

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

August 13, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 08/06/2013
Group Number: 1409301
SDG: PEK17
PO Number: ARCADIS
Release Number: MAYFLOWER 1406
State of Sample Origin: AR

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
WS-014(1.5-2.0)080513 Grab Surface Water	7151070
WS-014(5.5-6.0)080513 Grab Surface Water	7151071
WS-012(1.5-2.0)080513 Grab Surface Water	7151072
WS-012(5.0-5.5)080513 Grab Surface Water	7151073
WS-010(1.5-2.0)080513 Grab Surface Water	7151074
WS-010(3.5-4.0)080513 Grab Surface Water	7151075
WS-006(0.5-1.0)080513 Grab Surface Water	7151076
WS-006(0.5-1.0)080513MS Grab Surface Water	7151077
WS-006(0.5-1.0)080513MSD Grab Surface Water	7151078
WS-006(0.5-1.0)080513DUP Grab Surface Water	7151079
WS-005(Surface)080513 Grab Surface Water	7151080
WS-011(1.5-2.0)080513 Grab Surface Water	7151081
WS-011(5.0-5.5)080513 Grab Surface Water	7151082
WS-003(Surface)080513 Grab Surface Water	7151083
WS-018(Surface)080513 Grab Surface Water	7151084
WS-002(Surface)080513 Grab Surface Water	7151085
WS-007(0.5-1.0)080513 Grab Surface Water	7151086
WS-001(0.5-1.0)080513 Grab Surface Water	7151087
WS-TB-116-080513 Water	7151088
WS-EB-21-080513 Grab Water	7151089

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

ELECTRONIC ARCADIS
COPY TO
ELECTRONIC ARCADIS

Attn: Stephen Barrick

Attn: Lyndi Mott

COPY TO		
ELECTRONIC	ExxonMobil	Attn: Michael J. Firth
COPY TO		
ELECTRONIC	ARCADIS	Attn: Emily Leamer
COPY TO		
ELECTRONIC	ARCADIS	Attn: Rhiannon Parmalee
COPY TO		
ELECTRONIC	ARCADIS	Attn: Jamie Pritchard
COPY TO		
ELECTRONIC	ExxonMobil	Attn: Michael L Sixsmith
COPY TO		
ELECTRONIC	ExxonMobil	Attn: Julie Foster
COPY TO		
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 #: 1409301

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 8260B 25mL purge, GC/MS Volatiles**

Batch #: I132182AA (Sample number(s): 7151070-7151078, 7151080-7151089 UNSPK: 7151076)

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

SW-846 8270C SIM, GC/MS Semivolatiles

Batch #: 13218WAJ026 (Sample number(s): 7151070-7151078, 7151080-7151087, 7151089 UNSPK: 7151076)

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7151070, 7151071, 7151072, 7151073, 7151074, 7151075, 7151076, 7151080, 7151081, 7151082, 7151083, 7151084, 7151085, 7151087

Sample #s: 7151070, 7151071, 7151072, 7151073, 7151074, 7151075, 7151076, 7151080, 7151081, 7151082, 7151083, 7151084, 7151085, 7151087

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

EPA 1664A, Wet Chemistry

Batch #: 13224807901A (Sample number(s): 7151070-7151087 UNSPK: 7151076 BKG: 7151076)

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

Sample Description: WS-014(1.5-2.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151070
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 08:20 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-141 SDG#: PEK17-01

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

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

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Sample Description: **WS-014(1.5-2.0)080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151070**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 08:20 by JW ExxonMobil
 Submitted: 08/06/2013 09:30 Mobil Pipeline Company
 Reported: 08/13/2013 09:57 PO Box 4416
 Houston TX 77210-4416

5-141 SDG#: PEK17-01

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

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	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	0.0431	0.00033	0.0050	1

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

Sample Description: WS-014(1.5-2.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151070
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 08:20 by JW

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

Submitted: 08/06/2013 09:30

Reported: 08/13/2013 09:57

5-141 SDG#: PEK17-01

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	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.15	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	2.81	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	I132182AA	08/07/2013 00:35	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132182AA	08/07/2013 00:35	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAJ026	08/08/2013 05:48	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAJ026	08/07/2013 10:20	Katheryne V Sponheimer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132206256001	08/08/2013 05:17	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848007	08/07/2013 18:49	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132181848007	08/07/2013 18:49	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132181848007	08/07/2013 18:49	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132181848007	08/07/2013 18:49	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132181848007	08/07/2013 18:49	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132181848007	08/07/2013 18:49	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132181848007	08/07/2013 18:49	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132181848007	08/07/2013 18:49	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132181848007	08/07/2013 18:49	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132181848007	08/07/2013 18:49	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132181848007	08/07/2013 18:49	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132185713002	08/07/2013 04:51	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848007	08/07/2013 10:20	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713002	08/06/2013 17:45	Nelli S Markaryan	1

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

Sample Description: WS-014(1.5-2.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151070
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 08:20 by JW ExxonMobil
Mobil Pipeline Company
Submitted: 08/06/2013 09:30 PO Box 4416
Reported: 08/13/2013 09:57 Houston TX 77210-4416

5-141 SDG#: PEK17-01

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	13224807901A	08/12/2013 08:14	Yolunder Y Bunch	1

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

Sample Description: **WS-014(5.5-6.0)080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151071**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 08:30 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-142 SDG#: PEK17-02

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

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

Sample Description: **WS-014(5.5-6.0)080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151071**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 08:30 by JW ExxonMobil
 Submitted: 08/06/2013 09:30 Mobil Pipeline Company
 Reported: 08/13/2013 09:57 PO Box 4416
 Houston TX 77210-4416

5-142 SDG#: PEK17-02

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

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	27.1	0.033	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0440	0.00033	0.0050	1

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

Sample Description: WS-014(5.5-6.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151071
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 08:30 by JW

ExxonMobil

Mobil Pipeline Company

Submitted: 08/06/2013 09:30

PO Box 4416

Reported: 08/13/2013 09:57

Houston TX 77210-4416

5-142 SDG#: PEK17-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.20	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	2.81	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	I132182AA	08/07/2013 00:56	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132182AA	08/07/2013 00:56	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAJ026	08/08/2013 06:17	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAJ026	08/07/2013 10:20	Katheryne V Sponheimer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132206256001	08/08/2013 05:17	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848007	08/07/2013 18:52	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132181848007	08/07/2013 18:52	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132181848007	08/07/2013 18:52	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132181848007	08/07/2013 18:52	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132181848007	08/07/2013 18:52	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132181848007	08/07/2013 18:52	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132181848007	08/07/2013 18:52	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132181848007	08/07/2013 18:52	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132181848007	08/07/2013 18:52	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132181848007	08/07/2013 18:52	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132181848007	08/07/2013 18:52	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132185713002	08/07/2013 04:53	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848007	08/07/2013 10:20	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713002	08/06/2013 17:45	Nelli S Markaryan	1

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

Sample Description: WS-014(5.5-6.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151071
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 08:30 by JW

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

Submitted: 08/06/2013 09:30

Reported: 08/13/2013 09:57

5-142 SDG#: PEK17-02

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	13224807901A	08/12/2013 08:14	Yolunder Y Bunch	1

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

Sample Description: **WS-012(1.5-2.0)080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151072**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 08:40 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-121 SDG#: PEK17-03

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)080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151072**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 08:40 by JW ExxonMobil
 Submitted: 08/06/2013 09:30 Mobil Pipeline Company
 Reported: 08/13/2013 09:57 PO Box 4416
 Houston TX 77210-4416

5-121 SDG#: PEK17-03

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

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	25.2	0.033	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0328	0.00033	0.0050	1

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

Sample Description: WS-012(1.5-2.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151072
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 08:40 by JW ExxonMobil
Mobil Pipeline Company
Submitted: 08/06/2013 09:30 PO Box 4416
Reported: 08/13/2013 09:57 Houston TX 77210-4416

5-121 SDG#: PEK17-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.73	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	2.65	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0021 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	1.9 J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132182AA	08/07/2013 01:17	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132182AA	08/07/2013 01:17	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAJ026	08/08/2013 06:47	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAJ026	08/07/2013 10:20	Katheryne V Sponheimer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132206256001	08/08/2013 05:17	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848007	08/07/2013 19:03	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132181848007	08/07/2013 19:03	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132181848007	08/07/2013 19:03	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132181848007	08/07/2013 19:03	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132181848007	08/07/2013 19:03	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132181848007	08/07/2013 19:03	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132181848007	08/07/2013 19:03	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132181848007	08/07/2013 19:03	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132181848007	08/07/2013 19:03	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132181848007	08/07/2013 19:03	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132181848007	08/07/2013 19:03	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132185713002	08/07/2013 04:55	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848007	08/07/2013 10:20	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713002	08/06/2013 17:45	Nelli S Markaryan	1

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

Sample Description: WS-012(1.5-2.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151072
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 08:40 by JW ExxonMobil
Mobil Pipeline Company
Submitted: 08/06/2013 09:30 PO Box 4416
Reported: 08/13/2013 09:57 Houston TX 77210-4416

5-121 SDG#: PEK17-03

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	13224807901A	08/12/2013 08:14	Yolunder Y Bunch	1

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

Sample Description: **WS-012(5.0-5.5)080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151073**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 08:50 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-122 SDG#: PEK17-04

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

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

Sample Description: **WS-012(5.0-5.5)080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151073**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 08:50 by JW ExxonMobil
 Submitted: 08/06/2013 09:30 Mobil Pipeline Company
 Reported: 08/13/2013 09:57 PO Box 4416
 Houston TX 77210-4416

5-122 SDG#: PEK17-04

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

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	25.1	0.033	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0315	0.00033	0.0050	1

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

Sample Description: WS-012(5.0-5.5)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151073
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 08:50 by JW ExxonMobil
Submitted: 08/06/2013 09:30 Mobil Pipeline Company
Reported: 08/13/2013 09:57 PO Box 4416
Houston TX 77210-4416

5-122 SDG#: PEK17-04

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	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.71	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	2.63	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0015 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	I132182AA	08/07/2013 01:38	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132182AA	08/07/2013 01:38	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAJ026	08/08/2013 07:16	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAJ026	08/07/2013 10:20	Katheryne V Sponheimer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132206256001	08/08/2013 05:17	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848007	08/07/2013 19:07	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132181848007	08/07/2013 19:07	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132181848007	08/07/2013 19:07	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132181848007	08/07/2013 19:07	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132181848007	08/07/2013 19:07	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132181848007	08/07/2013 19:07	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132181848007	08/07/2013 19:07	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132181848007	08/07/2013 19:07	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132181848007	08/07/2013 19:07	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132181848007	08/07/2013 19:07	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132181848007	08/07/2013 19:07	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132185713002	08/07/2013 04:57	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848007	08/07/2013 10:20	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713002	08/06/2013 17:45	Nelli S Markaryan	1

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

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Sample Description: WS-012(5.0-5.5)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151073
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 08:50 by JW ExxonMobil
Submitted: 08/06/2013 09:30 Mobil Pipeline Company
Reported: 08/13/2013 09:57 PO Box 4416
Houston TX 77210-4416

5-122 SDG#: PEK17-04

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	13224807901A	08/12/2013 08:14	Yolunder Y Bunch	1

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

Sample Description: WS-010(1.5-2.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151074
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 09:10 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-101 SDG#: PEK17-05

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

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

Sample Description: **WS-010(1.5-2.0)080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151074**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 09:10 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-101 SDG#: PEK17-05

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	N.D.	0.010	0.051	1

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	22.6	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	0.0242	0.00033	0.0050	1

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

Sample Description: **WS-010(1.5-2.0)080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151074**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 09:10 by JW ExxonMobil
 Submitted: 08/06/2013 09:30 Mobil Pipeline Company
 Reported: 08/13/2013 09:57 PO Box 4416
 Houston TX 77210-4416

5-101 SDG#: PEK17-05

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	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.11	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	2.38	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132182AA	08/07/2013 01:59	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132182AA	08/07/2013 01:59	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAJ026	08/08/2013 07:46	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAJ026	08/07/2013 10:20	Katheryne V Sponheimer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132206256001	08/08/2013 05:17	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848007	08/07/2013 19:11	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132181848007	08/07/2013 19:11	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132181848007	08/07/2013 19:11	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132181848007	08/07/2013 19:11	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132181848007	08/07/2013 19:11	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132181848007	08/07/2013 19:11	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132181848007	08/07/2013 19:11	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132181848007	08/07/2013 19:11	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132181848007	08/07/2013 19:11	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132181848007	08/07/2013 19:11	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132181848007	08/07/2013 19:11	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132185713002	08/07/2013 04:59	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848007	08/07/2013 10:20	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713002	08/06/2013 17:45	Nelli S Markaryan	1

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

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Sample Description: WS-010(1.5-2.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151074
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 09:10 by JW ExxonMobil
Submitted: 08/06/2013 09:30 Mobil Pipeline Company
Reported: 08/13/2013 09:57 PO Box 4416
Houston TX 77210-4416

5-101 SDG#: PEK17-05

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	13224807901A	08/12/2013 08:14	Yolunder Y Bunch	1

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

Sample Description: **WS-010(3.5-4.0)080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151075**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 09:20 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-102 SDG#: PEK17-06

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

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

Sample Description: **WS-010(3.5-4.0)080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151075**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 09:20 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-102 SDG#: PEK17-06

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

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	22.3	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	0.0269	0.00033	0.0050	1

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

Sample Description: WS-010(3.5-4.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151075
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 09:20 by JW ExxonMobil
Submitted: 08/06/2013 09:30 Mobil Pipeline Company
Reported: 08/13/2013 09:57 PO Box 4416
Houston TX 77210-4416

5-102 SDG#: PEK17-06

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	5.06	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	2.34	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132182AA	08/07/2013 02:20	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132182AA	08/07/2013 02:20	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAJ026	08/08/2013 08:15	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAJ026	08/07/2013 10:20	Katheryne V Sponheimer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132206256001	08/08/2013 05:17	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848007	08/07/2013 19:15	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132181848007	08/07/2013 19:15	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132181848007	08/07/2013 19:15	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132181848007	08/07/2013 19:15	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132181848007	08/07/2013 19:15	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132181848007	08/07/2013 19:15	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132181848007	08/07/2013 19:15	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132181848007	08/07/2013 19:15	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132181848007	08/07/2013 19:15	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132181848007	08/07/2013 19:15	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132181848007	08/07/2013 19:15	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132185713002	08/07/2013 05:01	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848007	08/07/2013 10:20	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713002	08/06/2013 17:45	Nelli S Markaryan	1

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

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

Sample Description: WS-010(3.5-4.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151075
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 09:20 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-102 SDG#: PEK17-06

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	13224807901A	08/12/2013 08:14	Yolunder Y Bunch	1

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

Sample Description: WS-006(0.5-1.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151076
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 09:30 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-006 SDG#: PEK17-07BKG

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

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

Sample Description: **WS-006(0.5-1.0)080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151076**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 09:30 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-006 SDG#: PEK17-07BKG

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

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	25.0	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	0.0318	0.00033	0.0050	1

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

Sample Description: WS-006(0.5-1.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151076
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 09:30 by JW ExxonMobil
Submitted: 08/06/2013 09:30 Mobil Pipeline Company
Reported: 08/13/2013 09:57 PO Box 4416
Houston TX 77210-4416

5-006 SDG#: PEK17-07BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.66	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	2.64	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	I132182AA	08/06/2013 22:30	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132182AA	08/06/2013 22:30	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAJ026	08/08/2013 04:20	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAJ026	08/07/2013 10:20	Katheryne V Sponheimer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132206256001	08/08/2013 05:17	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848007	08/07/2013 18:26	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132181848007	08/07/2013 18:26	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132181848007	08/07/2013 18:26	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132181848007	08/07/2013 18:26	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132181848007	08/07/2013 18:26	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132181848007	08/07/2013 18:26	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132181848007	08/07/2013 18:26	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132181848007	08/07/2013 18:26	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132181848007	08/07/2013 18:26	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132181848007	08/07/2013 18:26	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132181848007	08/07/2013 18:26	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132185713002	08/07/2013 05:03	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848007	08/07/2013 10:20	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713002	08/06/2013 17:45	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151076
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 09:30 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-006 SDG#: PEK17-07BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13224807901A	08/12/2013 08:14	Yolunder Y Bunch	1

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

Sample Description: **WS-006 (0.5-1.0) 080513MS Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151077**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 09:30 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-006 SDG#: PEK17-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	39	3.0	5.0	1
02898	Allyl Chloride	107-05-1	3.9	0.1	0.5	1
02898	Benzene	71-43-2	5.0	0.1	0.5	1
02898	Bromobenzene	108-86-1	4.5	0.1	0.5	1
02898	Bromochloromethane	74-97-5	4.5	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	4.5	0.1	0.5	1
02898	Bromoform	75-25-2	4.3	0.1	0.5	1
02898	Bromomethane	74-83-9	3.5	0.1	0.5	1
02898	2-Butanone	78-93-3	36	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.3	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.2	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	4.9	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	4.9	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.2	0.1	0.5	1
02898	Chloroethane	75-00-3	3.7	0.1	0.5	1
02898	Chloroform	67-66-3	4.9	0.1	0.5	1
02898	Chloromethane	74-87-3	3.2	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	4.9	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.0	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	4.6	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	4.6	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	4.8	0.1	0.5	1
02898	Dibromomethane	74-95-3	4.6	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.0	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	4.9	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	4.9	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	2.3	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	4.7	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	4.5	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	4.9	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	4.6	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	5.0	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	4.3	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.0	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	4.9	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	4.4	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.1	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	4.3	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.5	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.4	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.1	0.1	0.5	1
02898	Freon 113	76-13-1	5.1	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	4.5	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.1	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.0	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.0	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	23	1.0	5.0	1
02898	Methylene Chloride	75-09-2	4.6	0.2	0.5	1

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

Sample Description: WS-006 (0.5-1.0) 080513MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151077
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 09:30 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-006 SDG#: PEK17-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	5.2	0.1	0.5	1
02898	Styrene	100-42-5	4.9	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	5.0	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	5.0	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	4.7	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	23	2.0	5.0	1
02898	Toluene	108-88-3	5.1	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.4	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	4.4	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	4.6	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.0	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.0	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	4.2	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.0	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.0	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	3.5	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	1.1	0.011	0.057	1
08357	Acenaphthylene	208-96-8	1.2	0.011	0.057	1
08357	Anthracene	120-12-7	0.81	0.011	0.057	1
08357	Benzo(a)anthracene	56-55-3	1.0	0.011	0.057	1
08357	Benzo(a)pyrene	50-32-8	0.78	0.011	0.057	1
08357	Benzo(b)fluoranthene	205-99-2	0.95	0.011	0.057	1
08357	Benzo(g,h,i)perylene	191-24-2	0.93	0.011	0.057	1
08357	Benzo(k)fluoranthene	207-08-9	1.0	0.011	0.057	1
08357	Chrysene	218-01-9	1.1	0.011	0.057	1
08357	Dibenz(a,h)anthracene	53-70-3	0.96	0.011	0.057	1
08357	Fluoranthene	206-44-0	1.2	0.011	0.057	1
08357	Fluorene	86-73-7	1.1	0.011	0.057	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.89	0.011	0.057	1
08357	1-Methylnaphthalene	90-12-0	1.3	0.011	0.057	1
08357	2-Methylnaphthalene	91-57-6	1.2	0.011	0.057	1
08357	Naphthalene	91-20-3	1.1	0.034	0.057	1
08357	Phenanthrene	85-01-8	1.1	0.034	0.057	1
08357	Pyrene	129-00-0	0.99	0.011	0.057	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	42.8	0.033	0.20	1
SW-846 6010B						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.153	0.0068	0.0200	1
07046	Barium	7440-39-3	2.04	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0499	0.00076	0.0050	1
01750	Calcium	7440-70-2	9.60	0.0334	0.200	1

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

Sample Description: **WS-006 (0.5-1.0) 080513MS Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151077**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 09:30 by JW ExxonMobil
 Submitted: 08/06/2013 09:30 Mobil Pipeline Company
 Reported: 08/13/2013 09:57 PO Box 4416
 Houston TX 77210-4416

5-006 SDG#: PEK17-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	0.201	0.0016	0.0150	1
07055	Lead	7439-92-1	0.145	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.58	0.0167	0.100	1
07061	Nickel	7440-02-0	0.513	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.140	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0558	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.514	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.	30.7	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	I132182AA	08/06/2013 22:51	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132182AA	08/06/2013 22:51	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAJ026	08/08/2013 04:49	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAJ026	08/07/2013 10:20	Katheryne V Sponheimer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132206256001	08/08/2013 05:17	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848007	08/07/2013 18:37	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132181848007	08/07/2013 18:37	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132181848007	08/07/2013 18:37	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132181848007	08/07/2013 18:37	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132181848007	08/07/2013 18:37	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132181848007	08/07/2013 18:37	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132181848007	08/07/2013 18:37	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132181848007	08/07/2013 18:37	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132181848007	08/07/2013 18:37	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132181848007	08/07/2013 18:37	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132181848007	08/07/2013 18:37	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132185713002	08/07/2013 05:11	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848007	08/07/2013 10:20	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713002	08/06/2013 17:45	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13224807901A	08/12/2013 08:14	Yolunder Y Bunch	1

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

Sample Description: **WS-006 (0.5-1.0) 080513MSD Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151078**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 09:30 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-006 SDG#: PEK17-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	42	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.0	0.1	0.5	1
02898	Benzene	71-43-2	4.9	0.1	0.5	1
02898	Bromobenzene	108-86-1	4.4	0.1	0.5	1
02898	Bromochloromethane	74-97-5	4.6	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	4.5	0.1	0.5	1
02898	Bromoform	75-25-2	4.4	0.1	0.5	1
02898	Bromomethane	74-83-9	3.4	0.1	0.5	1
02898	2-Butanone	78-93-3	42	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.2	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.1	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	4.8	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	4.9	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.1	0.1	0.5	1
02898	Chloroethane	75-00-3	3.6	0.1	0.5	1
02898	Chloroform	67-66-3	4.8	0.1	0.5	1
02898	Chloromethane	74-87-3	3.1	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	4.9	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.0	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	5.2	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	4.6	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	4.8	0.1	0.5	1
02898	Dibromomethane	74-95-3	4.5	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	4.9	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	4.8	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	4.8	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	2.3	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	4.7	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	4.5	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	4.9	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	4.7	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	4.9	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	4.1	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.0	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	4.9	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	4.5	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	5.1	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	4.4	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.5	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.5	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.0	0.1	0.5	1
02898	Freon 113	76-13-1	5.1	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	4.5	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.0	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.0	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.1	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	23	1.0	5.0	1
02898	Methylene Chloride	75-09-2	4.7	0.2	0.5	1

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

Sample Description: **WS-006 (0.5-1.0) 080513MSD Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151078**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 09:30 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-006 SDG#: PEK17-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
02898	n-Propylbenzene	103-65-1	5.1	0.1	0.5	1
02898	Styrene	100-42-5	4.9	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	4.9	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	5.0	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	4.7	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	27	2.0	5.0	1
02898	Toluene	108-88-3	5.1	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.4	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	4.4	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	4.6	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.0	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.0	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	4.2	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.0	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.0	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	3.5	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	1.0	0.010	0.051	1
08357	Acenaphthylene	208-96-8	1.2	0.010	0.051	1
08357	Anthracene	120-12-7	0.82	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.98	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.75	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.90	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.85	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.94	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	0.89	0.010	0.051	1
08357	Fluoranthene	206-44-0	1.1	0.010	0.051	1
08357	Fluorene	86-73-7	1.1	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.86	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	1.2	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	1.2	0.010	0.051	1
08357	Naphthalene	91-20-3	1.1	0.031	0.051	1
08357	Phenanthrene	85-01-8	1.0	0.031	0.051	1
08357	Pyrene	129-00-0	0.93	0.010	0.051	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	44.0	0.033	0.20	1
SW-846 6010B						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.153	0.0068	0.0200	1
07046	Barium	7440-39-3	2.09	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0500	0.00076	0.0050	1
01750	Calcium	7440-70-2	9.83	0.0334	0.200	1

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

Sample Description: **WS-006 (0.5-1.0) 080513MSD Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151078**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 09:30 by JW ExxonMobil
 Submitted: 08/06/2013 09:30 Mobil Pipeline Company
 Reported: 08/13/2013 09:57 PO Box 4416
 Houston TX 77210-4416

5-006 SDG#: PEK17-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	0.207	0.0016	0.0150	1
07055	Lead	7439-92-1	0.146	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.71	0.0167	0.100	1
07061	Nickel	7440-02-0	0.517	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.144	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0572	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.527	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.00094	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	33.8	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	I132182AA	08/06/2013 23:12	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132182AA	08/06/2013 23:12	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAJ026	08/08/2013 05:19	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAJ026	08/07/2013 10:20	Katheryne V Sponheimer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132206256001	08/08/2013 05:17	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848007	08/07/2013 18:41	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132181848007	08/07/2013 18:41	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132181848007	08/07/2013 18:41	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132181848007	08/07/2013 18:41	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132181848007	08/07/2013 18:41	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132181848007	08/07/2013 18:41	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132181848007	08/07/2013 18:41	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132181848007	08/07/2013 18:41	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132181848007	08/07/2013 18:41	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132181848007	08/07/2013 18:41	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132181848007	08/07/2013 18:41	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132185713002	08/07/2013 05:13	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848007	08/07/2013 10:20	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713002	08/06/2013 17:45	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13224807901A	08/12/2013 08:14	Yolunder Y Bunch	1

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

Sample Description: WS-006 (0.5-1.0) 080513DUP Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151079
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 09:30 by JW ExxonMobil
Mobil Pipeline Company
Submitted: 08/06/2013 09:30 PO Box 4416
Reported: 08/13/2013 09:57 Houston TX 77210-4416

5-006 SDG#: PEK17-07DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	24.6	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	0.0307	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.57	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	2.60	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0019 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132206256001	08/08/2013 05:17	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848007	08/07/2013 18:33	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132181848007	08/07/2013 18:33	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132181848007	08/07/2013 18:33	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132181848007	08/07/2013 18:33	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132181848007	08/07/2013 18:33	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132181848007	08/07/2013 18:33	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132181848007	08/07/2013 18:33	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132181848007	08/07/2013 18:33	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132181848007	08/07/2013 18:33	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132181848007	08/07/2013 18:33	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132181848007	08/07/2013 18:33	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132185713002	08/07/2013 05:05	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848007	08/07/2013 10:20	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713002	08/06/2013 17:45	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13224807901A	08/12/2013 08:14	Yolunder Y Bunch	1

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

Sample Description: WS-005 (Surface) 080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151080
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 09:50 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-005 SDG#: PEK17-08

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

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

Sample Description: **WS-005 (Surface) 080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151080**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 09:50 by JW ExxonMobil
 Submitted: 08/06/2013 09:30 Mobil Pipeline Company
 Reported: 08/13/2013 09:57 PO Box 4416
 Houston TX 77210-4416

5-005 SDG#: PEK17-08

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	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	27.2	0.033	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0382	0.00033	0.0050	1

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

Sample Description: WS-005 (Surface) 080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151080
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 09:50 by JW ExxonMobil
Submitted: 08/06/2013 09:30 Mobil Pipeline Company
Reported: 08/13/2013 09:57 PO Box 4416
Houston TX 77210-4416

5-005 SDG#: PEK17-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.43	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	2.71	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0024 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0022 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	I132182AA	08/07/2013 02:41	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132182AA	08/07/2013 02:41	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAJ026	08/08/2013 08:45	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAJ026	08/07/2013 10:20	Katheryne V Sponheimer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132206256001	08/08/2013 05:17	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848007	08/07/2013 19:19	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132181848007	08/07/2013 19:19	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132181848007	08/07/2013 19:19	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132181848007	08/07/2013 19:19	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132181848007	08/07/2013 19:19	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132181848007	08/07/2013 19:19	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132181848007	08/07/2013 19:19	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132181848007	08/07/2013 19:19	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132181848007	08/07/2013 19:19	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132181848007	08/07/2013 19:19	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132181848007	08/07/2013 19:19	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132185713002	08/07/2013 05:15	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848007	08/07/2013 10:20	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713002	08/06/2013 17:45	Nelli S Markaryan	1

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

Sample Description: WS-005(Surface)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151080
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 09:50 by JW ExxonMobil
Mobil Pipeline Company
Submitted: 08/06/2013 09:30 PO Box 4416
Reported: 08/13/2013 09:57 Houston TX 77210-4416

5-005 SDG#: PEK17-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13224807901A	08/12/2013 08:14	Yolunder Y Bunch	1

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

Sample Description: **WS-011(1.5-2.0)080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151081**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 10:20 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-111 SDG#: PEK17-09

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

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

Sample Description: **WS-011(1.5-2.0)080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151081**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 10:20 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-111 SDG#: PEK17-09

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	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	26.3	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	0.0366	0.00033	0.0050	1

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

Sample Description: WS-011(1.5-2.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151081
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 10:20 by JW ExxonMobil
Submitted: 08/06/2013 09:30 Mobil Pipeline Company
Reported: 08/13/2013 09:57 PO Box 4416
Houston TX 77210-4416

5-111 SDG#: PEK17-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.96	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	2.77	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0025 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	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	I132182AA	08/07/2013 03:02	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132182AA	08/07/2013 03:02	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAJ026	08/08/2013 09:14	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAJ026	08/07/2013 10:20	Katheryne V Sponheimer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132206256001	08/08/2013 05:17	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848007	08/07/2013 19:22	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132181848007	08/07/2013 19:22	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132181848007	08/07/2013 19:22	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132181848007	08/07/2013 19:22	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132181848007	08/07/2013 19:22	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132181848007	08/07/2013 19:22	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132181848007	08/07/2013 19:22	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132181848007	08/07/2013 19:22	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132181848007	08/07/2013 19:22	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132181848007	08/07/2013 19:22	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132181848007	08/07/2013 19:22	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132185713002	08/07/2013 05:17	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848007	08/07/2013 10:20	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713002	08/06/2013 17:45	Nelli S Markaryan	1

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

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

Sample Description: WS-011(1.5-2.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151081
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 10:20 by JW

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

Submitted: 08/06/2013 09:30

Reported: 08/13/2013 09:57

5-111 SDG#: PEK17-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13224807901A	08/12/2013 08:14	Yolunder Y Bunch	1

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

Sample Description: WS-011(5.0-5.5)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151082
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 10:30 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-112 SDG#: PEK17-10

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

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

Sample Description: **WS-011(5.0-5.5)080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151082**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 10:30 by JW ExxonMobil
 Submitted: 08/06/2013 09:30 Mobil Pipeline Company
 Reported: 08/13/2013 09:57 PO Box 4416
 Houston TX 77210-4416

5-112 SDG#: PEK17-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.						
Metals	SM 2340 B-1997		mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	26.3	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	0.0514	0.00033	0.0050	1

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

Sample Description: WS-011(5.0-5.5)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151082
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 10:30 by JW

ExxonMobil

Mobil Pipeline Company

Submitted: 08/06/2013 09:30

PO Box 4416

Reported: 08/13/2013 09:57

Houston TX 77210-4416

5-112 SDG#: PEK17-10

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	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.97	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	2.76	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0022 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132182AA	08/07/2013 03:23	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132182AA	08/07/2013 03:23	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAJ026	08/08/2013 09:44	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAJ026	08/07/2013 10:20	Katheryne V Sponheimer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132206256001	08/08/2013 05:17	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848007	08/07/2013 19:26	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132181848007	08/07/2013 19:26	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132181848007	08/07/2013 19:26	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132181848007	08/07/2013 19:26	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132181848007	08/07/2013 19:26	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132181848007	08/07/2013 19:26	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132181848007	08/07/2013 19:26	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132181848007	08/07/2013 19:26	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132181848007	08/07/2013 19:26	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132181848007	08/07/2013 19:26	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132181848007	08/07/2013 19:26	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132185713002	08/07/2013 05:19	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848007	08/07/2013 10:20	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713002	08/06/2013 17:45	Nelli S Markaryan	1

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

Sample Description: WS-011(5.0-5.5)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151082
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 10:30 by JW

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

Submitted: 08/06/2013 09:30

Reported: 08/13/2013 09:57

5-112 SDG#: PEK17-10

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	13224807901A	08/12/2013 08:14	Yolunder Y Bunch	1

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

Sample Description: WS-003 (Surface) 080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151083
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 10:40 by JW

ExxonMobil

Mobil Pipeline Company

Submitted: 08/06/2013 09:30

PO Box 4416

Reported: 08/13/2013 09:57

Houston TX 77210-4416

5-003 SDG#: PEK17-11

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

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

Sample Description: **WS-003 (Surface) 080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151083**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 10:40 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-003 SDG#: PEK17-11

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

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	26.1	0.033	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0359	0.00033	0.0050	1

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

Sample Description: WS-003 (Surface) 080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151083
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 10:40 by JW ExxonMobil
Submitted: 08/06/2013 09:30 Mobil Pipeline Company
Reported: 08/13/2013 09:57 PO Box 4416
Houston TX 77210-4416

5-003 SDG#: PEK17-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.87	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0026 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.77	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0030 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	I132182AA	08/07/2013 03:44	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132182AA	08/07/2013 03:44	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAJ026	08/08/2013 10:14	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAJ026	08/07/2013 10:20	Katheryne V Sponheimer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132206256001	08/08/2013 05:17	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848007	08/07/2013 19:30	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132181848007	08/07/2013 19:30	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132181848007	08/07/2013 19:30	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132181848007	08/07/2013 19:30	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132181848007	08/07/2013 19:30	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132181848007	08/07/2013 19:30	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132181848007	08/07/2013 19:30	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132181848007	08/07/2013 19:30	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132181848007	08/07/2013 19:30	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132181848007	08/07/2013 19:30	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132181848007	08/07/2013 19:30	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132185713002	08/07/2013 05:21	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848007	08/07/2013 10:20	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713002	08/06/2013 17:45	Nelli S Markaryan	1

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

Sample Description: WS-003 (Surface) 080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151083
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 10:40 by JW ExxonMobil
Mobil Pipeline Company
Submitted: 08/06/2013 09:30 PO Box 4416
Reported: 08/13/2013 09:57 Houston TX 77210-4416

5-003 SDG#: PEK17-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13224807901A	08/12/2013 08:14	Yolunder Y Bunch	1

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

Sample Description: **WS-018 (Surface) 080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151084**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 11:10 by JW ExxonMobil
 Submitted: 08/06/2013 09:30 Mobil Pipeline Company
 Reported: 08/13/2013 09:57 PO Box 4416
 Houston TX 77210-4416

5-018 SDG#: PEK17-12

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

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

Sample Description: **WS-018 (Surface) 080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151084**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 11:10 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-018 SDG#: PEK17-12

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

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO ₃	471-34-1	25.4	0.033	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0346	0.00033	0.0050	1

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

Sample Description: WS-018 (Surface) 080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151084
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 11:10 by JW ExxonMobil
Submitted: 08/06/2013 09:30 Mobil Pipeline Company
Reported: 08/13/2013 09:57 PO Box 4416
Houston TX 77210-4416

5-018 SDG#: PEK17-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.72	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.69	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.	1.5 J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132182AA	08/07/2013 04:05	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132182AA	08/07/2013 04:05	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAJ026	08/08/2013 10:43	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAJ026	08/07/2013 10:20	Katheryne V Sponheimer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132206256001	08/08/2013 05:17	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848007	08/07/2013 19:34	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132181848007	08/07/2013 19:34	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132181848007	08/07/2013 19:34	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132181848007	08/07/2013 19:34	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132181848007	08/07/2013 19:34	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132181848007	08/07/2013 19:34	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132181848007	08/07/2013 19:34	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132181848007	08/07/2013 19:34	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132181848007	08/07/2013 19:34	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132181848007	08/07/2013 19:34	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132181848007	08/07/2013 19:34	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132185713002	08/07/2013 05:23	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848007	08/07/2013 10:20	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713002	08/06/2013 17:45	Nelli S Markaryan	1

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

Sample Description: WS-018 (Surface) 080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151084
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 11:10	by JW	ExxonMobil
		Mobil Pipeline Company
Submitted: 08/06/2013 09:30		PO Box 4416
Reported: 08/13/2013 09:57		Houston TX 77210-4416

5-018 SDG#: PEK17-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13224807901A	08/12/2013 08:14	Yolunder Y Bunch	1

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

Sample Description: **WS-002 (Surface) 080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151085**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 11:30 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-002 SDG#: PEK17-13

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

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

Sample Description: **WS-002 (Surface) 080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151085**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 11:30 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-002 SDG#: PEK17-13

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

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	26.2	0.033	0.20	1
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0229	0.00033	0.0050	1

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

Sample Description: WS-002 (Surface) 080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151085
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 11:30 by JW ExxonMobil
Submitted: 08/06/2013 09:30 Mobil Pipeline Company
Reported: 08/13/2013 09:57 PO Box 4416
Houston TX 77210-4416

5-002 SDG#: PEK17-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.99	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	2.72	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.	2.1 J	1.4	5.0	1

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132182AA	08/07/2013 04:26	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132182AA	08/07/2013 04:26	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAJ026	08/08/2013 11:12	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAJ026	08/07/2013 10:20	Katheryne V Sponheimer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132206256001	08/08/2013 05:17	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848007	08/07/2013 19:38	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132181848007	08/07/2013 19:38	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132181848007	08/07/2013 19:38	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132181848007	08/07/2013 19:38	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132181848007	08/07/2013 19:38	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132181848007	08/07/2013 19:38	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132181848007	08/07/2013 19:38	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132181848007	08/07/2013 19:38	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132181848007	08/07/2013 19:38	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132181848007	08/07/2013 19:38	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132181848007	08/07/2013 19:38	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132185713002	08/07/2013 05:25	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848007	08/07/2013 10:20	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713002	08/06/2013 17:45	Nelli S Markaryan	1

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

Sample Description: WS-002 (Surface) 080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151085
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 11:30 by JW ExxonMobil
Mobil Pipeline Company
Submitted: 08/06/2013 09:30 PO Box 4416
Reported: 08/13/2013 09:57 Houston TX 77210-4416

5-002 SDG#: PEK17-13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13224807901A	08/12/2013 08:14	Yolunder Y Bunch	1

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

Sample Description: WS-007(0.5-1.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151086
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 11:40 by JW

ExxonMobil

Mobil Pipeline Company

Submitted: 08/06/2013 09:30

PO Box 4416

Reported: 08/13/2013 09:57

Houston TX 77210-4416

5-007 SDG#: PEK17-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	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-007(0.5-1.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151086
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 11:40 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-007 SDG#: PEK17-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B 25mL						
			ug/l	ug/l	ug/l	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.3 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles SW-846 8270C SIM						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.0093	0.047	1
08357	Acenaphthylene	208-96-8	N.D.	0.0093	0.047	1
08357	Anthracene	120-12-7	0.015 J	0.0093	0.047	1
08357	Benzo(a)anthracene	56-55-3	0.011 J	0.0093	0.047	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0093	0.047	1
08357	Benzo(b)fluoranthene	205-99-2	0.020 J	0.0093	0.047	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.0093	0.047	1
08357	Benzo(k)fluoranthene	207-08-9	0.015 J	0.0093	0.047	1
08357	Chrysene	218-01-9	0.020 J	0.0093	0.047	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0093	0.047	1
08357	Fluoranthene	206-44-0	0.041 J	0.0093	0.047	1
08357	Fluorene	86-73-7	N.D.	0.0093	0.047	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0093	0.047	1
08357	1-Methylnaphthalene	90-12-0	0.010 J	0.0093	0.047	1
08357	2-Methylnaphthalene	91-57-6	0.010 J	0.0093	0.047	1
08357	Naphthalene	91-20-3	N.D.	0.028	0.047	1
08357	Phenanthrene	85-01-8	N.D.	0.028	0.047	1
08357	Pyrene	129-00-0	0.036 J	0.0093	0.047	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	18.2	0.033	0.20	1
SW-846 6010B						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0092 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0458	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.07	0.0334	0.200	1

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

Sample Description: WS-007(0.5-1.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151086
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 11:40 by JW ExxonMobil
Mobil Pipeline Company
Submitted: 08/06/2013 09:30 PO Box 4416
Reported: 08/13/2013 09:57 Houston TX 77210-4416

5-007 SDG#: PEK17-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07051	Chromium	7440-47-3	0.0033 J	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0072 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	1.94	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0038 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	0.0058	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	I132182AA	08/07/2013 04:47	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132182AA	08/07/2013 04:47	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAJ026	08/08/2013 11:42	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAJ026	08/07/2013 10:20	Katheryne V Sponheimer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132206256001	08/08/2013 05:17	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848007	08/07/2013 19:49	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132181848007	08/07/2013 19:49	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132181848007	08/07/2013 19:49	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132181848007	08/07/2013 19:49	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132181848007	08/07/2013 19:49	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132181848007	08/07/2013 19:49	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132181848007	08/07/2013 19:49	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132181848007	08/07/2013 19:49	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132181848007	08/07/2013 19:49	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132181848007	08/07/2013 19:49	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132181848007	08/07/2013 19:49	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132185713002	08/07/2013 05:27	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848007	08/07/2013 10:20	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713002	08/06/2013 17:45	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13224807901A	08/12/2013 08:14	Yolunder Y Bunch	1

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

Sample Description: **WS-001(0.5-1.0)080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151087**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 12:00 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-001 SDG#: PEK17-15

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

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

Sample Description: **WS-001(0.5-1.0)080513 Grab Surface Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151087**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 12:00 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-001 SDG#: PEK17-15

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

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	24.3	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	0.0283	0.00033	0.0050	1

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

Sample Description: WS-001(0.5-1.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151087
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 12:00 by JW ExxonMobil
Submitted: 08/06/2013 09:30 Mobil Pipeline Company
Reported: 08/13/2013 09:57 PO Box 4416
Houston TX 77210-4416

5-001 SDG#: PEK17-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.52	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0019 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.56	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0024 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0022 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	I132182AA	08/07/2013 05:07	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132182AA	08/07/2013 05:07	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAJ026	08/08/2013 12:11	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAJ026	08/07/2013 10:20	Katheryne V Sponheimer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132206256001	08/08/2013 05:17	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848007	08/07/2013 19:52	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132181848007	08/07/2013 19:52	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132181848007	08/07/2013 19:52	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132181848007	08/07/2013 19:52	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132181848007	08/07/2013 19:52	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132181848007	08/07/2013 19:52	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132181848007	08/07/2013 19:52	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132181848007	08/07/2013 19:52	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132181848007	08/07/2013 19:52	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132181848007	08/07/2013 19:52	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132181848007	08/07/2013 19:52	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132185713002	08/07/2013 05:29	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848007	08/07/2013 10:20	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713002	08/06/2013 17:45	Nelli S Markaryan	1

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

Sample Description: WS-001(0.5-1.0)080513 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151087
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013 12:00 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-001 SDG#: PEK17-15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13224807901A	08/12/2013 08:14	Yolunder Y Bunch	1

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

Sample Description: **WS-TB-116-080513 Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151088**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5T116 SDG#: PEK17-16TB

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-116-080513 Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7151088
LL Group # 1409301
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/05/2013

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5T116 SDG#: PEK17-16TB

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	I132182AA	08/06/2013 23:53	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132182AA	08/06/2013 23:53	Sara E Johnson	1

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

Sample Description: **WS-EB-21-080513 Grab Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151089**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 14:00 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-E21 SDG#: PEK17-17EB*

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	0.5	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	1.2	0.2	0.5	1

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

Sample Description: **WS-EB-21-080513 Grab Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151089**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 14:00 by JW

ExxonMobil

Submitted: 08/06/2013 09:30

Mobil Pipeline Company

Reported: 08/13/2013 09:57

PO Box 4416

Houston TX 77210-4416

5-E21 SDG#: PEK17-17EB*

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	
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	2.2	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS Semivolatiles SW-846 8270C SIM						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
Metals SM 2340 B-1997						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	N.D.	0.033	0.20	1
SW-846 6010B						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	N.D.	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	N.D.	0.0334	0.200	1

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

Sample Description: **WS-EB-21-080513 Grab Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7151089**
 LL Group # **1409301**
 Account # **14739**

Project Name: **Mayflower, AR Pipeline Incident**

Collected: 08/05/2013 14:00 by JW

ExxonMobil

Mobil Pipeline Company

Submitted: 08/06/2013 09:30

PO Box 4416

Reported: 08/13/2013 09:57

Houston TX 77210-4416

5-E21 SDG#: PEK17-17EB*

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

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132182AA	08/07/2013 00:14	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132182AA	08/07/2013 00:14	Sara E Johnson	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAJ026	08/08/2013 14:18	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAJ026	08/07/2013 10:20	Katheryne V Sponheimer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132206256001	08/08/2013 05:17	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848007	08/07/2013 19:56	Katlin N Cataldi	1
07046	Barium	SW-846 6010B	1	132181848007	08/07/2013 19:56	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010B	1	132181848007	08/07/2013 19:56	Katlin N Cataldi	1
01750	Calcium	SW-846 6010B	1	132181848007	08/07/2013 19:56	Katlin N Cataldi	1
07051	Chromium	SW-846 6010B	1	132181848007	08/07/2013 19:56	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	132181848007	08/07/2013 19:56	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010B	1	132181848007	08/07/2013 19:56	Katlin N Cataldi	1
07061	Nickel	SW-846 6010B	1	132181848007	08/07/2013 19:56	Katlin N Cataldi	1
07036	Selenium	SW-846 6010B	1	132181848007	08/07/2013 19:56	Katlin N Cataldi	1
07066	Silver	SW-846 6010B	1	132181848007	08/07/2013 19:56	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010B	1	132181848007	08/07/2013 19:56	Katlin N Cataldi	1
00259	Mercury	SW-846 7470A	1	132185713002	08/07/2013 05:36	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848007	08/07/2013 10:20	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713002	08/06/2013 17:45	Nelli S Markaryan	1

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

Quality Control Summary

Client Name: ExxonMobil
Reported: 08/13/13 at 09:57 AM

Group Number: 1409301

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: I132182AA	Sample number(s): 7151070-7151078, 7151080-7151089								
Acetone	N.D.	3.0	5.0	ug/l	101		73-135		
Allyl Chloride	N.D.	0.1	0.5	ug/l	78		61-130		
Benzene	N.D.	0.1	0.5	ug/l	98		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	92		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	96		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	92		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	92		63-132		
Bromomethane	N.D.	0.1	0.5	ug/l	78		38-146		
2-Butanone	N.D.	1.0	5.0	ug/l	107		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	95		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	93		74-133		
Chlorobenzene	N.D.	0.1	0.5	ug/l	104		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	81		67-124		
Chloroform	N.D.	0.1	0.5	ug/l	97		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	74		55-135		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	98		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	99		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	100		57-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	96		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	100		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	94		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	101		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	98		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	58		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	94		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	93		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	92		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	92		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	96		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	89		63-149		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	101		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	102		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	83		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	97		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	88		74-120		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	94		73-126		
Ethyl ether	N.D.	0.1	0.5	ug/l	94		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	95		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	87		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: 1409301

Reported: 08/13/13 at 09:57 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>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Isopropylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	96		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	84		80-125		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	91		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	94		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	101		80-120		
Styrene	N.D.	0.1	0.5	ug/l	99		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	105		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	89		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	107		65-131		
Toluene	N.D.	0.1	0.5	ug/l	101		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	90		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	88		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	89		79-127		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	105		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	97		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	92		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	106		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	78		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	98		80-120		

Batch number: 13218WAJ026

Sample number(s): 7151070-7151078,7151080-7151087,7151089

Acenaphthene	N.D.	0.010	0.050	ug/l	103		65-124		
Acenaphthylene	N.D.	0.010	0.050	ug/l	109		72-113		
Anthracene	N.D.	0.010	0.050	ug/l	113		70-117		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	104		75-115		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	108		72-120		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	98		74-130		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	102		63-121		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	112		74-118		
Chrysene	N.D.	0.010	0.050	ug/l	105		75-112		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	100		66-122		
Fluoranthene	N.D.	0.010	0.050	ug/l	113		73-116		
Fluorene	N.D.	0.010	0.050	ug/l	97		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	99		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	100		67-118		
Phenanthrene	N.D.	0.030	0.050	ug/l	100		72-109		
Pyrene	N.D.	0.010	0.050	ug/l	98		71-116		

Batch number: 132181848007

Sample number(s): 7151070-7151087,7151089

Arsenic	N.D.	0.0068	0.0200	mg/l	99		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	101		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	100		90-112		
Calcium	N.D.	0.0334	0.200	mg/l	103		90-110		
Chromium	N.D.	0.0016	0.0150	mg/l	101		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	97		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	100		90-110		
Nickel	N.D.	0.0015	0.0100	mg/l	103		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	94		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	112		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	103		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
Reported: 08/13/13 at 09:57 AM

Group Number: 1409301

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCS D Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 132185713002 Mercury	Sample number(s): 7151070-7151087,7151089								
	N.D.	0.00006	0.00020	mg/l	99		80-120		
		0							
Batch number: 13224807901A HEM (oil & grease)	Sample number(s): 7151070-7151087								
	N.D.	1.4	5.0	mg/l	88	85	78-114	3	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: I132182AA	Sample number(s): 7151070-7151078,7151080-7151089 UNSPK: 7151076								
Acetone	104	113	57-163	9	30				
Allyl Chloride	77	80	67-139	3	30				
Benzene	99	98	87-126	1	30				
Bromobenzene	89	89	80-123	1	30				
Bromochloromethane	91	91	82-125	0	30				
Bromodichloromethane	91	91	82-133	0	30				
Bromoform	87	87	60-138	1	30				
Bromomethane	70	68	41-145	2	30				
2-Butanone	96	111	63-146	15	30				
n-Butylbenzene	106	104	83-131	2	30				
sec-Butylbenzene	103	103	84-128	0	30				
tert-Butylbenzene	98	97	84-135	1	30				
Carbon Tetrachloride	98	98	81-148	0	30				
Chlorobenzene	103	102	78-133	1	30				
Chloroethane	75	71	70-139	5	30				
Chloroform	97	96	86-136	1	30				
Chloromethane	65	63	55-152	3	30				
2-Chlorotoluene	98	98	81-120	0	30				
4-Chlorotoluene	100	99	82-119	1	30				
1,2-Dibromo-3-chloropropane	91	105	43-143	14	30				
Dibromochloromethane	91	92	79-125	0	30				
1,2-Dibromoethane	96	95	84-127	0	30				
Dibromomethane	91	90	83-126	1	30				
1,2-Dichlorobenzene	100	98	83-117	2	30				
1,3-Dichlorobenzene	98	97	81-118	1	30				
1,4-Dichlorobenzene	98	97	79-120	1	30				
Dichlorodifluoromethane	47	46	28-136	2	30				
1,1-Dichloroethane	95	94	88-136	0	30				
1,2-Dichloroethane	91	91	82-135	0	30				
1,1-Dichloroethene	97	98	83-150	1	30				
cis-1,2-Dichloroethene	92	93	82-129	1	30				
trans-1,2-Dichloroethene	99	99	88-127	1	30				
Dichlorofluoromethane	86	82	59-176	5	30				
1,2-Dichloropropane	101	101	91-126	0	30				
1,3-Dichloropropane	97	97	80-127	0	30				
2,2-Dichloropropane	88	89	80-134	1	30				
1,1-Dichloropropene	102	103	86-139	1	30				

*- Outside of specification

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

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

Quality Control Summary

Client Name: ExxonMobil
Reported: 08/13/13 at 09:57 AM

Group Number: 1409301

Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>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	86	87	74-132	2	30				
trans-1,3-Dichloropropene	89	91	71-128	2	30				
Ethyl ether	88	90	67-127	3	30				
Ethylbenzene	101	100	80-140	1	30				
Freon 113	102	103	87-158	1	30				
Hexachlorobutadiene	91	91	65-128	0	30				
Isopropylbenzene	102	100	81-133	2	30				
p-Isopropyltoluene	100	99	84-124	1	30				
Methyl Tertiary Butyl Ether	80*	82	82-132	2	30				
4-Methyl-2-Pentanone	91	91	69-149	0	30				
Methylene Chloride	93	93	84-122	0	30				
n-Propylbenzene	104	102	79-131	1	30				
Styrene	99	97	63-151	1	30				
1,1,1,2-Tetrachloroethane	99	98	87-126	2	30				
1,1,2,2-Tetrachloroethane	100	100	75-131	1	30				
Tetrachloroethene	93	94	75-129	0	30				
Tetrahydrofuran	91	108	56-154	17	30				
Toluene	103	102	83-127	1	30				
1,2,3-Trichlorobenzene	88	88	73-125	0	30				
1,2,4-Trichlorobenzene	88	88	77-120	0	30				
1,1,1-Trichloroethane	93	93	85-140	0	30				
1,1,2-Trichloroethane	100	100	85-129	0	30				
Trichloroethene	100	99	85-131	1	30				
Trichlorofluoromethane	84	84	67-161	1	30				
1,2,3-Trichloropropane	100	100	76-120	0	30				
1,2,4-Trimethylbenzene	100	100	87-126	1	30				
1,3,5-Trimethylbenzene	100	100	89-129	0	30				
Vinyl Chloride	70	69	65-151	1	30				
Xylene (Total)	99	98	81-137	1	30				

Batch number: 13218WAJ026 Sample number(s): 7151070-7151078,7151080-7151087,7151089 UNSPK: 7151076

Acenaphthene	93	101	59-127	2	30				
Acenaphthylene	110	117	33-146	4	30				
Anthracene	72	80	69-119	1	30				
Benzo(a)anthracene	90	96	67-124	4	30				
Benzo(a)pyrene	69	73	64-123	4	30				
Benzo(b)fluoranthene	84	87	61-133	6	30				
Benzo(g,h,i)perylene	82	83	36-138	8	30				
Benzo(k)fluoranthene	90	92	59-128	8	30				
Chrysene	94	98	62-118	6	30				
Dibenz(a,h)anthracene	85	87	32-141	7	30				
Fluoranthene	108	111	65-123	7	30				
Fluorene	99	106	69-124	3	30				
Indeno(1,2,3-cd)pyrene	78	83	29-143	3	30				
1-Methylnaphthalene	111	117	67-117	5	30				
2-Methylnaphthalene	108	115	71-126	4	30				
Naphthalene	98	105	58-131	3	30				
Phenanthrene	98	101	67-117	6	30				
Pyrene	88	91	59-125	6	30				

Batch number: 132181848007 Sample number(s): 7151070-7151087,7151089 UNSPK: 7151076 BKG: 7151076
Arsenic 102 102 81-123 0 20 N.D. N.D. 0 (1) 20

*- Outside of specification

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

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

Quality Control Summary

Client Name: ExxonMobil
Reported: 08/13/13 at 09:57 AM

Group Number: 1409301

Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
Barium	100	103	78-118	2	20	0.0318	0.0307	3	20
Cadmium	100	100	83-116	0	20	N.D.	N.D.	0 (1)	20
Calcium	98	104	81-118	2	20	5.66	5.57	2	20
Chromium	101	104	81-120	3	20	N.D.	N.D.	0 (1)	20
Lead	97	97	75-125	0	20	N.D.	N.D.	0 (1)	20
Magnesium	97	104	75-125	3	20	2.64	2.60	2	20
Nickel	102	103	86-115	1	20	0.0017 J	0.0019 J	15 (1)	20
Selenium	93	96	75-125	3	20	N.D.	N.D.	0 (1)	20
Silver	112	114	75-125	2	20	N.D.	N.D.	0 (1)	20
Vanadium	103	105	90-111	2	20	N.D.	N.D.	0 (1)	20
Batch number: 132185713002 Sample number(s): 7151070-7151087,7151089 UNSPK: 7151076 BKG: 7151076									
Mercury	98	94	80-120	4	20	N.D.	N.D.	0 (1)	20
Batch number: 13224807901A Sample number(s): 7151070-7151087 UNSPK: 7151076 BKG: 7151076									
HEM (oil & grease)	72*	73*	78-114	9	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: I132182AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7151070	97	102	102	92
7151071	97	101	102	92
7151072	97	102	102	92
7151073	98	105	103	93
7151074	99	103	102	92
7151075	98	105	102	92
7151076	98	103	102	92
7151077	96	100	104	101
7151078	96	102	103	101
7151080	99	106	102	93
7151081	98	102	102	91
7151082	98	100	102	91
7151083	99	104	102	92
7151084	98	101	103	90
7151085	99	104	103	92
7151086	99	102	102	90
7151087	99	102	103	92
7151088	96	102	102	92
7151089	97	102	101	94
Blank	97	104	102	93
LCS	95	99	104	100
MS	96	100	104	101
MSD	96	102	103	101

*- Outside of specification

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

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

Quality Control Summary

Client Name: ExxonMobil
Reported: 08/13/13 at 09:57 AM

Group Number: 1409301

Surrogate Quality Control

Limits:	77-114	74-113	77-110	78-110
Analysis Name: PAHs in waters by SIM				
Batch number: 13218WAJ026				
	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10	
7151070	100	39*	116	
7151071	100	41*	117	
7151072	100	40*	116	
7151073	103	42*	117	
7151074	101	42*	114	
7151075	102	41*	114	
7151076	99	37*	109	
7151077	106	89	113	
7151078	110	93	121	
7151080	102	57*	113	
7151081	104	45*	118	
7151082	100	44*	112	
7151083	96	45*	112	
7151084	103	61*	117	
7151085	100	46*	113	
7151086	84	63	107	
7151087	102	49*	113	
7151089	108	100	118	
Blank	98	99	105	
LCS	110	114	115	
MS	106	89	113	
MSD	110	93	121	
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
Environmental

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only

Group # 1409301 Sample # 7151070-89

Instructions on reverse side correspond with circled numbers.

1062

1 Client Information				4 Matrix				5 Analyses Requested								6 Remarks																							
Facility #/SID MAYFLOWER PIPELINE INCIDENT				Sediment <input type="checkbox"/>	Ground <input type="checkbox"/>	Surface <input checked="" type="checkbox"/>	Potable <input type="checkbox"/>	NPDES <input type="checkbox"/>	Air <input type="checkbox"/>	Preservation Code								SCR#: _____ Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other																					
Site Address MAYFLOWER, AR.										<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">H</td> <td style="width: 25%;">N</td> <td style="width: 25%;">S</td> <td style="width: 25%;">T</td> <td style="width: 25%;">B</td> <td style="width: 25%;">O</td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> <td style="width: 25%;"> </td> </tr> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> <td style="text-align: center;"> </td> </tr> </table>										H	N	S	T	B	O									X	X	X	X	X	X
H	N	S	T	B	O																																		
X	X	X	X	X	X																																		
ExxonMobil PM SCOTT BUSAROE		Cost Center/AFE		Water <input type="checkbox"/>	Oil <input type="checkbox"/>	Total # of Containers	VOC's 8260 B PAH's 8270 SIM PCB's Metals + V, Ni, Cr, Ag DISS METALS HEAVY OIL & GREASE								LAB TO FILTER AND PRESERVE DISS. METALS UPON RECEIPT.																								
Consultant/Office ARCADIS							Consultant Phone # 919 202 6799																																
Sampler J. WALDRON / J. MCCOMAS				3																																			
2 Sample Identification		Collected		Grab	Composite																																		
Date	Time																																						
WS-014 (1.5-2.0) 080513	8/5/13	0820	X		X	9	X	X	X	X	X	X	X	X	X																								
WS-014 (5.5-6.0) 080513	8/5/13	0830	X		X	9	X	X	X	X	X	X	X	X	X																								
WS-012 (1.5-2.0) 080513	8/5/13	0840	X		X	9	X	X	X	X	X	X	X	X	X																								
WS-012 (5.0-5.5) 080513	8/5/13	0850	X		X	9	X	X	X	X	X	X	X	X	X																								
WS-014 (1.5-2.0) 080513	8/5/13	0910	X		X	9	X	X	X	X	X	X	X	X	X																								
WS-010 (3.5-4.0) 080513	8/5/13	0920	X		X	9	X	X	X	X	X	X	X	X	X																								
WS-006 (6.5-1.0) 080513	8/5/13	0930	X		X	9	X	X	X	X	X	X	X	X	X																								
WS-004 (0.5-1.0) 080513-MS/MSD	8/5/13	0930	X		X	18	X	X	X	X	X	X	X	X	X																								
WS-005 (SURFACE) 080513	8/5/13	0950	X		X	9	X	X	X	X	X	X	X	X	X																								
WS-011 (1.5-2.0) 080513	8/5/13	1020	X		X	9	X	X	X	X	X	X	X	X	X																								
WS-011 (5.0-5.5) 080513	8/5/13	1030	X		X	9	X	X	X	X	X	X	X	X	X																								
WS-003 (SURFACE) 080513	8/5/13	1040	X		X	9	X	X	X	X	X	X	X	X	X																								

7 Turnaround Time Requested (TAT) (please circle)			Relinquished by		Date	Time	Received by	Date	Time		
Standard	6 day	4 day	/		8/5/13	16:30	/				
72 hour	48 hour	24 hour			Date	Time			Received by	Date	Time
					Date	Time			Received by	Date	Time

8 Data Package (circle if required)		EDD (circle if required)		Relinquished by Commercial Carrier		Received by	Date	Time	
Type I - Full	Type VI (Raw Data)	NJ Reduced	Other	Locus EIM (default)	Other	/			
				UPS <input checked="" type="checkbox"/> FedEx _____ Other _____		/			
Temperature Upon Receipt <u>0.6-3.5°C</u>						Custody Seals Intact? <u>(Yes)</u> No			
				/		/		8/6/13	0930

ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories
Environmental

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only

Group # 1409301 Sample # 7151070-89

Instructions on reverse side correspond with circled numbers.

202

1 Client Information				4 Matrix			5 Analyses Requested										SCR#: _____																												
Facility #/SID <u>MAYFLOWER PIPELINE INCIDENT</u>				<input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil	<input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> Air	Preservation Code										Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other																													
Site Address <u>MAYFLOWER, AR.</u>						<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">H</td><td style="width: 20px; text-align: center;">N</td><td style="width: 20px; text-align: center;">H</td><td style="width: 20px;"></td><td style="width: 20px;"></td><td style="width: 20px;"></td><td style="width: 20px;"></td><td style="width: 20px;"></td><td style="width: 20px;"></td><td style="width: 20px;"></td><td style="width: 20px;"></td><td style="width: 20px;"></td><td style="width: 20px;"></td><td style="width: 20px;"></td><td style="width: 20px;"></td><td style="width: 20px;"></td> </tr> <tr> <td style="text-align: center;">X</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>												H	N	H														X	X	X									
H	N	H																																											
X	X	X																																											
ExxonMobil PM <u>SCOTT BUSHROE</u>		Cost Center/AFE		Total # of Containers VOL'S 8260 B PAH'S 8270 SIM PCB-A METALS + Ni, V, Cr, Mg DISS METALS HEAVY METALS & CONCENTRATIONS													6 Remarks																												
Consultant/Office <u>ARCADIS</u>																																													
Consultant PM <u>STEVE BARRICK</u>		Consultant Phone # <u>919 202 6799</u>		<input type="checkbox"/> Composite																																									
Sampler <u>J. WALDRON / J. MCCOMAS</u>																																													
2 Sample Identification		Collected		3																																									
		Date	Time																Grab	Composite																									
<u>WS-018 (SURFACE) 080513</u>		<u>8/5/13</u>	<u>1110</u>	X																																									
<u>WS-002 (SURFACE) 080513</u>		<u>8/5/13</u>	<u>1130</u>	X																																									
<u>WS-007 (0.5-1.0) 080513</u>		<u>8/5/13</u>	<u>1140</u>	X																																									
<u>WS-001 (0.5-1.0) 080513</u>		<u>8/5/13</u>	<u>1200</u>	X																																									
<u>WS-TB-116-080513</u>		<u>8/5/13</u>		X																																									
<u>WS-EB-21-080513</u>		<u>8/5/13</u>	<u>1400</u>	X																																									
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by _____			Date <u>8/5/13</u> Time <u>16:30</u>		Received by _____		Date _____ Time _____		9																																
Standard <u>5 day</u> 4 day				Relinquished by _____			Date _____ Time _____		Received by _____		Date _____ Time _____																																		
72 hour <u>48 hour</u> 24 hour				Relinquished by _____			Date _____ Time _____		Received by _____		Date _____ Time _____																																		
8 Data Package (circle if required)				Relinquished by Commercial Carrier			Date _____ Time _____		Received by _____		Date <u>8/6/13</u> Time <u>0930</u>																																		
Type I - Full				Locus EIM (default)			UPS <input checked="" type="checkbox"/> FedEx _____ Other _____		Temperature Upon Receipt <u>0.6-35 °C</u>		Custody Seals Intact? <u>(Yes)</u> No																																		
Type VI (Raw Data)				Other _____																																									
NJ Reduced																																													
Other _____																																													

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

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

Environmental Sample Administration 1469301
 Receipt Documentation Log

Client/Project: Mayflower
 Date of Receipt: 8/6/13
 Time of Receipt: 0930
 Source Code: 60-1

Shipping Container Sealed: YES NO
 Custody Seal Present * : YES NO
 * Custody seal was intact unless otherwise noted in the discrepancy section
 Package: Chilled Not Chilled

Temperature of Shipping Containers

Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT146	0.8	TB	WI	Y	B	
2	↓	0.6	↓	↓	↓	↓	
3		1.5					
4		3.5					
5		1.2					
6		1.9					

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: C. Eshler 3647 Date/Time: 8/6/13 1020

Environmental Sample Administration 1409301
 Receipt Documentation Log

Client/Project: Mayflower
 Date of Receipt: 8/6/13
 Time of Receipt: 0930
 Source Code: 60-1

Shipping Container Sealed: YES NO
 Custody Seal Present * : YES NO
 * Custody seal was intact unless otherwise noted in the discrepancy section
 Package: Chilled Not Chilled

Temperature of Shipping Containers

Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT 146	0.7	TB	WI	Y	B	
2							
3							
4							
5							
6							

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Cooper 3647 Date/Time: 8/6/13 1020

Explanation of Symbols and Abbreviations

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

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

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

> greater than

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

ppb parts per billion

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

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

- A** TIC is a possible aldol-condensation product
- B** Analyte was also detected in the blank
- C** Pesticide result confirmed by GC/MS
- D** Compound quantitated on a diluted sample
- E** Concentration exceeds the calibration range of the instrument
- N** Presumptive evidence of a compound (TICs only)
- P** Concentration difference between primary and confirmation columns $>25\%$
- U** Compound was not detected
- X,Y,Z** Defined in case narrative

Inorganic Qualifiers

- B** Value is $<$ CRDL, but \geq IDL
- E** Estimated due to interference
- M** Duplicate injection precision not met
- N** Spike sample not within control limits
- S** Method of standard additions (MSA) used for calculation
- U** Compound was not detected
- W** Post digestion spike out of control limits
- *** Duplicate analysis not within control limits
- +** 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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