

## 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 12, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 08/05/2013

Group Number: 1409110

SDG: PEK07

PO Number: ARCADIS

Release Number: MAYFLOWER 1406

State of Sample Origin: AR

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
WS-014(1.5-2.0)080413 Grab Surface Water	7150175
WS-014(5.5-6.0)080413 Grab Surface Water	7150176
WS-012(1.5-2.0)080413 Grab Surface Water	7150177
WS-012(5.0-5.5)080413 Grab Surface Water	7150178
WS-010(1.5-2.0)080413 Grab Surface Water	7150179
WS-010(3.5-4.0)080413 Grab Surface Water	7150180
WS-006(0.5-1.0)080413 Grab Surface Water	7150181
WS-005(Surface)080413 Grab Surface Water	7150182
WS-011(1.5-2.0)080413 Grab Surface Water	7150183
WS-011(5.0-5.5)080413 Grab Surface Water	7150184
WS-003(Surface)080413 Grab Surface Water	7150185
WS-002(Surface)080413 Grab Surface Water	7150186
WS-018(Surface)080413 Grab Surface Water	7150187
WS-007(0.5-1.0)080413 Grab Surface Water	7150188
WS-001(0.5-1.0)080413 Grab Surface Water	7150189
WS-TB-115-080413 Water	7150190
WS-EB-20-080413 Grab Water	7150191
DUP-WS-66-080413 Grab Surface Water	7150192

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

Respectfully Submitted,



Katherine A. Klinefelter  
Principal Specialist

(717) 556-7256

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Project Name: Mayflower, AR Pipeline Incident  
LLI Group #: 1409110

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

Batch #: I132191AA (Sample number(s): 7150175-7150192 UNSPK: 7150175)

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

**SW-846 8270C SIM, GC/MS Semivolatiles**

Batch #: 13218WAB026 (Sample number(s): 7150175-7150189, 7150191-7150192)

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7150179, 7150181, 7150184, 7150185, 7150186, 7150192

**Sample #s: 7150175**

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

**Sample #s: 7150176, 7150177, 7150178, 7150180, 7150182, 7150183, 7150187, 7150188, 7150189, 7150191**

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

**Sample #s: 7150179, 7150181, 7150184, 7150185, 7150186, 7150192**

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.

**EPA 1664A, Wet Chemistry**

Batch #: 13220807902A (Sample number(s): 7150175-7150179 UNSPK: P150142 BKG: P150142)

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

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

Sample Description: **WS-014(1.5-2.0)080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150175**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 08:30 by JW

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 14:26

PO Box 4416

Houston TX 77210-4416

84141 SDG#: PEK07-01

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)080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150175**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 08:30 by JW

ExxonMobil

Mobil Pipeline Company

Submitted: 08/05/2013 10:10

PO Box 4416

Reported: 08/12/2013 14:26

Houston TX 77210-4416

84141 SDG#: PEK07-01

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.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1

The 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	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	0.0246	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)080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150175  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 08:30 by JW

ExxonMobil

Mobil Pipeline Company

Submitted: 08/05/2013 10:10

PO Box 4416

Reported: 08/12/2013 14:26

Houston TX 77210-4416

84141 SDG#: PEK07-01

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	5.80	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.71	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 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	I132191AA	08/07/2013 11:59	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132191AA	08/07/2013 11:59	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAB026	08/07/2013 16:02	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAB026	08/06/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:51	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848004	08/09/2013 23:09	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132181848004	08/09/2013 23:09	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132181848004	08/09/2013 23:09	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132181848004	08/09/2013 23:09	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132181848004	08/09/2013 23:09	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132181848004	08/09/2013 23:09	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132181848004	08/09/2013 23:09	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132181848004	08/09/2013 23:09	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132181848004	08/09/2013 23:09	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132181848004	08/09/2013 23:09	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132181848004	08/09/2013 23:09	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132175713006	08/07/2013 06:35	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848004	08/07/2013 10:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713006	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: WS-014(5.5-6.0)080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150176  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 08:40 by JW

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 14:26

PO Box 4416

Houston TX 77210-4416

84145 SDG#: PEK07-02

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)080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150176**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 08:40 by JW ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 14:26 PO Box 4416  
 Houston TX 77210-4416

84145 SDG#: PEK07-02

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	25.9	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	0.0313	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)080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150176  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 08:40 by JW ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/05/2013 10:10 PO Box 4416  
Reported: 08/12/2013 14:26 Houston TX 77210-4416

84145 SDG#: PEK07-02

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	5.90	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	I132191AA	08/07/2013 13:43	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132191AA	08/07/2013 13:43	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAB026	08/07/2013 16:31	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAB026	08/06/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:51	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848004	08/09/2013 23:13	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132181848004	08/09/2013 23:13	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132181848004	08/09/2013 23:13	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132181848004	08/09/2013 23:13	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132181848004	08/09/2013 23:13	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132181848004	08/09/2013 23:13	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132181848004	08/09/2013 23:13	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132181848004	08/09/2013 23:13	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132181848004	08/09/2013 23:13	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132181848004	08/09/2013 23:13	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132181848004	08/09/2013 23:13	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132175713006	08/07/2013 06:37	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848004	08/07/2013 10:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713006	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: **WS-012(1.5-2.0)080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150177**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 09:00 by JW ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 14:26 PO Box 4416  
 Houston TX 77210-4416

84121 SDG#: PEK07-03

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	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)080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150177**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 09:00 by JW

ExxonMobil

Mobil Pipeline Company

Submitted: 08/05/2013 10:10

PO Box 4416

Reported: 08/12/2013 14:26

Houston TX 77210-4416

84121 SDG#: PEK07-03

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.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1

The 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	25.4	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	0.0317	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)080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150177  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 09:00 by JW ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/05/2013 10:10 PO Box 4416  
Reported: 08/12/2013 14:26 Houston TX 77210-4416

84121 SDG#: PEK07-03

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	5.75	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	2.67	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	I132191AA	08/07/2013 14:04	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132191AA	08/07/2013 14:04	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAB026	08/07/2013 17:00	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAB026	08/06/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:51	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848004	08/09/2013 23:25	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132181848004	08/09/2013 23:25	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132181848004	08/09/2013 23:25	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132181848004	08/09/2013 23:25	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132181848004	08/09/2013 23:25	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132181848004	08/09/2013 23:25	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132181848004	08/09/2013 23:25	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132181848004	08/09/2013 23:25	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132181848004	08/09/2013 23:25	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132181848004	08/09/2013 23:25	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132181848004	08/09/2013 23:25	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132175713006	08/07/2013 06:39	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848004	08/07/2013 10:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713006	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: **WS-012(5.0-5.5)080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150178**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 09:10 by JW

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 14:26

PO Box 4416

Houston TX 77210-4416

84125 SDG#: PEK07-04

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	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)080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150178**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 09:10 by JW

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

Submitted: 08/05/2013 10:10

Reported: 08/12/2013 14:26

84125 SDG#: PEK07-04

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	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	0.0084 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0356	0.0033	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)080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150178  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 09:10 by JW ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/05/2013 10:10 PO Box 4416  
Reported: 08/12/2013 14:26 Houston TX 77210-4416

84125 SDG#: PEK07-04

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	5.85	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	2.73	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	I132191AA	08/07/2013 14:25	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132191AA	08/07/2013 14:25	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAB026	08/07/2013 17:30	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAB026	08/06/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:51	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848004	08/09/2013 23:29	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132181848004	08/09/2013 23:29	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132181848004	08/09/2013 23:29	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132181848004	08/09/2013 23:29	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132181848004	08/09/2013 23:29	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132181848004	08/09/2013 23:29	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132181848004	08/09/2013 23:29	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132181848004	08/09/2013 23:29	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132181848004	08/09/2013 23:29	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132181848004	08/09/2013 23:29	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132181848004	08/09/2013 23:29	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132175713006	08/07/2013 06:51	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848004	08/07/2013 10:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713006	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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



Sample Description: WS-010(1.5-2.0)080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150179  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 09:20 by JW

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 14:26

PO Box 4416

Houston TX 77210-4416

84101 SDG#: PEK07-05

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

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

Sample Description: **WS-010(1.5-2.0)080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150179**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 09:20 by JW

ExxonMobil

Mobil Pipeline Company

Submitted: 08/05/2013 10:10

PO Box 4416

Reported: 08/12/2013 14:26

Houston TX 77210-4416

84101 SDG#: PEK07-05

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.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1

The 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	24.7	0.033	0.20	1

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

Sample Description: **WS-010(1.5-2.0)080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150179**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 09:20 by JW ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 14:26 PO Box 4416  
 Houston TX 77210-4416

84101 SDG#: PEK07-05

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>	
07035	Arsenic	7440-38-2	0.0111 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0330	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.55	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	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	I132191AA	08/07/2013 14:46	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132191AA	08/07/2013 14:46	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	132181848006	08/07/2013 17:59	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	132181848006	08/06/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:51	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848004	08/09/2013 23:33	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132181848004	08/09/2013 23:33	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132181848004	08/09/2013 23:33	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132181848004	08/09/2013 23:33	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132181848004	08/09/2013 23:33	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132181848004	08/09/2013 23:33	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132181848004	08/09/2013 23:33	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132181848004	08/09/2013 23:33	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132181848004	08/09/2013 23:33	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132181848004	08/09/2013 23:33	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132181848004	08/09/2013 23:33	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132175713006	08/07/2013 06:53	Damary Valentin	1

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

Sample Description: WS-010(1.5-2.0)080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150179  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 09:20 by JW

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

Submitted: 08/05/2013 10:10

Reported: 08/12/2013 14:26

84101 SDG#: PEK07-05

### 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	132181848004	08/07/2013 10:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713006	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13220807902A	08/08/2013 16:58	Michelle L Lalli	1

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

Sample Description: **WS-010(3.5-4.0)080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150180**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 09:30 by JW

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

Submitted: 08/05/2013 10:10

Reported: 08/12/2013 14:26

84103 SDG#: PEK07-06

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	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)080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150180**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 09:30 by JW

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 14:26

PO Box 4416

Houston TX 77210-4416

84103 SDG#: PEK07-06

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	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1

The 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	25.1	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	0.0074 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0340	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(3.5-4.0)080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150180  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 09:30 by JW

ExxonMobil

Mobil Pipeline Company

Submitted: 08/05/2013 10:10

PO Box 4416

Reported: 08/12/2013 14:26

Houston TX 77210-4416

84103 SDG#: PEK07-06

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	5.62	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.69	0.0167	0.100	1
07061	Nickel	7440-02-0	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 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	I132191AA	08/07/2013 15:28	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132191AA	08/07/2013 15:28	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAB026	08/07/2013 18:29	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAB026	08/06/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:51	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848004	08/09/2013 23:37	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132181848004	08/09/2013 23:37	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132181848004	08/09/2013 23:37	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132181848004	08/09/2013 23:37	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132181848004	08/09/2013 23:37	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132181848004	08/09/2013 23:37	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132181848004	08/09/2013 23:37	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132181848004	08/09/2013 23:37	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132181848004	08/09/2013 23:37	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132181848004	08/09/2013 23:37	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132181848004	08/09/2013 23:37	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132175713006	08/07/2013 06:55	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848004	08/07/2013 10:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713006	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13221807902A	08/09/2013 17:34	Michelle L Lalli	1

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

Sample Description: WS-006(0.5-1.0)080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150181  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 09:50 by JW

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 14:26

PO Box 4416

Houston TX 77210-4416

84060 SDG#: PEK07-07

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-006(0.5-1.0)080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150181**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 09:50 by JW

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

Submitted: 08/05/2013 10:10

Reported: 08/12/2013 14:26

84060 SDG#: PEK07-07

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	0.051	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	25.0	0.033	0.20	1

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

Sample Description: WS-006(0.5-1.0)080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150181  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 09:50 by JW

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

Submitted: 08/05/2013 10:10

Reported: 08/12/2013 14:26

84060 SDG#: PEK07-07

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	0.0083 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0292	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.61	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	2.67	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	I132191AA	08/07/2013 15:49	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132191AA	08/07/2013 15:49	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	132181848006	08/07/2013 18:58	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAB026	08/06/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:51	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848004	08/09/2013 22:34	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132181848004	08/09/2013 22:34	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132181848004	08/09/2013 22:34	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132181848004	08/09/2013 22:34	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132181848004	08/09/2013 22:34	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132181848004	08/09/2013 22:34	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132181848004	08/09/2013 22:34	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132181848004	08/09/2013 22:34	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132181848004	08/09/2013 22:34	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132181848004	08/09/2013 22:34	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132181848004	08/09/2013 22:34	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132175713006	08/07/2013 06:57	Damary Valentin	1

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

Sample Description: WS-006(0.5-1.0)080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150181  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 09:50 by JW ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/05/2013 10:10 PO Box 4416  
Reported: 08/12/2013 14:26 Houston TX 77210-4416

84060 SDG#: PEK07-07

### 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	132181848004	08/07/2013 10:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713006	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13221807902A	08/09/2013 17:34	Michelle L Lalli	1

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

Sample Description: WS-005 (Surface) 080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150182  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 10:20 by JW

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 14:26

PO Box 4416

Houston TX 77210-4416

8405S SDG#: PEK07-08

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

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

Sample Description: **WS-005 (Surface) 080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150182**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 10:20 by JW

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

Submitted: 08/05/2013 10:10

Reported: 08/12/2013 14:26

8405S SDG#: PEK07-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</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.	0.031	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.

<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
	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>		
07035	Arsenic	7440-38-2	0.0085 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0365	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-005 (Surface) 080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150182  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 10:20 by JW ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/05/2013 10:10 PO Box 4416  
Reported: 08/12/2013 14:26 Houston TX 77210-4416

84055 SDG#: PEK07-08

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	6.19	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.72	0.0167	0.100	1
07061	Nickel	7440-02-0	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	I132191AA	08/07/2013 16:10	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132191AA	08/07/2013 16:10	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAB026	08/07/2013 19:27	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAB026	08/06/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:51	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848004	08/09/2013 23:41	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132181848004	08/09/2013 23:41	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132181848004	08/09/2013 23:41	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132181848004	08/09/2013 23:41	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132181848004	08/09/2013 23:41	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132181848004	08/09/2013 23:41	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132181848004	08/09/2013 23:41	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132181848004	08/09/2013 23:41	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132181848004	08/09/2013 23:41	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132181848004	08/09/2013 23:41	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132181848004	08/09/2013 23:41	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132175713006	08/07/2013 06:59	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848004	08/07/2013 10:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713006	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13221807902A	08/09/2013 17:34	Michelle L Lalli	1

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

Sample Description: WS-011(1.5-2.0)080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150183  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 10:40 by JW

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 14:26

PO Box 4416

Houston TX 77210-4416

841111 SDG#: PEK07-09

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

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

Sample Description: **WS-011(1.5-2.0)080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150183**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 10:40 by JW

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

Submitted: 08/05/2013 10:10

Reported: 08/12/2013 14:26

841111 SDG#: PEK07-09

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 SW-846 8260B 25mL 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	0.2 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	0.1 J	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</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 SM 2340 B-1997</b>						
06256	Total Hardness as CaCO3	471-34-1	25.8	0.033	0.20	1
<b>SW-846 6010B</b>						
07035	Arsenic	7440-38-2	0.0093 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0284	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-011(1.5-2.0)080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150183  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 10:40 by JW ExxonMobil  
Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
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Houston TX 77210-4416

841111 SDG#: PEK07-09

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	5.80	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.75	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	I132191AA	08/07/2013 16:31	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132191AA	08/07/2013 16:31	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAB026	08/07/2013 19:57	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAB026	08/06/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:51	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848004	08/09/2013 23:45	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132181848004	08/09/2013 23:45	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132181848004	08/09/2013 23:45	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132181848004	08/09/2013 23:45	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132181848004	08/09/2013 23:45	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132181848004	08/09/2013 23:45	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132181848004	08/09/2013 23:45	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132181848004	08/09/2013 23:45	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132181848004	08/09/2013 23:45	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132181848004	08/09/2013 23:45	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132181848004	08/09/2013 23:45	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132175713006	08/07/2013 07:01	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848004	08/07/2013 10:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713006	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13221807902A	08/09/2013 17:34	Michelle L Lalli	1

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

Sample Description: **WS-011(5.0-5.5)080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150184**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 10:50 by JW

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 14:26

PO Box 4416

Houston TX 77210-4416

84115 SDG#: PEK07-10

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-011(5.0-5.5)080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150184**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 10:50 by JW ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 14:26 PO Box 4416  
 Houston TX 77210-4416

84115 SDG#: PEK07-10

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	25.9	0.033	0.20	1

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

Sample Description: WS-011(5.0-5.5)080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150184  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 10:50 by JW ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/05/2013 10:10 PO Box 4416  
Reported: 08/12/2013 14:26 Houston TX 77210-4416

84115 SDG#: PEK07-10

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	0.010 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0317	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.81	0.0334	0.200	1
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	I132191AA	08/07/2013 16:51	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132191AA	08/07/2013 16:51	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAB026	08/07/2013 20:26	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAB026	08/06/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:51	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848004	08/09/2013 23:48	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132181848004	08/09/2013 23:48	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132181848004	08/09/2013 23:48	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132181848004	08/09/2013 23:48	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132181848004	08/09/2013 23:48	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132181848004	08/09/2013 23:48	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132181848004	08/09/2013 23:48	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132181848004	08/09/2013 23:48	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132181848004	08/09/2013 23:48	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132181848004	08/09/2013 23:48	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132181848004	08/09/2013 23:48	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132175713006	08/07/2013 07:03	Damary Valentin	1

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

Sample Description: WS-011(5.0-5.5)080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150184  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 10:50 by JW

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

Submitted: 08/05/2013 10:10

Reported: 08/12/2013 14:26

84115 SDG#: PEK07-10

### 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	132181848004	08/07/2013 10:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713006	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13221807902A	08/09/2013 17:34	Michelle L Lalli	1

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

Sample Description: **WS-003 (Surface) 080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150185**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 11:00 by JW

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 14:26

PO Box 4416

Houston TX 77210-4416

8403S SDG#: PEK07-11

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	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) 080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150185**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 11:00 by JW ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 14:26 PO Box 4416  
 Houston TX 77210-4416

8403S SDG#: PEK07-11

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l
06256	Total Hardness as CaCO3	471-34-1	26.5	0.033

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

Sample Description: WS-003 (Surface) 080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150185  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 11:00 by JW

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

Submitted: 08/05/2013 10:10

Reported: 08/12/2013 14:26

8403S SDG#: PEK07-11

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	0.0393	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.94	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	2.84	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.	1.6 J	1.4	5.0	1

### General Sample Comments

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132191AA	08/07/2013 17:12	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132191AA	08/07/2013 17:12	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	132181848006	08/07/2013 20:55	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAB026	08/06/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:51	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848004	08/09/2013 23:52	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132181848004	08/09/2013 23:52	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132181848004	08/09/2013 23:52	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132181848004	08/09/2013 23:52	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132181848004	08/09/2013 23:52	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132181848004	08/09/2013 23:52	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132181848004	08/09/2013 23:52	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132181848004	08/09/2013 23:52	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132181848004	08/09/2013 23:52	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132181848004	08/09/2013 23:52	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132181848004	08/09/2013 23:52	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132175713006	08/07/2013 07:06	Damary Valentin	1

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



Sample Description: WS-003 (Surface) 080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150185  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 11:00 by JW ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/05/2013 10:10 PO Box 4416  
Reported: 08/12/2013 14:26 Houston TX 77210-4416

8403S SDG#: PEK07-11

### 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	132181848004	08/07/2013 10:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713006	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13221807902A	08/09/2013 17:34	Michelle L Lalli	1

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

Sample Description: WS-002 (Surface) 080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150186  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 11:40 by JW

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 14:26

PO Box 4416

Houston TX 77210-4416

8402S SDG#: PEK07-12

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

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

Sample Description: **WS-002 (Surface) 080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150186**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 11:40 by JW

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

Submitted: 08/05/2013 10:10

Reported: 08/12/2013 14:26

8402S SDG#: PEK07-12

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	0.050	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	25.3	0.033	0.20	1

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

Sample Description: WS-002 (Surface) 080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150186  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 11:40 by JW

ExxonMobil

Mobil Pipeline Company

Submitted: 08/05/2013 10:10

PO Box 4416

Reported: 08/12/2013 14:26

Houston TX 77210-4416

8402S SDG#: PEK07-12

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	0.0077 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0203	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.71	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.69	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.	1.7 J	1.4	5.0	1

### General Sample Comments

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	I132191AA	08/07/2013 17:33	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132191AA	08/07/2013 17:33	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	132181848006	08/07/2013 21:25	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAB026	08/06/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:51	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848004	08/09/2013 23:56	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132181848004	08/09/2013 23:56	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132181848004	08/09/2013 23:56	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132181848004	08/09/2013 23:56	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132181848004	08/09/2013 23:56	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132181848004	08/09/2013 23:56	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132181848004	08/09/2013 23:56	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132181848004	08/09/2013 23:56	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132181848004	08/09/2013 23:56	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132181848004	08/09/2013 23:56	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132181848004	08/09/2013 23:56	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132175713006	08/07/2013 07:08	Damary Valentin	1

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

Sample Description: WS-002 (Surface) 080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150186  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 11:40 by JW ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/05/2013 10:10 PO Box 4416  
Reported: 08/12/2013 14:26 Houston TX 77210-4416

8402S SDG#: PEK07-12

### 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	132181848004	08/07/2013 10:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713006	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13221807902A	08/09/2013 17:34	Michelle L Lalli	1

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

Sample Description: **WS-018 (Surface) 080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150187**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 11:20 by JW

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 14:26

PO Box 4416

Houston TX 77210-4416

8418S SDG#: PEK07-13

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	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) 080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150187**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 11:20 by JW ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/12/2013 14:26 PO Box 4416  
 Houston TX 77210-4416

8418S SDG#: PEK07-13

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	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	26.6	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	0.0093 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0455	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-018 (Surface) 080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150187  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 11:20 by JW ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/05/2013 10:10 PO Box 4416  
Reported: 08/12/2013 14:26 Houston TX 77210-4416

8418S SDG#: PEK07-13

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>	
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	2.84	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	I132191AA	08/07/2013 17:54	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132191AA	08/07/2013 17:54	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAB026	08/07/2013 21:54	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAB026	08/06/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:51	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848004	08/10/2013 00:00	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132181848004	08/10/2013 00:00	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132181848004	08/10/2013 00:00	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132181848004	08/10/2013 00:00	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132181848004	08/10/2013 00:00	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132181848004	08/10/2013 00:00	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132181848004	08/10/2013 00:00	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132181848004	08/10/2013 00:00	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132181848004	08/10/2013 00:00	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132181848004	08/10/2013 00:00	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132181848004	08/10/2013 00:00	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132175713006	08/07/2013 07:25	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848004	08/07/2013 10:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713006	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13221807902A	08/09/2013 17:34	Michelle L Lalli	1

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



Sample Description: **WS-007(0.5-1.0)080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150188**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 12:00 by JW

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 14:26

PO Box 4416

Houston TX 77210-4416

84070 SDG#: PEK07-14

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	Acetone	67-64-1	8.7	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)080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150188**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 12:00 by JW

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 14:26

PO Box 4416

Houston TX 77210-4416

84070 SDG#: PEK07-14

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	1.6	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	0.021 J	0.010	0.051	1
08357	Acenaphthylene	208-96-8	0.10	0.010	0.051	1
08357	Anthracene	120-12-7	0.16	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.28	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.26	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.54	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.25	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.41	0.010	0.051	1
08357	Chrysene	218-01-9	0.58	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.060	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.92	0.010	0.051	1
08357	Fluorene	86-73-7	0.037 J	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.28	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.022 J	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.026 J	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	0.26	0.030	0.051	1
08357	Pyrene	129-00-0	0.80	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	44.3	0.033	0.20
	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.0229	0.0068	0.0200
07046	Barium	7440-39-3	0.282	0.00033	0.0050
07049	Cadmium	7440-43-9	0.00099 J	0.00076	0.0050

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

Sample Description: WS-007(0.5-1.0)080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150188  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 12:00 by JW ExxonMobil  
Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
Reported: 08/12/2013 14:26 PO Box 4416  
Houston TX 77210-4416

84070 SDG#: PEK07-14

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>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
01750	Calcium	7440-70-2	6.74	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0396	0.0016	0.0150	1
07055	Lead	7439-92-1	0.110	0.0047	0.0150	1
01757	Magnesium	7439-95-4	6.68	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0343	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	0.0521	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	I132191AA	08/07/2013 18:15	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132191AA	08/07/2013 18:15	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAB026	08/07/2013 22:24	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAB026	08/06/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:51	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848004	08/10/2013 00:12	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132181848004	08/10/2013 00:12	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132181848004	08/10/2013 00:12	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132181848004	08/10/2013 00:12	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132181848004	08/10/2013 00:12	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132181848004	08/10/2013 00:12	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132181848004	08/10/2013 00:12	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132181848004	08/10/2013 00:12	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132181848004	08/10/2013 00:12	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132181848004	08/10/2013 00:12	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132181848004	08/10/2013 00:12	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132175713006	08/07/2013 07:27	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848004	08/07/2013 10:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713006	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13221807902A	08/09/2013 17:34	Michelle L Lalli	1

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

Sample Description: WS-001(0.5-1.0)080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150189  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 12:10 by JW

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

Submitted: 08/05/2013 10:10

Reported: 08/12/2013 14:26

84010 SDG#: PEK07-15

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

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

Sample Description: **WS-001(0.5-1.0)080413 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150189**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 12:10 by JW

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 14:26

PO Box 4416

Houston TX 77210-4416

84010 SDG#: PEK07-15

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	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1

The 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	0.0093 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0481	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-001(0.5-1.0)080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150189  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 12:10 by JW ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/05/2013 10:10 PO Box 4416  
Reported: 08/12/2013 14:26 Houston TX 77210-4416

84010 SDG#: PEK07-15

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>	
01750	Calcium	7440-70-2	5.84	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0020 J	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	0.0021 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0023 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	I132191AA	08/07/2013 18:36	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132191AA	08/07/2013 18:36	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAB026	08/07/2013 22:53	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAB026	08/06/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:51	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848004	08/10/2013 00:16	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132181848004	08/10/2013 00:16	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132181848004	08/10/2013 00:16	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132181848004	08/10/2013 00:16	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132181848004	08/10/2013 00:16	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132181848004	08/10/2013 00:16	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132181848004	08/10/2013 00:16	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132181848004	08/10/2013 00:16	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132181848004	08/10/2013 00:16	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132181848004	08/10/2013 00:16	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132181848004	08/10/2013 00:16	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132175713006	08/07/2013 07:29	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848004	08/07/2013 10:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713006	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13221807902A	08/09/2013 17:34	Michelle L Lalli	1

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

Sample Description: **WS-TB-115-080413 Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150190**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 14:26

PO Box 4416

Houston TX 77210-4416

TB115 SDG#: PEK07-16TB

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-115-080413 Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150190**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 14:26

PO Box 4416

Houston TX 77210-4416

TB115 SDG#: PEK07-16TB

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

### 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	I132191AA	08/07/2013 13:22	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132191AA	08/07/2013 13:22	Jason M Long	1

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



Sample Description: **WS-EB-20-080413 Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150191**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 16:00 by JW

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 14:26

PO Box 4416

Houston TX 77210-4416

EB-20 SDG#: PEK07-17EB

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	0.2 J	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: **WS-EB-20-080413 Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150191**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 16:00 by JW

ExxonMobil

Submitted: 08/05/2013 10:10

Mobil Pipeline Company

Reported: 08/12/2013 14:26

PO Box 4416

Houston TX 77210-4416

EB-20 SDG#: PEK07-17EB

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.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	0.066	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1

The 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	0.94	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	0.00064 J	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-EB-20-080413 Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150191**  
 LL Group # **1409110**  
 Account # **14739**

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

Collected: 08/04/2013 16:00 by JW

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

Submitted: 08/05/2013 10:10

Reported: 08/12/2013 14:26

EB-20 SDG#: PEK07-17EB

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	0.272	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	0.0623 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	I132191AA	08/07/2013 13:02	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132191AA	08/07/2013 13:02	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13218WAB026	08/07/2013 23:23	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAB026	08/06/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 06:53	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848004	08/10/2013 00:20	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132181848004	08/10/2013 00:20	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132181848004	08/10/2013 00:20	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132181848004	08/10/2013 00:20	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132181848004	08/10/2013 00:20	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132181848004	08/10/2013 00:20	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132181848004	08/10/2013 00:20	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132181848004	08/10/2013 00:20	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132181848004	08/10/2013 00:20	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132181848004	08/10/2013 00:20	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132181848004	08/10/2013 00:20	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132175713006	08/07/2013 07:31	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848004	08/07/2013 10:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713006	08/06/2013 16:30	Nelli S Markaryan	1

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

Sample Description: DUP-WS-66-080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150192  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 by JW

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

Submitted: 08/05/2013 10:10

Reported: 08/12/2013 14:26

DUP66 SDG#: PEK07-18FD\*

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: DUP-WS-66-080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150192  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 by JW

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

Submitted: 08/05/2013 10:10

Reported: 08/12/2013 14:26

DUP66 SDG#: PEK07-18FD\*

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	25.0	0.033	0.20	1

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

Sample Description: DUP-WS-66-080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150192  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 by JW

ExxonMobil

Mobil Pipeline Company

Submitted: 08/05/2013 10:10

PO Box 4416

Reported: 08/12/2013 14:26

Houston TX 77210-4416

DUP66 SDG#: PEK07-18FD\*

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	0.0078 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0286	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	2.68	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<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	I132191AA	08/07/2013 19:18	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I132191AA	08/07/2013 19:18	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	132181848006	08/07/2013 23:52	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13218WAB026	08/06/2013 16:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132226256001	08/10/2013 04:51	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132181848004	08/10/2013 00:24	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132181848004	08/10/2013 00:24	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132181848004	08/10/2013 00:24	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	132181848004	08/10/2013 00:24	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132181848004	08/10/2013 00:24	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132181848004	08/10/2013 00:24	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	132181848004	08/10/2013 00:24	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132181848004	08/10/2013 00:24	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132181848004	08/10/2013 00:24	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132181848004	08/10/2013 00:24	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132181848004	08/10/2013 00:24	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132175713006	08/07/2013 07:33	Damary Valentin	1

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

Sample Description: DUP-WS-66-080413 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150192  
LL Group # 1409110  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 by JW

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

Submitted: 08/05/2013 10:10

Reported: 08/12/2013 14:26

DUP66 SDG#: PEK07-18FD\*

### 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	132181848004	08/07/2013 10:34	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132175713006	08/06/2013 16:30	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13221807902A	08/09/2013 17:34	Michelle L Lalli	1

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

## Quality Control Summary

Client Name: ExxonMobil  
Reported: 08/12/13 at 02:26 PM

Group Number: 1409110

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: I132191AA	Sample number(s): 7150175-7150192								
Acetone	N.D.	3.0	5.0	ug/l	98		73-135		
Allyl Chloride	N.D.	0.1	0.5	ug/l	77		61-130		
Benzene	N.D.	0.1	0.5	ug/l	96		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	89		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	92		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	90		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	90		63-132		
Bromomethane	N.D.	0.1	0.5	ug/l	83		38-146		
2-Butanone	N.D.	1.0	5.0	ug/l	99		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	102		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	95		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	92		74-133		
Chlorobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	84		67-124		
Chloroform	N.D.	0.1	0.5	ug/l	95		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	90		55-135		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	97		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	99		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	89		57-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	93		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	97		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	92		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	100		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	97		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	99		80-112		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	100		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	91		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	92		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	90		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	91		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	94		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	85		63-149		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	100		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	100		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	84		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	95		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	86		74-120		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	93		73-126		
Ethyl ether	N.D.	0.1	0.5	ug/l	96		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	98		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	93		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	88		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: 1409110

Reported: 08/12/13 at 02:26 PM

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Isopropylbenzene	N.D.	0.1	0.5	ug/l	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	81		80-125		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	93		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	92		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	101		80-120		
Styrene	N.D.	0.1	0.5	ug/l	97		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	106		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	89		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	94		65-131		
Toluene	N.D.	0.1	0.5	ug/l	100		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	89		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	87		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	88		79-127		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	102		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	95		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	97		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	105		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	99		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	87		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	97		80-120		

Batch number: 13218WAB026

Sample number(s): 7150175-7150189,7150191-7150192

Acenaphthene	N.D.	0.010	0.050	ug/l	101	101	65-124	0	30
Acenaphthylene	N.D.	0.010	0.050	ug/l	105	104	72-113	1	30
Anthracene	N.D.	0.010	0.050	ug/l	108	108	70-117	0	30
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	93	96	75-115	3	30
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	98	98	72-120	0	30
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	92	93	74-130	1	30
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	95	96	63-121	0	30
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	104	104	74-118	1	30
Chrysene	N.D.	0.010	0.050	ug/l	101	100	75-112	1	30
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	90	92	66-122	2	30
Fluoranthene	N.D.	0.010	0.050	ug/l	108	109	73-116	1	30
Fluorene	N.D.	0.010	0.050	ug/l	97	97	74-115	0	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	89	90	66-122	1	30
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	113	111	72-114	2	30
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	107	108	74-119	1	30
Naphthalene	N.D.	0.030	0.050	ug/l	100	100	67-118	0	30
Phenanthrene	N.D.	0.030	0.050	ug/l	98	100	72-109	1	30
Pyrene	N.D.	0.010	0.050	ug/l	94	93	71-116	1	30

Batch number: 132175713006

Sample number(s): 7150175-7150189,7150191-7150192

Mercury	N.D.	0.00006	0.00020	mg/l	91		80-120		
		0							

Batch number: 132181848004

Sample number(s): 7150175-7150189,7150191-7150192

Arsenic	N.D.	0.0068	0.0200	mg/l	103		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	101		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	103		90-112		
Calcium	0.0600 J	0.0334	0.200	mg/l	100		90-110		
Chromium	N.D.	0.0016	0.0150	mg/l	102		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	102		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	100		90-110		

\*- Outside of specification

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

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

## Quality Control Summary

Client Name: ExxonMobil

Group Number: 1409110

Reported: 08/12/13 at 02:26 PM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Nickel	N.D.	0.0015	0.0100	mg/l	106		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	99		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	92		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	103		90-110		

Batch number: 13220807902A Sample number(s): 7150175-7150179  
 HEM (oil & grease) N.D. 1.4 5.0 mg/l 87 91 78-114 5 16

Batch number: 13221807902A Sample number(s): 7150180-7150189,7150192  
 HEM (oil & grease) N.D. 1.4 5.0 mg/l 95 101 78-114 6 16

## Sample Matrix Quality Control

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

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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: I132191AA	Sample number(s): 7150175-7150192 UNSPK: 7150175								
Acetone	96	99	57-163	2	30				
Allyl Chloride	78	82	67-139	5	30				
Benzene	95	100	87-126	4	30				
Bromobenzene	85	89	80-123	5	30				
Bromochloromethane	91	92	82-125	1	30				
Bromodichloromethane	87	91	82-133	4	30				
Bromoform	84	87	60-138	4	30				
Bromomethane	82	87	41-145	6	30				
2-Butanone	94	96	63-146	2	30				
n-Butylbenzene	101	105	83-131	4	30				
sec-Butylbenzene	98	103	84-128	5	30				
tert-Butylbenzene	94	97	84-135	3	30				
Carbon Tetrachloride	95	98	81-148	3	30				
Chlorobenzene	99	103	78-133	4	30				
Chloroethane	83	88	70-139	6	30				
Chloroform	94	98	86-136	4	30				
Chloromethane	89	94	55-152	6	30				
2-Chlorotoluene	93	98	81-120	5	30				
4-Chlorotoluene	94	99	82-119	5	30				
1,2-Dibromo-3-chloropropane	87	87	43-143	0	30				
Dibromochloromethane	89	91	79-125	3	30				
1,2-Dibromoethane	92	96	84-127	4	30				
Dibromomethane	87	90	83-126	4	30				
1,2-Dichlorobenzene	94	98	83-117	4	30				
1,3-Dichlorobenzene	93	97	81-118	5	30				
1,4-Dichlorobenzene	93	97	79-120	4	30				
Dichlorodifluoromethane	99	99	28-136	0	30				
1,1-Dichloroethane	90	95	88-136	6	30				
1,2-Dichloroethane	88	91	82-135	4	30				
1,1-Dichloroethene	94	100	83-150	6	30				
cis-1,2-Dichloroethene	89	94	82-129	5	30				
trans-1,2-Dichloroethene	95	101	88-127	6	30				
Dichlorofluoromethane	85	89	59-176	4	30				
1,2-Dichloropropane	98	102	91-126	4	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

Group Number: 1409110

Reported: 08/12/13 at 02:26 PM

### Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>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>
1,3-Dichloropropane	93	98	80-127	5	30				
2,2-Dichloropropane	86	91	80-134	5	30				
1,1-Dichloropropene	98	102	86-139	4	30				
cis-1,3-Dichloropropene	83	89	74-132	6	30				
trans-1,3-Dichloropropene	88	92	71-128	5	30				
Ethyl ether	90	96	67-127	7	30				
Ethylbenzene	98	101	80-140	3	30				
Freon 113	98	97	87-158	1	30				
Hexachlorobutadiene	88	92	65-128	5	30				
Isopropylbenzene	97	101	81-133	4	30				
p-Isopropyltoluene	94	99	84-124	5	30				
Methyl Tertiary Butyl Ether	77*	83	82-132	8	30				
4-Methyl-2-Pentanone	87	90	69-149	4	30				
Methylene Chloride	89	95	84-122	6	30				
n-Propylbenzene	99	103	79-131	4	30				
Styrene	95	98	63-151	3	30				
1,1,1,2-Tetrachloroethane	95	99	87-126	3	30				
1,1,2,2-Tetrachloroethane	95	100	75-131	5	30				
Tetrachloroethene	89	94	75-129	5	30				
Tetrahydrofuran	90	94	56-154	4	30				
Toluene	97	102	83-127	5	30				
1,2,3-Trichlorobenzene	83	88	73-125	5	30				
1,2,4-Trichlorobenzene	83	88	77-120	6	30				
1,1,1-Trichloroethane	90	94	85-140	4	30				
1,1,2-Trichloroethane	95	99	85-129	4	30				
Trichloroethene	96	100	85-131	5	30				
Trichlorofluoromethane	101	101	67-161	0	30				
1,2,3-Trichloropropane	93	100	76-120	7	30				
1,2,4-Trimethylbenzene	96	100	87-126	4	30				
1,3,5-Trimethylbenzene	96	101	89-129	5	30				
Vinyl Chloride	89	95	65-151	7	30				
Xylene (Total)	95	100	81-137	4	30				

Batch number: 132175713006      Sample number(s): 7150175-7150189,7150191-7150192      UNSPK: 7150177      BKG: 7150177  
Mercury      94      96      80-120      2      20      N.D.      N.D.      0 (1)      20

Batch number: 132181848004      Sample number(s): 7150175-7150189,7150191-7150192      UNSPK: 7150181      BKG: 7150181  
Arsenic      101      99      81-123      2      20      0.0083 J      0.0095 J      13 (1)      20  
Barium      104      103      78-118      1      20      0.0292      0.0293      0      20  
Cadmium      103      103      83-116      0      20      N.D.      N.D.      0 (1)      20  
Calcium      102      99      81-118      1      20      5.61      5.66      1      20  
Chromium      103      104      81-120      1      20      N.D.      N.D.      0 (1)      20  
Lead      103      104      75-125      2      20      N.D.      N.D.      0 (1)      20  
Magnesium      100      99      75-125      1      20      2.67      2.69      1      20  
Nickel      106      106      86-115      0      20      N.D.      N.D.      0 (1)      20  
Selenium      102      103      75-125      1      20      N.D.      N.D.      0 (1)      20  
Silver      95      94      75-125      1      20      N.D.      N.D.      0 (1)      20  
Vanadium      104      105      90-111      0      20      N.D.      N.D.      0 (1)      20

Batch number: 13220807902A      Sample number(s): 7150175-7150179      UNSPK: P150142      BKG: P150142  
HEM (oil & grease)      69\*      51\*      78-114      31\*      29      N.D.      N.D.      0 (1)      18

\*- 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: 1409110  
Reported: 08/12/13 at 02:26 PM

### Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13221807902A	Sample number(s): 7150180-7150189,7150192 UNSPK: 7150180								
HEM (oil & grease)	102		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: I132191AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7150175	98	103	103	92
7150176	98	105	102	92
7150177	98	104	101	91
7150178	97	102	103	92
7150179	98	105	101	91
7150180	98	104	103	93
7150181	99	104	103	92
7150182	99	104	102	92
7150183	99	103	102	93
7150184	99	103	103	91
7150185	98	103	103	92
7150186	99	104	103	92
7150187	99	105	102	92
7150188	99	104	102	91
7150189	99	102	103	91
7150190	96	101	103	92
7150191	95	101	104	92
7150192	99	103	103	93
Blank	96	100	104	91
LCS	94	98	105	101
MS	96	103	104	102
MSD	96	102	105	102
Limits:	77-114	74-113	77-110	78-110

Analysis Name: PAHs in waters by SIM  
Batch number: 13218WAB026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7150175	101	75	110
7150176	96	70	110
7150177	95	64	108
7150178	96	62	102
7150179	100	61*	109
7150180	102	65	109
7150181	99	58*	111

\*- Outside of specification

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

## Quality Control Summary

Client Name: ExxonMobil  
Reported: 08/12/13 at 02:26 PM

Group Number: 1409110

### Surrogate Quality Control

7150182	94	74	108
7150183	98	67	113
7150184	96	55*	106
7150185	91	32*	108
7150186	98	61*	108
7150187	99	75	109
7150188	65	63	105
7150189	100	66	111
7150191	105	103	115
7150192	103	60*	111
Blank	99	94	111
LCS	100	100	113
LCSD	102	102	113
<hr/>			
Limits:	64-120	62-141	58-134

\*- Outside of specification

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

# ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only

Group # 1409110 Sample # 7150175-92

Instructions on reverse side correspond with circled numbers.

1 of 2

1 Client Information				4 Matrix			5 Analyses Requested										6 Remarks		
Facility #/SID <b>MAYFLOWER PIPELINE INCIDENT</b>				Sediment <input type="checkbox"/>	Ground <input type="checkbox"/>	Surface <input checked="" type="checkbox"/>	Preservation Code										SCR#: _____ Preservation Codes H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other		
Site Address <b>MAYFLOWER, AR</b>							Potable <input type="checkbox"/>	NPDES <input type="checkbox"/>	Air <input type="checkbox"/>	H                         VOC's 82608   PAHs 8270 SIM   <sup>HAPs</sup> RECAR Metals, V.Ni,Cr, Hg   DISS METALS   HEM OIL & GREASE									
ExxonMobil PM <b>SCOTT BUSHROE</b>		Cost Center/AFE		Soil <input type="checkbox"/>	Water <input type="checkbox"/>	Oil <input type="checkbox"/>				Total # of Containers									
Consultant/Office <b>ARCADIS</b>		Consultant Phone # <b>919 202 6799</b>																	
Consultant PM <b>STEVE BARRICK</b>																			
Sampler <b>J. WALDRON / S. LIPKA</b>																			
2 Sample Identification		3 Collected		Grab	Composite														
		Date	Time																
WS-014 (1.5-2.0) 080413		8/4/13	0830	X				9	X	X	X	X	X						
WS-014 (5.5-6.0) 080413		8/4/13	0840	X				9	X	X	X	X	X						
WS-012 (1.5-2.0) 080413		8/4/13	0900	X				9	X	X	X	X	X						
WS-012 (5.0-5.5) 080413		8/4/13	0910	X				9	X	X	X	X	X						
WS-010 (1.5-2.0) 080413		8/4/13	0920	X				9	X	X	X	X	X						
WS-010 (3.5-4.0) 080413		8/4/13	0930	X				9	X	X	X	X	X						
WS-006 (0.5-1.0) 080413		8/4/13	0950	X				9	X	X	X	X	X						
WS-005 (Surface) 080413		8/4/13	1020	X				9	X	X	X	X	X						
WS-011 (1.5-2.0) 080413		8/4/13	1040	X				9	X	X	X	X	X						
WS-011 (5.0-5.5) 080413		8/4/13	1050	X				9	X	X	X	X	X						
WS-003 (Surface) 080413		8/4/13	1100	X				9	X	X	X	X	X						
WS-002 (Surface) 080413		8/4/13	1140	X				9	X	X	X	X	X						
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by		Date	Time	Received by		Date	Time	9							
Standard <u>5 day</u> 4 day				<i>[Signature]</i>		8/4/13	1600	<i>[Signature]</i>											
72 hour      48 hour      24 hour						Date	Time			Date	Time								
				Date	Time	Date	Time												
8 Data Package (circle if required)				Relinquished by Commercial Carrier		Received by		Date	Time	8.5.13 1010									
Type I - Full		Type VI (Raw Data)		UPS      FedEx      Other <u>SOUTHWEST</u>		<i>[Signature]</i>													
NJ Reduced		Other _____		Temperature Upon Receipt <u>0.3-3.0°C</u>		Custody Seals Intact?		<u>Yes</u> No											
Other _____		EDD (circle if required) Locus EIM (default) Other _____																	

# ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

Acct. # 14739 For Eurofins Lancaster Laboratories Environmental use only  
Group # 1409110 Sample # 7150175-92  
Instructions on reverse side correspond with circled numbers.

*2 of 2*

1 Client Information				4 Matrix				5 Analyses Requested							SCR#: _____																								
Facility #/SID <u>MAY FLOWER PIPELINE INCIDENT</u>				<input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil	<input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> Air	Total # of Containers	Preservation Code							Preservation Codes H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other	6 Remarks																								
Site Address <u>MAY FLOWER, AR.</u>							<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 5%;">H</th> <th style="width: 5%;">N</th> <th style="width: 5%;">A</th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> <th style="width: 5%;"> </th> </tr> <tr> <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	A																					
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ExxonMobil PM <u>SCOTT BUSHROE</u>		Cost Center/AFE					VOC's 82606 PAH's 8270 SIM <sup>7 HAD.</sup> TRACE METALS V.M., Cr, Mn DISS METALS HEAVY OIL & GREASE																																
Consultant/Office <u>ARCADIS</u>																																							
Consultant PM <u>STEVE BARRICK</u>		Consultant Phone # <u>919 202 6799</u>		9 X X X X X 9 X X X X X 9 X X X X X 2 X 7 X X X X 9 X X X X X																																			
Sampler <u>J. WALDRON / S. LIPKA</u>																																							
2 Sample Identification		Collected									3		9 9 9 2 7 9																										
	Date	Time	Grab	Composite	X X																																		
<u>WS-018 (SURFACE) 080413</u>	<u>8/4/13</u>	<u>1120</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>								9 X X X X X 9 X X X X X 9 X X X X X 2 X 7 X X X X 9 X X X X X																											
<u>WS-007 (0.5-1.0) 080413</u>	<u>8/4/13</u>	<u>1200</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																9 X X X X X 9 X X X X X 9 X X X X X 2 X 7 X X X X 9 X X X X X																			
<u>WS-001 (0.5-1.0) 080413</u>	<u>8/4/13</u>	<u>1240</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																							9 X X X X X 9 X X X X X 9 X X X X X 2 X 7 X X X X 9 X X X X X												
<u>WS-TB-115 - 080413</u>	<u>8/4/13</u>	<u>—</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																														9 X X X X X 9 X X X X X 9 X X X X X 2 X 7 X X X X 9 X X X X X					
<u>WS-EB-20-080413</u>	<u>8/4/13</u>	<u>—</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>															9 X X X X X 9 X X X X X 9 X X X X X 2 X 7 X X X X 9 X X X X X																				
<u>DUP-WS-60-080413</u>	<u>8/4/13</u>	<u>—</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9 X X X X X 9 X X X X X 9 X X X X X 2 X 7 X X X X 9 X X X X X																																		
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by _____								Date	Time	Received by _____		Date	Time																						
Standard <u>5 day</u> 4 day  72 hour      48 hour      24 hour				Relinquished by _____								Date	Time	Received by _____		Date	Time																						
8 Data Package (circle if required)				Relinquished by _____								Date	Time	Received by _____		Date	Time																						
Type I - Full		Type VI (Raw Data)		NJ Reduced								Other _____		EDD (circle if required)		Locus EIM (default)		Other _____																					
Type I - Full		Type VI (Raw Data)		NJ Reduced								Other _____		EDD (circle if required)		Locus EIM (default)		Other _____																					
Relinquished by Commercial Carrier						UPS _____ FedEx _____ Other <u>SOUTHWEST</u>		Received by <u>Brenely Baugh</u>		Date	Time	9																											
Temperature Upon Receipt <u>0.3-3.0°C</u>						Custody Seals Intact? <u>Yes</u> No																																	

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

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

Rachel L. Kreamer

A# 14739, Gr. 1409110 Samples 7150175-92

**From:** Chandler, Jennifer [Jennifer.Chandler@arcadis-us.com]  
**Sent:** Monday, August 05, 2013 4:47 PM  
**To:** Rachel L. Kreamer  
**Subject:** RE: More COC/Label Discrepancies

Rachel,

Please use WS-011(1.5-2.0), as listed on the COC.  
As for sample WS-EB-20-080413, yes, please use 1600.

Thanks,

Jennifer Chandler | Scientist 2 | jennifer.chandler@arcadis-us.com ARCADIS U.S., Inc. |  
630 Plaza Drive, Suite 100 | Highlands Ranch, CO, 80129 T. 303.471.3549 | F. 720.344.3535  
www.arcadis-us.com Please consider the environment before printing this email.

-----Original Message-----

**From:** Rachel L. Kreamer [mailto:RKreamer@lancasterlabs.com]  
**Sent:** Monday, August 05, 2013 2:41 PM  
**To:** Chandler, Jennifer  
**Cc:** Kathy Klinefelter  
**Subject:** More COC/Label Discrepancies

Jennifer,

So sorry, but I have a few more questions. I attached chains and the first page of the doc log for the surface waters.

On the chain from 8/3, sample WS-011(1.5-2.0) is labeled WS-11(1.0-1.5).  
What should we use on the report?

On the chain from 8/4, sample WS-EB-20-080413 has no collection time.  
The labels list a collection time of 1600. Should we use 1600?

Thanks,  
RADchel

-----Original Message-----

**From:** 39Scanner@lancasterlabs.com [mailto:39Scanner@lancasterlabs.com]  
**Sent:** Monday, August 05, 2013 4:34 PM  
**To:** Rachel L. Kreamer  
**Subject:**

This E-mail was sent from "RNP367EC2" (MP 4001/LD140).

Scan Date: 08.05.2013 16:34:28 (-0400)  
Queries to: 39Scanner@lancasterlabs.com

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Environmental Sample Administration 1409110  
 Receipt Documentation Log

Client/Project: Exxon mobil  
 Date of Receipt: 8.5.13  
 Time of Receipt: 1010  
 Source Code: 01

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	DH21	0.5	TB	WI	Y	B	
2	↓	0.3	↓	↓	↓	↓	
3	↓	1.5	↓	↓	↓	↓	
4	↓	1.9	↓	↓	↓	↓	
5	↓	1.2	↓	↓	↓	↓	
6	↓	0.5	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:  
~~WS-011 (1.0) - BUB 2299 ③ 8.5.13~~  
 WS-011 (1.5-2.0) = WS-011 (1.0-1.5) Gr. 1409108 + 1409109  
 WS-EB-20 Time = 1600 Gr. 1409110 + 1409111

Unpacker Signature/Emp#: Burandy Barclay 2299 Date/Time: 8.5.13 1213

Issued by Dept. 6042 Management

Environmental Sample Administration  
Receipt Documentation Log

1409110

Client/Project: Exxon mobil  
Date of Receipt: 8.5.13  
Time of Receipt: 1010  
Source Code: 01

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
77	DH21	0.9	TB	WI	Y	B	
78	↓	0.6	↓	↓	↓	↓	
79	↓	1.2	↓	↓	↓	↓	
710	↓	3.0	↓	↓	↓	↓	
711	1396	2.4	ST	↓	↓	↓	
712	DH21	1.5	TB	↓	↓	↓	

Number of Trip Blanks received NOT listed on chain of custody: \_\_\_\_\_

Paperwork Discrepancy/Unpacking Problems:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Unpacker Signature/Emp#: Brandy Barclay 2299 Date/Time: 8.5.13 1213

Issued by Dept. 6042 Management

Environmental Sample Administration  
Receipt Documentation Log

1409110

Client/Project: Exxon mobil

Shipping Container Sealed:  YES  NO

Date of Receipt: 8.5.13

Custody Seal Present \* :  YES  NO

Time of Receipt: 1010

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

Source Code: 01

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
13	DH121	1.0	TB	WI	Y	B	
14	↓	2.9	↓	↓	↓	↓	
3	/						
4							
5							
6							

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

Paperwork Discrepancy/Unpacking Problems:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Unpacker Signature/Emp#: Branchey Barclay <sup>2299</sup> Date/Time: 8.5.13 1213

Issued by Dept. 6042 Management

# 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**

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

**Inorganic Qualifiers**

- B** Value is  $<$ CRDL, but  $\geq$ IDL
- E** Estimated due to interference
- M** Duplicate injection precision not met
- N** Spike sample not within control limits
- S** Method of standard additions (MSA) used for calculation
- U** Compound was not detected
- W** Post digestion spike out of control limits
- \*** Duplicate analysis not within control limits
- +** Correlation coefficient for MSA  $<0.995$

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

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

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

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

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