be used to swab the well and agitate the groundwater in order to dislodge any fine sediment from the sand pack. After approximately ten minutes of swabbing the well, groundwater shall be extracted from the well using a bailer, pump and/or reverse air-lifting through a pipe to remove the sediments from the well. Alternating surging and extraction shall continue until the sediment volume in the groundwater (i.e. turbidity) is negligible, which typically requires extraction of approximately ten well-casing volumes of groundwater. Preliminary well development usually is performed during well installation prior to placing the sanitary surface seal to ensure sand pack stabilization. Well development that is performed after surface seal installation, should occur 72 hours after seal installation to ensure that the cement has had adequate time to set.



Waste Handling and Disposal

Groundwater extracted during development and sampling shall be stored onsite in sealed U.S. DOT H17 55-gallon drums. Each drum shall be labeled with the contents, date of generation, generator identification and consultant contact. If hydrocarbon concentrations in the purged groundwater are below ADEC cleanup levels or the site is in a remote area (pending ADEC approval) groundwater will be discharged to the ground surface, at least 100 feet from the nearest surface water body.

 $\verb|\DEN-S1| Shared \verb|\Denver| Alaska \verb|\AK SOP| CRA Alaska SOP| AK Groundwater Monitoring and Sampling SOP - CRA. doc |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring and Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitoring And Sampling SOP - CRA. |\DEN-S1| Shared Coundwater Monitorin$

APPENDIX B LABORATORY ANALYTICAL REPORT



03/27/13





Technical Report for

DCP Midstream, LLC

CRA: DCP Midstream-Hobbs

059097-2012-04

Accutest Job Number: TC27113

Sampling Date: 03/12/13

Report to:

spritchard@craworld.com

Total number of pages in report: 19



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.

Richard Hollriguez Laboratory Director

Client Service contact: Sylvia Garza 713-271-4700

Certifications: TX (T104704220-12-9) AR (12-029-0) AZ (AZ0769) FL (E87628) KS (E-10366) LA (85695/04004) OK (2012-059)

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

1 of 19
ACCUTEST.
TC27113 LABORATORIES

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Sample Summary

DCP Midstream, LLC

CRA: DCP Midstream-Hobbs Project No: 059097-2012-04

T	οh	No:	TC27113
J	Uυ	TAO:	102/113

Sample Number	Collected Date	l Time By	Ma Received Co	trix de Type	Client Sample ID
TC27113-1	03/12/13	12:50	03/15/13 AQ	Ground Water	MW-C
TC27113-2	03/12/13	13:30	03/15/13 AQ	Ground Water	MW-D
TC27113-3	03/12/13	13:45	03/15/13 AQ	Ground Water	MW-E
TC27113-4	03/12/13	13:15	03/15/13 AQ	Ground Water	MW-F
TC27113-5	03/12/13	00:00	03/15/13 AQ	Ground Water	DUP-1
TC27113-6	03/12/13	00:00	03/15/13 AQ	Trip Blank Water	TRIP BLANK



Summary of Hits Job Number: TC27113

Account:

DCP Midstream, LLC

Project:

CRA: DCP Midstream-Hobbs

Collected:

03/12/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
TC27113-1	MW-C					
Benzene Toluene Ethylbenzene Xylene (total)		0.0086 0.00066 J 0.0029 0.0198	0.0010 0.0010 0.0010 0.0030	0.00034 0.00033 0.00032 0.00087	mg/l mg/l mg/l mg/l	SW846 8260B SW846 8260B SW846 8260B SW846 8260B
TC27113-2	MW-D					
No hits reported	in this sample.					
TC27113-3	MW-E					
No hits reported	in this sample.					
TC27113-4	MW-F					
No hits reported	in this sample.					
TC27113-5	DUP-1					
Benzene Toluene Ethylbenzene Xylene (total)		0.0047 0.00037 J 0.0016 0.0111	0.0010 0.0010 0.0010 0.0030	0.00034 0.00033 0.00032 0.00087	mg/l mg/l mg/l mg/l	SW846 8260B SW846 8260B SW846 8260B SW846 8260B

TC27113-6 TRIP BLANK

No hits reported in this sample.





Sample Results	 	
Donant of Analysis		
Report of Analysis		



Page 1 of 1

Client Sample ID: MW-C

Lab Sample ID: TC27113-1

Matrix:

AQ - Ground Water

Method: Project:

SW846 8260B

CRA: DCP Midstream-Hobbs

Date Sampled: 03/12/13

Date Received: 03/15/13

Percent Solids: n/a

Analytical Batch File ID DF Analyzed By **Prep Date** Prep Batch G019188.D 03/19/13 IS VG859 Run #1 1 n/a n/a

Run #2

Purge Volume

Run #1 5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL Units	Q
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylene (total)	0.0086 0.00066 0.0029 0.0198	0.0010 0.0010 0.0010 0.0030	0.00034 mg/l 0.00033 mg/l 0.00032 mg/l 0.00087 mg/l	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
1868-53-7 17060-07-0 2037-26-5 460-00-4	Dibromofluoromethane 1,2-Dichloroethane-D4 Toluene-D8 4-Bromofluorobenzene	110% 103% 104% 98%		72-122% 68-124% 80-119% 72-126%	

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



1S

03/19/13

Page 1 of 1

Client Sample ID: MW-D

Lab Sample ID: TC27113-2

File ID

G019189.D

Matrix:

AQ - Ground Water

1

Method: Project:

SW846 8260B

CRA: DCP Midstream-Hobbs

Date Sampled: 03/12/13

n/a

VG859

Date Received: 03/15/13

Percent Solids: n/a

DF	Analyzed	Bv	Prep Date	Pren Batch	Analytical Batch

n/a

Run #1 Run #2

Purge Volume

Run #1 5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylene (total)	ND ND ND ND	0.0010 0.0010 0.0010 0.0030	0.00034 0.00033 0.00032 0.00087	mg/l mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limit	ts	
1868-53-7 17060-07-0 2037-26-5 460-00-4	Dibromofluoromethane 1,2-Dichloroethane-D4 Toluene-D8 4-Bromofluorobenzene	109% 101% 102% 100%		72-12 68-12 80-11 72-12	24% 9%	

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



of Analysis Page 1 of 1

Client Sample ID: MW-E

Lab Sample ID: TC27113-3

Matrix:

AQ - Ground Water

Method: Project: SW846 8260B

CRA: DCP Midstream-Hobbs

Date Sampled: 03/12/13

Date Received: 03/15/13

Percent Solids: n/a

	File ID	DF	Analyzed	Ву	Prep Date	Prep Batch	Analytical Batch
Run #1	G019190.D	1	03/19/13	1S	n/a	n/a	VG859
Run #2							

Run #1 5.0 ml
Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL Units	Q
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylene (total)	ND ND ND ND	0.0010 0.0010 0.0010 0.0030	0.00034 mg/l 0.00033 mg/l 0.00032 mg/l 0.00087 mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
1868-53-7 17060-07-0 2037-26-5	Dibromofluoromethane 1,2-Dichloroethane-D4 Toluene-D8	108% 102% 101%		72-122% 68-124% 80-119%	

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



Page 1 of 1

Client Sample ID: MW-F

Lab Sample ID: TC27113-4

Matrix:

AQ - Ground Water

Method: Project:

SW846 8260B CRA: DCP Midstream-Hobbs

Date Sampled: 03/12/13 Date Received: 03/15/13

Percent Solids: n/a

File ID DF Analyzed By **Prep Date** Prep Batch **Analytical Batch** Run #1 G019191.D 03/19/13 IS VG859 1 n/a n/a

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	0.0010	0.00034 mg/l	
108-88-3	Toluene	ND	0.0010	0.00033 mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00032 mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00087 mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
1868-53-7	Dibromofluoromethane	107%		72-122%	
17060-07-0	1,2-Dichloroethane-D4	100%		68-124%	
2037-26-5	Toluene-D8	103%		80-119%	
460-00-4	4-Bromofluorobenzene	100%		72-126%	

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



Page 1 of 1

Client Sample ID: DUP-1

Lab Sample ID: TC27113-5

Matrix:

AQ - Ground Water

Method: Project:

SW846 8260B

CRA: DCP Midstream-Hobbs

Date Sampled: 03/12/13

Date Received: 03/15/13

Percent Solids: n/a

File ID DF Analyzed By Prep Date Prep Batch Analytical Batch
Run #1 G019192.D 1 03/19/13 IS n/a n/a VG859

Run #2

Purge Volume

Run #1 5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL Units	Q
71-43-2 108-88-3 100-41-4 1330-20-7	Benzene Toluene Ethylbenzene Xylene (total)	0.0047 0.00037 0.0016 0.0111	0.0010 0.0010 0.0010 0.0030	0.00034 mg/l 0.00033 mg/l 0.00032 mg/l 0.00087 mg/l	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
1868-53-7 17060-07-0 2037-26-5 460-00-4	Dibromofluoromethane 1,2-Dichloroethane-D4 Toluene-D8 4-Bromofluorobenzene	109% 100% 101% 99%		72-122% 68-124% 80-119% 72-126%	

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





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IS

Page 1 of 1

Client Sample ID: TRIP BLANK

Lab Sample ID: Matrix:

TC27113-6 AQ - Trip Blank Water

Method: Project:

SW846 8260B

CRA: DCP Midstream-Hobbs

Date Sampled: 03/12/13

Date Received: 03/15/13

Percent Solids: n/a

File ID Run #1 G019176.D DF 1

Analyzed 03/19/13

Prep Date n/a

Prep Batch

Analytical Batch

VG859 n/a

Run #2

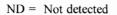
Purge Volume

Run #1 5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL Units	Q
71-43-2 108-88-3	Benzene Toluene	ND ND	0.0010 0.0010	0.00034 mg/l 0.00033 mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00032 mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00087 mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
1868-53-7	Dibromofluoromethane	105%		72-122%	
17060-07-0	1.2 Dioblomosthone D4	100%		(9.1240/	
1/000-07-0	1,2-Dichloroethane-D4	100%		68-124%	
2037-26-5	Toluene-D8	100%		80-119%	



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

	Laboratories											-	FED-EX	racking	#			-	Bottle	Order Cor	ntrol #			
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TC27113: Chain of Custody Page 1 of 3





Accutest Laboratories Sample Receipt Summary

Page 1 of 2

Accutest Job Number: TC27	113	Client: CONEST	OGA RO	OVERS & A	ASSOCIATES Project: DCP MIDSTRE	АМ-НОВЕ	S 059097-	2012-04
Date / Time Received: 3/15/2	013	Delivery	Method	i:	Airbill #'s: 558744947401			
No. Coolers: 1	Therm ID	: IR6;	Temp Adjustment Factor: -					
Cooler Temps (Initial/Adjusted	i): #1: (4/	(3.9);						
Cooler Security Y	or N		<u>Y</u>	or N	Sample Integrity - Documentation	<u>Y</u>	or N	
Custody Seals Present:		3. COC Present:	✓		Sample labels present on bottles:	\checkmark		
Custody Seals Intact: 		4. Smpl Dates/Time OK	✓		2. Container labeling complete:	✓		
Cooler Temperature	Y or	<u>N_</u>			3. Sample container label / COC agree:	\checkmark		
Temp criteria achieved:	✓				Sample Integrity - Condition	<u>Y</u>	or N	
Cooler temp verification:					Sample recvd within HT:	\checkmark		
3. Cooler media:	Ice (B	ag)			2. All containers accounted for:	✓		
Quality Control Preservation	Y or	N N/A	WTB	STB	3. Condition of sample:		Intact	
1. Trip Blank present / cooler:	\checkmark		\checkmark		Sample Integrity - Instructions	Y	or N	N/A
2. Trip Blank listed on COC:	\checkmark				Analysis requested is clear:	✓		
3. Samples preserved properly:	\checkmark				Bottles received for unspecified tests		~	
4. VOCs headspace free:	✓				Sufficient volume recvd for analysis:	✓		
					4. Compositing instructions clear:			✓
					5. Filtering instructions clear:			✓
Comments								
Accutest Laboratories V:713.271.4700		1001			arwin Drive 271.4770			Houston, TX 77036 www/accutest.com

TC27113: Chain of Custody Page 2 of 3









Sample Receipt Log

Job #: TC27113

Date / Time Received: 3/15/2013 9:05:00 AM

Initials: CH

Client: CONESTOGA ROVERS & ASSOCIATES

Cooler#	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	TC27113-1	40ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	4	-0.1	3.9
1	TC27113-1	40ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	4	-0.1	3.9
1	TC27113-1	40ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	4	-0.1	3.9
1	TC27113-2	40ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	4	-0.1	3.9
1	TC27113-2	40ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	4	-0.1	3.9
1	TC27113-2	40ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	4	-0.1	3.9
1	TC27113-3	40ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	4	-0.1	3.9
1	TC27113-3	40ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	4	-0.1	3.9
1	TC27113-3	40ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	4	-0.1	3.9
1	TC27113-4	40ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	4	-0.1	3.9
1	TC27113-4	40m!	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	4	-0.1	3.9
1	TC27113-4	40ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	4	-0.1	3.9
1	TC27113-5	40ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	4	-0.1	3.9
1	TC27113-5	40ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	4	-0.1	3.9
1	TC27113-5	40ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	4	-0.1	3.9
1	TC27113-6	40ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	4	-0.1	3.9
1	TC27113-6	40ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	4	-0.1	3.9

TC27113: Chain of Custody

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QC Data Summaries	
ncludes the following where appli	cable:

Method Blank SummariesBlank Spike Summaries

Matrix Spike and Duplicate Summaries



Method: SW846 8260B

Method Blank Summary

Job Number: TC27113

Account: DUKE DCF
Project: CRA: DCP

DUKE DCP Midstream, LLC CRA: DCP Midstream-Hobbs

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG859-MB	G019174.D	1	03/19/13	IS	n/a	n/a	VG859

The QC reported here applies to the following samples:

TC27113-1, TC27113-2, TC27113-3, TC27113-4, TC27113-5, TC27113-6

CAS No.	Compound	Result	RL	MDL	Units Q
71-43-2	Benzene	ND	1.0	0.34	ug/l
100-41-4	Ethylbenzene	ND	1.0	0.32	ug/l
108-88-3	Toluene	ND	1.0	0.33	ug/l
1330-20-7	Xylene (total)	ND	3.0	0.87	ug/l
CAS No.	Surrogate Recoveries		Limits		
1868-53-7	Dibromofluoromethane	106%	72-122	%	
17060-07-0	1,2-Dichloroethane-D4	101%	68-124	%	
2037-26-5	Toluene-D8	101%	80-119	%	
460-00-4	4-Bromofluorobenzene	98%	72-126	%	



Blank Spike Summary

Job Number: TC27113

Account: Project:

DUKE DCP Midstream, LLC CRA: DCP Midstream-Hobbs

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG859-BS	G019172.D	1	03/19/13	IS	n/a	n/a	VG859

The QC reported here applies to the following samples:

Method: SW846 8260B

TC27113-1, TC27113-2, TC27113-3, TC27113-4, TC27113-5, TC27113-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	19.4	78	68-119
100-41-4	Ethylbenzene	25	20.3	81	71-117
108-88-3	Toluene	25	20.1	80	73-119
1330-20-7	Xylene (total)	75	61.0	81	74-119
CAS No.	Surrogate Recoveries	BSP	Limits		
1868-53-7	Dibromofluoromethane	106%	72		
17060-07-0	1,2-Dichloroethane-D4	96%	68-124%		
2037-26-5	Toluene-D8	100%	80	-119%	
460-00-4	4-Bromofluorobenzene	94%	72	-126%	



^{* =} Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC27113

Account: Project:

DUKE DCP Midstream, LLC CRA: DCP Midstream-Hobbs

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC27112-3MS	G019178.D	5	03/19/13	IS	n/a	n/a	VG859
TC27112-3MSD	G019179.D	5	03/19/13	IS	n/a	n/a	VG859
TC27112-3	G019177.D	5	03/19/13	IS	n/a	n/a	VG859

The QC reported here applies to the following samples:

Method: SW846 8260B

TC27113-1, TC27113-2, TC27113-3, TC27113-4, TC27113-5, TC27113-6

CAS No.	Compound	TC27112-3 ug/l Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	476	125	590	91	558	66* a	6	68-119/12
100-41-4	Ethylbenzene	197	125	321	99	311	91	3	71-117/12
108-88-3	Toluene	332	125	450	94	437	84	3	73-119/13
1330-20-7	Xylene (total)	224	375	602	101	579	95	4	74-119/13
CAS No.	Surrogate Recoveries	MS	MSD	TC	27112-3	Limits			
					_,				
1868-53-7	Dibromofluoromethane	105%	103%	106	%	72-122%	ó		
17060-07-0	1,2-Dichloroethane-D4	97%	96%	100	%	68-124%	ó		
2037-26-5	Toluene-D8	100%	101%	101	%	80-119%	ó		
460-00-4	4-Bromofluorobenzene	95%	97%	98%	6	72-126%	ó		

⁽a) Outside control limits due to high level in sample relative to spike amount.



^{* =} Outside of Control Limits.