

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

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

October 30, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 10/23/2013

Group Number: 1428416

SDG: PEM39

PO Number: B0086003.1301

State of Sample Origin: AR

Client Sample DescriptionLancaster Labs (LL) #

WS-014(1.5-2.0)102213 Grab Surface Water	7247622
WS-014(5.5-6.0)102213 Grab Surface Water	7247623
WS-012(1.5-2.0)102213 Grab Surface Water	7247624
WS-012(5.0-5.5)102213 Grab Surface Water	7247625
WS-010(1.5-2.0)102213 Grab Surface Water	7247626
WS-010(3.5-4.0)102213 Grab Surface Water	7247627
WS-006(0.5-1.0)102213 Grab Surface Water	7247628
WS-005(Surface)102213 Grab Surface Water	7247629
WS-002(Surface)102213 Grab Surface Water	7247630
WS-011(1.5-2.0)102213 Grab Surface Water	7247631
WS-011(5.0-5.5)102213 Grab Surface Water	7247632
WS-018(Surface)102213 Grab Surface Water	7247633
WS-003(Surface)102213 Grab Surface Water	7247634
WS-007(0.5-1.0)102213 Grab Surface Water	7247635
WS-001(0.5-1.0)102213 Grab Surface Water	7247636
DUP-WS-106-102213 Grab Surface Water	7247637
WS-EB-099-102213 Grab Water	7247638
WS-TB-182-102213 Water	7247639

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 ARCADIS
COPY TO
ELECTRONIC ARCADIS
COPY TO
ELECTRONIC ExxonMobil
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ELECTRONIC ExxonMobil
COPY TO

Attn: Emily Leamer

Attn: Rhiannon Parmalee

Attn: Michael L Sixsmith

Attn: Julie Foster

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1428416

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**

Sample #s: 7247622, 7247623, 7247624, 7247625, 7247628, 7247629, 7247630, 7247631, 7247632, 7247633, 7247634, 7247635, 7247636, 7247638

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

Sample #s: 7247626, 7247627, 7247637

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.

Batch #: 13296WAM026 (Sample number(s): 7247622-7247638)

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7247626, 7247627, 7247637

EPA 1664A, Wet Chemistry

Batch #: 13302807903A (Sample number(s): 7247622-7247637 UNSPK: 7247622)

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

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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247622
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 09:50 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22141 SDG#: PEM39-01

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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247622
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 09:50 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22141 SDG#: PEM39-01

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	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
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	20.8	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0281	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-014(1.5-2.0)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247622
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 09:50 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22141 SDG#: PEM39-01

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	4.54	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0020 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.30	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0019 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	I132971AA	10/24/2013 12:10	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132971AA	10/24/2013 12:10	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13296WAM026	10/25/2013 17:33	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13296WAM026	10/24/2013 08:05	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133006256001	10/27/2013 13:48	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848002	10/27/2013 11:50	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132971848002	10/27/2013 11:50	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132971848002	10/27/2013 11:50	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132971848002	10/27/2013 11:50	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132971848002	10/27/2013 11:50	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132971848002	10/27/2013 11:50	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132971848002	10/27/2013 11:50	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132971848002	10/27/2013 11:50	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132971848002	10/27/2013 11:50	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132971848002	10/27/2013 11:50	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132971848002	10/27/2013 11:50	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132965713006	10/25/2013 06:29	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848002	10/25/2013 05:19	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132965713006	10/24/2013 16:05	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13302807903A	10/29/2013 16:46	Michelle L Lalli	1

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

Sample Description: WS-014(5.5-6.0)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247623
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 10:00 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22142 SDG#: PEM39-02

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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247623
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 10:00 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22142 SDG#: PEM39-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
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	20.3	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0281	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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247623
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 10:00 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22142 SDG#: PEM39-02

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	4.42	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	2.24	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
	mg/l		mg/l	mg/l		
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	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	I132971AA	10/24/2013 12:31	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132971AA	10/24/2013 12:31	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13296WAM026	10/25/2013 18:02	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13296WAM026	10/24/2013 08:05	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133006256001	10/27/2013 13:48	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848002	10/27/2013 11:54	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132971848002	10/27/2013 11:54	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132971848002	10/27/2013 11:54	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132971848002	10/27/2013 11:54	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132971848002	10/27/2013 11:54	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132971848002	10/27/2013 11:54	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132971848002	10/27/2013 11:54	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132971848002	10/27/2013 11:54	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132971848002	10/27/2013 11:54	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132971848002	10/27/2013 11:54	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132971848002	10/27/2013 11:54	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132965713006	10/25/2013 06:31	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848002	10/25/2013 05:19	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132965713006	10/24/2013 16:05	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13302807903A	10/29/2013 16:46	Michelle L Lalli	1

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

Sample Description: WS-012(1.5-2.0)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247624
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 10:10 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22121 SDG#: PEM39-03

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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247624
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 10:10 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22121 SDG#: PEM39-03

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.	0.010	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	21.4	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	0.0288	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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247624
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 10:10 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22121 SDG#: PEM39-03

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	4.68	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	2.35	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	I132971AA	10/24/2013 12:52	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132971AA	10/24/2013 12:52	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13296WAM026	10/25/2013 18:30	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13296WAM026	10/24/2013 08:05	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133006256001	10/27/2013 13:48	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848002	10/27/2013 12:05	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132971848002	10/27/2013 12:05	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132971848002	10/27/2013 12:05	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132971848002	10/27/2013 12:05	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132971848002	10/27/2013 12:05	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132971848002	10/27/2013 12:05	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132971848002	10/27/2013 12:05	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132971848002	10/27/2013 12:05	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132971848002	10/27/2013 12:05	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132971848002	10/27/2013 12:05	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132971848002	10/27/2013 12:05	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132965713006	10/25/2013 06:33	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848002	10/25/2013 05:19	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132965713006	10/24/2013 16:05	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13302807903A	10/29/2013 16:46	Michelle L Lalli	1

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

Sample Description: WS-012(5.0-5.5)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247625
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 10:20 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22122 SDG#: PEM39-04

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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247625
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 10:20 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22122 SDG#: PEM39-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	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	21.4	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	0.0286	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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247625
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 10:20 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22122 SDG#: PEM39-04

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	4.68	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	2.35	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	I132971AA	10/24/2013 13:13	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132971AA	10/24/2013 13:13	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13296WAM026	10/25/2013 18:59	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13296WAM026	10/24/2013 08:05	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133006256001	10/27/2013 13:48	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848002	10/27/2013 12:09	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132971848002	10/27/2013 12:09	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132971848002	10/27/2013 12:09	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132971848002	10/27/2013 12:09	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132971848002	10/27/2013 12:09	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132971848002	10/27/2013 12:09	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132971848002	10/27/2013 12:09	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132971848002	10/27/2013 12:09	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132971848002	10/27/2013 12:09	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132971848002	10/27/2013 12:09	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132971848002	10/27/2013 12:09	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132965713006	10/25/2013 06:35	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848002	10/25/2013 05:19	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132965713006	10/24/2013 16:05	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13302807903A	10/29/2013 16:46	Michelle L Lalli	1

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

Sample Description: WS-010(1.5-2.0)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247626
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 10:40 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22101 SDG#: PEM39-05

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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247626
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 10:40 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22101 SDG#: PEM39-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	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.

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	22.0	0.033	0.20

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

Sample Description: WS-010(1.5-2.0)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247626
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 10:40 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22101 SDG#: PEM39-05

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	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0318	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.83	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	2.42	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	I132971AA	10/24/2013 13:34	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132971AA	10/24/2013 13:34	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13296WAM026	10/25/2013 19:28	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13296WAM026	10/24/2013 08:05	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133006256001	10/27/2013 13:48	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848002	10/27/2013 12:13	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132971848002	10/27/2013 12:13	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132971848002	10/27/2013 12:13	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132971848002	10/27/2013 12:13	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132971848002	10/27/2013 12:13	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132971848002	10/27/2013 12:13	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132971848002	10/27/2013 12:13	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132971848002	10/27/2013 12:13	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132971848002	10/27/2013 12:13	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132971848002	10/27/2013 12:13	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132971848002	10/27/2013 12:13	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132965713006	10/25/2013 06:37	Damary Valentin	1

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

Sample Description: WS-010(1.5-2.0)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247626
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 10:40 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22101 SDG#: PEM39-05

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	132971848002	10/25/2013 05:19	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132965713006	10/24/2013 16:05	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13302807903A	10/29/2013 16:46	Michelle L Lalli	1

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

Sample Description: WS-010(3.5-4.0)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247627
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 10:50 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22102 SDG#: PEM39-06

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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247627
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 10:50 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22102 SDG#: PEM39-06

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

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	21.5	0.033	0.20

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

Sample Description: WS-010(3.5-4.0)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247627
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 10:50 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22102 SDG#: PEM39-06

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	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0321	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.73	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	2.36	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	I132971AA	10/24/2013 13:55	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132971AA	10/24/2013 13:55	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13296WAM026	10/25/2013 19:56	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13296WAM026	10/24/2013 08:05	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133006256001	10/27/2013 13:48	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848002	10/27/2013 12:17	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132971848002	10/27/2013 12:17	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132971848002	10/27/2013 12:17	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132971848002	10/27/2013 12:17	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132971848002	10/27/2013 12:17	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132971848002	10/27/2013 12:17	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132971848002	10/27/2013 12:17	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132971848002	10/27/2013 12:17	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132971848002	10/27/2013 12:17	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132971848002	10/27/2013 12:17	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132971848002	10/27/2013 12:17	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132965713006	10/25/2013 06:39	Damary Valentin	1

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

Sample Description: WS-010(3.5-4.0)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247627
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 10:50 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22102 SDG#: PEM39-06

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	132971848002	10/25/2013 05:19	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132965713006	10/24/2013 16:05	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13302807903A	10/29/2013 16:46	Michelle L Lalli	1

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

Sample Description: WS-006(0.5-1.0)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247628
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 11:00 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22006 SDG#: PEM39-07

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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247628
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 11:00 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22006 SDG#: PEM39-07

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	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
The 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	21.6	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	0.0303	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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247628
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 11:00 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22006 SDG#: PEM39-07

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	4.76	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	2.37	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	I132971AA	10/24/2013 15:20	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132971AA	10/24/2013 15:20	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13296WAM026	10/25/2013 20:25	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13296WAM026	10/24/2013 08:05	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133006256001	10/27/2013 13:48	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848002	10/27/2013 11:27	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132971848002	10/27/2013 11:27	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132971848002	10/27/2013 11:27	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132971848002	10/27/2013 11:27	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132971848002	10/27/2013 11:27	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132971848002	10/27/2013 11:27	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132971848002	10/27/2013 11:27	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132971848002	10/27/2013 11:27	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132971848002	10/27/2013 11:27	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132971848002	10/27/2013 11:27	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132971848002	10/27/2013 11:27	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132965713006	10/25/2013 06:52	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848002	10/25/2013 05:19	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132965713006	10/24/2013 16:05	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13302807903A	10/29/2013 16:46	Michelle L Lalli	1

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

Sample Description: WS-005(Surface)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247629
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 09:10 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22005 SDG#: PEM39-08

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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247629
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 09:10 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22005 SDG#: PEM39-08

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	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
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	22.4	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	0.0241	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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247629
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 09:10 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22005 SDG#: PEM39-08

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	4.95	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	2.43	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	I132971AA	10/24/2013 15:41	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132971AA	10/24/2013 15:41	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13296WAM026	10/25/2013 20:53	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13296WAM026	10/24/2013 08:05	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133006256001	10/27/2013 13:48	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848002	10/27/2013 12:21	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132971848002	10/27/2013 12:21	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132971848002	10/27/2013 12:21	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132971848002	10/27/2013 12:21	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132971848002	10/27/2013 12:21	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132971848002	10/27/2013 12:21	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132971848002	10/27/2013 12:21	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132971848002	10/27/2013 12:21	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132971848002	10/27/2013 12:21	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132971848002	10/27/2013 12:21	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132971848002	10/27/2013 12:21	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132965713006	10/25/2013 06:54	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848002	10/25/2013 05:19	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132965713006	10/24/2013 16:05	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13302807903A	10/29/2013 16:46	Michelle L Lalli	1

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

Sample Description: WS-002(Surface)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247630
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 12:10 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22002 SDG#: PEM39-09

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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247630
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 12:10 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22002 SDG#: PEM39-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
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	21.0	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	0.0277	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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247630
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 12:10 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22002 SDG#: PEM39-09

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	4.60	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	2.32	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	I132971AA	10/24/2013 16:02	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132971AA	10/24/2013 16:02	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13296WAM026	10/25/2013 21:22	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13296WAM026	10/24/2013 08:05	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133006256001	10/27/2013 13:48	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848002	10/27/2013 12:24	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132971848002	10/27/2013 12:24	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132971848002	10/27/2013 12:24	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132971848002	10/27/2013 12:24	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132971848002	10/27/2013 12:24	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132971848002	10/27/2013 12:24	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132971848002	10/27/2013 12:24	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132971848002	10/27/2013 12:24	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132971848002	10/27/2013 12:24	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132971848002	10/27/2013 12:24	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132971848002	10/27/2013 12:24	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132965713006	10/25/2013 06:56	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848002	10/25/2013 05:19	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132965713006	10/24/2013 16:05	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13302807903A	10/29/2013 16:46	Michelle L Lalli	1

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

Sample Description: WS-011(1.5-2.0)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247631
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 11:40 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22111 SDG#: PEM39-10

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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247631
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 11:40 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22111 SDG#: PEM39-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
The 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	21.9	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	0.0321	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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247631
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 11:40 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22111 SDG#: PEM39-10

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	4.76	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	2.42	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	I132971AA	10/24/2013 16:23	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132971AA	10/24/2013 16:23	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13296WAM026	10/25/2013 21:51	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13296WAM026	10/24/2013 08:05	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133006256001	10/27/2013 13:48	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848002	10/27/2013 12:28	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132971848002	10/27/2013 12:28	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132971848002	10/27/2013 12:28	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132971848002	10/27/2013 12:28	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132971848002	10/27/2013 12:28	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132971848002	10/27/2013 12:28	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132971848002	10/27/2013 12:28	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132971848002	10/27/2013 12:28	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132971848002	10/27/2013 12:28	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132971848002	10/27/2013 12:28	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132971848002	10/27/2013 12:28	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132965713006	10/25/2013 06:58	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848002	10/25/2013 05:19	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132965713006	10/24/2013 16:05	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13302807903A	10/29/2013 16:46	Michelle L Lalli	1

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

Sample Description: WS-011(5.0-5.5)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247632
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 11:50 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22112 SDG#: PEM39-11

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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247632
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 11:50 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22112 SDG#: PEM39-11

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	0.054	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	21.6	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	0.0313	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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247632
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 11:50 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22112 SDG#: PEM39-11

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	4.71	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	2.39	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	I132971AA	10/24/2013 16:44	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132971AA	10/24/2013 16:44	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13296WAM026	10/25/2013 22:19	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13296WAM026	10/24/2013 08:05	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133006256001	10/27/2013 13:48	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848002	10/27/2013 12:32	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132971848002	10/27/2013 12:32	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132971848002	10/27/2013 12:32	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132971848002	10/27/2013 12:32	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132971848002	10/27/2013 12:32	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132971848002	10/27/2013 12:32	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132971848002	10/27/2013 12:32	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132971848002	10/27/2013 12:32	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132971848002	10/27/2013 12:32	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132971848002	10/27/2013 12:32	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132971848002	10/27/2013 12:32	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132965713006	10/25/2013 07:00	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848002	10/25/2013 05:19	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132965713006	10/24/2013 16:05	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13302807903A	10/29/2013 16:46	Michelle L Lalli	1

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

Sample Description: WS-018(Surface)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247633
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 08:40 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22018 SDG#: PEM39-12

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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247633
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 08:40 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22018 SDG#: PEM39-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
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	22.7	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	0.0401	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-018(Surface)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247633
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 08:40 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22018 SDG#: PEM39-12

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	
01750	Calcium	7440-70-2	5.02	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	2.48	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	I132971AA	10/24/2013 17:06	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132971AA	10/24/2013 17:06	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13296WAM026	10/25/2013 22:48	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13296WAM026	10/24/2013 08:05	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133006256001	10/27/2013 13:48	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848002	10/27/2013 12:36	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132971848002	10/27/2013 12:36	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132971848002	10/27/2013 12:36	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132971848002	10/27/2013 12:36	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132971848002	10/27/2013 12:36	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132971848002	10/27/2013 12:36	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132971848002	10/27/2013 12:36	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132971848002	10/27/2013 12:36	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132971848002	10/27/2013 12:36	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132971848002	10/27/2013 12:36	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132971848002	10/27/2013 12:36	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132965713006	10/25/2013 07:02	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848002	10/25/2013 05:19	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132965713006	10/24/2013 16:05	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13302807903A	10/29/2013 16:46	Michelle L Lalli	1

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

Sample Description: WS-003(Surface)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247634
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 08:50 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22003 SDG#: PEM39-13

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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247634
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 08:50 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22003 SDG#: PEM39-13

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	0.051	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	22.4	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	0.0334	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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247634
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 08:50 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22003 SDG#: PEM39-13

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	4.88	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	2.49	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	I132971AA	10/24/2013 17:27	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132971AA	10/24/2013 17:27	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13296WAM026	10/25/2013 23:17	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13296WAM026	10/24/2013 08:05	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133006256001	10/27/2013 13:48	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848002	10/27/2013 12:40	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132971848002	10/27/2013 12:40	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132971848002	10/27/2013 12:40	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132971848002	10/27/2013 12:40	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132971848002	10/27/2013 12:40	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132971848002	10/27/2013 12:40	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132971848002	10/27/2013 12:40	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132971848002	10/27/2013 12:40	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132971848002	10/27/2013 12:40	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132971848002	10/27/2013 12:40	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132971848002	10/27/2013 12:40	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132965713006	10/25/2013 07:04	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848002	10/25/2013 05:19	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132965713006	10/24/2013 16:05	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13302807903A	10/29/2013 16:46	Michelle L Lalli	1

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

Sample Description: WS-007(0.5-1.0)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247635
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 12:30 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22007 SDG#: PEM39-14

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	3.1 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)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247635
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 12:30 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22007 SDG#: PEM39-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
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	19.3	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	0.0411	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-007(0.5-1.0)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247635
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 12:30 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22007 SDG#: PEM39-14

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	
01750	Calcium	7440-70-2	4.52	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	1.94	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	I132971AA	10/24/2013 17:48	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132971AA	10/24/2013 17:48	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13296WAM026	10/25/2013 23:45	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13296WAM026	10/24/2013 08:05	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133006256001	10/27/2013 13:48	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848002	10/27/2013 12:51	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132971848002	10/27/2013 12:51	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132971848002	10/27/2013 12:51	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132971848002	10/27/2013 12:51	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132971848002	10/27/2013 12:51	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132971848002	10/27/2013 12:51	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132971848002	10/27/2013 12:51	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132971848002	10/27/2013 12:51	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132971848002	10/27/2013 12:51	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132971848002	10/27/2013 12:51	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132971848002	10/27/2013 12:51	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132965713006	10/25/2013 07:06	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848002	10/25/2013 05:19	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132965713006	10/24/2013 16:05	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13302807903A	10/29/2013 16:46	Michelle L Lalli	1

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

Sample Description: WS-001(0.5-1.0)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247636
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 12:40 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22001 SDG#: PEM39-15

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

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

Sample Description: WS-001(0.5-1.0)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247636
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 12:40 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22001 SDG#: PEM39-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
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	21.5	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	0.0285	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-001(0.5-1.0)102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247636
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 12:40 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22001 SDG#: PEM39-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	4.74	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	2.34	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	I132971AA	10/24/2013 18:09	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132971AA	10/24/2013 18:09	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13296WAM026	10/26/2013 00:14	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13296WAM026	10/24/2013 08:05	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133006256001	10/27/2013 13:48	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848002	10/27/2013 12:55	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132971848002	10/27/2013 12:55	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132971848002	10/27/2013 12:55	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132971848002	10/27/2013 12:55	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132971848002	10/27/2013 12:55	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132971848002	10/27/2013 12:55	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132971848002	10/27/2013 12:55	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132971848002	10/27/2013 12:55	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132971848002	10/27/2013 12:55	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132971848002	10/27/2013 12:55	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132971848002	10/27/2013 12:55	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132965713006	10/25/2013 07:13	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848002	10/25/2013 05:19	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132965713006	10/24/2013 16:05	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13302807903A	10/29/2013 16:46	Michelle L Lalli	1

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

Sample Description: DUP-WS-106-102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247637
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22106 SDG#: PEM39-16FD

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-106-102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247637
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22106 SDG#: PEM39-16FD

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	0.1 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1

The 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	21.9	0.033	0.20

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

Sample Description: DUP-WS-106-102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247637
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22106 SDG#: PEM39-16FD

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	0.0306	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.83	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	2.40	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	I132971AA	10/24/2013 18:31	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132971AA	10/24/2013 18:31	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13296WAM026	10/26/2013 00:43	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13296WAM026	10/24/2013 08:05	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133006256001	10/27/2013 13:48	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848002	10/27/2013 12:59	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132971848002	10/27/2013 12:59	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132971848002	10/27/2013 12:59	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132971848002	10/27/2013 12:59	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132971848002	10/27/2013 12:59	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132971848002	10/27/2013 12:59	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132971848002	10/27/2013 12:59	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132971848002	10/27/2013 12:59	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132971848002	10/27/2013 12:59	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132971848002	10/27/2013 12:59	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132971848002	10/27/2013 12:59	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132965713006	10/25/2013 07:15	Damary Valentin	1

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

Sample Description: DUP-WS-106-102213 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247637
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 by RL

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 10/23/2013 09:10

Highlands Ranch CO 80129

Reported: 10/30/2013 11:42

22106 SDG#: PEM39-16FD

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	132971848002	10/25/2013 05:19	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132965713006	10/24/2013 16:05	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13302807903A	10/29/2013 16:46	Michelle L Lalli	1

Sample Description: WS-EB-099-102213 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247638
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 13:30 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22099 SDG#: PEM39-17EB

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

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

Sample Description: WS-EB-099-102213 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247638
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 13:30 by RL

ExxonMobil c/o Arcadis

Submitted: 10/23/2013 09:10

630 Plaza Drive, Suite 600

Reported: 10/30/2013 11:42

Highlands Ranch CO 80129

22099 SDG#: PEM39-17EB

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	0.1 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.055	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.055	1
08357	Anthracene	120-12-7	N.D.	0.011	0.055	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.055	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.055	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.055	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.055	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.055	1
08357	Chrysene	218-01-9	N.D.	0.011	0.055	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.055	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.055	1
08357	Fluorene	86-73-7	N.D.	0.011	0.055	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.055	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.055	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.055	1
08357	Naphthalene	91-20-3	N.D.	0.033	0.055	1
08357	Phenanthrene	85-01-8	N.D.	0.033	0.055	1
08357	Pyrene	129-00-0	N.D.	0.011	0.055	1
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	0.56	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	0.0018 J	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-099-102213 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247638
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013 13:30 by RL

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

Submitted: 10/23/2013 09:10

Reported: 10/30/2013 11:42

22099 SDG#: PEM39-17EB

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	0.169 J	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	0.0327 J	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132971AA	10/24/2013 11:28	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132971AA	10/24/2013 11:28	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13296WAM026	10/26/2013 01:11	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13296WAM026	10/24/2013 08:05	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133006256001	10/27/2013 13:48	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132971848002	10/27/2013 13:03	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132971848002	10/27/2013 13:03	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132971848002	10/27/2013 13:03	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132971848002	10/27/2013 13:03	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132971848002	10/27/2013 13:03	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132971848002	10/27/2013 13:03	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132971848002	10/27/2013 13:03	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132971848002	10/27/2013 13:03	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132971848002	10/27/2013 13:03	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132971848002	10/27/2013 13:03	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132971848002	10/27/2013 13:03	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132965713006	10/25/2013 07:17	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132971848002	10/25/2013 05:19	James L Mertzt	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132965713006	10/24/2013 16:05	Nelli S Markaryan	1

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

Sample Description: WS-TB-182-102213 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247639
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013

ExxonMobil c/o Arcadis

Submitted: 10/23/2013 09:10

630 Plaza Drive, Suite 600

Reported: 10/30/2013 11:42

Highlands Ranch CO 80129

22182 SDG#: PEM39-18TB*

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-182-102213 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7247639
LL Group # 1428416
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/22/2013

ExxonMobil c/o Arcadis

Submitted: 10/23/2013 09:10

630 Plaza Drive, Suite 600

Reported: 10/30/2013 11:42

Highlands Ranch CO 80129

22182 SDG#: PEM39-18TB*

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	I132971AA	10/24/2013 11:49	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132971AA	10/24/2013 11:49	Jason M Long	1

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 10/30/13 at 11:42 AM

Group Number: 1428416

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: I132971AA	Sample number(s): 7247622-7247639								
Acetone	N.D.	3.0	5.0	ug/l	97		60-139		
Allyl Chloride	N.D.	0.1	0.5	ug/l	95		61-130		
Benzene	N.D.	0.1	0.5	ug/l	97		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	98		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	100		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	98		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	100		73-128		
Bromomethane	N.D.	0.1	0.5	ug/l	75		62-126		
2-Butanone	N.D.	1.0	5.0	ug/l	87		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	96		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	96		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	93		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	101		80-129		
Chlorobenzene	N.D.	0.1	0.5	ug/l	95		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	77		68-120		
Chloroform	N.D.	0.1	0.5	ug/l	100		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	73		55-120		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	97		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	96		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	79		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	99		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	102		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	98		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	100		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	99		80-120		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	65		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	101		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	104		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	99		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	97		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	97		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	101		75-145		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	102		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	99		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	95		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	94		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	97		80-123		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	93		80-120		
Ethyl ether	N.D.	0.1	0.5	ug/l	95		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	95		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	95		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	104		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: 10/30/13 at 11:42 AM

Group Number: 1428416

<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	93		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	94		80-120		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	104		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	101		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
Styrene	N.D.	0.1	0.5	ug/l	93		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	100		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	102		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	98		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	80		65-131		
Toluene	N.D.	0.1	0.5	ug/l	92		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	94		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	98		80-120		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	101		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	97		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	92		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	103		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	96		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	74		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	93		80-120		

Batch number: 13296WAM026	Sample number(s): 7247622-7247638								
Acenaphthene	N.D.	0.010	0.050	ug/l	98	99	77-118	1	30
Acenaphthylene	N.D.	0.010	0.050	ug/l	98	100	80-123	2	30
Anthracene	N.D.	0.010	0.050	ug/l	100	102	78-123	2	30
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	93	94	73-127	2	30
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	98	99	72-120	1	30
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	108	107	79-136	0	30
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	117	112	64-130	4	30
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	107	104	73-131	2	30
Chrysene	N.D.	0.010	0.050	ug/l	99	100	76-125	1	30
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	104	102	58-131	3	30
Fluoranthene	N.D.	0.010	0.050	ug/l	96	98	79-124	2	30
Fluorene	N.D.	0.010	0.050	ug/l	99	100	74-115	1	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	108	106	62-130	3	30
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	107	109	80-126	1	30
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	107	108	81-124	1	30
Naphthalene	N.D.	0.030	0.050	ug/l	107	109	75-120	1	30
Phenanthrene	N.D.	0.030	0.050	ug/l	98	100	75-120	2	30
Pyrene	N.D.	0.010	0.050	ug/l	98	94	71-130	4	30

Batch number: 132965713006	Sample number(s): 7247622-7247638								
Mercury	N.D.	0.00006	0.00020	mg/l	103		80-120		
		0							

Batch number: 132971848002	Sample number(s): 7247622-7247638								
Arsenic	N.D.	0.0068	0.0200	mg/l	103		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	105		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	102		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	106		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	102		89-110		

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 10/30/13 at 11:42 AM

Group Number: 1428416

<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>
Nickel	N.D.	0.0015	0.0100	mg/l	107		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	103		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	100		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	104		90-110		

Batch number: 13302807903A
HEM (oil & grease)

Sample number(s): 7247622-7247637
N.D. 1.4 5.0 mg/l

78 97 78-114 21* 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: I132971AA	Sample number(s): 7247622-7247639 UNSPK: 7247622								
Acetone	102	113	57-163	11	30				
Allyl Chloride	97	98	56-160	1	30				
Benzene	98	100	87-126	1	30				
Bromobenzene	94	95	80-123	1	30				
Bromochloromethane	99	100	82-125	2	30				
Bromodichloromethane	97	98	82-133	2	30				
Bromoform	94	96	60-138	2	30				
Bromomethane	74	76	66-130	4	30				
2-Butanone	90	101	56-160	12	30				
n-Butylbenzene	98	98	83-131	0	30				
sec-Butylbenzene	98	98	84-128	0	30				
tert-Butylbenzene	94	96	84-135	2	30				
Carbon Tetrachloride	107	108	81-148	1	30				
Chlorobenzene	95	97	78-133	2	30				
Chloroethane	77	79	70-139	3	30				
Chloroform	101	103	86-136	2	30				
Chloromethane	70	72	49-135	4	30				
2-Chlorotoluene	95	96	75-134	1	30				
4-Chlorotoluene	96	96	76-134	0	30				
1,2-Dibromo-3-chloropropane	85	97	43-143	13	30				
Dibromochloromethane	96	97	79-125	1	30				
1,2-Dibromoethane	94	94	84-127	0	30				
Dibromomethane	97	99	83-126	2	30				
1,2-Dichlorobenzene	96	97	83-117	1	30				
1,3-Dichlorobenzene	99	100	79-132	1	30				
1,4-Dichlorobenzene	98	98	79-120	1	30				
Dichlorodifluoromethane	63	59	28-136	6	30				
1,1-Dichloroethane	101	103	88-136	2	30				
1,2-Dichloroethane	103	104	82-135	1	30				
1,1-Dichloroethene	103	104	83-150	1	30				
cis-1,2-Dichloroethene	96	98	82-129	2	30				
trans-1,2-Dichloroethene	100	101	88-127	1	30				
Dichlorofluoromethane	100	104	81-161	3	30				
1,2-Dichloropropane	101	103	91-126	2	30				
1,3-Dichloropropane	95	96	80-127	2	30				
2,2-Dichloropropane	98	100	80-134	2	30				
1,1-Dichloropropene	99	100	86-139	1	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 Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 10/30/13 at 11:42 AM

Group Number: 1428416

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
cis-1,3-Dichloropropene	93	97	74-132	4	30				
trans-1,3-Dichloropropene	89	91	71-128	2	30				
Ethyl ether	89	92	57-139	3	30				
Ethylbenzene	96	97	80-140	1	30				
Freon 113	104	98	77-147	5	30				
Hexachlorobutadiene	108	110	65-128	1	30				
Isopropylbenzene	95	96	81-133	1	30				
p-Isopropyltoluene	96	97	84-124	1	30				
Methyl Tertiary Butyl Ether	88	91	82-132	3	30				
4-Methyl-2-Pentanone	94	96	69-149	2	30				
Methylene Chloride	99	101	77-135	2	30				
n-Propylbenzene	98	99	79-131	1	30				
Styrene	93	94	63-151	1	30				
1,1,1,2-Tetrachloroethane	98	99	87-126	1	30				
1,1,2,2-Tetrachloroethane	94	96	75-131	2	30				
Tetrachloroethene	101	101	75-129	0	30				
Tetrahydrofuran	80	92	56-154	13	30				
Toluene	93	94	83-127	1	30				
1,2,3-Trichlorobenzene	89	94	73-125	5	30				
1,2,4-Trichlorobenzene	91	95	77-120	4	30				
1,1,1-Trichloroethane	102	104	85-140	2	30				
1,1,2-Trichloroethane	97	98	85-129	1	30				
Trichloroethene	99	101	85-131	2	30				
Trichlorofluoromethane	97	96	73-139	1	30				
1,2,3-Trichloropropane	97	97	76-120	0	30				
1,2,4-Trimethylbenzene	96	96	87-126	1	30				
1,3,5-Trimethylbenzene	97	96	89-129	0	30				
Vinyl Chloride	74	75	62-135	2	30				
Xylene (Total)	94	94	81-137	0	30				

Batch number: 132965713006 Sample number(s): 7247622-7247638 UNSPK: 7247627 BKG: 7247627
Mercury 106 100 80-120 5 20 N.D. N.D. 0 (1) 20

Batch number: 132971848002 Sample number(s): 7247622-7247638 UNSPK: 7247628 BKG: 7247628

Arsenic	103	103	81-123	0	20	N.D.	N.D.	0 (1)	20
Barium	106	106	78-118	0	20	0.0303	0.0306	1	20
Cadmium	104	105	83-116	0	20	N.D.	N.D.	0 (1)	20
Calcium	102	105	75-125	1	20	4.76	4.82	1	20
Chromium	103	104	76-120	1	20	N.D.	N.D.	0 (1)	20
Lead	106	107	75-125	0	20	N.D.	N.D.	0 (1)	20
Magnesium	101	104	75-125	1	20	2.37	2.40	1	20
Nickel	107	107	86-115	1	20	N.D.	N.D.	0 (1)	20
Selenium	103	106	75-125	3	20	N.D.	N.D.	0 (1)	20
Silver	100	100	75-125	0	20	N.D.	N.D.	0 (1)	20
Vanadium	105	106	90-117	1	20	N.D.	N.D.	0 (1)	20

Batch number: 13302807903A Sample number(s): 7247622-7247637 UNSPK: 7247622
HEM (oil & grease) 74* 78-114

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 10/30/13 at 11:42 AM

Group Number: 1428416

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: I132971AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7247622	105	107	96	95
7247623	106	109	95	95
7247624	106	106	95	95
7247625	106	107	95	94
7247626	106	107	96	96
7247627	106	108	95	95
7247628	105	110	95	96
7247629	106	110	95	96
7247630	106	108	95	96
7247631	105	107	95	95
7247632	106	106	96	95
7247633	107	112	95	96
7247634	106	111	95	96
7247635	107	111	95	96
7247636	107	110	95	95
7247637	106	107	95	95
7247638	105	106	96	96
7247639	105	107	96	96
Blank	104	108	95	96
LCS	104	104	97	99
MS	105	105	97	100
MSD	105	106	96	99
Limits:	77-114	74-113	77-110	78-110

Analysis Name: PAHs in waters by SIM

Batch number: 13296WAM026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7247622	91	82	105
7247623	95	85	107
7247624	95	84	109
7247625	92	81	104
7247626	86	59*	103
7247627	66	26*	85
7247628	94	80	107
7247629	95	87	104
7247630	92	80	102
7247631	95	81	108
7247632	96	86	106
7247633	96	74	108
7247634	96	77	108
7247635	96	94	108
7247636	95	81	108
7247637	86	40*	107
7247638	95	104	106
Blank	93	95	106
LCS	93	107	109

*- 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: 10/30/13 at 11:42 AM

Group Number: 1428416

Surrogate Quality Control

LCSD	96	107	111
Limits:	44-137	62-141	51-136

*- 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.

Acct. # 14739

Group # 1428416 Sample # 7247622-39

Instructions on reverse side correspond with circled numbers

1 of 2

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

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

eurofins

Acct. # 14739

Group # 1428416 Sample # 7247622-39

Instructions on reverse side correspond with circled numbers

SCR#:

2 of 2

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

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

Environmental Sample Administration
Receipt Documentation Log

1428416

Client/Project: MayflowerShipping Container Sealed: YES NODate of Receipt: 10/23/13Custody Seal Present * : YES NOTime of Receipt: 0910* 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	DT121	1.0	TB	WI	Y	B	
2		1.2					
3		0.6					
4		0.4					
5		0.5					
6		0.4					

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: CEshl 3647 Date/Time: 10/23/13 0949

Issued by Dept. 6042 Management

2174.06

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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