

## ANALYTICAL RESULTS

Prepared by:

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2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

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

July 18, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 07/11/2013  
Group Number: 1403156  
SDG: PEI93  
PO Number: 4510076246  
Release Number: MAYFLOWER 1406  
State of Sample Origin: AR

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
WS-003(Surface)071013 Grab Surface Water	7123280
WS-002(Surface)071013 Grab Surface Water	7123281
WS-005(Surface)071013 Grab Surface Water	7123282
WS-001(Surface)071013 Grab Surface Water	7123283
WS-001(0.5-1.0)071013 Grab Surface Water	7123284
WS-004(Surface)071013 Grab Surface Water	7123285
WS-004(0.5-1.0)071013 Grab Surface Water	7123286
WS-007(Surface)071013 Grab Surface Water	7123287
WS-007(Surface)071013MS Grab Surface Water	7123288
WS-007(Surface)071013MSD Grab Surface Water	7123289
WS-007(Surface)071013DUP Grab Surface Water	7123290
WS-007(0.5-1.0)071013 Grab Surface Water	7123291
WS-006(Surface)071013 Grab Surface Water	7123292
WS-006(0.5-1.0)071013 Grab Surface Water	7123293
WS-TB-93-071013 Water	7123294

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

ELECTRONIC COPY TO	ARCADIS	Attn: Stephen Barrick
ELECTRONIC COPY TO	ARCADIS	Attn: Lyndi Mott
ELECTRONIC COPY TO	ExxonMobil	Attn: Michael J. Firth
ELECTRONIC COPY TO	ARCADIS	Attn: Emily Leamer

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

Respectfully Submitted,



Katherine A. Klinefelter  
Principal Specialist

(717) 556-7256

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Project Name: Mayflower, AR Pipeline Incident  
LLI Group #: 1403156

**General Comments:**

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are included in this data set

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

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

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

**Analysis Specific Comments:****SW-846 8260B 25mL purge, GC/MS Volatiles**

Batch #: C131931AA (Sample number(s): 7123291, 7123294 UNSPK: P121307)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Trichloroethene, 1,2-Dibromo-3-chloropropane

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

Batch #: 13192WAF026 (Sample number(s): 7123280-7123289, 7123291-7123293 UNSPK: 7123287)

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside outside acceptance windows: Dibenz(a,h)anthracene

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7123281

**Sample #s: 7123281**

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

**SW-846 6010B, Metals**

Batch #: 131921848001 (Sample number(s): 7123280-7123293 UNSPK: 7123287 BKG: 7123287)

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

Sample Description: **WS-003 (Surface) 071013 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123280**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 09:30 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10003 SDG#: PEI93-01

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-003 (Surface) 071013 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123280**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 09:30 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10003 SDG#: PEI93-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles 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 Semivolatiles 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	0.054	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.054	1
08357	Anthracene	120-12-7	N.D.	0.011	0.054	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.054	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.054	1
08357	Benzo(b)fluoranthene	205-99-2	0.014 J	0.011	0.054	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.054	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.054	1
08357	Chrysene	218-01-9	N.D.	0.011	0.054	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.054	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.054	1
08357	Fluorene	86-73-7	N.D.	0.011	0.054	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.054	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.054	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.054	1
08357	Naphthalene	91-20-3	0.093	0.032	0.054	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.054	1
08357	Pyrene	129-00-0	0.092	0.011	0.054	1
<b>Metals 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
<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	0.0288	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.68	0.0334	0.200	1

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

Sample Description: **WS-003 (Surface) 071013 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123280**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 09:30 by AP ExxonMobil  
 Submitted: 07/11/2013 09:20 Mobil Pipeline Company  
 Reported: 07/18/2013 09:40 PO Box 4416  
 Houston TX 77210-4416

10003 SDG#: PEI93-01

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>	
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

### 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	C131922AA	07/12/2013 00:30	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131922AA	07/12/2013 00:30	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13192WAF026	07/17/2013 22:22	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13192WAF026	07/11/2013 22:00	Elaine F Stoltzfus	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131936256001	07/12/2013 06:21	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131921848001	07/12/2013 02:53	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	131921848001	07/12/2013 02:53	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	131921848001	07/12/2013 02:53	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	131921848001	07/12/2013 02:53	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	131921848001	07/12/2013 02:53	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	131921848001	07/12/2013 02:53	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	131921848001	07/12/2013 02:53	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	131921848001	07/12/2013 02:53	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	131921848001	07/12/2013 02:53	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	131921848001	07/12/2013 02:53	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	131921848001	07/12/2013 02:53	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	131925713002	07/12/2013 07:57	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131921848001	07/11/2013 15:04	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131925713002	07/11/2013 16:45	Nelli S Markaryan	1

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

Sample Description: **WS-002 (Surface) 071013 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123281**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 10:15 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10002 SDG#: PEI93-02

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	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) 071013 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123281**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 10:15 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10002 SDG#: PEI93-02

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	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	0.036 J	0.031	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 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
	<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	0.0195	0.00033	0.0050	1

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



Sample Description: WS-002 (Surface) 071013 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7123281  
LL Group # 1403156  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/10/2013 10:15 by AP ExxonMobil  
Mobil Pipeline Company  
Submitted: 07/11/2013 09:20 PO Box 4416  
Reported: 07/18/2013 09:40 Houston TX 77210-4416

10002 SDG#: PEI93-02

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>	
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	5.65	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	2.57	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	C131922AA	07/12/2013 00:52	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131922AA	07/12/2013 00:52	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13192WAF026	07/17/2013 22:49	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13192WAF026	07/11/2013 22:00	Elaine F Stoltzfus	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131936256001	07/12/2013 06:21	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131921848001	07/12/2013 02:57	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	131921848001	07/12/2013 02:57	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	131921848001	07/12/2013 02:57	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	131921848001	07/12/2013 02:57	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	131921848001	07/12/2013 02:57	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	131921848001	07/12/2013 02:57	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	131921848001	07/12/2013 02:57	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	131921848001	07/12/2013 02:57	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	131921848001	07/12/2013 02:57	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	131921848001	07/12/2013 02:57	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	131921848001	07/12/2013 02:57	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	131925713002	07/12/2013 07:59	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131921848001	07/11/2013 15:04	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131925713002	07/11/2013 16:45	Nelli S Markaryan	1

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

Sample Description: WS-005 (Surface) 071013 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7123282  
LL Group # 1403156  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/10/2013 10:30 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10005 SDG#: PEI93-03

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

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

Sample Description: WS-005 (Surface) 071013 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7123282  
LL Group # 1403156  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/10/2013 10:30 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10005 SDG#: PEI93-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B 25mL</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS</b>	<b>Semivolatiles</b>	<b>SW-846 8270C SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	0.074	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	0.073	0.010	0.052	1
<b>Metals</b>		<b>SM 2340 B-1997</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
06256	Total Hardness as CaCO3	471-34-1	31.2	0.033	0.20	1
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0835	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	7.60	0.0334	0.200	1

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

Sample Description: **WS-005 (Surface) 071013 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123282**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 10:30 by AP ExxonMobil  
 Submitted: 07/11/2013 09:20 Mobil Pipeline Company  
 Reported: 07/18/2013 09:40 PO Box 4416  
 Houston TX 77210-4416

10005 SDG#: PEI93-03

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>	
07051	Chromium	7440-47-3	0.0032 J	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0058 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.97	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0024 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0046 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

**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	C131922AA	07/12/2013 01:15	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131922AA	07/12/2013 01:15	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13192WAF026	07/17/2013 23:16	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13192WAF026	07/11/2013 22:00	Elaine F Stoltzfus	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131936256001	07/12/2013 06:21	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131921848001	07/12/2013 03:09	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	131921848001	07/12/2013 03:09	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	131921848001	07/12/2013 03:09	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	131921848001	07/12/2013 03:09	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	131921848001	07/12/2013 03:09	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	131921848001	07/12/2013 03:09	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	131921848001	07/12/2013 03:09	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	131921848001	07/12/2013 03:09	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	131921848001	07/12/2013 03:09	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	131921848001	07/12/2013 03:09	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	131921848001	07/12/2013 03:09	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	131925713002	07/12/2013 08:01	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131921848001	07/11/2013 15:04	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131925713002	07/11/2013 16:45	Nelli S Markaryan	1

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

Sample Description: WS-001(Surface)071013 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7123283  
LL Group # 1403156  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/10/2013 11:00 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10011 SDG#: PEI93-04

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

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

Sample Description: WS-001(Surface)071013 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7123283  
LL Group # 1403156  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/10/2013 11:00 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10011 SDG#: PEI93-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			ug/l	ug/l	ug/l	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.1 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	0.073	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
<b>Metals SM 2340 B-1997</b>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	26.8	0.033	0.20	1
<b>SW-846 6010B</b>						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0950	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.17	0.0334	0.200	1

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

Sample Description: WS-001(Surface)071013 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7123283  
LL Group # 1403156  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/10/2013 11:00 by AP ExxonMobil  
Mobil Pipeline Company  
Submitted: 07/11/2013 09:20 PO Box 4416  
Reported: 07/18/2013 09:40 Houston TX 77210-4416

10011 SDG#: PEI93-04

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>	
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

### 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	C131922AA	07/12/2013 01:37	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131922AA	07/12/2013 01:37	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13192WAF026	07/17/2013 23:44	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13192WAF026	07/11/2013 22:00	Elaine F Stoltzfus	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131936256001	07/12/2013 06:21	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131921848001	07/12/2013 03:13	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	131921848001	07/12/2013 03:13	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	131921848001	07/12/2013 03:13	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	131921848001	07/12/2013 03:13	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	131921848001	07/12/2013 03:13	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	131921848001	07/12/2013 03:13	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	131921848001	07/12/2013 03:13	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	131921848001	07/12/2013 03:13	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	131921848001	07/12/2013 03:13	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	131921848001	07/12/2013 03:13	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	131921848001	07/12/2013 03:13	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	131925713002	07/12/2013 08:03	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131921848001	07/11/2013 15:04	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131925713002	07/11/2013 16:45	Nelli S Markaryan	1

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

Sample Description: WS-001(0.5-1.0)071013 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7123284  
LL Group # 1403156  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/10/2013 11:10 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10012 SDG#: PEI93-05

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

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



Sample Description: WS-001(0.5-1.0)071013 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7123284  
LL Group # 1403156  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/10/2013 11:10 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10012 SDG#: PEI93-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			ug/l	ug/l	ug/l	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.1 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	0.098	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	0.026 J	0.010	0.051	1
<b>Metals SM 2340 B-1997</b>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	27.5	0.033	0.20	1
<b>SW-846 6010B</b>						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.111	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.45	0.0334	0.200	1

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

Sample Description: WS-001(0.5-1.0)071013 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7123284  
LL Group # 1403156  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/10/2013 11:10 by AP

ExxonMobil

Mobil Pipeline Company

Submitted: 07/11/2013 09:20

PO Box 4416

Reported: 07/18/2013 09:40

Houston TX 77210-4416

10012 SDG#: PEI93-05

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>	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.76	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

### 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	C131922AA	07/12/2013 01:59	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131922AA	07/12/2013 01:59	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13192WAF026	07/18/2013 00:11	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13192WAF026	07/11/2013 22:00	Elaine F Stoltzfus	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131936256001	07/12/2013 06:21	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131921848001	07/12/2013 03:18	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	131921848001	07/12/2013 03:18	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	131921848001	07/12/2013 03:18	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	131921848001	07/12/2013 03:18	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	131921848001	07/12/2013 03:18	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	131921848001	07/12/2013 03:18	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	131921848001	07/12/2013 03:18	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	131921848001	07/12/2013 03:18	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	131921848001	07/12/2013 03:18	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	131921848001	07/12/2013 03:18	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	131921848001	07/12/2013 03:18	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	131925713002	07/12/2013 08:05	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131921848001	07/11/2013 15:04	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131925713002	07/11/2013 16:45	Nelli S Markaryan	1

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

Sample Description: **WS-004 (Surface) 071013 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123285**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 11:30 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10041 SDG#: PEI93-06

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	5.5	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-004 (Surface) 071013 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123285**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 11:30 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10041 SDG#: PEI93-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles 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	19	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 Semivolatiles 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	0.016 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.016 J	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	0.018 J	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.015 J	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.015 J	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.014 J	0.010	0.051	1
08357	Naphthalene	91-20-3	0.043 J	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	0.018 J	0.010	0.051	1
<b>Metals 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	46.9	0.033	0.20	1
<b>SW-846 6010B</b>						
			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.0086 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.244	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	14.8	0.0334	0.200	1

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

Sample Description: **WS-004 (Surface) 071013 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123285**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 11:30 by AP ExxonMobil  
 Submitted: 07/11/2013 09:20 Mobil Pipeline Company  
 Reported: 07/18/2013 09:40 PO Box 4416  
 Houston TX 77210-4416

10041 SDG#: PEI93-06

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>	
07051	Chromium	7440-47-3	0.0035 J	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0248	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.42	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0076 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	0.0078	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	C131922AA	07/12/2013 02:22	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131922AA	07/12/2013 02:22	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13192WAF026	07/18/2013 00:38	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13192WAF026	07/11/2013 22:00	Elaine F Stoltzfus	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131936256001	07/12/2013 06:21	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131921848001	07/12/2013 03:22	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	131921848001	07/12/2013 03:22	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	131921848001	07/12/2013 03:22	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	131921848001	07/12/2013 03:22	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	131921848001	07/12/2013 03:22	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	131921848001	07/12/2013 03:22	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	131921848001	07/12/2013 03:22	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	131921848001	07/12/2013 03:22	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	131921848001	07/12/2013 03:22	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	131921848001	07/12/2013 03:22	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	131921848001	07/12/2013 03:22	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	131925713002	07/12/2013 08:07	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131921848001	07/11/2013 15:04	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131925713002	07/11/2013 16:45	Nelli S Markaryan	1

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

Sample Description: WS-004(0.5-1.0)071013 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7123286  
LL Group # 1403156  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/10/2013 11:40 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10042 SDG#: PEI93-07

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	6.6	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-004(0.5-1.0)071013 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123286**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 11:40 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10042 SDG#: PEI93-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B 25mL</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</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	15	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 Semivolatiles 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	0.016 J	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	0.011 J	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	0.015 J	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	0.015 J	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	0.021 J	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	0.020 J	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	0.015 J	0.011	0.053	1
<b>Metals 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	54.7	0.033	0.20	1
<b>SW-846 6010B</b>						
			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.0230	0.0068	0.0200	1
07046	Barium	7440-39-3	0.384	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0011 J	0.00076	0.0050	1
01750	Calcium	7440-70-2	13.0	0.0334	0.200	1

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

Sample Description: **WS-004(0.5-1.0)071013 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123286**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 11:40 by AP ExxonMobil  
 Submitted: 07/11/2013 09:20 Mobil Pipeline Company  
 Reported: 07/18/2013 09:40 PO Box 4416  
 Houston TX 77210-4416

10042 SDG#: PEI93-07

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>	
07051	Chromium	7440-47-3	0.0355	0.0016	0.0150	1
07055	Lead	7439-92-1	0.131	0.0047	0.0150	1
01757	Magnesium	7439-95-4	5.43	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0370	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	0.0498	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	0.000081 J	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	C131922AA	07/12/2013 02:44	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131922AA	07/12/2013 02:44	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13192WAF026	07/18/2013 01:05	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13192WAF026	07/11/2013 22:00	Elaine F Stoltzfus	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131936256001	07/12/2013 06:21	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131921848001	07/12/2013 03:26	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	131921848001	07/12/2013 03:26	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	131921848001	07/12/2013 03:26	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	131921848001	07/12/2013 03:26	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	131921848001	07/12/2013 03:26	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	131921848001	07/12/2013 03:26	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	131921848001	07/12/2013 03:26	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	131921848001	07/12/2013 03:26	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	131921848001	07/12/2013 03:26	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	131921848001	07/12/2013 03:26	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	131921848001	07/12/2013 03:26	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	131925713002	07/12/2013 08:13	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131921848001	07/11/2013 15:04	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131925713002	07/11/2013 16:45	Nelli S Markaryan	1

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



Sample Description: WS-007 (Surface) 071013 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7123287  
LL Group # 1403156  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/10/2013 12:20 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10071 SDG#: PEI93-08BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
		purge				
02898	Acetone	67-64-1	5.8	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	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 (Surface) 071013 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7123287  
LL Group # 1403156  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/10/2013 12:20 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10071 SDG#: PEI93-08BKG

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</b>						
			ug/l	ug/l	ug/l	
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.3 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.011 J	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	0.012 J	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.016 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.036 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.019 J	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.014 J	0.010	0.051	1
08357	Chrysene	218-01-9	0.016 J	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.040 J	0.010	0.051	1
08357	Fluorene	86-73-7	0.012 J	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.019 J	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.012 J	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.011 J	0.010	0.051	1
08357	Naphthalene	91-20-3	0.042 J	0.031	0.051	1
08357	Phenanthrene	85-01-8	0.031 J	0.031	0.051	1
08357	Pyrene	129-00-0	0.034 J	0.010	0.051	1
<b>Metals SM 2340 B-1997</b>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	20.1	0.033	0.20	1
<b>SW-846 6010B</b>						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0552	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.81	0.0334	0.200	1

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

Sample Description: WS-007 (Surface) 071013 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7123287  
LL Group # 1403156  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/10/2013 12:20 by AP

ExxonMobil

Mobil Pipeline Company

Submitted: 07/11/2013 09:20

PO Box 4416

Reported: 07/18/2013 09:40

Houston TX 77210-4416

10071 SDG#: PEI93-08BKG

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>	
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0054 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	1.97	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0016 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0050 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

### 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	C131922AA	07/12/2013 03:06	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131922AA	07/12/2013 03:06	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13192WAF026	07/18/2013 01:32	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13192WAF026	07/11/2013 22:00	Elaine F Stoltzfus	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131936256001	07/12/2013 06:21	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131921848001	07/12/2013 02:29	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	131921848001	07/12/2013 02:29	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	131921848001	07/12/2013 02:29	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	131921848001	07/12/2013 02:29	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	131921848001	07/12/2013 02:29	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	131921848001	07/12/2013 02:29	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	131921848001	07/12/2013 02:29	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	131921848001	07/12/2013 02:29	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	131921848001	07/12/2013 02:29	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	131921848001	07/12/2013 02:29	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	131921848001	07/12/2013 02:29	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	131925713002	07/12/2013 08:15	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131921848001	07/11/2013 15:04	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131925713002	07/11/2013 16:45	Nelli S Markaryan	1

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

Sample Description: **WS-007 (Surface) 071013MS Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123288**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 12:20 by AP ExxonMobil  
 Submitted: 07/11/2013 09:20 Mobil Pipeline Company  
 Reported: 07/18/2013 09:40 PO Box 4416  
 Houston TX 77210-4416

10071 SDG#: PEI93-08MS

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	51	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.6	0.1	0.5	1
02898	Benzene	71-43-2	5.6	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.3	0.1	0.5	1
02898	Bromochloromethane	74-97-5	6.0	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.6	0.1	0.5	1
02898	Bromoform	75-25-2	5.8	0.1	0.5	1
02898	Bromomethane	74-83-9	5.4	0.1	0.5	1
02898	2-Butanone	78-93-3	39	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.4	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.5	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.5	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	6.6	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.9	0.1	0.5	1
02898	Chloroethane	75-00-3	5.2	0.1	0.5	1
02898	Chloroform	67-66-3	5.9	0.1	0.5	1
02898	Chloromethane	74-87-3	4.9	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.5	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.6	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	5.5	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	5.7	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.4	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.4	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.5	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.5	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.5	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	4.8	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.6	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.6	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	6.1	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.6	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	6.1	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	6.7	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.7	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	5.2	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	6.1	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	6.0	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	4.6	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	4.9	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.9	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.6	0.1	0.5	1
02898	Freon 113	76-13-1	6.4	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.1	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.7	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.5	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.7	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	23	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.8	0.2	0.5	1

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

Sample Description: WS-007 (Surface) 071013MS Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7123288  
LL Group # 1403156  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/10/2013 12:20 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10071 SDG#: PEI93-08MS

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</b>						
			ug/l	ug/l	ug/l	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	5.5	0.1	0.5	1
02898	Styrene	100-42-5	5.8	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	6.0	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	5.0	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	6.0	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	26	2.0	5.0	1
02898	Toluene	108-88-3	5.9	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.1	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	4.3	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	6.1	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.4	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.9	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	5.7	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.3	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.5	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.6	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	5.2	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	17	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	1.1	0.011	0.053	1
08357	Acenaphthylene	208-96-8	1.1	0.011	0.053	1
08357	Anthracene	120-12-7	1.1	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	1.1	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	0.99	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	1.1	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	0.93	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	0.99	0.011	0.053	1
08357	Chrysene	218-01-9	0.98	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	0.94	0.011	0.053	1
08357	Fluoranthene	206-44-0	1.1	0.011	0.053	1
08357	Fluorene	86-73-7	1.1	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.94	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	1.1	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	0.99	0.011	0.053	1
08357	Naphthalene	91-20-3	1.1	0.032	0.053	1
08357	Phenanthrene	85-01-8	1.1	0.032	0.053	1
08357	Pyrene	129-00-0	1.1	0.011	0.053	1
<b>Metals SM 2340 B-1997</b>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	39.8	0.033	0.20	1
<b>SW-846 6010B</b>						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.164	0.0068	0.0200	1
07046	Barium	7440-39-3	2.19	0.0033	0.0050	1
07049	Cadmium	7440-43-9	0.0530	0.00076	0.0050	1
01750	Calcium	7440-70-2	8.91	0.0334	0.200	1

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

Sample Description: **WS-007 (Surface) 071013MS Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123288**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 12:20 by AP ExxonMobil  
 Submitted: 07/11/2013 09:20 Mobil Pipeline Company  
 Reported: 07/18/2013 09:40 PO Box 4416  
 Houston TX 77210-4416

10071 SDG#: PEI93-08MS

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>	
07051	Chromium	7440-47-3	0.214	0.0016	0.0150	1
07055	Lead	7439-92-1	0.171	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.27	0.0167	0.100	1
07061	Nickel	7440-02-0	0.549	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.160	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0495	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.535	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	0.0010	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	C131922AA	07/12/2013 03:28	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131922AA	07/12/2013 03:28	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13192WAF026	07/18/2013 01:59	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13192WAF026	07/11/2013 22:00	Elaine F Stoltzfus	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131936256001	07/12/2013 06:21	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131921848001	07/12/2013 02:41	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	131921848001	07/12/2013 02:41	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	131921848001	07/12/2013 02:41	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	131921848001	07/12/2013 02:41	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	131921848001	07/12/2013 02:41	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	131921848001	07/12/2013 02:41	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	131921848001	07/12/2013 02:41	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	131921848001	07/12/2013 02:41	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	131921848001	07/12/2013 02:41	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	131921848001	07/12/2013 02:41	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	131921848001	07/12/2013 02:41	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	131925713002	07/12/2013 08:19	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131921848001	07/11/2013 15:04	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131925713002	07/11/2013 16:45	Nelli S Markaryan	1

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

Sample Description: **WS-007 (Surface) 071013MSD Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123289**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 12:20 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10071 SDG#: PEI93-08MSD

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	45	3.0	5.0	1
02898	Allyl Chloride	107-05-1	4.7	0.1	0.5	1
02898	Benzene	71-43-2	5.7	0.1	0.5	1
02898	Bromobenzene	108-86-1	5.3	0.1	0.5	1
02898	Bromochloromethane	74-97-5	5.9	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	5.6	0.1	0.5	1
02898	Bromoform	75-25-2	5.7	0.1	0.5	1
02898	Bromomethane	74-83-9	5.7	0.1	0.5	1
02898	2-Butanone	78-93-3	36	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	5.4	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	5.5	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	5.5	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	6.5	0.1	0.5	1
02898	Chlorobenzene	108-90-7	5.9	0.1	0.5	1
02898	Chloroethane	75-00-3	5.5	0.1	0.5	1
02898	Chloroform	67-66-3	5.9	0.1	0.5	1
02898	Chloromethane	74-87-3	5.2	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	5.5	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	5.6	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	5.1	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	5.8	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	5.5	0.1	0.5	1
02898	Dibromomethane	74-95-3	5.4	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	5.5	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	5.5	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	5.5	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	5.1	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	5.6	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	5.6	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	6.1	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	5.7	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	6.1	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	7.1	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	5.8	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	5.3	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	6.2	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	6.1	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	4.9	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	5.1	0.1	0.5	1
02898	Ethyl ether	60-29-7	4.9	0.1	0.5	1
02898	Ethylbenzene	100-41-4	5.7	0.1	0.5	1
02898	Freon 113	76-13-1	6.4	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	5.1	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	5.7	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	5.4	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	4.9	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	24	1.0	5.0	1
02898	Methylene Chloride	75-09-2	5.8	0.2	0.5	1

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

Sample Description: WS-007 (Surface) 071013MSD Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7123289  
LL Group # 1403156  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/10/2013 12:20 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10071 SDG#: PEI93-08MSD

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	5.5	0.1	0.5	1
02898	Styrene	100-42-5	5.8	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	6.0	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	5.1	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	6.0	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	23	2.0	5.0	1
02898	Toluene	108-88-3	6.0	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	4.3	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	4.4	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	6.1	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	5.5	0.1	0.5	1
02898	Trichloroethene	79-01-6	5.9	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	6.0	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	5.3	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	5.6	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	5.6	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	5.6	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	17	0.1	0.5	1
<b>GC/MS Semivolatiles SW-846 8270C SIM</b>						
08357	Acenaphthene	83-32-9	1.0	0.010	0.051	1
08357	Acenaphthylene	208-96-8	1.0	0.010	0.051	1
08357	Anthracene	120-12-7	0.98	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.92	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.81	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.89	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.71	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.81	0.010	0.051	1
08357	Chrysene	218-01-9	0.85	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.69	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.99	0.010	0.051	1
08357	Fluorene	86-73-7	1.0	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.70	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	1.0	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.94	0.010	0.051	1
08357	Naphthalene	91-20-3	1.1	0.031	0.051	1
08357	Phenanthrene	85-01-8	1.0	0.031	0.051	1
08357	Pyrene	129-00-0	1.0	0.010	0.051	1
<b>Metals SM 2340 B-1997</b>						
06256	Total Hardness as CaCO3	471-34-1	39.3	0.033	0.20	1
<b>SW-846 6010B</b>						
07035	Arsenic	7440-38-2	0.165	0.0068	0.0200	1
07046	Barium	7440-39-3	2.21	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0532	0.00076	0.0050	1
01750	Calcium	7440-70-2	8.99	0.0334	0.200	1

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



Sample Description: **WS-007 (Surface) 071013MSD Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123289**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 12:20 by AP ExxonMobil  
 Submitted: 07/11/2013 09:20 Mobil Pipeline Company  
 Reported: 07/18/2013 09:40 PO Box 4416  
 Houston TX 77210-4416

10071 SDG#: PEI93-08MSD

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>	
07051	Chromium	7440-47-3	0.215	0.0016	0.0150	1
07055	Lead	7439-92-1	0.167	0.0047	0.0150	1
01757	Magnesium	7439-95-4	4.10	0.0167	0.100	1
07061	Nickel	7440-02-0	0.548	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.159	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0495	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.538	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	0.0010	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	C131922AA	07/12/2013 03:50	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131922AA	07/12/2013 03:50	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13192WAF026	07/18/2013 02:26	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13192WAF026	07/11/2013 22:00	Elaine F Stoltzfus	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131936256001	07/12/2013 06:21	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131921848001	07/12/2013 02:45	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	131921848001	07/12/2013 02:45	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	131921848001	07/12/2013 02:45	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	131921848001	07/12/2013 02:45	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	131921848001	07/12/2013 02:45	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	131921848001	07/12/2013 02:45	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	131921848001	07/12/2013 02:45	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	131921848001	07/12/2013 02:45	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	131921848001	07/12/2013 02:45	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	131921848001	07/12/2013 02:45	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	131921848001	07/12/2013 02:45	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	131925713002	07/12/2013 08:21	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131921848001	07/11/2013 15:04	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131925713002	07/11/2013 16:45	Nelli S Markaryan	1

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

Sample Description: WS-007 (Surface) 071013DUP Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7123290  
LL Group # 1403156  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/10/2013 12:20 by AP ExxonMobil  
Mobil Pipeline Company  
Submitted: 07/11/2013 09:20 PO Box 4416  
Reported: 07/18/2013 09:40 Houston TX 77210-4416

10071 SDG#: PEI93-08DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals SM 2340 B-1997</b>			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	20.1	0.033	0.20	1
<b>SW-846 6010B</b>			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0090 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0546	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	4.79	0.0334	0.200	1
07051	Chromium	7440-47-3	0.0017 J	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0055 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	1.97	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	0.0044 J	0.0020	0.0050	1
<b>SW-846 7470A</b>			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

### General Sample Comments

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131936256001	07/12/2013 06:21	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131921848001	07/12/2013 02:37	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	131921848001	07/12/2013 02:37	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	131921848001	07/12/2013 02:37	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	131921848001	07/12/2013 02:37	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	131921848001	07/12/2013 02:37	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	131921848001	07/12/2013 02:37	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	131921848001	07/12/2013 02:37	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	131921848001	07/12/2013 02:37	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	131921848001	07/12/2013 02:37	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	131921848001	07/12/2013 02:37	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	131921848001	07/12/2013 02:37	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	131925713002	07/12/2013 08:17	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131921848001	07/11/2013 15:04	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131925713002	07/11/2013 16:45	Nelli S Markaryan	1

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

Sample Description: **WS-007(0.5-1.0)071013 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123291**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 12:30 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10072 SDG#: PEI93-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS</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	8.1	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	1.6 J	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: **WS-007(0.5-1.0)071013 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123291**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 12:30 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10072 SDG#: PEI93-09

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</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</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	10	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 Semivolatiles SW-846 8270C SIM</b>						
			<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08357	Acenaphthene	83-32-9	0.023 J	0.010	0.051	1
08357	Acenaphthylene	208-96-8	0.013 J	0.010	0.051	1
08357	Anthracene	120-12-7	0.020 J	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.032 J	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.035 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.11	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.038 J	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.033 J	0.010	0.051	1
08357	Chrysene	218-01-9	0.080	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.13	0.010	0.051	1
08357	Fluorene	86-73-7	0.022 J	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.036 J	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.021 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.	0.031	0.051	1
08357	Phenanthrene	85-01-8	0.056	0.031	0.051	1
08357	Pyrene	129-00-0	0.12	0.010	0.051	1
<b>Metals 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	81.9	0.033	0.20	1
<b>SW-846 6010B</b>						
			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.0351	0.0068	0.0200	1
07046	Barium	7440-39-3	0.901	0.0033	0.0050	1
07049	Cadmium	7440-43-9	0.0023 J	0.00076	0.0050	1
01750	Calcium	7440-70-2	14.6	0.0334	0.200	1

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

Sample Description: **WS-007(0.5-1.0)071013 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123291**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 12:30 by AP ExxonMobil  
 Submitted: 07/11/2013 09:20 Mobil Pipeline Company  
 Reported: 07/18/2013 09:40 PO Box 4416  
 Houston TX 77210-4416

10072 SDG#: PEI93-09

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>	
07051	Chromium	7440-47-3	0.0657	0.0016	0.0150	1
07055	Lead	7439-92-1	0.174	0.0047	0.0150	1
01757	Magnesium	7439-95-4	11.0	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0790	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	0.128	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	0.00032	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	C131931AA	07/12/2013 13:20	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131931AA	07/12/2013 13:20	Kerri E Legerlotz	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13192WAF026	07/18/2013 02:53	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13192WAF026	07/11/2013 22:00	Elaine F Stoltzfus	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131936256001	07/12/2013 06:21	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131921848001	07/12/2013 03:30	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	131921848001	07/12/2013 03:30	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	131921848001	07/12/2013 03:30	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	131921848001	07/12/2013 03:30	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	131921848001	07/12/2013 03:30	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	131921848001	07/12/2013 03:30	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	131921848001	07/12/2013 03:30	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	131921848001	07/12/2013 03:30	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	131921848001	07/12/2013 03:30	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	131921848001	07/12/2013 03:30	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	131921848001	07/12/2013 03:30	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	131925713002	07/12/2013 08:23	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131921848001	07/11/2013 15:04	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131925713002	07/11/2013 16:45	Nelli S Markaryan	1

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

Sample Description: **WS-006 (Surface) 071013 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123292**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 12:40 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10061 SDG#: PEI93-10

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	7.4	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: **WS-006 (Surface) 071013 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123292**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 12:40 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10061 SDG#: PEI93-10

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	0.9	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	0.12	0.010	0.051	1
<b>Metals</b>	<b>SM 2340 B-1997</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
06256	Total Hardness as CaCO3	471-34-1	37.4	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	0.0255	0.0068	0.0200	1
07046	Barium	7440-39-3	0.249	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	8.47	0.0334	0.200	1

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

Sample Description: **WS-006 (Surface) 071013 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123292**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 12:40 by AP ExxonMobil  
 Submitted: 07/11/2013 09:20 Mobil Pipeline Company  
 Reported: 07/18/2013 09:40 PO Box 4416  
 Houston TX 77210-4416

10061 SDG#: PEI93-10

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>	
07051	Chromium	7440-47-3	0.0124 J	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0254	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.94	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0106	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	0.0215	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	C131922AA	07/12/2013 04:34	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131922AA	07/12/2013 04:34	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13192WAF026	07/18/2013 03:20	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13192WAF026	07/11/2013 22:00	Elaine F Stoltzfus	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131936256001	07/12/2013 06:21	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131921848001	07/12/2013 03:34	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	131921848001	07/12/2013 03:34	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	131921848001	07/12/2013 03:34	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	131921848001	07/12/2013 03:34	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	131921848001	07/12/2013 03:34	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	131921848001	07/12/2013 03:34	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	131921848001	07/12/2013 03:34	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	131921848001	07/12/2013 03:34	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	131921848001	07/12/2013 03:34	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	131921848001	07/12/2013 03:34	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	131921848001	07/12/2013 03:34	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	131925713002	07/12/2013 08:26	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131921848001	07/11/2013 15:04	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131925713002	07/11/2013 16:45	Nelli S Markaryan	1

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



Sample Description: **WS-006(0.5-1.0)071013 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123293**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 12:50 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10062 SDG#: PEI93-11

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	3.3 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	6.5	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)071013 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7123293  
LL Group # 1403156  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/10/2013 12:50 by AP

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10062 SDG#: PEI93-11

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</b>						
			ug/l	ug/l	ug/l	
	<b>purge</b>					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.8	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 Semivolatiles SW-846 8270C SIM</b>						
			ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.012	0.060	1
08357	Acenaphthylene	208-96-8	N.D.	0.012	0.060	1
08357	Anthracene	120-12-7	N.D.	0.012	0.060	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.012	0.060	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.012	0.060	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.012	0.060	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.012	0.060	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.012	0.060	1
08357	Chrysene	218-01-9	N.D.	0.012	0.060	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.012	0.060	1
08357	Fluoranthene	206-44-0	N.D.	0.012	0.060	1
08357	Fluorene	86-73-7	N.D.	0.012	0.060	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.012	0.060	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.012	0.060	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.012	0.060	1
08357	Naphthalene	91-20-3	N.D.	0.036	0.060	1
08357	Phenanthrene	85-01-8	N.D.	0.036	0.060	1
08357	Pyrene	129-00-0	0.38	0.012	0.060	1
<b>Metals SM 2340 B-1997</b>						
			mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	27.8	0.033	0.20	1
<b>SW-846 6010B</b>						
			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.010 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.175	0.0033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.33	0.0334	0.200	1

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

Sample Description: **WS-006(0.5-1.0)071013 Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123293**  
 LL Group # **1403156**  
 Account # **14739**

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

Collected: 07/10/2013 12:50 by AP ExxonMobil  
 Submitted: 07/11/2013 09:20 Mobil Pipeline Company  
 Reported: 07/18/2013 09:40 PO Box 4416  
 Houston TX 77210-4416

10062 SDG#: PEI93-11

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>	
07051	Chromium	7440-47-3	0.0023 J	0.0016	0.0150	1
07055	Lead	7439-92-1	0.0066 J	0.0047	0.0150	1
01757	Magnesium	7439-95-4	2.90	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0024 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.0047 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

### 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	C131922AA	07/12/2013 04:56	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131922AA	07/12/2013 04:56	Kevin A Sposito	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13192WAF026	07/18/2013 03:47	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13192WAF026	07/11/2013 22:00	Elaine F Stoltzfus	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131936256001	07/12/2013 06:21	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131921848001	07/12/2013 03:38	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	131921848001	07/12/2013 03:38	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	131921848001	07/12/2013 03:38	John W Yanzuk II	1
01750	Calcium	SW-846 6010B	1	131921848001	07/12/2013 03:38	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	131921848001	07/12/2013 03:38	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	131921848001	07/12/2013 03:38	John W Yanzuk II	1
01757	Magnesium	SW-846 6010B	1	131921848001	07/12/2013 03:38	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	131921848001	07/12/2013 03:38	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	131921848001	07/12/2013 03:38	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	131921848001	07/12/2013 03:38	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	131921848001	07/12/2013 03:38	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	131925713002	07/12/2013 08:28	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131921848001	07/11/2013 15:04	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131925713002	07/11/2013 16:45	Nelli S Markaryan	1

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

Sample Description: **WS-TB-93-071013 Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7123294**  
LL Group # **1403156**  
Account # **14739**

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

Collected: 07/10/2013

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10T93 SDG#: PEI93-12TB\*

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-93-071013 Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7123294  
LL Group # 1403156  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/10/2013

ExxonMobil

Submitted: 07/11/2013 09:20

Mobil Pipeline Company

Reported: 07/18/2013 09:40

PO Box 4416

Houston TX 77210-4416

10T93 SDG#: PEI93-12TB\*

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

### General Sample Comments

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

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C131931AA	07/12/2013 13:42	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C131931AA	07/12/2013 13:42	Kerri E Legerlotz	1

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

## Quality Control Summary

Client Name: ExxonMobil  
Reported: 07/18/13 at 09:40 AM

Group Number: 1403156

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: C131922AA	Sample number(s): 7123280-7123289, 7123292-7123293								
Acetone	N.D.	3.0	5.0	ug/l	106		73-135		
Allyl Chloride	N.D.	0.1	0.5	ug/l	85		61-130		
Benzene	N.D.	0.1	0.5	ug/l	105		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	114		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	107		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	112		63-132		
Bromomethane	N.D.	0.1	0.5	ug/l	102		38-146		
2-Butanone	N.D.	1.0	5.0	ug/l	98		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	102		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	103		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	116		74-133		
Chlorobenzene	N.D.	0.1	0.5	ug/l	112		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	100		67-124		
Chloroform	N.D.	0.1	0.5	ug/l	109		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	92		55-135		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	105		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	106		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	100		57-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	111		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	106		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	107		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	107		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	106		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	106		80-112		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	90		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	104		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	110		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	108		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	107		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	110		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	126		63-149		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	110		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	103		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	112		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	109		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	94		74-120		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	100		73-126		
Ethyl ether	N.D.	0.1	0.5	ug/l	96		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	105		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	113		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	97		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: 1403156

Reported: 07/18/13 at 09:40 AM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Isopropylbenzene	N.D.	0.1	0.5	ug/l	105		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	102		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	95		80-125		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	96		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	115		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	102		80-120		
Styrene	N.D.	0.1	0.5	ug/l	110		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	113		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	101		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	110		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	99		65-131		
Toluene	N.D.	0.1	0.5	ug/l	106		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	80		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	85		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	110		79-127		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	107		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	110		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	105		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	102		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	105		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	104		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	95		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	108		80-120		

Batch number: C131931AA

Sample number(s): 7123291,7123294

Acetone	N.D.	3.0	5.0	ug/l	98		73-135		
Allyl Chloride	N.D.	0.1	0.5	ug/l	88		61-130		
Benzene	N.D.	0.1	0.5	ug/l	105		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	114		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	106		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	112		63-132		
Bromomethane	N.D.	0.1	0.5	ug/l	101		38-146		
2-Butanone	N.D.	1.0	5.0	ug/l	92		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	103		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	104		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	114		74-133		
Chlorobenzene	N.D.	0.1	0.5	ug/l	111		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	98		67-124		
Chloroform	N.D.	0.1	0.5	ug/l	107		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	90		55-135		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	105		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	107		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	99		57-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	112		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	106		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	105		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	104		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	104		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	104		80-112		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	81		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	105		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	105		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	109		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	108		80-120		

\*- Outside of specification

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

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

## Quality Control Summary

Client Name: ExxonMobil

Group Number: 1403156

Reported: 07/18/13 at 09:40 AM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	110		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	126		63-149		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	111		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	102		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	110		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	109		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	98		74-120		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	100		73-126		
Ethyl ether	N.D.	0.1	0.5	ug/l	95		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	104		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	109		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	96		61-125		
Isopropylbenzene	N.D.	0.1	0.5	ug/l	105		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	102		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	98		80-125		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	97		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	109		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	102		80-120		
Styrene	N.D.	0.1	0.5	ug/l	109		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	113		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	102		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	108		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	94		65-131		
Toluene	N.D.	0.1	0.5	ug/l	107		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	78		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	84		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	107		79-127		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	109		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	108		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	101		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	103		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	104		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	104		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	96		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	107		80-120		

Batch number: 13192WAF026

Sample number(s): 7123280-7123289,7123291-7123293

Acenaphthene	N.D.	0.010	0.050	ug/l	102		65-124		
Acenaphthylene	N.D.	0.010	0.050	ug/l	104		72-113		
Anthracene	N.D.	0.010	0.050	ug/l	110		70-117		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	113		75-115		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	108		72-120		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	119		74-130		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	112		63-121		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	107		74-118		
Chrysene	N.D.	0.010	0.050	ug/l	104		75-112		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	112		66-122		
Fluoranthene	N.D.	0.010	0.050	ug/l	110		73-116		
Fluorene	N.D.	0.010	0.050	ug/l	101		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	110		66-122		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	101		72-114		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	94		74-119		
Naphthalene	N.D.	0.030	0.050	ug/l	102		67-118		
Phenanthrene	N.D.	0.030	0.050	ug/l	107		72-109		
Pyrene	N.D.	0.010	0.050	ug/l	107		71-116		

\*- Outside of specification

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

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



## Quality Control Summary

Client Name: ExxonMobil  
Reported: 07/18/13 at 09:40 AM

Group Number: 1403156

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 131921848001	Sample number(s): 7123280-7123293								
Arsenic	N.D.	0.0068	0.0200	mg/l	100		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	103		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	102		90-112		
Calcium	0.150 J	0.0334	0.200	mg/l	101		90-110		
Chromium	N.D.	0.0016	0.0150	mg/l	103		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	104		88-110		
Magnesium	N.D.	0.0167	0.100	mg/l	99		90-110		
Nickel	N.D.	0.0015	0.0100	mg/l	106		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	102		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	98		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	104		90-110		
Batch number: 131925713002	Sample number(s): 7123280-7123293								
Mercury	N.D.	0.00006	0.00020	mg/l	101		80-120		

## Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: C131922AA	Sample number(s): 7123280-7123289, 7123292-7123293 UNSPK: 7123287								
Acetone	120	106	57-163	11	30				
Allyl Chloride	92	93	67-139	1	30				
Benzene	113	114	87-126	1	30				
Bromobenzene	106	106	80-123	0	30				
Bromochloromethane	121	119	82-125	2	30				
Bromodichloromethane	113	112	82-133	0	30				
Bromoform	115	114	60-138	1	30				
Bromomethane	108	113	41-145	5	30				
2-Butanone	104	97	63-146	7	30				
n-Butylbenzene	109	108	83-131	0	30				
sec-Butylbenzene	110	110	84-128	1	30				
tert-Butylbenzene	109	110	84-135	1	30				
Carbon Tetrachloride	132	130	81-148	1	30				
Chlorobenzene	118	119	78-133	0	30				
Chloroethane	105	109	70-139	4	30				
Chloroform	118	118	86-136	0	30				
Chloromethane	98	104	55-152	6	30				
2-Chlorotoluene	110	110	81-120	0	30				
4-Chlorotoluene	113	112	82-119	1	30				
1,2-Dibromo-3-chloropropane	111	102	43-143	8	30				
Dibromochloromethane	115	116	79-125	1	30				
1,2-Dibromoethane	108	109	84-127	2	30				
Dibromomethane	109	108	83-126	1	30				
1,2-Dichlorobenzene	111	110	83-117	1	30				
1,3-Dichlorobenzene	111	109	81-118	1	30				
1,4-Dichlorobenzene	111	110	79-120	0	30				
Dichlorodifluoromethane	97	101	28-136	5	30				
1,1-Dichloroethane	113	113	88-136	0	30				

\*- Outside of specification

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

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

## Quality Control Summary

Client Name: ExxonMobil  
Reported: 07/18/13 at 09:40 AM

Group Number: 1403156

### 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>
1,2-Dichloroethane	112	111	82-135	1	30				
1,1-Dichloroethene	121	122	83-150	1	30				
cis-1,2-Dichloroethene	113	114	82-129	1	30				
trans-1,2-Dichloroethene	121	122	88-127	1	30				
Dichlorofluoromethane	134	142	59-176	6	30				
1,2-Dichloropropane	114	116	91-126	2	30				
1,3-Dichloropropane	104	105	80-127	1	30				
2,2-Dichloropropane	122	123	80-134	1	30				
1,1-Dichloropropene	120	121	86-139	1	30				
cis-1,3-Dichloropropene	93	98	74-132	5	30				
trans-1,3-Dichloropropene	98	102	71-128	4	30				
Ethyl ether	97	97	67-127	0	30				
Ethylbenzene	113	113	80-140	1	30				
Freon 113	127	127	87-158	0	30				
Hexachlorobutadiene	101	102	65-128	1	30				
Isopropylbenzene	114	115	81-133	1	30				
p-Isopropyltoluene	109	109	84-124	0	30				
Methyl Tertiary Butyl Ether	94	98	82-132	4	30				
4-Methyl-2-Pentanone	93	95	69-149	2	30				
Methylene Chloride	116	116	84-122	0	30				
n-Propylbenzene	109	110	79-131	1	30				
Styrene	116	115	63-151	1	30				
1,1,1,2-Tetrachloroethane	120	120	87-126	0	30				
1,1,2,2-Tetrachloroethane	100	103	75-131	2	30				
Tetrachloroethene	120	120	75-129	0	30				
Tetrahydrofuran	105	93	56-154	11	30				
Toluene	112	113	83-127	1	30				
1,2,3-Trichlorobenzene	82	85	73-125	4	30				
1,2,4-Trichlorobenzene	87	88	77-120	2	30				
1,1,1-Trichloroethane	122	122	85-140	0	30				
1,1,2-Trichloroethane	109	111	85-129	2	30				
Trichloroethene	119	119	85-131	0	30				
Trichlorofluoromethane	114	120	67-161	6	30				
1,2,3-Trichloropropane	106	105	76-120	1	30				
1,2,4-Trimethylbenzene	110	111	87-126	1	30				
1,3,5-Trimethylbenzene	111	112	89-129	0	30				
Vinyl Chloride	105	112	65-151	7	30				
Xylene (Total)	116	116	81-137	0	30				
Batch number: C131931AA	Sample number(s): 7123291,7123294 UNSPK: P121307								
Acetone	128	124	57-163	3	30				
Allyl Chloride	82	92	67-139	12	30				
Benzene	107	110	87-126	2	30				
Bromobenzene	107	111	80-123	4	30				
Bromochloromethane	112	120	82-125	7	30				
Bromodichloromethane	111	112	82-133	1	30				
Bromoform	110	110	60-138	0	30				
Bromomethane	100	103	41-145	3	30				
2-Butanone	138	131	63-146	5	30				
n-Butylbenzene	106	111	83-131	5	30				
sec-Butylbenzene	108	113	84-128	4	30				
tert-Butylbenzene	109	113	84-135	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  
Reported: 07/18/13 at 09:40 AM

Group Number: 1403156

### 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>
Carbon Tetrachloride	122	123	81-148	1	30				
Chlorobenzene	117	119	78-133	1	30				
Chloroethane	97	101	70-139	4	30				
Chloroform	112	113	86-136	0	30				
Chloromethane	90	93	55-152	4	30				
2-Chlorotoluene	109	113	81-120	3	30				
4-Chlorotoluene	112	116	82-119	4	30				
1,2-Dibromo-3-chloropropane	151*	139	43-143	8	30				
Dibromochloromethane	115	116	79-125	1	30				
1,2-Dibromoethane	108	109	84-127	0	30				
Dibromomethane	108	106	83-126	2	30				
1,2-Dichlorobenzene	108	111	83-117	3	30				
1,3-Dichlorobenzene	110	113	81-118	2	30				
1,4-Dichlorobenzene	110	113	79-120	2	30				
Dichlorodifluoromethane	81	81	28-136	0	30				
1,1-Dichloroethane	104	108	88-136	3	30				
1,2-Dichloroethane	108	107	82-135	1	30				
1,1-Dichloroethene	117	117	83-150	0	30				
cis-1,2-Dichloroethene	123	124	82-129	0	30				
trans-1,2-Dichloroethene	115	117	88-127	2	30				
Dichlorofluoromethane	127	130	59-176	3	30				
1,2-Dichloropropane	113	115	91-126	2	30				
1,3-Dichloropropane	107	107	80-127	0	30				
2,2-Dichloropropane	112	116	80-134	4	30				
1,1-Dichloropropene	114	117	86-139	2	30				
cis-1,3-Dichloropropene	96	99	74-132	2	30				
trans-1,3-Dichloropropene	100	101	71-128	1	30				
Ethyl ether	93	92	67-127	1	30				
Ethylbenzene	110	112	80-140	2	30				
Freon 113	117	119	87-158	1	30				
Hexachlorobutadiene	101	103	65-128	2	30				
Isopropylbenzene	111	112	81-133	2	30				
p-Isopropyltoluene	107	111	84-124	4	30				
Methyl Tertiary Butyl Ether	93	95	82-132	3	30				
4-Methyl-2-Pentanone	97	96	69-149	1	30				
Methylene Chloride	109	111	84-122	2	30				
n-Propylbenzene	107	111	79-131	4	30				
Styrene	115	116	63-151	0	30				
1,1,1,2-Tetrachloroethane	117	120	87-126	2	30				
1,1,2,2-Tetrachloroethane	105	107	75-131	2	30				
Tetrachloroethene	117	118	75-129	0	30				
Tetrahydrofuran	151	144	56-154	5	30				
Toluene	112	114	83-127	2	30				
1,2,3-Trichlorobenzene	77	81	73-125	6	30				
1,2,4-Trichlorobenzene	81	86	77-120	6	30				
1,1,1-Trichloroethane	113	114	85-140	1	30				
1,1,2-Trichloroethane	113	112	85-129	1	30				
Trichloroethene	84 (2)	82 (2)	85-131	0	30				
Trichlorofluoromethane	106	109	67-161	2	30				
1,2,3-Trichloropropane	108	107	76-120	1	30				
1,2,4-Trimethylbenzene	109	112	87-126	3	30				
1,3,5-Trimethylbenzene	109	113	89-129	3	30				

\*- Outside of specification

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

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

## Quality Control Summary

Client Name: ExxonMobil  
Reported: 07/18/13 at 09:40 AM

Group Number: 1403156

### 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>BKG</u> <u>MAX</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>	
Vinyl Chloride	97	100	65-151	3	30				
Xylene (Total)	113	115	81-137	2	30				
Batch number: 13192WAF026      Sample number(s): 7123280-7123289,7123291-7123293 UNSPK: 7123287									
Acenaphthene	99	97	59-127	6	30				
Acenaphthylene	103	100	33-146	6	30				
Anthracene	99	95	69-119	9	30				
Benzo(a)anthracene	99	88	67-124	15	30				
Benzo(a)pyrene	92	77	64-123	20	30				
Benzo(b)fluoranthene	98	83	61-133	20	30				
Benzo(g,h,i)perylene	86	67	36-138	28	30				
Benzo(k)fluoranthene	91	78	59-128	19	30				
Chrysene	90	81	62-118	13	30				
Dibenz(a,h)anthracene	88	67	32-141	31*	30				
Fluoranthene	98	92	65-123	10	30				
Fluorene	99	97	69-124	6	30				
Indeno(1,2,3-cd)pyrene	86	67	29-143	28	30				
1-Methylnaphthalene	100	97	67-117	6	30				
2-Methylnaphthalene	92	90	71-126	5	30				
Naphthalene	99	99	58-131	4	30				
Phenanthrene	100	97	67-117	7	30				
Pyrene	102	96	59-125	10	30				
Batch number: 131921848001      Sample number(s): 7123280-7123293 UNSPK: 7123287 BKG: 7123287									
Arsenic	110	110	81-123	0	20	N.D.	0.0090 J	200* (1) 20	
Barium	107	108	78-118	1	20	0.0552	0.0546	1 20	
Cadmium	106	106	83-116	0	20	N.D.	N.D.	0 (1) 20	
Calcium	103	105	81-118	1	20	4.81	4.79	0 20	
Chromium	107	107	81-120	0	20	N.D.	0.0017 J	200* (1) 20	
Lead	110	108	75-125	2	20	0.0054 J	0.0055 J	1 (1) 20	
Magnesium	115	106	75-125	4	20	1.97	1.97	0 20	
Nickel	110	109	86-115	0	20	0.0016 J	N.D.	200* (1) 20	
Selenium	106	106	75-125	0	20	N.D.	N.D.	0 (1) 20	
Silver	99	99	75-125	0	20	N.D.	N.D.	0 (1) 20	
Vanadium	106	107	90-111	0	20	0.0050 J	0.0044 J	11 (1) 20	
Batch number: 131925713002      Sample number(s): 7123280-7123293 UNSPK: 7123287 BKG: 7123287									
Mercury	103	102	80-120	1	20	N.D.	N.D.	0 (1) 20	

### 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: C131922AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7123280	110	104	98	92

\*- Outside of specification

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

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

## Quality Control Summary

Client Name: ExxonMobil  
Reported: 07/18/13 at 09:40 AM

Group Number: 1403156

### Surrogate Quality Control

7123281	111	102	97	93
7123282	111	105	98	94
7123283	112	103	98	92
7123284	111	106	98	92
7123285	111	106	97	93
7123286	112	106	97	92
7123287	111	104	97	91
7123288	106	100	102	100
7123289	106	101	102	100
7123292	111	103	96	94
7123293	111	105	97	95
Blank	110	104	98	94
LCS	105	102	101	100
MS	106	100	102	100
MSD	106	101	102	100

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

Analysis Name: BTEX 25-ml purge

Batch number: C131931AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7123291	111	105	97	93
7123294	111	104	97	93
Blank	108	105	98	94
LCS	105	99	101	99
MS	107	101	102	100
MSD	105	101	101	99

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

Analysis Name: PAHs in waters by SIM

Batch number: 13192WAF026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7123280	97	65	101
7123281	86	46*	95
7123282	94	84	98
7123283	97	86	99
7123284	97	88	99
7123285	95	109	98
7123286	96	109	101
7123287	98	108	100
7123288	93	103	102
7123289	87	86	99
7123291	87	81	93
7123292	95	101	97
7123293	98	105	101
Blank	84	89	87
LCS	103	117	104
MS	93	103	102
MSD	87	86	99

Limits: 64-120      62-141      58-134

\*- Outside of specification

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

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

**Quality Control Summary**

Client Name: ExxonMobil  
Reported: 07/18/13 at 09:40 AM

Group Number: 1403156

**Surrogate Quality Control**

\*- Outside of specification

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

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

# ExxonMobil Analysis Request/Chain of Custody



**Lancaster Laboratories**

Acct. # 14739 Group # 1403156 Sample # 7123280-94  
 For Eurofins Lancaster Laboratories use only  
 Instructions on reverse side correspond with circled numbers.

1 of 2

1 Client Information				4 Matrix				5 Analyses Requested										6 Remarks						
Facility #/SID <u>MAYFLOWER PIPELINE INCIDENT</u>				Sediment <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input checked="" type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input 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 <u>MAYFLOWER, AR</u>								Total # of Containers VOCs 8260 PAHs 8270 SEM HIRPDES, 2 REPA METALS Co., N.Y. INC.																
ExxonMobil PM <u>SCOTT BUSHROE</u>		Cost Center/AFE		3 Grab		Composite																		
Consultant/Office <u>AREADIS</u>				Oil		Total # of Containers																		
Consultant PM <u>STEVE BARRICK</u>		Consultant Phone # <u>919-202-6799</u>		Water		Total # of Containers																		
Sampler <u>A. PARDINELLO / H. VAN ALLER</u>				Air		Total # of Containers																		
2 Sample Identification		Collected		Grab		Composite																		
		Date	Time																					
WS-003 (SURFACE) 071013		7/10/13	930	✓				6	✓	✓	✓													
WS-002 (SURFACE) 071013		7/10/13	1015	✓				6	✓	✓	✓													
WS-005 (SURFACE) 071013		7/10/13	1030	✓				6	✓	✓	✓													
WS-001 (SURFACE) 071013		7/10/13	1100	✓				6	✓	✓	✓													
WS-001 (0.5-1.0) 071013		7/10/13	1110	✓				6	✓	✓	✓													
WS-004 (SURFACE) 071013		7/10/13	1130	✓				6	✓	✓	✓													
WS-004 (0.5-1.0) 071013		7/10/13	1140	✓				6	✓	✓	✓													
WS-007 (SURFACE) 071013		7/10/13	1220	✓				6	✓	✓	✓													
WS-007 (0.5-1.0) 071013		7/10/13	1230	✓				6	✓	✓	✓													
WS-007 (SURFACE) 071013 <sup>MS</sup>		7/10/13	1240	✓				12	✓	✓	✓													
WS-006 (SURFACE) 071013		7/10/13	1240	✓				6	✓	✓	✓													
WS-006 (0.5-1.0) 071013		7/10/13	1250	✓				6	✓	✓	✓													

# ExxonMobil Analysis Request/Chain of Custody



**Lancaster Laboratories**

For Eurofins Lancaster Laboratories use only

Acct. # 14739 Group # 1403156 Sample # 7123280-94  
 Instructions on reverse side correspond with circled numbers.

2 of 2

<b>1 Client Information</b>			<b>4 Matrix</b>			<b>5 Analyses Requested</b>								<b>6 Remarks</b>																																																																																																			
Facility #/SID <u>MAYFLOWER PIPELINE INCIDENT</u>			Sediment <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input checked="" type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Oil <input type="checkbox"/> Total # of Containers <u>2</u>	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																																																																																																					
Site Address <u>MAYFLOWER, AR</u>				<table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td style="width: 10%;"> </td><td style="width: 10%;"> </td><td style="width: 10%;"> </td><td style="width: 10%;"> </td><td style="width: 10%;"> </td><td style="width: 10%;"> </td><td style="width: 10%;"> </td><td style="width: 10%;"> </td><td style="width: 10%;"> </td><td style="width: 10%;"> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table>																																																																																																												SCR#: _____	
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<u>WS-TB-93-074013</u>		<u>7/10/13</u>	<u>—</u>																																																																																																														
<b>7 Turnaround Time Requested (TAT)</b> (please circle)			Relinquished by <u>[Signature]</u>			Date <u>7/10/13</u>		Time <u>1500</u>		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 _____																																																																																																				
<b>8 Data Package</b> (circle if required)			Relinquished by Commercial Carrier			Date _____		Time _____		Received by <u>[Signature]</u>		Date <u>7/11/13</u>	Time <u>0920</u>																																																																																																				
Type I - Full Type VI (Raw Data) NJ Reduced Other _____			EDD (circle if required) Locus EIM (default) Other _____			UPS _____ FedEx <input checked="" type="checkbox"/> Other _____		Temperature Upon Receipt <u>0.8-1.9</u> °C		Custody Seals Intact? <input checked="" type="checkbox"/> Yes      No		Date _____	Time _____																																																																																																				



Environmental Sample Administration 1403156  
Receipt Documentation Log

Client/Project: XOM MAYFLOWER

Shipping Container Sealed: YES NO

Date of Receipt: 7/11/13

Custody Seal Present \* : YES NO

Time of Receipt: 0920

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

Source Code: 50-1

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	DT131	1.9	TB	WI	Y	B	
2	↓	0.8	↓	↓	↓	↓	
3	<del>_____</del>						
4	<del>_____</del>						
5	<del>_____</del>						
6	<del>_____</del>						

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

Paperwork Discrepancy/Unpacking Problems:

1 vial for WS-003 included a crayfish

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Unpacker Signature/Emp#: Daniel Lund / 208 Date/Time: 7/11/13 / 0940

# 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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