

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

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

November 05, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 10/29/2013

Group Number: 1429646

SDG: PEM51

PO Number: B0086003.1301

State of Sample Origin: AR

Client Sample DescriptionLancaster Labs (LL) #

WS-018(Surface)102813 Grab Surface Water	7255000
WS-003(Surface)102813 Grab Surface Water	7255001
WS-007(0.5-1.0)102813 Grab Surface Water	7255002
WS-001(0.5-1.0)102813 Grab Surface Water	7255003
WS-005(Surface)102813 Grab Surface Water	7255004
WS-014(1.5-2.0)102813 Grab Surface Water	7255005
WS-014(5.5-6.0)102813 Grab Surface Water	7255006
WS-012(1.5-2.0)102813 Grab Surface Water	7255007
WS-012(5.0-5.5)102813 Grab Surface Water	7255008
WS-010(1.5-2.0)102813 Grab Surface Water	7255009
WS-010(3.5-4.0)102813 Grab Surface Water	7255010
WS-006(0.5-1.0)102813 Grab Surface Water	7255011
WS-002(Surface)102813 Grab Surface Water	7255012
WS-011(1.5-2.0)102813 Grab Surface Water	7255013
WS-011(5.0-5.5)102813 Grab Surface Water	7255014
WS-EB-105-102813 Grab Water	7255015
WS-TB-188-102813 Water	7255016
DUP-WS-109-102813 Grab Surface Water	7255017

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

ELECTRONIC ARCADIS

COPY TO

Attn: Stephen Barrick

ELECTRONIC ARCADIS

COPY TO

Attn: Lyndi Mott

ELECTRONIC ExxonMobil

COPY TO

Attn: Michael J. Firth

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ELECTRONIC COPY TO
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ARCADIS
ARCADIS
ExxonMobil
ExxonMobil

Attn: Emily Leamer
Attn: Rhiannon Parmalee
Attn: Michael L Sixsmith
Attn: Julie Foster

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1429646

General Comments:

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

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

Project specific QC samples are not included in this data set

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

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

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

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

Batch #: C133031AA (Sample number(s): 7255000-7255017 UNSPK: 7255003)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: 1,1,1,2-Tetrachloroethane, 1,2,3-Trichloropropane

SW-846 8270C SIM, GC/MS Semivolatiles

Sample #s: 7255002, 7255003, 7255004, 7255005, 7255006, 7255007, 7255008, 7255009, 7255010, 7255012, 7255014, 7255015, 7255017

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

Sample #s: 7255000, 7255001, 7255011, 7255013

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

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

Batch #: 13302WAJ026 (Sample number(s): 7255000-7255015, 7255017)

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7255000, 7255001, 7255011, 7255013

Sample Description: WS-018(Surface)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255000
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 08:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28018 SDG#: PEM51-01

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

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

Sample Description: WS-018(Surface)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255000
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 08:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28018 SDG#: PEM51-01

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

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

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	21.8	0.033	0.20

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

Sample Description: WS-018(Surface)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255000
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 08:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28018 SDG#: PEM51-01

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	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0330	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.77	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.41	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	C133031AA	10/30/2013 11:08	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C133031AA	10/30/2013 11:08	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13302WAJ026	11/01/2013 18:01	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13302WAJ026	10/30/2013 08:00	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133086256010	11/04/2013 07:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133021848003	11/04/2013 00:00	John P Hook	1
07046	Barium	SW-846 6010B	1	133021848003	11/04/2013 00:00	John P Hook	1
07049	Cadmium	SW-846 6010B	1	133021848003	11/04/2013 00:00	John P Hook	1
01750	Calcium	SW-846 6010B	1	133021848003	11/04/2013 00:00	John P Hook	1
07051	Chromium	SW-846 6010B	1	133021848003	11/04/2013 00:00	John P Hook	1
07055	Lead	SW-846 6010B	1	133021848003	11/04/2013 00:00	John P Hook	1
01757	Magnesium	SW-846 6010B	1	133021848003	11/04/2013 00:00	John P Hook	1
07061	Nickel	SW-846 6010B	1	133021848003	11/04/2013 00:00	John P Hook	1
07036	Selenium	SW-846 6010B	1	133021848003	11/04/2013 00:00	John P Hook	1
07066	Silver	SW-846 6010B	1	133021848003	11/04/2013 00:00	John P Hook	1
07071	Vanadium	SW-846 6010B	1	133021848003	11/04/2013 00:00	John P Hook	1
00259	Mercury	SW-846 7470A	1	133025713006	10/31/2013 08:39	Damary Valentin	1

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

Sample Description: WS-018(Surface)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255000
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 08:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28018 SDG#: PEM51-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133021848003	10/30/2013 10:00	Denise K Conners	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133025713006	10/30/2013 15:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13309807901A	11/05/2013 08:06	Yolunder Y Bunch	1

Sample Description: WS-003(Surface)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255001
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 08:40 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28003 SDG#: PEM51-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	0.5 J	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	1.1	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)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255001
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 08:40 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28003 SDG#: PEM51-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	3.3	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	1.0	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	0.3 J	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	6.8	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	0.036 J	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.072	0.010	0.051	1
08357	Naphthalene	91-20-3	0.13	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

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

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	21.6	0.033	0.20

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

Sample Description: WS-003(Surface)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255001
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 08:40 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28003 SDG#: PEM51-02

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	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0287	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
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.39	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C133031AA	10/30/2013 11:32	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C133031AA	10/30/2013 11:32	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13302WAJ026	11/01/2013 18:30	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13302WAJ026	10/30/2013 08:00	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133086256010	11/04/2013 07:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133021848003	11/04/2013 00:24	John P Hook	1
07046	Barium	SW-846 6010B	1	133021848003	11/04/2013 00:24	John P Hook	1
07049	Cadmium	SW-846 6010B	1	133021848003	11/04/2013 00:24	John P Hook	1
01750	Calcium	SW-846 6010B	1	133021848003	11/04/2013 00:24	John P Hook	1
07051	Chromium	SW-846 6010B	1	133021848003	11/04/2013 00:24	John P Hook	1
07055	Lead	SW-846 6010B	1	133021848003	11/04/2013 00:24	John P Hook	1
01757	Magnesium	SW-846 6010B	1	133021848003	11/04/2013 00:24	John P Hook	1
07061	Nickel	SW-846 6010B	1	133021848003	11/04/2013 00:24	John P Hook	1
07036	Selenium	SW-846 6010B	1	133021848003	11/04/2013 00:24	John P Hook	1
07066	Silver	SW-846 6010B	1	133021848003	11/04/2013 00:24	John P Hook	1
07071	Vanadium	SW-846 6010B	1	133021848003	11/04/2013 00:24	John P Hook	1
00259	Mercury	SW-846 7470A	1	133025713006	10/31/2013 08:41	Damary Valentin	1

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

Sample Description: WS-003 (Surface) 102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255001
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 08:40 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28003 SDG#: PEM51-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133021848003	10/30/2013 10:00	Denise K Conners	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133025713006	10/30/2013 15:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13309807901A	11/05/2013 08:06	Yolunder Y Bunch	1

Sample Description: WS-007(0.5-1.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255002
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 09:00 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28007 SDG#: PEM51-03

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-007(0.5-1.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255002
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 09:00 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28007 SDG#: PEM51-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	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	0.013 J	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	19.5	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	0.0092 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0293	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-007(0.5-1.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255002
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 09:00 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28007 SDG#: PEM51-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	4.43	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0050 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.04	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						
	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	C133031AA	10/30/2013 11:54	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C133031AA	10/30/2013 11:54	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13302WAJ026	11/01/2013 19:00	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13302WAJ026	10/30/2013 08:00	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133086256010	11/04/2013 07:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133021848003	11/04/2013 00:28	John P Hook	1
07046	Barium	SW-846 6010B	1	133021848003	11/04/2013 00:28	John P Hook	1
07049	Cadmium	SW-846 6010B	1	133021848003	11/04/2013 00:28	John P Hook	1
01750	Calcium	SW-846 6010B	1	133021848003	11/04/2013 00:28	John P Hook	1
07051	Chromium	SW-846 6010B	1	133021848003	11/04/2013 00:28	John P Hook	1
07055	Lead	SW-846 6010B	1	133021848003	11/04/2013 00:28	John P Hook	1
01757	Magnesium	SW-846 6010B	1	133021848003	11/04/2013 00:28	John P Hook	1
07061	Nickel	SW-846 6010B	1	133021848003	11/04/2013 00:28	John P Hook	1
07036	Selenium	SW-846 6010B	1	133021848003	11/04/2013 00:28	John P Hook	1
07066	Silver	SW-846 6010B	1	133021848003	11/04/2013 00:28	John P Hook	1
07071	Vanadium	SW-846 6010B	1	133021848003	11/04/2013 00:28	John P Hook	1
00259	Mercury	SW-846 7470A	1	133025713006	10/31/2013 08:43	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133021848003	10/30/2013 10:00	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133025713006	10/30/2013 15:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13309807901A	11/05/2013 08:06	Yolunder Y Bunch	1

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

Sample Description: WS-001(0.5-1.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255003
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 09:20 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28001 SDG#: PEM51-04

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

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

Sample Description: WS-001(0.5-1.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255003
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 09:20 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28001 SDG#: PEM51-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	20.6	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	0.0285	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-001(0.5-1.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255003
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 09:20 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28001 SDG#: PEM51-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	4.55	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	2.25	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C133031AA	10/30/2013 12:16	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C133031AA	10/30/2013 12:16	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13302WAJ026	11/01/2013 19:29	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13302WAJ026	10/30/2013 08:00	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133086256010	11/04/2013 07:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133021848003	11/04/2013 00:39	John P Hook	1
07046	Barium	SW-846 6010B	1	133021848003	11/04/2013 00:39	John P Hook	1
07049	Cadmium	SW-846 6010B	1	133021848003	11/04/2013 00:39	John P Hook	1
01750	Calcium	SW-846 6010B	1	133021848003	11/04/2013 00:39	John P Hook	1
07051	Chromium	SW-846 6010B	1	133021848003	11/04/2013 00:39	John P Hook	1
07055	Lead	SW-846 6010B	1	133021848003	11/04/2013 00:39	John P Hook	1
01757	Magnesium	SW-846 6010B	1	133021848003	11/04/2013 00:39	John P Hook	1
07061	Nickel	SW-846 6010B	1	133021848003	11/04/2013 00:39	John P Hook	1
07036	Selenium	SW-846 6010B	1	133021848003	11/04/2013 00:39	John P Hook	1
07066	Silver	SW-846 6010B	1	133021848003	11/04/2013 00:39	John P Hook	1
07071	Vanadium	SW-846 6010B	1	133021848003	11/04/2013 00:39	John P Hook	1
00259	Mercury	SW-846 7470A	1	133025713006	10/31/2013 08:45	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133021848003	10/30/2013 10:00	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133025713006	10/30/2013 15:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13309807901A	11/05/2013 08:06	Yolunder Y Bunch	1

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

Sample Description: WS-005(Surface)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255004
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 09:40 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28005 SDG#: PEM51-05

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

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

Sample Description: WS-005(Surface)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255004
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 09:40 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28005 SDG#: PEM51-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	0.1 J	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.1 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	0.2 J	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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	23.2	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	0.0340	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-005(Surface)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255004
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 09:40 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28005 SDG#: PEM51-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	5.35	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.40	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	1.5 J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C133031AA	10/30/2013 12:38	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C133031AA	10/30/2013 12:38	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13302WAJ026	11/01/2013 19:59	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13302WAJ026	10/30/2013 08:00	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133086256010	11/04/2013 07:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133021848003	11/04/2013 00:43	John P Hook	1
07046	Barium	SW-846 6010B	1	133021848003	11/04/2013 00:43	John P Hook	1
07049	Cadmium	SW-846 6010B	1	133021848003	11/04/2013 00:43	John P Hook	1
01750	Calcium	SW-846 6010B	1	133021848003	11/04/2013 00:43	John P Hook	1
07051	Chromium	SW-846 6010B	1	133021848003	11/04/2013 00:43	John P Hook	1
07055	Lead	SW-846 6010B	1	133021848003	11/04/2013 00:43	John P Hook	1
01757	Magnesium	SW-846 6010B	1	133021848003	11/04/2013 00:43	John P Hook	1
07061	Nickel	SW-846 6010B	1	133021848003	11/04/2013 00:43	John P Hook	1
07036	Selenium	SW-846 6010B	1	133021848003	11/04/2013 00:43	John P Hook	1
07066	Silver	SW-846 6010B	1	133021848003	11/04/2013 00:43	John P Hook	1
07071	Vanadium	SW-846 6010B	1	133021848003	11/04/2013 00:43	John P Hook	1
00259	Mercury	SW-846 7470A	1	133025713006	10/31/2013 08:47	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133021848003	10/30/2013 10:00	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133025713006	10/30/2013 15:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13309807901A	11/05/2013 08:06	Yolunder Y Bunch	1

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

Sample Description: WS-014(1.5-2.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255005
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:20 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28141 SDG#: PEM51-06

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

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

Sample Description: WS-014(1.5-2.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255005
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:20 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28141 SDG#: PEM51-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	19.2	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	0.0081 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0260	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-014(1.5-2.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255005
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:20 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28141 SDG#: PEM51-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	4.19	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	2.12	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	C133031AA	10/30/2013 13:00	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C133031AA	10/30/2013 13:00	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13302WAJ026	11/01/2013 22:36	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13302WAJ026	10/30/2013 08:00	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133086256010	11/04/2013 07:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133021848003	11/04/2013 00:47	John P Hook	1
07046	Barium	SW-846 6010B	1	133021848003	11/04/2013 00:47	John P Hook	1
07049	Cadmium	SW-846 6010B	1	133021848003	11/04/2013 00:47	John P Hook	1
01750	Calcium	SW-846 6010B	1	133021848003	11/04/2013 00:47	John P Hook	1
07051	Chromium	SW-846 6010B	1	133021848003	11/04/2013 00:47	John P Hook	1
07055	Lead	SW-846 6010B	1	133021848003	11/04/2013 00:47	John P Hook	1
01757	Magnesium	SW-846 6010B	1	133021848003	11/04/2013 00:47	John P Hook	1
07061	Nickel	SW-846 6010B	1	133021848003	11/04/2013 00:47	John P Hook	1
07036	Selenium	SW-846 6010B	1	133021848003	11/04/2013 00:47	John P Hook	1
07066	Silver	SW-846 6010B	1	133021848003	11/04/2013 00:47	John P Hook	1
07071	Vanadium	SW-846 6010B	1	133021848003	11/04/2013 00:47	John P Hook	1
00259	Mercury	SW-846 7470A	1	133025713006	10/31/2013 08:53	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133021848003	10/30/2013 10:00	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133025713006	10/30/2013 15:10	Nelli S Markaryan	1

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

Sample Description: WS-014(1.5-2.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255005
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:20 by CP

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 10/29/2013 10:15

Highlands Ranch CO 80129

Reported: 11/05/2013 15:18

28141 SDG#: PEM51-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13309807901A	11/05/2013 08:06	Yolunder Y Bunch	1

Sample Description: WS-014(5.5-6.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255006
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28142 SDG#: PEM51-07

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

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

Sample Description: WS-014(5.5-6.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255006
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28142 SDG#: PEM51-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	19.3	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0257	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-014(5.5-6.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255006
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28142 SDG#: PEM51-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	4.21	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	2.14	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	C133031AA	10/30/2013 13:22	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C133031AA	10/30/2013 13:22	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13302WAJ026	11/01/2013 23:05	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13302WAJ026	10/30/2013 08:00	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133086256010	11/04/2013 07:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133021848003	11/04/2013 00:51	John P Hook	1
07046	Barium	SW-846 6010B	1	133021848003	11/04/2013 00:51	John P Hook	1
07049	Cadmium	SW-846 6010B	1	133021848003	11/04/2013 00:51	John P Hook	1
01750	Calcium	SW-846 6010B	1	133021848003	11/04/2013 00:51	John P Hook	1
07051	Chromium	SW-846 6010B	1	133021848003	11/04/2013 00:51	John P Hook	1
07055	Lead	SW-846 6010B	1	133021848003	11/04/2013 00:51	John P Hook	1
01757	Magnesium	SW-846 6010B	1	133021848003	11/04/2013 00:51	John P Hook	1
07061	Nickel	SW-846 6010B	1	133021848003	11/04/2013 00:51	John P Hook	1
07036	Selenium	SW-846 6010B	1	133021848003	11/04/2013 00:51	John P Hook	1
07066	Silver	SW-846 6010B	1	133021848003	11/04/2013 00:51	John P Hook	1
07071	Vanadium	SW-846 6010B	1	133021848003	11/04/2013 00:51	John P Hook	1
00259	Mercury	SW-846 7470A	1	133025713006	10/31/2013 08:55	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133021848003	10/30/2013 10:00	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133025713006	10/30/2013 15:10	Nelli S Markaryan	1

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

Sample Description: WS-014(5.5-6.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255006
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28142 SDG#: PEM51-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13309807901A	11/05/2013 08:06	Yolunder Y Bunch	1

Sample Description: WS-012(1.5-2.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255007
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:40 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28121 SDG#: PEM51-08

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	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)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255007
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:40 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28121 SDG#: PEM51-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	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	0.1 J	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	0.4 J	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.012 J	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	20.0	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0261	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-012(1.5-2.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255007
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:40 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28121 SDG#: PEM51-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	4.40	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	2.20	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	C133031AA	10/30/2013 13:44	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C133031AA	10/30/2013 13:44	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13302WAJ026	11/01/2013 23:35	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13302WAJ026	10/30/2013 08:00	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133086256010	11/04/2013 07:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133021848003	11/04/2013 00:55	John P Hook	1
07046	Barium	SW-846 6010B	1	133021848003	11/04/2013 00:55	John P Hook	1
07049	Cadmium	SW-846 6010B	1	133021848003	11/04/2013 00:55	John P Hook	1
01750	Calcium	SW-846 6010B	1	133021848003	11/04/2013 00:55	John P Hook	1
07051	Chromium	SW-846 6010B	1	133021848003	11/04/2013 00:55	John P Hook	1
07055	Lead	SW-846 6010B	1	133021848003	11/04/2013 00:55	John P Hook	1
01757	Magnesium	SW-846 6010B	1	133021848003	11/04/2013 00:55	John P Hook	1
07061	Nickel	SW-846 6010B	1	133021848003	11/04/2013 00:55	John P Hook	1
07036	Selenium	SW-846 6010B	1	133021848003	11/04/2013 00:55	John P Hook	1
07066	Silver	SW-846 6010B	1	133021848003	11/04/2013 00:55	John P Hook	1
07071	Vanadium	SW-846 6010B	1	133021848003	11/04/2013 00:55	John P Hook	1
00259	Mercury	SW-846 7470A	1	133025713006	10/31/2013 08:57	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133021848003	10/30/2013 10:00	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133025713006	10/30/2013 15:10	Nelli S Markaryan	1

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

Sample Description: WS-012(1.5-2.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255007
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:40 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28121 SDG#: PEM51-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13309807901A	11/05/2013 08:06	Yolunder Y Bunch	1

Sample Description: WS-012(5.0-5.5)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255008
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:50 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28122 SDG#: PEM51-09

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

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

Sample Description: WS-012(5.0-5.5)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255008
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:50 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28122 SDG#: PEM51-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.3 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	0.1 J	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	0.5	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	0.011 J	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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	20.3	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	0.0078 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0258	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-012(5.0-5.5)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255008
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:50 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28122 SDG#: PEM51-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	4.48	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	2.22	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	C133031AA	10/30/2013 14:06	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C133031AA	10/30/2013 14:06	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13302WAJ026	11/02/2013 00:04	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13302WAJ026	10/30/2013 08:00	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133086256010	11/04/2013 07:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133021848003	11/04/2013 00:59	John P Hook	1
07046	Barium	SW-846 6010B	1	133021848003	11/04/2013 00:59	John P Hook	1
07049	Cadmium	SW-846 6010B	1	133021848003	11/04/2013 00:59	John P Hook	1
01750	Calcium	SW-846 6010B	1	133021848003	11/04/2013 00:59	John P Hook	1
07051	Chromium	SW-846 6010B	1	133021848003	11/04/2013 00:59	John P Hook	1
07055	Lead	SW-846 6010B	1	133021848003	11/04/2013 00:59	John P Hook	1
01757	Magnesium	SW-846 6010B	1	133021848003	11/04/2013 00:59	John P Hook	1
07061	Nickel	SW-846 6010B	1	133021848003	11/04/2013 00:59	John P Hook	1
07036	Selenium	SW-846 6010B	1	133021848003	11/04/2013 00:59	John P Hook	1
07066	Silver	SW-846 6010B	1	133021848003	11/04/2013 00:59	John P Hook	1
07071	Vanadium	SW-846 6010B	1	133021848003	11/04/2013 00:59	John P Hook	1
00259	Mercury	SW-846 7470A	1	133025713006	10/31/2013 09:05	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133021848003	10/30/2013 10:00	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133025713006	10/30/2013 15:10	Nelli S Markaryan	1

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

Sample Description: WS-012(5.0-5.5)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255008
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:50 by CP

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 10/29/2013 10:15

Highlands Ranch CO 80129

Reported: 11/05/2013 15:18

28122 SDG#: PEM51-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13309807901A	11/05/2013 08:06	Yolunder Y Bunch	1

Sample Description: WS-010(1.5-2.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255009
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 11:00 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28101 SDG#: PEM51-10

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

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

Sample Description: WS-010(1.5-2.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255009
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 11:00 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28101 SDG#: PEM51-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	19.9	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0265	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-010(1.5-2.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255009
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 11:00 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28101 SDG#: PEM51-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	4.38	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	2.18	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	C133031AA	10/30/2013 14:28	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C133031AA	10/30/2013 14:28	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13302WAJ026	11/02/2013 00:34	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13302WAJ026	10/30/2013 08:00	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133086256010	11/04/2013 07:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133021848003	11/04/2013 01:03	John P Hook	1
07046	Barium	SW-846 6010B	1	133021848003	11/04/2013 01:03	John P Hook	1
07049	Cadmium	SW-846 6010B	1	133021848003	11/04/2013 01:03	John P Hook	1
01750	Calcium	SW-846 6010B	1	133021848003	11/04/2013 01:03	John P Hook	1
07051	Chromium	SW-846 6010B	1	133021848003	11/04/2013 01:03	John P Hook	1
07055	Lead	SW-846 6010B	1	133021848003	11/04/2013 01:03	John P Hook	1
01757	Magnesium	SW-846 6010B	1	133021848003	11/04/2013 01:03	John P Hook	1
07061	Nickel	SW-846 6010B	1	133021848003	11/04/2013 01:03	John P Hook	1
07036	Selenium	SW-846 6010B	1	133021848003	11/04/2013 01:03	John P Hook	1
07066	Silver	SW-846 6010B	1	133021848003	11/04/2013 01:03	John P Hook	1
07071	Vanadium	SW-846 6010B	1	133021848003	11/04/2013 01:03	John P Hook	1
00259	Mercury	SW-846 7470A	1	133025713006	10/31/2013 09:08	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133021848003	10/30/2013 10:00	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133025713006	10/30/2013 15:10	Nelli S Markaryan	1

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

Sample Description: WS-010(1.5-2.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255009
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 11:00 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28101 SDG#: PEM51-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13309807901A	11/05/2013 08:06	Yolunder Y Bunch	1

Sample Description: WS-010(3.5-4.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255010
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 11:10 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28102 SDG#: PEM51-11

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

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

Sample Description: WS-010(3.5-4.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255010
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 11:10 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28102 SDG#: PEM51-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	20.2	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	0.0071 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0279	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-010(3.5-4.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255010
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 11:10 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28102 SDG#: PEM51-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	4.47	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	2.20	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	C133031AA	10/30/2013 14:50	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C133031AA	10/30/2013 14:50	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13302WAJ026	11/02/2013 01:03	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13302WAJ026	10/30/2013 08:00	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133086256010	11/04/2013 07:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133021848003	11/04/2013 01:07	John P Hook	1
07046	Barium	SW-846 6010B	1	133021848003	11/04/2013 01:07	John P Hook	1
07049	Cadmium	SW-846 6010B	1	133021848003	11/04/2013 01:07	John P Hook	1
01750	Calcium	SW-846 6010B	1	133021848003	11/04/2013 01:07	John P Hook	1
07051	Chromium	SW-846 6010B	1	133021848003	11/04/2013 01:07	John P Hook	1
07055	Lead	SW-846 6010B	1	133021848003	11/04/2013 01:07	John P Hook	1
01757	Magnesium	SW-846 6010B	1	133021848003	11/04/2013 01:07	John P Hook	1
07061	Nickel	SW-846 6010B	1	133021848003	11/04/2013 01:07	John P Hook	1
07036	Selenium	SW-846 6010B	1	133021848003	11/04/2013 01:07	John P Hook	1
07066	Silver	SW-846 6010B	1	133021848003	11/04/2013 01:07	John P Hook	1
07071	Vanadium	SW-846 6010B	1	133021848003	11/04/2013 01:07	John P Hook	1
00259	Mercury	SW-846 7470A	1	133025713006	10/31/2013 09:10	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133021848003	10/30/2013 10:00	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133025713006	10/30/2013 15:10	Nelli S Markaryan	1

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

Sample Description: WS-010(3.5-4.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255010
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 11:10 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28102 SDG#: PEM51-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13309807901A	11/05/2013 08:06	Yolunder Y Bunch	1

Sample Description: WS-006(0.5-1.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255011
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 11:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28006 SDG#: PEM51-12

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

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

Sample Description: WS-006(0.5-1.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255011
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 11:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28006 SDG#: PEM51-12

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

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

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	20.1	0.033	0.20

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

Sample Description: WS-006(0.5-1.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255011
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 11:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28006 SDG#: PEM51-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0266	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.40	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	2.22	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0017 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	C133031AA	10/30/2013 15:16	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C133031AA	10/30/2013 15:16	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13302WAJ026	11/02/2013 01:32	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13302WAJ026	10/30/2013 08:00	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133086256010	11/04/2013 07:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133021848003	11/04/2013 01:10	John P Hook	1
07046	Barium	SW-846 6010B	1	133021848003	11/04/2013 01:10	John P Hook	1
07049	Cadmium	SW-846 6010B	1	133021848003	11/04/2013 01:10	John P Hook	1
01750	Calcium	SW-846 6010B	1	133021848003	11/04/2013 01:10	John P Hook	1
07051	Chromium	SW-846 6010B	1	133021848003	11/04/2013 01:10	John P Hook	1
07055	Lead	SW-846 6010B	1	133021848003	11/04/2013 01:10	John P Hook	1
01757	Magnesium	SW-846 6010B	1	133021848003	11/04/2013 01:10	John P Hook	1
07061	Nickel	SW-846 6010B	1	133021848003	11/04/2013 01:10	John P Hook	1
07036	Selenium	SW-846 6010B	1	133021848003	11/04/2013 01:10	John P Hook	1
07066	Silver	SW-846 6010B	1	133021848003	11/04/2013 01:10	John P Hook	1
07071	Vanadium	SW-846 6010B	1	133021848003	11/04/2013 01:10	John P Hook	1
00259	Mercury	SW-846 7470A	1	133025713006	10/31/2013 09:12	Damary Valentin	1

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

Sample Description: WS-006(0.5-1.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255011
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 11:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28006 SDG#: PEM51-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133021848003	10/30/2013 10:00	Denise K Conners	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133025713006	10/30/2013 15:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13309807901A	11/05/2013 08:06	Yolunder Y Bunch	1

Sample Description: WS-002(Surface)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255012
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 12:00 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28002 SDG#: PEM51-13

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

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

Sample Description: WS-002(Surface)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255012
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 12:00 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28002 SDG#: PEM51-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.1 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	20.2	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0234	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-002(Surface)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255012
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 12:00 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28002 SDG#: PEM51-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	4.44	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	2.22	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	C133031AA	10/30/2013 15:39	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C133031AA	10/30/2013 15:39	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13302WAJ026	11/02/2013 02:01	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13302WAJ026	10/30/2013 08:00	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133086256010	11/04/2013 07:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133021848003	11/04/2013 01:14	John P Hook	1
07046	Barium	SW-846 6010B	1	133021848003	11/04/2013 01:14	John P Hook	1
07049	Cadmium	SW-846 6010B	1	133021848003	11/04/2013 01:14	John P Hook	1
01750	Calcium	SW-846 6010B	1	133021848003	11/04/2013 01:14	John P Hook	1
07051	Chromium	SW-846 6010B	1	133021848003	11/04/2013 01:14	John P Hook	1
07055	Lead	SW-846 6010B	1	133021848003	11/04/2013 01:14	John P Hook	1
01757	Magnesium	SW-846 6010B	1	133021848003	11/04/2013 01:14	John P Hook	1
07061	Nickel	SW-846 6010B	1	133021848003	11/04/2013 01:14	John P Hook	1
07036	Selenium	SW-846 6010B	1	133021848003	11/04/2013 01:14	John P Hook	1
07066	Silver	SW-846 6010B	1	133021848003	11/04/2013 01:14	John P Hook	1
07071	Vanadium	SW-846 6010B	1	133021848003	11/04/2013 01:14	John P Hook	1
00259	Mercury	SW-846 7470A	1	133025713006	10/31/2013 09:19	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133021848003	10/30/2013 10:00	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133025713006	10/30/2013 15:10	Nelli S Markaryan	1

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

Sample Description: WS-002(Surface)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255012
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 12:00 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28002 SDG#: PEM51-13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13309807901A	11/05/2013 08:06	Yolunder Y Bunch	1

Sample Description: WS-011(1.5-2.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255013
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 12:20 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28111 SDG#: PEM51-14

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

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

Sample Description: WS-011(1.5-2.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255013
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 12:20 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28111 SDG#: PEM51-14

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

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

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	20.8	0.033	0.20
					1

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

Sample Description: WS-011(1.5-2.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255013
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 12:20 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

281111 SDG#: PEM51-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0287	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.52	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.31	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	2.7 J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C133031AA	10/30/2013 16:01	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C133031AA	10/30/2013 16:01	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13302WAJ026	11/02/2013 02:31	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13302WAJ026	10/30/2013 08:00	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133086256010	11/04/2013 07:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133021848003	11/04/2013 01:26	John P Hook	1
07046	Barium	SW-846 6010B	1	133021848003	11/04/2013 01:26	John P Hook	1
07049	Cadmium	SW-846 6010B	1	133021848003	11/04/2013 01:26	John P Hook	1
01750	Calcium	SW-846 6010B	1	133021848003	11/04/2013 01:26	John P Hook	1
07051	Chromium	SW-846 6010B	1	133021848003	11/04/2013 01:26	John P Hook	1
07055	Lead	SW-846 6010B	1	133021848003	11/04/2013 01:26	John P Hook	1
01757	Magnesium	SW-846 6010B	1	133021848003	11/04/2013 01:26	John P Hook	1
07061	Nickel	SW-846 6010B	1	133021848003	11/04/2013 01:26	John P Hook	1
07036	Selenium	SW-846 6010B	1	133021848003	11/04/2013 01:26	John P Hook	1
07066	Silver	SW-846 6010B	1	133021848003	11/04/2013 01:26	John P Hook	1
07071	Vanadium	SW-846 6010B	1	133021848003	11/04/2013 01:26	John P Hook	1
00259	Mercury	SW-846 7470A	1	133025713006	10/31/2013 09:21	Damary Valentin	1

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

Sample Description: WS-011(1.5-2.0)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255013
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 12:20 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28111 SDG#: PEM51-14

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133021848003	10/30/2013 10:00	Denise K Conners	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133025713006	10/30/2013 15:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13309807901A	11/05/2013 08:06	Yolunder Y Bunch	1

Sample Description: WS-011(5.0-5.5)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255014
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 12:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28112 SDG#: PEM51-15

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

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

Sample Description: WS-011(5.0-5.5)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255014
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 12:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28112 SDG#: PEM51-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	21.2	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	0.0290	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-011(5.0-5.5)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255014
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 12:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28112 SDG#: PEM51-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	4.60	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.37	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	C133031AA	10/30/2013 16:23	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C133031AA	10/30/2013 16:23	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13302WAJ026	11/02/2013 03:00	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13302WAJ026	10/30/2013 08:00	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133086256010	11/04/2013 07:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133021848003	11/04/2013 01:30	John P Hook	1
07046	Barium	SW-846 6010B	1	133021848003	11/04/2013 01:30	John P Hook	1
07049	Cadmium	SW-846 6010B	1	133021848003	11/04/2013 01:30	John P Hook	1
01750	Calcium	SW-846 6010B	1	133021848003	11/04/2013 01:30	John P Hook	1
07051	Chromium	SW-846 6010B	1	133021848003	11/04/2013 01:30	John P Hook	1
07055	Lead	SW-846 6010B	1	133021848003	11/04/2013 01:30	John P Hook	1
01757	Magnesium	SW-846 6010B	1	133021848003	11/04/2013 01:30	John P Hook	1
07061	Nickel	SW-846 6010B	1	133021848003	11/04/2013 01:30	John P Hook	1
07036	Selenium	SW-846 6010B	1	133021848003	11/04/2013 01:30	John P Hook	1
07066	Silver	SW-846 6010B	1	133021848003	11/04/2013 01:30	John P Hook	1
07071	Vanadium	SW-846 6010B	1	133021848003	11/04/2013 01:30	John P Hook	1
00259	Mercury	SW-846 7470A	1	133025713006	10/31/2013 09:23	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133021848003	10/30/2013 10:00	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133025713006	10/30/2013 15:10	Nelli S Markaryan	1

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

Sample Description: WS-011(5.0-5.5)102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255014
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 12:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28112 SDG#: PEM51-15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13309807901A	11/05/2013 08:06	Yolunder Y Bunch	1

Sample Description: WS-EB-105-102813 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255015
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 13:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28105 SDG#: PEM51-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	170	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	21	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	0.3 J	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	1.2 J	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-105-102813 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255015
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 13:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28105 SDG#: PEM51-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	1.9	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	0.4 J	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	0.057	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.057	1
08357	Anthracene	120-12-7	N.D.	0.011	0.057	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.057	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.057	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.057	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.057	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.057	1
08357	Chrysene	218-01-9	N.D.	0.011	0.057	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.057	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.057	1
08357	Fluorene	86-73-7	N.D.	0.011	0.057	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.057	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.057	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.057	1
08357	Naphthalene	91-20-3	N.D.	0.034	0.057	1
08357	Phenanthrene	85-01-8	N.D.	0.034	0.057	1
08357	Pyrene	129-00-0	N.D.	0.011	0.057	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	0.11 J	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	N.D.	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-EB-105-102813 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255015
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 13:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28105 SDG#: PEM51-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	0.0441 J	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	N.D.	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C133031AA	10/30/2013 16:46	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C133031AA	10/30/2013 16:46	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13302WAJ026	11/02/2013 03:29	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13302WAJ026	10/30/2013 08:00	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133086256010	11/04/2013 07:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133021848003	11/04/2013 01:34	John P Hook	1
07046	Barium	SW-846 6010B	1	133021848003	11/04/2013 01:34	John P Hook	1
07049	Cadmium	SW-846 6010B	1	133021848003	11/04/2013 01:34	John P Hook	1
01750	Calcium	SW-846 6010B	1	133021848003	11/04/2013 01:34	John P Hook	1
07051	Chromium	SW-846 6010B	1	133021848003	11/04/2013 01:34	John P Hook	1
07055	Lead	SW-846 6010B	1	133021848003	11/04/2013 01:34	John P Hook	1
01757	Magnesium	SW-846 6010B	1	133021848003	11/04/2013 01:34	John P Hook	1
07061	Nickel	SW-846 6010B	1	133021848003	11/04/2013 01:34	John P Hook	1
07036	Selenium	SW-846 6010B	1	133021848003	11/04/2013 01:34	John P Hook	1
07066	Silver	SW-846 6010B	1	133021848003	11/04/2013 01:34	John P Hook	1
07071	Vanadium	SW-846 6010B	1	133021848003	11/04/2013 01:34	John P Hook	1
00259	Mercury	SW-846 7470A	1	133025713006	10/31/2013 09:25	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133021848003	10/30/2013 10:00	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133025713006	10/30/2013 15:10	Nelli S Markaryan	1

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

Sample Description: WS-TB-188-102813 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255016
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013

ExxonMobil c/o Arcadis

Submitted: 10/29/2013 10:15

630 Plaza Drive, Suite 600

Reported: 11/05/2013 15:18

Highlands Ranch CO 80129

28188 SDG#: PEM51-17TB

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

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

Sample Description: WS-TB-188-102813 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255016
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013

ExxonMobil c/o Arcadis

Submitted: 10/29/2013 10:15

630 Plaza Drive, Suite 600

Reported: 11/05/2013 15:18

Highlands Ranch CO 80129

28188 SDG#: PEM51-17TB

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

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C133031AA	10/30/2013 17:08	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C133031AA	10/30/2013 17:08	Kerri E Legerlotz	1

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

Sample Description: DUP-WS-109-102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255017
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28109 SDG#: PEM51-18FD*

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

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

Sample Description: DUP-WS-109-102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255017
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28109 SDG#: PEM51-18FD*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	20.5	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	0.0271	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: DUP-WS-109-102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255017
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28109 SDG#: PEM51-18FD*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	4.46	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	2.28	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.	2.4 J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C133031AA	10/30/2013 17:31	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C133031AA	10/30/2013 17:31	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13302WAJ026	11/02/2013 03:58	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13302WAJ026	10/30/2013 08:00	Kerrie A Freeburn	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	133086256010	11/04/2013 07:45	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	133021848003	11/04/2013 01:38	John P Hook	1
07046	Barium	SW-846 6010B	1	133021848003	11/04/2013 01:38	John P Hook	1
07049	Cadmium	SW-846 6010B	1	133021848003	11/04/2013 01:38	John P Hook	1
01750	Calcium	SW-846 6010B	1	133021848003	11/04/2013 01:38	John P Hook	1
07051	Chromium	SW-846 6010B	1	133021848003	11/04/2013 01:38	John P Hook	1
07055	Lead	SW-846 6010B	1	133021848003	11/04/2013 01:38	John P Hook	1
01757	Magnesium	SW-846 6010B	1	133021848003	11/04/2013 01:38	John P Hook	1
07061	Nickel	SW-846 6010B	1	133021848003	11/04/2013 01:38	John P Hook	1
07036	Selenium	SW-846 6010B	1	133021848003	11/04/2013 01:38	John P Hook	1
07066	Silver	SW-846 6010B	1	133021848003	11/04/2013 01:38	John P Hook	1
07071	Vanadium	SW-846 6010B	1	133021848003	11/04/2013 01:38	John P Hook	1
00259	Mercury	SW-846 7470A	1	133025713006	10/31/2013 09:27	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133021848003	10/30/2013 10:00	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133025713006	10/30/2013 15:10	Nelli S Markaryan	1

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

Sample Description: DUP-WS-109-102813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255017
LL Group # 1429646
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/05/2013 15:18

28109 SDG#: PEM51-18FD*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13309807901A	11/05/2013 08:06	Yolunder Y Bunch	1

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 11/05/13 at 03:18 PM

Group Number: 1429646

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

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

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: C133031AA	Sample number(s): 7255000-7255017								
Acetone	N.D.	3.0	5.0	ug/l	112		60-139		
Allyl Chloride	N.D.	0.1	0.5	ug/l	85		61-130		
Benzene	N.D.	0.1	0.5	ug/l	97		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	110		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	108		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	116		73-128		
Bromomethane	N.D.	0.1	0.5	ug/l	99		62-126		
2-Butanone	N.D.	1.0	5.0	ug/l	99		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	93		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	96		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	120		80-129		
Chlorobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	92		68-120		
Chloroform	N.D.	0.1	0.5	ug/l	111		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	82		55-120		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	97		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	99		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	113		64-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	109		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	104		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	106		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	106		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	104		80-120		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	78		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	98		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	118		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	100		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	101		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	104		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	125		75-145		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	97		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	97		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	104		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	104		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	101		80-123		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	99		80-120		
Ethyl ether	N.D.	0.1	0.5	ug/l	100		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	102		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	108		73-120		

*- Outside of specification

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

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

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

Quality Control SummaryClient Name: ExxonMobil c/o Arcadis
Reported: 11/05/13 at 03:18 PM

Group Number: 1429646

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCS D Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Isopropylbenzene	N.D.	0.1	0.5	ug/l	101		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	95		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	102		80-120		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	98		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	102		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	93		80-120		
Styrene	N.D.	0.1	0.5	ug/l	101		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	110		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	96		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	109		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	99		65-131		
Toluene	N.D.	0.1	0.5	ug/l	96		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	101		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	103		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	113		80-120		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	100		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	107		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	116		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	105		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	96		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	90		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	100		80-120		

Batch number: 13302WAJ026

Sample number(s): 7255000-7255015, 7255017

Acenaphthene	N.D.	0.010	0.050	ug/l	98	100	77-118	2	30
Acenaphthylene	N.D.	0.010	0.050	ug/l	108	108	80-123	0	30
Anthracene	N.D.	0.010	0.050	ug/l	105	106	78-123	1	30
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	103	103	73-127	0	30
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	96	99	72-120	2	30
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	108	108	79-136	0	30
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	99	105	64-130	6	30
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	109	112	73-131	3	30
Chrysene	N.D.	0.010	0.050	ug/l	99	103	76-125	4	30
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	87	99	58-131	13	30
Fluoranthene	N.D.	0.010	0.050	ug/l	106	107	79-124	1	30
Fluorene	N.D.	0.010	0.050	ug/l	103	105	74-115	2	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	94	99	62-130	6	30
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	115	117	80-126	2	30
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	113	116	81-124	2	30
Naphthalene	N.D.	0.030	0.050	ug/l	104	105	75-120	1	30
Phenanthrene	N.D.	0.030	0.050	ug/l	100	100	75-120	0	30
Pyrene	N.D.	0.010	0.050	ug/l	101	101	71-130	0	30

Batch number: 133021848003

Sample number(s): 7255000-7255015, 7255017

Arsenic	N.D.	0.0068	0.0200	mg/l	101		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	99		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	100		90-112		
Calcium	0.0385 J	0.0334	0.200	mg/l	99		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	100		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	104		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	99		89-110		
Nickel	N.D.	0.0015	0.0100	mg/l	102		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	101		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	106		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	97		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: 1429646

Reported: 11/05/13 at 03:18 PM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 133025713006	Sample number(s): 7255000-7255015,7255017								
Mercury	N.D.	0.00006	0.00020	mg/l	107		80-120		
		0							
Batch number: 13309807901A	Sample number(s): 7255000-7255014,7255017								
HEM (oil & grease)	N.D.	1.4	5.0	mg/l	94	97	78-114	4	16

Sample Matrix Quality Control

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

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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: C133031AA	Sample number(s): 7255000-7255017 UNSPK: 7255003								
Acetone	131	123	57-163	6	30				
Allyl Chloride	83	89	56-160	7	30				
Benzene	104	102	87-126	2	30				
Bromobenzene	115	114	80-123	1	30				
Bromochloromethane	109	116	82-125	6	30				
Bromodichloromethane	123	119	82-133	3	30				
Bromoform	133	129	60-138	3	30				
Bromomethane	93	100	66-130	7	30				
2-Butanone	113	108	56-160	5	30				
n-Butylbenzene	104	105	83-131	0	30				
sec-Butylbenzene	107	108	84-128	1	30				
tert-Butylbenzene	108	107	84-135	0	30				
Carbon Tetrachloride	137	134	81-148	2	30				
Chlorobenzene	116	114	78-133	2	30				
Chloroethane	86	94	70-139	9	30				
Chloroform	123	121	86-136	2	30				
Chloromethane	73	81	49-135	10	30				
2-Chlorotoluene	107	108	75-134	1	30				
4-Chlorotoluene	108	108	76-134	0	30				
1,2-Dibromo-3-chloropropane	140	133	43-143	5	30				
Dibromochloromethane	124	120	79-125	4	30				
1,2-Dibromoethane	118	112	84-127	5	30				
Dibromomethane	119	114	83-126	4	30				
1,2-Dichlorobenzene	117	116	83-117	1	30				
1,3-Dichlorobenzene	116	114	79-132	2	30				
1,4-Dichlorobenzene	115	114	79-120	1	30				
Dichlorodifluoromethane	73	74	28-136	2	30				
1,1-Dichloroethane	103	102	88-136	1	30				
1,2-Dichloroethane	130	124	82-135	4	30				
1,1-Dichloroethene	104	107	83-150	3	30				
cis-1,2-Dichloroethene	108	107	82-129	1	30				
trans-1,2-Dichloroethene	108	109	88-127	1	30				
Dichlorofluoromethane	121	128	81-161	6	30				
1,2-Dichloropropane	107	104	91-126	2	30				
1,3-Dichloropropane	108	105	80-127	3	30				
2,2-Dichloropropane	113	112	80-134	1	30				
1,1-Dichloropropene	115	114	86-139	1	30				

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis

Group Number: 1429646

Reported: 11/05/13 at 03:18 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	111	110	74-132	1	30				
trans-1,3-Dichloropropene	112	108	71-128	3	30				
Ethyl ether	95	97	57-139	2	30				
Ethylbenzene	112	109	80-140	2	30				
Freon 113	111	107	77-147	4	30				
Hexachlorobutadiene	127	127	65-128	0	30				
Isopropylbenzene	116	114	81-133	2	30				
p-Isopropyltoluene	109	107	84-124	2	30				
Methyl Tertiary Butyl Ether	103	101	82-132	2	30				
4-Methyl-2-Pentanone	114	110	69-149	3	30				
Methylene Chloride	104	103	77-135	1	30				
n-Propylbenzene	104	104	79-131	0	30				
Styrene	115	112	63-151	3	30				
1,1,1,2-Tetrachloroethane	127*	125	87-126	2	30				
1,1,2,2-Tetrachloroethane	108	105	75-131	2	30				
Tetrachloroethene	124	122	75-129	2	30				
Tetrahydrofuran	110	106	56-154	4	30				
Toluene	108	105	83-127	2	30				
1,2,3-Trichlorobenzene	115	114	73-125	1	30				
1,2,4-Trichlorobenzene	119	116	77-120	2	30				
1,1,1-Trichloroethane	126	124	85-140	2	30				
1,1,2-Trichloroethane	114	111	85-129	3	30				
Trichloroethene	121	117	85-131	4	30				
Trichlorofluoromethane	115	119	73-139	4	30				
1,2,3-Trichloropropane	123*	118	76-120	4	30				
1,2,4-Trimethylbenzene	108	107	87-126	1	30				
1,3,5-Trimethylbenzene	107	106	89-129	1	30				
Vinyl Chloride	85	92	62-135	8	30				
Xylene (Total)	113	111	81-137	2	30				

Batch number: 133021848003	Sample number(s): 7255000-7255015,7255017 UNSPK: 7255000 BKG: 7255000								
Arsenic	102	101	81-123	1	20	N.D.	N.D.	0 (1)	20
Barium	98	99	78-118	0	20	0.0330	0.0338	2	20
Cadmium	100	99	83-116	1	20	N.D.	N.D.	0 (1)	20
Calcium	99	100	75-125	1	20	4.77	4.94	4	20
Chromium	101	100	76-120	1	20	N.D.	N.D.	0 (1)	20
Lead	107	106	75-125	1	20	N.D.	N.D.	0 (1)	20
Magnesium	98	100	75-125	1	20	2.41	2.49	3	20
Nickel	102	102	86-115	1	20	N.D.	N.D.	0 (1)	20
Selenium	99	100	75-125	0	20	N.D.	N.D.	0 (1)	20
Silver	108	107	75-125	1	20	N.D.	N.D.	0 (1)	20
Vanadium	98	97	90-117	2	20	N.D.	N.D.	0 (1)	20

Batch number: 133025713006	Sample number(s): 7255000-7255015,7255017 UNSPK: 7255007 BKG: 7255007								
Mercury	107	108	80-120	1	20	N.D.	N.D.	0 (1)	20

Batch number: 13309807901A	Sample number(s): 7255000-7255014,7255017 UNSPK: 7255001								
HEM (oil & grease)	83		78-114						

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 11/05/13 at 03:18 PM

Group Number: 1429646

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: C133031AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7255000	106	102	96	97
7255001	106	102	96	98
7255002	106	100	95	96
7255003	107	100	95	96
7255004	107	101	96	97
7255005	107	101	96	97
7255006	108	101	95	97
7255007	108	101	95	97
7255008	108	101	96	98
7255009	108	101	96	96
7255010	107	101	96	96
7255011	108	103	95	97
7255012	108	101	96	96
7255013	107	102	95	97
7255014	108	101	96	97
7255015	108	101	96	98
7255016	109	102	95	96
7255017	108	102	95	96
Blank	105	101	96	97
LCS	107	102	96	98
MS	108	102	96	99
MSD	109	102	96	98
Limits:	77-114	74-113	77-110	78-110

Analysis Name: PAHs in waters by SIM

Batch number: 13302WAJ026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7255000	84	33*	107
7255001	70	61*	81
7255002	81	106	116
7255003	90	77	109
7255004	81	76	100
7255005	90	89	116
7255006	85	79	109
7255007	88	78	110
7255008	83	80	102
7255009	90	76	113
7255010	88	71	107
7255011	70	51*	67
7255012	103	66	111
7255013	88	57*	111
7255014	87	66	111
7255015	85	90	85
7255017	87	71	105
Blank	105	113	116
LCS	105	108	116

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 11/05/13 at 03:18 PM

Group Number: 1429646

Surrogate Quality Control

LCSD	105	108	117
Limits:	44-137	62-141	51-136

*- Outside of specification

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

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

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Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only
Group # 1429646 Sample # 7255000-17
Instructions on reverse side correspond with circled numbers.

1 of 2

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

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For Eurofins Lancaster Laboratories Environmental use only
Acct. # 14739 Group # 1429646 Sample # 7255000-17
Instructions on reverse side correspond with circled numbers.

2 of 2

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

Environmental Sample Administration
Receipt Documentation Log

1429646

Client/Project: MayflowerShipping Container Sealed: YES NODate of Receipt: 10/29/13Custody Seal Present *: YES NOTime of Receipt: 1015* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: 60-1Package: Chilled Not Chilled

Temperature of Shipping Containers

Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	1.4	TB	WI	Y	B	
2		1.3					
3		1.0					
4		0.4					
5		1.1					
6		0.3					

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

Paperwork Discrepancy/Unpacking Problems:

016 jar for WS-003 @ 0840 received cracked (jar still intact)
1 broken 016 jar for WS-018 @ 0830

Unpacker Signature/Emp#: Cash 3647 Date/Time: 10/29/13 1048

Issued by Dept. 6042 Management

Explanation of Symbols and Abbreviations

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

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

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

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

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

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

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

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

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