

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

September 30, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 09/24/2013

Group Number: 1420956

SDG: PEL68

PO Number: B0086003.1301

State of Sample Origin: AR

Client Sample DescriptionLancaster Labs (LL) #

WS-014(1.5-2.0)092313 Grab Surface Water	7208845
WS-014(5.5-6.0)092313 Grab Surface Water	7208846
WS-012(1.5-2.0)092313 Grab Surface Water	7208847
WS-012(5.0-5.5)092313 Grab Surface Water	7208848
WS-010(1.5-2.0)092313 Grab Surface Water	7208849
WS-010(3.5-4.0)092313 Grab Surface Water	7208850
WS-006(0.5-1.0)092313 Grab Surface Water	7208851
WS-006(0.5-1.0)092313MS Grab Surface Water	7208852
WS-006(0.5-1.0)092313MSD Grab Surface Water	7208853
WS-006(0.5-1.0)092313DUP Grab Surface Water	7208854
WS-005(Surface)092313 Grab Surface Water	7208855
WS-002(Surface)092313 Grab Surface Water	7208856
WS-011(1.5-2.0)092313 Grab Surface Water	7208857
WS-011(5.0-5.5)092313 Grab Surface Water	7208858
WS-018(Surface)092313 Grab Surface Water	7208859
WS-003(Surface)092313 Grab Surface Water	7208860
WS-007(0.5-1.0)092313 Grab Surface Water	7208861
WS-001(0.5-1.0)092313 Grab Surface Water	7208862
WS-EB-70-092313 Grab Water	7208863
WS-TB-158-092313 Water	7208864

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

ELECTRONIC ARCADIS
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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 #: 1420956

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 #: 13269WAJ026 (Sample number(s): 7208845-7208853, 7208855-7208863 UNSPK: 7208851)

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

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside acceptance windows: Anthracene, Benzo(a)pyrene

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7208851, 7208853, 7208862, MSD

Sample #s: 7208851, 7208852, 7208853, 7208862

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

EPA 1664A, Wet Chemistry

Batch #: 13271807901A (Sample number(s): 7208845-7208862 UNSPK: 7208851 BKG: 7208851)

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

Sample Description: WS-014(1.5-2.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208845
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 08:45 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23141 SDG#: PEL68-01

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

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Mayflower, AR
Pipeline Incident

LL Sample # WW 7208845
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 08:45 by DD

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
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Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23141 SDG#: PEL68-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	31.6	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	0.0511	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.23	0.0334	0.200	1

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

Sample Description: WS-014(1.5-2.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208845
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 08:45 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23141 SDG#: PEL68-01

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	0.0027 J	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	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G132672AA	09/24/2013 22:10	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132672AA	09/24/2013 22:10	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13269WAJ026	09/28/2013 22:08	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13269WAJ026	09/27/2013 10:00	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132716256001	09/28/2013 09:04	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132671848008	09/27/2013 20:26	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132671848008	09/27/2013 20:26	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132671848008	09/27/2013 20:26	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132671848008	09/27/2013 20:26	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132671848008	09/27/2013 20:26	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132671848008	09/27/2013 20:26	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132671848008	09/27/2013 20:26	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132671848008	09/27/2013 20:26	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132671848008	09/28/2013 19:29	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132671848008	09/27/2013 20:26	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132671848008	09/27/2013 20:26	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132675713005	09/26/2013 07:31	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132671848008	09/25/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132675713005	09/25/2013 06:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13271807901A	09/28/2013 04:25	Yolunder Y Bunch	1

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

Sample Description: WS-014(5.5-6.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208846
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 08:55 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23142 SDG#: PEL68-02

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

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

Sample Description: WS-014(5.5-6.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208846
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 08:55 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23142 SDG#: PEL68-02

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.	0.011	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.	0.033	0.054	1
08357	Phenanthrene	85-01-8	N.D.	0.033	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	mg/l	
06256	Total Hardness as CaCO3	471-34-1	30.0	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	0.0510	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.84	0.0334	0.200	1

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

Sample Description: WS-014(5.5-6.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208846
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 08:55 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23142 SDG#: PEL68-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.14	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	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	G132672AA	09/24/2013 22:31	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132672AA	09/24/2013 22:31	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13269WAJ026	09/28/2013 22:38	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13269WAJ026	09/27/2013 10:00	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132716256001	09/28/2013 09:04	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132671848008	09/27/2013 20:30	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132671848008	09/27/2013 20:30	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132671848008	09/27/2013 20:30	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132671848008	09/27/2013 20:30	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132671848008	09/27/2013 20:30	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132671848008	09/27/2013 20:30	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132671848008	09/27/2013 20:30	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132671848008	09/27/2013 20:30	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132671848008	09/28/2013 19:33	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132671848008	09/27/2013 20:30	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132671848008	09/27/2013 20:30	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132675713005	09/26/2013 07:33	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132671848008	09/25/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132675713005	09/25/2013 06:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13271807901A	09/28/2013 04:25	Yolunder Y Bunch	1

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

Sample Description: WS-012(1.5-2.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208847
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:05 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23121 SDG#: PEL68-03

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)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208847
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:05 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23121 SDG#: PEL68-03

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	0.054	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	30.1	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	0.0555	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.85	0.0334	0.200	1

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

Sample Description: WS-012(1.5-2.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208847
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:05 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23121 SDG#: PEL68-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.16	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G132672AA	09/24/2013 22:52	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132672AA	09/24/2013 22:52	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13269WAJ026	09/28/2013 23:07	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13269WAJ026	09/27/2013 10:00	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132716256001	09/28/2013 09:04	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132671848008	09/27/2013 20:42	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132671848008	09/27/2013 20:42	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132671848008	09/27/2013 20:42	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132671848008	09/27/2013 20:42	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132671848008	09/27/2013 20:42	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132671848008	09/27/2013 20:42	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132671848008	09/27/2013 20:42	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132671848008	09/27/2013 20:42	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132671848008	09/28/2013 19:44	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132671848008	09/27/2013 20:42	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132671848008	09/27/2013 20:42	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132675713005	09/26/2013 07:35	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132671848008	09/25/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132675713005	09/25/2013 06:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13271807901A	09/28/2013 04:25	Yolunder Y Bunch	1

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

Sample Description: WS-012(5.0-5.5)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208848
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:15 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23122 SDG#: PEL68-04

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

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

Sample Description: WS-012(5.0-5.5)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208848
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:15 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23122 SDG#: PEL68-04

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	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	30.2	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0568	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.89	0.0334	0.200	1

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

Sample Description: WS-012(5.0-5.5)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208848
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:15 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23122 SDG#: PEL68-04

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	3.16	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G132672AA	09/24/2013 23:13	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132672AA	09/24/2013 23:13	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13269WAJ026	09/28/2013 23:37	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13269WAJ026	09/27/2013 10:00	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132716256001	09/28/2013 09:04	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132671848008	09/27/2013 20:46	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132671848008	09/27/2013 20:46	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132671848008	09/27/2013 20:46	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132671848008	09/27/2013 20:46	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132671848008	09/27/2013 20:46	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132671848008	09/27/2013 20:46	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132671848008	09/27/2013 20:46	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132671848008	09/27/2013 20:46	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132671848008	09/28/2013 19:48	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132671848008	09/27/2013 20:46	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132671848008	09/27/2013 20:46	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132675713005	09/26/2013 07:37	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132671848008	09/25/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132675713005	09/25/2013 06:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13271807901A	09/28/2013 04:25	Yolunder Y Bunch	1

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

Sample Description: WS-010(1.5-2.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208849
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:45 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23101 SDG#: PEL68-05

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)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208849
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:45 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23101 SDG#: PEL68-05

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	0.056	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.056	1
08357	Anthracene	120-12-7	N.D.	0.011	0.056	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.056	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.056	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.056	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.056	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.056	1
08357	Chrysene	218-01-9	N.D.	0.011	0.056	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.056	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.056	1
08357	Fluorene	86-73-7	N.D.	0.011	0.056	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.056	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.056	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.056	1
08357	Naphthalene	91-20-3	N.D.	0.033	0.056	1
08357	Phenanthrene	85-01-8	N.D.	0.033	0.056	1
08357	Pyrene	129-00-0	N.D.	0.011	0.056	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	29.3	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	0.0409	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.67	0.0334	0.200	1

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

Sample Description: WS-010(1.5-2.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208849
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:45 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23101 SDG#: PEL68-05

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	3.08	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G132672AA	09/24/2013 23:35	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132672AA	09/24/2013 23:35	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13269WAJ026	09/29/2013 00:06	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13269WAJ026	09/27/2013 10:00	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132716256001	09/28/2013 09:04	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132671848008	09/27/2013 20:50	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132671848008	09/27/2013 20:50	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132671848008	09/27/2013 20:50	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132671848008	09/27/2013 20:50	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132671848008	09/27/2013 20:50	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132671848008	09/27/2013 20:50	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132671848008	09/27/2013 20:50	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132671848008	09/27/2013 20:50	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132671848008	09/28/2013 19:52	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132671848008	09/27/2013 20:50	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132671848008	09/27/2013 20:50	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132675713005	09/26/2013 07:39	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132671848008	09/25/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132675713005	09/25/2013 06:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13271807901A	09/28/2013 04:25	Yolunder Y Bunch	1

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

Sample Description: WS-010(3.5-4.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208850
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:55 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23102 SDG#: PEL68-06

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)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208850
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:55 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23102 SDG#: PEL68-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.056	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.056	1
08357	Anthracene	120-12-7	N.D.	0.011	0.056	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.056	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.056	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.056	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.056	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.056	1
08357	Chrysene	218-01-9	N.D.	0.011	0.056	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.056	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.056	1
08357	Fluorene	86-73-7	N.D.	0.011	0.056	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.056	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.056	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.056	1
08357	Naphthalene	91-20-3	N.D.	0.034	0.056	1
08357	Phenanthrene	85-01-8	N.D.	0.034	0.056	1
08357	Pyrene	129-00-0	N.D.	0.011	0.056	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	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0435	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.76	0.0334	0.200	1

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

Sample Description: WS-010(3.5-4.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208850
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:55 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23102 SDG#: PEL68-06

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	
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	3.12	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G132672AA	09/24/2013 23:56	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132672AA	09/24/2013 23:56	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13269WAJ026	09/29/2013 00:35	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13269WAJ026	09/27/2013 10:00	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132716256001	09/28/2013 09:04	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132671848008	09/27/2013 20:54	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132671848008	09/27/2013 20:54	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132671848008	09/27/2013 20:54	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132671848008	09/27/2013 20:54	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132671848008	09/27/2013 20:54	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132671848008	09/27/2013 20:54	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132671848008	09/27/2013 20:54	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132671848008	09/27/2013 20:54	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132671848008	09/28/2013 19:56	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132671848008	09/27/2013 20:54	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132671848008	09/27/2013 20:54	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132675713005	09/26/2013 07:41	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132671848008	09/25/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132675713005	09/25/2013 06:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13271807901A	09/28/2013 04:25	Yolunder Y Bunch	1

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

Sample Description: WS-006(0.5-1.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208851
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:30 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23006 SDG#: PEL68-07BKG

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)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208851
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:30 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23006 SDG#: PEL68-07BKG

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
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	30.7	0.033	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0441	0.00033	0.0050	1

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

Sample Description: WS-006(0.5-1.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208851
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:30 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23006 SDG#: PEL68-07BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.98	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.22	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G132672AA	09/25/2013 00:17	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132672AA	09/25/2013 00:17	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13269WAJ026	09/28/2013 20:40	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13269WAJ026	09/27/2013 10:00	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132716256001	09/28/2013 09:04	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132671848008	09/27/2013 20:02	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132671848008	09/27/2013 20:02	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132671848008	09/27/2013 20:02	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132671848008	09/27/2013 20:02	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132671848008	09/27/2013 20:02	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132671848008	09/27/2013 20:02	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132671848008	09/27/2013 20:02	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132671848008	09/27/2013 20:02	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132671848008	09/28/2013 19:07	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132671848008	09/27/2013 20:02	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132671848008	09/27/2013 20:02	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132675713005	09/26/2013 07:43	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132671848008	09/25/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132675713005	09/25/2013 06:00	Damary Valentin	1

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

Sample Description: WS-006(0.5-1.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208851
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:30 by DD

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 09/24/2013 09:15

Highlands Ranch CO 80129

Reported: 09/30/2013 12:24

23006 SDG#: PEL68-07BKG

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	13271807901A	09/28/2013 04:25	Yolunder Y Bunch	1

Sample Description: WS-006(0.5-1.0)092313MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208852
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:30 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23006 SDG#: PEL68-07MS

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	36	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.2	0.1	0.5	1
02898	Benzene	71-43-2	5.2	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.3	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.9	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.1	0.1	0.5	1
02898	Bromoform	75-25-2	5.0	0.1	0.5	1
02898	Bromomethane	74-83-9	5.4	0.1	0.5	1
02898	2-Butanone	78-93-3	31	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	4.9	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.2	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.3	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.7	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.5	0.1	0.5	1
02898	Chloroethane	75-00-3	4.7	0.1	0.5	1
02898	Chloroform	67-66-3	5.5	0.1	0.5	1
02898	Chloromethane	74-87-3	4.4	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.2	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.1	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	5.2	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	5.0	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.1	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.2	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.3	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.4	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.4	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	5.7	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.0	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.4	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.8	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.6	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.9	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	5.4	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.0	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	4.6	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	5.5	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.8	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	4.9	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.6	0.1	0.5	1
02898	Ethyl ether	60-29-7	3.7	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.3	0.1	0.5	1
02898	Freon 113	76-13-1	6.1	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.4	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.5	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	5.0	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	20	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.3	0.2	0.5	1

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

Sample Description: WS-006(0.5-1.0)092313MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208852
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:30 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23006 SDG#: PEL68-07MS

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	5.0	0.1	0.5	1
02898	Styrene	100-42-5	5.3	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	5.3	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	4.4	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	6.3	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	22	2.0	5.0	1
02898	Toluene	108-88-3	5.3	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.8	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	5.1	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.8	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.0	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.8	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	6.3	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.0	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	5.1	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	17	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.98	0.010	0.052	1
08357	Acenaphthylene	208-96-8	1.0	0.010	0.052	1
08357	Anthracene	120-12-7	0.56	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	0.97	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	0.58	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	0.93	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	0.84	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	0.85	0.010	0.052	1
08357	Chrysene	218-01-9	0.94	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	0.94	0.010	0.052	1
08357	Fluoranthene	206-44-0	1.0	0.010	0.052	1
08357	Fluorene	86-73-7	1.0	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.91	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	1.1	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	1.1	0.010	0.052	1
08357	Naphthalene	91-20-3	1.0	0.031	0.052	1
08357	Phenanthrene	85-01-8	1.0	0.031	0.052	1
08357	Pyrene	129-00-0	1.1	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	48.8	0.033	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.165	0.0068	0.0200	1
07046	Barium	7440-39-3	2.12	0.00033	0.0050	1

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

Sample Description: WS-006 (0.5-1.0) 092313MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208852
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:30 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23006 SDG#: PEL68-07MS

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	
07049	Cadmium	7440-43-9	0.0531	0.00076	0.0050	1
01750	Calcium	7440-70-2	11.0	0.0334	0.200	1
07051	Chromium	7440-47-3	0.204	0.0016	0.0150	1
07055	Lead	7439-92-1	0.163	0.0047	0.0150	1
01757	Magnesium	7439-95-4	5.20	0.0167	0.100	1
07061	Nickel	7440-02-0	0.535	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.149	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0479	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.508	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.0010	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	23.1	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	G132672AA	09/25/2013 00:38	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132672AA	09/25/2013 00:38	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13269WAJ026	09/28/2013 21:09	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13269WAJ026	09/27/2013 10:00	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132716256001	09/28/2013 09:04	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132671848008	09/27/2013 20:14	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132671848008	09/27/2013 20:14	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132671848008	09/27/2013 20:14	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132671848008	09/27/2013 20:14	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132671848008	09/27/2013 20:14	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132671848008	09/27/2013 20:14	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132671848008	09/27/2013 20:14	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132671848008	09/27/2013 20:14	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132671848008	09/28/2013 19:18	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132671848008	09/27/2013 20:14	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132671848008	09/27/2013 20:14	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132675713005	09/26/2013 07:47	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132671848008	09/25/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132675713005	09/25/2013 06:00	Damary Valentin	1

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

Sample Description: WS-006(0.5-1.0)092313MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208852
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:30 by DD

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 09/24/2013 09:15

Highlands Ranch CO 80129

Reported: 09/30/2013 12:24

23006 SDG#: PEL68-07MS

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	13271807901A	09/28/2013 04:25	Yolunder Y Bunch	1

Sample Description: WS-006(0.5-1.0)092313MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208853
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:30 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23006 SDG#: PEL68-07MSD

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	37	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.4	0.1	0.5	1
02898	Benzene	71-43-2	5.4	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.5	0.1	0.5	1
02898	Bromochloromethane	74-97-5	6.0	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.3	0.1	0.5	1
02898	Bromoform	75-25-2	5.2	0.1	0.5	1
02898	Bromomethane	74-83-9	5.6	0.1	0.5	1
02898	2-Butanone	78-93-3	33	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.0	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.4	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.5	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	5.9	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.6	0.1	0.5	1
02898	Chloroethane	75-00-3	4.9	0.1	0.5	1
02898	Chloroform	67-66-3	5.6	0.1	0.5	1
02898	Chloromethane	74-87-3	4.4	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.3	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.3	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	5.9	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	5.3	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.2	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.4	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.5	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.6	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.6	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	5.9	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	5.5	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.8	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.7	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	6.0	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	5.6	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.1	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	4.7	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	5.7	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.9	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.2	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	4.1	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.3	0.1	0.5	1
02898	Freon 113	76-13-1	6.3	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.5	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.7	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.3	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	5.0	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	21	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.3	0.2	0.5	1

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

Sample Description: WS-006(0.5-1.0)092313MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208853
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:30 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23006 SDG#: PEL68-07MSD

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	5.1	0.1	0.5	1
02898	Styrene	100-42-5	5.4	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	5.4	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	4.5	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	6.4	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	23	2.0	5.0	1
02898	Toluene	108-88-3	5.3	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.9	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	5.4	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	6.0	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	6.0	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	6.6	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.0	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	5.2	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	17	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.91	0.010	0.052	1
08357	Acenaphthylene	208-96-8	1.0	0.010	0.052	1
08357	Anthracene	120-12-7	0.40	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	0.75	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	0.43	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	0.71	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	0.62	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	0.67	0.010	0.052	1
08357	Chrysene	218-01-9	0.78	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	0.71	0.010	0.052	1
08357	Fluoranthene	206-44-0	0.91	0.010	0.052	1
08357	Fluorene	86-73-7	0.99	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.69	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	1.0	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	1.0	0.010	0.052	1
08357	Naphthalene	91-20-3	1.0	0.031	0.052	1
08357	Phenanthrene	85-01-8	0.95	0.031	0.052	1
08357	Pyrene	129-00-0	0.91	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	48.8	0.033	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.164	0.0068	0.0200	1
07046	Barium	7440-39-3	2.13	0.00033	0.0050	1

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

Sample Description: WS-006 (0.5-1.0) 092313MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208853
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:30 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23006 SDG#: PEL68-07MSD

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	
07049	Cadmium	7440-43-9	0.0531	0.00076	0.0050	1
01750	Calcium	7440-70-2	11.0	0.0334	0.200	1
07051	Chromium	7440-47-3	0.203	0.0016	0.0150	1
07055	Lead	7439-92-1	0.162	0.0047	0.0150	1
01757	Magnesium	7439-95-4	5.21	0.0167	0.100	1
07061	Nickel	7440-02-0	0.533	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.150	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0482	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.509	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.0010	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	24.5	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	G132672AA	09/25/2013 00:59	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132672AA	09/25/2013 00:59	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13269WAJ026	09/28/2013 21:38	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13269WAJ026	09/27/2013 10:00	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132716256001	09/28/2013 09:04	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132671848008	09/27/2013 20:18	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132671848008	09/27/2013 20:18	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132671848008	09/27/2013 20:18	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132671848008	09/27/2013 20:18	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132671848008	09/27/2013 20:18	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132671848008	09/27/2013 20:18	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132671848008	09/27/2013 20:18	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132671848008	09/27/2013 20:18	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132671848008	09/28/2013 19:22	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132671848008	09/27/2013 20:18	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132671848008	09/27/2013 20:18	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132675713005	09/26/2013 07:54	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132671848008	09/25/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132675713005	09/25/2013 06:00	Damary Valentin	1

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

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: WS-006 (0.5-1.0) 092313MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208853
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:30 by DD

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 09/24/2013 09:15

Highlands Ranch CO 80129

Reported: 09/30/2013 12:24

23006 SDG#: PEL68-07MSD

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	13271807901A	09/28/2013 04:25	Yolunder Y Bunch	1

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

Sample Description: WS-006 (0.5-1.0) 092313DUP Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208854
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 09:30 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23006 SDG#: PEL68-07DUP

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	29.9	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	0.0431	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.80	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	3.14	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06256	Total Hardness as CaCO ₃	SM 2340 B-1997	1	132716256001	09/28/2013 09:04	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132671848008	09/27/2013 20:10	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132671848008	09/27/2013 20:10	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132671848008	09/27/2013 20:10	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132671848008	09/27/2013 20:10	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132671848008	09/27/2013 20:10	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132671848008	09/27/2013 20:10	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132671848008	09/27/2013 20:10	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132671848008	09/27/2013 20:10	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132671848008	09/28/2013 19:14	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132671848008	09/27/2013 20:10	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132671848008	09/27/2013 20:10	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132675713005	09/26/2013 07:45	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132671848008	09/25/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132675713005	09/25/2013 06:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13271807901A	09/28/2013 04:25	Yolunder Y Bunch	1

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

Sample Description: WS-005(Surface)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208855
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 10:15 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23005 SDG#: PEL68-08

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

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

Sample Description: WS-005(Surface)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208855
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 10:15 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23005 SDG#: PEL68-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	30.4	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	0.0073 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0575	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.10	0.0334	0.200	1

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

Sample Description: WS-005(Surface)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208855
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 10:15 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23005 SDG#: PEL68-08

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	3.08	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	1.8 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	G132672AA	09/25/2013 02:03	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132672AA	09/25/2013 02:03	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13269WAJ026	09/29/2013 01:05	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13269WAJ026	09/27/2013 10:00	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132716256001	09/28/2013 09:04	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132671848008	09/27/2013 20:58	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132671848008	09/27/2013 20:58	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132671848008	09/27/2013 20:58	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132671848008	09/27/2013 20:58	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132671848008	09/27/2013 20:58	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132671848008	09/27/2013 20:58	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132671848008	09/27/2013 20:58	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132671848008	09/27/2013 20:58	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132671848008	09/28/2013 19:59	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132671848008	09/27/2013 20:58	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132671848008	09/27/2013 20:58	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132675713005	09/26/2013 07:56	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132671848008	09/25/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132675713005	09/25/2013 06:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13271807901A	09/28/2013 04:25	Yolunder Y Bunch	1

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

Sample Description: WS-002(Surface)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208856
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 10:35 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23002 SDG#: PEL68-09

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

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

Sample Description: WS-002(Surface)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208856
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 10:35 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23002 SDG#: PEL68-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	31.9	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	0.0079 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0651	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.30	0.0334	0.200	1

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

Sample Description: WS-002(Surface)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208856
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 10:35 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23002 SDG#: PEL68-09

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	3.32	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	2.6 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	G132672AA	09/25/2013 02:24	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132672AA	09/25/2013 02:24	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13269WAJ026	09/29/2013 01:34	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13269WAJ026	09/27/2013 10:00	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132716256001	09/28/2013 09:04	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132671848008	09/27/2013 21:02	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132671848008	09/27/2013 21:02	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132671848008	09/27/2013 21:02	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132671848008	09/27/2013 21:02	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132671848008	09/27/2013 21:02	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132671848008	09/27/2013 21:02	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132671848008	09/27/2013 21:02	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132671848008	09/27/2013 21:02	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132671848008	09/28/2013 20:03	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132671848008	09/27/2013 21:02	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132671848008	09/27/2013 21:02	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132675713005	09/26/2013 07:58	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132671848008	09/25/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132675713005	09/25/2013 06:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13271807901A	09/28/2013 04:25	Yolunder Y Bunch	1

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

Sample Description: WS-011(1.5-2.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208857
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 10:50 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23111 SDG#: PEL68-10

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

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

Sample Description: WS-011(1.5-2.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208857
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 10:50 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

231111 SDG#: PEL68-10

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	0.1 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	0.1 J	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.054	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	31.4	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	0.0071 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0613	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.09	0.0334	0.200	1

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

Sample Description: WS-011(1.5-2.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208857
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 10:50 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23111 SDG#: PEL68-10

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	3.34	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G132672AA	09/25/2013 02:45	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132672AA	09/25/2013 02:45	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13269WAJ026	09/29/2013 02:03	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13269WAJ026	09/27/2013 10:00	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132716256001	09/28/2013 09:04	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132671848008	09/27/2013 21:06	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132671848008	09/27/2013 21:06	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132671848008	09/27/2013 21:06	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132671848008	09/27/2013 21:06	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132671848008	09/27/2013 21:06	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132671848008	09/27/2013 21:06	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132671848008	09/27/2013 21:06	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132671848008	09/27/2013 21:06	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132671848008	09/28/2013 20:07	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132671848008	09/27/2013 21:06	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132671848008	09/27/2013 21:06	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132675713005	09/26/2013 08:00	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132671848008	09/25/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132675713005	09/25/2013 06:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13271807901A	09/28/2013 04:25	Yolunder Y Bunch	1

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

Sample Description: WS-011(5.0-5.5)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208858
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 11:00 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23112 SDG#: PEL68-11

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

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

Sample Description: WS-011(5.0-5.5)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208858
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 11:00 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23112 SDG#: PEL68-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.054	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.054	1
08357	Anthracene	120-12-7	N.D.	0.011	0.054	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.054	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.054	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.054	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.054	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.054	1
08357	Chrysene	218-01-9	N.D.	0.011	0.054	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.054	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.054	1
08357	Fluorene	86-73-7	N.D.	0.011	0.054	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.054	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.054	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.054	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.054	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.054	1
08357	Pyrene	129-00-0	N.D.	0.011	0.054	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	30.6	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0113 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0613	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.90	0.0334	0.200	1

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

Sample Description: WS-011(5.0-5.5)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208858
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 11:00 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23112 SDG#: PEL68-11

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	3.24	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G132672AA	09/25/2013 03:07	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132672AA	09/25/2013 03:07	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13269WAJ026	09/29/2013 02:32	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13269WAJ026	09/27/2013 10:00	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132716256001	09/28/2013 09:04	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132671848008	09/27/2013 21:10	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132671848008	09/27/2013 21:10	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132671848008	09/27/2013 21:10	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132671848008	09/27/2013 21:10	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132671848008	09/27/2013 21:10	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132671848008	09/27/2013 21:10	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132671848008	09/27/2013 21:10	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132671848008	09/27/2013 21:10	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132671848008	09/28/2013 20:10	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132671848008	09/27/2013 21:10	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132671848008	09/27/2013 21:10	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132675713005	09/26/2013 08:02	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132671848008	09/25/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132675713005	09/25/2013 06:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13271807901A	09/28/2013 04:25	Yolunder Y Bunch	1

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

Sample Description: WS-018(Surface)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208859
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 11:20 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23018 SDG#: PEL68-12

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)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208859
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 11:20 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23018 SDG#: PEL68-12

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	0.050	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	0.011 J	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	31.1	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	0.0544	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.02	0.0334	0.200	1

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

Sample Description: WS-018(Surface)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208859
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 11:20 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23018 SDG#: PEL68-12

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	3.30	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G132672AA	09/25/2013 03:28	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132672AA	09/25/2013 03:28	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13269WAJ026	09/29/2013 03:01	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13269WAJ026	09/27/2013 10:00	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132716256001	09/28/2013 09:04	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132671848008	09/27/2013 21:14	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132671848008	09/27/2013 21:14	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132671848008	09/27/2013 21:14	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132671848008	09/27/2013 21:14	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132671848008	09/27/2013 21:14	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132671848008	09/27/2013 21:14	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132671848008	09/27/2013 21:14	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132671848008	09/27/2013 21:14	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132671848008	09/28/2013 20:14	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132671848008	09/27/2013 21:14	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132671848008	09/27/2013 21:14	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132675713005	09/26/2013 08:04	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132671848008	09/25/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132675713005	09/25/2013 06:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13271807901A	09/28/2013 04:25	Yolunder Y Bunch	1

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

Sample Description: WS-003(Surface)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208860
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 11:30 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23003 SDG#: PEL68-13

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) 092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208860
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 11:30 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23003 SDG#: PEL68-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.011 J	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	0.028 J	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	31.2	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0496	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.03	0.0334	0.200	1

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

Sample Description: WS-003 (Surface) 092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208860
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 11:30 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23003 SDG#: PEL68-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.31	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	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	G132672AA	09/25/2013 03:49	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132672AA	09/25/2013 03:49	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13269WAJ026	09/29/2013 03:31	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13269WAJ026	09/27/2013 10:00	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132716256001	09/28/2013 09:04	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132671848008	09/27/2013 21:18	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132671848008	09/27/2013 21:18	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132671848008	09/27/2013 21:18	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132671848008	09/27/2013 21:18	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132671848008	09/27/2013 21:18	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132671848008	09/27/2013 21:18	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132671848008	09/27/2013 21:18	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132671848008	09/27/2013 21:18	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132671848008	09/28/2013 20:18	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132671848008	09/27/2013 21:18	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132671848008	09/27/2013 21:18	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132675713005	09/26/2013 08:06	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132671848008	09/25/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132675713005	09/25/2013 06:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13271807901A	09/28/2013 04:25	Yolunder Y Bunch	1

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

Sample Description: WS-007(0.5-1.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208861
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 11:50 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23007 SDG#: PEL68-14

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

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

Sample Description: WS-007(0.5-1.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208861
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 11:50 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23007 SDG#: PEL68-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.1 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	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	0.014 J	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	0.016 J	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	0.015 J	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	19.9	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	0.0076 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0419	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.68	0.0334	0.200	1

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

Sample Description: WS-007(0.5-1.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208861
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 11:50 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23007 SDG#: PEL68-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.00	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	0.0027 J	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	G132672AA	09/25/2013 04:10	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132672AA	09/25/2013 04:10	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13269WAJ026	09/29/2013 04:00	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13269WAJ026	09/27/2013 10:00	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132716256001	09/28/2013 09:04	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132671848008	09/27/2013 21:30	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132671848008	09/27/2013 21:30	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132671848008	09/27/2013 21:30	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132671848008	09/27/2013 21:30	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132671848008	09/27/2013 21:30	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132671848008	09/27/2013 21:30	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132671848008	09/27/2013 21:30	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132671848008	09/27/2013 21:30	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132671848008	09/28/2013 20:29	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132671848008	09/27/2013 21:30	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132671848008	09/27/2013 21:30	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132675713005	09/26/2013 08:08	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132671848008	09/25/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132675713005	09/25/2013 06:00	Damary Valentin	1
08079	HEM (oil & grease)	EPA 1664A	1	13271807901A	09/28/2013 04:25	Yolunder Y Bunch	1

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

Sample Description: WS-001(0.5-1.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208862
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 12:00 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23001 SDG#: PEL68-15

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)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208862
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 12:00 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23001 SDG#: PEL68-15

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.	0.011	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	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	30.0	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	0.0416	0.00033	0.0050	1

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

Sample Description: WS-001(0.5-1.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208862
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 12:00 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23001 SDG#: PEL68-15

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	6.87	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.12	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G132672AA	09/25/2013 04:31	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132672AA	09/25/2013 04:31	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13269WAJ026	09/29/2013 04:30	Holly Berry	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13269WAJ026	09/27/2013 10:00	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132716256001	09/28/2013 09:04	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132671848008	09/27/2013 21:34	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132671848008	09/27/2013 21:34	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132671848008	09/27/2013 21:34	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132671848008	09/27/2013 21:34	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132671848008	09/27/2013 21:34	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132671848008	09/27/2013 21:34	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132671848008	09/27/2013 21:34	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132671848008	09/27/2013 21:34	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132671848008	09/28/2013 20:33	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132671848008	09/27/2013 21:34	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132671848008	09/27/2013 21:34	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132675713005	09/26/2013 08:10	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132671848008	09/25/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132675713005	09/25/2013 06:00	Damary Valentin	1

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

Sample Description: WS-001(0.5-1.0)092313 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208862
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 12:00 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23001 SDG#: PEL68-15

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	13271807901A	09/28/2013 04:25	Yolunder Y Bunch	1

Sample Description: WS-EB-70-092313 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208863
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 13:30 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23E70 SDG#: PEL68-16EB

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-70-092313 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208863
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 13:30 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23E70 SDG#: PEL68-16EB

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	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	0.072	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	0.80	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	0.00035 J	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	0.240	0.0334	0.200	1

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

Sample Description: WS-EB-70-092313 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208863
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013 13:30 by DD

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

Submitted: 09/24/2013 09:15

Reported: 09/30/2013 12:24

23E70 SDG#: PEL68-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	0.0491 J	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G132672AA	09/25/2013 01:42	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132672AA	09/25/2013 01:42	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13269WAJ026	09/29/2013 04:59	Holly Berry	1
10470	BNP Water Extraction (SIM)	SW-846 3510C	1	13269WAJ026	09/27/2013 10:00	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132716256001	09/28/2013 09:04	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132671848008	09/27/2013 21:37	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132671848008	09/27/2013 21:37	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132671848008	09/27/2013 21:37	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132671848008	09/27/2013 21:37	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132671848008	09/27/2013 21:37	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132671848008	09/27/2013 21:37	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132671848008	09/27/2013 21:37	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132671848008	09/27/2013 21:37	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132671848008	09/28/2013 20:36	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132671848008	09/27/2013 21:37	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132671848008	09/27/2013 21:37	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132675713005	09/26/2013 08:12	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132671848008	09/25/2013 11:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132675713005	09/25/2013 06:00	Damary Valentin	1

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

Sample Description: WS-TB-158-092313 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208864
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013

ExxonMobil c/o Arcadis

Submitted: 09/24/2013 09:15

630 Plaza Drive, Suite 600

Reported: 09/30/2013 12:24

Highlands Ranch CO 80129

23158 SDG#: PEL68-17TB*

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-158-092313 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7208864
LL Group # 1420956
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/23/2013

ExxonMobil c/o Arcadis

Submitted: 09/24/2013 09:15

630 Plaza Drive, Suite 600

Reported: 09/30/2013 12:24

Highlands Ranch CO 80129

23158 SDG#: PEL68-17TB*

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	G132672AA	09/24/2013 21:28	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G132672AA	09/24/2013 21:28	Kevin A Sposito	1

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 09/30/13 at 12:24 PM

Group Number: 1420956

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: G132672AA	Sample number(s): 7208845-7208853, 7208855-7208864								
Acetone	N.D.	3.0	5.0	ug/l	92		60-139		
Allyl Chloride	N.D.	0.1	0.5	ug/l	77		61-130		
Benzene	N.D.	0.1	0.5	ug/l	98		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	113		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	100		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	101		73-128		
Bromomethane	N.D.	0.1	0.5	ug/l	102		62-126		
2-Butanone	N.D.	1.0	5.0	ug/l	86		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	91		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	96		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	104		80-129		
Chlorobenzene	N.D.	0.1	0.5	ug/l	105		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	88		68-120		
Chloroform	N.D.	0.1	0.5	ug/l	106		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	80		55-120		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	98		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	98		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	110		64-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	100		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	103		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	103		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	104		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	104		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	104		80-120		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	110		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	97		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	108		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	103		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	103		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	107		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	96		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	91		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	102		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	104		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	97		80-123		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	91		80-120		
Ethyl ether	N.D.	0.1	0.5	ug/l	79		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	111		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	102		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: 1420956

Reported: 09/30/13 at 12:24 PM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Isopropylbenzene	N.D.	0.1	0.5	ug/l	103		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	96		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	99		80-120		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	83		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	92		80-120		
Styrene	N.D.	0.1	0.5	ug/l	103		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	100		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	89		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	115		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	94		65-131		
Toluene	N.D.	0.1	0.5	ug/l	98		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	93		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	100		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	106		80-120		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	97		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	109		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	118		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	101		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	96		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	93		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	102		80-120		

Batch number: 13269WAJ026

Sample number(s): 7208845-7208853, 7208855-7208863

Acenaphthene	N.D.	0.010	0.050	ug/l	100		77-118		
Acenaphthylene	N.D.	0.010	0.050	ug/l	101		80-123		
Anthracene	N.D.	0.010	0.050	ug/l	100		78-123		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	105		73-127		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	102		72-120		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	112		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	96		73-131		
Chrysene	N.D.	0.010	0.050	ug/l	102		76-125		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	102		58-131		
Fluoranthene	N.D.	0.010	0.050	ug/l	103		79-124		
Fluorene	N.D.	0.010	0.050	ug/l	102		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	102		62-130		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	106		80-126		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	104		81-124		
Naphthalene	N.D.	0.030	0.050	ug/l	102		75-120		
Phenanthrene	N.D.	0.030	0.050	ug/l	100		75-120		
Pyrene	N.D.	0.010	0.050	ug/l	114		71-130		

Batch number: 132671848008

Sample number(s): 7208845-7208863

Arsenic	N.D.	0.0068	0.0200	mg/l	104		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	103		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	105		90-112		
Calcium	N.D.	0.0334	0.200	mg/l	103		90-110		
Chromium	N.D.	0.0016	0.0150	mg/l	100		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	107		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	103		90-110		
Nickel	N.D.	0.0015	0.0100	mg/l	106		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	100		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	96		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	100		90-110		

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis

Group Number: 1420956

Reported: 09/30/13 at 12:24 PM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 132675713005	Sample number(s): 7208845-7208863								
Mercury	N.D.	0.00006	0.00020	mg/l	102		80-120		
		0							
Batch number: 13271807901A	Sample number(s): 7208845-7208862								
HEM (oil & grease)	1.6	J 1.4	5.0	mg/l	92	84	78-114	9	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: G132672AA	Sample number(s): 7208845-7208853, 7208855-7208864 UNSPK: 7208851								
Acetone	96	99	57-163	3	30				
Allyl Chloride	85	87	56-160	3	30				
Benzene	105	108	87-126	3	30				
Bromobenzene	106	109	80-123	3	30				
Bromochloromethane	118	120	82-125	2	30				
Bromodichloromethane	101	106	82-133	4	30				
Bromoform	100	105	60-138	5	30				
Bromomethane	109	112	66-130	3	30				
2-Butanone	82	87	56-160	5	30				
n-Butylbenzene	98	100	83-131	2	30				
sec-Butylbenzene	105	107	84-128	2	30				
tert-Butylbenzene	105	110	84-135	4	30				
Carbon Tetrachloride	113	119	81-148	5	30				
Chlorobenzene	111	112	78-133	1	30				
Chloroethane	95	97	70-139	3	30				
Chloroform	110	112	86-136	2	30				
Chloromethane	87	88	49-135	1	30				
2-Chlorotoluene	105	106	75-134	2	30				
4-Chlorotoluene	103	105	76-134	2	30				
1,2-Dibromo-3-chloropropane	104	118	43-143	12	30				
Dibromochloromethane	100	105	79-125	5	30				
1,2-Dibromoethane	103	104	84-127	2	30				
Dibromomethane	104	109	83-126	4	30				
1,2-Dichlorobenzene	107	111	83-117	4	30				
1,3-Dichlorobenzene	109	112	79-132	3	30				
1,4-Dichlorobenzene	108	112	79-120	4	30				
Dichlorodifluoromethane	114	118	28-136	3	30				
1,1-Dichloroethane	101	105	88-136	4	30				
1,2-Dichloroethane	108	111	82-135	3	30				
1,1-Dichloroethene	115	117	83-150	1	30				
cis-1,2-Dichloroethene	111	113	82-129	2	30				
trans-1,2-Dichloroethene	118	119	88-127	1	30				
Dichlorofluoromethane	109	112	81-161	3	30				
1,2-Dichloropropane	99	102	91-126	3	30				
1,3-Dichloropropane	93	95	80-127	2	30				
2,2-Dichloropropane	110	114	80-134	3	30				
1,1-Dichloropropene	116	117	86-139	1	30				

*- Outside of specification

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis

Group Number: 1420956

Reported: 09/30/13 at 12:24 PM

Sample Matrix Quality Control

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

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

<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>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	99	103	74-132	4	30			
trans-1,3-Dichloropropene	91	94	71-128	3	30			
Ethyl ether	74	83	57-139	12	30			
Ethylbenzene	106	107	80-140	1	30			
Freon 113	123	125	77-147	2	30			
Hexachlorobutadiene	107	110	65-128	2	30			
Isopropylbenzene	111	114	81-133	2	30			
p-Isopropyltoluene	104	106	84-124	3	30			
Methyl Tertiary Butyl Ether	99	100	82-132	1	30			
4-Methyl-2-Pentanone	80	83	69-149	4	30			
Methylene Chloride	105	106	77-135	1	30			
n-Propylbenzene	99	102	79-131	2	30			
Styrene	107	108	63-151	1	30			
1,1,1,2-Tetrachloroethane	106	107	87-126	1	30			
1,1,2,2-Tetrachloroethane	88	90	75-131	3	30			
Tetrachloroethene	125	128	75-129	2	30			
Tetrahydrofuran	86	93	56-154	8	30			
Toluene	107	107	83-127	0	30			
1,2,3-Trichlorobenzene	95	99	73-125	4	30			
1,2,4-Trichlorobenzene	101	108	77-120	6	30			
1,1,1-Trichloroethane	115	120	85-140	4	30			
1,1,2-Trichloroethane	99	101	85-129	2	30			
Trichloroethene	116	119	85-131	3	30			
Trichlorofluoromethane	125	131	73-139	5	30			
1,2,3-Trichloropropane	100	99	76-120	1	30			
1,2,4-Trimethylbenzene	104	106	87-126	2	30			
1,3,5-Trimethylbenzene	103	106	89-129	3	30			
Vinyl Chloride	102	104	62-135	2	30			
Xylene (Total)	110	111	81-137	1	30			

Batch number: 13269WAJ026

Sample number(s): 7208845-7208853, 7208855-7208863 UNSPK: 7208851

Acenaphthene	94	88	47-136	7	30			
Acenaphthylene	99	97	33-146	3	30			
Anthracene	54*	39*	69-119	33*	30			
Benzo(a)anthracene	93	73	37-150	25	30			
Benzo(a)pyrene	56*	41*	64-123	31*	30			
Benzo(b)fluoranthene	90	68	33-152	28	30			
Benzo(g,h,i)perylene	81	60	36-138	30	30			
Benzo(k)fluoranthene	82	64	31-142	24	30			
Chrysene	91	76	34-135	19	30			
Dibenz(a,h)anthracene	91	68	17-134	28	30			
Fluoranthene	99	88	39-147	13	30			
Fluorene	101	96	38-149	5	30			
Indeno(1,2,3-cd)pyrene	88	67	29-143	27	30			
1-Methylnaphthalene	104	101	49-152	4	30			
2-Methylnaphthalene	102	98	51-146	4	30			
Naphthalene	101	98	58-131	3	30			
Phenanthrene	98	92	48-140	7	30			
Pyrene	102	88	59-125	16	30			

Batch number: 132671848008

Sample number(s): 7208845-7208863 UNSPK: 7208851 BKG: 7208851

Arsenic	110	109	81-123	1	20	N.D.	N.D.	0 (1)	20
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*- Outside of specification

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

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 09/30/13 at 12:24 PM

Group Number: 1420956

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Barium	104	104	78-118	0	20	0.0441	0.0431	2	20
Cadmium	106	106	83-116	0	20	N.D.	N.D.	0 (1)	20
Calcium	99	100	81-118	0	20	6.98	6.80	3	20
Chromium	102	102	81-120	1	20	N.D.	N.D.	0 (1)	20
Lead	109	108	75-125	1	20	N.D.	N.D.	0 (1)	20
Magnesium	99	100	75-125	0	20	3.22	3.14	2	20
Nickel	107	107	86-115	0	20	N.D.	N.D.	0 (1)	20
Selenium	99	100	75-125	0	20	N.D.	N.D.	0 (1)	20
Silver	96	96	75-125	1	20	N.D.	N.D.	0 (1)	20
Vanadium	102	102	90-111	0	20	N.D.	N.D.	0 (1)	20

Batch number: 132675713005
Mercury

Sample number(s): 7208845-7208863 UNSPK: 7208851 BKG: 7208851
100 100 80-120 0 20 N.D. N.D. 0 (1) 20

Batch number: 13271807901A
HEM (oil & grease)

Sample number(s): 7208845-7208862 UNSPK: 7208851 BKG: 7208851
55* 55* 78-114 6 29 N.D. N.D. 0 (1) 18

Surrogate Quality Control

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

Analysis Name: BTEX 25-ml purge
Batch number: G132672AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7208845	105	106	97	95
7208846	106	104	96	94
7208847	107	106	96	95
7208848	107	104	96	93
7208849	106	105	97	95
7208850	106	106	97	95
7208851	105	106	96	95
7208852	104	104	97	95
7208853	106	106	97	95
7208855	107	104	96	94
7208856	106	107	97	95
7208857	105	106	96	94
7208858	106	105	96	94
7208859	106	104	97	94
7208860	106	104	97	95
7208861	105	104	97	95
7208862	106	105	96	94
7208863	106	102	97	94
7208864	106	106	96	95
Blank	106	105	97	95
LCS	105	105	97	94
MS	104	104	97	95
MSD	106	106	97	95

*- Outside of specification

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis

Group Number: 1420956

Reported: 09/30/13 at 12:24 PM

Surrogate Quality Control

Limits: 77-114		74-113	77-110	78-110
Analysis Name: PAHs in waters by SIM				
Batch number: 13269WAJ026				
	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10	
7208845	85	71	91	
7208846	90	77	98	
7208847	84	68	91	
7208848	88	72	96	
7208849	93	71	103	
7208850	85	64	95	
7208851	79	53*	92	
7208852	91	76	99	
7208853	78	53*	96	
7208855	87	72	95	
7208856	89	74	101	
7208857	91	74	102	
7208858	87	65	97	
7208859	89	63	100	
7208860	90	67	96	
7208861	81	73	91	
7208862	89	59*	99	
7208863	90	96	98	
Blank	76	85	80	
LCS	90	91	100	
MS	91	76	99	
MSD	78	53*	96	
Limits: 44-137		62-141	51-136	

*- Outside of specification

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

ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories
Environmental

Acct. # 14739 For Eurofins Lancaster Laboratories Environmental use only
Group # 1420956 Sample # 7208845-64
Instructions on reverse side correspond with circled numbers.

1052

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												SCR#: _____ 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>N</td><td></td><td>N</td><td></td><td></td><td></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></td><td></td><td></td><td></td><td></td><td></td><td></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></td><td></td><td></td><td></td><td></td><td></td><td></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></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>														H	N		N																																																																				
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ExxonMobil PM <u>SCOTT BUSHROE</u>		Cost Center/AFE																																																																																											
Consultant/Office <u>ARCADIS</u>																																																																																													
Consultant PM <u>STEVE BAERICK</u>		Consultant Phone # <u>919-302-6799</u>																																																																																											
Sample <u>DAVID DROSE / RYAN LEWIS</u>				3																																																																																									
2 Sample Identification				Collected		Grab		Composite																																																																																					
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<u>WS-014 (1.5-2.0) 092313</u>				<u>9.23.13</u>		<u>845</u>		<u>X</u>																																																																																					
<u>WS-014 (5.5-6.0) 092313</u>						<u>855</u>		<u>X</u>																																																																																					
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<u>WS-012 (5.0-5.5) 092313</u>						<u>915</u>		<u>X</u>																																																																																					
<u>WS-010 (1.5-2.0) 092313</u>						<u>945</u>		<u>X</u>																																																																																					
<u>WS-010 (3.5-4.0) 092313</u>						<u>955</u>		<u>X</u>																																																																																					
<u>WS-006 (0.5-1.0) 092313</u>						<u>930</u>		<u>X</u>																																																																																					
<u>WS-005 (Surface) 092313</u>						<u>1015</u>		<u>X</u>																																																																																					
<u>WS-002 (Surface) 092313</u>						<u>1035</u>		<u>X</u>																																																																																					
<u>WS-011 (1.5-2.0) 092313</u>						<u>1050</u>		<u>X</u>																																																																																					
<u>WS-011 (5.0-5.5) 092313</u>						<u>1100</u>		<u>X</u>																																																																																					
<u>WS-018 (Surface) 092313</u>						<u>1120</u>		<u>X</u>																																																																																					
7 Turnaround Time Requested (TAT) (please circle)										Relinquished by										Date		Time		Received by		Date		Time																																																																	
Standard <u>5 day</u> 4 day										<u>DLN</u>										<u>9.23.13</u>		<u>1600</u>																																																																							
72 hour 48 hour 24 hour																																																																																													
8 Data Package (circle if required)										Relinquished by Commercial Carrier										Received by										Date		Time																																																													
Type I - Full Type VI (Raw Data) NJ Reduced Other _____										UPS <u>X</u> FedEx _____ Other _____										<u>C. Shuler</u>										<u>9/24/13</u>		<u>0915</u>																																																													
EDD (circle if required)										Temperature Upon Receipt										Custody Seals Intact?										Yes		No																																																													
Locus EIM (default) Other _____										<u>0.5-4.8°C</u>																																																																																			

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

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

eurofins

For Eurofins Lancaster Laboratories Environmental use only
Acct. # 14739 Group # 1420956 Sample # 7208845-164
Instructions on reverse side correspond with circled numbers.

Group # 1420956 Sample # 7208845-104

Instructions on reverse side correspond with circled numbers

2 of 2

[illegible]

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

Environmental Sample Administration 1420956
Receipt Documentation LogClient/Project: MayflowerShipping Container Sealed: YES NODate of Receipt: 9/24/13Custody Seal Present *: YES NOTime of Receipt: 0915* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: 60-1Package: Chilled Not Chilled

Temperature of Shipping Containers

Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	0.8	TB	WI	Y	B	
2		0.9					
3		0.6					
4		4.8					
5		0.5					
6		1.4					

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#:

C. E. H. 3647

Date/Time:

9/24/13 1005

Issued by Dept. 6042 Management

Explanation of Symbols and Abbreviations

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

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

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

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

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

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

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

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

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