

## 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 02, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 07/26/2013

Group Number: 1407082

SDG: PEJ47

PO Number: 4510076246

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)072513 Grab Surface Water	7141069
WS-014(5.5-6.0)072513 Grab Surface Water	7141070
WS-012(1.5-2.0)072513 Grab Surface Water	7141071
WS-012(5.0-5.5)072513 Grab Surface Water	7141072
WS-010(1.5-2.0)072513 Grab Surface Water	7141073
WS-010(3.5-4.0)072513 Grab Surface Water	7141074
WS-005(Surface)072513 Grab Surface Water	7141075
WS-011(1.5-2.0)072513 Grab Surface Water	7141076
WS-011(5.0-5.5)072513 Grab Surface Water	7141077
WS-018(Surface)072513 Grab Surface Water	7141078
WS-003(Surface)072513 Grab Surface Water	7141079
WS-002(Surface)072513 Grab Surface Water	7141080
WS-007(0.5-1.0)072513 Grab Surface Water	7141081
WS-006(0.5-1.0)072513 Grab Surface Water	7141082
WS-001(0.5-1.0)072513 Grab Surface Water	7141083
WS-EB-10-072513 Grab Water	7141084
DUP-WS-61-072513 Grab Surface Water	7141085
WS-TB-105-072513 Water	7141086

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

ELECTRONIC      ARCADIS

Attn: Stephen Barrick

COPY TO

ELECTRONIC      ARCADIS

Attn: Lyndi Mott

COPY TO

ELECTRONIC      ExxonMobil

Attn: Michael J. Firth

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

Respectfully Submitted,



Katherine A. Klinefelter  
Principal Specialist

(717) 556-7256

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Project Name: Mayflower, AR Pipeline Incident  
LLI Group #: 1407082

**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 not included in this data set

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

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

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

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

Batch #: 13208WAE026 (Sample number(s): 7141069-7141075, 7141078-7141080, 7141082-7141085)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD exceeded the acceptance window indicating a positive bias: 1-Methylnaphthalene, Acenaphthylene, Fluoranthene

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7141075, 7141078, 7141079, 7141080, 7141083, 7141085

Batch #: 13211WAE026 (Sample number(s): 7141081)

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7141081

Sample #s: 7141069, 7141070, 7141071, 7141072, 7141073, 7141074, 7141084

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

Sample #s: 7141082

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis. The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:  
fluoranthene

Sample #s: 7141078, 7141079, 7141080, 7141081, 7141083, 7141085

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis. 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.

Sample #s: 7141075

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. The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

**SW-846 6010B, Metals**

Batch #: 132081848003 (Sample number(s): 7141069-7141085 UNSPK: 7141074 BKG: 7141074)

The duplicate RPD for the following analyte(s) exceeded the acceptance window:  
Chromium, Silver

**EPA 1664A, Wet Chemistry**

Batch #: 13212807901A (Sample number(s): 7141069-7141083, 7141085 UNSPK: 7141069)

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

Sample Description: **WS-014(1.5-2.0)072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141069**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 08:20 by JM ExxonMobil  
 Submitted: 07/26/2013 09:15 Mobil Pipeline Company  
 Reported: 08/02/2013 07:22 PO Box 4416  
 Houston TX 77210-4416

MP141 SDG#: PEJ47-01

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

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

Sample Description: **WS-014(1.5-2.0)072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141069**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 08:20 by JM

ExxonMobil

Mobil Pipeline Company

Submitted: 07/26/2013 09:15

PO Box 4416

Reported: 08/02/2013 07:22

Houston TX 77210-4416

MP141 SDG#: PEJ47-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
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
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	26.0	0.033	0.20	1
	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0353	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-014(1.5-2.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141069  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 08:20 by JM ExxonMobil  
Mobil Pipeline Company  
Submitted: 07/26/2013 09:15 PO Box 4416  
Reported: 08/02/2013 07:22 Houston TX 77210-4416

MP141 SDG#: PEJ47-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
01750	Calcium	7440-70-2	5.90	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	2.73	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	C132102AA	07/29/2013 21:35	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132102AA	07/29/2013 21:35	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13208WAE026	07/29/2013 17:21	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13208WAE026	07/29/2013 03:00	Sherry L Morrow	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132126256013	07/31/2013 08:55	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132081848003	07/31/2013 00:25	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132081848003	07/31/2013 00:25	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132081848003	07/31/2013 00:25	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132081848003	07/31/2013 00:25	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132081848003	07/31/2013 00:25	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132081848003	07/31/2013 00:25	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132081848003	07/31/2013 00:25	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132081848003	07/31/2013 00:25	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132081848003	07/31/2013 00:25	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132081848003	07/31/2013 00:25	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132081848003	07/31/2013 00:25	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132075713004	07/28/2013 07:59	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848003	07/29/2013 16:15	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713004	07/27/2013 10:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13212807901A	07/31/2013 07:52	Yolunder Y Bunch	1

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

Sample Description: WS-014(5.5-6.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141070  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 08:30 by JM

ExxonMobil

Submitted: 07/26/2013 09:15

Mobil Pipeline Company

Reported: 08/02/2013 07:22

PO Box 4416

Houston TX 77210-4416

MP145 SDG#: PEJ47-02

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)072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141070**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 08:30 by JM

ExxonMobil

Submitted: 07/26/2013 09:15

Mobil Pipeline Company

Reported: 08/02/2013 07:22

PO Box 4416

Houston TX 77210-4416

MP145 SDG#: PEJ47-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
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
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	25.7	0.033	0.20	1
	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0361	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-014(5.5-6.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141070  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 08:30 by JM ExxonMobil  
Mobil Pipeline Company  
Submitted: 07/26/2013 09:15 PO Box 4416  
Reported: 08/02/2013 07:22 Houston TX 77210-4416

MP145 SDG#: PEJ47-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
01750	Calcium	7440-70-2	5.85	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	2.70	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
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	C132102AA	07/29/2013 21:57	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132102AA	07/29/2013 21:57	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13208WAE026	07/29/2013 17:51	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13208WAE026	07/29/2013 03:00	Sherry L Morrow	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132126256013	07/31/2013 08:55	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132081848003	07/31/2013 00:29	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132081848003	07/31/2013 00:29	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132081848003	07/31/2013 00:29	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132081848003	07/31/2013 00:29	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132081848003	07/31/2013 00:29	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132081848003	07/31/2013 00:29	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132081848003	07/31/2013 00:29	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132081848003	07/31/2013 00:29	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132081848003	07/31/2013 00:29	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132081848003	07/31/2013 00:29	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132081848003	07/31/2013 00:29	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132075713004	07/28/2013 08:01	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848003	07/29/2013 16:15	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713004	07/27/2013 10:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13212807901A	07/31/2013 07:52	Yolunder Y Bunch	1

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

Sample Description: WS-012(1.5-2.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141071  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 08:50 by JM

ExxonMobil

Submitted: 07/26/2013 09:15

Mobil Pipeline Company

Reported: 08/02/2013 07:22

PO Box 4416

Houston TX 77210-4416

MP121 SDG#: PEJ47-03

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)072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141071**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 08:50 by JM ExxonMobil  
 Submitted: 07/26/2013 09:15 Mobil Pipeline Company  
 Reported: 08/02/2013 07:22 PO Box 4416  
 Houston TX 77210-4416

MP121 SDG#: PEJ47-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
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
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	26.2	0.033	0.20	1
	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0428	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-012(1.5-2.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141071  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 08:50 by JM ExxonMobil  
Mobil Pipeline Company  
Submitted: 07/26/2013 09:15 PO Box 4416  
Reported: 08/02/2013 07:22 Houston TX 77210-4416

MP121 SDG#: PEJ47-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	2.76	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
	<b>EPA 1664A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	C132102AA	07/29/2013 22:19	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132102AA	07/29/2013 22:19	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13208WAE026	07/29/2013 18:20	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13208WAE026	07/29/2013 03:00	Sherry L Morrow	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132126256013	07/31/2013 08:55	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132081848003	07/31/2013 00:40	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132081848003	07/31/2013 00:40	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132081848003	07/31/2013 00:40	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132081848003	07/31/2013 00:40	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132081848003	07/31/2013 00:40	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132081848003	07/31/2013 00:40	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132081848003	07/31/2013 00:40	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132081848003	07/31/2013 00:40	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132081848003	07/31/2013 00:40	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132081848003	07/31/2013 00:40	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132081848003	07/31/2013 00:40	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132075713004	07/28/2013 08:13	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848003	07/29/2013 16:15	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713004	07/27/2013 10:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13212807901A	07/31/2013 07:52	Yolunder Y Bunch	1

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

Sample Description: WS-012(5.0-5.5)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141072  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 09:00 by JM

ExxonMobil

Submitted: 07/26/2013 09:15

Mobil Pipeline Company

Reported: 08/02/2013 07:22

PO Box 4416

Houston TX 77210-4416

MP125 SDG#: PEJ47-04

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)072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141072**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 09:00 by JM ExxonMobil  
 Submitted: 07/26/2013 09:15 Mobil Pipeline Company  
 Reported: 08/02/2013 07:22 PO Box 4416  
 Houston TX 77210-4416

MP125 SDG#: PEJ47-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
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
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	26.3	0.033	0.20	1
	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0437	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: **WS-012(5.0-5.5)072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141072**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 09:00 by JM ExxonMobil  
 Submitted: 07/26/2013 09:15 Mobil Pipeline Company  
 Reported: 08/02/2013 07:22 PO Box 4416  
 Houston TX 77210-4416

MP125 SDG#: PEJ47-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	2.77	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
	<b>EPA 1664A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	C132102AA	07/29/2013 22:42	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132102AA	07/29/2013 22:42	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13208WAE026	07/29/2013 18:49	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13208WAE026	07/29/2013 03:00	Sherry L Morrow	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132126256013	07/31/2013 08:55	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132081848003	07/31/2013 00:44	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132081848003	07/31/2013 00:44	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132081848003	07/31/2013 00:44	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132081848003	07/31/2013 00:44	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132081848003	07/31/2013 00:44	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132081848003	07/31/2013 00:44	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132081848003	07/31/2013 00:44	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132081848003	07/31/2013 00:44	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132081848003	07/31/2013 00:44	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132081848003	07/31/2013 00:44	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132081848003	07/31/2013 00:44	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132075713004	07/28/2013 08:15	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848003	07/29/2013 16:15	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713004	07/27/2013 10:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13212807901A	07/31/2013 07:52	Yolunder Y Bunch	1

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



Sample Description: **WS-010(1.5-2.0)072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141073**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 09:30 by JM

ExxonMobil

Submitted: 07/26/2013 09:15

Mobil Pipeline Company

Reported: 08/02/2013 07:22

PO Box 4416

Houston TX 77210-4416

MP101 SDG#: PEJ47-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
02898	Acetone	67-64-1	3.0 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-010(1.5-2.0)072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141073**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 09:30 by JM

ExxonMobil

Mobil Pipeline Company

Submitted: 07/26/2013 09:15

PO Box 4416

Reported: 08/02/2013 07:22

Houston TX 77210-4416

MP101 SDG#: PEJ47-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
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
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	25.9	0.033	0.20	1
	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0432	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-010(1.5-2.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141073  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 09:30 by JM ExxonMobil  
Submitted: 07/26/2013 09:15 Mobil Pipeline Company  
Reported: 08/02/2013 07:22 PO Box 4416  
Houston TX 77210-4416

MP101 SDG#: PEJ47-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
01750	Calcium	7440-70-2	5.86	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	2.74	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0018 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0023 J	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	C132102AA	07/29/2013 23:52	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132102AA	07/29/2013 23:52	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13208WAE026	07/29/2013 19:18	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13208WAE026	07/29/2013 03:00	Sherry L Morrow	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132126256013	07/31/2013 08:55	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132081848003	07/31/2013 00:48	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132081848003	07/31/2013 00:48	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132081848003	07/31/2013 00:48	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132081848003	07/31/2013 00:48	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132081848003	07/31/2013 00:48	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132081848003	07/31/2013 00:48	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132081848003	07/31/2013 00:48	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132081848003	07/31/2013 00:48	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132081848003	07/31/2013 00:48	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132081848003	07/31/2013 00:48	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132081848003	07/31/2013 00:48	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132075713004	07/28/2013 08:17	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848003	07/29/2013 16:15	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713004	07/27/2013 10:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13212807901A	07/31/2013 07:52	Yolunder Y Bunch	1

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

Sample Description: WS-010(3.5-4.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141074  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 09:40 by JM

ExxonMobil

Submitted: 07/26/2013 09:15

Mobil Pipeline Company

Reported: 08/02/2013 07:22

PO Box 4416

Houston TX 77210-4416

MP105 SDG#: PEJ47-06

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)072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141074**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 09:40 by JM

ExxonMobil

Mobil Pipeline Company

Submitted: 07/26/2013 09:15

PO Box 4416

Reported: 08/02/2013 07:22

Houston TX 77210-4416

MP105 SDG#: PEJ47-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
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
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	25.8	0.033	0.20	1
	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0439	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

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Sample Description: WS-010(3.5-4.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141074  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 09:40 by JM ExxonMobil  
Mobil Pipeline Company  
Submitted: 07/26/2013 09:15 PO Box 4416  
Reported: 08/02/2013 07:22 Houston TX 77210-4416

MP105 SDG#: PEJ47-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
01750	Calcium	7440-70-2	5.84	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0018 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.73	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0018 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0022 J	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
	<b>EPA 1664A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	C132102AA	07/30/2013 00:15	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132102AA	07/30/2013 00:15	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13208WAE026	07/29/2013 19:48	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13208WAE026	07/29/2013 03:00	Sherry L Morrow	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132126256013	07/31/2013 08:55	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132081848003	07/31/2013 00:02	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132081848003	07/31/2013 00:02	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132081848003	07/31/2013 00:02	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132081848003	07/31/2013 00:02	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132081848003	07/31/2013 00:02	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132081848003	07/31/2013 00:02	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132081848003	07/31/2013 00:02	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132081848003	07/31/2013 00:02	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132081848003	07/31/2013 00:02	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132081848003	07/31/2013 00:02	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132081848003	07/31/2013 00:02	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132075713004	07/28/2013 08:19	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848003	07/29/2013 16:15	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713004	07/27/2013 10:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13212807901A	07/31/2013 07:52	Yolunder Y Bunch	1

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

Sample Description: WS-005 (Surface) 072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141075  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 10:10 by JM

ExxonMobil

Submitted: 07/26/2013 09:15

Mobil Pipeline Company

Reported: 08/02/2013 07:22

PO Box 4416

Houston TX 77210-4416

MP05S SDG#: PEJ47-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	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) 072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141075**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 10:10 by JM ExxonMobil  
 Submitted: 07/26/2013 09:15 Mobil Pipeline Company  
 Reported: 08/02/2013 07:22 PO Box 4416  
 Houston TX 77210-4416

MP05S SDG#: PEJ47-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
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
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
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.  
 The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>
06256	Total Hardness as CaCO3	471-34-1	25.6	0.033
	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>

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



Sample Description: WS-005 (Surface) 072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141075  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 10:10 by JM ExxonMobil  
Mobil Pipeline Company  
Submitted: 07/26/2013 09:15 PO Box 4416  
Reported: 08/02/2013 07:22 Houston TX 77210-4416

MP05S SDG#: PEJ47-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0328	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.91	0.0334	0.200	1
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	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
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	C132102AA	07/30/2013 00:37	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132102AA	07/30/2013 00:37	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13208WAE026	07/29/2013 20:17	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13208WAE026	07/29/2013 03:00	Sherry L Morrow	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132126256013	07/31/2013 08:55	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132081848003	07/31/2013 00:51	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132081848003	07/31/2013 00:51	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132081848003	07/31/2013 00:51	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132081848003	07/31/2013 00:51	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132081848003	07/31/2013 00:51	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132081848003	07/31/2013 00:51	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132081848003	07/31/2013 00:51	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132081848003	07/31/2013 00:51	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132081848003	07/31/2013 00:51	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132081848003	07/31/2013 00:51	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132081848003	07/31/2013 00:51	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132075713004	07/28/2013 08:21	Katlin N Cataldi	1

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

Sample Description: WS-005(Surface)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141075  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 10:10 by JM ExxonMobil  
Mobil Pipeline Company  
Submitted: 07/26/2013 09:15 PO Box 4416  
Reported: 08/02/2013 07:22 Houston TX 77210-4416

MP05S SDG#: PEJ47-07

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848003	07/29/2013 16:15	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713004	07/27/2013 10:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13212807901A	07/31/2013 07:52	Yolunder Y Bunch	1

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

Sample Description: WS-011(1.5-2.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141076  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 10:45 by JM

ExxonMobil

Submitted: 07/26/2013 09:15

Mobil Pipeline Company

Reported: 08/02/2013 07:22

PO Box 4416

Houston TX 77210-4416

MP111 SDG#: PEJ47-08

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-011(1.5-2.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141076  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 10:45 by JM

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

Submitted: 07/26/2013 09:15

Reported: 08/02/2013 07:22

MP111 SDG#: PEJ47-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles</b>						
	<b>SW-846 8260B 25mL</b>		<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
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
<b>Metals</b>						
	<b>SM 2340 B-1997</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
06256	Total Hardness as CaCO3	471-34-1	27.0	0.033	0.20	1
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0390	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.09	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	2.85	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	0.0022 J	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
	<b>EPA 1664A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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.

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

Sample Description: WS-011(1.5-2.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141076  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 10:45 by JM ExxonMobil  
Submitted: 07/26/2013 09:15 Mobil Pipeline Company  
Reported: 08/02/2013 07:22 PO Box 4416  
Houston TX 77210-4416

MP111 SDG#: PEJ47-08

### 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	C132102AA	07/30/2013 00:59	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132102AA	07/30/2013 00:59	Kevin A Sposito	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132126256013	07/31/2013 08:55	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132081848003	07/31/2013 00:55	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132081848003	07/31/2013 00:55	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132081848003	07/31/2013 00:55	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132081848003	07/31/2013 00:55	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132081848003	07/31/2013 00:55	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132081848003	07/31/2013 00:55	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132081848003	07/31/2013 00:55	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132081848003	07/31/2013 00:55	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132081848003	07/31/2013 00:55	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132081848003	07/31/2013 00:55	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132081848003	07/31/2013 00:55	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132075713004	07/28/2013 08:23	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848003	07/29/2013 16:15	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713004	07/27/2013 10:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13212807901A	07/31/2013 07:52	Yolunder Y Bunch	1

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

Sample Description: WS-011(5.0-5.5)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141077  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 11:00 by JM

ExxonMobil

Submitted: 07/26/2013 09:15

Mobil Pipeline Company

Reported: 08/02/2013 07:22

PO Box 4416

Houston TX 77210-4416

MP115 SDG#: PEJ47-09

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(5.0-5.5)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141077  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 11:00 by JM

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

Submitted: 07/26/2013 09:15

Reported: 08/02/2013 07:22

MP115 SDG#: PEJ47-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles</b>						
	<b>SW-846 8260B 25mL</b>		<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
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
<b>Metals</b>						
	<b>SM 2340 B-1997</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
06256	Total Hardness as CaCO3	471-34-1	26.7	0.033	0.20	1
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0531	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.03	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0018 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.83	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0020 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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
	<b>EPA 1664A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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.

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

Sample Description: WS-011(5.0-5.5)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141077  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 11:00 by JM ExxonMobil  
Submitted: 07/26/2013 09:15 Mobil Pipeline Company  
Reported: 08/02/2013 07:22 PO Box 4416  
Houston TX 77210-4416

MP115 SDG#: PEJ47-09

### 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	C132102AA	07/30/2013 01:22	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132102AA	07/30/2013 01:22	Kevin A Sposito	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132126256013	07/31/2013 08:55	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132081848003	07/31/2013 00:59	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132081848003	07/31/2013 00:59	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132081848003	07/31/2013 00:59	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132081848003	07/31/2013 00:59	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132081848003	07/31/2013 00:59	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132081848003	07/31/2013 00:59	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132081848003	07/31/2013 00:59	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132081848003	07/31/2013 00:59	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132081848003	07/31/2013 00:59	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132081848003	07/31/2013 00:59	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132081848003	07/31/2013 00:59	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132075713004	07/28/2013 08:25	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848003	07/29/2013 16:15	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713004	07/27/2013 10:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13212807901A	07/31/2013 07:52	Yolunder Y Bunch	1

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



Sample Description: **WS-018 (Surface) 072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141078**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 11:20 by JM

ExxonMobil

Submitted: 07/26/2013 09:15

Mobil Pipeline Company

Reported: 08/02/2013 07:22

PO Box 4416

Houston TX 77210-4416

MP18S SDG#: PEJ47-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
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) 072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141078**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 11:20 by JM ExxonMobil  
 Submitted: 07/26/2013 09:15 Mobil Pipeline Company  
 Reported: 08/02/2013 07:22 PO Box 4416  
 Houston TX 77210-4416

MP18S SDG#: PEJ47-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
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
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	26.6	0.033	0.20	1

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

Sample Description: WS-018 (Surface) 072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141078  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 11:20 by JM ExxonMobil  
Mobil Pipeline Company  
Submitted: 07/26/2013 09:15 PO Box 4416  
Reported: 08/02/2013 07:22 Houston TX 77210-4416

MP18S SDG#: PEJ47-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0534	0.00033	0.0050	1
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	2.86	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0024 J	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	C132102AA	07/30/2013 01:43	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132102AA	07/30/2013 01:43	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13208WAE026	07/29/2013 20:47	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13208WAE026	07/29/2013 03:00	Sherry L Morrow	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132126256013	07/31/2013 08:55	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132081848003	07/31/2013 01:03	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132081848003	07/31/2013 01:03	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132081848003	07/31/2013 01:03	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132081848003	07/31/2013 01:03	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132081848003	07/31/2013 01:03	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132081848003	07/31/2013 01:03	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132081848003	07/31/2013 01:03	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132081848003	07/31/2013 01:03	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132081848003	07/31/2013 01:03	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132081848003	07/31/2013 01:03	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132081848003	07/31/2013 01:03	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132075713004	07/28/2013 08:31	Katlin N Cataldi	1

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

Sample Description: WS-018 (Surface) 072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141078  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 11:20 by JM

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

Submitted: 07/26/2013 09:15

Reported: 08/02/2013 07:22

MP18S SDG#: PEJ47-10

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848003	07/29/2013 16:15	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713004	07/27/2013 10:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13212807901A	07/31/2013 07:52	Yolunder Y Bunch	1

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

Sample Description: WS-003 (Surface) 072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141079  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 11:30 by JM

ExxonMobil

Submitted: 07/26/2013 09:15

Mobil Pipeline Company

Reported: 08/02/2013 07:22

PO Box 4416

Houston TX 77210-4416

MP03S SDG#: PEJ47-11

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) 072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141079**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 11:30 by JM ExxonMobil  
 Submitted: 07/26/2013 09:15 Mobil Pipeline Company  
 Reported: 08/02/2013 07:22 PO Box 4416  
 Houston TX 77210-4416

MP03S SDG#: PEJ47-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
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
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
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	0.035 J	0.010	0.050	1

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	25.1	0.033	0.20	1

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

Sample Description: **WS-003 (Surface) 072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141079**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 11:30 by JM ExxonMobil  
 Submitted: 07/26/2013 09:15 Mobil Pipeline Company  
 Reported: 08/02/2013 07:22 PO Box 4416  
 Houston TX 77210-4416

MP03S SDG#: PEJ47-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0397	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.59	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	2.70	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	0.0025 J	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	C132102AA	07/30/2013 02:05	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132102AA	07/30/2013 02:05	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13208WAE026	07/29/2013 21:16	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13208WAE026	07/29/2013 03:00	Sherry L Morrow	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132126256013	07/31/2013 08:55	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132081848003	07/31/2013 01:07	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132081848003	07/31/2013 01:07	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132081848003	07/31/2013 01:07	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132081848003	07/31/2013 01:07	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132081848003	07/31/2013 01:07	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132081848003	07/31/2013 01:07	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132081848003	07/31/2013 01:07	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132081848003	07/31/2013 01:07	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132081848003	07/31/2013 01:07	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132081848003	07/31/2013 01:07	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132081848003	07/31/2013 01:07	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132075713004	07/28/2013 08:33	Katlin N Cataldi	1

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

Sample Description: WS-003 (Surface) 072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141079  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 11:30 by JM

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

Submitted: 07/26/2013 09:15

Reported: 08/02/2013 07:22

MP03S SDG#: PEJ47-11

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848003	07/29/2013 16:15	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713004	07/27/2013 10:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13212807901A	07/31/2013 07:52	Yolunder Y Bunch	1

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



Sample Description: **WS-002 (Surface) 072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141080**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 11:50 by JM ExxonMobil  
 Submitted: 07/26/2013 09:15 Mobil Pipeline Company  
 Reported: 08/02/2013 07:22 PO Box 4416  
 Houston TX 77210-4416

MP02S SDG#: PEJ47-12

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

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

Sample Description: **WS-002 (Surface) 072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141080**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 11:50 by JM ExxonMobil  
 Submitted: 07/26/2013 09:15 Mobil Pipeline Company  
 Reported: 08/02/2013 07:22 PO Box 4416  
 Houston TX 77210-4416

MP02S SDG#: PEJ47-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
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
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	26.3	0.033	0.20	1

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

Sample Description: **WS-002 (Surface) 072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141080**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 11:50 by JM ExxonMobil  
 Submitted: 07/26/2013 09:15 Mobil Pipeline Company  
 Reported: 08/02/2013 07:22 PO Box 4416  
 Houston TX 77210-4416

MP02S SDG#: PEJ47-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0316	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.98	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.77	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
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	C132102AA	07/30/2013 02:27	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132102AA	07/30/2013 02:27	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13208WAE026	07/29/2013 21:46	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13208WAE026	07/29/2013 03:00	Sherry L Morrow	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132126256013	07/31/2013 08:55	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132081848003	07/31/2013 01:11	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132081848003	07/31/2013 01:11	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132081848003	07/31/2013 01:11	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132081848003	07/31/2013 01:11	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132081848003	07/31/2013 01:11	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132081848003	07/31/2013 01:11	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132081848003	07/31/2013 01:11	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132081848003	07/31/2013 01:11	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132081848003	07/31/2013 01:11	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132081848003	07/31/2013 01:11	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132081848003	07/31/2013 01:11	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132075713004	07/28/2013 08:35	Katlin N Cataldi	1

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

Sample Description: WS-002 (Surface) 072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141080  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 11:50	by JM	ExxonMobil
		Mobil Pipeline Company
Submitted: 07/26/2013 09:15		PO Box 4416
Reported: 08/02/2013 07:22		Houston TX 77210-4416

MP02S SDG#: PEJ47-12

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848003	07/29/2013 16:15	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713004	07/27/2013 10:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13212807901A	07/31/2013 07:52	Yolunder Y Bunch	1

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

Sample Description: WS-007(0.5-1.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141081  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 12:20 by JM

ExxonMobil

Submitted: 07/26/2013 09:15

Mobil Pipeline Company

Reported: 08/02/2013 07:22

PO Box 4416

Houston TX 77210-4416

MP070 SDG#: PEJ47-13

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	5.9	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)072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141081**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 12:20 by JM ExxonMobil  
 Mobil Pipeline Company  
 Submitted: 07/26/2013 09:15 PO Box 4416  
 Reported: 08/02/2013 07:22 Houston TX 77210-4416

MP070 SDG#: PEJ47-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
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	0.4 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
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
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	0.013 J	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	0.011 J	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	0.040 J	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	0.014 J	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	0.012 J	0.010	0.052	1
08357	Chrysene	218-01-9	0.020 J	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	0.051 J	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	0.016 J	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	0.039 J	0.010	0.052	1

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	24.4	0.033	0.20	1

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

Sample Description: WS-007(0.5-1.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141081  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 12:20 by JM ExxonMobil  
Mobil Pipeline Company  
Submitted: 07/26/2013 09:15 PO Box 4416  
Reported: 08/02/2013 07:22 Houston TX 77210-4416

MP070 SDG#: PEJ47-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.0094 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.141	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.99	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0107 J	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0432	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.90	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0121	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	0.0222	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	C132102AA	07/30/2013 02:50	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132102AA	07/30/2013 02:50	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13211WAE026	07/31/2013 19:28	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	2	13211WAE026	07/30/2013 19:45	Nicholas W Shroyer	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132126256013	07/31/2013 08:55	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132081848003	07/31/2013 01:14	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132081848003	07/31/2013 01:14	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132081848003	07/31/2013 01:14	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132081848003	07/31/2013 01:14	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132081848003	07/31/2013 01:14	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132081848003	07/31/2013 01:14	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132081848003	07/31/2013 01:14	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132081848003	07/31/2013 01:14	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132081848003	07/31/2013 01:14	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132081848003	07/31/2013 01:14	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132081848003	07/31/2013 01:14	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132075713004	07/28/2013 08:37	Katlin N Cataldi	1

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

Sample Description: WS-007(0.5-1.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141081  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 12:20 by JM ExxonMobil  
Mobil Pipeline Company  
Submitted: 07/26/2013 09:15 PO Box 4416  
Reported: 08/02/2013 07:22 Houston TX 77210-4416

MP070 SDG#: PEJ47-13

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848003	07/29/2013 16:15	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713004	07/27/2013 10:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13212807901A	07/31/2013 07:52	Yolunder Y Bunch	1

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



Sample Description: WS-006(0.5-1.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141082  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 12:30 by JM

ExxonMobil

Submitted: 07/26/2013 09:15

Mobil Pipeline Company

Reported: 08/02/2013 07:22

PO Box 4416

Houston TX 77210-4416

MP060 SDG#: PEJ47-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	3.6 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-006(0.5-1.0)072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141082**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 12:30 by JM

ExxonMobil

Mobil Pipeline Company

Submitted: 07/26/2013 09:15

PO Box 4416

Reported: 08/02/2013 07:22

Houston TX 77210-4416

MP060 SDG#: PEJ47-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
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
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.013 J	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	0.099	0.010	0.051	1

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:  
 fluoranthene

**Metals** **SM 2340 B-1997** **mg/l** **mg/l** **mg/l**

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

Sample Description: WS-006(0.5-1.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141082  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 12:30 by JM ExxonMobil  
Mobil Pipeline Company  
Submitted: 07/26/2013 09:15 PO Box 4416  
Reported: 08/02/2013 07:22 Houston TX 77210-4416

MP060 SDG#: PEJ47-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
06256	Total Hardness as CaCO3	471-34-1	48.9	0.033	0.20	1
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.0145 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.237	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	8.89	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0295	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0359	0.0047	0.0150	1
01757	Magnesium	7439-95-4	6.49	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0195	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	0.0548	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	C132102AA	07/30/2013 03:12	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132102AA	07/30/2013 03:12	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13208WAE026	07/29/2013 22:45	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13208WAE026	07/29/2013 03:00	Sherry L Morrow	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132126256013	07/31/2013 08:55	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132081848003	07/31/2013 01:26	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132081848003	07/31/2013 01:26	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132081848003	07/31/2013 01:26	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132081848003	07/31/2013 01:26	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132081848003	07/31/2013 01:26	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132081848003	07/31/2013 01:26	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132081848003	07/31/2013 01:26	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132081848003	07/31/2013 01:26	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132081848003	07/31/2013 01:26	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132081848003	07/31/2013 01:26	John W Yanzuk II	1

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

Sample Description: WS-006(0.5-1.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141082  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 12:30 by JM

ExxonMobil

Mobil Pipeline Company

Submitted: 07/26/2013 09:15

PO Box 4416

Reported: 08/02/2013 07:22

Houston TX 77210-4416

MP060 SDG#: PEJ47-14

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07071	Vanadium	SW-846 6010B	1	132081848003	07/31/2013 01:26	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132075713004	07/28/2013 08:39	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848003	07/29/2013 16:15	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713004	07/27/2013 10:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13212807901A	07/31/2013 07:52	Yolunder Y Bunch	1

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

Sample Description: WS-001(0.5-1.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141083  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 13:00 by JM

ExxonMobil

Submitted: 07/26/2013 09:15

Mobil Pipeline Company

Reported: 08/02/2013 07:22

PO Box 4416

Houston TX 77210-4416

MP010 SDG#: PEJ47-15

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	3.4 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: **WS-001(0.5-1.0)072513 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141083**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 13:00 by JM ExxonMobil  
 Submitted: 07/26/2013 09:15 Mobil Pipeline Company  
 Reported: 08/02/2013 07:22 PO Box 4416  
 Houston TX 77210-4416

MP010 SDG#: PEJ47-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
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
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.011 J	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	27.6	0.033	0.20	1

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

Sample Description: WS-001(0.5-1.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141083  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 13:00 by JM

ExxonMobil

Mobil Pipeline Company

Submitted: 07/26/2013 09:15

PO Box 4416

Reported: 08/02/2013 07:22

Houston TX 77210-4416

MP010 SDG#: PEJ47-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0542	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.26	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0021 J	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.89	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0031 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	0.0037 J	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	C132102AA	07/30/2013 03:34	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132102AA	07/30/2013 03:34	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13208WAE026	07/29/2013 23:14	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13208WAE026	07/29/2013 03:00	Sherry L Morrow	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132126256013	07/31/2013 08:55	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132081848003	07/31/2013 01:29	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132081848003	07/31/2013 01:29	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132081848003	07/31/2013 01:29	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132081848003	07/31/2013 01:29	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132081848003	07/31/2013 01:29	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132081848003	07/31/2013 01:29	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132081848003	07/31/2013 01:29	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132081848003	07/31/2013 01:29	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132081848003	07/31/2013 01:29	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132081848003	07/31/2013 01:29	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132081848003	07/31/2013 01:29	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132075713004	07/28/2013 08:41	Katlin N Cataldi	1

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

Sample Description: WS-001(0.5-1.0)072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141083  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 13:00 by JM

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

Submitted: 07/26/2013 09:15

Reported: 08/02/2013 07:22

MP010 SDG#: PEJ47-15

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848003	07/29/2013 16:15	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713004	07/27/2013 10:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13212807901A	07/31/2013 07:52	Yolunder Y Bunch	1

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



Sample Description: **WS-EB-10-072513 Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141084**  
LL Group # **1407082**  
Account # **14739**

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

Collected: 07/25/2013 14:00 by JM

ExxonMobil

Mobil Pipeline Company

Submitted: 07/26/2013 09:15

PO Box 4416

Reported: 08/02/2013 07:22

Houston TX 77210-4416

MPE10 SDG#: PEJ47-16EB

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

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

Sample Description: **WS-EB-10-072513 Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141084**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 14:00 by JM

ExxonMobil

Mobil Pipeline Company

Submitted: 07/26/2013 09:15

PO Box 4416

Reported: 08/02/2013 07:22

Houston TX 77210-4416

MPE10 SDG#: PEJ47-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
		<b>purge</b>				
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
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
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	0.065	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 laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	0.38	0.033	0.20	1
	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
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

\*=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-EB-10-072513 Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141084**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013 14:00 by JM

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

Submitted: 07/26/2013 09:15

Reported: 08/02/2013 07:22

MPE10 SDG#: PEJ47-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
01750	Calcium	7440-70-2	0.118 J	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	0.0215 J	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	C132102AA	07/30/2013 03:56	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132102AA	07/30/2013 03:56	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13208WAE026	07/29/2013 23:43	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13208WAE026	07/29/2013 03:00	Sherry L Morrow	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132126256013	07/31/2013 08:55	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132081848003	07/31/2013 01:33	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132081848003	07/31/2013 01:33	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132081848003	07/31/2013 01:33	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132081848003	07/31/2013 01:33	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132081848003	07/31/2013 01:33	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132081848003	07/31/2013 01:33	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132081848003	07/31/2013 01:33	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132081848003	07/31/2013 01:33	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132081848003	07/31/2013 01:33	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132081848003	07/31/2013 01:33	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132081848003	07/31/2013 01:33	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132075713004	07/28/2013 08:43	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848003	07/29/2013 16:15	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713004	07/27/2013 10:20	Nelli S Markaryan	1

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

Sample Description: DUP-WS-61-072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141085  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 by JM

ExxonMobil

Submitted: 07/26/2013 09:15

Mobil Pipeline Company

Reported: 08/02/2013 07:22

PO Box 4416

Houston TX 77210-4416

MPD61 SDG#: PEJ47-17FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	3.6 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: DUP-WS-61-072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141085  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 by JM

ExxonMobil

Mobil Pipeline Company

Submitted: 07/26/2013 09:15

PO Box 4416

Reported: 08/02/2013 07:22

Houston TX 77210-4416

MPD61 SDG#: PEJ47-17FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
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
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
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	0.013 J	0.010	0.050	1

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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.

<b>Metals</b>	<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
06256	Total Hardness as CaCO3	471-34-1	28.8	0.033	0.20	1

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

Sample Description: DUP-WS-61-072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141085  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 by JM

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

Submitted: 07/26/2013 09:15

Reported: 08/02/2013 07:22

MPD61 SDG#: PEJ47-17FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0791	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.00	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0061 J	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0064 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.36	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0039 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0120	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>Wet Chemistry</b>						
		<b>EPA 1664A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	C132102AA	07/30/2013 04:18	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132102AA	07/30/2013 04:18	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13208WAE026	07/30/2013 00:13	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13208WAE026	07/29/2013 03:00	Sherry L Morrow	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132126256013	07/31/2013 08:55	Jennifer L Moyer	1
07035	Arsenic	SW-846 6010B	1	132081848003	07/31/2013 01:37	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132081848003	07/31/2013 01:37	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132081848003	07/31/2013 01:37	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132081848003	07/31/2013 01:37	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132081848003	07/31/2013 01:37	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132081848003	07/31/2013 01:37	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132081848003	07/31/2013 01:37	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132081848003	07/31/2013 01:37	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132081848003	07/31/2013 01:37	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132081848003	07/31/2013 01:37	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132081848003	07/31/2013 01:37	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132075713004	07/28/2013 08:45	Katlin N Cataldi	1

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

Sample Description: DUP-WS-61-072513 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141085  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013	by JM	ExxonMobil
		Mobil Pipeline Company
Submitted: 07/26/2013 09:15		PO Box 4416
Reported: 08/02/2013 07:22		Houston TX 77210-4416

MPD61 SDG#: PEJ47-17FD

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132081848003	07/29/2013 16:15	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713004	07/27/2013 10:20	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13212807901A	07/31/2013 07:52	Yolunder Y Bunch	1

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

Sample Description: **WS-TB-105-072513 Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7141086**  
 LL Group # **1407082**  
 Account # **14739**

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

Collected: 07/25/2013

ExxonMobil

Submitted: 07/26/2013 09:15

Mobil Pipeline Company

Reported: 08/02/2013 07:22

PO Box 4416

Houston TX 77210-4416

MT105 SDG#: PEJ47-18TB\*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
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-105-072513 Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7141086  
LL Group # 1407082  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013

ExxonMobil

Submitted: 07/26/2013 09:15

Mobil Pipeline Company

Reported: 08/02/2013 07:22

PO Box 4416

Houston TX 77210-4416

MT105 SDG#: PEJ47-18TB\*

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	C132102AA	07/30/2013 04:41	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132102AA	07/30/2013 04:41	Kevin A Sposito	1

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

## Quality Control Summary

Client Name: ExxonMobil  
Reported: 08/02/13 at 07:22 AM

Group Number: 1407082

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: C132102AA	Sample number(s): 7141069-7141086								
Acetone	N.D.	3.0	5.0	ug/l	107		73-135		
Allyl Chloride	N.D.	0.1	0.5	ug/l	84		61-130		
Benzene	N.D.	0.1	0.5	ug/l	100		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	101		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	103		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	100		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	92		63-132		
Bromomethane	N.D.	0.1	0.5	ug/l	101		38-146		
2-Butanone	N.D.	1.0	5.0	ug/l	119		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	101		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	104		74-133		
Chlorobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	98		67-124		
Chloroform	N.D.	0.1	0.5	ug/l	105		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	91		55-135		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	101		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	102		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	122		57-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	97		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	101		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	103		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	104		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	103		80-112		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	97		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	97		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	107		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	98		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	100		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	102		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	107		63-149		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	102		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	98		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	90		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	102		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	96		74-120		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	92		73-126		
Ethyl ether	N.D.	0.1	0.5	ug/l	91		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	101		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	98		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: 1407082

Reported: 08/02/13 at 07:22 AM

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCS D Limits	RPD	RPD Max
Isopropylbenzene	N.D.	0.1	0.5	ug/l	97		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	89		80-125		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	88		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	98		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
Styrene	N.D.	0.1	0.5	ug/l	100		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	99		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	100		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	102		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	120		65-131		
Toluene	N.D.	0.1	0.5	ug/l	100		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	95		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	96		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	100		79-127		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	103		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	106		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	111		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	101		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	99		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	98		80-120		

Batch number: 13208WAE026

Sample number(s): 7141069-7141075, 7141078-7141080, 7141082-7141085

Acenaphthene	N.D.	0.010	0.050	ug/l	113	114	65-124	1	30
Acenaphthylene	N.D.	0.010	0.050	ug/l	118*	119*	72-113	1	30
Anthracene	N.D.	0.010	0.050	ug/l	114	117	70-117	2	30
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	109	108	75-115	1	30
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	110	112	72-120	2	30
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	110	110	74-130	0	30
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	108	108	63-121	0	30
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	110	112	74-118	2	30
Chrysene	N.D.	0.010	0.050	ug/l	108	109	75-112	1	30
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	107	103	66-122	3	30
Fluoranthene	N.D.	0.010	0.050	ug/l	114	117*	73-116	3	30
Fluorene	N.D.	0.010	0.050	ug/l	107	107	74-115	1	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	110	107	66-122	2	30
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	115*	117*	72-114	1	30
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	113	113	74-119	0	30
Naphthalene	N.D.	0.030	0.050	ug/l	105	108	67-118	2	30
Phenanthrene	N.D.	0.030	0.050	ug/l	105	107	72-109	2	30
Pyrene	N.D.	0.010	0.050	ug/l	106	107	71-116	1	30

Batch number: 13211WAE026

Sample number(s): 7141081

Acenaphthene	N.D.	0.010	0.050	ug/l	96	100	65-124	4	30
Acenaphthylene	N.D.	0.010	0.050	ug/l	99	104	72-113	4	30
Anthracene	N.D.	0.010	0.050	ug/l	99	104	70-117	5	30
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	97	100	75-115	4	30
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	97	102	72-120	5	30
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	104	110	74-130	6	30
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	98	105	63-121	7	30
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	103	109	74-118	6	30
Chrysene	N.D.	0.010	0.050	ug/l	96	99	75-112	4	30
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	91	102	66-122	11	30
Fluoranthene	N.D.	0.010	0.050	ug/l	102	108	73-116	5	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: 08/02/13 at 07:22 AM

Group Number: 1407082

<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>
Fluorene	N.D.	0.010	0.050	ug/l	100	105	74-115	5	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	99	105	66-122	6	30
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	98	102	72-114	4	30
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	92	96	74-119	4	30
Naphthalene	N.D.	0.030	0.050	ug/l	96	100	67-118	4	30
Phenanthrene	N.D.	0.030	0.050	ug/l	93	97	72-109	4	30
Pyrene	N.D.	0.010	0.050	ug/l	94	98	71-116	4	30

Batch number: 132075713004  
Mercury

Sample number(s): 7141069-7141085  
N.D. 0.00006 0.00020 mg/l 110 80-120  
0

Batch number: 132081848003

<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>
Arsenic	N.D.	0.0068	0.0200	mg/l	98		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	103		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	101		90-112		
Calcium	N.D.	0.0334	0.200	mg/l	101		90-110		
Chromium	N.D.	0.0016	0.0150	mg/l	100		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	103		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	99		90-110		
Nickel	N.D.	0.0015	0.0100	mg/l	104		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	97		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	101		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	102		90-110		

Batch number: 13212807901A  
HEM (oil & grease)

Sample number(s): 7141069-7141083,7141085  
N.D. 1.4 5.0 mg/l 82 94 78-114 14 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: C132102AA	Sample number(s): 7141069-7141086 UNSPK: 7141069								
Acetone	114	109	57-163	5	30				
Allyl Chloride	91	93	67-139	2	30				
Benzene	105	106	87-126	1	30				
Bromobenzene	103	105	80-123	2	30				
Bromochloromethane	109	109	82-125	1	30				
Bromodichloromethane	104	104	82-133	1	30				
Bromoform	94	93	60-138	1	30				
Bromomethane	107	106	41-145	1	30				
2-Butanone	119	114	63-146	4	30				
n-Butylbenzene	107	107	83-131	0	30				
sec-Butylbenzene	106	108	84-128	1	30				
tert-Butylbenzene	106	105	84-135	1	30				
Carbon Tetrachloride	113	112	81-148	1	30				
Chlorobenzene	108	109	78-133	1	30				
Chloroethane	104	105	70-139	0	30				
Chloroform	109	110	86-136	1	30				
Chloromethane	96	95	55-152	0	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: 08/02/13 at 07:22 AM

Group Number: 1407082

### 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>
2-Chlorotoluene	104	106	81-120	2	30				
4-Chlorotoluene	106	105	82-119	2	30				
1,2-Dibromo-3-chloropropane	125	117	43-143	7	30				
Dibromochloromethane	99	99	79-125	1	30				
1,2-Dibromoethane	102	103	84-127	1	30				
Dibromomethane	103	104	83-126	0	30				
1,2-Dichlorobenzene	107	107	83-117	0	30				
1,3-Dichlorobenzene	105	107	81-118	2	30				
1,4-Dichlorobenzene	106	107	79-120	0	30				
Dichlorodifluoromethane	104	100	28-136	4	30				
1,1-Dichloroethane	102	103	88-136	1	30				
1,2-Dichloroethane	109	108	82-135	1	30				
1,1-Dichloroethene	108	107	83-150	1	30				
cis-1,2-Dichloroethene	105	106	82-129	1	30				
trans-1,2-Dichloroethene	108	110	88-127	1	30				
Dichlorofluoromethane	114	112	59-176	2	30				
1,2-Dichloropropane	105	106	91-126	1	30				
1,3-Dichloropropane	99	100	80-127	1	30				
2,2-Dichloropropane	97	97	80-134	0	30				
1,1-Dichloropropene	111	111	86-139	0	30				
cis-1,3-Dichloropropene	100	102	74-132	2	30				
trans-1,3-Dichloropropene	94	96	71-128	2	30				
Ethyl ether	89	93	67-127	4	30				
Ethylbenzene	105	105	80-140	1	30				
Freon 113	114	109	87-158	5	30				
Hexachlorobutadiene	106	107	65-128	1	30				
Isopropylbenzene	105	104	81-133	1	30				
p-Isopropyltoluene	103	103	84-124	0	30				
Methyl Tertiary Butyl Ether	90	91	82-132	2	30				
4-Methyl-2-Pentanone	88	90	69-149	1	30				
Methylene Chloride	102	102	84-122	0	30				
n-Propylbenzene	105	107	79-131	1	30				
Styrene	104	104	63-151	0	30				
1,1,1,2-Tetrachloroethane	103	103	87-126	0	30				
1,1,2,2-Tetrachloroethane	99	99	75-131	0	30				
Tetrachloroethene	109	109	75-129	1	30				
Tetrahydrofuran	117	113	56-154	3	30				
Toluene	106	106	83-127	1	30				
1,2,3-Trichlorobenzene	98	99	73-125	1	30				
1,2,4-Trichlorobenzene	99	100	77-120	1	30				
1,1,1-Trichloroethane	108	109	85-140	0	30				
1,1,2-Trichloroethane	104	104	85-129	0	30				
Trichloroethene	113	113	85-131	0	30				
Trichlorofluoromethane	123	117	67-161	6	30				
1,2,3-Trichloropropane	99	102	76-120	3	30				
1,2,4-Trimethylbenzene	104	104	87-126	0	30				
1,3,5-Trimethylbenzene	103	103	89-129	1	30				
Vinyl Chloride	108	107	65-151	1	30				
Xylene (Total)	104	104	81-137	1	30				

Batch number: 132075713004  
Mercury

Sample number(s): 7141069-7141085 UNSPK: 7141070 BKG: 7141070  
112 109 80-120 2 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: 08/02/13 at 07:22 AM

Group Number: 1407082

### Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Batch number: 132081848003	Sample number(s): 7141069-7141085 UNSPK: 7141074 BKG: 7141074								
Arsenic	103	102	81-123	1	20	N.D.	N.D.	0 (1)	20
Barium	104	102	78-118	2	20	0.0439	0.0435	1	20
Cadmium	101	100	83-116	1	20	N.D.	N.D.	0 (1)	20
Calcium	97	97	81-118	0	20	5.84	5.81	0	20
Chromium	102	100	81-120	2	20	0.0018 J	N.D.	200* (1)	20
Lead	104	103	75-125	1	20	N.D.	N.D.	0 (1)	20
Magnesium	96	97	75-125	0	20	2.73	2.74	0	20
Nickel	104	104	86-115	1	20	0.0018 J	0.0016 J	12 (1)	20
Selenium	101	99	75-125	2	20	N.D.	N.D.	0 (1)	20
Silver	96	94	75-125	2	20	0.0022 J	N.D.	200* (1)	20
Vanadium	103	102	90-111	2	20	N.D.	N.D.	0 (1)	20

Batch number: 13212807901A  
HEM (oil & grease)

Sample number(s): 7141069-7141083,7141085 UNSPK: 7141069  
56\* 78-114

### 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: C132102AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7141069	100	99	98	95
7141070	101	98	97	95
7141071	101	99	98	95
7141072	101	98	98	95
7141073	100	98	98	96
7141074	101	99	98	95
7141075	101	100	98	95
7141076	101	99	98	95
7141077	101	99	98	95
7141078	101	98	98	95
7141079	101	98	97	95
7141080	101	98	98	95
7141081	102	99	97	95
7141082	101	98	97	94
7141083	102	98	98	95
7141084	102	98	98	94
7141085	102	98	98	95
7141086	103	100	97	95
Blank	100	98	98	96
LCS	101	97	98	98
MS	101	98	99	98
MSD	100	96	98	97

\*- 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: 08/02/13 at 07:22 AM

Group Number: 1407082

### Surrogate Quality Control

Limits: 77-114                      74-113                      77-110                      78-110

Analysis Name: PAHs in waters by SIM  
Batch number: 13208WAE026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7141069	102	70	112
7141070	101	63	111
7141071	101	69	111
7141072	97	65	107
7141073	101	67	112
7141074	102	69	111
7141075	100	58*	109
7141078	98	54*	108
7141079	98	58*	106
7141080	96	55*	108
7141082	86	64	101
7141083	102	60*	111
7141084	105	106	112
7141085	80	53*	94
Blank	112	125	120
LCS	104	110	110
LCSD	106	112	113

Limits: 64-120                      62-141                      58-134

Analysis Name: PAHs in waters by SIM  
Batch number: 13211WAE026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7141081	69	54*	77
Blank	92	94	94
LCS	97	99	103
LCSD	103	105	106

Limits: 64-120                      62-141                      58-134

\*- Outside of specification

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

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

# ExxonMobil Analysis Request/Chain of Custody



**Lancaster Laboratories**

Acct. # 14739 Group # 1407082 Sample # 7141069-86 1 of 2  
For Lancaster Laboratories use only  
 Instructions on reverse side correspond with circled numbers.

<b>1 Client Information</b>				<b>4 Matrix</b>				<b>5 Analyses Requested</b>							SCR#: _____																			
Facility #/SID <u>Mayflower Pipeline Incident</u>				<input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Oil <input type="checkbox"/> Air	<input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface	Preservation Code							<b>Preservation Codes</b> H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> S <sub>4</sub> O = Other																					
Site Address <u>Mayflower, AR</u>						<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">H</td><td style="width: 10%;">N</td><td style="width: 10%;">H</td><td style="width: 10%;"></td><td style="width: 10%;"></td><td style="width: 10%;"></td><td style="width: 10%;"></td><td style="width: 10%;"></td><td style="width: 10%;"></td><td style="width: 10%;"></td><td style="width: 10%;"></td> </tr> <tr> <td style="text-align: center;">VOCs 8260 B</td><td style="text-align: center;">PAHs 8270 SIM</td><td style="text-align: center;">PCRA Metals <sup>hardness</sup> 911, 912, 913, 914</td><td style="text-align: center;">Diss Metals</td><td style="text-align: center;">Oil and Grease</td><td style="text-align: center;">HEM</td><td></td><td></td><td></td><td></td><td></td> </tr> </table>									H	N	H									VOCs 8260 B	PAHs 8270 SIM	PCRA Metals <sup>hardness</sup> 911, 912, 913, 914	Diss Metals	Oil and Grease	HEM			
H	N	H																																
VOCs 8260 B	PAHs 8270 SIM	PCRA Metals <sup>hardness</sup> 911, 912, 913, 914	Diss Metals			Oil and Grease	HEM																											
ExxonMobil PM <u>Scott Bushroe</u>		Cost Center/AFE		<b>6 Remarks</b> * Lab to filter and preserve diss. metals upon receipt.																														
Consultant/Office <u>ARCADIS</u>																																		
Consultant PM <u>Steve Barrick</u>		Consultant Phone # <u>919 202 6779</u>																																
Sampler <u>J. Machado/H. van Aller</u> <sup>KAK/885</sup> <sub>712613</sub>				<b>3</b>																														
<b>2 Sample Identification</b>				Grab	Composite																													
Collected																																		
		Date	Time																															
<u>WS-014 (1.5-2.0) 072513</u>		<u>7/25/13</u>	<u>820</u>	X																														
<u>WS-014 (5.5-6.0) 072513</u>			<u>830</u>	X																														
<u>WS-012 (1.5-2.0) 072513</u>			<u>850</u>	X																														
<u>WS-012 (5.0-5.5) 072513</u>			<u>900</u>	X																														
<u>WS-010 (1.5-2.0) 072513</u>			<u>930</u>	X																														
<u>WS-010 (3.5-4.0) 072513</u>			<u>940</u>	X																														
<u>WS-005 (surface) 072513</u>			<u>1010</u>	Y																														
<u>WS-011 (1.5-2.0) 072513</u>			<u>1045</u>	X																														
<u>WS-011 (5.0-5.5) 072513</u>			<u>1100</u>	X																														
<u>WS-018 (surface) 072513</u>			<u>1120</u>	X																														
<u>WS-003 (surface) 072513</u>			<u>1130</u>	X																														
<u>WS-002 (surface) 072513</u>			<u>1150</u>	Y																														
<b>7 Turnaround Time Requested (TAT) (please circle)</b>				Relinquished by <u>H. van Aller</u>				Date <u>7/25/13</u>		Time <u>1700</u>		Received by		Date		Time																		
Standard		<u>5 day</u>		4 day		<del>Relinquished by</del> <del>Date</del> <del>Time</del> <del>Received by</del> <del>Date</del> <del>Time</del>				Date		Time																						
72 hour		48 hour		24 hour						Date		Time																						
				Date						Time																								
<b>8 Data Package (circle if required)</b>				Relinquished by Commercial Carrier				Date		Time		Received by		Date		Time																		
Type I - Full				UPS _____ FedEx <u>X</u> Other _____				<u>7-26-13</u>		<u>915</u>		<u>Brennely</u>		<u>7-26-13</u>		<u>915</u>																		
Type VI (Raw Data)																																		
NJ Reduced																																		
Other _____																																		
				Temperature Upon Receipt <u>05-3.1°C</u>				Custody Seals Intact? <u>Yes</u> No																										



# ExxonMobil Analysis Request/Chain of Custody



**Lancaster Laboratories**

Acct. # 14739 Group # 1407082 Sample # 7141069-86  
For Lancaster Laboratories use only  
 Instructions on reverse side correspond with circled numbers.

2 of 2

1 Client Information				4 Matrix				5 Analyses Requested										6 Remarks																																
Facility #/SID <u>Mayflower Pipeline Incident</u>				<input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> NPDES <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Air				Preservation Code										SCR#: _____ <b>Preservation Codes</b> H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other																																
Site Address <u>Mayflower, AZ</u>								<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">H</td> <td style="width: 20%;">N</td> <td style="width: 20%;">H</td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>												H	N	H																												
H	N	H																																																
ExxonMobil PM <u>Scott Bushroe</u>								Total # of Containers <u>Vocs 8260 B</u> <u>PAHs 8270 SIM</u> <u>PCRA metals V, Ni, Cr, Mn</u> <u>Diss Metals</u> <u>HEM Oil and Grease</u>										* Lab to filter and preserve diss metals upon receipt																																
Consultant/Office <u>ARCADIS</u>																																																		
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Sampler <u>J. Machado / A. van Aller</u>				3 Grab Composite Soil <input type="checkbox"/> <u>Water</u> <input checked="" type="checkbox"/>																																														
2 Sample Identification		Collected		3																																														
		Date	Time	Grab	Composite																																													
<u>WS-007(0.5-1.0)072513</u>		<u>7/25/13</u>	<u>1220</u>	<u>X</u>																																														
<u>WS-006(0.5-1.0)072513</u>			<u>1230</u>	<u>Y</u>																																														
<u>WS-001(0.5-1.0)072513</u>			<u>1300</u>	<u>Y</u>																																														
<u>WS-EB-10-072513</u>			<u>1400</u>	<u>Y</u>																																														
<u>DUP-WS-61-072513</u>			<u>---</u>	<u>X</u>																																														
<u>WS-TB-105-072513</u>			<u>---</u>	<u>X</u>																																														

7 Turnaround Time Requested (TAT) (please circle)

Standard      5 day      4 day

72 hour      48 hour      24 hour

Relinquished by <u>[Signature]</u>	Date <u>7/25/13</u>	Time <u>1700</u>	Received by	Date	Time
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	Date	Time

8 Data Package (circle if required)

Type I - Full

Type VI (Raw Data)

NJ Reduced

Other \_\_\_\_\_

EDD (circle if required)

Locus EIM (default)

Other \_\_\_\_\_

Relinquished by Commercial Carrier	Received by	Date	Time
UPS _____ FedEx <u>X</u> Other _____	<u>Beverly Howell</u>	<u>7-26-13</u>	<u>915</u>
Temperature Upon Receipt <u>0.5-3.0</u>	Custody Seals Intact?	<u>Yes</u>	No

Kathy Klinefelter

14739, 1407082, 7141069-86

**From:** Mott, Lyndi [Lyndi.Mott@arcadis-us.com]  
**Sent:** Friday, July 26, 2013 11:54 AM  
**To:** Kathy Klinefelter; Chandler, Jennifer  
**Cc:** Parmelee, Rhiannon; Van Aller, Hans; Patel, Dakshesh; Kull, Valerie; Clouse, Sharon; Lipka, Shelby; McKenzie, Mary; Pritchard, Jamie; Molina, Joe; Capria, Dennis  
**Subject:** RE: Mayflower COCs Surface water sampling 072513 - Issues noted at sample receipt.

Kathy,

For #2 below, the sample collection time for all parameters for WS-018(Surface) is 1120.

For #1 below, since we are unable to determine which bottles are what depth, we will cancel the PAH analysis for WS-011(1.2-2.0)072513 and WS-011(5.0-5.5)072513. We want the remaining analyses to be performed for these sample locations.

Lyndi Mott

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**From:** Kathy Klinefelter [mailto:KKlinefelter@lancasterlabs.com]  
**Sent:** Friday, July 26, 2013 10:30 AM  
**To:** Mott, Lyndi; Chandler, Jennifer  
**Subject:** Mayflower COCs Surface water sampling 072513 - Issues noted at sample receipt.

Hello,

The following issues were noted today. Please advise asap.

- 1) The lab received 4 amber bottles for PAHs SIM labeled with sample ID WS-011(1.5-2.0)072513 and collection date and time of 7/25/13 at 1045. The lab did not receive any PAH SIM bottles for sample ID WS-011(5.0-5.5)072513 and collection date and time of 7/25/13 at 1100. The PAH bottle labels for sample ID WS-011(1.5-2.0)072513 are identical and there is nothing that allows these 4 bottles to be differentiated into 2 sets of 2 for the 2 different locations.
- 2) The COC references collection time of 1120 for sample ID WS-018(Surface)072513. The bottle labels for all analyses match the time of 1120 with the exception of the O&G bottles, which list the collection time as 1100. Should the O&G collection time be entered as 1120 to match the COC and the rest of the analyses?

Thanks,

Kathy Klinefelter  
Principal Project Manager, Environmental Client Services

Eurofins Lancaster Laboratories  
Environmental, LLC  
2425 New Holland Pike  
Lancaster, PA 17601  
Phone: 717-556-7256  
Fax: 717-656-6766

Website: [www.LancasterLabsEnv.com](http://www.LancasterLabsEnv.com)

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**From:** Van Aller, Hans [mailto:Hans.VanAller@arcadis-us.com]  
**Sent:** Thursday, July 25, 2013 6:44 PM  
**To:** Kathy Klinefelter; Mott, Lyndi; Barrick, Stephen; Brewer, Stacey; Kull, Valerie; SA Env Entry; Capria, Dennis; Rachel L. Kreamer; McKenzie, Mary; Chandler, Jennifer

7/26/2013

14739, 1407082, 7141069-86  
**Cc:** Molina, Joe; Lipka, Shelby; Parmelee, Rhiannon; Pritchard, Jamie  
**Subject:** Mayflower COCs Surface water sampling 072513

Hello All

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

Thanks,

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

[www.arcadis-us.com](http://www.arcadis-us.com)

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Please consider the environment before printing this email.

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7/26/2013

Environmental Sample Administration  
Receipt Documentation Log

Client/Project: Exxon mobil  
 Date of Receipt: 7-26-13  
 Time of Receipt: 915  
 Source Code: 50-1

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	04146	1.5	TB	WI	X	B	
2	↓	0.5	↓	↓	↓	↓	
3	↓	3.1	↓	↓	↓	↓	
4	↓	1.1	↓	↓	↓	↓	
5	↓	0.8	↓	↓	↓	↓	
6	↓	1.5	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:

Rec 4 Sm Ambers for WS-011 (1.5-2.0)

Total 11

Did not Rec Sm Ambers for WS-011

(5.0-5.5) Total 7

WS-018 Surface o2g Jars Time = 1100

Unpacker Signature/Emp#: Brancky Barb <sup>2299</sup> Date/Time: 7-26-13 946

# Explanation of Symbols and Abbreviations

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

<b>RL</b>	Reporting Limit	<b>BMQL</b>	Below Minimum Quantitation Level
<b>N.D.</b>	none detected	<b>MPN</b>	Most Probable Number
<b>TNTC</b>	Too Numerous To Count	<b>CP Units</b>	cobalt-chloroplatinate units
<b>IU</b>	International Units	<b>NTU</b>	nephelometric turbidity units
<b>umhos/cm</b>	micromhos/cm	<b>ng</b>	nanogram(s)
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>meq</b>	milliequivalents	<b>lb.</b>	pound(s)
<b>g</b>	gram(s)	<b>kg</b>	kilogram(s)
<b>µg</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>mL</b>	milliliter(s)	<b>L</b>	liter(s)
<b>m<sup>3</sup></b>	cubic meter(s)	<b>µL</b>	microliter(s)
		<b>pg/L</b>	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**

**Inorganic Qualifiers**

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