

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

ExxonMobil
Mobil Pipeline Company
PO Box 4416
Houston TX 77210-4416

July 24, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 07/19/2013

Group Number: 1405271

SDG: PEJ23

PO Number: 4510076246

Release Number: MAYFLOWER 1406

State of Sample Origin: AR

Client Sample DescriptionLancaster Labs (LL) #

WS-011(1.5-2.0)071813 Grab Surface Water	7132089
WS-014(1.5-2.0)071813 Grab Surface Water	7132090
WS-012(1.5-2.0)071813 Grab Surface Water	7132091
WS-010(1.5-2.0)071813 Grab Surface Water	7132092
WS-003(Surface)071813 Grab Surface Water	7132093
WS-018(Surface)071813 Grab Surface Water	7132094
WS-002(Surface)071813 Grab Surface Water	7132095
WS-005(Surface)071813 Grab Surface Water	7132096
WS-001(0.5-1.0)071813 Grab Surface Water	7132097
WS-007(0.5-1.0)071813 Grab Surface Water	7132098
WS-006(0.5-1.0)071813 Grab Surface Water	7132099
WS-006(0.5-1.0)071813MS Grab Surface Water	7132100
WS-006(0.5-1.0)071813MSD Grab Surface Water	7132101
WS-006(0.5-1.0)071813DUP Grab Surface Water	7132102
WS-EB-04-071813 Grab Surface Water	7132103
WS-TB-100-071813 Water	7132104

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
ARCADIS

Attn: Emily Leamer

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

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1405271

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 #: 13201WAF026 (Sample number(s): 7132089-7132101, 7132103 UNSPK: 7132099)

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

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

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7132094, 7132098, 7132100, MS

Sample #s: 7132094, 7132098, 7132100

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 #: 132001848005 (Sample number(s): 7132089-7132103 UNSPK: 7132099 BKG: 7132099)

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

EPA 1664A, Wet Chemistry

Batch #: 13203807901A (Sample number(s): 7132089-7132102 UNSPK: 7132099 BKG: 7132099)

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-011(1.5-2.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132089
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 09:05 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18011 SDG#: PEJ23-01

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

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

Sample Description: WS-011(1.5-2.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132089
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 09:05 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18011 SDG#: PEJ23-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	26.9	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	0.0236	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.06	0.0334	0.200	1

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

Sample Description: WS-011(1.5-2.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132089
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 09:05 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/19/2013 09:10

PO Box 4416

Reported: 07/24/2013 10:38

Houston TX 77210-4416

18011 SDG#: PEJ23-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.86	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.0020	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	C132002AA	07/19/2013 22:44	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132002AA	07/19/2013 22:44	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13201WAF026	07/22/2013 21:02	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13201WAF026	07/21/2013 10:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132056256001	07/24/2013 05:10	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132001848005	07/23/2013 23:46	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132001848005	07/23/2013 23:46	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132001848005	07/23/2013 23:46	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132001848005	07/23/2013 23:46	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132001848005	07/23/2013 23:46	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132001848005	07/24/2013 08:16	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132001848005	07/23/2013 23:46	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132001848005	07/23/2013 23:46	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132001848005	07/23/2013 23:46	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132001848005	07/23/2013 23:46	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132001848005	07/23/2013 23:46	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132005713002	07/22/2013 07:46	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132001848005	07/22/2013 16:59	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713002	07/19/2013 15:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13203807901A	07/22/2013 08:48	Yolunder Y Bunch	1

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

Sample Description: WS-014(1.5-2.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132090
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 10:00 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18014 SDG#: PEJ23-02

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

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

Sample Description: WS-014(1.5-2.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132090
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 10:00 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18014 SDG#: PEJ23-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	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	26.6	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	0.0252	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.05	0.0334	0.200	1

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

Sample Description: WS-014(1.5-2.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132090
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 10:00 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/19/2013 09:10

PO Box 4416

Reported: 07/24/2013 10:38

Houston TX 77210-4416

18014 SDG#: PEJ23-02

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	2.80	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.0011	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	C132002AA	07/19/2013 23:06	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132002AA	07/19/2013 23:06	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13201WAF026	07/22/2013 21:31	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13201WAF026	07/21/2013 10:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132056256001	07/24/2013 05:10	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132001848005	07/23/2013 23:49	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132001848005	07/23/2013 23:49	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132001848005	07/23/2013 23:49	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132001848005	07/23/2013 23:49	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132001848005	07/23/2013 23:49	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132001848005	07/24/2013 08:20	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132001848005	07/23/2013 23:49	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132001848005	07/23/2013 23:49	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132001848005	07/23/2013 23:49	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132001848005	07/23/2013 23:49	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132001848005	07/23/2013 23:49	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132005713002	07/22/2013 07:48	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132001848005	07/22/2013 16:59	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713002	07/19/2013 15:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13203807901A	07/22/2013 08:48	Yolunder Y Bunch	1

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

Sample Description: WS-012(1.5-2.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132091
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 10:35 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18012 SDG#: PEJ23-03

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

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

Sample Description: WS-012(1.5-2.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132091
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 10:35 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18012 SDG#: PEJ23-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	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	25.5	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	0.0212	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.81	0.0334	0.200	1

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

Sample Description: WS-012(1.5-2.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132091
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 10:35 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/19/2013 09:10

PO Box 4416

Reported: 07/24/2013 10:38

Houston TX 77210-4416

18012 SDG#: PEJ23-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.68	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.0011	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	C132002AA	07/19/2013 23:28	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132002AA	07/19/2013 23:28	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13201WAF026	07/22/2013 22:01	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13201WAF026	07/21/2013 10:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132056256001	07/24/2013 05:10	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132001848005	07/24/2013 00:00	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132001848005	07/24/2013 00:00	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132001848005	07/24/2013 00:00	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132001848005	07/24/2013 00:00	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132001848005	07/24/2013 00:00	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132001848005	07/24/2013 08:31	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132001848005	07/24/2013 00:00	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132001848005	07/24/2013 00:00	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132001848005	07/24/2013 00:00	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132001848005	07/24/2013 00:00	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132001848005	07/24/2013 00:00	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132005713002	07/22/2013 07:50	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132001848005	07/22/2013 16:59	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713002	07/19/2013 15:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13203807901A	07/22/2013 08:48	Yolunder Y Bunch	1

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

Sample Description: WS-010(1.5-2.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132092
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 11:10 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18010 SDG#: PEJ23-04

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

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

Sample Description: WS-010(1.5-2.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132092
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 11:10 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18010 SDG#: PEJ23-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	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	26.0	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0218	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.91	0.0334	0.200	1

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

Sample Description: WS-010(1.5-2.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132092
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 11:10 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/19/2013 09:10

PO Box 4416

Reported: 07/24/2013 10:38

Houston TX 77210-4416

18010 SDG#: PEJ23-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.73	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.0014	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	C132002AA	07/19/2013 23:50	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132002AA	07/19/2013 23:50	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13201WAF026	07/22/2013 22:30	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13201WAF026	07/21/2013 10:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132056256001	07/24/2013 05:10	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132001848005	07/24/2013 00:03	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132001848005	07/24/2013 00:03	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132001848005	07/24/2013 00:03	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132001848005	07/24/2013 00:03	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132001848005	07/24/2013 00:03	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132001848005	07/24/2013 08:35	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132001848005	07/24/2013 00:03	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132001848005	07/24/2013 00:03	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132001848005	07/24/2013 00:03	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132001848005	07/24/2013 00:03	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132001848005	07/24/2013 00:03	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132005713002	07/22/2013 07:52	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132001848005	07/22/2013 16:59	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713002	07/19/2013 15:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13203807901A	07/22/2013 08:48	Yolunder Y Bunch	1

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

Sample Description: WS-003(Surface)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132093
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 12:30 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18003 SDG#: PEJ23-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	4.1 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: WS-003(Surface)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132093
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 12:30 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18003 SDG#: PEJ23-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	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	0.013 J	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	27.3	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0462	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.26	0.0334	0.200	1

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

Sample Description: WS-003 (Surface) 071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132093
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 12:30 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/19/2013 09:10

PO Box 4416

Reported: 07/24/2013 10:38

Houston TX 77210-4416

18003 SDG#: PEJ23-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.84	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0016 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
		mg/l	mg/l	mg/l		
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132002AA	07/20/2013 00:12	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132002AA	07/20/2013 00:12	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13201WAF026	07/22/2013 23:00	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13201WAF026	07/21/2013 10:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132056256001	07/24/2013 05:10	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132001848005	07/24/2013 00:07	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132001848005	07/24/2013 00:07	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132001848005	07/24/2013 00:07	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132001848005	07/24/2013 00:07	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132001848005	07/24/2013 00:07	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132001848005	07/24/2013 08:39	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132001848005	07/24/2013 00:07	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132001848005	07/24/2013 00:07	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132001848005	07/24/2013 00:07	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132001848005	07/24/2013 00:07	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132001848005	07/24/2013 00:07	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132005713002	07/22/2013 07:54	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132001848005	07/22/2013 16:59	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713002	07/19/2013 15:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13203807901A	07/22/2013 08:48	Yolunder Y Bunch	1

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

Sample Description: WS-018(Surface)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132094
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 12:45 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18018 SDG#: PEJ23-06

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

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

Sample Description: WS-018(Surface)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132094
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 12:45 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/19/2013 09:10

PO Box 4416

Reported: 07/24/2013 10:38

Houston TX 77210-4416

18018 SDG#: PEJ23-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	0.058	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	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	26.6	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0343	0.00033	0.0050	1

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

Sample Description: WS-018(Surface)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132094
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 12:45 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/19/2013 09:10

PO Box 4416

Reported: 07/24/2013 10:38

Houston TX 77210-4416

18018 SDG#: PEJ23-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.02	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.82	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	C132002AA	07/20/2013 00:34	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132002AA	07/20/2013 00:34	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13201WAF026	07/22/2013 23:29	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13201WAF026	07/21/2013 10:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132056256001	07/24/2013 05:10	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132001848005	07/24/2013 00:11	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132001848005	07/24/2013 00:11	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132001848005	07/24/2013 00:11	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132001848005	07/24/2013 00:11	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132001848005	07/24/2013 00:11	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132001848005	07/24/2013 08:43	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132001848005	07/24/2013 00:11	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132001848005	07/24/2013 00:11	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132001848005	07/24/2013 00:11	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132001848005	07/24/2013 00:11	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132001848005	07/24/2013 00:11	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132005713002	07/22/2013 07:56	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132001848005	07/22/2013 16:59	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713002	07/19/2013 15:25	Nelli S Markaryan	1

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

Sample Description: WS-018(Surface)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132094
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 12:45 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/19/2013 09:10

PO Box 4416

Reported: 07/24/2013 10:38

Houston TX 77210-4416

18018 SDG#: PEJ23-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13203807901A	07/22/2013 08:48	Yolunder Y Bunch	1

Sample Description: WS-002(Surface)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132095
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 13:35 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18002 SDG#: PEJ23-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	3.7 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-002(Surface)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132095
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 13:35 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18002 SDG#: PEJ23-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	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	0.040 J	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
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	27.6	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	0.0500	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.31	0.0334	0.200	1

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

Sample Description: WS-002(Surface)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132095
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 13:35 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/19/2013 09:10

PO Box 4416

Reported: 07/24/2013 10:38

Houston TX 77210-4416

18002 SDG#: PEJ23-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.87	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0017 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132002AA	07/20/2013 00:56	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132002AA	07/20/2013 00:56	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13201WAF026	07/22/2013 23:59	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13201WAF026	07/21/2013 10:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132056256001	07/24/2013 05:10	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132001848005	07/24/2013 00:14	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132001848005	07/24/2013 00:14	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132001848005	07/24/2013 00:14	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132001848005	07/24/2013 00:14	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132001848005	07/24/2013 00:14	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132001848005	07/24/2013 08:47	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132001848005	07/24/2013 00:14	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132001848005	07/24/2013 00:14	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132001848005	07/24/2013 00:14	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132001848005	07/24/2013 00:14	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132001848005	07/24/2013 00:14	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132005713002	07/22/2013 07:58	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132001848005	07/22/2013 16:59	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713002	07/19/2013 15:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13203807901A	07/22/2013 08:48	Yolunder Y Bunch	1

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

Sample Description: WS-005(Surface)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132096
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 14:00 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18005 SDG#: PEJ23-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	4.8 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)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132096
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 14:00 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18005 SDG#: PEJ23-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	0.036 J	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	0.030 J	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	27.0	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0435	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.31	0.0334	0.200	1

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

Sample Description: WS-005(Surface)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132096
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 14:00 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/19/2013 09:10

PO Box 4416

Reported: 07/24/2013 10:38

Houston TX 77210-4416

18005 SDG#: PEJ23-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.72	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0019 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0028 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	C132002AA	07/20/2013 01:18	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132002AA	07/20/2013 01:18	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13201WAF026	07/23/2013 00:28	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13201WAF026	07/21/2013 10:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132056256001	07/24/2013 05:10	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132001848005	07/24/2013 00:18	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132001848005	07/24/2013 00:18	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132001848005	07/24/2013 00:18	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132001848005	07/24/2013 00:18	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132001848005	07/24/2013 00:18	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132001848005	07/24/2013 08:51	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132001848005	07/24/2013 00:18	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132001848005	07/24/2013 00:18	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132001848005	07/24/2013 00:18	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132001848005	07/24/2013 00:18	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132001848005	07/24/2013 00:18	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132005713002	07/22/2013 08:00	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132001848005	07/22/2013 16:59	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713002	07/19/2013 15:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13203807901A	07/22/2013 08:48	Yolunder Y Bunch	1

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

Sample Description: WS-001(0.5-1.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132097
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 14:30 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18001 SDG#: PEJ23-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	4.1 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: WS-001(0.5-1.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132097
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 14:30 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18001 SDG#: PEJ23-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.012 J	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	0.036 J	0.010	0.051	1
Metals		SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	30.1	0.033	0.20	1
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0096 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0744	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.78	0.0334	0.200	1

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

Sample Description: WS-001(0.5-1.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132097
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 14:30 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/19/2013 09:10

PO Box 4416

Reported: 07/24/2013 10:38

Houston TX 77210-4416

18001 SDG#: PEJ23-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	0.0056 J	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0103 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.21	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0066 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	0.0074	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	C132002AA	07/20/2013 01:40	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132002AA	07/20/2013 01:40	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13201WAF026	07/23/2013 00:58	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13201WAF026	07/21/2013 10:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132056256001	07/24/2013 05:10	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132001848005	07/24/2013 00:21	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132001848005	07/24/2013 00:21	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132001848005	07/24/2013 00:21	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132001848005	07/24/2013 00:21	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132001848005	07/24/2013 00:21	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132001848005	07/24/2013 08:55	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132001848005	07/24/2013 00:21	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132001848005	07/24/2013 00:21	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132001848005	07/24/2013 00:21	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132001848005	07/24/2013 00:21	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132001848005	07/24/2013 00:21	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132005713002	07/22/2013 08:06	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132001848005	07/22/2013 16:59	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713002	07/19/2013 15:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13203807901A	07/22/2013 08:48	Yolunder Y Bunch	1

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

Sample Description: WS-007(0.5-1.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132098
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 14:45 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18007 SDG#: PEJ23-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	6.8	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	1.2 J	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)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132098
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 14:45 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18007 SDG#: PEJ23-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.5 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.091	0.010	0.051	1
08357	Acenaphthylene	208-96-8	0.23	0.010	0.051	1
08357	Anthracene	120-12-7	0.26	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.48	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.50	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	1.1	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.48	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.77	0.010	0.051	1
08357	Chrysene	218-01-9	1.0	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.14	0.010	0.051	1
08357	Fluoranthene	206-44-0	1.3	0.010	0.051	1
08357	Fluorene	86-73-7	0.10	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.60	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.035 J	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.045 J	0.010	0.051	1
08357	Naphthalene	91-20-3	0.038 J	0.030	0.051	1
08357	Phenanthrene	85-01-8	0.32	0.030	0.051	1
08357	Pyrene	129-00-0	1.3	0.010	0.051	1
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	51.7	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0334	0.0068	0.0200	1
07046	Barium	7440-39-3	0.425	0.00033	0.0050	1

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

Sample Description: WS-007(0.5-1.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132098
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 14:45 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/19/2013 09:10

PO Box 4416

Reported: 07/24/2013 10:38

Houston TX 77210-4416

18007 SDG#: PEJ23-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	0.00090 J	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.72	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0500	0.0016	0.0150	1
07055	Lead	7439-92-1	0.108	0.0047	0.0150	1
01757	Magnesium	7439-95-4	7.88	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0507	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	0.0776	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.00010 J	0.000060	0.00020	1
Wet Chemistry		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132002AA	07/20/2013 02:02	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132002AA	07/20/2013 02:02	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13201WAF026	07/23/2013 01:27	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13201WAF026	07/21/2013 10:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132056256001	07/24/2013 05:10	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132001848005	07/24/2013 00:25	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132001848005	07/24/2013 00:25	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132001848005	07/24/2013 00:25	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132001848005	07/24/2013 00:25	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132001848005	07/24/2013 00:25	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132001848005	07/24/2013 08:59	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132001848005	07/24/2013 00:25	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132001848005	07/24/2013 00:25	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132001848005	07/24/2013 00:25	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132001848005	07/24/2013 00:25	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132001848005	07/24/2013 00:25	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132005713002	07/22/2013 08:08	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132001848005	07/22/2013 16:59	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713002	07/19/2013 15:25	Nelli S Markaryan	1

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

Sample Description: WS-007(0.5-1.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132098
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 14:45 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/19/2013 09:10

PO Box 4416

Reported: 07/24/2013 10:38

Houston TX 77210-4416

18007 SDG#: PEJ23-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13203807901A	07/22/2013 08:48	Yolunder Y Bunch	1

Sample Description: WS-006(0.5-1.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132099
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 15:25 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18006 SDG#: PEJ23-11BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	4.9 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	1.4	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)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132099
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 15:25 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18006 SDG#: PEJ23-11BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.1 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.013 J	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	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	0.25	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	36.2	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	0.0136 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.122	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.57	0.0334	0.200	1

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

Sample Description: WS-006(0.5-1.0)071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132099
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 15:25 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/19/2013 09:10

PO Box 4416

Reported: 07/24/2013 10:38

Houston TX 77210-4416

18006 SDG#: PEJ23-11BKG

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	0.0185	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0191	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.80	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0119	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	0.0326	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	C132002AA	07/20/2013 02:24	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132002AA	07/20/2013 02:24	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13201WAF026	07/22/2013 19:04	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13201WAF026	07/21/2013 10:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132056256001	07/24/2013 05:10	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132001848005	07/23/2013 23:24	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132001848005	07/23/2013 23:24	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132001848005	07/23/2013 23:24	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132001848005	07/23/2013 23:24	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132001848005	07/23/2013 23:24	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132001848005	07/24/2013 07:52	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132001848005	07/23/2013 23:24	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132001848005	07/23/2013 23:24	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132001848005	07/23/2013 23:24	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132001848005	07/23/2013 23:24	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132001848005	07/23/2013 23:24	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132005713002	07/22/2013 08:10	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132001848005	07/22/2013 16:59	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713002	07/19/2013 15:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13203807901A	07/22/2013 08:48	Yolunder Y Bunch	1

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

Sample Description: WS-006(0.5-1.0)071813MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132100
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 15:25 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18006 SDG#: PEJ23-11MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	42	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.7	0.1	0.5	1
02898	Benzene	71-43-2	5.3	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.3	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.4	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.4	0.1	0.5	1
02898	Bromoform	75-25-2	5.1	0.1	0.5	1
02898	Bromomethane	74-83-9	5.4	0.1	0.5	1
02898	2-Butanone	78-93-3	43	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.0	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.2	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.3	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	6.1	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.4	0.1	0.5	1
02898	Chloroethane	75-00-3	5.2	0.1	0.5	1
02898	Chloroform	67-66-3	5.7	0.1	0.5	1
02898	Chloromethane	74-87-3	5.0	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.2	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.2	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	5.6	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	5.2	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.4	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.4	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.4	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	5.3	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	5.9	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.3	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.9	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	5.5	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	6.3	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.3	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	5.1	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	5.4	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.8	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	5.2	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	5.0	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.7	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.3	0.1	0.5	1
02898	Freon 113	76-13-1	5.7	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.3	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.4	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	6.3	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	5.0	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	25	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.1	0.2	0.5	1

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

Sample Description: WS-006(0.5-1.0)071813MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132100
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 15:25 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18006 SDG#: PEJ23-11MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	5.2	0.1	0.5	1
02898	Styrene	100-42-5	5.2	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	5.4	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	4.8	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	5.7	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	28	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	4.8	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	5.0	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.8	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.3	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.8	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	6.2	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	5.5	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	0.98	0.010	0.052	1
08357	Acenaphthylene	208-96-8	1.0	0.010	0.052	1
08357	Anthracene	120-12-7	0.73	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	0.87	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	0.48	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	0.68	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	0.49	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	0.67	0.010	0.052	1
08357	Chrysene	218-01-9	0.69	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	0.55	0.010	0.052	1
08357	Fluoranthene	206-44-0	0.99	0.010	0.052	1
08357	Fluorene	86-73-7	0.97	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.54	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	1.1	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	1.0	0.010	0.052	1
08357	Naphthalene	91-20-3	1.0	0.031	0.052	1
08357	Phenanthrene	85-01-8	0.97	0.031	0.052	1
08357	Pyrene	129-00-0	1.2	0.010	0.052	1
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.						
Metals	SM 2340 B-1997		mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	51.6	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	2.07	0.00033	0.0050	1

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

Sample Description: WS-006 (0.5-1.0) 071813MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132100
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 15:25 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/19/2013 09:10

PO Box 4416

Reported: 07/24/2013 10:38

Houston TX 77210-4416

18006 SDG#: PEJ23-11MS

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	0.0496	0.00076	0.0050	1
01750	Calcium	7440-70-2	10.5	0.0334	0.200	1
07051	Chromium	7440-47-3	0.218	0.0016	0.0150	1
07055	Lead	7439-92-1	0.158	0.0047	0.0150	1
01757	Magnesium	7439-95-4	6.13	0.0167	0.100	1
07061	Nickel	7440-02-0	0.511	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.149	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0549	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.544	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.00098	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	33.7	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132002AA	07/20/2013 02:47	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132002AA	07/20/2013 02:47	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13201WAF026	07/22/2013 19:34	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13201WAF026	07/21/2013 10:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132056256001	07/24/2013 05:10	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132001848005	07/23/2013 23:35	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132001848005	07/23/2013 23:35	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132001848005	07/23/2013 23:35	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132001848005	07/23/2013 23:35	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132001848005	07/23/2013 23:35	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132001848005	07/24/2013 08:04	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132001848005	07/23/2013 23:35	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132001848005	07/23/2013 23:35	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132001848005	07/23/2013 23:35	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132001848005	07/23/2013 23:35	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132001848005	07/23/2013 23:35	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132005713002	07/22/2013 08:14	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132001848005	07/22/2013 16:59	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713002	07/19/2013 15:25	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)071813MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132100
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 15:25 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/19/2013 09:10

PO Box 4416

Reported: 07/24/2013 10:38

Houston TX 77210-4416

18006 SDG#: PEJ23-11MS

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	13203807901A	07/22/2013 08:48	Yolunder Y Bunch	1

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

Sample Description: WS-006(0.5-1.0)071813MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132101
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 15:25 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18006 SDG#: PEJ23-11MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	39	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.7	0.1	0.5	1
02898	Benzene	71-43-2	5.2	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.2	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.4	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.3	0.1	0.5	1
02898	Bromoform	75-25-2	5.0	0.1	0.5	1
02898	Bromomethane	74-83-9	5.4	0.1	0.5	1
02898	2-Butanone	78-93-3	41	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	4.9	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.1	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.2	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	6.1	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.3	0.1	0.5	1
02898	Chloroethane	75-00-3	5.2	0.1	0.5	1
02898	Chloroform	67-66-3	5.6	0.1	0.5	1
02898	Chloromethane	74-87-3	5.0	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.0	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.1	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	5.4	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	5.1	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.2	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.3	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.3	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.2	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.2	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	5.9	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.3	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	5.4	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.3	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.5	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	6.2	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.3	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	5.0	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	5.4	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	5.1	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.9	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.7	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.1	0.1	0.5	1
02898	Freon 113	76-13-1	5.6	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.1	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.3	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	6.8	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	5.0	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	25	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.0	0.2	0.5	1

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

Sample Description: WS-006(0.5-1.0)071813MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132101
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 15:25 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18006 SDG#: PEJ23-11MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	5.0	0.1	0.5	1
02898	Styrene	100-42-5	5.1	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	5.3	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	4.8	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	5.6	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	26	2.0	5.0	1
02898	Toluene	108-88-3	5.2	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.9	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	5.0	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	5.8	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.2	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.7	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	5.1	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.1	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.0	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	5.5	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	15	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.97	0.010	0.051	1
08357	Acenaphthylene	208-96-8	1.0	0.010	0.051	1
08357	Anthracene	120-12-7	0.47	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.84	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.47	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.77	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	0.75	0.010	0.051	1
08357	Chrysene	218-01-9	0.71	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.63	0.010	0.051	1
08357	Fluoranthene	206-44-0	1.0	0.010	0.051	1
08357	Fluorene	86-73-7	0.97	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.64	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	0.94	0.030	0.051	1
08357	Pyrene	129-00-0	1.2	0.010	0.051	1
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	55.0	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	0.165	0.0068	0.0200	1
07046	Barium	7440-39-3	2.11	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0497	0.00076	0.0050	1
01750	Calcium	7440-70-2	10.8	0.0334	0.200	1

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

Sample Description: WS-006 (0.5-1.0) 071813MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132101
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 15:25 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18006 SDG#: PEJ23-11MSD

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	0.225	0.0016	0.0150	1
07055	Lead	7439-92-1	0.162	0.0047	0.0150	1
01757	Magnesium	7439-95-4	6.79	0.0167	0.100	1
07061	Nickel	7440-02-0	0.519	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.150	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0552	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.557	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.	27.1	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132002AA	07/20/2013 03:09	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132002AA	07/20/2013 03:09	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13201WAF026	07/22/2013 20:03	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13201WAF026	07/21/2013 10:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132056256001	07/24/2013 05:10	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132001848005	07/23/2013 23:38	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132001848005	07/23/2013 23:38	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132001848005	07/23/2013 23:38	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132001848005	07/23/2013 23:38	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132001848005	07/23/2013 23:38	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132001848005	07/24/2013 08:08	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132001848005	07/23/2013 23:38	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132001848005	07/23/2013 23:38	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132001848005	07/23/2013 23:38	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132001848005	07/23/2013 23:38	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132001848005	07/23/2013 23:38	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132005713002	07/22/2013 08:16	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132001848005	07/22/2013 16:59	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713002	07/19/2013 15:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13203807901A	07/22/2013 08:48	Yolunder Y Bunch	1

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

Sample Description: WS-006(0.5-1.0)071813DUP Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132102
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 15:25 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18006 SDG#: PEJ23-11DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	37.2	0.033	0.20	1
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0137 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.126	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.76	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0201	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0201	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.93	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0126	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	0.0340	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06256	Total Hardness as CaCO ₃	SM 2340 B-1997	1	132056256001	07/24/2013 05:10	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132001848005	07/23/2013 23:31	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132001848005	07/23/2013 23:31	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132001848005	07/23/2013 23:31	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132001848005	07/23/2013 23:31	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132001848005	07/23/2013 23:31	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132001848005	07/24/2013 08:00	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132001848005	07/23/2013 23:31	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132001848005	07/23/2013 23:31	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132001848005	07/23/2013 23:31	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132001848005	07/23/2013 23:31	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132001848005	07/23/2013 23:31	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132005713002	07/22/2013 08:12	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132001848005	07/22/2013 16:59	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713002	07/19/2013 15:25	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13203807901A	07/22/2013 08:48	Yolunder Y Bunch	1

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

Sample Description: WS-EB-04-071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132103
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 12:00 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18EB4 SDG#: PEJ23-12EB

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

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

Sample Description: WS-EB-04-071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132103
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 12:00 by HVA

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18EB4 SDG#: PEJ23-12EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.055	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	0.098	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	0.61	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	0.00053 J	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	0.174 J	0.0334	0.200	1

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

Sample Description: WS-EB-04-071813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132103
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013 12:00 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/19/2013 09:10

PO Box 4416

Reported: 07/24/2013 10:38

Houston TX 77210-4416

18EB4 SDG#: PEJ23-12EB

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	0.0421 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	0.0076	0.00030	0.0010	5

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	C132002AA	07/19/2013 21:59	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132002AA	07/19/2013 21:59	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13201WAF026	07/23/2013 01:57	Joseph M Gambler	1
10470	BNP Water Extraction (SIM)	SW-846 3510C	1	13201WAF026	07/21/2013 10:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132056256001	07/24/2013 05:10	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132001848005	07/24/2013 00:28	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132001848005	07/24/2013 00:28	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132001848005	07/24/2013 00:28	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132001848005	07/24/2013 00:28	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132001848005	07/24/2013 00:28	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132001848005	07/24/2013 09:03	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	132001848005	07/24/2013 00:28	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132001848005	07/24/2013 00:28	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132001848005	07/24/2013 00:28	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132001848005	07/24/2013 00:28	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132001848005	07/24/2013 00:28	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132005713002	07/22/2013 08:37	Damary Valentin	5
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132001848005	07/22/2013 16:59	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132005713002	07/19/2013 15:25	Nelli S Markaryan	1

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

Sample Description: WS-TB-100-071813 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132104
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18100 SDG#: PEJ23-13TB*

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

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

Sample Description: WS-TB-100-071813 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7132104
LL Group # 1405271
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/18/2013

ExxonMobil

Submitted: 07/19/2013 09:10

Mobil Pipeline Company

Reported: 07/24/2013 10:38

PO Box 4416

Houston TX 77210-4416

18100 SDG#: PEJ23-13TB*

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

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132002AA	07/19/2013 22:21	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132002AA	07/19/2013 22:21	Kevin A Sposito	1

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

Quality Control Summary

Client Name: ExxonMobil
Reported: 07/24/13 at 10:38 AM

Group Number: 1405271

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

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

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: C132002AA	Sample number(s): 7132089-7132101, 7132103-7132104								
Acetone	N.D.	3.0	5.0	ug/l	102		73-135		
Allyl Chloride	N.D.	0.1	0.5	ug/l	88		61-130		
Benzene	N.D.	0.1	0.5	ug/l	96		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	99		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	104		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	99		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	96		63-132		
Bromomethane	N.D.	0.1	0.5	ug/l	103		38-146		
2-Butanone	N.D.	1.0	5.0	ug/l	105		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	92		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	94		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	106		74-133		
Chlorobenzene	N.D.	0.1	0.5	ug/l	101		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	97		67-124		
Chloroform	N.D.	0.1	0.5	ug/l	104		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	95		55-135		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	94		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	94		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	102		57-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	97		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	101		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	102		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	99		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	99		80-112		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	111		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	97		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	114		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	96		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	98		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	100		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	116		63-149		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	100		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	98		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	96		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	102		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	98		74-120		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	95		73-126		
Ethyl ether	N.D.	0.1	0.5	ug/l	93		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	96		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	100		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	99		61-125		

*- 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

Group Number: 1405271

Reported: 07/24/13 at 10:38 AM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Isopropylbenzene	N.D.	0.1	0.5	ug/l	97		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	92		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	98		80-125		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	100		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	97		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	93		80-120		
Styrene	N.D.	0.1	0.5	ug/l	98		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	100		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	97		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	102		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	104		65-131		
Toluene	N.D.	0.1	0.5	ug/l	96		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	98		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	99		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	103		79-127		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	102		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	103		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	115		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	101		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	95		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	94		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	102		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	97		80-120		

Batch number: 13201WAF026

Sample number(s): 7132089-7132101, 7132103

Acenaphthene	N.D.	0.010	0.050	ug/l	109		65-124		
Acenaphthylene	N.D.	0.010	0.050	ug/l	106		72-113		
Anthracene	N.D.	0.010	0.050	ug/l	101		70-117		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	99		75-115		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	97		72-120		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	97		74-130		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	99		63-121		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	104		74-118		
Chrysene	N.D.	0.010	0.050	ug/l	106		75-112		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	97		66-122		
Fluoranthene	N.D.	0.010	0.050	ug/l	108		73-116		
Fluorene	N.D.	0.010	0.050	ug/l	103		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	98		66-122		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	111		72-114		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	108		74-119		
Naphthalene	N.D.	0.030	0.050	ug/l	104		67-118		
Phenanthrene	N.D.	0.030	0.050	ug/l	101		72-109		
Pyrene	N.D.	0.010	0.050	ug/l	108		71-116		

Batch number: 132001848005

Sample number(s): 7132089-7132103

Arsenic	N.D.	0.0068	0.0200	mg/l	98		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	97		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	99		90-112		
Calcium	N.D.	0.0334	0.200	mg/l	102		90-110		
Chromium	N.D.	0.0016	0.0150	mg/l	100		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	99		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	100		90-110		
Nickel	N.D.	0.0015	0.0100	mg/l	100		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	96		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	108		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	102		90-110		

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: ExxonMobil

Group Number: 1405271

Reported: 07/24/13 at 10:38 AM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 132005713002	Sample number(s): 7132089-7132103								
Mercury	N.D.	0.00006	0.00020	mg/l	96		80-120		
		0							
Batch number: 13203807901A	Sample number(s): 7132089-7132102								
HEM (oil & grease)	N.D.	1.4	5.0	mg/l	90	96	78-114	6	16

Sample Matrix Quality Control

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

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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: C132002AA	Sample number(s): 7132089-7132101, 7132103-7132104 UNSPK: 7132099								
Acetone	100	91	57-163	8	30				
Allyl Chloride	94	94	67-139	0	30				
Benzene	106	104	87-126	2	30				
Bromobenzene	107	104	80-123	3	30				
Bromochloromethane	109	108	82-125	1	30				
Bromodichloromethane	108	106	82-133	2	30				
Bromoform	101	100	60-138	1	30				
Bromomethane	107	107	41-145	0	30				
2-Butanone	116	108	63-146	7	30				
n-Butylbenzene	100	97	83-131	3	30				
sec-Butylbenzene	104	102	84-128	2	30				
tert-Butylbenzene	106	104	84-135	2	30				
Carbon Tetrachloride	122	122	81-148	0	30				
Chlorobenzene	109	107	78-133	2	30				
Chloroethane	105	104	70-139	1	30				
Chloroform	115	112	86-136	2	30				
Chloromethane	99	100	55-152	1	30				
2-Chlorotoluene	104	101	81-120	2	30				
4-Chlorotoluene	104	102	82-119	3	30				
1,2-Dibromo-3-chloropropane	112	108	43-143	3	30				
Dibromochloromethane	104	102	79-125	2	30				
1,2-Dibromoethane	108	103	84-127	4	30				
Dibromomethane	108	106	83-126	2	30				
1,2-Dichlorobenzene	108	105	83-117	3	30				
1,3-Dichlorobenzene	107	105	81-118	2	30				
1,4-Dichlorobenzene	107	105	79-120	2	30				
Dichlorodifluoromethane	117	118	28-136	0	30				
1,1-Dichloroethane	106	105	88-136	1	30				
1,2-Dichloroethane	118	115	82-135	2	30				
1,1-Dichloroethene	110	108	83-150	2	30				
cis-1,2-Dichloroethene	107	106	82-129	1	30				
trans-1,2-Dichloroethene	110	109	88-127	1	30				
Dichlorofluoromethane	125	124	59-176	1	30				
1,2-Dichloropropane	106	106	91-126	1	30				
1,3-Dichloropropane	102	100	80-127	2	30				
2,2-Dichloropropane	107	107	80-134	0	30				
1,1-Dichloropropene	117	114	86-139	2	30				

*- Outside of specification

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

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

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

Quality Control SummaryClient Name: ExxonMobil
Reported: 07/24/13 at 10:38 AM

Group Number: 1405271

Sample Matrix Quality ControlUnspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
cis-1,3-Dichloropropene	105	102	74-132	2	30				
trans-1,3-Dichloropropene	100	98	71-128	2	30				
Ethyl ether	93	94	67-127	1	30				
Ethylbenzene	106	103	80-140	3	30				
Freon 113	114	113	87-158	1	30				
Hexachlorobutadiene	106	103	65-128	2	30				
Isopropylbenzene	108	105	81-133	3	30				
p-Isopropyltoluene	99	108	84-124	7	30				
Methyl Tertiary Butyl Ether	99	100	82-132	1	30				
4-Methyl-2-Pentanone	100	99	69-149	1	30				
Methylene Chloride	102	100	84-122	2	30				
n-Propylbenzene	103	101	79-131	3	30				
Styrene	105	102	63-151	3	30				
1,1,1,2-Tetrachloroethane	108	105	87-126	3	30				
1,1,2,2-Tetrachloroethane	96	97	75-131	0	30				
Tetrachloroethene	114	112	75-129	2	30				
Tetrahydrofuran	112	103	56-154	9	30				
Toluene	106	103	83-127	3	30				
1,2,3-Trichlorobenzene	95	98	73-125	2	30				
1,2,4-Trichlorobenzene	101	100	77-120	1	30				
1,1,1-Trichloroethane	117	117	85-140	0	30				
1,1,2-Trichloroethane	105	104	85-129	2	30				
Trichloroethene	116	114	85-131	2	30				
Trichlorofluoromethane	125	126	67-161	1	30				
1,2,3-Trichloropropane	106	103	76-120	3	30				
1,2,4-Trimethylbenzene	103	101	87-126	2	30				
1,3,5-Trimethylbenzene	103	101	89-129	3	30				
Vinyl Chloride	110	110	65-151	0	30				
Xylene (Total)	106	103	81-137	3	30				

Batch number: 13201WAF026

Sample number(s): 7132089-7132101,7132103 UNSPK: 7132099

Acenaphthene	95	96	59-127	1	30
Acenaphthylene	97	99	33-146	0	30
Anthracene	70	47*	69-119	43*	30
Benzo(a)anthracene	84	83	67-124	3	30
Benzo(a)pyrene	47*	46*	64-123	4	30
Benzo(b)fluoranthene	66	76	61-133	12	30
Benzo(g,h,i)perylene	47	58	36-138	18	30
Benzo(k)fluoranthene	65	74	59-128	11	30
Chrysene	67	70	62-118	3	30
Dibenz(a,h)anthracene	54	62	32-141	12	30
Fluoranthene	94	97	65-123	1	30
Fluorene	94	96	69-124	0	30
Indeno(1,2,3-cd)pyrene	52	63	29-143	17	30
1-Methylnaphthalene	102	104	67-117	0	30
2-Methylnaphthalene	100	101	71-126	1	30
Naphthalene	98	98	58-131	1	30
Phenanthrene	93	93	67-117	2	30
Pyrene	95	94	59-125	3	30

Batch number: 132001848005

Sample number(s): 7132089-7132103 UNSPK: 7132099 BKG: 7132099

Arsenic	97	101	81-123	4	20	0.0136 J	0.0137 J	0 (1)	20
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*- 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
Reported: 07/24/13 at 10:38 AM

Group Number: 1405271

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Barium	98	100	78-118	2	20	0.122	0.126	3	20
Cadmium	99	99	83-116	0	20	N.D.	N.D.	0 (1)	20
Calcium	99	107	81-118	3	20	6.57	6.76	3	20
Chromium	100	103	81-120	3	20	0.0185	0.0201	8 (1)	20
Lead	93	96	75-125	3	20	0.0191	0.0201	5 (1)	20
Magnesium	67*	100	75-125	10	20	4.80	4.93	3	20
Nickel	100	101	86-115	2	20	0.0119	0.0126	5 (1)	20
Selenium	99	100	75-125	1	20	N.D.	N.D.	0 (1)	20
Silver	110	110	75-125	0	20	N.D.	N.D.	0 (1)	20
Vanadium	102	105	90-111	2	20	0.0326	0.0340	4	20

Batch number: 132005713002 Sample number(s): 7132089-7132103 UNSPK: 7132099 BKG: 7132099
Mercury 98 100 80-120 2 20 N.D. N.D. 0 (1) 20

Batch number: 13203807901A Sample number(s): 7132089-7132102 UNSPK: 7132099 BKG: 7132099
HEM (oil & grease) 75* 61* 78-114 22 29 N.D. N.D. 0 (1) 18

Surrogate Quality Control

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

Analysis Name: BTEX 25-ml purge

Batch number: C132002AA

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

7132089	103	100	98	98
7132090	104	102	98	98
7132091	103	100	98	98
7132092	103	100	98	99
7132093	103	102	98	99
7132094	103	101	99	100
7132095	102	100	98	99
7132096	103	100	98	99
7132097	103	102	98	99
7132098	103	100	99	99
7132099	104	101	98	99
7132100	104	102	99	98
7132101	105	100	98	98
7132103	103	103	99	100
7132104	103	100	99	99
Blank	103	103	99	99
LCS	104	101	99	99
MS	104	102	99	98
MSD	105	100	98	98
Limits:	77-114	74-113	77-110	78-110

Analysis Name: PAHs in waters by SIM

*- 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
Reported: 07/24/13 at 10:38 AM

Group Number: 1405271

Surrogate Quality Control

Batch number: 13201WAF026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7132089	92	64	98
7132090	97	78	98
7132091	94	72	102
7132092	97	71	101
7132093	92	73	100
7132094	92	46*	100
7132095	87	71	99
7132096	94	64	98
7132097	93	63	95
7132098	65	48*	90
7132099	89	64	96
7132100	86	61*	95
7132101	88	65	97
7132103	100	101	100
Blank	95	104	106
LCS	94	91	103
MS	86	61*	95
MSD	88	65	97
Limits:	64-120	62-141	58-134

*- Outside of specification

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

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

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

ExxonMobil Analysis Request/Chain of Custody



Lancaster
Laboratories

Acct. # 14739

For Eurofins Lancaster Laboratories use only
Group # 1405271 Sample # 7132089-104
Instructions on reverse side correspond with circled numbers.

1 of 2

1 Client Information				4 Matrix				5 Analyses Requested												6 Remarks		
Facility #/SID <u>Mayflower Pipeline Incident</u>				☐ Sediment ☐ Ground ☒ Surface ☐ Potable ☐ NPDES ☐ Air ☐ Soil ☐ Water ☐ Oil				Preservation Code												SCR#: _____ Preservation Codes: H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other		
Site Address <u>Mayflower, AR</u>																						
ExxonMobil PM <u>Scott Bushroe</u>																				6 Remarks * Lab to filter and preserve upon receipt		
Consultant/Office <u>ARCADIS</u>																						
Consultant PM <u>Steve Barnick</u>																						
Consultant Phone # <u>919 202 6779</u>																						
Sampler <u>HANS VAN ALLER / Lora de Marthy</u>																						
2 Sample Identification			3 Collected		Grab		Composite															
Date	Time							Total # of Containers														
WS-011 (1.5-2.0) 071813	071813	905	X					9	X	X	X	X	X									
WS-014 (1.5-2.0) 071813	071813	1000	X					9	X	X	X	X	X									
WS-012 (1.5-2.0) 071813	071813	1035	X					9	X	X	X	X	X									
WS-010 (1.5-2.0) 071813	071813	1110	X					9	X	X	X	X	X									
WS-003 (Surface) 071813	071813	1230	X					9	X	X	X	X	X									
WS-018 (Surface) 071813	071813	1245	X					9	X	X	X	X	X									
WS-002 (Surface) 071813	071813	1335	X					9	X	X	X	X	X									
WS-005 (Surface) 071813	071813	1400	X					9	X	X	X	X	X									
WS-001 (0.5-1.0) 071813	071813	1430	X					9	X	X	X	X	X									
WS-007 (0.5-1.0) 071813	071813	1445	X					9	X	X	X	X	X									
WS-006 (0.5-1.0) 071813	071813	1525	X					9	X	X	X	X	X									
WS-006 (0.5-1.0) 071813 MSD	071813	1525	X					18	X	X	X	X	X									

7 Turnaround Time Requested (TAT) (please circle)			Relinquished by <u>H Van Aller</u>		Date <u>7/18/13</u>	Time <u>1600</u>	Received by	Date	Time	9
Standard 5 day 4 day			Relinquished by		Date	Time	Received by	Date	Time	
72 hour 48 hour 24 hour			Relinquished by		Date	Time	Received by	Date	Time	
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 Commercial Carrier		Received by	Date	Time
						UPS _____ FedEx <u>X</u> Other <u>7.4-3.7 °C</u>		<u>DeMara Resell</u>	<u>7/19/13</u>	<u>0910</u>
Temperature Upon Receipt <u>7.4-3.7 °C</u>						Custody Seals Intact?		<u>Yes</u>		No

For Eurofins Lancaster Laboratories use only
Acct. # 14739 Group # 1405271 Sample # 7132089-104 2 of 2
Instructions on reverse side correspond with circled numbers.

Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

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

Issued by Dept. 40 Management
7053 0413

Deborah A. Neslund A# 14739 Gr# 1405271 Sample 7132089-104

From: Lipka, Shelby [Shelby.Lipka@arcadis-us.com]
Sent: Friday, July 19, 2013 7:33 AM
To: Rachel L. Kreamer; Van Aller, Hans; Kathy Klinefelter; Mott, Lyndi; Barrick, Stephen; Brewer, Stacey; Kull, Valerie; SA Env Entry; Capria, Dennis; McKenzie, Mary; Chandler, Jennifer
Cc: Molina, Joe; Parmelee, Rhiannon; Pritchard, Jamie
Subject: RE: Mayflower COCs Surface water sampling 071813

Yes, need Ni, V, Ca, Mg and hardness with the RCRA metals for the SW samples.

No soil samples were shipped yesterday.

Thank you,
 Shelby

From: Rachel L. Kreamer [mailto:RKreamer@lancasterlabs.com]
Sent: Friday, July 19, 2013 6:06 AM
To: Van Aller, Hans; Kathy Klinefelter; Mott, Lyndi; Barrick, Stephen; Brewer, Stacey; Kull, Valerie; SA Env Entry; Capria, Dennis; McKenzie, Mary; Chandler, Jennifer
Cc: Molina, Joe; Lipka, Shelby; Parmelee, Rhiannon; Pritchard, Jamie
Subject: RE: Mayflower COCs Surface water sampling 071813

Good morning.

Confirming that you need Ni, V, Ca, Mg, & hardness with the RCRA metals. They are not noted on the chain.

Also, can you confirm that no soil samples are expected today? We did not get any soil chains.

Thanks,
 Rachel

From: Van Aller, Hans [mailto:Hans.VanAller@arcadis-us.com]
Sent: Thursday, July 18, 2013 8:13 PM
To: Van Aller, Hans; Kathy Klinefelter; Mott, Lyndi; Barrick, Stephen; Brewer, Stacey; Kull, Valerie; SA Env Entry; Capria, Dennis; Rachel L. Kreamer; McKenzie, Mary; Chandler, Jennifer
Cc: Molina, Joe; Lipka, Shelby; Parmelee, Rhiannon; Pritchard, Jamie
Subject: Mayflower COCs Surface water sampling 071813

Hello All

Attached are the COCs from today's surface water sampling activities.

Thanks,

Hans H. van Aller IV | Field Tech 3 | Hans.VanAller@arcadis-us.com
 ARCADIS U.S., Inc. | 630 Plaza Drive, Suite 100 | Highlands Ranch, CO 80129
 T. 720.344.3500 | M.720.635.0173 | F. 720.344.3535
www.arcadis-us.com

ARCADIS, Imagine the result

Please consider the environment before printing this email.

7/19/2013

Environmental Sample Administration
Receipt Documentation Log

1405271

Client/Project: XOM MayflowerShipping Container Sealed: YES NODate of Receipt: 7/19/13Custody Seal Present *: YES NOTime of Receipt: 0910* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: 50-1Package: Chilled Not Chilled

Temperature of Shipping Containers

Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	1.3	TB	WI	Y	B	
2		1.7					
3		3.7					
4		1.4					
5		1.9					
6							

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

Paperwork Discrepancy/Unpacking Problems:

- did not receive Oil & Grease bottles for EB-04
- vials have tiny bubbles

OK per CVE

Unpacker Signature/Emp#: DA Neslund / 208Date/Time: 7/19/13 / 0925

Issued by Dept. 6042 Management

Explanation of Symbols and Abbreviations

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

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

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

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

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

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

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

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

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