

ANALYTICAL RESULTS

Prepared by:

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2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

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

October 18, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 10/11/2013

Group Number: 1425632

SDG: PEM07

PO Number: B0086003.1301

State of Sample Origin: AR

Client Sample DescriptionLancaster Labs (LL) #

WS-014(1.5-2.0)101013 Grab Surface Water	7232929
WS-014(5.5-6.0)101013 Grab Surface Water	7232930
WS-012(1.5-2.0)101013 Grab Surface Water	7232931
WS-012(5.0-5.5)101013 Grab Surface Water	7232932
WS-010(1.5-2.0)101013 Grab Surface Water	7232933
WS-010(3.5-4.0)101013 Grab Surface Water	7232934
WS-006(0.5-1.0)101013 Grab Surface Water	7232935
WS-005(Surface)101013 Grab Surface Water	7232936
WS-002(Surface)101013 Grab Surface Water	7232937
WS-011(1.5-2.0)101013 Grab Surface Water	7232938
WS-011(5.0-5.5)101013 Grab Surface Water	7232939
WS-018(Surface)101013 Grab Surface Water	7232940
WS-003(Surface)101013 Grab Surface Water	7232941
WS-007(0.5-1.0)101013 Grab Surface Water	7232942
DUP-WS-100-101013 Grab Surface Water	7232943
WS-EB-87-101013 Grab Water	7232944
WS-TB-173-101013 Water	7232945
WS-001(0.5-1.0)101013 Grab Surface Water	7232946

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

ELECTRONIC ARCADIS

Attn: Stephen Barrick

COPY TO

ELECTRONIC ARCADIS

Attn: Lyndi Mott

COPY TO

ELECTRONIC ExxonMobil

Attn: Michael J. Firth

COPY TO

ELECTRONIC COPY TO
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ARCADIS

ARCADIS

ARCADIS

ExxonMobil

ExxonMobil

Attn: Emily Leamer

Attn: Rhiannon Parmalee

Attn: Jamie Pritchard

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 #: 1425632

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 not 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 8270C SIM, GC/MS Semivolatiles**

Batch #: 13284WAJ026 (Sample number(s): 7232929-7232944, 7232946)

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7232940, 7232942, 7232946

Sample #s: 7232929

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

Sample #s: 7232930, 7232931, 7232932, 7232933, 7232934, 7232935, 7232936, 7232937, 7232938, 7232939, 7232941, 7232943, 7232944

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

Sample #s: 7232940, 7232942, 7232946

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis. 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.

EPA 1664A, Wet Chemistry

Batch #: 13290807902A (Sample number(s): 7232929-7232943, 7232946 UNSPK: 7232946)

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

Sample Description: WS-014(1.5-2.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232929
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 10:10 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

14-15 SDG#: PEM07-01

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-014(1.5-2.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232929
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 10:10 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

14-15 SDG#: PEM07-01

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.	0.011	0.054	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.054	1
08357	Anthracene	120-12-7	N.D.	0.011	0.054	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.054	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.054	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.054	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.054	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.054	1
08357	Chrysene	218-01-9	N.D.	0.011	0.054	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.054	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.054	1
08357	Fluorene	86-73-7	N.D.	0.011	0.054	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.054	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.054	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.054	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.054	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.054	1
08357	Pyrene	129-00-0	N.D.	0.011	0.054	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	23.5	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	0.0415	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-014(1.5-2.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232929
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 10:10 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

14-15 SDG#: PEM07-01

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	
01750	Calcium	7440-70-2	5.16	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0029 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.57	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0024 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	G132871AA	10/14/2013 11:45	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132871AA	10/14/2013 11:45	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13284WAJ026	10/12/2013 23:30	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13284WAJ026	10/12/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132906256001	10/17/2013 05:08	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132841848002	10/16/2013 14:47	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132841848002	10/16/2013 14:47	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132841848002	10/16/2013 14:47	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132841848002	10/16/2013 14:47	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132841848002	10/16/2013 14:47	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132841848002	10/16/2013 14:47	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132841848002	10/16/2013 14:47	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132841848002	10/16/2013 14:47	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132841848002	10/16/2013 14:47	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132841848002	10/16/2013 14:47	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132841848002	10/16/2013 14:47	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132865713001	10/13/2013 14:17	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132841848002	10/14/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132845713004	10/12/2013 14:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13290807902A	10/17/2013 17:01	Michelle L Lalli	1

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

Sample Description: WS-014(5.5-6.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232930
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 10:20 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

14-55 SDG#: PEM07-02

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(5.5-6.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232930
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 10:20 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

14-55 SDG#: PEM07-02

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.	0.030	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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	23.9	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	0.0439	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-014(5.5-6.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232930
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 10:20 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

14-55 SDG#: PEM07-02

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	
01750	Calcium	7440-70-2	5.26	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	2.62	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	G132871AA	10/14/2013 12:27	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132871AA	10/14/2013 12:27	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13284WAJ026	10/12/2013 23:57	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13284WAJ026	10/12/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132906256001	10/17/2013 05:08	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132841848002	10/16/2013 14:51	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132841848002	10/16/2013 14:51	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132841848002	10/16/2013 14:51	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132841848002	10/16/2013 14:51	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132841848002	10/16/2013 14:51	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132841848002	10/16/2013 14:51	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132841848002	10/16/2013 14:51	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132841848002	10/16/2013 14:51	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132841848002	10/16/2013 14:51	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132841848002	10/16/2013 14:51	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132841848002	10/16/2013 14:51	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132865713001	10/13/2013 14:20	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132841848002	10/14/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132845713004	10/12/2013 14:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13290807902A	10/17/2013 17:01	Michelle L Lalli	1

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

Sample Description: WS-012(1.5-2.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232931
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 10:30 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

12-15 SDG#: PEM07-03

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-012(1.5-2.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232931
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 10:30 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

12-15 SDG#: PEM07-03

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	0.053	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	0.041 J	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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	25.1	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	0.0316	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-012(1.5-2.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232931
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 10:30 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

12-15 SDG#: PEM07-03

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	
01750	Calcium	7440-70-2	5.59	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	2.70	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						
	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	G132871AA	10/14/2013 12:49	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132871AA	10/14/2013 12:49	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13284WAJ026	10/13/2013 00:25	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13284WAJ026	10/12/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132906256001	10/17/2013 05:08	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132841848002	10/16/2013 15:02	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132841848002	10/16/2013 15:02	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132841848002	10/16/2013 15:02	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132841848002	10/16/2013 15:02	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132841848002	10/16/2013 15:02	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132841848002	10/16/2013 15:02	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132841848002	10/16/2013 15:02	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132841848002	10/16/2013 15:02	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132841848002	10/16/2013 15:02	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132841848002	10/16/2013 15:02	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132841848002	10/16/2013 15:02	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132865713001	10/13/2013 14:22	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132841848002	10/14/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132845713004	10/12/2013 14:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13290807902A	10/17/2013 17:01	Michelle L Lalli	1

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

Sample Description: WS-012(5.0-5.5)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232932
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 10:40 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

12-50 SDG#: PEM07-04

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(5.0-5.5)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232932
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 10:40 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

12-50 SDG#: PEM07-04

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	0.052	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	0.033 J	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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	25.1	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	0.0391	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-012(5.0-5.5)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232932
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 10:40 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

12-50 SDG#: PEM07-04

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	
01750	Calcium	7440-70-2	5.59	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	2.72	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	G132871AA	10/14/2013 13:10	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132871AA	10/14/2013 13:10	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13284WAJ026	10/13/2013 00:52	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13284WAJ026	10/12/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132906256001	10/17/2013 05:08	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132841848002	10/16/2013 15:06	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132841848002	10/16/2013 15:06	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132841848002	10/16/2013 15:06	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132841848002	10/16/2013 15:06	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132841848002	10/16/2013 15:06	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132841848002	10/16/2013 15:06	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132841848002	10/16/2013 15:06	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132841848002	10/16/2013 15:06	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132841848002	10/16/2013 15:06	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132841848002	10/16/2013 15:06	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132841848002	10/16/2013 15:06	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132865713001	10/13/2013 14:24	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132841848002	10/14/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132845713004	10/12/2013 14:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13290807902A	10/17/2013 17:01	Michelle L Lalli	1

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

Sample Description: WS-010(1.5-2.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232933
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 11:00 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

10-15 SDG#: PEM07-05

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-010(1.5-2.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232933
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 11:00 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

10-15 SDG#: PEM07-05

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.	0.011	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	0.043 J	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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	26.5	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	0.0039	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-010(1.5-2.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232933
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 11:00 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

10-15 SDG#: PEM07-05

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	
01750	Calcium	7440-70-2	5.87	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	2.86	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						
	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	G132871AA	10/14/2013 13:31	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132871AA	10/14/2013 13:31	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13284WAJ026	10/13/2013 01:19	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13284WAJ026	10/12/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132906256001	10/17/2013 05:08	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132841848002	10/16/2013 15:10	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132841848002	10/16/2013 15:10	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132841848002	10/16/2013 15:10	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132841848002	10/16/2013 15:10	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132841848002	10/16/2013 15:10	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132841848002	10/16/2013 15:10	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132841848002	10/16/2013 15:10	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132841848002	10/16/2013 15:10	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132841848002	10/16/2013 15:10	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132841848002	10/16/2013 15:10	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132841848002	10/16/2013 15:10	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132865713001	10/13/2013 14:26	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132841848002	10/14/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132845713004	10/12/2013 14:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13290807902A	10/17/2013 17:01	Michelle L Lalli	1

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

Sample Description: WS-010(3.5-4.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232934
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 11:10 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

10-35 SDG#: PEM07-06

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(3.5-4.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232934
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 11:10 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

10-35 SDG#: PEM07-06

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.	0.011	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	0.048 J	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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	26.4	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	0.0399	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-010(3.5-4.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232934
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 11:10 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

10-35 SDG#: PEM07-06

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	
01750	Calcium	7440-70-2	5.86	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	2.86	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	G132871AA	10/14/2013 13:52	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132871AA	10/14/2013 13:52	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13284WAJ026	10/13/2013 01:47	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13284WAJ026	10/12/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132906256001	10/17/2013 05:08	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132841848002	10/16/2013 15:14	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132841848002	10/16/2013 15:14	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132841848002	10/16/2013 15:14	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132841848002	10/16/2013 15:14	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132841848002	10/16/2013 15:14	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132841848002	10/16/2013 15:14	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132841848002	10/16/2013 15:14	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132841848002	10/16/2013 15:14	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132841848002	10/16/2013 15:14	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132841848002	10/16/2013 15:14	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132841848002	10/16/2013 15:14	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132865713001	10/13/2013 14:28	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132841848002	10/14/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132845713004	10/12/2013 14:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13290807902A	10/17/2013 17:01	Michelle L Lalli	1

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

Sample Description: WS-006(0.5-1.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232935
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 11:20 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

06-05 SDG#: PEM07-07

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-006(0.5-1.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232935
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 11:20 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

06-05 SDG#: PEM07-07

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	0.051	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	0.050 J	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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	26.0	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	0.0405	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-006(0.5-1.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232935
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 11:20 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

06-05 SDG#: PEM07-07

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	
01750	Calcium	7440-70-2	5.73	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	2.83	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	G132871AA	10/14/2013 14:13	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132871AA	10/14/2013 14:13	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13284WAJ026	10/13/2013 02:14	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13284WAJ026	10/12/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132906256001	10/17/2013 05:08	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132841848002	10/16/2013 14:23	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132841848002	10/16/2013 14:23	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132841848002	10/16/2013 14:23	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132841848002	10/16/2013 14:23	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132841848002	10/16/2013 14:23	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132841848002	10/16/2013 14:23	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132841848002	10/16/2013 14:23	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132841848002	10/16/2013 14:23	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132841848002	10/16/2013 14:23	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132841848002	10/16/2013 14:23	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132841848002	10/16/2013 14:23	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132865713001	10/13/2013 14:30	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132841848002	10/14/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132845713004	10/12/2013 14:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13290807902A	10/17/2013 17:01	Michelle L Lalli	1

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

Sample Description: WS-005(Surface)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232936
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 09:50 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

05-S- SDG#: PEM07-08

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)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232936
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 09:50 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

05-S- SDG#: PEM07-08

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	0.044 J	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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	26.3	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	0.0308	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-005(Surface)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232936
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 09:50 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

05-S- SDG#: PEM07-08

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	
01750	Calcium	7440-70-2	6.00	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	2.75	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	G132871AA	10/14/2013 14:34	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132871AA	10/14/2013 14:34	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13284WAJ026	10/13/2013 02:42	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13284WAJ026	10/12/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132906256001	10/17/2013 05:08	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132841848002	10/16/2013 15:18	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132841848002	10/16/2013 15:18	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132841848002	10/16/2013 15:18	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132841848002	10/16/2013 15:18	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132841848002	10/16/2013 15:18	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132841848002	10/16/2013 15:18	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132841848002	10/16/2013 15:18	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132841848002	10/16/2013 15:18	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132841848002	10/16/2013 15:18	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132841848002	10/16/2013 15:18	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132841848002	10/16/2013 15:18	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132865713001	10/13/2013 14:32	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132841848002	10/14/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132845713004	10/12/2013 14:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13290807902A	10/17/2013 17:01	Michelle L Lalli	1

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

Sample Description: WS-002(Surface)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232937
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 11:50 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

02-S- SDG#: PEM07-09

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-002(Surface)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232937
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 11:50 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

02-S- SDG#: PEM07-09

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	0.064	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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	25.0	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	0.0343	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-002(Surface)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232937
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 11:50 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

02-S- SDG#: PEM07-09

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	
01750	Calcium	7440-70-2	5.57	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	2.69	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.	2.7 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	G132871AA	10/14/2013 14:55	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132871AA	10/14/2013 14:55	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13284WAJ026	10/13/2013 03:09	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13284WAJ026	10/12/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132906256001	10/17/2013 05:08	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132841848002	10/16/2013 15:22	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132841848002	10/16/2013 15:22	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132841848002	10/16/2013 15:22	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132841848002	10/16/2013 15:22	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132841848002	10/16/2013 15:22	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132841848002	10/16/2013 15:22	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132841848002	10/16/2013 15:22	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132841848002	10/16/2013 15:22	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132841848002	10/16/2013 15:22	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132841848002	10/16/2013 15:22	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132841848002	10/16/2013 15:22	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132865713001	10/13/2013 14:34	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132841848002	10/14/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132845713004	10/12/2013 14:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13290807902A	10/17/2013 17:01	Michelle L Lalli	1

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

Sample Description: WS-011(1.5-2.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232938
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 12:00 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

11-15 SDG#: PEM07-10

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(1.5-2.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232938
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 12:00 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

11-15 SDG#: PEM07-10

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.	0.011	0.056	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.056	1
08357	Anthracene	120-12-7	N.D.	0.011	0.056	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.056	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.056	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.056	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.056	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.056	1
08357	Chrysene	218-01-9	N.D.	0.011	0.056	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.056	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.056	1
08357	Fluorene	86-73-7	N.D.	0.011	0.056	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.056	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.056	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.056	1
08357	Naphthalene	91-20-3	0.068	0.033	0.056	1
08357	Phenanthrene	85-01-8	N.D.	0.033	0.056	1
08357	Pyrene	129-00-0	N.D.	0.011	0.056	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	26.2	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	0.0423	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-011(1.5-2.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232938
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 12:00 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

11-15 SDG#: PEM07-10

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	
01750	Calcium	7440-70-2	5.72	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	2.90	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	G132871AA	10/14/2013 15:16	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132871AA	10/14/2013 15:16	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13284WAJ026	10/13/2013 03:37	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13284WAJ026	10/12/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132906256001	10/17/2013 05:08	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132841848002	10/16/2013 15:26	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132841848002	10/16/2013 15:26	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132841848002	10/16/2013 15:26	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132841848002	10/16/2013 15:26	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132841848002	10/16/2013 15:26	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132841848002	10/16/2013 15:26	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132841848002	10/16/2013 15:26	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132841848002	10/16/2013 15:26	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132841848002	10/16/2013 15:26	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132841848002	10/16/2013 15:26	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132841848002	10/16/2013 15:26	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132865713001	10/13/2013 14:40	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132841848002	10/14/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132845713004	10/12/2013 14:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13290807902A	10/17/2013 17:01	Michelle L Lalli	1

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

Sample Description: WS-011(5.0-5.5)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232939
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 12:10 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

11-50 SDG#: PEM07-11

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-011(5.0-5.5)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232939
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 12:10 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

11-50 SDG#: PEM07-11

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.	0.011	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	0.068	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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	26.3	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	0.0421	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-011(5.0-5.5)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232939
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 12:10 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

11-50 SDG#: PEM07-11

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	
01750	Calcium	7440-70-2	5.75	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	2.91	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	G132871AA	10/14/2013 15:37	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132871AA	10/14/2013 15:37	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13284WAJ026	10/13/2013 04:04	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13284WAJ026	10/12/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132906256001	10/17/2013 05:08	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132841848002	10/16/2013 15:30	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132841848002	10/16/2013 15:30	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132841848002	10/16/2013 15:30	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132841848002	10/16/2013 15:30	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132841848002	10/16/2013 15:30	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132841848002	10/16/2013 15:30	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132841848002	10/16/2013 15:30	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132841848002	10/16/2013 15:30	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132841848002	10/16/2013 15:30	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132841848002	10/16/2013 15:30	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132841848002	10/16/2013 15:30	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132865713001	10/13/2013 14:42	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132841848002	10/14/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132845713004	10/12/2013 14:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13290807902A	10/17/2013 17:01	Michelle L Lalli	1

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

Sample Description: WS-018(Surface)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232940
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 08:40 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

-18S- SDG#: PEM07-12

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)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232940
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 08:40 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

-18S- SDG#: PEM07-12

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	0.050 J	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

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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 CaCO3	471-34-1	27.3	0.033	0.20

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

Sample Description: WS-018(Surface)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232940
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 08:40 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

-18S- SDG#: PEM07-12

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	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0442	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.11	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	2.93	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	G132871AA	10/14/2013 15:58	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132871AA	10/14/2013 15:58	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13284WAJ026	10/13/2013 04:31	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13284WAJ026	10/12/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132906256001	10/17/2013 05:08	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132841848002	10/16/2013 15:34	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132841848002	10/16/2013 15:34	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132841848002	10/16/2013 15:34	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132841848002	10/16/2013 15:34	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132841848002	10/16/2013 15:34	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132841848002	10/16/2013 15:34	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132841848002	10/16/2013 15:34	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132841848002	10/16/2013 15:34	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132841848002	10/16/2013 15:34	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132841848002	10/16/2013 15:34	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132841848002	10/16/2013 15:34	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132865713001	10/13/2013 14:44	Damary Valentin	1

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

Sample Description: WS-018(Surface)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232940
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 08:40 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

-18S- SDG#: PEM07-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132841848002	10/14/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132845713004	10/12/2013 14:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13290807902A	10/17/2013 17:01	Michelle L Lalli	1

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

Sample Description: WS-003(Surface)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232941
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 08:50 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

-3S-- SDG#: PEM07-13

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)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232941
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 08:50 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

-3S-- SDG#: PEM07-13

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.	0.010	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	0.037 J	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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	26.7	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	0.0356	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-003(Surface)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232941
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 08:50 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

-3S-- SDG#: PEM07-13

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	
01750	Calcium	7440-70-2	5.94	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	2.89	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						
	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	G132871AA	10/14/2013 16:20	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132871AA	10/14/2013 16:20	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13284WAJ026	10/13/2013 04:59	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13284WAJ026	10/12/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132906256001	10/17/2013 05:08	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132841848002	10/16/2013 15:38	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132841848002	10/16/2013 15:38	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132841848002	10/16/2013 15:38	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132841848002	10/16/2013 15:38	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132841848002	10/16/2013 15:38	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132841848002	10/16/2013 15:38	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132841848002	10/16/2013 15:38	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132841848002	10/16/2013 15:38	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132841848002	10/16/2013 15:38	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132841848002	10/16/2013 15:38	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132841848002	10/16/2013 15:38	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132865713001	10/13/2013 14:52	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132841848002	10/14/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132845713004	10/12/2013 14:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13290807902A	10/17/2013 17:01	Michelle L Lalli	1

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

Sample Description: WS-007(0.5-1.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232942
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 09:10 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

0705- SDG#: PEM07-14

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	4.0 J	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)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232942
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 09:10 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

0705- SDG#: PEM07-14

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	2.0	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	0.012 J	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

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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 CaCO3	471-34-1	38.0	0.033	0.20

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

Sample Description: WS-007(0.5-1.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232942
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 09:10 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

0705- SDG#: PEM07-14

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	
07035	Arsenic	7440-38-2	0.0152 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.220	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.70	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0274	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0326	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.57	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0286	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	0.0363	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000063 J	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	G132871AA	10/14/2013 16:41	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132871AA	10/14/2013 16:41	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13284WAJ026	10/13/2013 05:26	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13284WAJ026	10/12/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132906256001	10/17/2013 05:08	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132841848002	10/16/2013 15:50	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132841848002	10/16/2013 15:50	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132841848002	10/16/2013 15:50	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132841848002	10/16/2013 15:50	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132841848002	10/16/2013 15:50	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132841848002	10/16/2013 15:50	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132841848002	10/16/2013 15:50	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132841848002	10/16/2013 15:50	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132841848002	10/16/2013 15:50	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132841848002	10/16/2013 15:50	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132841848002	10/16/2013 15:50	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132865713001	10/13/2013 14:54	Damary Valentin	1

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

Sample Description: WS-007(0.5-1.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232942
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 09:10 by HVA

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 10/11/2013 09:15

Highlands Ranch CO 80129

Reported: 10/18/2013 09:27

0705- SDG#: PEM07-14

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132841848002	10/14/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132845713004	10/12/2013 14:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13290807902A	10/17/2013 17:01	Michelle L Lalli	1

Sample Description: DUP-WS-100-101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232943
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

D100- SDG#: PEM07-15FD

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: DUP-WS-100-101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232943
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

D100- SDG#: PEM07-15FD

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	0.056	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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	26.0	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	0.0373	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: DUP-WS-100-101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232943
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

D100- SDG#: PEM07-15FD

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	
01750	Calcium	7440-70-2	5.77	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	2.82	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	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.	1.6 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	G132871AA	10/14/2013 17:02	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132871AA	10/14/2013 17:02	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13284WAJ026	10/13/2013 05:54	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13284WAJ026	10/12/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132906256001	10/17/2013 05:08	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132841848002	10/16/2013 15:54	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132841848002	10/16/2013 15:54	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132841848002	10/16/2013 15:54	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132841848002	10/16/2013 15:54	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132841848002	10/16/2013 15:54	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132841848002	10/16/2013 15:54	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132841848002	10/16/2013 15:54	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132841848002	10/16/2013 15:54	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132841848002	10/16/2013 15:54	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132841848002	10/16/2013 15:54	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132841848002	10/16/2013 15:54	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132865713001	10/13/2013 14:56	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132841848002	10/14/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132845713004	10/12/2013 14:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13290807902A	10/17/2013 17:01	Michelle L Lalli	1

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

Sample Description: WS-EB-87-101013 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232944
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 13:10 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

EB87- SDG#: PEM07-16EB

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	0.3 J	0.2	0.5	1

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

Sample Description: WS-EB-87-101013 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232944
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 13:10 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

EB87- SDG#: PEM07-16EB

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	0.6	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.	0.012	0.061	1
08357	Acenaphthylene	208-96-8	N.D.	0.012	0.061	1
08357	Anthracene	120-12-7	0.020 J	0.012	0.061	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.012	0.061	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.012	0.061	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.012	0.061	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.012	0.061	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.012	0.061	1
08357	Chrysene	218-01-9	N.D.	0.012	0.061	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.012	0.061	1
08357	Fluoranthene	206-44-0	N.D.	0.012	0.061	1
08357	Fluorene	86-73-7	N.D.	0.012	0.061	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.012	0.061	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.012	0.061	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.012	0.061	1
08357	Naphthalene	91-20-3	N.D.	0.036	0.061	1
08357	Phenanthrene	85-01-8	N.D.	0.036	0.061	1
08357	Pyrene	129-00-0	N.D.	0.012	0.061	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	N.D.	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	N.D.	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-EB-87-101013 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232944
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 13:10 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

EB87- SDG#: PEM07-16EB

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	
01750	Calcium	7440-70-2	N.D.	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	N.D.	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	G132871AA	10/14/2013 10:42	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132871AA	10/14/2013 10:42	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13284WAJ026	10/13/2013 06:21	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13284WAJ026	10/12/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132906256001	10/17/2013 05:08	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132841848002	10/16/2013 15:58	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132841848002	10/16/2013 15:58	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132841848002	10/16/2013 15:58	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132841848002	10/16/2013 15:58	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132841848002	10/16/2013 15:58	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132841848002	10/16/2013 15:58	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132841848002	10/16/2013 15:58	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132841848002	10/16/2013 15:58	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132841848002	10/16/2013 15:58	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132841848002	10/16/2013 15:58	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132841848002	10/16/2013 15:58	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132865713001	10/13/2013 14:58	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132841848002	10/14/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132845713004	10/12/2013 14:00	Damary Valentin	1

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

Sample Description: WS-TB-173-101013 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232945
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013

ExxonMobil c/o Arcadis

Submitted: 10/11/2013 09:15

630 Plaza Drive, Suite 600

Reported: 10/18/2013 09:27

Highlands Ranch CO 80129

TB173 SDG#: PEM07-17TB

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-173-101013 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232945
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013

ExxonMobil c/o Arcadis

Submitted: 10/11/2013 09:15

630 Plaza Drive, Suite 600

Reported: 10/18/2013 09:27

Highlands Ranch CO 80129

TB173 SDG#: PEM07-17TB

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	G132871AA	10/14/2013 11:03	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132871AA	10/14/2013 11:03	Jason M Long	1

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

Sample Description: WS-001(0.5-1.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232946
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 09:30 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

0510- SDG#: PEM07-18*

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)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232946
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 09:30 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

0510- SDG#: PEM07-18*

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	0.043 J	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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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 CaCO3	471-34-1	25.7	0.033	0.20
					1

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

Sample Description: WS-001(0.5-1.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232946
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 09:30 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

0510- SDG#: PEM07-18*

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	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0385	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.74	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	2.76	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	G132871AA	10/14/2013 17:23	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132871AA	10/14/2013 17:23	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13284WAJ026	10/13/2013 06:48	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13284WAJ026	10/12/2013 14:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132906256001	10/17/2013 05:08	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132841848002	10/16/2013 16:02	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132841848002	10/16/2013 16:02	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132841848002	10/16/2013 16:02	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132841848002	10/16/2013 16:02	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132841848002	10/16/2013 16:02	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132841848002	10/16/2013 16:02	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132841848002	10/16/2013 16:02	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132841848002	10/16/2013 16:02	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132841848002	10/16/2013 16:02	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132841848002	10/16/2013 16:02	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132841848002	10/16/2013 16:02	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132865713001	10/13/2013 15:04	Damary Valentin	1

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

Sample Description: WS-001(0.5-1.0)101013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7232946
LL Group # 1425632
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/10/2013 09:30 by HVA

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

Submitted: 10/11/2013 09:15

Reported: 10/18/2013 09:27

0510- SDG#: PEM07-18*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132841848002	10/14/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132845713004	10/12/2013 14:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13290807902A	10/17/2013 17:01	Michelle L Lalli	1

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 10/18/13 at 09:27 AM

Group Number: 1425632

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: G132871AA	Sample number(s): 7232929-7232946								
Acetone	N.D.	3.0	5.0	ug/l	95		60-139		
Allyl Chloride	N.D.	0.1	0.5	ug/l	81		61-130		
Benzene	N.D.	0.1	0.5	ug/l	101		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	106		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	99		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	102		73-128		
Bromomethane	N.D.	0.1	0.5	ug/l	96		62-126		
2-Butanone	N.D.	1.0	5.0	ug/l	85		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	92		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	97		80-129		
Chlorobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	81		68-120		
Chloroform	N.D.	0.1	0.5	ug/l	104		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	68		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	98		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	99		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	105		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	104		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	64		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	100		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	100		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	101		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	104		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	104		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	93		75-145		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	99		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	96		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	92		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	98		80-123		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	88		80-120		
Ethyl ether	N.D.	0.1	0.5	ug/l	91		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	97		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	90		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 SummaryClient Name: ExxonMobil c/o Arcadis
Reported: 10/18/13 at 09:27 AM

Group Number: 1425632

<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	100		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	96		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	96		80-120		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	87		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	102		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
Styrene	N.D.	0.1	0.5	ug/l	99		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	98		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	97		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	105		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	90		65-131		
Toluene	N.D.	0.1	0.5	ug/l	99		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	91		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	94		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	100		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	104		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	96		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	100		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	81		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	101		80-120		

Batch number: 13284WAJ026	Sample number(s): 7232929-7232944, 7232946								
Acenaphthene	N.D.	0.010	0.050	ug/l	103	102	77-118	1	30
Acenaphthylene	N.D.	0.010	0.050	ug/l	112	111	80-123	1	30
Anthracene	N.D.	0.010	0.050	ug/l	115	114	78-123	1	30
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	114	113	73-127	1	30
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	105	106	72-120	1	30
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	128	132	79-136	3	30
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	95	91	64-130	4	30
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	104	100	73-131	3	30
Chrysene	N.D.	0.010	0.050	ug/l	101	101	76-125	1	30
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	99	94	58-131	5	30
Fluoranthene	N.D.	0.010	0.050	ug/l	117	117	79-124	0	30
Fluorene	N.D.	0.010	0.050	ug/l	111	111	74-115	0	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	94	91	62-130	3	30
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	115	114	80-126	0	30
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	113	112	81-124	0	30
Naphthalene	N.D.	0.030	0.050	ug/l	106	106	75-120	0	30
Phenanthrene	N.D.	0.030	0.050	ug/l	102	101	75-120	1	30
Pyrene	N.D.	0.010	0.050	ug/l	104	103	71-130	1	30

Batch number: 132841848002	Sample number(s): 7232929-7232944, 7232946								
Arsenic	N.D.	0.0068	0.0200	mg/l	98		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	102		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	104		90-112		
Calcium	N.D.	0.0334	0.200	mg/l	103		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	104		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	108		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	103		89-110		
Nickel	N.D.	0.0015	0.0100	mg/l	106		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	103		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	93		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	105		90-110		

*- 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: 1425632

Reported: 10/18/13 at 09:27 AM

<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: 132865713001	Sample number(s): 7232929-7232944, 7232946								
Mercury	N.D.	0.00006	0.00020	mg/l	112		80-120		
		0							
Batch number: 13290807902A	Sample number(s): 7232929-7232943, 7232946								
HEM (oil & grease)	N.D.	1.4	5.0	mg/l	97	92	78-114	5	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: G132871AA	Sample number(s): 7232929-7232946 UNSPK: 7232929								
Acetone	95	104	57-163	9	30				
Allyl Chloride	85	90	56-160	6	30				
Benzene	107	111	87-126	4	30				
Bromobenzene	107	110	80-123	3	30				
Bromochloromethane	107	111	82-125	4	30				
Bromodichloromethane	100	105	82-133	5	30				
Bromoform	100	103	60-138	3	30				
Bromomethane	117	125	66-130	6	30				
2-Butanone	84	87	56-160	3	30				
n-Butylbenzene	105	109	83-131	4	30				
sec-Butylbenzene	107	111	84-128	4	30				
tert-Butylbenzene	107	113	84-135	5	30				
Carbon Tetrachloride	106	112	81-148	5	30				
Chlorobenzene	109	113	78-133	3	30				
Chloroethane	100	110	70-139	9	30				
Chloroform	108	112	86-136	4	30				
Chloromethane	102	108	49-135	5	30				
2-Chlorotoluene	106	111	75-134	5	30				
4-Chlorotoluene	105	110	76-134	5	30				
1,2-Dibromo-3-chloropropane	95	102	43-143	7	30				
Dibromochloromethane	101	104	79-125	3	30				
1,2-Dibromoethane	101	102	84-127	2	30				
Dibromomethane	105	108	83-126	3	30				
1,2-Dichlorobenzene	105	110	83-117	5	30				
1,3-Dichlorobenzene	109	114	79-132	5	30				
1,4-Dichlorobenzene	106	111	79-120	5	30				
Dichlorodifluoromethane	134	131	28-136	2	30				
1,1-Dichloroethane	106	110	88-136	4	30				
1,2-Dichloroethane	103	105	82-135	3	30				
1,1-Dichloroethene	115	118	83-150	3	30				
cis-1,2-Dichloroethene	108	113	82-129	4	30				
trans-1,2-Dichloroethene	113	116	88-127	3	30				
Dichlorofluoromethane	121	132	81-161	8	30				
1,2-Dichloropropane	102	106	91-126	5	30				
1,3-Dichloropropane	97	99	80-127	2	30				
2,2-Dichloropropane	105	111	80-134	6	30				
1,1-Dichloropropene	109	113	86-139	3	30				

*- 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 SummaryClient Name: ExxonMobil c/o Arcadis
Reported: 10/18/13 at 09:27 AM

Group Number: 1425632

Sample Matrix Quality ControlUnspiked (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>
cis-1,3-Dichloropropene	101	105	74-132	4	30				
trans-1,3-Dichloropropene	88	94	71-128	7	30				
Ethyl ether	92	87	57-139	6	30				
Ethylbenzene	107	110	80-140	3	30				
Freon 113	111	109	77-147	2	30				
Hexachlorobutadiene	105	112	65-128	7	30				
Isopropylbenzene	107	112	81-133	5	30				
p-Isopropyltoluene	105	111	84-124	5	30				
Methyl Tertiary Butyl Ether	94	97	82-132	4	30				
4-Methyl-2-Pentanone	86	87	69-149	1	30				
Methylene Chloride	106	110	77-135	4	30				
n-Propylbenzene	105	111	79-131	5	30				
Styrene	105	108	63-151	4	30				
1,1,1,2-Tetrachloroethane	100	105	87-126	5	30				
1,1,2,2-Tetrachloroethane	97	99	75-131	3	30				
Tetrachloroethene	117	120	75-129	3	30				
Tetrahydrofuran	86	89	56-154	4	30				
Toluene	106	110	83-127	3	30				
1,2,3-Trichlorobenzene	95	100	73-125	5	30				
1,2,4-Trichlorobenzene	99	105	77-120	6	30				
1,1,1-Trichloroethane	110	117	85-140	6	30				
1,1,2-Trichloroethane	100	104	85-129	4	30				
Trichloroethene	112	118	85-131	5	30				
Trichlorofluoromethane	121	127	73-139	4	30				
1,2,3-Trichloropropane	97	99	76-120	1	30				
1,2,4-Trimethylbenzene	103	108	87-126	5	30				
1,3,5-Trimethylbenzene	103	108	89-129	4	30				
Vinyl Chloride	110	119	62-135	7	30				
Xylene (Total)	108	111	81-137	3	30				

Batch number: 132841848002	Sample number(s): 7232929-7232944,7232946 UNSPK: 7232935 BKG: 7232935								
Arsenic	104	103	81-123	1	20	N.D.	N.D.	0 (1)	20
Barium	103	103	78-118	0	20	0.0405	0.0399	1	20
Cadmium	104	103	83-116	0	20	N.D.	N.D.	0 (1)	20
Calcium	102	99	75-125	1	20	5.73	5.69	1	20
Chromium	107	106	76-120	0	20	N.D.	N.D.	0 (1)	20
Lead	107	108	75-125	0	20	N.D.	N.D.	0 (1)	20
Magnesium	101	99	75-125	1	20	2.83	2.78	2	20
Nickel	107	107	86-115	0	20	N.D.	N.D.	0 (1)	20
Selenium	105	104	75-125	1	20	N.D.	N.D.	0 (1)	20
Silver	95	94	75-125	1	20	N.D.	N.D.	0 (1)	20
Vanadium	108	107	90-117	0	20	N.D.	N.D.	0 (1)	20

Batch number: 132865713001	Sample number(s): 7232929-7232944,7232946 UNSPK: 7232940 BKG: 7232940								
Mercury	110	110	80-120	1	20	N.D.	N.D.	0 (1)	20

Batch number: 13290807902A	Sample number(s): 7232929-7232943,7232946 UNSPK: 7232946								
HEM (oil & grease)	38*		78-114						

*- 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
Reported: 10/18/13 at 09:27 AM

Group Number: 1425632

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.

Analysis Name: BTEX 25-ml purge

Batch number: G132871AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7232929	103	102	96	92
7232930	103	102	97	93
7232931	103	101	96	93
7232932	105	101	96	93
7232933	102	101	96	94
7232934	103	103	96	93
7232935	103	101	96	93
7232936	103	101	97	93
7232937	104	103	96	92
7232938	103	103	96	93
7232939	102	102	97	92
7232940	102	102	97	91
7232941	104	103	96	92
7232942	103	102	96	93
7232943	103	104	96	92
7232944	103	102	97	95
7232945	103	101	96	92
7232946	104	103	96	93
Blank	103	100	97	93
LCS	104	102	97	95
MS	102	103	98	94
MSD	103	101	97	94
Limits:	77-114	74-113	77-110	78-110

Analysis Name: PAHs in waters by SIM

Batch number: 13284WAJ026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7232929	110	72	106
7232930	110	89	105
7232931	111	94	105
7232932	116	87	108
7232933	113	91	106
7232934	114	97	109
7232935	112	90	107
7232936	112	96	107
7232937	110	86	105
7232938	111	74	110
7232939	109	76	105
7232940	79	35*	87
7232941	94	66	92
7232942	56	45*	61
7232943	105	69	105
7232944	117	119	110
7232946	94	55*	100
Blank	115	116	108
LCS	115	121	110

*- Outside of specification

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Quality Control Summary

Client Name: ExxonMobil c/o Arcadis

Group Number: 1425632

Reported: 10/18/13 at 09:27 AM

Surrogate Quality Control

LCSD	113	119	109
Limits:	44-137	62-141	51-136

*- Outside of specification

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(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 # 1425637

Sample # 7732929-46

1 of 2

Instructions on reverse side correspond with circled numbers.

1 Client Information				4 Matrix				5 Analyses Requested												6 Remarks				
Preservation Code				Total # of Containers				Preservation Codes																
Facility #/SID <u>Mayflower Pipeline Incident</u>				Sediment ☐ Ground ☐ Surface ☒	Potable ☐ NPDES ☐ Air ☐	Oil ☐	Total # of Containers	<u>VOC 8260 B</u> <u>PAH 8270 SIM</u> <u>PCP Metals, Ni, V, Cu, Pb</u> <u>Diss Metals</u> <u>HEM Oil & Grease</u> H = HCl N = HNO₃ S = H₂SO₄ T = Thiosulfate B = NaOH O = Other												6 Remarks Lab to test filter and preserve diss metals upon receipt.				
Site Address <u>Mayflower, AR</u> ExxonMobil PM <u>Scott Bushroe</u> Consultant/Office <u>Arcadis</u> Consultant PM <u>Steve Barrick</u> Sampler <u>H. Van Aler / Ryan Lewis</u>								Cost Center/AFE Consultant Phone # <u>919 302 6799</u>				Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other												
2 Sample Identification				3 Collected		Grab		Composite																
				Date	Time	Grab	Composite	Soil	Water	Oil														
WS-014(1.5-2.0) 101013				10/10/13	1010	X			X		9	X	X	X	X	X								
WS-014(5.5-6.0) 101013					1020	X			X		9	X	X	X	X	X								
WS-012(1.5-2.0) 101013					1030	X			X		9	X	X	X	X	X								
WS-012(5.0-5.5) 101013					1040	X			X		9	X	X	X	X	X								
WS-010(1.5-2.0) 101013					1100	X			X		9	X	X	X	X	X								
WS-010(3.5-4.0) 101013					1110	X			X		9	X	X	X	X	X								
WS-006(0.5-1.0) 101013					1120	X			X		9	X	X	X	X	X								
WS-005(surface) 101013					950	X			X		9	X	X	X	X	X								
WS-002(surface) 101013					1150	X			X		9	X	X	X	X	X								
WS-011(1.5-2.0) 101013					1200	X			X		9	X	X	X	X	X								
WS-011(5.0-5.5) 101013					1210	X			X		9	X	X	X	X	X								
WS-018(surface) 101013					840	X			X		9	X	X	X	X	X								
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by		Date		Time		Received by		Date		Time		9								
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		Date		Time										
Type I - Full				UPS <u>X</u> FedEx Other		Date		Time		Received by		Date		Time										
Type VI (Raw Data)				Temperature Upon Receipt <u>0.7-1.8 °C</u>		Date		Time		Received by		Date		Time										
NJ Reduced				Custody Seals Intact? <u>(Yes)</u> No		Date		Time		Received by		Date		Time										
Other				Temperature Upon Receipt <u>0.7-1.8 °C</u>		Date		Time		Received by		Date		Time										

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

7053 0713

Acct. # 14739

Group # 1425637

Sample # 7732929-46

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

G-1425632
Environmental Sample Administration
Receipt Documentation LogClient/Project: MayflowerShipping Container Sealed: YES NODate of Receipt: 10/11/13Custody Seal Present * : YES NOTime of Receipt: 0915* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource 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	DT146	1.8	TB	WI	Y	B	
2		1.0					
3		0.7					
4		1.0					
5		0.7					
6		0.7					

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: CEll 3647 Date/Time: 10/11/13 1009

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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