

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

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

October 07, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 09/28/2013

Group Number: 1422319

SDG: PEL78

PO Number: B0086003.1301

State of Sample Origin: AR

Client Sample DescriptionLancaster Labs (LL) #

WS-014(1.5-2.0)092713 Grab Surface Water	7216897
WS-014(5.5-6.0)092713 Grab Surface Water	7216898
WS-012(1.5-2.0)092713 Grab Surface Water	7216899
WS-012(5.0-5.5)092713 Grab Surface Water	7216900
WS-010(1.5-2.0)092713 Grab Surface Water	7216901
WS-010(3.5-4.0)092713 Grab Surface Water	7216902
WS-006(0.5-1.0)092713 Grab Surface Water	7216903
WS-006(0.5-1.0)092713MS Grab Surface Water	7216904
WS-006(0.5-1.0)092713MSD Grab Surface Water	7216905
WS-006(0.5-1.0)092713DUP Grab Surface Water	7216906
WS-005(Surface)092713 Grab Surface Water	7216907
WS-011(1.5-2.0)092713 Grab Surface Water	7216908
WS-011(5.0-5.5)092713 Grab Surface Water	7216909
WS-002(Surface)092713 Grab Surface Water	7216910
WS-018(Surface)092713 Grab Surface Water	7216911
WS-003(Surface)092713 Grab Surface Water	7216912
WS-007(0.5-1.0)092713 Grab Surface Water	7216913
WS-001(0.5-1.0)092713 Grab Surface Water	7216914
WS-EB-74-092713 Grab Water	7216915
WS-TB-162-092713 Water	7216916

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

ELECTRONIC ARCADIS
COPY TO
ELECTRONIC ARCADIS
COPY TO

Attn: Stephen Barrick

Attn: Lyndi Mott

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

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1422319

General Comments:

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

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

Project specific QC samples are included in this data set

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

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

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

Analysis Specific Comments:**SW-846 8270C SIM, GC/MS Semivolatiles**

Batch #: 13273WAI026 (Sample number(s): 7216897-7216905, 7216907-7216915 UNSPK: 7216903)

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

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7216898, 7216899, 7216902, 7216912, 7216913, 7216914

Sample #s: 7216898, 7216899, 7216902, 7216912, 7216913, 7216914

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.

SW-846 6010B, Metals

Batch #: 132731848003 (Sample number(s): 7216897-7216915 UNSPK: 7216903 BKG: 7216903)

The duplicate RPD for the following analyte(s) exceeded the acceptance window: Arsenic

EPA 1664A, Wet Chemistry

Batch #: 13279807901A (Sample number(s): 7216897-7216914 UNSPK: 7216903 BKG: 7216903)

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

The duplicate RPD for the following analyte(s) exceeded the acceptance window: HEM (oil & grease)

Sample Description: WS-014(1.5-2.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216897
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 08:45 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7801 SDG#: PEL78-01

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

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

Sample Description: WS-014(1.5-2.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216897
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 08:45 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7801 SDG#: PEL78-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	29.4	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	0.0507	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.66	0.0334	0.200	1

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

Sample Description: WS-014(1.5-2.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216897
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 08:45 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7801 SDG#: PEL78-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	0.0026 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.10	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0029 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.	1.8 J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132731AA	09/30/2013 14:16	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132731AA	09/30/2013 14:16	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAI026	10/04/2013 05:25	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAI026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132766256001	10/04/2013 09:05	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848003	10/04/2013 06:13	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132731848003	10/04/2013 06:13	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132731848003	10/04/2013 06:13	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132731848003	10/04/2013 06:13	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132731848003	10/04/2013 06:13	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132731848003	10/04/2013 06:13	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132731848003	10/04/2013 06:13	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132731848003	10/04/2013 06:13	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132731848003	10/04/2013 06:13	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132731848003	10/04/2013 06:13	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132731848003	10/04/2013 06:13	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132735713003	10/01/2013 05:54	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848003	10/01/2013 08:11	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132735713003	09/30/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13279807901A	10/06/2013 04:37	Yolunder Y Bunch	1

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

Sample Description: WS-014(5.5-6.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216898
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 08:55 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7802 SDG#: PEL78-02

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

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

Sample Description: WS-014(5.5-6.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216898
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 08:55 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7802 SDG#: PEL78-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO ₃	471-34-1	29.6	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	0.0070 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0518	0.00033	0.0050	1

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

Sample Description: WS-014(5.5-6.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216898
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 08:55 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7802 SDG#: PEL78-02

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	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.71	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0029 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.11	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0026 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	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.	2.3 J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132731AA	09/30/2013 14:37	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132731AA	09/30/2013 14:37	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAI026	10/04/2013 05:54	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAI026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132766256001	10/04/2013 09:05	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848003	10/04/2013 06:17	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132731848003	10/04/2013 06:17	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132731848003	10/04/2013 06:17	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132731848003	10/04/2013 06:17	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132731848003	10/04/2013 06:17	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132731848003	10/04/2013 06:17	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132731848003	10/04/2013 06:17	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132731848003	10/04/2013 06:17	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132731848003	10/04/2013 06:17	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132731848003	10/04/2013 06:17	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132731848003	10/04/2013 06:17	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132735713003	10/01/2013 05:56	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848003	10/01/2013 08:11	James L Mertz	1

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

Sample Description: WS-014(5.5-6.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216898
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 08:55 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7802 SDG#: PEL78-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132735713003	09/30/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13279807901A	10/06/2013 04:37	Yolunder Y Bunch	1

Sample Description: WS-012(1.5-2.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216899
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:05 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7803 SDG#: PEL78-03

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

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

Sample Description: WS-012(1.5-2.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216899
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:05 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7803 SDG#: PEL78-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO ₃	471-34-1	28.3	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	0.0301	0.00033	0.0050	1

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

Sample Description: WS-012(1.5-2.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216899
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:05 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7803 SDG#: PEL78-03

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	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.41	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	2.98	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0024 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	1.6 J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132731AA	09/30/2013 14:58	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132731AA	09/30/2013 14:58	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAI026	10/04/2013 06:23	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAI026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132766256001	10/04/2013 09:05	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848003	10/04/2013 06:29	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132731848003	10/04/2013 06:29	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132731848003	10/04/2013 06:29	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132731848003	10/04/2013 06:29	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132731848003	10/04/2013 06:29	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132731848003	10/04/2013 06:29	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132731848003	10/04/2013 06:29	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132731848003	10/04/2013 06:29	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132731848003	10/04/2013 06:29	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132731848003	10/04/2013 06:29	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132731848003	10/04/2013 06:29	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132735713003	10/01/2013 06:02	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848003	10/01/2013 08:11	James L Mertz	1

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

Sample Description: WS-012(1.5-2.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216899
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:05 by HVA

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 09/28/2013 08:50

Highlands Ranch CO 80129

Reported: 10/07/2013 11:12

P7803 SDG#: PEL78-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132735713003	09/30/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13279807901A	10/06/2013 04:37	Yolunder Y Bunch	1

Sample Description: WS-012(5.0-5.5)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216900
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:15 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7804 SDG#: PEL78-04

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

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

Sample Description: WS-012(5.0-5.5)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216900
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:15 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7804 SDG#: PEL78-04

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.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	0.054	0.011	0.053	1
08357	Anthracene	120-12-7	0.013 J	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	0.012 J	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	0.012 J	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	0.011 J	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	0.036 J	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	29.1	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0518	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.59	0.0334	0.200	1

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

Sample Description: WS-012(5.0-5.5)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216900
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:15 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7804 SDG#: PEL78-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.07	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0019 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000082 J	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132731AA	09/30/2013 15:19	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132731AA	09/30/2013 15:19	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAI026	10/04/2013 06:53	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAI026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132766256001	10/04/2013 09:05	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848003	10/04/2013 06:33	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132731848003	10/04/2013 06:33	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132731848003	10/04/2013 06:33	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132731848003	10/04/2013 06:33	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132731848003	10/04/2013 06:33	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132731848003	10/04/2013 06:33	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132731848003	10/04/2013 06:33	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132731848003	10/04/2013 06:33	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132731848003	10/04/2013 06:33	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132731848003	10/04/2013 06:33	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132731848003	10/04/2013 06:33	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132735713003	10/01/2013 06:04	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848003	10/01/2013 08:11	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132735713003	09/30/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13279807901A	10/06/2013 04:37	Yolunder Y Bunch	1

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

Sample Description: WS-010(1.5-2.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216901
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:25 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7805 SDG#: PEL78-05

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

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

Sample Description: WS-010(1.5-2.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216901
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:25 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7805 SDG#: PEL78-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	28.9	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	0.0375	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.52	0.0334	0.200	1

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

Sample Description: WS-010(1.5-2.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216901
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:25 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7805 SDG#: PEL78-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.07	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0025 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	0.000083 J	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	1.9 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	I132731AA	09/30/2013 15:40	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132731AA	09/30/2013 15:40	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAI026	10/04/2013 07:22	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAI026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132766256001	10/04/2013 09:05	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848003	10/04/2013 06:37	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132731848003	10/04/2013 06:37	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132731848003	10/04/2013 06:37	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132731848003	10/04/2013 06:37	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132731848003	10/04/2013 06:37	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132731848003	10/04/2013 06:37	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132731848003	10/04/2013 06:37	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132731848003	10/04/2013 06:37	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132731848003	10/04/2013 06:37	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132731848003	10/04/2013 06:37	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132731848003	10/04/2013 06:37	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132735713003	10/01/2013 06:06	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848003	10/01/2013 08:11	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132735713003	09/30/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13279807901A	10/06/2013 04:37	Yolunder Y Bunch	1

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

Sample Description: WS-010(3.5-4.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216902
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:35 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7806 SDG#: PEL78-06

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

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

Sample Description: WS-010(3.5-4.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216902
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:35 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7806 SDG#: PEL78-06

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	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO ₃	471-34-1	29.4	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0609	0.00033	0.0050	1

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

Sample Description: WS-010(3.5-4.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216902
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:35 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7806 SDG#: PEL78-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.63	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0057 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.12	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0046 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	0.000086 J	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132731AA	09/30/2013 16:02	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132731AA	09/30/2013 16:02	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAI026	10/04/2013 07:51	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAI026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132766256001	10/04/2013 09:05	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848003	10/04/2013 06:41	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132731848003	10/04/2013 06:41	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132731848003	10/04/2013 06:41	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132731848003	10/04/2013 06:41	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132731848003	10/04/2013 06:41	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132731848003	10/04/2013 06:41	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132731848003	10/04/2013 06:41	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132731848003	10/04/2013 06:41	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132731848003	10/04/2013 06:41	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132731848003	10/04/2013 06:41	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132731848003	10/04/2013 06:41	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132735713003	10/01/2013 06:08	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848003	10/01/2013 08:11	James L Mertz	1

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

Sample Description: WS-010(3.5-4.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216902
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:35 by HVA

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 09/28/2013 08:50

Highlands Ranch CO 80129

Reported: 10/07/2013 11:12

P7806 SDG#: PEL78-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132735713003	09/30/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13279807901A	10/06/2013 04:37	Yolunder Y Bunch	1

Sample Description: WS-006(0.5-1.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216903
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:45 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7807 SDG#: PEL78-07BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	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)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216903
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:45 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7807 SDG#: PEL78-07BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	28.6	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	0.0434	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.43	0.0334	0.200	1

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

Sample Description: WS-006(0.5-1.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216903
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:45 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7807 SDG#: PEL78-07BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	
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	3.05	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0027 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.	2.0 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	I132731AA	09/30/2013 12:09	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132731AA	09/30/2013 12:09	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAI026	10/04/2013 00:02	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAI026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132766256001	10/04/2013 09:05	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848003	10/04/2013 05:49	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132731848003	10/04/2013 05:49	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132731848003	10/04/2013 05:49	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132731848003	10/04/2013 05:49	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132731848003	10/04/2013 05:49	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132731848003	10/04/2013 05:49	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132731848003	10/04/2013 05:49	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132731848003	10/04/2013 05:49	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132731848003	10/04/2013 05:49	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132731848003	10/04/2013 05:49	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132731848003	10/04/2013 05:49	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132735713003	10/01/2013 06:10	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848003	10/01/2013 08:11	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132735713003	09/30/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13279807901A	10/06/2013 04:37	Yolunder Y Bunch	1

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

Sample Description: WS-006(0.5-1.0)092713MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216904
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:45 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7807 SDG#: PEL78-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	44	3.0	5.0	1
02898	Allyl Chloride	107-05-1	5.2	0.1	0.5	1
02898	Benzene	71-43-2	5.2	0.1	0.5	1
02898	Bromobenzene	108-86-1	4.9	0.1	0.5	1
02898	Bromochloromethane	74-97-5	4.6	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	4.9	0.1	0.5	1
02898	Bromoform	75-25-2	4.6	0.1	0.5	1
02898	Bromomethane	74-83-9	4.8	0.1	0.5	1
02898	2-Butanone	78-93-3	41	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.5	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.4	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.2	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.1	0.1	0.5	1
02898	Chlorobenzene	108-90-7	4.9	0.1	0.5	1
02898	Chloroethane	75-00-3	5.1	0.1	0.5	1
02898	Chloroform	67-66-3	5.1	0.1	0.5	1
02898	Chloromethane	74-87-3	5.1	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.2	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.2	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	4.7	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	4.8	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	4.9	0.1	0.5	1
02898	Dibromomethane	74-95-3	4.9	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.0	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.1	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.0	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	4.5	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.3	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.1	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.4	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.0	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.2	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	5.3	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.4	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	5.0	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	5.0	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.2	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.1	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.8	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.8	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.1	0.1	0.5	1
02898	Freon 113	76-13-1	5.2	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	4.9	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.0	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.2	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.7	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	26	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.2	0.2	0.5	1

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

Sample Description: WS-006(0.5-1.0)092713MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216904
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:45 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7807 SDG#: PEL78-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	5.5	0.1	0.5	1
02898	Styrene	100-42-5	4.9	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	4.9	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	5.4	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	4.7	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	26	2.0	5.0	1
02898	Toluene	108-88-3	5.0	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.4	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	4.6	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.1	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.1	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.1	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	5.1	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.2	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.3	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.3	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	5.1	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	15	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.77	0.010	0.051	1
08357	Acenaphthylene	208-96-8	1.0	0.010	0.051	1
08357	Anthracene	120-12-7	0.11	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.72	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.29	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.93	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.72	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.82	0.010	0.051	1
08357	Chrysene	218-01-9	0.87	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.86	0.010	0.051	1
08357	Fluoranthene	206-44-0	1.1	0.010	0.051	1
08357	Fluorene	86-73-7	0.99	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.82	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	1.1	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	1.0	0.010	0.051	1
08357	Naphthalene	91-20-3	1.0	0.031	0.051	1
08357	Phenanthrene	85-01-8	1.0	0.031	0.051	1
08357	Pyrene	129-00-0	0.75	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	47.0	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	0.158	0.0068	0.0200	1
07046	Barium	7440-39-3	2.10	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0520	0.00076	0.0050	1
01750	Calcium	7440-70-2	10.5	0.0334	0.200	1

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

Sample Description: WS-006 (0.5-1.0) 092713MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216904
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:45 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7807 SDG#: PEL78-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	0.204	0.0016	0.0150	1
07055	Lead	7439-92-1	0.160	0.0047	0.0150	1
01757	Magnesium	7439-95-4	5.05	0.0167	0.100	1
07061	Nickel	7440-02-0	0.527	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.153	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0468	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.523	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.00098	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	28.2	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132731AA	09/30/2013 12:31	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132731AA	09/30/2013 12:31	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAI026	10/04/2013 00:31	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAI026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132766256001	10/04/2013 09:05	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848003	10/04/2013 06:01	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132731848003	10/04/2013 06:01	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132731848003	10/04/2013 06:01	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132731848003	10/04/2013 06:01	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132731848003	10/04/2013 06:01	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132731848003	10/04/2013 06:01	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132731848003	10/04/2013 06:01	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132731848003	10/04/2013 06:01	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132731848003	10/04/2013 06:01	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132731848003	10/04/2013 06:01	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132731848003	10/04/2013 06:01	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132735713003	10/01/2013 06:15	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848003	10/01/2013 08:11	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132735713003	09/30/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13279807901A	10/06/2013 04:37	Yolunder Y Bunch	1

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

Sample Description: WS-006(0.5-1.0)092713MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216905
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:45 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7807 SDG#: PEL78-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	43	3.0	5.0	1
02898	Allyl Chloride	107-05-1	5.0	0.1	0.5	1
02898	Benzene	71-43-2	5.1	0.1	0.5	1
02898	Bromobenzene	108-86-1	4.8	0.1	0.5	1
02898	Bromochloromethane	74-97-5	4.5	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	4.8	0.1	0.5	1
02898	Bromoform	75-25-2	4.4	0.1	0.5	1
02898	Bromomethane	74-83-9	4.6	0.1	0.5	1
02898	2-Butanone	78-93-3	42	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.4	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.3	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.1	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.0	0.1	0.5	1
02898	Chlorobenzene	108-90-7	4.8	0.1	0.5	1
02898	Chloroethane	75-00-3	4.8	0.1	0.5	1
02898	Chloroform	67-66-3	5.0	0.1	0.5	1
02898	Chloromethane	74-87-3	4.8	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.1	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.0	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	4.6	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	4.6	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	4.7	0.1	0.5	1
02898	Dibromomethane	74-95-3	4.8	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	4.8	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.0	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	4.9	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	4.4	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.2	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	4.9	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.2	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	4.9	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.0	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	5.0	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.2	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	4.9	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	4.9	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.1	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.0	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.7	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.6	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.0	0.1	0.5	1
02898	Freon 113	76-13-1	5.1	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	4.8	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	4.9	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.2	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.6	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	24	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.1	0.2	0.5	1

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

Sample Description: WS-006(0.5-1.0)092713MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216905
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:45 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7807 SDG#: PEL78-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	5.4	0.1	0.5	1
02898	Styrene	100-42-5	4.7	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	4.7	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	5.3	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	4.6	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	26	2.0	5.0	1
02898	Toluene	108-88-3	4.9	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.4	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	4.6	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.0	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	4.9	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.0	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	5.1	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.1	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.2	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.2	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	4.9	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	14	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.78	0.010	0.051	1
08357	Acenaphthylene	208-96-8	1.0	0.010	0.051	1
08357	Anthracene	120-12-7	0.13	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.73	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.25	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.89	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.66	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.78	0.010	0.051	1
08357	Chrysene	218-01-9	0.88	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.80	0.010	0.051	1
08357	Fluoranthene	206-44-0	1.1	0.010	0.051	1
08357	Fluorene	86-73-7	0.99	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.76	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	1.1	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	1.1	0.010	0.051	1
08357	Naphthalene	91-20-3	1.0	0.030	0.051	1
08357	Phenanthrene	85-01-8	0.99	0.030	0.051	1
08357	Pyrene	129-00-0	0.74	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	46.7	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	0.156	0.0068	0.0200	1
07046	Barium	7440-39-3	2.09	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0517	0.00076	0.0050	1
01750	Calcium	7440-70-2	10.4	0.0334	0.200	1

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

Sample Description: WS-006 (0.5-1.0) 092713MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216905
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:45 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7807 SDG#: PEL78-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	0.205	0.0016	0.0150	1
07055	Lead	7439-92-1	0.158	0.0047	0.0150	1
01757	Magnesium	7439-95-4	5.02	0.0167	0.100	1
07061	Nickel	7440-02-0	0.525	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.149	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0465	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.519	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.00095	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	24.7	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132731AA	09/30/2013 12:52	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132731AA	09/30/2013 12:52	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAI026	10/04/2013 01:00	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAI026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132766256001	10/04/2013 09:05	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848003	10/04/2013 06:05	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132731848003	10/04/2013 06:05	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132731848003	10/04/2013 06:05	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132731848003	10/04/2013 06:05	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132731848003	10/04/2013 06:05	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132731848003	10/04/2013 06:05	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132731848003	10/04/2013 06:05	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132731848003	10/04/2013 06:05	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132731848003	10/04/2013 06:05	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132731848003	10/04/2013 06:05	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132731848003	10/04/2013 06:05	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132735713003	10/01/2013 06:17	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848003	10/01/2013 08:11	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132735713003	09/30/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13279807901A	10/06/2013 04:37	Yolunder Y Bunch	1

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

Sample Description: WS-006 (0.5-1.0) 092713DUP Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216906
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 09:45 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7807 SDG#: PEL78-07DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SM 2340 B-1997		mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	28.8	0.033	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0070 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0434	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.48	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	3.05	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0025 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.	1.4 J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06256	Total Hardness as CaCO ₃	SM 2340 B-1997	1	132766256001	10/04/2013 09:05	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848003	10/04/2013 05:57	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132731848003	10/04/2013 05:57	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132731848003	10/04/2013 05:57	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132731848003	10/04/2013 05:57	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132731848003	10/04/2013 05:57	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132731848003	10/04/2013 05:57	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132731848003	10/04/2013 05:57	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132731848003	10/04/2013 05:57	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132731848003	10/04/2013 05:57	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132731848003	10/04/2013 05:57	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132731848003	10/04/2013 05:57	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132735713003	10/01/2013 06:13	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848003	10/01/2013 08:11	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132735713003	09/30/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13279807901A	10/06/2013 04:37	Yolunder Y Bunch	1

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

Sample Description: WS-005(Surface)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216907
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 10:15 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7808 SDG#: PEL78-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	3.1 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: WS-005(Surface)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216907
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 10:15 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7808 SDG#: PEL78-08

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	0.3 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	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	0.033 J	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	29.4	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0553	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.75	0.0334	0.200	1

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

Sample Description: WS-005(Surface)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216907
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 10:15 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7808 SDG#: PEL78-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.06	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0021 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	0.000067 J	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	I132731AA	09/30/2013 16:23	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132731AA	09/30/2013 16:23	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAI026	10/04/2013 08:20	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAI026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132766256001	10/04/2013 09:05	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848003	10/04/2013 06:45	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132731848003	10/04/2013 06:45	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132731848003	10/04/2013 06:45	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132731848003	10/04/2013 06:45	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132731848003	10/04/2013 06:45	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132731848003	10/04/2013 06:45	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132731848003	10/04/2013 06:45	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132731848003	10/04/2013 06:45	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132731848003	10/04/2013 06:45	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132731848003	10/04/2013 06:45	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132731848003	10/04/2013 06:45	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132735713003	10/01/2013 06:19	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848003	10/01/2013 08:11	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132735713003	09/30/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13279807901A	10/06/2013 04:37	Yolunder Y Bunch	1

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

Sample Description: WS-011(1.5-2.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216908
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 10:45 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7809 SDG#: PEL78-09

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

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

Sample Description: WS-011(1.5-2.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216908
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 10:45 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7809 SDG#: PEL78-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	30.1	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0087 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0405	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.77	0.0334	0.200	1

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

Sample Description: WS-011(1.5-2.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216908
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 10:45 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7809 SDG#: PEL78-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.21	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0018 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	0.000068 J	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	3.2 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	I132731AA	09/30/2013 16:44	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132731AA	09/30/2013 16:44	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAI026	10/04/2013 08:50	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAI026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132766256001	10/04/2013 09:05	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848003	10/04/2013 06:49	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132731848003	10/04/2013 06:49	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132731848003	10/04/2013 06:49	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132731848003	10/04/2013 06:49	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132731848003	10/04/2013 06:49	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132731848003	10/04/2013 06:49	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132731848003	10/04/2013 06:49	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132731848003	10/04/2013 06:49	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132731848003	10/04/2013 06:49	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132731848003	10/04/2013 06:49	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132731848003	10/04/2013 06:49	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132735713003	10/01/2013 06:21	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848003	10/01/2013 08:11	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132735713003	09/30/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13279807901A	10/06/2013 04:37	Yolunder Y Bunch	1

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

Sample Description: WS-011(5.0-5.5)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216909
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 10:55 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7810 SDG#: PEL78-10

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

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

Sample Description: WS-011(5.0-5.5)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216909
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 10:55 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7810 SDG#: PEL78-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.054	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.054	1
08357	Anthracene	120-12-7	N.D.	0.011	0.054	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.054	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.054	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.054	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.054	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.054	1
08357	Chrysene	218-01-9	N.D.	0.011	0.054	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.054	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.054	1
08357	Fluorene	86-73-7	N.D.	0.011	0.054	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.054	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.054	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.054	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.054	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.054	1
08357	Pyrene	129-00-0	N.D.	0.011	0.054	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	29.7	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	0.0072 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0610	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.65	0.0334	0.200	1

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

Sample Description: WS-011(5.0-5.5)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216909
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 10:55 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7810 SDG#: PEL78-10

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	
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	3.17	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0024 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	1.6 J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132731AA	09/30/2013 17:05	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132731AA	09/30/2013 17:05	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAI026	10/04/2013 13:35	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAI026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132766256001	10/04/2013 09:05	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848003	10/04/2013 06:53	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132731848003	10/04/2013 06:53	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132731848003	10/04/2013 06:53	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132731848003	10/04/2013 06:53	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132731848003	10/04/2013 06:53	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132731848003	10/04/2013 06:53	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132731848003	10/04/2013 06:53	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132731848003	10/04/2013 06:53	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132731848003	10/04/2013 06:53	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132731848003	10/04/2013 06:53	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132731848003	10/04/2013 06:53	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132735713003	10/01/2013 06:27	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848003	10/01/2013 08:11	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132735713003	09/30/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13279807901A	10/06/2013 04:37	Yolunder Y Bunch	1

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

Sample Description: WS-002(Surface)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216910
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 11:05 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7811 SDG#: PEL78-11

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

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

Sample Description: WS-002(Surface)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216910
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 11:05 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7811 SDG#: PEL78-11

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
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	28.4	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0296	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.44	0.0334	0.200	1

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

Sample Description: WS-002(Surface)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216910
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 11:05 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7811 SDG#: PEL78-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.99	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0026 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	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	I132731AA	09/30/2013 17:26	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132731AA	09/30/2013 17:26	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAI026	10/04/2013 14:04	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAI026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132766256001	10/04/2013 09:05	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848003	10/04/2013 06:57	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132731848003	10/04/2013 06:57	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132731848003	10/04/2013 06:57	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132731848003	10/04/2013 06:57	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132731848003	10/04/2013 06:57	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132731848003	10/04/2013 06:57	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132731848003	10/04/2013 06:57	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132731848003	10/04/2013 06:57	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132731848003	10/04/2013 06:57	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132731848003	10/04/2013 06:57	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132731848003	10/04/2013 06:57	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132735713003	10/01/2013 06:29	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848003	10/01/2013 08:11	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132735713003	09/30/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13279807901A	10/06/2013 04:37	Yolunder Y Bunch	1

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

Sample Description: WS-018(Surface)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216911
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 11:25 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7812 SDG#: PEL78-12

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

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

Sample Description: WS-018(Surface)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216911
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 11:25 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7812 SDG#: PEL78-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	29.6	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	0.0770	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.63	0.0334	0.200	1

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

Sample Description: WS-018(Surface)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216911
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 11:25 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7812 SDG#: PEL78-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.16	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	0.000083 J	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	2.1 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	I132731AA	09/30/2013 17:47	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132731AA	09/30/2013 17:47	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAI026	10/04/2013 14:34	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAI026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132766256001	10/04/2013 09:05	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848003	10/04/2013 07:01	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132731848003	10/04/2013 07:01	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132731848003	10/04/2013 07:01	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132731848003	10/04/2013 07:01	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132731848003	10/04/2013 07:01	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132731848003	10/04/2013 07:01	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132731848003	10/04/2013 07:01	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132731848003	10/04/2013 07:01	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132731848003	10/04/2013 07:01	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132731848003	10/04/2013 07:01	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132731848003	10/04/2013 07:01	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132735713003	10/01/2013 06:31	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848003	10/01/2013 08:11	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132735713003	09/30/2013 15:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13279807901A	10/06/2013 04:37	Yolunder Y Bunch	1

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

Sample Description: WS-003(Surface)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216912
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 11:35 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7813 SDG#: PEL78-13

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

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

Sample Description: WS-003(Surface)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216912
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 11:35 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7813 SDG#: PEL78-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	30.9	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0650	0.00033	0.0050	1

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

Sample Description: WS-003 (Surface) 092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216912
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 11:35 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7813 SDG#: PEL78-13

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	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.93	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	3.30	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0022 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	I132731AA	09/30/2013 18:09	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132731AA	09/30/2013 18:09	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAI026	10/04/2013 15:03	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAI026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132766256001	10/04/2013 09:05	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848003	10/04/2013 07:05	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132731848003	10/04/2013 07:05	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132731848003	10/04/2013 07:05	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132731848003	10/04/2013 07:05	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132731848003	10/04/2013 07:05	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132731848003	10/04/2013 07:05	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132731848003	10/04/2013 07:05	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132731848003	10/04/2013 07:05	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132731848003	10/04/2013 07:05	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132731848003	10/04/2013 07:05	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132731848003	10/04/2013 07:05	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132735713003	10/01/2013 06:33	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848003	10/01/2013 08:11	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132735713003	09/30/2013 15:30	Nelli S Markaryan	1

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

Sample Description: WS-003 (Surface) 092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216912
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 11:35 by HVA

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 09/28/2013 08:50

Highlands Ranch CO 80129

Reported: 10/07/2013 11:12

P7813 SDG#: PEL78-13

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	13279807901A	10/06/2013 04:37	Yolunder Y Bunch	1

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

Sample Description: WS-007(0.5-1.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216913
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 11:50 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7814 SDG#: PEL78-14

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	6.7	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)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216913
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 11:50 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7814 SDG#: PEL78-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.012 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.031 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.017 J	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	0.023 J	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	0.028 J	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.012 J	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.019 J	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.020 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	0.024 J	0.010	0.051	1
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	44.2	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0270	0.0068	0.0200	1
07046	Barium	7440-39-3	0.349	0.00033	0.0050	1

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

Sample Description: WS-007(0.5-1.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216913
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 11:50 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7814 SDG#: PEL78-14

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	
07049	Cadmium	7440-43-9	0.0012 J	0.00076	0.0050	1
01750	Calcium	7440-70-2	8.40	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0419	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0528	0.0047	0.0150	1
01757	Magnesium	7439-95-4	5.63	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0472	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0633	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000068 J	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	2.0 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	I132731AA	09/30/2013 18:30	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132731AA	09/30/2013 18:30	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAI026	10/04/2013 15:32	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAI026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132766256001	10/04/2013 09:05	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848003	10/04/2013 07:17	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132731848003	10/04/2013 07:17	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132731848003	10/04/2013 07:17	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132731848003	10/04/2013 07:17	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132731848003	10/04/2013 07:17	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132731848003	10/04/2013 07:17	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132731848003	10/04/2013 07:17	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132731848003	10/04/2013 07:17	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132731848003	10/04/2013 07:17	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132731848003	10/04/2013 07:17	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132731848003	10/04/2013 07:17	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132735713003	10/01/2013 06:35	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848003	10/01/2013 08:11	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132735713003	09/30/2013 15:30	Nelli S Markaryan	1

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

Sample Description: WS-007(0.5-1.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216913
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 11:50 by HVA

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 09/28/2013 08:50

Highlands Ranch CO 80129

Reported: 10/07/2013 11:12

P7814 SDG#: PEL78-14

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	13279807901A	10/06/2013 04:37	Yolunder Y Bunch	1

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

Sample Description: WS-001(0.5-1.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216914
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 12:10 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7815 SDG#: PEL78-15

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

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

Sample Description: WS-001(0.5-1.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216914
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 12:10 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7815 SDG#: PEL78-15

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	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO ₃	471-34-1	28.5	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	0.0070 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0360	0.00033	0.0050	1

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

Sample Description: WS-001(0.5-1.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216914
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 12:10 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P7815 SDG#: PEL78-15

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	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.44	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	3.01	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	0.000074 J	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132731AA	09/30/2013 18:51	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132731AA	09/30/2013 18:51	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAI026	10/04/2013 16:02	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAI026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132766256001	10/04/2013 09:05	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848003	10/04/2013 07:21	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132731848003	10/04/2013 07:21	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132731848003	10/04/2013 07:21	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132731848003	10/04/2013 07:21	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132731848003	10/04/2013 07:21	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132731848003	10/04/2013 07:21	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132731848003	10/04/2013 07:21	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132731848003	10/04/2013 07:21	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132731848003	10/04/2013 07:21	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132731848003	10/04/2013 07:21	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132731848003	10/04/2013 07:21	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132735713003	10/01/2013 06:37	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848003	10/01/2013 08:11	James L Mertzt	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132735713003	09/30/2013 15:30	Nelli S Markaryan	1

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

Sample Description: WS-001(0.5-1.0)092713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216914
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 12:10 by HVA

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 09/28/2013 08:50

Highlands Ranch CO 80129

Reported: 10/07/2013 11:12

P7815 SDG#: PEL78-15

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	13279807901A	10/06/2013 04:37	Yolunder Y Bunch	1

Sample Description: WS-EB-74-092713 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216915
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 13:00 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P78EB SDG#: PEL78-16EB

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

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

Sample Description: WS-EB-74-092713 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216915
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 13:00 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P78EB SDG#: PEL78-16EB

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	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.054	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.054	1
08357	Anthracene	120-12-7	N.D.	0.011	0.054	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.054	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.054	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.054	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.054	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.054	1
08357	Chrysene	218-01-9	N.D.	0.011	0.054	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.054	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.054	1
08357	Fluorene	86-73-7	N.D.	0.011	0.054	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.054	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.054	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.054	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.054	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.054	1
08357	Pyrene	129-00-0	N.D.	0.011	0.054	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	0.27	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	0.00034 J	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	0.106 J	0.0334	0.200	1

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

Sample Description: WS-EB-74-092713 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216915
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013 13:00 by HVA

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

Submitted: 09/28/2013 08:50

Reported: 10/07/2013 11:12

P78EB SDG#: PEL78-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	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	0.000072 J	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	I132731AA	09/30/2013 13:34	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132731AA	09/30/2013 13:34	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAI026	10/04/2013 16:31	Chad A Moline	1
10470	BNP Water Extraction (SIM)	SW-846 3510C	1	13273WAI026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132766256001	10/04/2013 09:05	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848003	10/04/2013 07:25	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132731848003	10/04/2013 07:25	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132731848003	10/04/2013 07:25	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	132731848003	10/04/2013 07:25	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132731848003	10/04/2013 07:25	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132731848003	10/04/2013 07:25	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132731848003	10/04/2013 07:25	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132731848003	10/04/2013 07:25	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132731848003	10/04/2013 07:25	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132731848003	10/04/2013 07:25	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132731848003	10/04/2013 07:25	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132735713003	10/01/2013 06:39	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848003	10/01/2013 08:11	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132735713003	09/30/2013 15:30	Nelli S Markaryan	1

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

Sample Description: WS-TB-162-092713 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216916
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013

ExxonMobil c/o Arcadis

Submitted: 09/28/2013 08:50

630 Plaza Drive, Suite 600

Reported: 10/07/2013 11:12

Highlands Ranch CO 80129

P78TB SDG#: PEL78-17TB*

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-162-092713 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7216916
LL Group # 1422319
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/27/2013

ExxonMobil c/o Arcadis

Submitted: 09/28/2013 08:50

630 Plaza Drive, Suite 600

Reported: 10/07/2013 11:12

Highlands Ranch CO 80129

P78TB SDG#: PEL78-17TB*

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	I132731AA	09/30/2013 13:55	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132731AA	09/30/2013 13:55	Jason M Long	1

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 10/07/13 at 11:12 AM

Group Number: 1422319

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: I132731AA	Sample number(s): 7216897-7216905, 7216907-7216916								
Acetone	N.D.	3.0	5.0	ug/l	105		60-139		
Allyl Chloride	N.D.	0.1	0.5	ug/l	99		61-130		
Benzene	N.D.	0.1	0.5	ug/l	100		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	97		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	93		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	97		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	93		73-128		
Bromomethane	N.D.	0.1	0.5	ug/l	92		62-126		
2-Butanone	N.D.	1.0	5.0	ug/l	97		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	105		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	104		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	95		80-129		
Chlorobenzene	N.D.	0.1	0.5	ug/l	96		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	96		68-120		
Chloroform	N.D.	0.1	0.5	ug/l	99		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	96		55-120		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	102		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	101		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	79		64-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	96		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	99		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	99		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	100		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	101		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	100		80-120		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	85		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	103		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	102		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	99		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	96		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	98		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	101		75-145		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	105		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	102		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	94		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	96		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	98		80-120		
Ethyl ether	N.D.	0.1	0.5	ug/l	98		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	97		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	93		73-120		

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis

Group Number: 1422319

Reported: 10/07/13 at 11:12 AM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Isopropylbenzene	N.D.	0.1	0.5	ug/l	96		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	100		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	96		80-120		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	107		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	106		80-120		
Styrene	N.D.	0.1	0.5	ug/l	96		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	97		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	112		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	89		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	88		65-131		
Toluene	N.D.	0.1	0.5	ug/l	97		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	89		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	92		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	95		80-120		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	103		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	96		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	98		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	106		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	104		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	103		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	95		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	95		80-120		

Batch number: 13273WAI026

Sample number(s): 7216897-7216905, 7216907-7216915

Acenaphthene	N.D.	0.010	0.050	ug/l	95		77-118		
Acenaphthylene	N.D.	0.010	0.050	ug/l	100		80-123		
Anthracene	N.D.	0.010	0.050	ug/l	98		78-123		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	95		73-127		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	99		72-120		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	104		79-136		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	102		64-130		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	107		73-131		
Chrysene	N.D.	0.010	0.050	ug/l	100		76-125		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	99		58-131		
Fluoranthene	N.D.	0.010	0.050	ug/l	106		79-124		
Fluorene	N.D.	0.010	0.050	ug/l	97		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	96		62-130		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	105		80-126		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	102		81-124		
Naphthalene	N.D.	0.030	0.050	ug/l	98		75-120		
Phenanthrene	N.D.	0.030	0.050	ug/l	100		75-120		
Pyrene	N.D.	0.010	0.050	ug/l	103		71-130		

Batch number: 132731848003

Sample number(s): 7216897-7216915

Arsenic	N.D.	0.0068	0.0200	mg/l	104		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	101		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	103		90-112		
Calcium	0.0366 J	0.0334	0.200	mg/l	101		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	101		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	108		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	100		89-110		
Nickel	N.D.	0.0015	0.0100	mg/l	104		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	99		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	92		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	102		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
Reported: 10/07/13 at 11:12 AM

Group Number: 1422319

<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: 132735713003	Sample number(s): 7216897-7216915								
Mercury	N.D.	0.00006	0.00020	mg/l	98		80-120		
		0							
Batch number: 13279807901A	Sample number(s): 7216897-7216914								
HEM (oil & grease)	1.9	J 1.4	5.0	mg/l	95	96	78-114	1	16

Sample Matrix Quality Control

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

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

<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: I132731AA	Sample number(s): 7216897-7216905, 7216907-7216916 UNSPK: 7216903								
Acetone	117	114	57-163	3	30				
Allyl Chloride	104	101	56-160	3	30				
Benzene	104	101	87-126	3	30				
Bromobenzene	97	95	80-123	2	30				
Bromochloromethane	93	91	82-125	2	30				
Bromodichloromethane	98	95	82-133	3	30				
Bromoform	92	88	60-138	4	30				
Bromomethane	95	92	66-130	3	30				
2-Butanone	110	112	56-160	1	30				
n-Butylbenzene	110	108	83-131	2	30				
sec-Butylbenzene	108	107	84-128	1	30				
tert-Butylbenzene	104	103	84-135	1	30				
Carbon Tetrachloride	101	99	81-148	2	30				
Chlorobenzene	98	95	78-133	3	30				
Chloroethane	101	97	70-139	4	30				
Chloroform	102	100	86-136	2	30				
Chloromethane	101	96	49-135	5	30				
2-Chlorotoluene	104	102	75-134	2	30				
4-Chlorotoluene	103	101	76-134	3	30				
1,2-Dibromo-3-chloropropane	95	92	43-143	3	30				
Dibromochloromethane	95	92	79-125	3	30				
1,2-Dibromoethane	97	95	84-127	2	30				
Dibromomethane	98	95	83-126	3	30				
1,2-Dichlorobenzene	100	96	83-117	4	30				
1,3-Dichlorobenzene	102	99	79-132	3	30				
1,4-Dichlorobenzene	101	98	79-120	2	30				
Dichlorodifluoromethane	90	87	28-136	4	30				
1,1-Dichloroethane	106	104	88-136	2	30				
1,2-Dichloroethane	101	98	82-135	3	30				
1,1-Dichloroethene	108	105	83-150	3	30				
cis-1,2-Dichloroethene	100	98	82-129	2	30				
trans-1,2-Dichloroethene	104	101	88-127	3	30				
Dichlorofluoromethane	106	101	81-161	5	30				
1,2-Dichloropropane	107	104	91-126	3	30				
1,3-Dichloropropane	101	98	80-127	3	30				
2,2-Dichloropropane	100	98	80-134	2	30				
1,1-Dichloropropene	103	101	86-139	2	30				

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis

Group Number: 1422319

Reported: 10/07/13 at 11:12 AM

Sample Matrix Quality Control

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

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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
cis-1,3-Dichloropropene	102	100	74-132	2	30				
trans-1,3-Dichloropropene	97	94	71-128	2	30				
Ethyl ether	96	93	57-139	3	30				
Ethylbenzene	102	99	80-140	2	30				
Freon 113	105	103	77-147	2	30				
Hexachlorobutadiene	99	97	65-128	2	30				
Isopropylbenzene	100	98	81-133	2	30				
p-Isopropyltoluene	104	103	84-124	1	30				
Methyl Tertiary Butyl Ether	94	92	82-132	1	30				
4-Methyl-2-Pentanone	105	97	69-149	7	30				
Methylene Chloride	103	102	77-135	2	30				
n-Propylbenzene	110	108	79-131	2	30				
Styrene	98	95	63-151	3	30				
1,1,1,2-Tetrachloroethane	98	94	87-126	4	30				
1,1,2,2-Tetrachloroethane	109	106	75-131	2	30				
Tetrachloroethene	93	92	75-129	2	30				
Tetrahydrofuran	103	103	56-154	0	30				
Toluene	101	98	83-127	3	30				
1,2,3-Trichlorobenzene	89	89	73-125	0	30				
1,2,4-Trichlorobenzene	92	91	77-120	1	30				
1,1,1-Trichloroethane	101	99	85-140	2	30				
1,1,2-Trichloroethane	101	98	85-129	3	30				
Trichloroethene	101	99	85-131	2	30				
Trichlorofluoromethane	103	101	73-139	1	30				
1,2,3-Trichloropropane	103	101	76-120	2	30				
1,2,4-Trimethylbenzene	105	103	87-126	2	30				
1,3,5-Trimethylbenzene	107	104	89-129	3	30				
Vinyl Chloride	103	98	62-135	5	30				
Xylene (Total)	98	95	81-137	3	30				

Batch number: 13273WAI026

Sample number(s): 7216897-7216905,7216907-7216915 UNSPK: 7216903

Acenaphthene	75	77	47-136	1	30
Acenaphthylene	98	99	33-146	0	30
Anthracene	10*	13*	69-119	18	30
Benzo(a)anthracene	70	72	37-150	2	30
Benzo(a)pyrene	28*	24*	64-123	16	30
Benzo(b)fluoranthene	91	88	33-152	5	30
Benzo(g,h,i)perylene	71	65	36-138	10	30
Benzo(k)fluoranthene	80	77	31-142	5	30
Chrysene	85	87	34-135	2	30
Dibenz(a,h)anthracene	84	79	17-134	8	30
Fluoranthene	105	105	39-147	1	30
Fluorene	96	98	38-149	0	30
Indeno(1,2,3-cd)pyrene	80	75	29-143	8	30
1-Methylnaphthalene	105	107	49-152	1	30
2-Methylnaphthalene	102	105	51-146	2	30
Naphthalene	100	103	58-131	1	30
Phenanthrene	97	98	48-140	1	30
Pyrene	73	73	59-125	1	30

Batch number: 132731848003

Sample number(s): 7216897-7216915 UNSPK: 7216903 BKG: 7216903

Arsenic	105	104	81-123	1	20	N.D.	0.0070 J	200* (1)	20
---------	-----	-----	--------	---	----	------	----------	----------	----

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis

Group Number: 1422319

Reported: 10/07/13 at 11:12 AM

Sample Matrix Quality Control

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

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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
Barium	103	102	78-118	1	20	0.0434	0.0434	0	20
Cadmium	104	103	83-116	1	20	N.D.	N.D.	0 (1)	20
Calcium	101	100	75-125	1	20	6.43	6.48	1	20
Chromium	102	102	76-120	0	20	N.D.	N.D.	0 (1)	20
Lead	107	106	75-125	1	20	N.D.	N.D.	0 (1)	20
Magnesium	100	98	75-125	1	20	3.05	3.05	0	20
Nickel	105	104	86-115	0	20	0.0027 J	0.0025 J	7 (1)	20
Selenium	102	99	75-125	3	20	N.D.	N.D.	0 (1)	20
Silver	94	93	75-125	1	20	N.D.	N.D.	0 (1)	20
Vanadium	105	104	90-117	1	20	N.D.	N.D.	0 (1)	20

Batch number: 132735713003

Sample number(s): 7216897-7216915 UNSPK: 7216903 BKG: 7216903

Mercury

98 95 80-120 3 20 N.D. N.D. 0 (1) 20

Batch number: 13279807901A

Sample number(s): 7216897-7216914 UNSPK: 7216903 BKG: 7216903

HEM (oil & grease)

62* 53* 78-114 13 29 2.0 J 1.4 J 32* (1) 18

Surrogate Quality Control

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

Analysis Name: BTEX 25-ml purge

Batch number: I132731AA

Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
----------------------	-----------------------	------------	----------------------

7216897	99	104	98	98
7216898	99	103	98	97
7216899	100	103	98	98
7216900	100	102	98	97
7216901	100	105	98	98
7216902	99	104	98	97
7216903	99	105	98	97
7216904	101	105	99	100
7216905	101	105	98	100
7216907	100	105	98	98
7216908	100	104	98	98
7216909	100	105	99	98
7216910	100	103	98	97
7216911	100	102	99	97
7216912	100	103	98	97
7216913	100	100	98	96
7216914	100	102	98	97
7216915	98	103	99	98
7216916	98	100	99	96
Blank	99	104	98	98
LCS	100	103	98	101
MS	101	105	99	100
MSD	101	105	98	100

*- 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: 1422319

Reported: 10/07/13 at 11:12 AM

Surrogate Quality Control

Limits:		77-114	74-113	77-110	78-110
Analysis Name: PAHs in waters by SIM					
Batch number: 13273WAI026					
		Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10	
7216897	99		70	95	
7216898	90		55*	95	
7216899	84		56*	86	
7216900	99		73	101	
7216901	97		64	98	
7216902	98		57*	96	
7216903	104		72	104	
7216904	102		67	104	
7216905	104		68	106	
7216907	106		79	104	
7216908	100		73	101	
7216909	100		73	104	
7216910	101		76	101	
7216911	99		62	101	
7216912	98		61*	102	
7216913	60		41*	87	
7216914	86		34*	98	
7216915	99		75	105	
Blank	105		102	105	
LCS	99		102	105	
MS	102		67	104	
MSD	104		68	106	
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.

ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories
Environmental

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only

Group # 1422319

Sample # 1216897-916

Instructions on reverse side correspond with circled numbers.

1 of 2

1 Client Information				4 Matrix		5 Analyses Requested										6 Remarks																																	
Facility #/SID <u>Mayflower Pipeline Incident</u>				☐ Sediment ☐ Potable ☐ Ground ☒ Surface ☐ NPDES ☐ Air ☐ Oil ☐ Total # of Containers		Preservation Code										Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other																																	
Site Address <u>Mayflower, AR</u>						<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>H</td><td></td><td>N</td><td></td><td>H</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td colspan="16" rowspan="3"> <u>VOCS 8260 B</u> <u>PAHs 8270 SIM</u> <u>ACGA Metals Ni, Cr, Pb</u> <u>Diss Metals</u> <u>HEM Oil & Grease</u> </td> </tr> <tr></tr> <tr></tr> </table>												H		N		H												<u>VOCS 8260 B</u> <u>PAHs 8270 SIM</u> <u>ACGA Metals Ni, Cr, Pb</u> <u>Diss Metals</u> <u>HEM Oil & Grease</u>															
H		N																H																															
<u>VOCS 8260 B</u> <u>PAHs 8270 SIM</u> <u>ACGA Metals Ni, Cr, Pb</u> <u>Diss Metals</u> <u>HEM Oil & Grease</u>																																																	
ExxonMobil PM <u>Scott Bushroe</u>		Cost Center/AFE																																															
Consultant/Office <u>Arcadis</u>																																																	
Consultant PM <u>Steve Barrick</u>		Consultant Phone # <u>919 302 6799</u>														Remarks <u>Lab to filter & preserve upon receipt.</u>																																	
Sampler <u>H. Van Aller / Ryan Lewis</u>																																																	
2 Sample Identification				3 Collected																																													
Date		Time		Grab	Composite																																												
WS-014(1.5-2.0)092713		9/27/13		845	X		X		9	X	X	X	X	X																																			
WS-014(5.5-6.0)092713				855	X		X		9	X	X	X	X	X																																			
WS-012(1.5-2.0)092713				905	X		X		9	X	X	X	X	X																																			
WS-012(5.0-5.5)092713				915	X		X		9	X	X	X	X	X																																			
WS-010(1.5-2.0)092713				925	X		X		9	X	X	X	X	X																																			
WS-010(3.5-4.0)092713				935	X		X		9	X	X	X	X	X																																			
WS-006(0.5-1.0)092713				945	X		X		9	X	X	X	X	X																																			
WS-005(surface)092713				1015	X		X		9	X	X	X	X	X																																			
WS-011(1.5-2.0)092713				1045	X		X		9	X	X	X	X	X																																			
WS-011(5.0-5.5)092713				1055	X		X		9	X	X	X	X	X																																			
WS-002(surface)092713				1105	X		X		9	X	X	X	X	X																																			
WS-018(surface)092713				1125	X		X		9	X	X	X	X	X																																			
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by		Date		Time		Received by		Date		Time																																			
Standard <u>5 day</u> 4 day				<u>H. Van Aller</u>		<u>9/27/13</u>																																											
72 hour 48 hour 24 hour																																																	
8 Data Package (circle if required)				Relinquished by		Date		Time		Received by		Date		Time																																			
Type I - Full																																																	
Type VI (Raw Data)																																																	
NJ Reduced																																																	
Other _____																																																	
EDD (circle if required)				Relinquished by Commercial Carrier		Date		Time		Received by		Date		Time																																			
Locus EIM (default)				UPS <u>X</u> FedEx _____ Other _____								<u>9/28/13</u>		<u>850</u>																																			
Other _____																																																	
Temperature Upon Receipt <u>0.5-5.1</u> °C										Custody Seals Intact? <u>Yes</u> No																																							

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

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

ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories
Environmental

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only

Group # 1422319

Sample # 7216897-916

Instructions on reverse side correspond with circled numbers.

2 of 2

1 Client Information				4 Matrix				5 Analyses Requested												6 Remarks	
Facility #/SID				Soil ☐ Sediment ☐ Potable ☐ Ground ☐ Surface ☒ NPDES ☐ Air ☐				Preservation Code												Preservation Codes	
Site Address				Total # of Containers				H N H												H = HCl T = Thiosulfate	
ExxonMobil PM				Oil				VOCs 8260 B PAH 8270 SIM												N = HNO ₃ B = NaOH	
Consultant/Office				Water				BCRA Metals (S, N, V, Cr, Pb)												S = H ₂ SO ₄ O = Other	
Consultant PM				Composite				Diss Metals													
Sampler				Grab				HEM Oil & Grease													
Mayflower Pipeline Incident																					
Mayflower, AR																					
Scott Bushroe																					
Arcadis																					
Steve Barrick																					
919 302 6799																					
H. Van Aller / Ryan Lewis																					
Sample Identification		Collected		Grab		Composite															
Date	Time																				
WS-003 (Surface) 092713	9/27/13	1135	X																		
WS-007 (0.5-1.0) 092713	9/27/13	1150	X																		
WS-001 (0.5-1.0) 092713	9/27/13	1210	X																		
WS-006 (0.5-1.0) 092713 MS/MSD	9/27/13	0945	X																		
WS-EB-74-092713	9/27/13	1300	X																		
WS-TB-162-092713	9/27/13		X																		
Turnaround Time Requested (TAT) (please circle)		Relinquished by		Date		Time		Received by		Date		Time									
Standard	5 day	4 day	H. Van Aller		9/27/13		1500														
72 hour	48 hour	24 hour	Relinquished by		Date		Time		Received by		Date		Time								
Data Package (circle if required)		EDD (circle if required)		Relinquished by Commercial Carrier		Date		Time		Received by		Date		Time							
Type I - Full	Type VI (Raw Data)	NJ Reduced	Other	Locus EIM (default)		Other		UPS ☒ FedEx ☐ Other ☐		Received by		Date		Time							
Temperature Upon Receipt		Custody Seals Intact?		Yes ☒ No ☐																	

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

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

Rachel L. Kreamer A# 14739, Gr.# 1422319, Samples 7216897-916

From: Mott, Lyndi [Lyndi.Mott@arcadis-us.com]
Sent: Monday, September 30, 2013 11:53 AM
To: Rachel L. Kreamer
Cc: Kathy Klinefelter
Subject: RE: Hardness on samples received Saturday, 9/28

Rachel,

Yes, we are still reporting hardness calculated from the Ca and Mg concentrations determined by ICP method 6010.

Lyndi Mott

-----Original Message-----

From: Rachel L. Kreamer [mailto:RKreamer@lanasterlabs.com]
Sent: Monday, September 30, 2013 10:50 AM
To: Mott, Lyndi
Cc: Kathy Klinefelter
Subject: Hardness on samples received Saturday, 9/28

Hi Lyndi.

Just checking to confirm we are still reporting hardness on the surface waters. It's on one chain but not the other from Saturday's samples.

Thanks
Rachel

-----Original Message-----

From: 39Scanner@lanasterlabs.com [mailto:39Scanner@lanasterlabs.com]
Sent: Monday, September 30, 2013 11:46 AM
To: Rachel L. Kreamer
Subject:

This E-mail was sent from "RNP367EC2" (MP 4001/LD140).

Scan Date: 09.30.2013 11:45:46 (-0400)
Queries to: 39Scanner@lanasterlabs.com

NOTICE: This e-mail and any files transmitted with it are the property of ARCADIS U.S., Inc. and its affiliates. All rights, including without limitation copyright, are reserved. The proprietary information contained in this e-mail message, and any files transmitted with it, is intended for the use of the recipient(s) named above. If the reader of this e-mail is not the intended recipient, you are hereby notified that you have received this e-mail in error and that any review, distribution or copying of this e-mail or any files transmitted with it is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete the original message and any files transmitted. The unauthorized use of this e-mail or any files transmitted with it is prohibited and disclaimed by ARCADIS U.S., Inc. and its affiliates. Nothing herein is intended to constitute the offering or performance of services where otherwise restricted by law.

Environmental Sample Administration
Receipt Documentation Log

C#1422319

Client/Project: Exxon MobilShipping Container Sealed: YES NODate of Receipt: 9/28/13Custody Seal Present *: YES NOTime of Receipt: 850* 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	1.1	TB	WI	Y	B	
2	↓	0.9		↓	↓	↓	
3	↓	1.0	↓	↓	↓	↓	
4	↓	0.5	↓	↓	↓	↓	
5	3258	5.1	ST	WI	Y	B	No TB
6	DT121	0.7	TB	WI	Y	B	

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#:

32-2308

Date/Time:

9/28/13 1115

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.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.