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 28, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 10/21/2013
Group Number: 1427994
SDG: PEM33
PO Number: B0086003.1301
State of Sample Origin: AR

Client Sample Description	Lancaster Labs (LL) #
WS-014(1.5-2.0)101913 Grab Surface Water	7245563
WS-014(5.5-6.0)101913 Grab Surface Water	7245564
WS-012(1.5-2.0)101913 Grab Surface Water	7245565
WS-012(5.0-5.5)101913 Grab Surface Water	7245566
WS-010(1.5-2.0)101913 Grab Surface Water	7245567
WS-010(3.5-4.0)101913 Grab Surface Water	7245568
WS-006(0.5-1.0)101913 Grab Surface Water	7245569
WS-006(0.5-1.0)101913MS Grab Surface Water	7245570
WS-006(0.5-1.0)101913MSD Grab Surface Water	7245571
WS-006(0.5-1.0)101913DUP Grab Surface Water	7245572
WS-005(Surface)101913 Grab Surface Water	7245573
WS-002(Surface)101913 Grab Surface Water	7245574
WS-011(1.5-2.0)101913 Grab Surface Water	7245575
WS-011(5.0-5.5)101913 Grab Surface Water	7245576
WS-018(Surface)101913 Grab Surface Water	7245577
WS-003(Surface)101913 Grab Surface Water	7245578
WS-007(0.5-1.0)101913 Grab Surface Water	7245579
WS-001(0.5-1.0)101913 Grab Surface Water	7245580
WS-EB-096-101913 Grab Water	7245581

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

ELECTRONIC COPY TO	ARCADIS	Attn: Stephen Barrick
ELECTRONIC COPY TO	ARCADIS	Attn: Lyndi Mott
ELECTRONIC	ExxonMobil	Attn: Michael J. Firth

COPY TO		
ELECTRONIC	ARCADIS	Attn: Emily Leamer
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ELECTRONIC	ARCADIS	Attn: Rhiannon Parmalee
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ELECTRONIC	ARCADIS	Attn: Jamie Pritchard
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ELECTRONIC	ExxonMobil	Attn: Michael L Sixsmith
COPY TO		
ELECTRONIC	ExxonMobil	Attn: Julie Foster
COPY TO		

Respectfully Submitted,

Katherine A. Klinefelter

Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1427994

General Comments:

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

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

Project specific QC samples are included in this data set

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

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

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

Analysis Specific Comments:

SW-846 8270C SIM, GC/MS Semivolatiles

Sample #s: 7245568, 7245569, 7245575, 7245577

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 #: 13295WAO026 (Sample number(s): 7245563-7245571, 7245573-7245581 UNSPK: 7245569)

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

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7245568, 7245569, 7245575, 7245577

SW-846 6010B, Metals

Batch #: 132951848001 (Sample number(s): 7245563-7245581 UNSPK: 7245569 BKG: 7245569)

The recovery(ies) for the following analyte(s) in the LCS exceeded the acceptance window indicating a positive bias: Silver

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

EPA 1664A, Wet Chemistry

Batch #: 13299807901A (Sample number(s): 7245563-7245580 UNSPK: 7245569 BKG: 7245569)

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

Sample Description: WS-014(1.5-2.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245563
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 09:25 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19141 SDG#: PEM33-01

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 purge**		ug/l	ug/l	ug/l	
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)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245563
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 09:25 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19141 SDG#: PEM33-01

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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
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	0.0070 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0336	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.72	0.0334	0.200	1

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

Sample Description: WS-014(1.5-2.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245563
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 09:25 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19141 SDG#: PEM33-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	**mg/l**	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.35	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0016 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132951AA	10/22/2013 16:32	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132951AA	10/22/2013 16:32	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13295WAO026	10/23/2013 22:20	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13295WAO026	10/23/2013 09:45	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132996256001	10/26/2013 05:35	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132951848001	10/25/2013 12:07	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132951848001	10/25/2013 12:07	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132951848001	10/25/2013 12:07	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132951848001	10/25/2013 12:07	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132951848001	10/25/2013 12:07	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132951848001	10/25/2013 12:07	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132951848001	10/25/2013 12:07	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132951848001	10/25/2013 12:07	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132951848001	10/25/2013 12:07	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132951848001	10/25/2013 12:07	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132951848001	10/25/2013 12:07	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132955713002	10/23/2013 05:40	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132951848001	10/24/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713002	10/22/2013 17:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13299807901A	10/26/2013 03:55	Yolunder Y Bunch	1

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

Sample Description: WS-014(5.5-6.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245564
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 09:30 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19145 SDG#: PEM33-02

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 purge**		ug/l	ug/l	ug/l	
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)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245564
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 09:30 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19145 SDG#: PEM33-02

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	21.3	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.0077 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0335	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.69	0.0334	0.200	1

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

Sample Description: WS-014(5.5-6.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245564
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 09:30 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19145 SDG#: PEM33-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	**mg/l**	
07051	Chromium	7440-47-3	0.0016 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.33	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.	3.3 J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132951AA	10/22/2013 16:53	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132951AA	10/22/2013 16:53	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13295WAO026	10/23/2013 22:50	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13295WAO026	10/23/2013 09:45	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132996256001	10/26/2013 05:35	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132951848001	10/25/2013 12:11	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132951848001	10/25/2013 12:11	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132951848001	10/25/2013 12:11	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132951848001	10/25/2013 12:11	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132951848001	10/25/2013 12:11	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132951848001	10/25/2013 12:11	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132951848001	10/25/2013 12:11	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132951848001	10/25/2013 12:11	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132951848001	10/25/2013 12:11	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132951848001	10/25/2013 12:11	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132951848001	10/25/2013 12:11	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132955713002	10/23/2013 05:42	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132951848001	10/24/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713002	10/22/2013 17:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13299807901A	10/26/2013 03:55	Yolunder Y Bunch	1

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

Sample Description: WS-012(1.5-2.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245565
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 09:45 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19121 SDG#: PEM33-03

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245565
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 09:45 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19121 SDG#: PEM33-03

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 purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	21.8	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	0.0312	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.82	0.0334	0.200	1

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

Sample Description: WS-012(1.5-2.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245565
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 09:45 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19121 SDG#: PEM33-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	**mg/l**	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.37	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	I132951AA	10/22/2013 17:14	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132951AA	10/22/2013 17:14	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13295WAO026	10/23/2013 23:19	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13295WAO026	10/23/2013 09:45	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132996256001	10/26/2013 05:35	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132951848001	10/25/2013 12:23	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132951848001	10/25/2013 12:23	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132951848001	10/25/2013 12:23	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132951848001	10/25/2013 12:23	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132951848001	10/25/2013 12:23	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132951848001	10/25/2013 12:23	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132951848001	10/25/2013 12:23	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132951848001	10/25/2013 12:23	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132951848001	10/25/2013 12:23	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132951848001	10/25/2013 12:23	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132951848001	10/25/2013 12:23	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132955713002	10/23/2013 05:44	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132951848001	10/24/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713002	10/22/2013 17:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13299807901A	10/26/2013 03:55	Yolunder Y Bunch	1

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

Sample Description: WS-012(5.0-5.5)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245566
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 09:50 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19125 SDG#: PEM33-04

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 purge**		ug/l	ug/l	ug/l	
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)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245566
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 09:50 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19125 SDG#: PEM33-04

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 purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	21.7	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	0.0311	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.79	0.0334	0.200	1

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

Sample Description: WS-012(5.0-5.5)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245566
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 09:50 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19125 SDG#: PEM33-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	**mg/l**	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	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	I132951AA	10/22/2013 17:35	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132951AA	10/22/2013 17:35	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13295WAO026	10/23/2013 23:48	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13295WAO026	10/23/2013 09:45	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132996256001	10/26/2013 05:35	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132951848001	10/25/2013 12:27	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132951848001	10/25/2013 12:27	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132951848001	10/25/2013 12:27	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132951848001	10/25/2013 12:27	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132951848001	10/25/2013 12:27	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132951848001	10/25/2013 12:27	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132951848001	10/25/2013 12:27	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132951848001	10/25/2013 12:27	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132951848001	10/25/2013 12:27	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132951848001	10/25/2013 12:27	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132951848001	10/25/2013 12:27	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132955713002	10/23/2013 05:50	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132951848001	10/24/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713002	10/22/2013 17:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13299807901A	10/26/2013 03:55	Yolunder Y Bunch	1

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

Sample Description: WS-010(1.5-2.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245567
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 10:05 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19101 SDG#: PEM33-05

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 purge**		ug/l	ug/l	ug/l	
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)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245567
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 10:05 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19101 SDG#: PEM33-05

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 purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	22.2	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0325	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.93	0.0334	0.200	1

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

Sample Description: WS-010(1.5-2.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245567
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 10:05 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19101 SDG#: PEM33-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	**mg/l**	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.41	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	I132951AA	10/22/2013 17:56	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132951AA	10/22/2013 17:56	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13295WAO026	10/24/2013 00:18	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13295WAO026	10/23/2013 09:45	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132996256001	10/26/2013 05:35	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132951848001	10/25/2013 12:31	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132951848001	10/25/2013 12:31	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132951848001	10/25/2013 12:31	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132951848001	10/25/2013 12:31	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132951848001	10/25/2013 12:31	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132951848001	10/25/2013 12:31	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132951848001	10/25/2013 12:31	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132951848001	10/25/2013 12:31	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132951848001	10/25/2013 12:31	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132951848001	10/25/2013 12:31	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132951848001	10/25/2013 12:31	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132955713002	10/23/2013 05:52	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132951848001	10/24/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713002	10/22/2013 17:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13299807901A	10/26/2013 03:55	Yolunder Y Bunch	1

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

Sample Description: WS-010(3.5-4.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245568
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 10:10 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19103 SDG#: PEM33-06

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 purge**		ug/l	ug/l	ug/l	
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)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245568
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 10:10 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19103 SDG#: PEM33-06

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 purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1
	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	22.6	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	0.0339	0.00033	0.0050	1

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

Sample Description: WS-010(3.5-4.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245568
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 10:10 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19103 SDG#: PEM33-06

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**	
07049	Cadmium	7440-43-9	N.D.		0.00076	0.0050	1
01750	Calcium	7440-70-2	4.98		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	2.46		0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.		0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.		0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.		0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.		0.0020	0.0050	1
	SW-846 7470A		**mg/l**		**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.		0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**		**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	1.7	J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132951AA	10/22/2013 18:17	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132951AA	10/22/2013 18:17	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13295WAO026	10/24/2013 00:47	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13295WAO026	10/23/2013 09:45	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132996256001	10/26/2013 05:35	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132951848001	10/25/2013 12:35	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132951848001	10/25/2013 12:35	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132951848001	10/25/2013 12:35	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132951848001	10/25/2013 12:35	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132951848001	10/25/2013 12:35	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132951848001	10/25/2013 12:35	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132951848001	10/25/2013 12:35	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132951848001	10/25/2013 12:35	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132951848001	10/25/2013 12:35	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132951848001	10/25/2013 12:35	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132951848001	10/25/2013 12:35	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132955713002	10/23/2013 05:54	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132951848001	10/24/2013 08:00	James L Mertz	1

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

Sample Description: WS-010(3.5-4.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245568
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 10:10 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19103 SDG#: PEM33-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713002	10/22/2013 17:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13299807901A	10/26/2013 03:55	Yolunder Y Bunch	1

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

Sample Description: WS-006(0.5-1.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245569
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 10:20 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19060 SDG#: PEM33-07BKG

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 purge**		ug/l	ug/l	ug/l	
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)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245569
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 10:20 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19060 SDG#: PEM33-07BKG

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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 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	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	0.0387	0.00033	0.0050	1

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

Sample Description: WS-006(0.5-1.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245569
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 10:20 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19060 SDG#: PEM33-07BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	**mg/l**	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.98	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	I132951AA	10/22/2013 15:07	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132951AA	10/22/2013 15:07	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13295WAO026	10/23/2013 20:52	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13295WAO026	10/23/2013 09:45	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132996256001	10/26/2013 05:35	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132951848001	10/25/2013 11:44	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132951848001	10/25/2013 11:44	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132951848001	10/25/2013 11:44	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132951848001	10/25/2013 11:44	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132951848001	10/25/2013 11:44	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132951848001	10/25/2013 11:44	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132951848001	10/25/2013 11:44	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132951848001	10/25/2013 11:44	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132951848001	10/25/2013 11:44	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132951848001	10/25/2013 11:44	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132951848001	10/25/2013 11:44	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132955713002	10/23/2013 05:56	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132951848001	10/24/2013 08:00	James L Mertz	1

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

Sample Description: WS-006(0.5-1.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245569
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 10:20 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19060 SDG#: PEM33-07BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713002	10/22/2013 17:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13299807901A	10/26/2013 03:55	Yolunder Y Bunch	1

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

Sample Description: WS-006(0.5-1.0)101913MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245570
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 10:20 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19060 SDG#: PEM33-07MS

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 purge**		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	34	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.7	0.1	0.5	1
02898	Benzene	71-43-2	4.7	0.1	0.5	1
02898	Bromobenzene	108-86-1	4.6	0.1	0.5	1
02898	Bromochloromethane	74-97-5	4.6	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	4.6	0.1	0.5	1
02898	Bromoform	75-25-2	4.8	0.1	0.5	1
02898	Bromomethane	74-83-9	4.0	0.1	0.5	1
02898	2-Butanone	78-93-3	32	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	4.7	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	4.8	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	4.7	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.1	0.1	0.5	1
02898	Chlorobenzene	108-90-7	4.6	0.1	0.5	1
02898	Chloroethane	75-00-3	4.2	0.1	0.5	1
02898	Chloroform	67-66-3	4.7	0.1	0.5	1
02898	Chloromethane	74-87-3	4.2	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	4.7	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	4.7	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	4.1	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	4.7	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	4.5	0.1	0.5	1
02898	Dibromomethane	74-95-3	4.6	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	4.6	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	4.8	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	4.7	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	4.2	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	4.9	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	4.6	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.2	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	4.7	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	4.8	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	5.0	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	4.9	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	4.6	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	4.8	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	4.8	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	4.7	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.5	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.5	0.1	0.5	1
02898	Ethylbenzene	100-41-4	4.6	0.1	0.5	1
02898	Freon 113	76-13-1	5.1	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.0	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	4.6	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	4.7	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.5	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	24	1.0	5.0	1
02898	Methylene Chloride	75-09-2	4.8	0.2	0.5	1

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

Sample Description: WS-006(0.5-1.0)101913MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245570
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 10:20 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19060 SDG#: PEM33-07MS

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 purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	4.8	0.1	0.5	1
02898	Styrene	100-42-5	4.4	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	4.7	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	4.7	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	4.8	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	20	2.0	5.0	1
02898	Toluene	108-88-3	4.5	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.3	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	4.5	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	4.9	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	4.6	0.1	0.5	1
02898	Trichloroethene	79-01-6	4.7	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	4.8	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	4.6	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	4.7	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	4.7	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	4.2	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	13	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	0.93	0.010	0.050	1
08357	Acenaphthylene	208-96-8	1.1	0.010	0.050	1
08357	Anthracene	120-12-7	0.27	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	0.81	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	0.33	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	0.89	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	0.71	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	0.96	0.010	0.050	1
08357	Chrysene	218-01-9	0.92	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	0.83	0.010	0.050	1
08357	Fluoranthene	206-44-0	1.0	0.010	0.050	1
08357	Fluorene	86-73-7	1.1	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.82	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	1.2	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	1.1	0.010	0.050	1
08357	Naphthalene	91-20-3	1.1	0.030	0.050	1
08357	Phenanthrene	85-01-8	1.0	0.030	0.050	1
08357	Pyrene	129-00-0	0.77	0.010	0.050	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	40.8	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.159	0.0068	0.0200	1
07046	Barium	7440-39-3	2.13	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0527	0.00076	0.0050	1
01750	Calcium	7440-70-2	9.02	0.0334	0.200	1

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

Sample Description: WS-006(0.5-1.0)101913MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245570
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 10:20 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19060 SDG#: PEM33-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	0.208	0.0016	0.0150	1
07055	Lead	7439-92-1	0.158	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.45	0.0167	0.100	1
07061	Nickel	7440-02-0	0.536	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.157	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0640	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.487	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.00098	0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	35.2	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	I132951AA	10/22/2013 15:28	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132951AA	10/22/2013 15:28	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13295WAO026	10/23/2013 21:22	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13295WAO026	10/23/2013 09:45	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132996256001	10/26/2013 05:35	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132951848001	10/25/2013 11:55	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132951848001	10/25/2013 11:55	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132951848001	10/25/2013 11:55	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132951848001	10/25/2013 11:55	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132951848001	10/25/2013 11:55	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132951848001	10/25/2013 11:55	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132951848001	10/25/2013 11:55	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132951848001	10/25/2013 11:55	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132951848001	10/25/2013 11:55	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132951848001	10/25/2013 11:55	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132951848001	10/25/2013 11:55	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132955713002	10/23/2013 06:00	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132951848001	10/24/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713002	10/22/2013 17:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13299807901A	10/26/2013 03:55	Yolunder Y Bunch	1

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

Sample Description: WS-006(0.5-1.0)101913MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245571
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 10:20 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19060 SDG#: PEM33-07MSD

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 purge**		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	33	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.8	0.1	0.5	1
02898	Benzene	71-43-2	4.8	0.1	0.5	1
02898	Bromobenzene	108-86-1	4.6	0.1	0.5	1
02898	Bromochloromethane	74-97-5	4.7	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	4.7	0.1	0.5	1
02898	Bromoform	75-25-2	4.9	0.1	0.5	1
02898	Bromomethane	74-83-9	4.0	0.1	0.5	1
02898	2-Butanone	78-93-3	32	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	4.7	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	4.8	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	4.8	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.1	0.1	0.5	1
02898	Chlorobenzene	108-90-7	4.6	0.1	0.5	1
02898	Chloroethane	75-00-3	4.2	0.1	0.5	1
02898	Chloroform	67-66-3	4.7	0.1	0.5	1
02898	Chloromethane	74-87-3	4.2	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	4.7	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	4.6	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	4.4	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	4.8	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	4.6	0.1	0.5	1
02898	Dibromomethane	74-95-3	4.6	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	4.6	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	4.8	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	4.7	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	4.1	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.0	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	4.7	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.2	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	4.7	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	4.9	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	5.0	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.0	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	4.6	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	4.8	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	4.8	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	4.9	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.5	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.6	0.1	0.5	1
02898	Ethylbenzene	100-41-4	4.6	0.1	0.5	1
02898	Freon 113	76-13-1	5.1	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.1	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	4.6	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	4.7	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.5	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	23	1.0	5.0	1
02898	Methylene Chloride	75-09-2	4.8	0.2	0.5	1

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

Sample Description: WS-006(0.5-1.0)101913MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245571
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 10:20 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19060 SDG#: PEM33-07MSD

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 purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	4.8	0.1	0.5	1
02898	Styrene	100-42-5	4.4	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	4.7	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	4.7	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	4.8	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	21	2.0	5.0	1
02898	Toluene	108-88-3	4.5	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.4	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	4.5	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	4.9	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	4.7	0.1	0.5	1
02898	Trichloroethene	79-01-6	4.8	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	4.7	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	4.7	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	4.6	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	4.7	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	4.2	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	14	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	0.90	0.010	0.051	1
08357	Acenaphthylene	208-96-8	1.1	0.010	0.051	1
08357	Anthracene	120-12-7	0.20	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.75	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.29	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.87	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.66	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.92	0.010	0.051	1
08357	Chrysene	218-01-9	0.89	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.81	0.010	0.051	1
08357	Fluoranthene	206-44-0	1.0	0.010	0.051	1
08357	Fluorene	86-73-7	1.1	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.75	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	1.2	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	1.1	0.010	0.051	1
08357	Naphthalene	91-20-3	1.1	0.030	0.051	1
08357	Phenanthrene	85-01-8	1.0	0.030	0.051	1
08357	Pyrene	129-00-0	0.70	0.010	0.051	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	40.9	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.163	0.0068	0.0200	1
07046	Barium	7440-39-3	2.11	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0529	0.00076	0.0050	1
01750	Calcium	7440-70-2	9.00	0.0334	0.200	1

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

Sample Description: WS-006(0.5-1.0)101913MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245571
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 10:20 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19060 SDG#: PEM33-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	**mg/l**	
07051	Chromium	7440-47-3	0.206	0.0016	0.0150	1
07055	Lead	7439-92-1	0.160	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.47	0.0167	0.100	1
07061	Nickel	7440-02-0	0.538	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.159	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0628	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.489	0.0020	0.0050	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	0.00099	0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	37.9	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	I132951AA	10/22/2013 15:49	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132951AA	10/22/2013 15:49	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13295WAO026	10/23/2013 21:51	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13295WAO026	10/23/2013 09:45	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132996256001	10/26/2013 05:35	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132951848001	10/25/2013 11:59	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132951848001	10/25/2013 11:59	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132951848001	10/25/2013 11:59	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132951848001	10/25/2013 11:59	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132951848001	10/25/2013 11:59	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132951848001	10/25/2013 11:59	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132951848001	10/25/2013 11:59	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132951848001	10/25/2013 11:59	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132951848001	10/25/2013 11:59	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132951848001	10/25/2013 11:59	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132951848001	10/25/2013 11:59	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132955713002	10/23/2013 06:02	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132951848001	10/24/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713002	10/22/2013 17:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13299807901A	10/26/2013 03:55	Yolunder Y Bunch	1

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

Sample Description: WS-006(0.5-1.0)101913DUP Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245572
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 10:20 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19060 SDG#: PEM33-07DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as 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	0.0391	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.99	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
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132996256001	10/26/2013 05:35	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132951848001	10/25/2013 11:52	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132951848001	10/25/2013 11:52	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132951848001	10/25/2013 11:52	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132951848001	10/25/2013 11:52	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132951848001	10/25/2013 11:52	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132951848001	10/25/2013 11:52	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132951848001	10/25/2013 11:52	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132951848001	10/25/2013 11:52	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132951848001	10/25/2013 11:52	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132951848001	10/25/2013 11:52	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132951848001	10/25/2013 11:52	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132955713002	10/23/2013 05:58	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132951848001	10/24/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713002	10/22/2013 17:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13299807901A	10/26/2013 03:55	Yolunder Y Bunch	1

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

Sample Description: WS-005(Surface)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245573
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 09:00 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

1905S SDG#: PEM33-08

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 purge**		ug/l		ug/l	ug/l	
02898	Acetone	67-64-1	3.2	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-005(Surface)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245573
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 09:00 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

1905S SDG#: PEM33-08

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 purge**		**ug/l**		**ug/l**	**ug/l**	
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	0.2	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
Metals	**SM 2340 B-1997**		**mg/l**		**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	23.5		0.033	0.20	1
	SW-846 6010B		**mg/l**		**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	N.D.		0.0068	0.0200	1
07046	Barium	7440-39-3	0.0356		0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.		0.00076	0.0050	1
01750	Calcium	7440-70-2	5.31		0.0334	0.200	1

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

Sample Description: WS-005(Surface)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245573
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 09:00 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

1905S SDG#: PEM33-08

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**	
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	I132951AA	10/22/2013 18:38	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132951AA	10/22/2013 18:38	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13295WAO026	10/24/2013 01:17	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13295WAO026	10/23/2013 09:45	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132996256001	10/26/2013 05:35	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132951848001	10/25/2013 12:39	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132951848001	10/25/2013 12:39	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132951848001	10/25/2013 12:39	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132951848001	10/25/2013 12:39	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132951848001	10/25/2013 12:39	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132951848001	10/25/2013 12:39	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132951848001	10/25/2013 12:39	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132951848001	10/25/2013 12:39	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132951848001	10/25/2013 12:39	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132951848001	10/25/2013 12:39	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132951848001	10/25/2013 12:39	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132955713002	10/23/2013 06:04	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132951848001	10/24/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713002	10/22/2013 17:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13299807901A	10/26/2013 03:55	Yolunder Y Bunch	1

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

Sample Description: WS-002(Surface)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245574
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 11:00 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

1902S SDG#: PEM33-09

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 purge**		ug/l	ug/l	ug/l	
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)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245574
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 11:00 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

1902S SDG#: PEM33-09

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 purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	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	0.0334	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.68	0.0334	0.200	1

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

Sample Description: WS-002(Surface)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245574
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 11:00 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

1902S SDG#: PEM33-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	**mg/l**	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	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	I132951AA	10/22/2013 19:00	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132951AA	10/22/2013 19:00	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13295WAO026	10/24/2013 01:46	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13295WAO026	10/23/2013 09:45	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132996256001	10/26/2013 05:35	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132951848001	10/25/2013 12:43	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132951848001	10/25/2013 12:43	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132951848001	10/25/2013 12:43	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132951848001	10/25/2013 12:43	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132951848001	10/25/2013 12:43	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132951848001	10/25/2013 12:43	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132951848001	10/25/2013 12:43	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132951848001	10/25/2013 12:43	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132951848001	10/25/2013 12:43	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132951848001	10/25/2013 12:43	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132951848001	10/25/2013 12:43	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132955713002	10/23/2013 06:06	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132951848001	10/24/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713002	10/22/2013 17:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13299807901A	10/26/2013 03:55	Yolunder Y Bunch	1

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

Sample Description: WS-011(1.5-2.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245575
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 11:15 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19111 SDG#: PEM33-10

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245575
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 11:15 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19111 SDG#: PEM33-10

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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 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	22.6	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	0.0354	0.00033	0.0050	1

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

Sample Description: WS-011(1.5-2.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245575
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 11:15 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19111 SDG#: PEM33-10

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**		**mg/l**	**mg/l**	
07049	Cadmium	7440-43-9	N.D.		0.00076	0.0050	1
01750	Calcium	7440-70-2	4.95		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	2.49		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.	1.7	J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132951AA	10/22/2013 19:21	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132951AA	10/22/2013 19:21	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13295WAO026	10/24/2013 02:15	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13295WAO026	10/23/2013 09:45	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132996256001	10/26/2013 05:35	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132951848001	10/25/2013 12:47	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132951848001	10/25/2013 12:47	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132951848001	10/25/2013 12:47	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132951848001	10/25/2013 12:47	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132951848001	10/25/2013 12:47	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132951848001	10/25/2013 12:47	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132951848001	10/25/2013 12:47	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132951848001	10/25/2013 12:47	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132951848001	10/25/2013 12:47	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132951848001	10/25/2013 12:47	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132951848001	10/25/2013 12:47	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132955713002	10/23/2013 06:09	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132951848001	10/24/2013 08:00	James L Mertz	1

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

Sample Description: WS-011(1.5-2.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245575
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 11:15 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19111 SDG#: PEM33-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713002	10/22/2013 17:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13299807901A	10/26/2013 03:55	Yolunder Y Bunch	1

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

Sample Description: WS-011(5.0-5.5)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245576
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 11:20 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19115 SDG#: PEM33-11

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 purge**		ug/l	ug/l	ug/l	
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)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245576
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 11:20 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19115 SDG#: PEM33-11

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 purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	22.8	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	0.0379	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.97	0.0334	0.200	1

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

Sample Description: WS-011(5.0-5.5)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245576
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

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

19115 SDG#: PEM33-11

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**		**mg/l**	**mg/l**	
07051	Chromium	7440-47-3	N.D.		0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.		0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.53		0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.		0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.		0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.		0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.		0.0020	0.0050	1
	SW-846 7470A		**mg/l**		**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.		0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**		**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	1.7	J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132951AA	10/22/2013 19:42	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132951AA	10/22/2013 19:42	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13295WAO026	10/24/2013 02:45	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13295WAO026	10/23/2013 09:45	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132996256001	10/26/2013 05:35	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132951848001	10/25/2013 12:51	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132951848001	10/25/2013 12:51	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132951848001	10/25/2013 12:51	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132951848001	10/25/2013 12:51	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132951848001	10/25/2013 12:51	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132951848001	10/25/2013 12:51	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132951848001	10/25/2013 12:51	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132951848001	10/25/2013 12:51	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132951848001	10/25/2013 12:51	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132951848001	10/25/2013 12:51	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132951848001	10/25/2013 12:51	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132955713002	10/23/2013 06:15	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132951848001	10/24/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713002	10/22/2013 17:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13299807901A	10/26/2013 03:55	Yolunder Y Bunch	1

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

Sample Description: WS-018(Surface)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245577
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 08:15 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

1918S SDG#: PEM33-12

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 purge**		ug/l	ug/l	ug/l	
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

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Mayflower, AR
Pipeline Incident

LL Sample # WW 7245577
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 08:15 by HVA

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

1918S SDG#: PEM33-12

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 purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
	The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.					
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	24.3	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.0074 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0487	0.00033	0.0050	1

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

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Account # 14739

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1918S SDG#: PEM33-12

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**	
07049	Cadmium	7440-43-9	N.D.		0.00076	0.0050	1
01750	Calcium	7440-70-2	5.40		0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.		0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.		0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.62		0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.		0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.		0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.		0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.		0.0020	0.0050	1
	SW-846 7470A		**mg/l**		**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.		0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**		**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	2.5	J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132951AA	10/22/2013 20:03	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132951AA	10/22/2013 20:03	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13295WAO026	10/24/2013 03:14	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13295WAO026	10/23/2013 09:45	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132996256001	10/26/2013 05:35	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132951848001	10/25/2013 12:55	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132951848001	10/25/2013 12:55	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132951848001	10/25/2013 12:55	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132951848001	10/25/2013 12:55	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132951848001	10/25/2013 12:55	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132951848001	10/25/2013 12:55	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132951848001	10/25/2013 12:55	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132951848001	10/25/2013 12:55	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132951848001	10/25/2013 12:55	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132951848001	10/25/2013 12:55	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132951848001	10/25/2013 12:55	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132955713002	10/23/2013 06:17	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132951848001	10/24/2013 08:00	James L Mertz	1

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

Sample Description: WS-018(Surface)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245577
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 08:15 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

1918S SDG#: PEM33-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713002	10/22/2013 17:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13299807901A	10/26/2013 03:55	Yolunder Y Bunch	1

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

Sample Description: WS-003(Surface)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245578
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 08:25 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

1903S SDG#: PEM33-13

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 purge**		ug/l	ug/l	ug/l	
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)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245578
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 08:25 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

1903S SDG#: PEM33-13

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 purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	22.6	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	0.0374	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.97	0.0334	0.200	1

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

Sample Description: WS-003(Surface)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245578
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 08:25 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

1903S SDG#: PEM33-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	**mg/l**	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.48	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	I132951AA	10/22/2013 20:24	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132951AA	10/22/2013 20:24	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13295WAO026	10/24/2013 03:43	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13295WAO026	10/23/2013 09:45	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132996256001	10/26/2013 05:35	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132951848001	10/25/2013 12:59	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132951848001	10/25/2013 12:59	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132951848001	10/25/2013 12:59	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132951848001	10/25/2013 12:59	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132951848001	10/25/2013 12:59	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132951848001	10/25/2013 12:59	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132951848001	10/25/2013 12:59	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132951848001	10/25/2013 12:59	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132951848001	10/25/2013 12:59	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132951848001	10/25/2013 12:59	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132951848001	10/25/2013 12:59	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132955713002	10/23/2013 06:19	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132951848001	10/24/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713002	10/22/2013 17:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13299807901A	10/26/2013 03:55	Yolunder Y Bunch	1

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

Sample Description: WS-007(0.5-1.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245579
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 08:35 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19070 SDG#: PEM33-14

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 purge**		ug/l		ug/l	ug/l	
02898	Acetone	67-64-1	3.3	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)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245579
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 08:35 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19070 SDG#: PEM33-14

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 purge**		**ug/l**	**ug/l**	**ug/l**	
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	0.2 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	0.051	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	0.011 J	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	23.3	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.0112 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0645	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0015 J	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.31	0.0334	0.200	1

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

Sample Description: WS-007(0.5-1.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245579
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 08:35 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19070 SDG#: PEM33-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	**mg/l**	
07051	Chromium	7440-47-3	0.0040 J	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0065 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.44	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0045 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0055	0.0020	0.0050	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	1.8 J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132951AA	10/22/2013 20:45	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132951AA	10/22/2013 20:45	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13295WAO026	10/24/2013 04:13	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13295WAO026	10/23/2013 09:45	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132996256001	10/26/2013 05:35	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132951848001	10/25/2013 13:11	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132951848001	10/25/2013 13:11	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132951848001	10/25/2013 13:11	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132951848001	10/25/2013 13:11	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132951848001	10/25/2013 13:11	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132951848001	10/25/2013 13:11	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132951848001	10/25/2013 13:11	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132951848001	10/25/2013 13:11	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132951848001	10/25/2013 13:11	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132951848001	10/25/2013 13:11	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132951848001	10/25/2013 13:11	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132955713002	10/23/2013 06:21	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132951848001	10/24/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713002	10/22/2013 17:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13299807901A	10/26/2013 03:55	Yolunder Y Bunch	1

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

Sample Description: WS-001(0.5-1.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245580
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 08:45 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19010 SDG#: PEM33-15

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 purge**		ug/l	ug/l	ug/l	
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)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245580
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 08:45 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19010 SDG#: PEM33-15

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 purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	22.2	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0332	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.91	0.0334	0.200	1

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

Sample Description: WS-001(0.5-1.0)101913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245580
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 08:45 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

19010 SDG#: PEM33-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	**mg/l**	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.41	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	I132951AA	10/22/2013 21:06	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132951AA	10/22/2013 21:06	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13295WAO026	10/24/2013 04:42	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13295WAO026	10/23/2013 09:45	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132996256001	10/26/2013 05:35	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132951848001	10/25/2013 13:15	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132951848001	10/25/2013 13:15	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132951848001	10/25/2013 13:15	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132951848001	10/25/2013 13:15	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132951848001	10/25/2013 13:15	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132951848001	10/25/2013 13:15	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132951848001	10/25/2013 13:15	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132951848001	10/25/2013 13:15	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132951848001	10/25/2013 13:15	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132951848001	10/25/2013 13:15	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132951848001	10/25/2013 13:15	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132955713002	10/23/2013 06:23	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132951848001	10/24/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713002	10/22/2013 17:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13299807901A	10/26/2013 03:55	Yolunder Y Bunch	1

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

Sample Description: WS-EB-096-101913 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245581
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 12:00 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

EB096 SDG#: PEM33-16EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		ug/l	ug/l	ug/l	
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-096-101913 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245581
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 12:00 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

EB096 SDG#: PEM33-16EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
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	0.051 J	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
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	0.51	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	N.D.	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	0.162 J	0.0334	0.200	1

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

Sample Description: WS-EB-096-101913 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7245581
LL Group # 1427994
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/19/2013 12:00 by HVA

Submitted: 10/21/2013 17:35
Reported: 10/28/2013 13:22

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

EB096 SDG#: PEM33-16EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	**mg/l**	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	0.0260 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	I132951AA	10/22/2013 14:46	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132951AA	10/22/2013 14:46	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13295WAO026	10/24/2013 16:43	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13295WAO026	10/23/2013 09:45	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132996256001	10/26/2013 05:35	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132951848001	10/25/2013 13:18	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132951848001	10/25/2013 13:18	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132951848001	10/25/2013 13:18	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	132951848001	10/25/2013 13:18	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132951848001	10/25/2013 13:18	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132951848001	10/25/2013 13:18	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	132951848001	10/25/2013 13:18	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132951848001	10/25/2013 13:18	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132951848001	10/25/2013 13:18	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132951848001	10/25/2013 13:18	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132951848001	10/25/2013 13:18	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132955713002	10/23/2013 06:25	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132951848001	10/24/2013 08:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132955713002	10/22/2013 17:30	Nelli S Markaryan	1

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1427994
Reported: 10/28/13 at 01:22 PM

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

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: I132951AA	Sample number(s): 7245563-7245571,7245573-7245581								
Acetone	N.D.	3.0	5.0	ug/l	95		60-139		
Allyl Chloride	N.D.	0.1	0.5	ug/l	91		61-130		
Benzene	N.D.	0.1	0.5	ug/l	93		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	95		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	94		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	95		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	103		73-128		
Bromomethane	N.D.	0.1	0.5	ug/l	78		62-126		
2-Butanone	N.D.	1.0	5.0	ug/l	94		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	92		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	93		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	91		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	97		80-129		
Chlorobenzene	N.D.	0.1	0.5	ug/l	91		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	81		68-120		
Chloroform	N.D.	0.1	0.5	ug/l	94		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	83		55-120		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	93		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	93		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	90		64-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	98		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	95		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	95		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	95		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	97		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	96		80-120		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	82		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	96		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	98		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	95		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	92		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	94		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	98		75-145		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	98		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	95		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	90		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	91		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	90		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	93		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	98		73-120		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1427994
Reported: 10/28/13 at 01:22 PM

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Isopropylbenzene	N.D.	0.1	0.5	ug/l	89		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	92		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	91		80-120		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	97		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	97		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	94		80-120		
Styrene	N.D.	0.1	0.5	ug/l	90		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	95		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	100		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	93		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	88		65-131		
Toluene	N.D.	0.1	0.5	ug/l	88		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	89		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	91		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	93		80-120		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	96		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	92		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	100		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	93		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	93		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	81		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	88		80-120		
Batch number: 13295WAO026	Sample number(s): 7245563-7245571,7245573-7245581								
Acenaphthene	N.D.	0.010	0.050	ug/l	107		77-118		
Acenaphthylene	N.D.	0.010	0.050	ug/l	111		80-123		
Anthracene	N.D.	0.010	0.050	ug/l	110		78-123		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	101		73-127		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	103		72-120		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	111		79-136		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	101		64-130		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	119		73-131		
Chrysene	N.D.	0.010	0.050	ug/l	105		76-125		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	92		58-131		
Fluoranthene	N.D.	0.010	0.050	ug/l	115		79-124		
Fluorene	N.D.	0.010	0.050	ug/l	107		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	98		62-130		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	118		80-126		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	116		81-124		
Naphthalene	N.D.	0.030	0.050	ug/l	109		75-120		
Phenanthrene	N.D.	0.030	0.050	ug/l	103		75-120		
Pyrene	N.D.	0.010	0.050	ug/l	99		71-130		
Batch number: 132951848001	Sample number(s): 7245563-7245581								
Arsenic	N.D.	0.0068	0.0200	mg/l	105		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	0.0341 J	0.0334	0.200	mg/l	102		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	100		89-110		
Nickel	N.D.	0.0015	0.0100	mg/l	107		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	104		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	126*		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	96		90-110		

*- 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 Group Number: 1427994
Reported: 10/28/13 at 01:22 PM

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 132955713002	Sample number(s): 7245563-7245581								
Mercury	N.D.	0.00006 0	0.00020	mg/l	101		80-120		
Batch number: 13299807901A	Sample number(s): 7245563-7245580								
HEM (oil & grease)	N.D.	1.4	5.0	mg/l	87	86	78-114	1	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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: I132951AA	Sample number(s): 7245563-7245571,7245573-7245581 UNSPK: 7245569								
Acetone	90	89	57-163	0	30				
Allyl Chloride	94	96	56-160	2	30				
Benzene	95	96	87-126	1	30				
Bromobenzene	92	92	80-123	0	30				
Bromochloromethane	92	94	82-125	2	30				
Bromodichloromethane	93	94	82-133	1	30				
Bromoform	96	98	60-138	1	30				
Bromomethane	79	79	66-130	0	30				
2-Butanone	85	86	56-160	2	30				
n-Butylbenzene	95	94	83-131	1	30				
sec-Butylbenzene	96	96	84-128	0	30				
tert-Butylbenzene	94	97	84-135	3	30				
Carbon Tetrachloride	101	102	81-148	1	30				
Chlorobenzene	92	92	78-133	0	30				
Chloroethane	83	83	70-139	0	30				
Chloroform	94	95	86-136	1	30				
Chloromethane	85	84	49-135	1	30				
2-Chlorotoluene	93	93	75-134	0	30				
4-Chlorotoluene	93	93	76-134	0	30				
1,2-Dibromo-3-chloropropane	82	87	43-143	6	30				
Dibromochloromethane	94	96	79-125	1	30				
1,2-Dibromoethane	91	92	84-127	2	30				
Dibromomethane	92	92	83-126	1	30				
1,2-Dichlorobenzene	93	92	83-117	1	30				
1,3-Dichlorobenzene	95	95	79-132	0	30				
1,4-Dichlorobenzene	94	94	79-120	0	30				
Dichlorodifluoromethane	84	83	28-136	2	30				
1,1-Dichloroethane	99	100	88-136	1	30				
1,2-Dichloroethane	93	94	82-135	1	30				
1,1-Dichloroethene	104	105	83-150	1	30				
cis-1,2-Dichloroethene	93	94	82-129	1	30				
trans-1,2-Dichloroethene	97	99	88-127	2	30				
Dichlorofluoromethane	100	100	81-161	0	30				
1,2-Dichloropropane	98	99	91-126	1	30				
1,3-Dichloropropane	92	92	80-127	1	30				
2,2-Dichloropropane	96	96	80-134	1	30				
1,1-Dichloropropene	95	97	86-139	2	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 Group Number: 1427994
Reported: 10/28/13 at 01:22 PM

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
cis-1,3-Dichloropropene	95	97	74-132	3	30				
trans-1,3-Dichloropropene	89	90	71-128	1	30				
Ethyl ether	90	92	57-139	1	30				
Ethylbenzene	91	92	80-140	1	30				
Freon 113	102	102	77-147	0	30				
Hexachlorobutadiene	101	101	65-128	0	30				
Isopropylbenzene	92	92	81-133	0	30				
p-Isopropyltoluene	94	94	84-124	0	30				
Methyl Tertiary Butyl Ether	89	91	82-132	2	30				
4-Methyl-2-Pentanone	95	93	69-149	2	30				
Methylene Chloride	96	97	77-135	1	30				
n-Propylbenzene	96	96	79-131	0	30				
Styrene	89	89	63-151	0	30				
1,1,1,2-Tetrachloroethane	94	93	87-126	1	30				
1,1,2,2-Tetrachloroethane	94	94	75-131	0	30				
Tetrachloroethene	96	96	75-129	0	30				
Tetrahydrofuran	80	82	56-154	3	30				
Toluene	90	91	83-127	1	30				
1,2,3-Trichlorobenzene	86	88	73-125	3	30				
1,2,4-Trichlorobenzene	89	90	77-120	1	30				
1,1,1-Trichloroethane	97	98	85-140	1	30				
1,1,2-Trichloroethane	93	94	85-129	1	30				
Trichloroethene	95	96	85-131	1	30				
Trichlorofluoromethane	96	95	73-139	1	30				
1,2,3-Trichloropropane	93	94	76-120	1	30				
1,2,4-Trimethylbenzene	93	92	87-126	1	30				
1,3,5-Trimethylbenzene	94	94	89-129	0	30				
Vinyl Chloride	85	84	62-135	2	30				
Xylene (Total)	90	90	81-137	0	30				
Batch number: 13295WAO026	Sample number(s): 7245563-7245571,7245573-7245581 UNSPK: 7245569								
Acenaphthene	93	89	47-136	4	30				
Acenaphthylene	107	107	33-146	1	30				
Anthracene	27*	20*	69-119	30	30				
Benzo(a)anthracene	80	74	37-150	7	30				
Benzo(a)pyrene	33*	29*	64-123	12	30				
Benzo(b)fluoranthene	88	86	33-152	2	30				
Benzo(g,h,i)perylene	71	65	36-138	8	30				
Benzo(k)fluoranthene	96	90	31-142	5	30				
Chrysene	91	88	34-135	3	30				
Dibenz(a,h)anthracene	83	80	17-134	3	30				
Fluoranthene	100	100	39-147	0	30				
Fluorene	106	105	38-149	1	30				
Indeno(1,2,3-cd)pyrene	82	74	29-143	9	30				
1-Methylnaphthalene	116	114	49-152	2	30				
2-Methylnaphthalene	114	111	51-146	2	30				
Naphthalene	108	105	58-131	2	30				
Phenanthrene	100	99	48-140	1	30				
Pyrene	76	70	59-125	9	30				
Batch number: 132951848001	Sample number(s): 7245563-7245581 UNSPK: 7245569 BKG: 7245569								
Arsenic	106	108	81-123	2	20	N.D.	N.D.	0 (1)	20

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1427994
Reported: 10/28/13 at 01:22 PM

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Barium	105	104	78-118	1	20	0.0387	0.0391	1	20
Cadmium	105	106	83-116	0	20	N.D.	N.D.	0 (1)	20
Calcium	101	101	75-125	0	20	4.98	4.99	0	20
Chromium	104	103	76-120	1	20	N.D.	N.D.	0 (1)	20
Lead	106	106	75-125	1	20	N.D.	N.D.	0 (1)	20
Magnesium	98	99	75-125	0	20	2.48	2.49	0	20
Nickel	107	108	86-115	0	20	N.D.	N.D.	0 (1)	20
Selenium	105	106	75-125	1	20	N.D.	N.D.	0 (1)	20
Silver	128*	126*	75-125	2	20	N.D.	N.D.	0 (1)	20
Vanadium	97	98	90-117	0	20	N.D.	N.D.	0 (1)	20
Batch number: 132955713002	Sample number(s): 7245563-7245581 UNSPK: 7245569 BKG: 7245569								
Mercury	98	99	80-120	0	20	N.D.	N.D.	0 (1)	20
Batch number: 13299807901A	Sample number(s): 7245563-7245580 UNSPK: 7245569 BKG: 7245569								
HEM (oil & grease)	73*	87	78-114	8	29	N.D.	N.D.	0 (1)	18

Surrogate Quality Control

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

Analysis Name: BTEX 25-ml purge
Batch number: I132951AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7245563	102	105	96	96
7245564	103	106	96	95
7245565	103	107	96	96
7245566	103	104	96	95
7245567	102	103	97	95
7245568	103	109	96	96
7245569	103	108	96	96
7245570	103	104	97	98
7245571	103	107	96	98
7245573	104	107	96	96
7245574	104	110	96	96
7245575	103	106	95	95
7245576	104	107	95	96
7245577	104	107	96	95
7245578	104	107	97	95
7245579	103	105	96	95
7245580	104	106	96	95
7245581	102	104	96	96
Blank	103	105	96	95
LCS	103	104	97	98
MS	103	104	97	98
MSD	103	107	96	98

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1427994
Reported: 10/28/13 at 01:22 PM

Surrogate Quality Control

Limits:	77-114	74-113	77-110	78-110

Analysis Name: PAHs in waters by SIM
Batch number: 13295WAO026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7245563	95	69	114
7245564	99	71	108
7245565	101	71	114
7245566	98	68	109
7245567	93	63	103
7245568	90	41*	101
7245569	90	33*	102
7245570	107	69	115
7245571	98	64	112
7245573	98	67	108
7245574	105	75	115
7245575	102	58*	108
7245576	100	68	109
7245577	97	60*	104
7245578	100	69	112
7245579	88	75	112
7245580	111	74	112
7245581	102	65	111
Blank	112	110	115
LCS	108	108	114
MS	107	69	115
MSD	98	64	112
Limits:	44-137	62-141	51-136

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
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ExxonMobil Analysis Request/Chain of Custody

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Acct. # 14739 For Eurofins Lancaster Laboratories Environmental use only Group # 1427994 Sample # 7245563-81
Instructions on reverse side correspond with circled numbers.

pg 1/3

1 Client Information

Facility #/SID: Mayflower Pipeline Incident
Site Address: Mayflower, AR
ExxonMobil PM: Scott Bushroe
Cost Center/AFE:
Consultant/Office: ARCADIS
Consultant PM: Stephen Barrick
Consultant Phone #: 919-302-6799
Sampler: Hans Van Aller / Danny Mays

SCR#:

Preservation Codes
H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; O = Other

6 Remarks
* Lab to filter and preserve diss. metals upon receipt.

2 Sample Identification	Collected Date	Collected Time	3 Grab	3 Composite	4 Matrix: Soil	Sediment	Water	Potable	Ground	NPDES	Surface	Air	Oil	Total # of Containers	5 Analyses Requested: VOCs 8260 B	PAH 8270 SIM	RCRA Metals + hardness Ni, V, Ca, Mg	Diss. Metals	HEM Oil & Grease
WS-014 (1.5-2.0) 101913	10-19-13	925	X				X							9	X	X	X	X	X
WS-014 (5.5-6.0) 101913	10-19-13	930	X				X							9	X	X	X	X	X
WS-012 (1.5-2.0) 101913	10-19-13	945	X				X							9	X	X	X	X	X
WS-012 (5.0-5.5) 101913	10-19-13	950	X				X							9	X	X	X	X	X
WS-010 (1.5-2.0) 101913	10-19-13	1005	X				X							9	X	X	X	X	X
WS-010 (3.5-4.0) 101913	10-19-13	1010	X				X							9	X	X	X	X	X
WS-006 (0.5-1.0) 101913	10-19-13	1020	X				X							9	X	X	X	X	X
WS-006 (0.5-1.0) 101913 MS/MSD	10-19-13	1020	X				X							18	X	X	X	X	X
WS-005 (surface) 101913	10-19-13	900	X				X							9	X	X	X	X	X
WS-002 (surface) 101913	10-19-13	1100	X				X							9	X	X	X	X	X
WS-011 (1.5-2.0) 101913	10-19-13	1115	X				X							9	X	X	X	X	X
WS-011 (5.0-5.5) 101913	10-19-13	1120	X				X							9	X	X	X	X	X

7 Turnaround Time Requested (TAT) (please circle)
Standard | (5 day) | 4 day | 72 hour | 48 hour | 24 hour

8 Data Package (circle if required)
Type I - Full
Type VI (Raw Data)
NJ Reduced
Other

EDD (circle if required)
Locus EIM (default)
Other

Relinquished by	Date	Time	Received by	Date	Time
Daniel Mays	10-20-2013	1600			
Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other X			Received by: Annelise H. Owen	10/21/13	1735

Temperature Upon Receipt 0.2-2.4 °C

Custody Seals Intact? (Yes) No

9

ExxonMobil Analysis Request/Chain of Custody

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Acct. # 14739 — For Eurofins Lancaster Laboratories Environmental use only — Group # 1427994 — Sample # 7245563-81

Instructions on reverse side correspond with circled numbers.

Pg 2/3

1 Client Information

Facility #/SID: Mayflower Pipeline Incident

Site Address: Mayflower, AR

ExxonMobil PM: Scott Bushroe — Cost Center/AFE:

Consultant/Office: ARCADIS

Consultant PM: Stephen Barrick — Consultant Phone #: 919-302-6799

Sampler: Hans Van Aller / Danny Mays

SCR#:

Preservation Codes

H = HCl, T = Thiosulfate, N = HNO_3, B = NaOH, S = H_2SO_4, O = Other

6 Remarks

*Lab to filter and pressure diss. metals upon receipt.

2 Sample Identification	Collected Date	Collected Time	3 Grab	3 Composite	4 Matrix: Soil	Water	Oil	Sediment	Potable	Ground	NPDES	Surface	Air	Total # of Containers	5 Analyses Requested / Preservation Code: VOCs 8260 B (H)	PAH 8270 SIM (N)	RCRA Metals + Ni, V, Ca, Mg (N)	Diss. Metals (H)	HEM Oil & Grease
WS-018(surface)101913	10-19-13	815	X			X								9	X	X	X	X	X
WS-003(surface)101913	10-19-13	825	X			X								9	X	X	X	X	X
WS-007(0.5-1.0)101913	10-19-13	835	X			X								9	X	X	X	X	X
WS-001(0.5-1.0)101913	10-19-13	845	X			X								9	X	X	X	X	X
WS-EB-096-101913	10-19-13	1200	X			X								7	X	X	X	X	X
WS-TB-181-102013	10-20-13		X			X								2	X				
WS-018(surface)102013	10-20-13	805	X			X								9	X	X	X	X	X
WS-003(surface)102013	10-20-13	815	X			X								9	X	X	X	X	X
WS-007(0.5-1.0)102013	10-20-13	835	X			X								9	X	X	X	X	X
WS-001(0.5-1.0)102013	10-20-13	850	X			X								9	X	X	X	X	X
WS-005(surface)102013	10-20-13	910	X			X								9	X	X	X	X	X
WS-014(1.5-2.0)102013	10-20-13	1000	X			X								9	X	X	X	X	X

7 Turnaround Time Requested (TAT) (please circle)

Standard | (5 day) | 4 day | 72 hour | 48 hour | 24 hour

8 Data Package (circle if required)

Type I - Full
Type VI (Raw Data)
NJ Reduced
Other

EDD (circle if required)

Locus EIM (default)
Other

Relinquished by	Date	Time	Received by	Date	Time
Daniel Mays	10-20-13	1600			
Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other X			Annchine H. Owen	10/21/13	1735

Temperature Upon Receipt 0.2-2.4 °C

Custody Seals Intact? (Yes) No

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Environmental Sample Administration Receipt Documentation Log

1427994

Client/Project: Exxon Mobil: Mayflower

Date of Receipt: 10/21/13

Time of Receipt: 1735

Source Code: 01

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

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

Package: (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	DT131	1.8	TB	WI	Y	B	
2	↓	1.9	↓	↓	↓	↓	
3		0.7					
4		2.4					
5		6.3					
6	↓	2.1	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Anneliese H. Owens /210 **Date/Time:** 10/21/13 1750

Issued by Dept. 6042 Management

2174.06

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Environmental Sample Administration Receipt Documentation Log

1427994

Client/Project: Exxon Mobil: Mayflower

Date of Receipt: 10/21/13

Time of Receipt: 1735

Source Code: 01

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

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

Package: (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
7	DT121	0.6	TB	WI	Y	B	
8		0.3	↓	↓	↓	↓	
9		0.2					
10		0.6					
11		1.1					
12		0.4					

AHO 10/21/13

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Anneliese H. Owen /210 **Date/Time:** 10/21/13 1750

Issued by Dept. 6042 Management

2174.06

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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 limit of quantitation, 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 ≥ 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 ≥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.