ANALYTICAL RESULTS

Prepared by:

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Lancaster, PA 17601

Prepared for:

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

September 25, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 09/18/2013
Group Number: 1419619
SDG: PEL55
PO Number: B0086003.1301
State of Sample Origin: AR

Client Sample Description	Lancaster Labs (LL) #
WS-014(1.5-2.0)091713 Grab Surface Water	7201722
WS-014(5.5-6.0)091713 Grab Surface Water	7201723
WS-012(1.5-2.0)091713 Grab Surface Water	7201724
WS-012(5.0-5.5)091713 Grab Surface Water	7201725
WS-010(1.5-2.0)091713 Grab Surface Water	7201726
WS-010(3.5-4.0)091713 Grab Surface Water	7201727
WS-006(0.5-1.0)091713 Grab Surface Water	7201728
WS-006(0.5-1.0)091713MS Grab Surface Water	7201729
WS-006(0.5-1.0)091713MSD Grab Surface Water	7201730
WS-006(0.5-1.0)091713DUP Grab Surface Water	7201731
WS-005(Surface)091713 Grab Surface Water	7201732
WS-002(Surface)091713 Grab Surface Water	7201733
WS-011(1.5-2.0)091713 Grab Surface Water	7201734
WS-011(5.0-5.5)091713 Grab Surface Water	7201735
WS-018(Surface)091713 Grab Surface Water	7201736
WS-003(Surface)091713 Grab Surface Water	7201737
WS-007(0.5-1.0)091713 Grab Surface Water	7201738
WS-001(0.5-1.0)091713 Grab Surface Water	7201739
WS-EB-64-091713 Grab Water	7201740
WS-TB-153-091713 Water	7201741

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

ELECTRONIC COPY TO	ARCADIS	Attn: Stephen Barrick
ELECTRONIC COPY TO	ARCADIS	Attn: Lyndi Mott

ELECTRONIC 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

Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1419619

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 #: 13262WAG026 (Sample number(s): 7201722-7201730, 7201732-7201740 UNSPK: 7201728)

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

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7201728, 7201729, 7201730, 7201732, 7201733, 7201735, 7201736, 7201737, 7201738, 7201739, MS, MSD

Sample #s: 7201728, 7201729, 7201730, 7201732, 7201733, 7201735, 7201736, 7201737, 7201738, 7201739

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

SW-846 6010B, Metals

Batch #: 132611848003 (Sample number(s): 7201722-7201740 UNSPK: 7201728 BKG: 7201728)

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

EPA 1664A, Wet Chemistry

Batch #: 13267807901A (Sample number(s): 7201722-7201739 UNSPK: 7201728 BKG: 7201728)

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)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201722
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 09:00 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17114 SDG#: PEL55-01

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

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

Sample Description: WS-014(1.5-2.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201722
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 09:00 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17114 SDG#: PEL55-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.054	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.054	1
08357	Anthracene	120-12-7	N.D.	0.011	0.054	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.054	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.054	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.054	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.054	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.054	1
08357	Chrysene	218-01-9	N.D.	0.011	0.054	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.054	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.054	1
08357	Fluorene	86-73-7	N.D.	0.011	0.054	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.054	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.054	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.054	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.054	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.054	1
08357	Pyrene	129-00-0	N.D.	0.011	0.054	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	29.5	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0531	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.74	0.0334	0.200	1

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

Sample Description: WS-014(1.5-2.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201722
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 09:00 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17114 SDG#: PEL55-01

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**		**mg/l**	**mg/l**	
07051	Chromium	7440-47-3	N.D.		0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.		0.0047	0.0150	1
01757	Magnesium	7439-95-4	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.	2.4	J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132611AA	09/18/2013 18:05	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132611AA	09/18/2013 18:05	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13262WAG026	09/24/2013 17:52	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13262WAG026	09/20/2013 14:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132636256001	09/20/2013 04:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132611848003	09/19/2013 18:44	John P Hook	1
07046	Barium	SW-846 6010B	1	132611848003	09/19/2013 18:44	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132611848003	09/19/2013 18:44	John P Hook	1
01750	Calcium	SW-846 6010B	1	132611848003	09/19/2013 18:44	John P Hook	1
07051	Chromium	SW-846 6010B	1	132611848003	09/19/2013 18:44	John P Hook	1
07055	Lead	SW-846 6010B	1	132611848003	09/19/2013 18:44	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132611848003	09/19/2013 18:44	John P Hook	1
07061	Nickel	SW-846 6010B	1	132611848003	09/19/2013 18:44	John P Hook	1
07036	Selenium	SW-846 6010B	1	132611848003	09/19/2013 18:44	John P Hook	1
07066	Silver	SW-846 6010B	1	132611848003	09/19/2013 18:44	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132611848003	09/19/2013 18:44	John P Hook	1
00259	Mercury	SW-846 7470A	1	132625713002	09/22/2013 06:16	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848003	09/19/2013 09:36	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132625713002	09/20/2013 15:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13267807901A	09/24/2013 09:03	Yolunder Y Bunch	1

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

Sample Description: WS-014(5.5-6.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201723
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 09:10 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17214 SDG#: PEL55-02

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)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201723
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 09:10 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17214 SDG#: PEL55-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.057	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.057	1
08357	Anthracene	120-12-7	N.D.	0.011	0.057	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.057	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.057	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.057	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.057	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.057	1
08357	Chrysene	218-01-9	N.D.	0.011	0.057	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.057	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.057	1
08357	Fluorene	86-73-7	N.D.	0.011	0.057	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.057	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.057	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.057	1
08357	Naphthalene	91-20-3	N.D.	0.034	0.057	1
08357	Phenanthrene	85-01-8	N.D.	0.034	0.057	1
08357	Pyrene	129-00-0	N.D.	0.011	0.057	1
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	0.0554	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)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201723
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 09:10 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17214 SDG#: PEL55-02

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	3.16	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	C132611AA	09/18/2013 18:28	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132611AA	09/18/2013 18:28	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13262WAG026	09/24/2013 18:21	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13262WAG026	09/20/2013 14:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132636256001	09/20/2013 04:47	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132611848003	09/19/2013 18:48	John P Hook	1
07046	Barium	SW-846 6010B	1	132611848003	09/19/2013 18:48	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132611848003	09/19/2013 18:48	John P Hook	1
01750	Calcium	SW-846 6010B	1	132611848003	09/19/2013 18:48	John P Hook	1
07051	Chromium	SW-846 6010B	1	132611848003	09/19/2013 18:48	John P Hook	1
07055	Lead	SW-846 6010B	1	132611848003	09/19/2013 18:48	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132611848003	09/19/2013 18:48	John P Hook	1
07061	Nickel	SW-846 6010B	1	132611848003	09/19/2013 18:48	John P Hook	1
07036	Selenium	SW-846 6010B	1	132611848003	09/19/2013 18:48	John P Hook	1
07066	Silver	SW-846 6010B	1	132611848003	09/19/2013 18:48	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132611848003	09/19/2013 18:48	John P Hook	1
00259	Mercury	SW-846 7470A	1	132625713002	09/22/2013 06:18	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848003	09/19/2013 09:36	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132625713002	09/20/2013 15:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13267807901A	09/24/2013 09:03	Yolunder Y Bunch	1

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

Sample Description: WS-012(1.5-2.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201724
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 09:25 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17112 SDG#: PEL55-03

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

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

Sample Description: WS-012(1.5-2.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201724
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 09:25 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17112 SDG#: PEL55-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.055	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.055	1
08357	Anthracene	120-12-7	N.D.	0.011	0.055	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.055	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.055	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.055	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.055	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.055	1
08357	Chrysene	218-01-9	N.D.	0.011	0.055	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.055	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.055	1
08357	Fluorene	86-73-7	N.D.	0.011	0.055	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.055	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.055	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.055	1
08357	Naphthalene	91-20-3	N.D.	0.033	0.055	1
08357	Phenanthrene	85-01-8	N.D.	0.033	0.055	1
08357	Pyrene	129-00-0	N.D.	0.011	0.055	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	31.8	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.0072 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0619	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.29	0.0334	0.200	1

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

Sample Description: WS-012(1.5-2.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201724
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 09:25 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17112 SDG#: PEL55-03

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	0.0019 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.	3.7 J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132611AA	09/18/2013 18:50	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132611AA	09/18/2013 18:50	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13262WAG026	09/24/2013 21:30	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13262WAG026	09/20/2013 14:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132636256001	09/20/2013 06:41	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132611848003	09/19/2013 19:00	John P Hook	1
07046	Barium	SW-846 6010B	1	132611848003	09/19/2013 19:00	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132611848003	09/19/2013 19:00	John P Hook	1
01750	Calcium	SW-846 6010B	1	132611848003	09/20/2013 02:44	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132611848003	09/19/2013 19:00	John P Hook	1
07055	Lead	SW-846 6010B	1	132611848003	09/19/2013 19:00	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132611848003	09/20/2013 02:44	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132611848003	09/19/2013 19:00	John P Hook	1
07036	Selenium	SW-846 6010B	1	132611848003	09/19/2013 19:00	John P Hook	1
07066	Silver	SW-846 6010B	1	132611848003	09/19/2013 19:00	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132611848003	09/19/2013 19:00	John P Hook	1
00259	Mercury	SW-846 7470A	1	132625713002	09/22/2013 06:20	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848003	09/19/2013 09:36	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132625713002	09/20/2013 15:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13267807901A	09/24/2013 09:03	Yolunder Y Bunch	1

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

Sample Description: WS-012(5.0-5.5)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201725
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 09:35 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17212 SDG#: PEL55-04

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

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

Sample Description: WS-012(5.0-5.5)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201725
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 09:35 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17212 SDG#: PEL55-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.055	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.055	1
08357	Anthracene	120-12-7	N.D.	0.011	0.055	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.055	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.055	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.055	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.055	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.055	1
08357	Chrysene	218-01-9	N.D.	0.011	0.055	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.055	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.055	1
08357	Fluorene	86-73-7	N.D.	0.011	0.055	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.055	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.055	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.055	1
08357	Naphthalene	91-20-3	N.D.	0.033	0.055	1
08357	Phenanthrene	85-01-8	N.D.	0.033	0.055	1
08357	Pyrene	129-00-0	0.016 J	0.011	0.055	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	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0638	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.32	0.0334	0.200	1

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

Sample Description: WS-012(5.0-5.5)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201725
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 09:35 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17212 SDG#: PEL55-04

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	3.31	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	C132611AA	09/18/2013 19:12	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132611AA	09/18/2013 19:12	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13262WAG026	09/24/2013 22:00	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13262WAG026	09/20/2013 14:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132636256001	09/20/2013 06:41	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132611848003	09/19/2013 19:04	John P Hook	1
07046	Barium	SW-846 6010B	1	132611848003	09/19/2013 19:04	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132611848003	09/19/2013 19:04	John P Hook	1
01750	Calcium	SW-846 6010B	1	132611848003	09/20/2013 02:48	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132611848003	09/19/2013 19:04	John P Hook	1
07055	Lead	SW-846 6010B	1	132611848003	09/19/2013 19:04	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132611848003	09/20/2013 02:48	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132611848003	09/19/2013 19:04	John P Hook	1
07036	Selenium	SW-846 6010B	1	132611848003	09/19/2013 19:04	John P Hook	1
07066	Silver	SW-846 6010B	1	132611848003	09/19/2013 19:04	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132611848003	09/19/2013 19:04	John P Hook	1
00259	Mercury	SW-846 7470A	1	132625713002	09/22/2013 06:22	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848003	09/19/2013 09:36	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132625713002	09/20/2013 15:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13267807901A	09/24/2013 09:03	Yolunder Y Bunch	1

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

Sample Description: WS-010(1.5-2.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201726
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 10:05 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17110 SDG#: PEL55-05

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

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

Sample Description: WS-010(1.5-2.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201726
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 10:05 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17110 SDG#: PEL55-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.011	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	0.014 J	0.011	0.053	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	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0432	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.28	0.0334	0.200	1

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

Sample Description: WS-010(1.5-2.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201726
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 10:05 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17110 SDG#: PEL55-05

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	3.34		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.	2.4	J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132611AA	09/18/2013 19:35	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132611AA	09/18/2013 19:35	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13262WAG026	09/24/2013 22:29	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13262WAG026	09/20/2013 14:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132636256001	09/20/2013 06:41	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132611848003	09/19/2013 19:08	John P Hook	1
07046	Barium	SW-846 6010B	1	132611848003	09/19/2013 19:08	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132611848003	09/19/2013 19:08	John P Hook	1
01750	Calcium	SW-846 6010B	1	132611848003	09/20/2013 02:52	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132611848003	09/19/2013 19:08	John P Hook	1
07055	Lead	SW-846 6010B	1	132611848003	09/19/2013 19:08	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132611848003	09/20/2013 02:52	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132611848003	09/19/2013 19:08	John P Hook	1
07036	Selenium	SW-846 6010B	1	132611848003	09/19/2013 19:08	John P Hook	1
07066	Silver	SW-846 6010B	1	132611848003	09/19/2013 19:08	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132611848003	09/19/2013 19:08	John P Hook	1
00259	Mercury	SW-846 7470A	1	132625713002	09/22/2013 06:24	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848003	09/19/2013 09:36	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132625713002	09/20/2013 15:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13267807901A	09/24/2013 09:03	Yolunder Y Bunch	1

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

Sample Description: WS-010(3.5-4.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201727
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 10:15 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17210 SDG#: PEL55-06

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

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

Sample Description: WS-010(3.5-4.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201727
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 10:15 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17210 SDG#: PEL55-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1
Metals	**SM 2340 B-1997**		**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**	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0434	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.19	0.0334	0.200	1

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

Sample Description: WS-010(3.5-4.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201727
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 10:15 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17210 SDG#: PEL55-06

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	3.31	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	C132611AA	09/18/2013 19:57	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132611AA	09/18/2013 19:57	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13262WAG026	09/24/2013 22:58	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13262WAG026	09/20/2013 14:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132636256001	09/20/2013 06:41	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132611848003	09/19/2013 19:12	John P Hook	1
07046	Barium	SW-846 6010B	1	132611848003	09/19/2013 19:12	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132611848003	09/19/2013 19:12	John P Hook	1
01750	Calcium	SW-846 6010B	1	132611848003	09/20/2013 02:55	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132611848003	09/19/2013 19:12	John P Hook	1
07055	Lead	SW-846 6010B	1	132611848003	09/19/2013 19:12	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132611848003	09/20/2013 02:55	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132611848003	09/19/2013 19:12	John P Hook	1
07036	Selenium	SW-846 6010B	1	132611848003	09/19/2013 19:12	John P Hook	1
07066	Silver	SW-846 6010B	1	132611848003	09/19/2013 19:12	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132611848003	09/19/2013 19:12	John P Hook	1
00259	Mercury	SW-846 7470A	1	132625713002	09/22/2013 06:26	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848003	09/19/2013 09:36	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132625713002	09/20/2013 15:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13267807901A	09/24/2013 09:03	Yolunder Y Bunch	1

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

Sample Description: WS-006(0.5-1.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201728
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 10:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1706- SDG#: PEL55-07BKG

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

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

Sample Description: WS-006(0.5-1.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201728
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 10:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1706- SDG#: PEL55-07BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
	The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.					
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	29.9	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	0.0453	0.00033	0.0050	1

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

Sample Description: WS-006(0.5-1.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201728
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 10:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1706- SDG#: PEL55-07BKG

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	6.80	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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132611AA	09/18/2013 20:19	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132611AA	09/18/2013 20:19	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13262WAG026	09/24/2013 12:57	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13262WAG026	09/20/2013 14:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132636256001	09/20/2013 05:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132611848003	09/19/2013 18:20	John P Hook	1
07046	Barium	SW-846 6010B	1	132611848003	09/19/2013 18:20	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132611848003	09/19/2013 18:20	John P Hook	1
01750	Calcium	SW-846 6010B	1	132611848003	09/19/2013 18:20	John P Hook	1
07051	Chromium	SW-846 6010B	1	132611848003	09/19/2013 18:20	John P Hook	1
07055	Lead	SW-846 6010B	1	132611848003	09/19/2013 18:20	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132611848003	09/19/2013 18:20	John P Hook	1
07061	Nickel	SW-846 6010B	1	132611848003	09/19/2013 18:20	John P Hook	1
07036	Selenium	SW-846 6010B	1	132611848003	09/19/2013 18:20	John P Hook	1
07066	Silver	SW-846 6010B	1	132611848003	09/19/2013 18:20	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132611848003	09/19/2013 18:20	John P Hook	1
00259	Mercury	SW-846 7470A	1	132625713002	09/22/2013 06:28	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848003	09/19/2013 09:36	James L Mertz	1

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

Sample Description: WS-006(0.5-1.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201728
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 10:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1706- SDG#: PEL55-07BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132625713002	09/20/2013 15:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13267807901A	09/24/2013 09:03	Yolunder Y Bunch	1

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

Sample Description: WS-006(0.5-1.0)091713MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201729
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 10:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1706- SDG#: PEL55-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	44	3.0	5.0	1
02898	Allyl Chloride	107-05-1	3.8	0.1	0.5	1
02898	Benzene	71-43-2	5.3	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.2	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.7	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.5	0.1	0.5	1
02898	Bromoform	75-25-2	5.9	0.1	0.5	1
02898	Bromomethane	74-83-9	5.2	0.1	0.5	1
02898	2-Butanone	78-93-3	36	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.2	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.2	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.2	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	6.8	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	5.8	0.1	0.5	1
02898	Chloromethane	74-87-3	4.2	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.1	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.2	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	5.6	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	5.6	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.2	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.6	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.4	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	5.0	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	5.8	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.5	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.4	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.7	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	6.6	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	4.8	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	5.6	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	4.5	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	4.7	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.4	0.1	0.5	1
02898	Freon 113	76-13-1	6.1	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.6	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	4.3	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	5.4	0.2	0.5	1

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

Sample Description: WS-006(0.5-1.0)091713MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201729
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 10:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1706- SDG#: PEL55-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	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	5.9	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	5.9	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	25	2.0	5.0	1
02898	Toluene	108-88-3	5.4	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.5	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	4.6	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	6.2	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.2	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.8	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	5.3	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.2	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.2	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	4.8	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	16	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	0.92	0.010	0.051	1
08357	Acenaphthylene	208-96-8	0.98	0.010	0.051	1
08357	Anthracene	120-12-7	0.52	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.73	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.30	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.69	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.59	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.68	0.010	0.051	1
08357	Chrysene	218-01-9	0.76	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.64	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.94	0.010	0.051	1
08357	Fluorene	86-73-7	0.94	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.62	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	1.0	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	1.0	0.010	0.051	1
08357	Naphthalene	91-20-3	1.0	0.030	0.051	1
08357	Phenanthrene	85-01-8	0.94	0.030	0.051	1
08357	Pyrene	129-00-0	0.90	0.010	0.051	1

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

Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	48.4	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.159	0.0068	0.0200	1
07046	Barium	7440-39-3	2.03	0.00033	0.0050	1

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

Sample Description: WS-006(0.5-1.0)091713MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201729
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 10:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1706- SDG#: PEL55-07MS

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	0.0508	0.00076	0.0050	1
01750	Calcium	7440-70-2	10.9	0.0334	0.200	1
07051	Chromium	7440-47-3	0.201	0.0016	0.0150	1
07055	Lead	7439-92-1	0.154	0.0047	0.0150	1
01757	Magnesium	7439-95-4	5.17	0.0167	0.100	1
07061	Nickel	7440-02-0	0.519	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.152	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0447	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.504	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.	30.0	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	C132611AA	09/18/2013 20:41	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132611AA	09/18/2013 20:41	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13262WAG026	09/24/2013 13:26	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13262WAG026	09/20/2013 14:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132636256001	09/20/2013 05:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132611848003	09/19/2013 18:32	John P Hook	1
07046	Barium	SW-846 6010B	1	132611848003	09/19/2013 18:32	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132611848003	09/19/2013 18:32	John P Hook	1
01750	Calcium	SW-846 6010B	1	132611848003	09/19/2013 18:32	John P Hook	1
07051	Chromium	SW-846 6010B	1	132611848003	09/19/2013 18:32	John P Hook	1
07055	Lead	SW-846 6010B	1	132611848003	09/19/2013 18:32	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132611848003	09/19/2013 18:32	John P Hook	1
07061	Nickel	SW-846 6010B	1	132611848003	09/19/2013 18:32	John P Hook	1
07036	Selenium	SW-846 6010B	1	132611848003	09/19/2013 18:32	John P Hook	1
07066	Silver	SW-846 6010B	1	132611848003	09/19/2013 18:32	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132611848003	09/19/2013 18:32	John P Hook	1
00259	Mercury	SW-846 7470A	1	132625713002	09/22/2013 06:36	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848003	09/19/2013 09:36	James L Mertz	1

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

Sample Description: WS-006(0.5-1.0)091713MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201729
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 10:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1706- SDG#: PEL55-07MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132625713002	09/20/2013 15:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13267807901A	09/24/2013 09:03	Yolunder Y Bunch	1

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

Sample Description: WS-006(0.5-1.0)091713MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201730
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 10:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1706- SDG#: PEL55-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	41	3.0	5.0	1
02898	Allyl Chloride	107-05-1	3.9	0.1	0.5	1
02898	Benzene	71-43-2	5.4	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.3	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.6	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.6	0.1	0.5	1
02898	Bromoform	75-25-2	5.9	0.1	0.5	1
02898	Bromomethane	74-83-9	5.0	0.1	0.5	1
02898	2-Butanone	78-93-3	35	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.3	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.3	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.2	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	6.8	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.7	0.1	0.5	1
02898	Chloroethane	75-00-3	4.8	0.1	0.5	1
02898	Chloroform	67-66-3	5.9	0.1	0.5	1
02898	Chloromethane	74-87-3	4.3	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.3	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.4	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	5.6	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.2	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.6	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	5.5	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.5	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	4.9	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.1	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.8	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	5.7	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.5	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.8	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	6.5	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.2	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	4.9	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	5.6	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.7	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	4.7	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.7	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.7	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.5	0.1	0.5	1
02898	Freon 113	76-13-1	6.2	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.6	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.5	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	4.5	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	5.5	0.2	0.5	1

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

Sample Description: WS-006(0.5-1.0)091713MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201730
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 10:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1706- SDG#: PEL55-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	5.3	0.1	0.5	1
02898	Styrene	100-42-5	5.5	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	5.9	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	4.7	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	6.1	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	24	2.0	5.0	1
02898	Toluene	108-88-3	5.5	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.7	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	4.7	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	6.2	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.3	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.9	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	5.4	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	4.9	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	0.94	0.010	0.051	1
08357	Acenaphthylene	208-96-8	1.0	0.010	0.051	1
08357	Anthracene	120-12-7	0.52	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.77	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.32	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.71	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.62	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.71	0.010	0.051	1
08357	Chrysene	218-01-9	0.82	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.68	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.96	0.010	0.051	1
08357	Fluorene	86-73-7	0.99	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.65	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	1.1	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	1.0	0.010	0.051	1
08357	Naphthalene	91-20-3	1.0	0.030	0.051	1
08357	Phenanthrene	85-01-8	0.97	0.030	0.051	1
08357	Pyrene	129-00-0	0.92	0.010	0.051	1

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

Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	48.8	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.153	0.0068	0.0200	1
07046	Barium	7440-39-3	2.05	0.00033	0.0050	1

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

Sample Description: WS-006(0.5-1.0)091713MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201730
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 10:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1706- SDG#: PEL55-07MSD

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	0.0508	0.00076	0.0050	1
01750	Calcium	7440-70-2	11.0	0.0334	0.200	1
07051	Chromium	7440-47-3	0.201	0.0016	0.0150	1
07055	Lead	7439-92-1	0.151	0.0047	0.0150	1
01757	Magnesium	7439-95-4	5.21	0.0167	0.100	1
07061	Nickel	7440-02-0	0.521	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.150	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0455	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.506	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.	27.2	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132611AA	09/18/2013 21:04	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132611AA	09/18/2013 21:04	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13262WAG026	09/24/2013 14:55	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13262WAG026	09/20/2013 14:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132636256001	09/20/2013 05:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132611848003	09/19/2013 18:36	John P Hook	1
07046	Barium	SW-846 6010B	1	132611848003	09/19/2013 18:36	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132611848003	09/19/2013 18:36	John P Hook	1
01750	Calcium	SW-846 6010B	1	132611848003	09/19/2013 18:36	John P Hook	1
07051	Chromium	SW-846 6010B	1	132611848003	09/19/2013 18:36	John P Hook	1
07055	Lead	SW-846 6010B	1	132611848003	09/19/2013 18:36	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132611848003	09/19/2013 18:36	John P Hook	1
07061	Nickel	SW-846 6010B	1	132611848003	09/19/2013 18:36	John P Hook	1
07036	Selenium	SW-846 6010B	1	132611848003	09/19/2013 18:36	John P Hook	1
07066	Silver	SW-846 6010B	1	132611848003	09/19/2013 18:36	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132611848003	09/19/2013 18:36	John P Hook	1
00259	Mercury	SW-846 7470A	1	132625713002	09/22/2013 06:38	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848003	09/19/2013 09:36	James L Mertz	1

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

Sample Description: WS-006(0.5-1.0)091713MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201730
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 10:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1706- SDG#: PEL55-07MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05713	WW SW846 Hg Digest	SW-846 7470A	1	132625713002	09/20/2013 15:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13267807901A	09/24/2013 09:03	Yolunder Y Bunch	1

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

Sample Description: WS-006(0.5-1.0)091713DUP Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201731
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 10:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1706- SDG#: PEL55-07DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	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	0.0457	0.00033	0.0050	1
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	3.17	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132636256001	09/20/2013 05:46	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132611848003	09/19/2013 18:28	John P Hook	1
07046	Barium	SW-846 6010B	1	132611848003	09/19/2013 18:28	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132611848003	09/19/2013 18:28	John P Hook	1
01750	Calcium	SW-846 6010B	1	132611848003	09/19/2013 18:28	John P Hook	1
07051	Chromium	SW-846 6010B	1	132611848003	09/19/2013 18:28	John P Hook	1
07055	Lead	SW-846 6010B	1	132611848003	09/19/2013 18:28	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132611848003	09/19/2013 18:28	John P Hook	1
07061	Nickel	SW-846 6010B	1	132611848003	09/19/2013 18:28	John P Hook	1
07036	Selenium	SW-846 6010B	1	132611848003	09/19/2013 18:28	John P Hook	1
07066	Silver	SW-846 6010B	1	132611848003	09/19/2013 18:28	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132611848003	09/19/2013 18:28	John P Hook	1
00259	Mercury	SW-846 7470A	1	132625713002	09/22/2013 06:30	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848003	09/19/2013 09:36	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132625713002	09/20/2013 15:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13267807901A	09/24/2013 09:03	Yolunder Y Bunch	1

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

Sample Description: WS-005(Surface)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201732
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 11:00 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1705- SDG#: PEL55-08

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**		**ug/l**	**ug/l**	
02898	Acetone	67-64-1	3.3	J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.		0.1	0.5	1
02898	Benzene	71-43-2	N.D.		0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.		0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.		0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.		0.1	0.5	1
02898	Bromoform	75-25-2	N.D.		0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.		0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.		1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.		0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.		0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.		0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.		0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.		0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.		0.1	0.5	1
02898	Chloroform	67-66-3	N.D.		0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.		0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.		0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.		0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.		0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.		0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.		0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.		0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.		0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.		0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.		0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.		0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.		0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.		0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.		0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.		0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.		0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.		0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.		0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.		0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.		0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.		0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.		0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.		0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.		0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.		0.1	0.5	1
02898	Freon 113	76-13-1	N.D.		0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.		0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.		0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.		0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.		1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.		0.2	0.5	1

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

Sample Description: WS-005(Surface)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201732
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 11:00 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1705- SDG#: PEL55-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
	The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.					
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	50.5	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.0170 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.284	0.00033	0.0050	1

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

Sample Description: WS-005(Surface)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201732
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 11:00 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1705- SDG#: PEL55-08

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**	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	13.5	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0032 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.07	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0039 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0050 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	C132624AA	09/19/2013 21:20	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132624AA	09/19/2013 21:20	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13262WAG026	09/24/2013 23:27	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13262WAG026	09/20/2013 14:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132636256001	09/20/2013 06:41	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132611848003	09/19/2013 19:16	John P Hook	1
07046	Barium	SW-846 6010B	1	132611848003	09/19/2013 19:16	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132611848003	09/19/2013 19:16	John P Hook	1
01750	Calcium	SW-846 6010B	1	132611848003	09/20/2013 02:59	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132611848003	09/19/2013 19:16	John P Hook	1
07055	Lead	SW-846 6010B	1	132611848003	09/19/2013 19:16	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132611848003	09/20/2013 02:59	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132611848003	09/19/2013 19:16	John P Hook	1
07036	Selenium	SW-846 6010B	1	132611848003	09/19/2013 19:16	John P Hook	1
07066	Silver	SW-846 6010B	1	132611848003	09/19/2013 19:16	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132611848003	09/19/2013 19:16	John P Hook	1
00259	Mercury	SW-846 7470A	1	132625713002	09/22/2013 06:40	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848003	09/19/2013 09:36	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132625713002	09/20/2013 15:10	Nelli S Markaryan	1

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

Sample Description: WS-005(Surface)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201732
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 11:00 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1705- SDG#: PEL55-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13267807901A	09/24/2013 09:03	Yolunder Y Bunch	1

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

Sample Description: WS-002(Surface)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201733
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 11:20 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1702- SDG#: PEL55-09

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

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

Sample Description: WS-002(Surface)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201733
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 11:20 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1702- SDG#: PEL55-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	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	0.011 J	0.010	0.052	1
	The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.					
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	32.8	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.0077 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0628	0.00033	0.0050	1

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

Sample Description: WS-002(Surface)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201733
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 11:20 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1702- SDG#: PEL55-09

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**	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.55	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.38	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	C132611AA	09/18/2013 21:49	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132611AA	09/18/2013 21:49	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13262WAG026	09/24/2013 23:57	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13262WAG026	09/20/2013 14:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132636256001	09/20/2013 06:41	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132611848003	09/19/2013 19:20	John P Hook	1
07046	Barium	SW-846 6010B	1	132611848003	09/19/2013 19:20	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132611848003	09/19/2013 19:20	John P Hook	1
01750	Calcium	SW-846 6010B	1	132611848003	09/20/2013 03:03	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132611848003	09/19/2013 19:20	John P Hook	1
07055	Lead	SW-846 6010B	1	132611848003	09/19/2013 19:20	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132611848003	09/20/2013 03:03	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132611848003	09/19/2013 19:20	John P Hook	1
07036	Selenium	SW-846 6010B	1	132611848003	09/19/2013 19:20	John P Hook	1
07066	Silver	SW-846 6010B	1	132611848003	09/19/2013 19:20	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132611848003	09/19/2013 19:20	John P Hook	1
00259	Mercury	SW-846 7470A	1	132625713002	09/22/2013 06:42	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848003	09/19/2013 09:36	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132625713002	09/20/2013 15:10	Nelli S Markaryan	1

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

Sample Description: WS-002(Surface)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201733
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 11:20 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1702- SDG#: PEL55-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13267807901A	09/24/2013 09:03	Yolunder Y Bunch	1

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

Sample Description: WS-011(1.5-2.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201734
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 11:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17111 SDG#: PEL55-10

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

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

Sample Description: WS-011(1.5-2.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201734
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 11:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17111 SDG#: PEL55-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.056	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	32.7	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	0.0722	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.39	0.0334	0.200	1

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

Sample Description: WS-011(1.5-2.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201734
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 11:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17111 SDG#: PEL55-10

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	3.46	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	3.3 J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132611AA	09/18/2013 22:11	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132611AA	09/18/2013 22:11	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13262WAG026	09/25/2013 00:26	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13262WAG026	09/20/2013 14:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132636256001	09/20/2013 06:41	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132611848003	09/19/2013 19:24	John P Hook	1
07046	Barium	SW-846 6010B	1	132611848003	09/19/2013 19:24	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132611848003	09/19/2013 19:24	John P Hook	1
01750	Calcium	SW-846 6010B	1	132611848003	09/20/2013 03:07	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132611848003	09/19/2013 19:24	John P Hook	1
07055	Lead	SW-846 6010B	1	132611848003	09/19/2013 19:24	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132611848003	09/20/2013 03:07	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132611848003	09/19/2013 19:24	John P Hook	1
07036	Selenium	SW-846 6010B	1	132611848003	09/19/2013 19:24	John P Hook	1
07066	Silver	SW-846 6010B	1	132611848003	09/19/2013 19:24	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132611848003	09/19/2013 19:24	John P Hook	1
00259	Mercury	SW-846 7470A	1	132625713002	09/22/2013 06:44	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848003	09/19/2013 09:36	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132625713002	09/20/2013 15:10	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13267807901A	09/24/2013 09:03	Yolunder Y Bunch	1

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

Sample Description: WS-011(5.0-5.5)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201735
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 11:40 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17211 SDG#: PEL55-11

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

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

Sample Description: WS-011(5.0-5.5)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201735
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 11:40 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17211 SDG#: PEL55-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.054	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.054	1
08357	Anthracene	120-12-7	N.D.	0.011	0.054	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.054	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.054	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.054	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.054	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.054	1
08357	Chrysene	218-01-9	N.D.	0.011	0.054	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.054	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.054	1
08357	Fluorene	86-73-7	N.D.	0.011	0.054	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.054	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.054	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.054	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.054	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.054	1
08357	Pyrene	129-00-0	N.D.	0.011	0.054	1
	The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.					
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	31.8	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.0103 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0715	0.00033	0.0050	1

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

Sample Description: WS-011(5.0-5.5)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201735
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 11:40 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17211 SDG#: PEL55-11

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**	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.22	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	3.35	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	1.5 J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132611AA	09/18/2013 22:33	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132611AA	09/18/2013 22:33	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13262WAG026	09/25/2013 00:55	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13262WAG026	09/20/2013 14:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132636256001	09/20/2013 06:41	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132611848003	09/19/2013 19:28	John P Hook	1
07046	Barium	SW-846 6010B	1	132611848003	09/19/2013 19:28	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132611848003	09/19/2013 19:28	John P Hook	1
01750	Calcium	SW-846 6010B	1	132611848003	09/20/2013 03:11	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132611848003	09/19/2013 19:28	John P Hook	1
07055	Lead	SW-846 6010B	1	132611848003	09/19/2013 19:28	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132611848003	09/20/2013 03:11	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132611848003	09/19/2013 19:28	John P Hook	1
07036	Selenium	SW-846 6010B	1	132611848003	09/19/2013 19:28	John P Hook	1
07066	Silver	SW-846 6010B	1	132611848003	09/19/2013 19:28	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132611848003	09/19/2013 19:28	John P Hook	1
00259	Mercury	SW-846 7470A	1	132625713002	09/22/2013 06:46	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848003	09/19/2013 09:36	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132625713002	09/20/2013 15:10	Nelli S Markaryan	1

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

Sample Description: WS-011(5.0-5.5)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201735
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 11:40 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17211 SDG#: PEL55-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13267807901A	09/24/2013 09:03	Yolunder Y Bunch	1

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

Sample Description: WS-018(Surface)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201736
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 12:10 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1718- SDG#: PEL55-12

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

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

Sample Description: WS-018(Surface)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201736
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 12:10 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1718- SDG#: PEL55-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
	The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.					
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	31.1	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.0094 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0690	0.00033	0.0050	1

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

Sample Description: WS-018(Surface)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201736
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 12:10 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1718- SDG#: PEL55-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	**mg/l**	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.07	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	3.27	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	C132611AA	09/18/2013 22:55	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132611AA	09/18/2013 22:55	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13262WAG026	09/25/2013 01:24	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13262WAG026	09/20/2013 14:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132636256001	09/20/2013 06:41	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132611848003	09/19/2013 19:32	John P Hook	1
07046	Barium	SW-846 6010B	1	132611848003	09/19/2013 19:32	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132611848003	09/19/2013 19:32	John P Hook	1
01750	Calcium	SW-846 6010B	1	132611848003	09/20/2013 03:14	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132611848003	09/19/2013 19:32	John P Hook	1
07055	Lead	SW-846 6010B	1	132611848003	09/19/2013 19:32	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132611848003	09/20/2013 03:14	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132611848003	09/19/2013 19:32	John P Hook	1
07036	Selenium	SW-846 6010B	1	132611848003	09/19/2013 19:32	John P Hook	1
07066	Silver	SW-846 6010B	1	132611848003	09/19/2013 19:32	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132611848003	09/19/2013 19:32	John P Hook	1
00259	Mercury	SW-846 7470A	1	132625713002	09/22/2013 06:48	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848003	09/19/2013 09:36	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132625713002	09/20/2013 15:10	Nelli S Markaryan	1

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

Sample Description: WS-018(Surface)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201736
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 12:10 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1718- SDG#: PEL55-12

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	13267807901A	09/24/2013 09:03	Yolunder Y Bunch	1

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

Sample Description: WS-003(Surface)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201737
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 12:20 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1703- SDG#: PEL55-13

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

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

Sample Description: WS-003(Surface)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201737
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 12:20 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1703- SDG#: PEL55-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1
	The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.					
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	32.2	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	0.0535	0.00033	0.0050	1

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

Sample Description: WS-003(Surface)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201737
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 12:20 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1703- SDG#: PEL55-13

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**		**mg/l**	**mg/l**	
07049	Cadmium	7440-43-9	N.D.		0.00076	0.0050	1
01750	Calcium	7440-70-2	7.29		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	3.40		0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.		0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.		0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.		0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.		0.0020	0.0050	1
	SW-846 7470A		**mg/l**		**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.		0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**		**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	3.6	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	C132611AA	09/18/2013 23:18	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132611AA	09/18/2013 23:18	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13262WAG026	09/25/2013 01:54	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13262WAG026	09/20/2013 14:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132636256001	09/20/2013 06:41	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132611848003	09/19/2013 19:36	John P Hook	1
07046	Barium	SW-846 6010B	1	132611848003	09/19/2013 19:36	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132611848003	09/19/2013 19:36	John P Hook	1
01750	Calcium	SW-846 6010B	1	132611848003	09/20/2013 03:18	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132611848003	09/19/2013 19:36	John P Hook	1
07055	Lead	SW-846 6010B	1	132611848003	09/19/2013 19:36	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132611848003	09/20/2013 03:18	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132611848003	09/19/2013 19:36	John P Hook	1
07036	Selenium	SW-846 6010B	1	132611848003	09/19/2013 19:36	John P Hook	1
07066	Silver	SW-846 6010B	1	132611848003	09/19/2013 19:36	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132611848003	09/19/2013 19:36	John P Hook	1
00259	Mercury	SW-846 7470A	1	132625713002	09/22/2013 06:50	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848003	09/19/2013 09:36	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132625713002	09/20/2013 15:10	Nelli S Markaryan	1

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

Sample Description: WS-003(Surface)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201737
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 12:20 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1703- SDG#: PEL55-13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13267807901A	09/24/2013 09:03	Yolunder Y Bunch	1

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

Sample Description: WS-007(0.5-1.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201738
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 12:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1707- SDG#: PEL55-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	6.0	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)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201738
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 12:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1707- SDG#: PEL55-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	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	0.014 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.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

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

Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	21.7	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.0090 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0456	0.00033	0.0050	1

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

Sample Description: WS-007(0.5-1.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201738
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 12:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1707- SDG#: PEL55-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	**SW-846 6010B**		**mg/l**	**mg/l**	**mg/l**	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.08	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0024 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.19	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0028 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0032 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.	7.9	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132611AA	09/18/2013 23:40	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132611AA	09/18/2013 23:40	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13262WAG026	09/25/2013 02:24	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13262WAG026	09/20/2013 14:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132636256001	09/20/2013 06:41	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132611848003	09/19/2013 19:48	John P Hook	1
07046	Barium	SW-846 6010B	1	132611848003	09/19/2013 19:48	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132611848003	09/19/2013 19:48	John P Hook	1
01750	Calcium	SW-846 6010B	1	132611848003	09/20/2013 03:29	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132611848003	09/19/2013 19:48	John P Hook	1
07055	Lead	SW-846 6010B	1	132611848003	09/19/2013 19:48	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132611848003	09/20/2013 03:29	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132611848003	09/19/2013 19:48	John P Hook	1
07036	Selenium	SW-846 6010B	1	132611848003	09/19/2013 19:48	John P Hook	1
07066	Silver	SW-846 6010B	1	132611848003	09/19/2013 19:48	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132611848003	09/19/2013 19:48	John P Hook	1
00259	Mercury	SW-846 7470A	1	132625713002	09/22/2013 06:52	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848003	09/19/2013 09:36	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132625713002	09/20/2013 15:10	Nelli S Markaryan	1

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

Sample Description: WS-007(0.5-1.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201738
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 12:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1707- SDG#: PEL55-14

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13267807901A	09/24/2013 09:03	Yolunder Y Bunch	1

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

Sample Description: WS-001(0.5-1.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201739
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 12:40 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1701- SDG#: PEL55-15

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

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

Sample Description: WS-001(0.5-1.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201739
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 12:40 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1701- SDG#: PEL55-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
	The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.					
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	32.2	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	0.0070 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0440	0.00033	0.0050	1

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

Sample Description: WS-001(0.5-1.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201739
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 12:40 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1701- SDG#: PEL55-15

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	7.32	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	3.37	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry	**EPA 1664A**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132611AA	09/19/2013 00:03	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132611AA	09/19/2013 00:03	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13262WAG026	09/25/2013 02:53	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13262WAG026	09/20/2013 14:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132636256001	09/20/2013 06:41	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132611848003	09/19/2013 19:51	John P Hook	1
07046	Barium	SW-846 6010B	1	132611848003	09/19/2013 19:51	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132611848003	09/19/2013 19:51	John P Hook	1
01750	Calcium	SW-846 6010B	1	132611848003	09/20/2013 03:33	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132611848003	09/19/2013 19:51	John P Hook	1
07055	Lead	SW-846 6010B	1	132611848003	09/19/2013 19:51	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132611848003	09/20/2013 03:33	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132611848003	09/19/2013 19:51	John P Hook	1
07036	Selenium	SW-846 6010B	1	132611848003	09/19/2013 19:51	John P Hook	1
07066	Silver	SW-846 6010B	1	132611848003	09/19/2013 19:51	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132611848003	09/19/2013 19:51	John P Hook	1
00259	Mercury	SW-846 7470A	1	132625713002	09/22/2013 06:54	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848003	09/19/2013 09:36	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132625713002	09/20/2013 15:10	Nelli S Markaryan	1

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

Sample Description: WS-001(0.5-1.0)091713 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201739
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 12:40 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

1701- SDG#: PEL55-15

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	13267807901A	09/24/2013 09:03	Yolunder Y Bunch	1

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

Sample Description: WS-EB-64-091713 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201740
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 13:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17E64 SDG#: PEL55-16EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		ug/l		ug/l	ug/l	
02898	Acetone	67-64-1	N.D.		3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.		0.1	0.5	1
02898	Benzene	71-43-2	N.D.		0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.		0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.		0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.		0.1	0.5	1
02898	Bromoform	75-25-2	N.D.		0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.		0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.		1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.		0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.		0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.		0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.		0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.		0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.		0.1	0.5	1
02898	Chloroform	67-66-3	N.D.		0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.		0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.		0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.		0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.		0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.		0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.		0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.		0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.		0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.		0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.		0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.		0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.		0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.		0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	0.3	J	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-64-091713 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201740
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 13:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17E64 SDG#: PEL55-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B 25mL purge**		**ug/l**	**ug/l**	**ug/l**	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	1.3	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles	**SW-846 8270C SIM**		**ug/l**	**ug/l**	**ug/l**	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.055	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.055	1
08357	Anthracene	120-12-7	N.D.	0.011	0.055	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.055	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.055	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.055	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.055	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.055	1
08357	Chrysene	218-01-9	N.D.	0.011	0.055	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.055	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.055	1
08357	Fluorene	86-73-7	N.D.	0.011	0.055	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.055	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.055	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.055	1
08357	Naphthalene	91-20-3	0.12	0.033	0.055	1
08357	Phenanthrene	85-01-8	N.D.	0.033	0.055	1
08357	Pyrene	129-00-0	N.D.	0.011	0.055	1
Metals	**SM 2340 B-1997**		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	0.39	0.033	0.20	1
	SW-846 6010B		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	N.D.	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	0.116 J	0.0334	0.200	1

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

Sample Description: WS-EB-64-091713 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201740
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013 13:30 by DD

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17E64 SDG#: PEL55-16EB

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	0.0251 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	C132611AA	09/19/2013 00:26	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132611AA	09/19/2013 00:26	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13262WAG026	09/25/2013 03:22	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13262WAG026	09/20/2013 14:30	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132636256001	09/20/2013 06:41	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132611848003	09/19/2013 19:55	John P Hook	1
07046	Barium	SW-846 6010B	1	132611848003	09/19/2013 19:55	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132611848003	09/19/2013 19:55	John P Hook	1
01750	Calcium	SW-846 6010B	1	132611848003	09/20/2013 03:37	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132611848003	09/19/2013 19:55	John P Hook	1
07055	Lead	SW-846 6010B	1	132611848003	09/19/2013 19:55	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132611848003	09/20/2013 03:37	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132611848003	09/19/2013 19:55	John P Hook	1
07036	Selenium	SW-846 6010B	1	132611848003	09/19/2013 19:55	John P Hook	1
07066	Silver	SW-846 6010B	1	132611848003	09/19/2013 19:55	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132611848003	09/19/2013 19:55	John P Hook	1
00259	Mercury	SW-846 7470A	1	132625713002	09/22/2013 07:00	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848003	09/19/2013 09:36	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132625713002	09/20/2013 15:10	Nelli S Markaryan	1

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

Sample Description: WS-TB-153-091713 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201741
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17153 SDG#: PEL55-17TB*

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 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-TB-153-091713 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7201741
LL Group # 1419619
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/17/2013

Submitted: 09/18/2013 10:00
Reported: 09/25/2013 11:06

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

17153 SDG#: PEL55-17TB*

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 purge**		ug/l	ug/l	ug/l	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1

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	C132611AA	09/19/2013 00:48	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132611AA	09/19/2013 00:48	Kevin A Sposito	1

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1419619
Reported: 09/25/13 at 11:06 AM

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

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

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: C132611AA	Sample number(s): 7201722-7201730,7201733-7201741								
Acetone	N.D.	3.0	5.0	ug/l	106		60-139		
Allyl Chloride	N.D.	0.1	0.5	ug/l	71		61-130		
Benzene	N.D.	0.1	0.5	ug/l	97		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	99		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	107		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	105		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	118		73-128		
Bromomethane	N.D.	0.1	0.5	ug/l	93		62-126		
2-Butanone	N.D.	1.0	5.0	ug/l	89		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	95		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	94		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	96		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	119		80-129		
Chlorobenzene	N.D.	0.1	0.5	ug/l	106		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	88		68-120		
Chloroform	N.D.	0.1	0.5	ug/l	108		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	75		55-120		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	96		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	99		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	101		64-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	110		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	108		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	102		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	86		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	93		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	114		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	99		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	100		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	104		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	118		75-145		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	97		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	95		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	100		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	100		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	88		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	94		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	107		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	103		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: 1419619
Reported: 09/25/13 at 11:06 AM

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Isopropylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	95		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	86		80-120		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	81		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	101		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	94		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	111		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	91		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	109		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	94		65-131		
Toluene	N.D.	0.1	0.5	ug/l	100		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	88		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	88		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	111		80-120		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	103		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	107		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	113		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	105		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	96		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	83		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	102		80-120		
Batch number: C132624AA	Sample number(s): 7201732								
Acetone	N.D.	3.0	5.0	ug/l	108		60-139		
Allyl Chloride	N.D.	0.1	0.5	ug/l	84		61-130		
Benzene	N.D.	0.1	0.5	ug/l	103		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	100		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	108		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	113		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	121		73-128		
Bromomethane	N.D.	0.1	0.5	ug/l	96		62-126		
2-Butanone	N.D.	1.0	5.0	ug/l	95		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	94		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	122		80-129		
Chlorobenzene	N.D.	0.1	0.5	ug/l	108		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	92		68-120		
Chloroform	N.D.	0.1	0.5	ug/l	115		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	82		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	101		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	94		64-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	113		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	106		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	112		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	102		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	104		80-120		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	85		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	101		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	126		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	99		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	102		80-120		

*- 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: 1419619
Reported: 09/25/13 at 11:06 AM

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	106		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	123		75-145		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	104		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	103		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	100		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	107		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	96		80-123		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	98		80-120		
Ethyl ether	N.D.	0.1	0.5	ug/l	98		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	105		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	107		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	100		73-120		
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	91		80-120		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	95		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	105		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
Styrene	N.D.	0.1	0.5	ug/l	106		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	113		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	97		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	108		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	92		65-131		
Toluene	N.D.	0.1	0.5	ug/l	104		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	84		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	86		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	113		80-120		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	107		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	109		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	113		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	108		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	88		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	103		80-120		
Batch number: 13262WAG026	Sample number(s): 7201722-7201730,7201732-7201740								
Acenaphthene	N.D.	0.010	0.050	ug/l	97		77-118		
Acenaphthylene	N.D.	0.010	0.050	ug/l	101		80-123		
Anthracene	N.D.	0.010	0.050	ug/l	97		78-123		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	98		73-127		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	96		72-120		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	104		79-136		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	95		64-130		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	101		73-131		
Chrysene	N.D.	0.010	0.050	ug/l	97		76-125		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	79		58-131		
Fluoranthene	N.D.	0.010	0.050	ug/l	102		79-124		
Fluorene	N.D.	0.010	0.050	ug/l	99		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	89		62-130		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	105		80-126		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	102		81-124		
Naphthalene	N.D.	0.030	0.050	ug/l	101		75-120		
Phenanthrene	N.D.	0.030	0.050	ug/l	98		75-120		
Pyrene	N.D.	0.010	0.050	ug/l	99		71-130		

*- 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: 1419619
Reported: 09/25/13 at 11:06 AM

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 132611848003	Sample number(s): 7201722-7201740								
Arsenic	N.D.	0.0068	0.0200	mg/l	99		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	97		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	101		90-112		
Calcium	0.0363 J	0.0334	0.200	mg/l	101		90-110		
Chromium	N.D.	0.0016	0.0150	mg/l	98		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	102		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	101		90-110		
Nickel	N.D.	0.0015	0.0100	mg/l	102		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	99		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	90		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	99		90-110		
Batch number: 132625713002	Sample number(s): 7201722-7201740								
Mercury	N.D.	0.00006 0	0.00020	mg/l	99		80-120		
Batch number: 13267807901A	Sample number(s): 7201722-7201739								
HEM (oil & grease)	N.D.	1.4	5.0	mg/l	90	78	78-114	15	16

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: C132611AA	Sample number(s): 7201722-7201730,7201733-7201741 UNSPK: 7201728								
Acetone	117	110	57-163	6	30				
Allyl Chloride	75	78	56-160	3	30				
Benzene	105	107	87-126	2	30				
Bromobenzene	104	107	80-123	2	30				
Bromochloromethane	114	111	82-125	2	30				
Bromodichloromethane	111	112	82-133	1	30				
Bromoform	119	117	60-138	1	30				
Bromomethane	103	101	66-130	2	30				
2-Butanone	96	92	56-160	4	30				
n-Butylbenzene	104	106	83-131	2	30				
sec-Butylbenzene	104	107	84-128	3	30				
tert-Butylbenzene	104	104	84-135	0	30				
Carbon Tetrachloride	136	135	81-148	1	30				
Chlorobenzene	112	114	78-133	2	30				
Chloroethane	97	96	70-139	1	30				
Chloroform	116	118	86-136	1	30				
Chloromethane	84	86	49-135	3	30				
2-Chlorotoluene	102	106	75-134	4	30				
4-Chlorotoluene	105	107	76-134	2	30				
1,2-Dibromo-3-chloropropane	113	104	43-143	8	30				
Dibromochloromethane	112	112	79-125	0	30				
1,2-Dibromoethane	105	105	84-127	0	30				
Dibromomethane	111	112	83-126	1	30				
1,2-Dichlorobenzene	109	109	83-117	0	30				
1,3-Dichlorobenzene	108	110	79-132	1	30				

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1419619
Reported: 09/25/13 at 11:06 AM

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1,4-Dichlorobenzene	108	110	79-120	2	30				
Dichlorodifluoromethane	100	98	28-136	2	30				
1,1-Dichloroethane	100	103	88-136	2	30				
1,2-Dichloroethane	115	117	82-135	1	30				
1,1-Dichloroethene	111	113	83-150	2	30				
cis-1,2-Dichloroethene	108	109	82-129	1	30				
trans-1,2-Dichloroethene	114	115	88-127	1	30				
Dichlorofluoromethane	131	129	81-161	1	30				
1,2-Dichloropropane	102	104	91-126	2	30				
1,3-Dichloropropane	96	97	80-127	1	30				
2,2-Dichloropropane	109	112	80-134	2	30				
1,1-Dichloropropene	112	114	86-139	2	30				
cis-1,3-Dichloropropene	90	95	74-132	5	30				
trans-1,3-Dichloropropene	91	94	71-128	3	30				
Ethyl ether	94	95	57-139	1	30				
Ethylbenzene	107	109	80-140	2	30				
Freon 113	123	124	77-147	1	30				
Hexachlorobutadiene	112	113	65-128	1	30				
Isopropylbenzene	110	110	81-133	1	30				
p-Isopropyltoluene	103	106	84-124	3	30				
Methyl Tertiary Butyl Ether	87	91	82-132	5	30				
4-Methyl-2-Pentanone	80	84	69-149	4	30				
Methylene Chloride	108	110	77-135	2	30				
n-Propylbenzene	101	106	79-131	4	30				
Styrene	108	109	63-151	1	30				
1,1,1,2-Tetrachloroethane	118	118	87-126	1	30				
1,1,2,2-Tetrachloroethane	90	93	75-131	3	30				
Tetrachloroethene	119	121	75-129	2	30				
Tetrahydrofuran	101	96	56-154	4	30				
Toluene	108	109	83-127	1	30				
1,2,3-Trichlorobenzene	91	93	73-125	3	30				
1,2,4-Trichlorobenzene	93	95	77-120	2	30				
1,1,1-Trichloroethane	124	124	85-140	0	30				
1,1,2-Trichloroethane	105	106	85-129	1	30				
Trichloroethene	116	118	85-131	2	30				
Trichlorofluoromethane	131	125	73-139	5	30				
1,2,3-Trichloropropane	106	108	76-120	2	30				
1,2,4-Trimethylbenzene	104	106	87-126	2	30				
1,3,5-Trimethylbenzene	103	106	89-129	2	30				
Vinyl Chloride	95	97	62-135	2	30				
Xylene (Total)	109	111	81-137	1	30				
Batch number: C132624AA	Sample number(s): 7201732 UNSPK: P203146								
Acetone	123	126	57-163	2	30				
Allyl Chloride	92	97	56-160	5	30				
Benzene	110	114	87-126	3	30				
Bromobenzene	106	110	80-123	4	30				
Bromochloromethane	115	115	82-125	0	30				
Bromodichloromethane	118	120	82-133	1	30				
Bromoform	122	122	60-138	0	30				
Bromomethane	105	109	66-130	4	30				
2-Butanone	106	110	56-160	3	30				

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1419619
Reported: 09/25/13 at 11:06 AM

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
n-Butylbenzene	110	115	83-131	4	30				
sec-Butylbenzene	107	112	84-128	5	30				
tert-Butylbenzene	104	109	84-135	5	30				
Carbon Tetrachloride	139	141	81-148	2	30				
Chlorobenzene	114	117	78-133	3	30				
Chloroethane	102	106	70-139	4	30				
Chloroform	121	125	86-136	3	30				
Chloromethane	91	96	49-135	5	30				
2-Chlorotoluene	105	111	75-134	6	30				
4-Chlorotoluene	108	114	76-134	6	30				
1,2-Dibromo-3-chloropropane	106	105	43-143	1	30				
Dibromochloromethane	117	118	79-125	1	30				
1,2-Dibromoethane	107	110	84-127	3	30				
Dibromomethane	116	118	83-126	2	30				
1,2-Dichlorobenzene	108	114	83-117	6	30				
1,3-Dichlorobenzene	109	114	79-132	5	30				
1,4-Dichlorobenzene	109	115	79-120	5	30				
Dichlorodifluoromethane	97	96	28-136	1	30				
1,1-Dichloroethane	108	114	88-136	5	30				
1,2-Dichloroethane	125	130	82-135	4	30				
1,1-Dichloroethene	112	115	83-150	3	30				
cis-1,2-Dichloroethene	109	114	82-129	4	30				
trans-1,2-Dichloroethene	117	121	88-127	4	30				
Dichlorofluoromethane	137	141	81-161	3	30				
1,2-Dichloropropane	110	114	91-126	4	30				
1,3-Dichloropropane	104	107	80-127	3	30				
2,2-Dichloropropane	111	118	80-134	6	30				
1,1-Dichloropropene	120	123	86-139	3	30				
cis-1,3-Dichloropropene	99	103	74-132	4	30				
trans-1,3-Dichloropropene	100	105	71-128	5	30				
Ethyl ether	101	106	57-139	5	30				
Ethylbenzene	112	116	80-140	3	30				
Freon 113	123	124	77-147	1	30				
Hexachlorobutadiene	111	116	65-128	5	30				
Isopropylbenzene	111	115	81-133	4	30				
p-Isopropyltoluene	105	112	84-124	7	30				
Methyl Tertiary Butyl Ether	91	98	82-132	7	30				
4-Methyl-2-Pentanone	96	100	69-149	4	30				
Methylene Chloride	110	116	77-135	5	30				
n-Propylbenzene	108	115	79-131	6	30				
Styrene	112	114	63-151	2	30				
1,1,1,2-Tetrachloroethane	119	122	87-126	3	30				
1,1,2,2-Tetrachloroethane	100	105	75-131	4	30				
Tetrachloroethene	117	119	75-129	2	30				
Tetrahydrofuran	102	106	56-154	4	30				
Toluene	111	115	83-127	3	30				
1,2,3-Trichlorobenzene	87	95	73-125	9	30				
1,2,4-Trichlorobenzene	91	97	77-120	7	30				
1,1,1-Trichloroethane	127	130	85-140	3	30				
1,1,2-Trichloroethane	110	113	85-129	2	30				
Trichloroethene	120	124	85-131	3	30				
Trichlorofluoromethane	130	129	73-139	1	30				

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis Group Number: 1419619
Reported: 09/25/13 at 11:06 AM

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1,2,3-Trichloropropane	110	113	76-120	3	30				
1,2,4-Trimethylbenzene	106	113	87-126	6	30				
1,3,5-Trimethylbenzene	106	111	89-129	4	30				
Vinyl Chloride	101	106	62-135	5	30				
Xylene (Total)	110	114	81-137	3	30				
Batch number: 13262WAG026	Sample number(s): 7201722-7201730,7201732-7201740 UNSPK: 7201728								
Acenaphthene	91	93	47-136	3	30				
Acenaphthylene	97	99	33-146	3	30				
Anthracene	51*	51*	69-119	1	30				
Benzo(a)anthracene	72	76	37-150	6	30				
Benzo(a)pyrene	30*	32*	64-123	7	30				
Benzo(b)fluoranthene	68	71	33-152	4	30				
Benzo(g,h,i)perylene	59	62	36-138	5	30				
Benzo(k)fluoranthene	67	70	31-142	5	30				
Chrysene	75	81	34-135	7	30				
Dibenz(a,h)anthracene	64	67	17-134	6	30				
Fluoranthene	92	95	39-147	3	30				
Fluorene	93	98	38-149	5	30				
Indeno(1,2,3-cd)pyrene	61	64	29-143	5	30				
1-Methylnaphthalene	103	105	49-152	2	30				
2-Methylnaphthalene	99	102	51-146	2	30				
Naphthalene	99	101	58-131	2	30				
Phenanthrene	93	96	48-140	4	30				
Pyrene	89	90	59-125	2	30				
Batch number: 132611848003	Sample number(s): 7201722-7201740 UNSPK: 7201728 BKG: 7201728								
Arsenic	101	97	81-123	4	20	0.0071 J	N.D.	200* (1)	20
Barium	99	100	78-118	1	20	0.0453	0.0457	1	20
Cadmium	102	102	83-116	0	20	N.D.	N.D.	0 (1)	20
Calcium	101	104	81-118	1	20	6.80	6.87	1	20
Chromium	100	101	81-120	0	20	N.D.	N.D.	0 (1)	20
Lead	103	101	75-125	2	20	N.D.	N.D.	0 (1)	20
Magnesium	101	103	75-125	1	20	3.14	3.17	1	20
Nickel	104	104	86-115	0	20	N.D.	N.D.	0 (1)	20
Selenium	101	100	75-125	1	20	N.D.	N.D.	0 (1)	20
Silver	89	91	75-125	2	20	N.D.	N.D.	0 (1)	20
Vanadium	101	101	90-111	0	20	N.D.	N.D.	0 (1)	20
Batch number: 132625713002	Sample number(s): 7201722-7201740 UNSPK: 7201728 BKG: 7201728								
Mercury	102	102	80-120	0	20	N.D.	N.D.	0 (1)	20
Batch number: 13267807901A	Sample number(s): 7201722-7201739 UNSPK: 7201728 BKG: 7201728								
HEM (oil & grease)	65*	64*	78-114	10	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.

*- 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 Group Number: 1419619
Reported: 09/25/13 at 11:06 AM

Surrogate Quality Control

Analysis Name: BTEX 25-ml purge
Batch number: C132611AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7201722	108	103	96	94
7201723	109	103	95	95
7201724	110	102	95	94
7201725	110	104	96	94
7201726	110	103	95	94
7201727	111	103	96	94
7201728	111	103	95	93
7201729	107	101	98	101
7201730	105	102	98	100
7201733	110	102	95	94
7201734	110	103	95	94
7201735	111	102	95	94
7201736	111	103	95	94
7201737	110	102	95	94
7201738	111	101	93	92
7201739	111	104	95	93
7201740	109	103	94	94
7201741	111	105	96	94
Blank	110	102	96	94
LCS	106	101	99	101
MS	107	101	98	101
MSD	105	102	98	100
Limits:	77-114	74-113	77-110	78-110

Analysis Name: BTEX 25-ml purge
Batch number: C132624AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7201732	111	103	97	97
Blank	111	105	96	96
LCS	106	102	100	102
MS	107	102	99	102
MSD	107	102	99	102
Limits:	77-114	74-113	77-110	78-110

Analysis Name: PAHs in waters by SIM
Batch number: 13262WAG026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7201722	94	67	99
7201723	96	69	101
7201724	94	67	99
7201725	94	65	98
7201726	93	64	99
7201727	95	65	98
7201728	78	34*	91
7201729	88	52*	99
7201730	90	55*	101

*- 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: 1419619
Reported: 09/25/13 at 11:06 AM

Surrogate Quality Control

7201732	54	29*	71
7201733	88	52*	98
7201734	96	64	100
7201735	87	49*	99
7201736	82	44*	91
7201737	91	49*	98
7201738	77	52*	92
7201739	81	41*	94
7201740	99	96	101
Blank	99	99	101
LCS	96	99	102
MS	88	52*	99
MSD	90	55*	101
Limits:	44-137	62-141	51-136

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

ExxonMobil Analysis Request/Chain of Custody

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Acct. # 14739 — For Eurofins Lancaster Laboratories Environmental use only — Group # 1419619 — Sample # 7201722-41

Instructions on reverse side correspond with circled numbers.

1 of 2

SCR#: _____

1 Client Information

Facility #/SID: Mayflower Pipeline Incident

Site Address: Mayflower, AR

ExxonMobil PM: Scott Bushroe — Cost Center/AFE:

Consultant/Office: Arcadis

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

Sampler: David Dost / Hans Van Aller

4 Matrix: Soil ☐ Sediment ☐ Water ☐ Ground ☒ Surface ☐ Potable ☐ NPDES ☐ Oil ☐ Air ☐

3 Grab / Composite

2 Sample Identification — Collected: Date / Time

5 Analyses Requested — Preservation Code

Sample Identification	Date	Time	Grab	Composite	Total # of Containers	VOCs 8260B (H)	PAH 8270 SIM	RCRA Metals+Ni, V, Ca, Mg (N)	Diss. Metals	HEM oil & Grease (H)
WS-014 (1.5-2.0) 091713	9.17.13	0900	X		9	X	X	X	X	X
WS-014 (5.5-6.0) 091713		0910	X		9	X	X	X	X	X
WS-012 (1.5-2.0) 091713		0925	X		9	X	X	X	X	X
WS-012 (5.0-5.5) 091713		0935	X		9	X	X	X	X	X
WS-010 (1.5-2.0) 091713		1005	X		9	X	X	X	X	X
WS-010 (3.5-4.0) 091713		1015	X		9	X	X	X	X	X
WS-006 (0.5-1.0) 091713		1030	X		9	X	X	X	X	X
WS-005 (Surface) 091713		1100	X		9	X	X	X	X	X
WS-002 (Surface) 091713		1120	X		9	X	X	X	X	X
WS-011 (1.5-2.0) 091713		1130	X		9	X	X	X	X	X
WS-011 (5.0-5.5) 091713		1140	X		9	X	X	X	X	X
WS-018 (Surface) 091713	↓	1210	X		9	X	X	X	X	X

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

6 Remarks: Lab to filter and pressure diss. metals upon receipt.

7 Turnaround Time Requested (TAT) (please circle)

Standard: (5 day) 4 day

72 hour 48 hour 24 hour

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

EDD (circle if required): Locus EIM (default); Other _____

	Date	Time	Received by	Date	Time
Relinquished by: D. Dost	9.17.13	1500			
Relinquished by:					
Relinquished by:					
Relinquished by Commercial Carrier: UPS X FedEx ____ Other ____			Received by: C Eshler	9/18/13	1000

9

Temperature Upon Receipt 0.3-2.4 °C

Custody Seals Intact? (Yes) No

ExxonMobil Analysis Request/Chain of Custody

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Acct. # 14739 Group # 1419619 Sample # 7201722-41
Instructions on reverse side correspond with circled numbers.

2 of 2

SCR#:

1 Client Information

Facility #/SID: MAYFLOWER Pipeline INCIDENT
Site Address: MAYFLOWER, AR
ExxonMobil PM: SCOTT BUSHEOE
Cost Center/AFE:
Consultant/Office: ARCADIS
Consultant PM: STEVE BARRICK
Consultant Phone #: 919-302-6799
Sampler: DAVID DOST / HANS VAN ALLER

4 Matrix

Soil ☐ Sediment ☐ Water ☒ Ground ☐ Potable ☐ Surface ☒ NPDES ☐ Oil ☐ Air ☐

3 Grab / Composite

5 Analyses Requested — Preservation Code

2 Sample Identification	Collected Date	Collected Time	3 Grab	3 Composite	Total # of Containers	H VOCs 8260B	PAH 8270 SIM	N RCRA Metals+Ni, V, Ca, Mg hardness	Diss. Metals	H HEM Oil & Grease	6 Remarks
WS-003 (Surface) 091713	9.17.13	1220	X		9	X	X	X	X	X	
WS-007 (0.5-1.0) 091713		1230	X		9	X	X	X	X	X	
WS-001 (0.5-1.0) 091713		1240	X		9	X	X	X	X	X	
WS-EB-64-091713		1330	X		7	X	X	X	X		
WS-006 (0.5-1.0) 091713 MS/MSD		1030	X		18	X	X	X	X	X	MS/MSD
WS-TB-153-091713		—	X		2	X					

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

6 Remarks

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

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

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

Relinquished by	Date	Time	Received by	Date	Time
D. Dost	9.17.13	1500			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Commercial Carrier: UPS X FedEx ____ Other ____			Received by	Date 9/18/13	Time 1000

Temperature Upon Receipt 0.3-2.4 °C

Custody Seals Intact? (Yes) No

9

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Environmental Sample Administration Receipt Documentation Log

1419619

Client/Project: Mayflower

Date of Receipt: 9/18/13

Time of Receipt: 1000

Source Code: 60-1

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

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

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT146	0.3	TB	WI	Y	B	
2	↓	1.6	↓	↓	↓	↓	
3		0.9					
4		2.4					
5		1.3					
6		2.1					

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: CEshler 3647 **Date/Time:** 9/18/13 1030

Issued by Dept. 6042 Management

2174.06

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Explanation of Symbols and Abbreviations

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

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

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

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

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

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

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