

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

November 08, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 11/01/2013

Group Number: 1430718

SDG: PEM57

PO Number: B0086003.1301

State of Sample Origin: AR

Client Sample DescriptionLancaster Labs (LL) #

WS-005(Surface)103113 Grab Surface Water	7260230
WS-014(1.5-2.0)103113 Grab Surface Water	7260231
WS-014(5.5-6.0)103113 Grab Surface Water	7260232
WS-012(1.5-2.0)103113 Grab Surface Water	7260233
WS-012(5.0-5.5)103113 Grab Surface Water	7260234
WS-010(1.5-2.0)103113 Grab Surface Water	7260235
WS-010(3.5-4.0)103113 Grab Surface Water	7260236
WS-006(0.5-1.0)103113 Grab Surface Water	7260237
WS-006(0.5-1.0)103113MS Grab Surface Water	7260238
WS-006(0.5-1.0)103113MSD Grab Surface Water	7260239
WS-006(0.5-1.0)103113DUP Grab Surface Water	7260240
WS-011(1.5-2.0)103113 Grab Surface Water	7260241
WS-011(5.0-5.5)103113 Grab Surface Water	7260242
WS-002(Surface)103113 Grab Surface Water	7260243
WS-018(Surface)103113 Grab Surface Water	7260244
WS-003(Surface)103113 Grab Surface Water	7260245
WS-007(0.5-1.0)103113 Grab Surface Water	7260246
WS-001(0.5-1.0)103113 Grab Surface Water	7260247
WS-EB-108-103113 Grab Water	7260248
WS-TB-191-103113 Water	7260249

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC ARCADIS
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Attn: Stephen Barrick

Attn: Lyndi Mott

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ExxonMobil
ARCADIS
ARCADIS
ExxonMobil
ExxonMobil

Attn: Michael J. Firth
Attn: Emily Leamer
Attn: Rhiannon Parmalee
Attn: Michael L Sixsmith
Attn: Julie Foster

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1430718

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:**SW-846 8260B 25mL purge, GC/MS Volatiles**

Batch #: G133071AA (Sample number(s): 7260230-7260239, 7260242-7260249 UNSPK: 7260237)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Bromomethane

Batch #: G133081AA (Sample number(s): 7260241 UNSPK: P261401)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Acetone, cis-1,2-Dichloroethene, Tetrahydrofuran, Benzene, 1,2-Dibromo-3-chloropropane, Trichloroethene

SW-846 8270C SIM, GC/MS Semivolatiles

Sample #s: 7260242

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

Batch #: 13306WAI026 (Sample number(s): 7260230-7260239, 7260241-7260248 UNSPK: 7260237)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Anthracene, Benzo(a)pyrene

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside outside acceptance windows: Anthracene

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7260242

EPA 1664A, Wet Chemistry

Batch #: 13311807902A (Sample number(s): 7260230-7260247 UNSPK: 7260237 BKG: 7260237)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: HEM (oil & grease)

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside outside acceptance windows: HEM (oil & grease)

Sample Description: WS-005(Surface)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260230
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 09:50 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31005 SDG#: PEM57-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-005(Surface)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260230
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 09:50 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31005 SDG#: PEM57-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	24.0	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0308	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.36	0.0334	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-005(Surface)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260230
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 09:50 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31005 SDG#: PEM57-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0055 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.59	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G133071AA	11/03/2013 18:12	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G133071AA	11/03/2013 18:12	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13306WAI026	11/05/2013 02:52	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13306WAI026	11/04/2013 09:45	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133126256011	11/08/2013 06:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133081848002	11/07/2013 19:24	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848002	11/07/2013 19:24	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848002	11/07/2013 19:24	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	133081848002	11/07/2013 19:24	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848002	11/07/2013 19:24	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848002	11/07/2013 19:24	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	133081848002	11/07/2013 19:24	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848002	11/07/2013 19:24	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848002	11/07/2013 19:24	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848002	11/07/2013 19:24	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848002	11/07/2013 19:24	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713003	11/05/2013 09:04	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848002	11/05/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713003	11/04/2013 16:00	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13311807902A	11/07/2013 16:59	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-014(1.5-2.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260231
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 10:10 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31141 SDG#: PEM57-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-014(1.5-2.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260231
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 10:10 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31141 SDG#: PEM57-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	18.9	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0252	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.07	0.0334	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-014(1.5-2.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260231
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 10:10 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31141 SDG#: PEM57-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0055 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.11	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G133071AA	11/03/2013 18:34	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G133071AA	11/03/2013 18:34	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13306WAI026	11/05/2013 03:21	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13306WAI026	11/04/2013 09:45	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133126256011	11/08/2013 06:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133081848002	11/07/2013 19:28	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848002	11/07/2013 19:28	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848002	11/07/2013 19:28	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	133081848002	11/07/2013 19:28	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848002	11/07/2013 19:28	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848002	11/07/2013 19:28	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	133081848002	11/07/2013 19:28	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848002	11/07/2013 19:28	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848002	11/07/2013 19:28	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848002	11/07/2013 19:28	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848002	11/07/2013 19:28	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713003	11/05/2013 09:06	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848002	11/05/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713003	11/04/2013 16:00	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13311807902A	11/07/2013 16:59	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-014(5.5-6.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260232
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 10:20 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31142 SDG#: PEM57-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-014(5.5-6.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260232
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 10:20 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31142 SDG#: PEM57-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.055	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.055	1
08357	Anthracene	120-12-7	N.D.	0.011	0.055	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.055	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.055	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.055	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.055	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.055	1
08357	Chrysene	218-01-9	N.D.	0.011	0.055	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.055	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.055	1
08357	Fluorene	86-73-7	N.D.	0.011	0.055	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.055	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.055	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.055	1
08357	Naphthalene	91-20-3	N.D.	0.033	0.055	1
08357	Phenanthrene	85-01-8	N.D.	0.033	0.055	1
08357	Pyrene	129-00-0	N.D.	0.011	0.055	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	19.0	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0254	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.08	0.0334	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-014(5.5-6.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260232
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 10:20 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31142 SDG#: PEM57-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.13	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G133071AA	11/03/2013 18:56	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G133071AA	11/03/2013 18:56	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13306WAI026	11/05/2013 03:50	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13306WAI026	11/04/2013 09:45	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133126256011	11/08/2013 06:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133081848002	11/07/2013 19:40	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848002	11/07/2013 19:40	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848002	11/07/2013 19:40	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	133081848002	11/07/2013 19:40	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848002	11/07/2013 19:40	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848002	11/07/2013 19:40	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	133081848002	11/07/2013 19:40	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848002	11/07/2013 19:40	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848002	11/07/2013 19:40	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848002	11/07/2013 19:40	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848002	11/07/2013 19:40	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713003	11/05/2013 09:08	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848002	11/05/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713003	11/04/2013 16:00	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13311807902A	11/07/2013 16:59	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-012(1.5-2.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260233
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 10:30 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31121 SDG#: PEM57-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-012(1.5-2.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260233
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 10:30 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31121 SDG#: PEM57-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	19.1	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0245	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.14	0.0334	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-012(1.5-2.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260233
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 10:30 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31121 SDG#: PEM57-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0058 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.11	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G133071AA	11/03/2013 19:18	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G133071AA	11/03/2013 19:18	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13306WAI026	11/05/2013 04:19	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13306WAI026	11/04/2013 09:45	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133126256011	11/08/2013 06:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133081848002	11/07/2013 19:43	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848002	11/07/2013 19:43	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848002	11/07/2013 19:43	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	133081848002	11/07/2013 19:43	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848002	11/07/2013 19:43	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848002	11/07/2013 19:43	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	133081848002	11/07/2013 19:43	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848002	11/07/2013 19:43	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848002	11/07/2013 19:43	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848002	11/07/2013 19:43	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848002	11/07/2013 19:43	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713003	11/05/2013 09:10	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848002	11/05/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713003	11/04/2013 16:00	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13311807902A	11/07/2013 16:59	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-012(5.0-5.5)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260234
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 10:40 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31122 SDG#: PEM57-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-012(5.0-5.5)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260234
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 10:40 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31122 SDG#: PEM57-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	18.9	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0248	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.11	0.0334	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-012(5.0-5.5)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260234
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 10:40 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31122 SDG#: PEM57-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.10	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0016 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G133071AA	11/03/2013 19:39	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G133071AA	11/03/2013 19:39	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13306WAI026	11/05/2013 04:48	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13306WAI026	11/04/2013 09:45	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133126256011	11/08/2013 06:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133081848002	11/07/2013 19:47	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848002	11/07/2013 19:47	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848002	11/07/2013 19:47	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	133081848002	11/07/2013 19:47	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848002	11/07/2013 19:47	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848002	11/07/2013 19:47	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	133081848002	11/07/2013 19:47	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848002	11/07/2013 19:47	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848002	11/07/2013 19:47	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848002	11/07/2013 19:47	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848002	11/07/2013 19:47	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713003	11/05/2013 09:12	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848002	11/05/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713003	11/04/2013 16:00	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13311807902A	11/07/2013 16:59	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-010(1.5-2.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260235
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:00 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31101 SDG#: PEM57-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-010(1.5-2.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260235
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:00 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31101 SDG#: PEM57-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	19.8	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0281	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.31	0.0334	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-010(1.5-2.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260235
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:00 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31101 SDG#: PEM57-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.18	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G133071AA	11/03/2013 20:01	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G133071AA	11/03/2013 20:01	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13306WAI026	11/05/2013 05:18	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13306WAI026	11/04/2013 09:45	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133126256011	11/08/2013 06:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133081848002	11/07/2013 19:51	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848002	11/07/2013 19:51	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848002	11/07/2013 19:51	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	133081848002	11/07/2013 19:51	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848002	11/07/2013 19:51	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848002	11/07/2013 19:51	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	133081848002	11/07/2013 19:51	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848002	11/07/2013 19:51	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848002	11/07/2013 19:51	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848002	11/07/2013 19:51	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848002	11/07/2013 19:51	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713003	11/05/2013 09:14	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848002	11/05/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713003	11/04/2013 16:00	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13311807902A	11/07/2013 16:59	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-010(3.5-4.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260236
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:10 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31102 SDG#: PEM57-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-010(3.5-4.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260236
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:10 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31102 SDG#: PEM57-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	19.4	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0302	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.24	0.0334	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-010(3.5-4.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260236
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:10 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31102 SDG#: PEM57-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.15	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G133071AA	11/03/2013 20:23	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G133071AA	11/03/2013 20:23	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13306WAI026	11/05/2013 05:47	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13306WAI026	11/04/2013 09:45	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133126256011	11/08/2013 06:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133081848002	11/07/2013 19:55	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848002	11/07/2013 19:55	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848002	11/07/2013 19:55	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	133081848002	11/07/2013 19:55	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848002	11/07/2013 19:55	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848002	11/07/2013 19:55	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	133081848002	11/07/2013 19:55	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848002	11/07/2013 19:55	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848002	11/07/2013 19:55	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848002	11/07/2013 19:55	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848002	11/07/2013 19:55	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713003	11/05/2013 09:16	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848002	11/05/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713003	11/04/2013 16:00	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13311807902A	11/07/2013 16:59	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-006(0.5-1.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260237
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:20 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31006 SDG#: PEM57-08BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-006(0.5-1.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260237
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:20 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31006 SDG#: PEM57-08BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	20.3	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0319	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.42	0.0334	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-006(0.5-1.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260237
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:20 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31006 SDG#: PEM57-08BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0056 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.25	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G133071AA	11/03/2013 20:45	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G133071AA	11/03/2013 20:45	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13306WAI026	11/05/2013 01:24	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13306WAI026	11/04/2013 09:45	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133126256011	11/08/2013 06:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133081848002	11/07/2013 19:01	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848002	11/07/2013 19:01	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848002	11/07/2013 19:01	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	133081848002	11/07/2013 19:01	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848002	11/07/2013 19:01	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848002	11/07/2013 19:01	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	133081848002	11/07/2013 19:01	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848002	11/07/2013 19:01	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848002	11/07/2013 19:01	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848002	11/07/2013 19:01	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848002	11/07/2013 19:01	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713003	11/05/2013 09:18	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848002	11/05/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713003	11/04/2013 16:00	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13311807902A	11/07/2013 16:59	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-006(0.5-1.0)103113MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260238
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:20 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31006 SDG#: PEM57-08MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	41	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.4	0.1	0.5	1
02898	Benzene	71-43-2	5.5	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.7	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.9	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.3	0.1	0.5	1
02898	Bromoform	75-25-2	5.3	0.1	0.5	1
02898	Bromomethane	74-83-9	6.7	0.1	0.5	1
02898	2-Butanone	78-93-3	37	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.5	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.6	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.8	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.4	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.7	0.1	0.5	1
02898	Chloroethane	75-00-3	5.2	0.1	0.5	1
02898	Chloroform	67-66-3	5.6	0.1	0.5	1
02898	Chloromethane	74-87-3	5.8	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.7	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.6	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	5.9	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	5.2	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.3	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.4	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.6	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.7	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.7	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	6.3	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.2	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.2	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.9	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.7	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	6.0	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	6.6	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.2	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	5.0	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	5.3	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.8	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.2	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.8	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.7	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.5	0.1	0.5	1
02898	Freon 113	76-13-1	5.9	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.5	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.6	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.5	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	5.0	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	21	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.4	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-006(0.5-1.0)103113MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260238
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:20 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31006 SDG#: PEM57-08MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	5.5	0.1	0.5	1
02898	Styrene	100-42-5	5.5	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	5.2	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	5.0	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	6.1	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	28	2.0	5.0	1
02898	Toluene	108-88-3	5.6	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.7	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	5.2	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.6	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.2	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.9	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	6.3	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.2	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.5	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.5	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	6.5	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	17	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.72	0.010	0.051	1
08357	Acenaphthylene	208-96-8	1.1	0.010	0.051	1
08357	Anthracene	120-12-7	0.20	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.70	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.36	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.86	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.77	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.88	0.010	0.051	1
08357	Chrysene	218-01-9	0.88	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.85	0.010	0.051	1
08357	Fluoranthene	206-44-0	1.1	0.010	0.051	1
08357	Fluorene	86-73-7	1.1	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.83	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	1.2	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	1.2	0.010	0.051	1
08357	Naphthalene	91-20-3	1.1	0.030	0.051	1
08357	Phenanthrene	85-01-8	0.99	0.030	0.051	1
08357	Pyrene	129-00-0	0.60	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	37.7	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	0.145	0.0068	0.0200	1
07046	Barium	7440-39-3	1.98	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0488	0.00076	0.0050	1
01750	Calcium	7440-70-2	8.26	0.0334	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-006(0.5-1.0)103113MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260238
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:20 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31006 SDG#: PEM57-08MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	0.196	0.0016	0.0150	1
07055	Lead	7439-92-1	0.159	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.14	0.0167	0.100	1
07061	Nickel	7440-02-0	0.496	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.148	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0459	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.477	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.00093	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	11.1	1.4	5.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G133071AA	11/03/2013 21:07	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G133071AA	11/03/2013 21:07	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13306WAI026	11/05/2013 01:53	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13306WAI026	11/04/2013 09:45	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133126256011	11/08/2013 06:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133081848002	11/07/2013 19:13	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848002	11/07/2013 19:13	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848002	11/07/2013 19:13	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	133081848002	11/07/2013 19:13	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848002	11/07/2013 19:13	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848002	11/07/2013 19:13	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	133081848002	11/07/2013 19:13	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848002	11/07/2013 19:13	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848002	11/07/2013 19:13	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848002	11/07/2013 19:13	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848002	11/07/2013 19:13	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713003	11/05/2013 09:27	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848002	11/05/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713003	11/04/2013 16:00	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13311807902A	11/07/2013 16:59	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-006(0.5-1.0)103113MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260239
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:20 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31006 SDG#: PEM57-08MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	35	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.1	0.1	0.5	1
02898	Benzene	71-43-2	5.2	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.3	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.5	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	4.9	0.1	0.5	1
02898	Bromoform	75-25-2	5.3	0.1	0.5	1
02898	Bromomethane	74-83-9	6.3	0.1	0.5	1
02898	2-Butanone	78-93-3	35	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.2	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.3	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.3	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.1	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.4	0.1	0.5	1
02898	Chloroethane	75-00-3	4.9	0.1	0.5	1
02898	Chloroform	67-66-3	5.2	0.1	0.5	1
02898	Chloromethane	74-87-3	5.4	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.3	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.3	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	5.8	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	5.0	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.1	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.0	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.3	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.4	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.3	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	6.1	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	4.9	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	4.9	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.5	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.3	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.6	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	6.2	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	4.8	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	4.7	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	4.9	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.5	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.0	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.6	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.5	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.2	0.1	0.5	1
02898	Freon 113	76-13-1	5.5	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.3	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.3	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.2	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.7	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	20	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.0	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-006(0.5-1.0)103113MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260239
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:20 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31006 SDG#: PEM57-08MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	5.2	0.1	0.5	1
02898	Styrene	100-42-5	5.2	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	4.9	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	4.7	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	5.8	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	26	2.0	5.0	1
02898	Toluene	108-88-3	5.3	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.5	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	4.9	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.2	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.0	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.6	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	6.0	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	4.8	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.2	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.2	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	6.2	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	16	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.91	0.010	0.051	1
08357	Acenaphthylene	208-96-8	1.1	0.010	0.051	1
08357	Anthracene	120-12-7	0.34	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.82	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.41	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.88	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.78	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.91	0.010	0.051	1
08357	Chrysene	218-01-9	0.88	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.85	0.010	0.051	1
08357	Fluoranthene	206-44-0	1.0	0.010	0.051	1
08357	Fluorene	86-73-7	1.1	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.83	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	1.2	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	1.2	0.010	0.051	1
08357	Naphthalene	91-20-3	1.1	0.030	0.051	1
08357	Phenanthrene	85-01-8	0.99	0.030	0.051	1
08357	Pyrene	129-00-0	0.80	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	38.1	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	0.151	0.0068	0.0200	1
07046	Barium	7440-39-3	1.99	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0492	0.00076	0.0050	1
01750	Calcium	7440-70-2	8.36	0.0334	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-006(0.5-1.0)103113MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260239
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:20 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31006 SDG#: PEM57-08MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	0.195	0.0016	0.0150	1
07055	Lead	7439-92-1	0.159	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.19	0.0167	0.100	1
07061	Nickel	7440-02-0	0.498	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.145	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0461	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.477	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.00092	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	15.7	1.4	5.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G133071AA	11/03/2013 21:28	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G133071AA	11/03/2013 21:28	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13306WAI026	11/05/2013 02:22	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13306WAI026	11/04/2013 09:45	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133126256011	11/08/2013 06:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133081848002	11/07/2013 19:16	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848002	11/07/2013 19:16	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848002	11/07/2013 19:16	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	133081848002	11/07/2013 19:16	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848002	11/07/2013 19:16	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848002	11/07/2013 19:16	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	133081848002	11/07/2013 19:16	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848002	11/07/2013 19:16	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848002	11/07/2013 19:16	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848002	11/07/2013 19:16	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848002	11/07/2013 19:16	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713003	11/05/2013 09:29	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848002	11/05/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713003	11/04/2013 16:00	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13311807902A	11/07/2013 16:59	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-006(0.5-1.0)103113DUP Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260240
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:20 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31006 SDG#: PEM57-08DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SM 2340 B-1997		mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	20.4	0.033	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0318	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.45	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0060 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.27	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06256	Total Hardness as CaCO ₃	SM 2340 B-1997	1	133126256011	11/08/2013 06:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133081848002	11/07/2013 19:09	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848002	11/07/2013 19:09	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848002	11/07/2013 19:09	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	133081848002	11/07/2013 19:09	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848002	11/07/2013 19:09	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848002	11/07/2013 19:09	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	133081848002	11/07/2013 19:09	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848002	11/07/2013 19:09	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848002	11/07/2013 19:09	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848002	11/07/2013 19:09	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848002	11/07/2013 19:09	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713003	11/05/2013 09:25	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848002	11/05/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713003	11/04/2013 16:00	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13311807902A	11/07/2013 16:59	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-011(1.5-2.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260241
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:50 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31111 SDG#: PEM57-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-011(1.5-2.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260241
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:50 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

311111 SDG#: PEM57-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	20.3	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0285	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.39	0.0334	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-011(1.5-2.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260241
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 11:50 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

311111 SDG#: PEM57-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0048 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.27	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G133081AA	11/04/2013 09:24	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G133081AA	11/04/2013 09:24	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13306WAI026	11/05/2013 06:16	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13306WAI026	11/04/2013 09:45	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133126256011	11/08/2013 06:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133081848002	11/07/2013 19:59	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848002	11/07/2013 19:59	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848002	11/07/2013 19:59	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	133081848002	11/07/2013 19:59	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848002	11/07/2013 19:59	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848002	11/07/2013 19:59	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	133081848002	11/07/2013 19:59	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848002	11/07/2013 19:59	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848002	11/07/2013 19:59	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848002	11/07/2013 19:59	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848002	11/07/2013 19:59	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713003	11/05/2013 09:31	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848002	11/05/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713003	11/04/2013 16:00	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13311807902A	11/07/2013 16:59	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-011(5.0-5.5)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260242
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 12:00 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31112 SDG#: PEM57-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-011(5.0-5.5)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260242
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 12:00 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31112 SDG#: PEM57-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.						
Metals	SM 2340 B-1997		mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	20.2	0.033	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0283	0.00033	0.0050	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-011(5.0-5.5)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260242
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 12:00 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31112 SDG#: PEM57-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.37	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.26	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G133071AA	11/03/2013 22:12	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G133071AA	11/03/2013 22:12	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13306WAI026	11/05/2013 06:45	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13306WAI026	11/04/2013 09:45	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133126256011	11/08/2013 06:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133081848002	11/07/2013 20:02	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848002	11/07/2013 20:02	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848002	11/07/2013 20:02	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	133081848002	11/07/2013 20:02	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848002	11/07/2013 20:02	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848002	11/07/2013 20:02	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	133081848002	11/07/2013 20:02	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848002	11/07/2013 20:02	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848002	11/07/2013 20:02	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848002	11/07/2013 20:02	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848002	11/07/2013 20:02	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713003	11/05/2013 09:33	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848002	11/05/2013 10:00	James L Mertz	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-011(5.0-5.5)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260242
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 12:00 by RL

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 11/01/2013 09:10

Highlands Ranch CO 80129

Reported: 11/08/2013 14:55

31112 SDG#: PEM57-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713003	11/04/2013 16:00	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13311807902A	11/07/2013 16:59	Michelle L Lalli	1

Sample Description: WS-002(Surface)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260243
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 12:20 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31002 SDG#: PEM57-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-002(Surface)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260243
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 12:20 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31002 SDG#: PEM57-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	19.1	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0236	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.16	0.0334	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-002(Surface)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260243
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 12:20 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31002 SDG#: PEM57-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0053 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.13	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G133071AA	11/03/2013 22:34	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G133071AA	11/03/2013 22:34	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13306WAI026	11/05/2013 07:14	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13306WAI026	11/04/2013 09:45	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133126256011	11/08/2013 06:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133081848002	11/07/2013 20:06	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848002	11/07/2013 20:06	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848002	11/07/2013 20:06	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	133081848002	11/07/2013 20:06	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848002	11/07/2013 20:06	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848002	11/07/2013 20:06	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	133081848002	11/07/2013 20:06	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848002	11/07/2013 20:06	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848002	11/07/2013 20:06	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848002	11/07/2013 20:06	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848002	11/07/2013 20:06	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713003	11/05/2013 09:35	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848002	11/05/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713003	11/04/2013 16:00	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13311807902A	11/07/2013 16:59	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-018(Surface)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260244
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 13:00 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31018 SDG#: PEM57-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-018(Surface)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260244
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 13:00 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31018 SDG#: PEM57-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	20.5	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0427	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.48	0.0334	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-018(Surface)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260244
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 13:00 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31018 SDG#: PEM57-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0047 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.26	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G133071AA	11/03/2013 22:56	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G133071AA	11/03/2013 22:56	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13306WAI026	11/05/2013 07:43	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13306WAI026	11/04/2013 09:45	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133126256011	11/08/2013 06:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133081848002	11/07/2013 20:10	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848002	11/07/2013 20:10	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848002	11/07/2013 20:10	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	133081848002	11/07/2013 20:10	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848002	11/07/2013 20:10	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848002	11/07/2013 20:10	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	133081848002	11/07/2013 20:10	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848002	11/07/2013 20:10	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848002	11/07/2013 20:10	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848002	11/07/2013 20:10	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848002	11/07/2013 20:10	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713003	11/05/2013 09:37	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848002	11/05/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713003	11/04/2013 16:00	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13311807902A	11/07/2013 16:59	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-003(Surface)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260245
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 13:10 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31003 SDG#: PEM57-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-003(Surface)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260245
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 13:10 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31003 SDG#: PEM57-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	20.0	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0321	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.34	0.0334	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-003 (Surface) 103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260245
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 13:10 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31003 SDG#: PEM57-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.24	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	1.7 J	1.4	5.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G133071AA	11/03/2013 23:18	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G133071AA	11/03/2013 23:18	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13306WAI026	11/05/2013 08:13	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13306WAI026	11/04/2013 09:45	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133126256011	11/08/2013 06:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133081848002	11/07/2013 20:14	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848002	11/07/2013 20:14	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848002	11/07/2013 20:14	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	133081848002	11/07/2013 20:14	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848002	11/07/2013 20:14	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848002	11/07/2013 20:14	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	133081848002	11/07/2013 20:14	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848002	11/07/2013 20:14	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848002	11/07/2013 20:14	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848002	11/07/2013 20:14	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848002	11/07/2013 20:14	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713003	11/05/2013 09:39	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848002	11/05/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713003	11/04/2013 16:00	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13311807902A	11/07/2013 16:59	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-007(0.5-1.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260246
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 13:30 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31007 SDG#: PEM57-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-007(0.5-1.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260246
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 13:30 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31007 SDG#: PEM57-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	27.9	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0333	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.07	0.0334	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-007(0.5-1.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260246
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 13:30 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31007 SDG#: PEM57-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0063 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.09	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0026 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0022 J	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	1.4 J	1.4	5.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G133071AA	11/03/2013 23:40	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G133071AA	11/03/2013 23:40	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13306WAI026	11/05/2013 08:42	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13306WAI026	11/04/2013 09:45	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133126256011	11/08/2013 06:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133081848002	11/07/2013 20:25	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848002	11/07/2013 20:25	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848002	11/07/2013 20:25	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	133081848002	11/07/2013 20:25	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848002	11/07/2013 20:25	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848002	11/07/2013 20:25	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	133081848002	11/07/2013 20:25	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848002	11/07/2013 20:25	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848002	11/07/2013 20:25	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848002	11/07/2013 20:25	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848002	11/07/2013 20:25	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713003	11/05/2013 09:41	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848002	11/05/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713003	11/04/2013 16:00	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13311807902A	11/07/2013 16:59	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-001(0.5-1.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260247
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 13:40 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31001 SDG#: PEM57-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-001(0.5-1.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260247
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 13:40 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31001 SDG#: PEM57-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	19.7	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0290	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.32	0.0334	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-001(0.5-1.0)103113 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260247
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 13:40 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31001 SDG#: PEM57-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.16	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	1.5 J	1.4	5.0	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G133071AA	11/04/2013 00:02	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G133071AA	11/04/2013 00:02	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13306WAI026	11/05/2013 22:26	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13306WAI026	11/04/2013 09:45	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133126256011	11/08/2013 06:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133081848002	11/07/2013 20:29	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848002	11/07/2013 20:29	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848002	11/07/2013 20:29	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	133081848002	11/07/2013 20:29	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848002	11/07/2013 20:29	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848002	11/07/2013 20:29	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	133081848002	11/07/2013 20:29	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848002	11/07/2013 20:29	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848002	11/07/2013 20:29	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848002	11/07/2013 20:29	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848002	11/07/2013 20:29	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713003	11/05/2013 09:43	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848002	11/05/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713003	11/04/2013 16:00	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13311807902A	11/07/2013 16:59	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-EB-108-103113 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260248
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 14:30 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31108 SDG#: PEM57-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-EB-108-103113 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260248
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 14:30 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31108 SDG#: PEM57-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.5	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	0.86	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0025 J	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	0.250	0.0334	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-EB-108-103113 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260248
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013 14:30 by RL

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31108 SDG#: PEM57-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	0.0574 J	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G133071AA	11/03/2013 17:28	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G133071AA	11/03/2013 17:28	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13306WAI026	11/05/2013 22:55	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13306WAI026	11/04/2013 09:45	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133126256011	11/08/2013 06:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133081848002	11/07/2013 20:33	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	133081848002	11/07/2013 20:33	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	133081848002	11/07/2013 20:33	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	133081848002	11/07/2013 20:33	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	133081848002	11/07/2013 20:33	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	133081848002	11/07/2013 20:33	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	133081848002	11/07/2013 20:33	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	133081848002	11/07/2013 20:33	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	133081848002	11/07/2013 20:33	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	133081848002	11/07/2013 20:33	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	133081848002	11/07/2013 20:33	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	133075713003	11/05/2013 09:49	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133081848002	11/05/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133075713003	11/04/2013 16:00	Nelli S Markaryan	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-TB-191-103113 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260249
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31191 SDG#: PEM57-17TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

*=This limit was used in the evaluation of the final result

Sample Description: WS-TB-191-103113 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7260249
LL Group # 1430718
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/31/2013

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch CO 80129

Submitted: 11/01/2013 09:10

Reported: 11/08/2013 14:55

31191 SDG#: PEM57-17TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G133071AA	11/03/2013 17:50	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G133071AA	11/03/2013 17:50	Sara E Johnson	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 11/08/13 at 02:55 PM

Group Number: 1430718

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: G133071AA	Sample number(s): 7260230-7260239, 7260242-7260249								
Acetone	N.D.	3.0	5.0	ug/l	83		60-139		
Allyl Chloride	N.D.	0.1	0.5	ug/l	76		61-130		
Benzene	N.D.	0.1	0.5	ug/l	97		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	105		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	106		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	96		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	105		73-128		
Bromomethane	N.D.	0.1	0.5	ug/l	122		62-126		
2-Butanone	N.D.	1.0	5.0	ug/l	92		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	102		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	92		80-129		
Chlorobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	89		68-120		
Chloroform	N.D.	0.1	0.5	ug/l	99		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	100		55-120		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	101		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	101		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	113		64-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	99		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	100		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	99		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	105		80-120		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	108		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	92		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	95		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	97		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	100		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	101		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	114		75-145		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	93		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	93		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	91		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	98		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	96		80-123		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	92		80-120		
Ethyl ether	N.D.	0.1	0.5	ug/l	88		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	96		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	95		73-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis

Group Number: 1430718

Reported: 11/08/13 at 02:55 PM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Isopropylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	97		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	94		80-120		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	80		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	95		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
Styrene	N.D.	0.1	0.5	ug/l	100		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	97		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	96		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	106		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	95		65-131		
Toluene	N.D.	0.1	0.5	ug/l	98		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	86		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	95		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	95		80-120		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	99		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	103		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	105		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	103		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	112		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	100		80-120		

Batch number: G133081AA

Sample number(s): 7260241

Acetone	N.D.	3.0	5.0	ug/l	93		60-139		
Allyl Chloride	N.D.	0.1	0.5	ug/l	85		61-130		
Benzene	N.D.	0.1	0.5	ug/l	105		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	109		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	116		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	104		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	114		73-128		
Bromomethane	N.D.	0.1	0.5	ug/l	111		62-126		
2-Butanone	N.D.	1.0	5.0	ug/l	99		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	101		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	103		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	107		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	102		80-129		
Chlorobenzene	N.D.	0.1	0.5	ug/l	108		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	93		68-120		
Chloroform	N.D.	0.1	0.5	ug/l	106		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	103		55-120		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	106		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	106		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	121		64-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	108		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	109		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	107		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	107		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	109		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	108		80-120		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	108		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	99		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	105		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	106		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	107		80-120		

*- Outside of specification

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(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis

Group Number: 1430718

Reported: 11/08/13 at 02:55 PM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	108		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	119		75-145		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	101		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	101		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	99		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	106		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	105		80-123		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	99		80-120		
Ethyl ether	N.D.	0.1	0.5	ug/l	95		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	102		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	105		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	98		73-120		
Isopropylbenzene	N.D.	0.1	0.5	ug/l	103		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	101		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	104		80-120		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	91		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	104		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	102		80-120		
Styrene	N.D.	0.1	0.5	ug/l	105		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	103		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	102		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	111		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	110		65-131		
Toluene	N.D.	0.1	0.5	ug/l	104		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	86		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	97		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	103		80-120		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	106		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	110		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	110		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	104		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	103		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	102		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	113		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	105		80-120		
Batch number: 13306WAI026 Sample number(s): 7260230-7260239, 7260241-7260248									
Acenaphthene	N.D.	0.010	0.050	ug/l	103		77-118		
Acenaphthylene	N.D.	0.010	0.050	ug/l	108		80-123		
Anthracene	N.D.	0.010	0.050	ug/l	108		78-123		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	106		73-127		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	101		72-120		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	111		79-136		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	108		64-130		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	119		73-131		
Chrysene	N.D.	0.010	0.050	ug/l	105		76-125		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	103		58-131		
Fluoranthene	N.D.	0.010	0.050	ug/l	105		79-124		
Fluorene	N.D.	0.010	0.050	ug/l	107		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	104		62-130		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	116		80-126		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	114		81-124		
Naphthalene	N.D.	0.030	0.050	ug/l	106		75-120		
Phenanthrene	N.D.	0.030	0.050	ug/l	97		75-120		
Pyrene	N.D.	0.010	0.050	ug/l	104		71-130		

*- Outside of specification

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis

Group Number: 1430718

Reported: 11/08/13 at 02:55 PM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 133075713003	Sample number(s): 7260230-7260248								
Mercury	N.D.	0.00006	0.00020	mg/l	94		80-120		
		0							
Batch number: 133081848002	Sample number(s): 7260230-7260248								
Arsenic	N.D.	0.0068	0.0200	mg/l	98		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	95		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	98		90-112		
Calcium	N.D.	0.0334	0.200	mg/l	99		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	96		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	104		88-110		
Magnesium	0.0178 J	0.0167	0.100	mg/l	98		89-110		
Nickel	N.D.	0.0015	0.0100	mg/l	100		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	98		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	90		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	93		90-110		
Batch number: 13311807902A	Sample number(s): 7260230-7260247								
HEM (oil & grease)	N.D.	1.4	5.0	mg/l	93	91	78-114	2	16

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: G133071AA	Sample number(s): 7260230-7260239, 7260242-7260249 UNSPK: 7260237								
Acetone	109	94	57-163	15	30				
Allyl Chloride	88	81	56-160	8	30				
Benzene	111	104	87-126	6	30				
Bromobenzene	114	106	80-123	7	30				
Bromochloromethane	118	110	82-125	7	30				
Bromodichloromethane	106	99	82-133	7	30				
Bromoform	107	105	60-138	1	30				
Bromomethane	135*	126	66-130	7	30				
2-Butanone	98	94	56-160	4	30				
n-Butylbenzene	109	104	83-131	5	30				
sec-Butylbenzene	113	106	84-128	6	30				
tert-Butylbenzene	116	106	84-135	9	30				
Carbon Tetrachloride	108	103	81-148	5	30				
Chlorobenzene	114	108	78-133	5	30				
Chloroethane	103	97	70-139	6	30				
Chloroform	112	104	86-136	7	30				
Chloromethane	115	109	49-135	6	30				
2-Chlorotoluene	113	106	75-134	7	30				
4-Chlorotoluene	112	107	76-134	5	30				
1,2-Dibromo-3-chloropropane	119	115	43-143	3	30				
Dibromochloromethane	105	100	79-125	4	30				
1,2-Dibromoethane	106	103	84-127	3	30				
Dibromomethane	109	101	83-126	8	30				
1,2-Dichlorobenzene	112	106	83-117	5	30				
1,3-Dichlorobenzene	115	108	79-132	6	30				

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Quality Control Summary

Client Name: ExxonMobil c/o Arcadis

Group Number: 1430718

Reported: 11/08/13 at 02:55 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
1,4-Dichlorobenzene	114	107	79-120	6	30				
Dichlorodifluoromethane	127	121	28-136	5	30				
1,1-Dichloroethane	103	98	88-136	6	30				
1,2-Dichloroethane	103	98	82-135	5	30				
1,1-Dichloroethene	117	110	83-150	6	30				
cis-1,2-Dichloroethene	114	107	82-129	6	30				
trans-1,2-Dichloroethene	120	112	88-127	7	30				
Dichlorofluoromethane	131	124	81-161	5	30				
1,2-Dichloropropane	104	97	91-126	7	30				
1,3-Dichloropropane	99	94	80-127	5	30				
2,2-Dichloropropane	105	99	80-134	7	30				
1,1-Dichloropropene	115	110	86-139	5	30				
cis-1,3-Dichloropropene	105	99	74-132	6	30				
trans-1,3-Dichloropropene	96	92	71-128	5	30				
Ethyl ether	94	90	57-139	4	30				
Ethylbenzene	110	104	80-140	6	30				
Freon 113	117	110	77-147	6	30				
Hexachlorobutadiene	110	106	65-128	4	30				
Isopropylbenzene	112	106	81-133	5	30				
p-Isopropyltoluene	111	104	84-124	6	30				
Methyl Tertiary Butyl Ether	100	93	82-132	7	30				
4-Methyl-2-Pentanone	83	80	69-149	3	30				
Methylene Chloride	107	100	77-135	7	30				
n-Propylbenzene	111	105	79-131	6	30				
Styrene	110	105	63-151	5	30				
1,1,1,2-Tetrachloroethane	104	98	87-126	6	30				
1,1,2,2-Tetrachloroethane	100	93	75-131	7	30				
Tetrachloroethene	121	116	75-129	5	30				
Tetrahydrofuran	113	103	56-154	9	30				
Toluene	111	105	83-127	6	30				
1,2,3-Trichlorobenzene	94	90	73-125	5	30				
1,2,4-Trichlorobenzene	103	97	77-120	6	30				
1,1,1-Trichloroethane	111	105	85-140	6	30				
1,1,2-Trichloroethane	105	100	85-129	4	30				
Trichloroethene	118	111	85-131	6	30				
Trichlorofluoromethane	125	119	73-139	5	30				
1,2,3-Trichloropropane	104	97	76-120	8	30				
1,2,4-Trimethylbenzene	110	103	87-126	6	30				
1,3,5-Trimethylbenzene	109	104	89-129	5	30				
Vinyl Chloride	130	125	62-135	4	30				
Xylene (Total)	112	106	81-137	5	30				

Batch number: G133081AA

Sample number(s): 7260241 UNSPK: P261401

Acetone	155	176*	57-163	5	30
Allyl Chloride	91	89	56-160	2	30
Benzene	142 (2)	129 (2)	87-126	2	30
Bromobenzene	116	116	80-123	0	30
Bromochloromethane	122	119	82-125	2	30
Bromodichloromethane	112	110	82-133	2	30
Bromoform	122	122	60-138	1	30
Bromomethane	112	109	66-130	2	30
2-Butanone	109	136	56-160	17	30

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Quality Control Summary

Client Name: ExxonMobil c/o Arcadis

Group Number: 1430718

Reported: 11/08/13 at 02:55 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
n-Butylbenzene	108	108	83-131	0	30				
sec-Butylbenzene	107	108	84-128	0	30				
tert-Butylbenzene	112	111	84-135	1	30				
Carbon Tetrachloride	106	104	81-148	1	30				
Chlorobenzene	121	117	78-133	2	30				
Chloroethane	99	95	70-139	4	30				
Chloroform	111	111	86-136	0	30				
Chloromethane	106	103	49-135	3	30				
2-Chlorotoluene	125	128	75-134	1	30				
4-Chlorotoluene	116	117	76-134	0	30				
1,2-Dibromo-3-chloropropane	137	167*	43-143	20	30				
Dibromochloromethane	118	116	79-125	2	30				
1,2-Dibromoethane	114	112	84-127	1	30				
Dibromomethane	116	112	83-126	4	30				
1,2-Dichlorobenzene	113	112	83-117	1	30				
1,3-Dichlorobenzene	116	117	79-132	1	30				
1,4-Dichlorobenzene	115	115	79-120	0	30				
Dichlorodifluoromethane	109	103	28-136	5	30				
1,1-Dichloroethane	111	107	88-136	2	30				
1,2-Dichloroethane	122	110	82-135	4	30				
1,1-Dichloroethene	113	111	83-150	2	30				
cis-1,2-Dichloroethene	179 (2)	150 (2)	82-129	2	30				
trans-1,2-Dichloroethene	114	111	88-127	2	30				
Dichlorofluoromethane	126	124	81-161	2	30				
1,2-Dichloropropane	112	108	91-126	2	30				
1,3-Dichloropropane	108	108	80-127	1	30				
2,2-Dichloropropane	105	104	80-134	1	30				
1,1-Dichloropropene	109	105	86-139	3	30				
cis-1,3-Dichloropropene	116	113	74-132	2	30				
trans-1,3-Dichloropropene	101	104	71-128	2	30				
Ethyl ether	117 (2)	111 (2)	57-139	1	30				
Ethylbenzene	122	119	80-140	1	30				
Freon 113	109	107	77-147	2	30				
Hexachlorobutadiene	102	102	65-128	0	30				
Isopropylbenzene	127	122	81-133	1	30				
p-Isopropyltoluene	109	109	84-124	0	30				
Methyl Tertiary Butyl Ether	107	105	82-132	2	30				
4-Methyl-2-Pentanone	105	100	69-149	3	30				
Methylene Chloride	115	110	77-135	3	30				
n-Propylbenzene	108	108	79-131	0	30				
Styrene	117	116	63-151	1	30				
1,1,1,2-Tetrachloroethane	110	108	87-126	2	30				
1,1,2,2-Tetrachloroethane	111	113	75-131	1	30				
Tetrachloroethene	118	117	75-129	1	30				
Tetrahydrofuran	126	181*	56-154	20	30				
Toluene	121	118	83-127	1	30				
1,2,3-Trichlorobenzene	100	99	73-125	1	30				
1,2,4-Trichlorobenzene	106	106	77-120	0	30				
1,1,1-Trichloroethane	109	107	85-140	2	30				
1,1,2-Trichloroethane	112	113	85-129	1	30				
Trichloroethene	139 (2)	128 (2)	85-131	2	30				
Trichlorofluoromethane	111	109	73-139	1	30				

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Quality Control Summary

Client Name: ExxonMobil c/o Arcadis

Group Number: 1430718

Reported: 11/08/13 at 02:55 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
1,2,3-Trichloropropane	109	110	76-120	1	30			
1,2,4-Trimethylbenzene	111	111	87-126	0	30			
1,3,5-Trimethylbenzene	107	108	89-129	1	30			
Vinyl Chloride	121	115	62-135	2	30			
Xylene (Total)	116	114	81-137	1	30			
Batch number: 13306WAI026 Sample number(s): 7260230-7260239,7260241-7260248 UNSPK: 7260237								
Acenaphthene	71	89	47-136	22	30			
Acenaphthylene	109	110	33-146	1	30			
Anthracene	20*	34*	69-119	50*	30			
Benzo(a)anthracene	69	81	37-150	16	30			
Benzo(a)pyrene	36*	40*	64-123	11	30			
Benzo(b)fluoranthene	85	86	33-152	2	30			
Benzo(g,h,i)perylene	76	77	36-138	1	30			
Benzo(k)fluoranthene	87	90	31-142	3	30			
Chrysene	86	87	34-135	0	30			
Dibenz(a,h)anthracene	84	83	17-134	1	30			
Fluoranthene	104	103	39-147	1	30			
Fluorene	105	109	38-149	4	30			
Indeno(1,2,3-cd)pyrene	82	82	29-143	0	30			
1-Methylnaphthalene	117	117	49-152	1	30			
2-Methylnaphthalene	115	115	51-146	1	30			
Naphthalene	105	105	58-131	0	30			
Phenanthrene	97	97	48-140	0	30			
Pyrene	59	79	59-125	29	30			
Batch number: 133075713003 Sample number(s): 7260230-7260248 UNSPK: 7260237 BKG: 7260237								
Mercury	93	92	80-120	2	20	N.D.	N.D.	0 (1) 20
Batch number: 133081848002 Sample number(s): 7260230-7260248 UNSPK: 7260237 BKG: 7260237								
Arsenic	97	101	81-123	4	20	N.D.	N.D.	0 (1) 20
Barium	97	98	78-118	1	20	0.0319	0.0318	0 20
Cadmium	98	98	83-116	1	20	N.D.	N.D.	0 (1) 20
Calcium	96	99	75-125	1	20	4.42	4.45	1 20
Chromium	98	98	76-120	0	20	N.D.	N.D.	0 (1) 20
Lead	102	102	75-125	0	20	0.0056 J	0.0060 J	7 (1) 20
Magnesium	95	97	75-125	1	20	2.25	2.27	1 20
Nickel	99	100	86-115	0	20	N.D.	N.D.	0 (1) 20
Selenium	99	97	75-125	2	20	N.D.	N.D.	0 (1) 20
Silver	92	92	75-125	0	20	N.D.	N.D.	0 (1) 20
Vanadium	95	95	90-117	0	20	N.D.	N.D.	0 (1) 20
Batch number: 13311807902A Sample number(s): 7260230-7260247 UNSPK: 7260237 BKG: 7260237								
HEM (oil & grease)	25*	34*	78-114	34*	29	N.D.	N.D.	0 (1) 18

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

*- Outside of specification

**-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 11/08/13 at 02:55 PM

Group Number: 1430718

Surrogate Quality Control

Analysis Name: BTEX 25-ml purge
Batch number: G133071AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7260230	100	102	96	93
7260231	101	102	97	92
7260232	101	102	96	92
7260233	100	101	97	92
7260234	101	101	97	92
7260235	101	101	96	93
7260236	101	103	97	92
7260237	101	102	96	92
7260238	101	99	97	92
7260239	101	101	97	94
7260242	100	103	96	92
7260243	101	101	96	91
7260244	101	102	96	92
7260245	101	102	96	92
7260246	103	105	96	93
7260247	101	103	96	91
7260248	102	103	96	92
7260249	101	102	96	93
Blank	101	103	96	93
LCS	100	100	98	94
MS	101	99	97	92
MSD	101	101	97	94
Limits:	77-114	74-113	77-110	78-110

Analysis Name: BTEX 25-ml purge
Batch number: G133081AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7260241	101	105	97	93
Blank	100	105	96	93
LCS	102	103	97	93
MS	101	100	97	95
MSD	100	99	98	94
Limits:	77-114	74-113	77-110	78-110

Analysis Name: PAHs in waters by SIM
Batch number: 13306WAI026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7260230	95	84	104
7260231	85	63	87
7260232	100	88	110
7260233	100	71	109
7260234	98	68	107
7260235	99	77	106
7260236	102	79	110
7260237	95	70	104
7260238	100	71	113

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis

Group Number: 1430718

Reported: 11/08/13 at 02:55 PM

Surrogate Quality Control

7260239	99	72	112
7260241	89	62	97
7260242	90	36*	102
7260243	102	84	109
7260244	101	76	108
7260245	100	74	109
7260246	85	84	92
7260247	97	65	105
7260248	96	98	106
Blank	106	110	114
LCS	97	105	109
MS	100	71	113
MSD	99	72	112

Limits:	44-137	62-141	51-136
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*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories
Environmental

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only

Group # 1430718

Sample # 7260230-49

Instructions on reverse side correspond with circled numbers.

1 of 2

1 Client Information				4 Matrix		5 Analyses Requested										6 Remarks			
Facility #/SID <u>Mayflower Pipeline Incident</u>				☐ Sediment ☐ Potable ☐ Ground ☒ Surface ☐ NPDES ☐ Air ☐ Oil		Preservation Code										SCR#: _____ Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other			
Site Address <u>Mayflower, AR</u>																			
ExxonMobil PM <u>Scott Bushroe</u>																Lab to filter and preserve diss metals upon receipt			
Consultant/Office <u>ARCADIS</u>																			
Consultant PM <u>Steve Barrick</u>																			
Consultant Phone # <u>919-302-6799</u>																			
Sampler <u>Ryan Lewis / Clement Papafio</u>																MS/MSD			
2 Sample Identification			3 Collected																
Date	Time	Grab	Composite	Soil	Water	Oil	Total # of Containers												
WS-005 (Surface) 103113	10-31-13 0950	X			X		9	VOCs 8260 B	PAH 8270 SIM	PCRA Metals + Hydrocarbons	Diss Metals	HEM Oil & Grease							
WS-014 (1.5-2.0) 103113	10-31-13 1010	X			X		9	X	X	X	X	X							
WS-014 (5.5-6.0) 103113	10-31-13 1020	X			X		9	X	X	X	X	X							
WS-012 (1.5-2.0) 103113	10-31-13 1030	X			X		9	X	X	X	X	X							
WS-012 (5.0-5.5) 103113	10-31-13 1040	X			X		9	X	X	X	X	X							
WS-010 (1.5-2.0) 103113	10-31-13 1100	X			X		9	X	X	X	X	X							
WS-010 (3.5-4.0) 103113	10-31-13 1110	X			X		9	X	X	X	X	X							
WS-006 (0.5-1.0) 103113	10-31-13 1120	X			X		9	X	X	X	X	X							
WS-006 (0.5-1.0) 103113 MS/MSD	10-31-13 1120	X			X		18	X	X	X	X	X							
WS-011 (1.5-2.0) 103113	10-31-13 1150	X			X		9	X	X	X	X	X							
WS-011 (5.0-5.5) 103113	10-31-13 1200	X			X		9	X	X	X	X	X							
WS-002 (Surface) 103113	10-31-13 1220	X			X		9	X	X	X	X	X							
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by <u>Ryan Lewis</u>		Date <u>10-31-13</u>		Time <u>1600</u>		Received by _____		Date _____		Time _____					
Standard <u>5 day</u> 4 day				Relinquished by _____		Date _____		Time _____		Received by _____		Date _____		Time _____					
72 hour 48 hour 24 hour				Relinquished by _____		Date _____		Time _____		Received by _____		Date _____		Time _____					
8 Data Package (circle if required)				Relinquished by Commercial Carrier		Date _____		Time _____		Received by <u>Cash</u>		Date <u>11/1/13</u>		Time <u>0910</u>					
Type I - Full				Locust EIM (default)		UPS <u>X</u> FedEx _____ Other _____		Temperature Upon Receipt <u>0.4-1.9°C</u>		Custody Seals Intact? <u>Yes</u> No									
Type VI (Raw Data)				Other _____															
NJ Reduced																			
Other _____																			

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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

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Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only
Group # 1430718 Sample # 7260230-49
Instructions on reverse side correspond with circled numbers.

2 of 2

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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

Environmental Sample Administration 1430718
Receipt Documentation LogClient/Project: MayflowerShipping Container Sealed: YES NODate of Receipt: 11/1/13Custody Seal Present * : YES NOTime of Receipt: 0910

* Custody seal was intact unless otherwise noted in the discrepancy section

Source Code: 60-1Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	1.6	TB	WI	Y	B	
2		1.8					
3		1.9					
4		0.8					
5		1.1					
6		0.4					

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Cash 3647 Date/Time: 11/1/13 0956

Issued by Dept. 6042 Management

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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