

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

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

June 07, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 05/31/2013

Group Number: 1393717

SDG: PEH91

PO Number: 4510076246

Release Number: MAYFLOWER 1406

State of Sample Origin: AR

Client Sample Description

Lancaster Labs (LLI)

WS-003(Surface)053013 Grab Surface Water	7076101
WS-002(Surface)053013 Grab Surface Water	7076102
WS-BKG-002(Surface)053013 Grab Surface Water	7076103
WS-005(Surface)053013 Grab Surface Water	7076104
WS-008(Surface)053013 Grab Surface Water	7076105
WS-001(Surface)053013 Grab Surface Water	7076106
WS-001(0.5-1.0)053013 Grab Surface Water	7076107
WS-004(Surface)053013 Grab Surface Water	7076108
WS-007(Surface)053013 Grab Surface Water	7076109
WS-006(Surface)053013 Grab Surface Water	7076110
WS-006(0.5-1.0)053013 Grab Surface Water	7076111
DUP-WS-33-053013 Grab Surface Water	7076112
WS-TB-59-053013 Water	7076113

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
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Attn: Rhiannon Parmalee

ELECTRONIC ARCADIS
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Attn: Jamie Pritchard

Attn: Michael L Sixsmith

Attn: Julie Foster

Attn: Carl Wideman

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1393717

General Comments:

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

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

Project specific QC samples are not included in this data set

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

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

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

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

Batch #: G131551AA (Sample number(s): 7076101-7076113 UNSPK: 7076103)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Allyl Chloride, Methylene Chloride, 1,2,3-Trichloropropane, 2-Chlorotoluene, 4-Chlorotoluene, p-Isopropyltoluene, 1,3-Dichlorobenzene, 1,2-Dichlorobenzene

SW-846 8270C SIM, GC/MS Semivolatiles

Batch #: 13151WAI026 (Sample number(s): 7076101-7076112)

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7076102, 7076108, 7076109

Sample #s: 7076101, 7076103, 7076104, 7076105, 7076106, 7076107, 7076110, 7076111, 7076112

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

Sample #s: 7076102, 7076108, 7076109

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis. The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

SW-846 6010B, Metals

Batch #: 131521848001 (Sample number(s): 7076101-7076112 UNSPK: 7076109 BKG: 7076109)

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

Sample Description: WS-003(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076101
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 09:00 by TM

ExxonMobil

Submitted: 05/31/2013 09:20

Mobil Pipeline Company

Reported: 06/07/2013 12:01

PO Box 4416

Houston TX 77210-4416

30031 SDG#: PEH91-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	0.1 J	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)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076101
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 09:00 by TM

ExxonMobil

Submitted: 05/31/2013 09:20

Mobil Pipeline Company

Reported: 06/07/2013 12:01

PO Box 4416

Houston TX 77210-4416

30031 SDG#: PEH91-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	1.0	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	0.5 J	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	0.1 J	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	0.6	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.046 J	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.085	0.010	0.051	1
08357	Naphthalene	91-20-3	0.11	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	18.7	0.064	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0249	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1

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

Sample Description: WS-003(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076101
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 09:00 by TM

ExxonMobil

Mobil Pipeline Company

Submitted: 05/31/2013 09:20

PO Box 4416

Reported: 06/07/2013 12:01

Houston TX 77210-4416

30031 SDG#: PEH91-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	4.24	0.0640	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.98	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0017 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0013	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000070	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	G131551AA	06/04/2013 12:12	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G131551AA	06/04/2013 12:12	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13151WAI026	06/02/2013 15:09	Linda M Hartenstine	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13151WAI026	05/31/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131546256001	06/03/2013 10:14	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131521848001	06/03/2013 02:43	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131521848001	06/03/2013 02:43	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131521848001	06/03/2013 02:43	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131521848001	06/03/2013 02:43	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131521848001	06/03/2013 02:43	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131521848001	06/03/2013 02:43	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131521848001	06/03/2013 02:43	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131521848001	06/03/2013 02:43	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131521848001	06/03/2013 02:43	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131521848001	06/03/2013 02:43	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131521848001	06/03/2013 02:43	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131515713001	06/01/2013 11:12	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131521848001	06/01/2013 10:49	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131515713001	05/31/2013 15:50	Nelli S Markaryan	1

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

Sample Description: WS-002(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076102
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 09:30 by TM

ExxonMobil

Submitted: 05/31/2013 09:20

Mobil Pipeline Company

Reported: 06/07/2013 12:01

PO Box 4416

Houston TX 77210-4416

30021 SDG#: PEH91-02

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

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

Sample Description: WS-002(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076102
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 09:30 by TM

ExxonMobil

Submitted: 05/31/2013 09:20

Mobil Pipeline Company

Reported: 06/07/2013 12:01

PO Box 4416

Houston TX 77210-4416

30021 SDG#: PEH91-02

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

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

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	17.8	0.064	0.20

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

Sample Description: WS-002(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076102
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 09:30 by TM

ExxonMobil

Mobil Pipeline Company

Submitted: 05/31/2013 09:20

PO Box 4416

Reported: 06/07/2013 12:01

Houston TX 77210-4416

30021 SDG#: PEH91-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0193	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	4.02	0.0640	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.88	0.0606	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0013	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000070	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	G131551AA	06/04/2013 12:34	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G131551AA	06/04/2013 12:34	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13151WAI026	06/02/2013 15:36	Linda M Hartenstine	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13151WAI026	05/31/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131546256001	06/03/2013 10:14	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131521848001	06/03/2013 02:47	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131521848001	06/03/2013 02:47	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131521848001	06/03/2013 02:47	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131521848001	06/03/2013 02:47	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131521848001	06/03/2013 02:47	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131521848001	06/03/2013 02:47	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131521848001	06/03/2013 02:47	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131521848001	06/03/2013 02:47	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131521848001	06/03/2013 02:47	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131521848001	06/03/2013 02:47	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131521848001	06/03/2013 02:47	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131515713001	06/01/2013 11:14	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131521848001	06/01/2013 10:49	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131515713001	05/31/2013 15:50	Nelli S Markaryan	1

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

Sample Description: WS-BKG-002(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076103
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 09:50 by TM

ExxonMobil

Submitted: 05/31/2013 09:20

Mobil Pipeline Company

Reported: 06/07/2013 12:01

PO Box 4416

Houston TX 77210-4416

302BK SDG#: PEH91-03

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

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

Sample Description: WS-BKG-002(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076103
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 09:50 by TM

ExxonMobil

Submitted: 05/31/2013 09:20

Mobil Pipeline Company

Reported: 06/07/2013 12:01

PO Box 4416

Houston TX 77210-4416

302BK SDG#: PEH91-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	37.2	0.064	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0412	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1

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

Sample Description: WS-BKG-002(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076103
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 09:50 by TM

ExxonMobil

Mobil Pipeline Company

Submitted: 05/31/2013 09:20

PO Box 4416

Reported: 06/07/2013 12:01

Houston TX 77210-4416

302BK SDG#: PEH91-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	8.90	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0025 J	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	3.64	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0033 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0043 J	0.0013	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000070	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	G131551AA	06/04/2013 12:56	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G131551AA	06/04/2013 12:56	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13151WAI026	06/02/2013 16:04	Linda M Hartenstine	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13151WAI026	05/31/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131546256001	06/03/2013 10:14	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131521848001	06/03/2013 02:58	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131521848001	06/03/2013 02:58	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131521848001	06/03/2013 02:58	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131521848001	06/03/2013 02:58	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131521848001	06/03/2013 02:58	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131521848001	06/03/2013 02:58	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131521848001	06/03/2013 02:58	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131521848001	06/03/2013 02:58	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131521848001	06/03/2013 02:58	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131521848001	06/03/2013 02:58	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131521848001	06/03/2013 02:58	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131515713001	06/01/2013 11:16	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131521848001	06/01/2013 10:49	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131515713001	05/31/2013 15:50	Nelli S Markaryan	1

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

Sample Description: WS-005(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076104
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 10:20 by TM

ExxonMobil

Mobil Pipeline Company

Submitted: 05/31/2013 09:20

PO Box 4416

Reported: 06/07/2013 12:01

Houston TX 77210-4416

30051 SDG#: PEH91-04

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

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

Sample Description: WS-005(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076104
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 10:20 by TM

ExxonMobil

Mobil Pipeline Company

Submitted: 05/31/2013 09:20

PO Box 4416

Reported: 06/07/2013 12:01

Houston TX 77210-4416

30051 SDG#: PEH91-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	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	0.044 J	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	18.7	0.064	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0212	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1

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

Sample Description: WS-005(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076104
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 10:20 by TM

ExxonMobil

Mobil Pipeline Company

Submitted: 05/31/2013 09:20

PO Box 4416

Reported: 06/07/2013 12:01

Houston TX 77210-4416

30051 SDG#: PEH91-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	4.28	0.0640	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.94	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0013 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0014 J	0.0013	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000070	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	G131551AA	06/04/2013 13:18	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G131551AA	06/04/2013 13:18	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13151WAI026	06/02/2013 16:31	Linda M Hartenstine	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13151WAI026	05/31/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131546256001	06/03/2013 10:14	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131521848001	06/03/2013 03:01	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131521848001	06/03/2013 03:01	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131521848001	06/03/2013 03:01	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131521848001	06/03/2013 03:01	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131521848001	06/03/2013 03:01	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131521848001	06/03/2013 03:01	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131521848001	06/03/2013 03:01	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131521848001	06/03/2013 03:01	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131521848001	06/03/2013 03:01	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131521848001	06/03/2013 03:01	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131521848001	06/03/2013 03:01	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131515713001	06/01/2013 11:18	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131521848001	06/01/2013 10:49	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131515713001	05/31/2013 15:50	Nelli S Markaryan	1

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

Sample Description: WS-008(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076105
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 11:00 by TM

ExxonMobil

Submitted: 05/31/2013 09:20

Mobil Pipeline Company

Reported: 06/07/2013 12:01

PO Box 4416

Houston TX 77210-4416

30081 SDG#: PEH91-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	0.5	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-008(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076105
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 11:00 by TM

ExxonMobil

Submitted: 05/31/2013 09:20

Mobil Pipeline Company

Reported: 06/07/2013 12:01

PO Box 4416

Houston TX 77210-4416

30081 SDG#: PEH91-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.5	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	0.2 J	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.011 J	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	0.022 J	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	0.043 J	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	0.016 J	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	0.062	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	0.030 J	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	0.020 J	0.011	0.053	1
08357	Chrysene	218-01-9	0.099	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	0.072	0.011	0.053	1
08357	Fluorene	86-73-7	0.015 J	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.019 J	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	0.14	0.032	0.053	1
08357	Phenanthrene	85-01-8	0.040 J	0.032	0.053	1
08357	Pyrene	129-00-0	0.098	0.011	0.053	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	82.9	0.064	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0766	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1

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

Sample Description: WS-008(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076105
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 11:00 by TM

ExxonMobil

Mobil Pipeline Company

Submitted: 05/31/2013 09:20

PO Box 4416

Reported: 06/07/2013 12:01

Houston TX 77210-4416

30081 SDG#: PEH91-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	17.4	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0032 J	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	9.59	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0054 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0036 J	0.0013	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000070	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	G131551AA	06/04/2013 13:39	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G131551AA	06/04/2013 13:39	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13151WAI026	06/02/2013 16:58	Linda M Hartenstine	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13151WAI026	05/31/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131546256001	06/03/2013 10:14	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131521848001	06/03/2013 03:05	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131521848001	06/03/2013 03:05	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131521848001	06/03/2013 03:05	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131521848001	06/03/2013 03:05	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131521848001	06/03/2013 03:05	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131521848001	06/03/2013 03:05	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131521848001	06/03/2013 03:05	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131521848001	06/03/2013 03:05	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131521848001	06/03/2013 03:05	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131521848001	06/03/2013 03:05	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131521848001	06/03/2013 03:05	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131515713001	06/01/2013 11:20	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131521848001	06/01/2013 10:49	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131515713001	05/31/2013 15:50	Nelli S Markaryan	1

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

Sample Description: WS-001(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076106
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 12:45 by TM

ExxonMobil

Submitted: 05/31/2013 09:20

Mobil Pipeline Company

Reported: 06/07/2013 12:01

PO Box 4416

Houston TX 77210-4416

30011 SDG#: PEH91-06

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

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

Sample Description: WS-001(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076106
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 12:45 by TM

ExxonMobil

Submitted: 05/31/2013 09:20

Mobil Pipeline Company

Reported: 06/07/2013 12:01

PO Box 4416

Houston TX 77210-4416

30011 SDG#: PEH91-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	0.045 J	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	17.6	0.064	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0242	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1

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

Sample Description: WS-001(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076106
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 12:45 by TM

ExxonMobil

Mobil Pipeline Company

Submitted: 05/31/2013 09:20

PO Box 4416

Reported: 06/07/2013 12:01

Houston TX 77210-4416

30011 SDG#: PEH91-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	4.01	0.0640	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.85	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0012 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0015 J	0.0013	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000070	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	G131551AA	06/04/2013 14:01	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G131551AA	06/04/2013 14:01	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13151WAI026	06/02/2013 17:25	Linda M Hartenstine	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13151WAI026	05/31/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131546256001	06/03/2013 10:14	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131521848001	06/03/2013 03:09	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131521848001	06/03/2013 03:09	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131521848001	06/03/2013 03:09	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131521848001	06/03/2013 03:09	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131521848001	06/03/2013 03:09	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131521848001	06/03/2013 03:09	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131521848001	06/03/2013 03:09	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131521848001	06/03/2013 03:09	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131521848001	06/03/2013 03:09	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131521848001	06/03/2013 03:09	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131521848001	06/03/2013 03:09	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131515713001	06/01/2013 11:23	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131521848001	06/01/2013 10:49	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131515713001	05/31/2013 15:50	Nelli S Markaryan	1

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

Sample Description: WS-001(0.5-1.0)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076107
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 12:50 by TM

ExxonMobil

Submitted: 05/31/2013 09:20

Mobil Pipeline Company

Reported: 06/07/2013 12:01

PO Box 4416

Houston TX 77210-4416

30012 SDG#: PEH91-07

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

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

Sample Description: WS-001(0.5-1.0)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076107
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 12:50 by TM

ExxonMobil

Mobil Pipeline Company

Submitted: 05/31/2013 09:20

PO Box 4416

Reported: 06/07/2013 12:01

Houston TX 77210-4416

30012 SDG#: PEH91-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	0.055	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	18.7	0.064	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0315	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1

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

Sample Description: WS-001(0.5-1.0)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076107
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 12:50 by TM

ExxonMobil

Mobil Pipeline Company

Submitted: 05/31/2013 09:20

PO Box 4416

Reported: 06/07/2013 12:01

Houston TX 77210-4416

30012 SDG#: PEH91-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	4.12	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0016 J	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	2.03	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0024 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0030 J	0.0013	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000070	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	G131551AA	06/04/2013 15:27	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G131551AA	06/04/2013 15:27	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13151WAI026	06/02/2013 17:52	Linda M Hartenstine	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13151WAI026	05/31/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131546256001	06/03/2013 10:14	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131521848001	06/03/2013 03:12	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131521848001	06/03/2013 03:12	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131521848001	06/03/2013 03:12	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131521848001	06/03/2013 03:12	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131521848001	06/03/2013 03:12	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131521848001	06/03/2013 03:12	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131521848001	06/03/2013 03:12	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131521848001	06/03/2013 03:12	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131521848001	06/03/2013 03:12	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131521848001	06/03/2013 03:12	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131521848001	06/03/2013 03:12	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131515713001	06/01/2013 11:29	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131521848001	06/01/2013 10:49	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131515713001	05/31/2013 15:50	Nelli S Markaryan	1

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

Sample Description: WS-004(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076108
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 13:10 by TM

ExxonMobil

Mobil Pipeline Company

Submitted: 05/31/2013 09:20

PO Box 4416

Reported: 06/07/2013 12:01

Houston TX 77210-4416

30041 SDG#: PEH91-08

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

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

Sample Description: WS-004(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076108
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 13:10 by TM

ExxonMobil

Submitted: 05/31/2013 09:20

Mobil Pipeline Company

Reported: 06/07/2013 12:01

PO Box 4416

Houston TX 77210-4416

30041 SDG#: PEH91-08

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

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

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO ₃	471-34-1	33.6	0.064	0.20

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

Sample Description: WS-004(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076108
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 13:10 by TM

ExxonMobil

Mobil Pipeline Company

Submitted: 05/31/2013 09:20

PO Box 4416

Reported: 06/07/2013 12:01

Houston TX 77210-4416

30041 SDG#: PEH91-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0177 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.187	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1
01750	Calcium	7440-70-2	5.47	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0308	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0242	0.0051	0.0150	1
01757	Magnesium	7439-95-4	4.85	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0234	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0436	0.0013	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000070	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	G131551AA	06/04/2013 14:22	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G131551AA	06/04/2013 14:22	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13151WAI026	06/02/2013 18:20	Linda M Hartenstine	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13151WAI026	05/31/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131546256001	06/03/2013 10:14	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131521848001	06/03/2013 03:16	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131521848001	06/03/2013 03:16	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131521848001	06/03/2013 03:16	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131521848001	06/03/2013 03:16	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131521848001	06/03/2013 03:16	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131521848001	06/03/2013 03:16	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131521848001	06/03/2013 03:16	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131521848001	06/03/2013 03:16	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131521848001	06/03/2013 03:16	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131521848001	06/03/2013 03:16	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131521848001	06/03/2013 03:16	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131515713001	06/01/2013 11:37	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131521848001	06/01/2013 10:49	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131515713001	05/31/2013 15:50	Nelli S Markaryan	1

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

Sample Description: WS-007(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076109
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 13:45 by TM

ExxonMobil

Mobil Pipeline Company

Submitted: 05/31/2013 09:20

PO Box 4416

Reported: 06/07/2013 12:01

Houston TX 77210-4416

30071 SDG#: PEH91-09

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

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

Sample Description: WS-007(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076109
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 13:45 by TM

ExxonMobil

Mobil Pipeline Company

Submitted: 05/31/2013 09:20

PO Box 4416

Reported: 06/07/2013 12:01

Houston TX 77210-4416

30071 SDG#: PEH91-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.5	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	0.013 J	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.030 J	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.022 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.066	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	0.024 J	0.010	0.051	1
08357	Chrysene	218-01-9	0.071	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	0.088	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	0.022 J	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	0.095	0.010	0.051	1

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

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

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	33.0	0.064	0.20

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

Sample Description: WS-007(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076109
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 13:45 by TM

ExxonMobil

Mobil Pipeline Company

Submitted: 05/31/2013 09:20

PO Box 4416

Reported: 06/07/2013 12:01

Houston TX 77210-4416

30071 SDG#: PEH91-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	0.0166 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.190	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.00041 J	0.00036	0.0050	1
01750	Calcium	7440-70-2	5.36	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0296	0.0011	0.0150	1
07055	Lead	7439-92-1	0.0235	0.0051	0.0150	1
01757	Magnesium	7439-95-4	4.75	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0233	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0425	0.0013	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000070	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	G131551AA	06/04/2013 14:44	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G131551AA	06/04/2013 14:44	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13151WAI026	06/02/2013 18:47	Linda M Hartenstine	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13151WAI026	05/31/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131546256001	06/03/2013 10:14	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131521848001	06/03/2013 02:22	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131521848001	06/03/2013 02:22	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131521848001	06/03/2013 02:22	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131521848001	06/03/2013 02:22	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131521848001	06/03/2013 02:22	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131521848001	06/03/2013 02:22	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131521848001	06/03/2013 02:22	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131521848001	06/03/2013 02:22	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131521848001	06/03/2013 02:22	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131521848001	06/03/2013 02:22	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131521848001	06/03/2013 02:22	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131515713001	06/01/2013 11:39	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131521848001	06/01/2013 10:49	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131515713001	05/31/2013 15:50	Nelli S Markaryan	1

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

Sample Description: WS-006(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076110
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 14:10 by TM

ExxonMobil

Submitted: 05/31/2013 09:20

Mobil Pipeline Company

Reported: 06/07/2013 12:01

PO Box 4416

Houston TX 77210-4416

30061 SDG#: PEH91-10

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

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

Sample Description: WS-006(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076110
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 14:10 by TM

ExxonMobil

Mobil Pipeline Company

Submitted: 05/31/2013 09:20

PO Box 4416

Reported: 06/07/2013 12:01

Houston TX 77210-4416

30061 SDG#: PEH91-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	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	0.052	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	17.7	0.064	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0216	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1

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

Sample Description: WS-006(Surface)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076110
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 14:10 by TM

ExxonMobil

Mobil Pipeline Company

Submitted: 05/31/2013 09:20

PO Box 4416

Reported: 06/07/2013 12:01

Houston TX 77210-4416

30061 SDG#: PEH91-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	4.03	0.0640	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.87	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0014 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0013	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000070	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	G131551AA	06/04/2013 15:05	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G131551AA	06/04/2013 15:05	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13151WAI026	06/02/2013 19:14	Linda M Hartenstine	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13151WAI026	05/31/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131546256001	06/03/2013 10:14	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131521848001	06/03/2013 03:19	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131521848001	06/03/2013 03:19	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131521848001	06/03/2013 03:19	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131521848001	06/03/2013 03:19	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131521848001	06/03/2013 03:19	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131521848001	06/03/2013 03:19	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131521848001	06/03/2013 03:19	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131521848001	06/03/2013 03:19	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131521848001	06/03/2013 03:19	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131521848001	06/03/2013 03:19	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131521848001	06/03/2013 03:19	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131515713001	06/01/2013 11:41	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131521848001	06/01/2013 10:49	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131515713001	05/31/2013 15:50	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076111
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 14:20 by TM

ExxonMobil

Submitted: 05/31/2013 09:20

Mobil Pipeline Company

Reported: 06/07/2013 12:01

PO Box 4416

Houston TX 77210-4416

30062 SDG#: PEH91-11

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

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

Sample Description: WS-006(0.5-1.0)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076111
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 14:20 by TM

ExxonMobil

Submitted: 05/31/2013 09:20

Mobil Pipeline Company

Reported: 06/07/2013 12:01

PO Box 4416

Houston TX 77210-4416

30062 SDG#: PEH91-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	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	0.046 J	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	18.0	0.064	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0230	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1

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

Sample Description: WS-006(0.5-1.0)053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076111
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 14:20 by TM

ExxonMobil

Mobil Pipeline Company

Submitted: 05/31/2013 09:20

PO Box 4416

Reported: 06/07/2013 12:01

Houston TX 77210-4416

30062 SDG#: PEH91-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	4.08	0.0640	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	1.90	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0018 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0013	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000070	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	G131551AA	06/04/2013 16:09	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G131551AA	06/04/2013 16:09	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13151WAI026	06/02/2013 19:41	Linda M Hartenstine	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13151WAI026	05/31/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131546256001	06/03/2013 10:14	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131521848001	06/03/2013 03:23	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131521848001	06/03/2013 03:23	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131521848001	06/03/2013 03:23	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131521848001	06/03/2013 03:23	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131521848001	06/03/2013 03:23	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131521848001	06/03/2013 03:23	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131521848001	06/03/2013 03:23	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131521848001	06/03/2013 03:23	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131521848001	06/03/2013 03:23	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131521848001	06/03/2013 03:23	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131521848001	06/03/2013 03:23	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131515713001	06/01/2013 11:43	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131521848001	06/01/2013 10:49	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131515713001	05/31/2013 15:50	Nelli S Markaryan	1

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

Sample Description: DUP-WS-33-053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076112
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 by TM

ExxonMobil

Submitted: 05/31/2013 09:20

Mobil Pipeline Company

Reported: 06/07/2013 12:01

PO Box 4416

Houston TX 77210-4416

30D33 SDG#: PEH91-12FD

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

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

Sample Description: DUP-WS-33-053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076112
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 by TM

ExxonMobil

Submitted: 05/31/2013 09:20

Mobil Pipeline Company

Reported: 06/07/2013 12:01

PO Box 4416

Houston TX 77210-4416

30D33 SDG#: PEH91-12FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.6	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	0.2 J	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	0.012 J	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	0.021 J	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	0.044 J	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	0.017 J	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	0.082	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	0.033 J	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	0.026 J	0.010	0.052	1
08357	Chrysene	218-01-9	0.088	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	0.17	0.010	0.052	1
08357	Fluorene	86-73-7	0.017 J	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.025 J	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	0.083	0.031	0.052	1
08357	Phenanthrene	85-01-8	0.13	0.031	0.052	1
08357	Pyrene	129-00-0	0.16	0.010	0.052	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	82.1	0.064	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0737	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00036	0.0050	1

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

Sample Description: DUP-WS-33-053013 Grab Surface Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076112
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013 by TM

ExxonMobil

Mobil Pipeline Company

Submitted: 05/31/2013 09:20

PO Box 4416

Reported: 06/07/2013 12:01

Houston TX 77210-4416

30D33 SDG#: PEH91-12FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	17.2	0.0640	0.200	1
07051	Chromium	7440-47-3	0.0030 J	0.0011	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0051	0.0150	1
01757	Magnesium	7439-95-4	9.50	0.0606	0.100	1
07061	Nickel	7440-02-0	0.0046 J	0.0011	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0075	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0012	0.0050	1
07071	Vanadium	7440-62-2	0.0035 J	0.0013	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000070	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	G131551AA	06/04/2013 16:55	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G131551AA	06/04/2013 16:55	Jason M Long	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13151WAI026	06/02/2013 20:08	Linda M Hartenstine	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13151WAI026	05/31/2013 14:00	David S Schrum	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	131546256001	06/03/2013 10:14	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	131521848001	06/03/2013 03:26	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	131521848001	06/03/2013 03:26	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	131521848001	06/03/2013 03:26	Tara L Snyder	1
01750	Calcium	SW-846 6010B	1	131521848001	06/03/2013 03:26	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	131521848001	06/03/2013 03:26	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	131521848001	06/03/2013 03:26	Tara L Snyder	1
01757	Magnesium	SW-846 6010B	1	131521848001	06/03/2013 03:26	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	131521848001	06/03/2013 03:26	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	131521848001	06/03/2013 03:26	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	131521848001	06/03/2013 03:26	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	131521848001	06/03/2013 03:26	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	131515713001	06/01/2013 11:45	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	131521848001	06/01/2013 10:49	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131515713001	05/31/2013 15:50	Nelli S Markaryan	1

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

Sample Description: WS-TB-59-053013 Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076113
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013

ExxonMobil

Submitted: 05/31/2013 09:20

Mobil Pipeline Company

Reported: 06/07/2013 12:01

PO Box 4416

Houston TX 77210-4416

30T59 SDG#: PEH91-13TB*

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

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

Sample Description: WS-TB-59-053013 Water
Mayflower, AR
Pipeline Incident

LLI Sample # WW 7076113
LLI Group # 1393717
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 05/30/2013

ExxonMobil

Submitted: 05/31/2013 09:20

Mobil Pipeline Company

Reported: 06/07/2013 12:01

PO Box 4416

Houston TX 77210-4416

30T59 SDG#: PEH91-13TB*

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

General Sample Comments

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	G131551AA	06/04/2013 11:51	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	G131551AA	06/04/2013 11:51	Jason M Long	1

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

Quality Control Summary

Client Name: ExxonMobil
Reported: 06/07/13 at 12:01 PM

Group Number: 1393717

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: G131551AA	Sample number(s): 7076101-7076113								
Acetone	N.D.	3.0	5.0	ug/l	108		73-135		
Allyl Chloride	N.D.	0.1	0.5	ug/l	128		61-130		
Benzene	N.D.	0.1	0.5	ug/l	103		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	105		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	103		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	105		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	112		63-132		
Bromomethane	N.D.	0.1	0.5	ug/l	98		38-146		
2-Butanone	N.D.	1.0	5.0	ug/l	109		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	110		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	108		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	108		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	112		74-133		
Chlorobenzene	N.D.	0.1	0.5	ug/l	104		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	99		67-124		
Chloroform	N.D.	0.1	0.5	ug/l	106		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	94		55-135		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	109		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	110		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	96		57-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	107		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	99		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	99		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	106		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	105		80-112		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	82		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	109		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	104		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	105		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	108		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	115		63-149		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	109		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	106		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	104		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	105		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	104		74-120		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	98		73-126		
Ethyl ether	N.D.	0.1	0.5	ug/l	92		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	104		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	102		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	101		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: 1393717

Reported: 06/07/13 at 12:01 PM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Isopropylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	106		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	101		80-125		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	103		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	108		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	113		80-120		
Styrene	N.D.	0.1	0.5	ug/l	103		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	107		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	112		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	95		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	108		65-131		
Toluene	N.D.	0.1	0.5	ug/l	104		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	98		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	99		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	104		79-127		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	101		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	105		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	95		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	109		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	109		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	97		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	103		80-120		

Batch number: 13151WAI026

Sample number(s): 7076101-7076112

Acenaphthene	N.D.	0.010	0.050	ug/l	99	100	65-124	1	30
Acenaphthylene	N.D.	0.010	0.050	ug/l	105	106	72-113	1	30
Anthracene	N.D.	0.010	0.050	ug/l	104	104	70-117	0	30
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	107	105	75-115	1	30
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	95	95	72-120	0	30
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	103	106	74-130	2	30
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	106	106	63-121	1	30
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	108	106	74-118	2	30
Chrysene	N.D.	0.010	0.050	ug/l	103	105	75-112	2	30
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	102	102	66-122	0	30
Fluoranthene	N.D.	0.010	0.050	ug/l	101	101	73-116	0	30
Fluorene	N.D.	0.010	0.050	ug/l	102	102	74-115	0	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	105	106	66-122	1	30
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	109	108	72-114	1	30
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	111	109	74-119	2	30
Naphthalene	N.D.	0.030	0.050	ug/l	100	99	67-118	1	30
Phenanthrene	N.D.	0.030	0.050	ug/l	96	97	72-109	0	30
Pyrene	N.D.	0.010	0.050	ug/l	104	104	71-116	0	30

Batch number: 131515713001

Sample number(s): 7076101-7076112

Mercury	N.D.	0.00007	0.00020	mg/l	92		80-120		
		0							

Batch number: 131521848001

Sample number(s): 7076101-7076112

Arsenic	N.D.	0.0068	0.0200	mg/l	96		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	100		90-110		
Cadmium	N.D.	0.00036	0.0050	mg/l	98		90-112		
Calcium	N.D.	0.0640	0.200	mg/l	98		90-110		
Chromium	N.D.	0.0011	0.0150	mg/l	99		90-110		
Lead	N.D.	0.0051	0.0150	mg/l	99		88-110		
Magnesium	N.D.	0.0606	0.100	mg/l	95		90-110		

*- Outside of specification

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

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

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

Quality Control Summary

Client Name: ExxonMobil

Group Number: 1393717

Reported: 06/07/13 at 12:01 PM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Nickel	N.D.	0.0011	0.0100	mg/l	102		90-111		
Selenium	N.D.	0.0075	0.0200	mg/l	94		80-120		
Silver	N.D.	0.0012	0.0050	mg/l	115		80-120		
Vanadium	N.D.	0.0013	0.0050	mg/l	100		90-110		

Sample Matrix Quality Control

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

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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: G131551AA	Sample number(s): 7076101-7076113 UNSPK: 7076103								
Acetone	111	126	57-163	12	30				
Allyl Chloride	141*	155*	67-139	9	30				
Benzene	111	119	87-126	7	30				
Bromobenzene	111	120	80-123	8	30				
Bromochloromethane	110	117	82-125	6	30				
Bromodichloromethane	109	119	82-133	8	30				
Bromoform	114	123	60-138	8	30				
Bromomethane	102	109	41-145	6	30				
2-Butanone	112	121	63-146	8	30				
n-Butylbenzene	122	128	83-131	4	30				
sec-Butylbenzene	120	127	84-128	6	30				
tert-Butylbenzene	117	126	84-135	7	30				
Carbon Tetrachloride	123	133	81-148	8	30				
Chlorobenzene	111	117	78-133	6	30				
Chloroethane	107	115	70-139	7	30				
Chloroform	116	123	86-136	6	30				
Chloromethane	100	107	55-152	6	30				
2-Chlorotoluene	117	126*	81-120	7	30				
4-Chlorotoluene	118	127*	82-119	7	30				
1,2-Dibromo-3-chloropropane	89	97	43-143	8	30				
Dibromochloromethane	111	120	79-125	8	30				
1,2-Dibromoethane	101	109	84-127	8	30				
Dibromomethane	104	112	83-126	8	30				
1,2-Dichlorobenzene	109	118*	83-117	7	30				
1,3-Dichlorobenzene	113	122*	81-118	7	30				
1,4-Dichlorobenzene	111	119	79-120	7	30				
Dichlorodifluoromethane	86	85	28-136	1	30				
1,1-Dichloroethane	117	128	88-136	9	30				
1,2-Dichloroethane	107	119	82-135	11	30				
1,1-Dichloroethene	122	129	83-150	6	30				
cis-1,2-Dichloroethene	114	122	82-129	7	30				
trans-1,2-Dichloroethene	118	125	88-127	6	30				
Dichlorofluoromethane	127	136	59-176	6	30				
1,2-Dichloropropane	117	126	91-126	7	30				
1,3-Dichloropropane	108	115	80-127	7	30				
2,2-Dichloropropane	115	124	80-134	8	30				
1,1-Dichloropropene	119	125	86-139	5	30				
cis-1,3-Dichloropropene	109	120	74-132	9	30				
trans-1,3-Dichloropropene	101	109	71-128	8	30				
Ethyl ether	93	102	67-127	9	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: 06/07/13 at 12:01 PM

Group Number: 1393717

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
Ethylbenzene	114	119	80-140	5	30				
Freon 113	117	117	87-158	0	30				
Hexachlorobutadiene	110	118	65-128	7	30				
Isopropylbenzene	110	116	81-133	5	30				
p-Isopropyltoluene	118	125*	84-124	6	30				
Methyl Tertiary Butyl Ether	104	114	82-132	9	30				
4-Methyl-2-Pentanone	103	111	69-149	8	30				
Methylene Chloride	115	123*	84-122	6	30				
n-Propylbenzene	123	131	79-131	7	30				
Styrene	113	118	63-151	4	30				
1,1,1,2-Tetrachloroethane	111	121	87-126	9	30				
1,1,2,2-Tetrachloroethane	112	123	75-131	9	30				
Tetrachloroethene	107	112	75-129	4	30				
Tetrahydrofuran	103	117	56-154	13	30				
Toluene	115	121	83-127	5	30				
1,2,3-Trichlorobenzene	99	110	73-125	10	30				
1,2,4-Trichlorobenzene	102	112	77-120	10	30				
1,1,1-Trichloroethane	116	123	85-140	6	30				
1,1,2-Trichloroethane	106	115	85-129	8	30				
Trichloroethene	117	124	85-131	5	30				
Trichlorofluoromethane	108	111	67-161	3	30				
1,2,3-Trichloropropane	109	121*	76-120	10	30				
1,2,4-Trimethylbenzene	118	125	87-126	6	30				
1,3,5-Trimethylbenzene	118	127	89-129	8	30				
Vinyl Chloride	106	113	65-151	6	30				
Xylene (Total)	112	118	81-137	5	30				

Batch number: 131515713001 Sample number(s): 7076101-7076112 UNSPK: 7076107 BKG: 7076107
Mercury 93 93 80-120 0 20 N.D. N.D. 0 (1) 20

Batch number: 131521848001 Sample number(s): 7076101-7076112 UNSPK: 7076109 BKG: 7076109

Arsenic	99	98	81-123	1	20	0.0166 J	0.0157 J	5 (1)	20
Barium	103	104	78-118	1	20	0.190	0.186	2	20
Cadmium	98	99	83-116	1	20	0.00041 J	0.00041 J	0 (1)	20
Calcium	93	98	81-118	2	20	5.36	5.23	2	20
Chromium	109	110	81-120	0	20	0.0296	0.0291	2 (1)	20
Lead	96	97	75-125	1	20	0.0235	0.0252	7 (1)	20
Magnesium	137*	147*	75-125	3	20	4.75	4.63	3	20
Nickel	103	104	86-115	1	20	0.0233	0.0228	2 (1)	20
Selenium	97	97	75-125	0	20	N.D.	N.D.	0 (1)	20
Silver	116	117	75-125	1	20	N.D.	N.D.	0 (1)	20
Vanadium	106	107	90-111	1	20	0.0425	0.0414	3	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: NHDES VOCs 25ml purge

*- Outside of specification

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

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

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

Quality Control SummaryClient Name: ExxonMobil
Reported: 06/07/13 at 12:01 PM

Group Number: 1393717

Surrogate Quality Control

Batch number: G131551AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7076101	101	97	97	96
7076102	101	97	97	95
7076103	101	98	99	96
7076104	101	97	98	95
7076105	101	96	98	95
7076106	100	96	98	95
7076107	102	99	99	95
7076108	101	95	99	95
7076109	101	97	98	94
7076110	102	100	98	96
7076111	101	98	99	96
7076112	101	98	98	96
7076113	102	100	97	95
Blank	101	99	98	94
LCS	101	96	101	98
MS	100	96	101	99
MSD	100	96	100	98

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

Analysis Name: PAHs in waters by SIM

Batch number: 13151WAI026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7076101	95	69	99
7076102	91	52*	99
7076103	84	65	90
7076104	97	86	93
7076105	78	71	92
7076106	98	83	99
7076107	92	74	97
7076108	24*	17*	32*
7076109	24*	17*	33*
7076110	95	81	98
7076111	92	72	93
7076112	79	79	82
Blank	97	111	101
LCS	98	107	104
LCSD	97	107	103

Limits: 64-120 62-141 58-134

*- Outside of specification

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

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

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

ExxonMobil Analysis Request/Chain of Custody



**Lancaster
Laboratories**

Acct. # 14739

For Lancaster Laboratories use only
Group # 1393717 Sample # 7076101-13
Instructions on reverse side correspond with circled numbers.

pg. 1 of 2

1 Client Information				4 Matrix				5 Analyses Requested										6 Remarks			
Preservation Code				Total # of Containers				Preservation Codes										Remarks			
Facility #/SID <u>Mayflower Pipeline Incident</u> Site Address <u>Mayflower, AR</u> ExxonMobil PM <u>Scott Bushroe</u> Consultant/Office <u>ARCADIS-US</u> Consultant PM <u>Steve Barrick</u> Consultant Phone # <u>919-302-6799</u> Sampler <u>T. Milburn / H. Van Aller</u> Cost Center/AFE 				☐ Sediment ☐ Potable ☐ Ground ☐ NPDES ☒ Surface ☐ Air ☐ Oil 				H N S VOCs 8260B PAH 8270 SIM RPA Metals + Ni, V, Cr, Mo 										H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other 		Data Analysis Questions: Lyndi Mott/ARCADIS	
2 Sample Identification				3 Collected		Grab		Composite													
				Date		Time															
WS-003 (surface) 053013				5/30/13		0900		✓													
WS-002 (surface) 053013						0930		✓													
WS-BKG-002 (surface) 053013						0950		✓													
WS-005 (surface) 053013						1020		✓													
WS-008 (surface) 053013						1100		✓													
WS-001 (surface) 053013						1245		✓													
WS-001 (O.S.-I.O) 053013						1250		✓													
WS-004 (surface) 053013						1310		✓													
WS-007 (surface) 053013						1345		✓													
WS-006 (surface) 053013						1410		✓													
WS-006 (O.S.-I.O) 053013						1420		✓													
Dip-WS-33-053013								✓													
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by <u>Lyndi Mott</u>				Date <u>5/30/13</u>		Time <u>1700</u>		Received by				Date		Time			
Standard <u>5 day</u> 4 day																					
72 hour 48 hour 24 hour																					
8 Data Package (circle if required)				Relinquished by Commercial Carrier				Date		Time		Received by				Date		Time			
Type I - Full				UPS _____ FedEx ☒ Other _____								<u>Deborah Arnesen</u>				<u>5/31/13</u>		<u>0920</u>			
Type VI (Raw Data)																					
NJ Reduced																					
Other _____																					
				Temperature Upon Receipt <u>0.8-1.1</u> °C								Custody Seals Intact? <u>Yes</u> No									

Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300
The white copy should accompany samples to Lancaster Laboratories. The yellow copy should be retained by the client.

Issued by Dept. 40 Management
7053.01

Acct. # 14739

For Eurofins Lancaster Laboratories use only
Group # 1393717 Sample # 7076101-13
Instructions on reverse side correspond with circled numbers.

pg. 2 of 2

Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300
The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.

Issued by Dept. 40 Management
7053 0413

Environmental Sample Administration
Receipt Documentation Log

1393717

Client/Project: XOM MayflowerShipping Container Sealed: YES NODate of Receipt: 5/31/13Custody Seal Present *: YES NOTime of Receipt: 0920* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: 50-1Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	1.1	TB	WI	Y	B	
2	↓	0.8	↓	↓	↓	↓	
3							
4							
5							
6							

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#:

Daneshlund / 208

Date/Time:

5/31/13 / 0945

Issued by Dept. 6042 Management

Explanation of Symbols and Abbreviations

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

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
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 of gas 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.		

U.S. EPA CLP Data Qualifiers:

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

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

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

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

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

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