

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

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

August 02, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 07/26/2013

Group Number: 1407083

SDG: PEJ48

PO Number: 4510076246

Release Number: MAYFLOWER 1406

State of Sample Origin: AR

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
WS-014(1.5-2.0)072513 Filt Grab Surface Water	7141087
WS-014(5.5-6.0)072513 Filt Grab Surface Water	7141088
WS-012(1.5-2.0)072513 Filt Grab Surface Water	7141089
WS-012(5.0-5.5)072513 Filt Grab Surface Water	7141090
WS-010(1.5-2.0)072513 Filt Grab Surface Water	7141091
WS-010(3.5-4.0)072513 Filt Grab Surface Water	7141092
WS-005(Surface)072513 Filt Grab Surface Water	7141093
WS-011(1.5-2.0)072513 Filt Grab Surface Water	7141094
WS-011(5.0-5.5)072513 Filt Grab Surface Water	7141095
WS-018(Surface)072513 Filt Grab Surface Water	7141096
WS-003(Surface)072513 Filt Grab Surface Water	7141097
WS-002(Surface)072513 Filt Grab Surface Water	7141098
WS-007(0.5-1.0)072513 Filt Grab Surface Water	7141099
WS-006(0.5-1.0)072513 Filt Grab Surface Water	7141100
WS-001(0.5-1.0)072513 Filt Grab Surface Water	7141101
WS-EB-10-072513 Filt Grab Water	7141102
DUP-WS-61-072513 Filt Grab Surface Water	7141103

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

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

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

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1407083

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 6010B, Metals Dissolved**

Batch #: 132101848002 (Sample number(s): 7141087-7141103 UNSPK: 7141093 BKG: 7141093)

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

Sample #s: 7141091

Reporting limits for ICP metals were raised due to limited sample volume.

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

LL Sample # WW 7141087
LL Group # 1407083
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

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

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

Submitted: 07/26/2013 09:15

Reported: 08/02/2013 05:27

FM141 SDG#: PEJ48-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
	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	0.0172	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132101848002	07/30/2013 10:41	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132101848002	07/30/2013 10:41	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132101848002	07/30/2013 10:41	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132101848002	07/30/2013 10:41	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132101848002	07/30/2013 10:41	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132101848002	07/30/2013 10:41	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132101848002	07/30/2013 10:41	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132101848002	07/30/2013 10:41	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132101848002	07/30/2013 10:41	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132075713005	07/30/2013 04:58	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132091848002	07/28/2013 23:45	Annamaria Stipkovits	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	2	132101848002	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713005	07/29/2013 17:00	Nelli S Markaryan	1

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

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

LL Sample # WW 7141088
LL Group # 1407083
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 08:30 by JM ExxonMobil
Mobil Pipeline Company
Submitted: 07/26/2013 09:15 PO Box 4416
Reported: 08/02/2013 05:27 Houston TX 77210-4416

FM145 SDG#: PEJ48-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
		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	0.0178	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132101848002	07/30/2013 10:45	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132101848002	07/30/2013 10:45	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132101848002	07/30/2013 10:45	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132101848002	07/30/2013 10:45	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132101848002	07/30/2013 10:45	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132101848002	07/30/2013 10:45	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132101848002	07/30/2013 10:45	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132101848002	07/30/2013 10:45	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132101848002	07/30/2013 10:45	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132075713005	07/30/2013 05:00	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132091848002	07/28/2013 23:45	Annamaria Stipkovits	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	2	132101848002	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713005	07/29/2013 17:00	Nelli S Markaryan	1

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

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

LL Sample # WW 7141089
LL Group # 1407083
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

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

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

Submitted: 07/26/2013 09:15

Reported: 08/02/2013 05:27

FM121 SDG#: PEJ48-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
		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	0.0188	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132101848002	07/30/2013 10:57	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132101848002	07/30/2013 10:57	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132101848002	07/30/2013 10:57	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132101848002	07/30/2013 10:57	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132101848002	07/30/2013 10:57	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132101848002	07/30/2013 10:57	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132101848002	07/30/2013 10:57	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132101848002	07/30/2013 10:57	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132101848002	07/30/2013 10:57	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132075713005	07/30/2013 05:02	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132091848002	07/28/2013 23:45	Annamaria Stipkovits	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	2	132101848002	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713005	07/29/2013 17:00	Nelli S Markaryan	1

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

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

LL Sample # **WW 7141090**
 LL Group # **1407083**
 Account # **14739**

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

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

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

Submitted: 07/26/2013 09:15

Reported: 08/02/2013 05:27

FM125 SDG#: PEJ48-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
		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	0.0188	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0022 J	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132101848002	07/30/2013 11:00	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132101848002	07/30/2013 11:00	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132101848002	07/30/2013 11:00	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132101848002	07/30/2013 11:00	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132101848002	07/30/2013 11:00	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132101848002	07/30/2013 11:00	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132101848002	07/30/2013 11:00	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132101848002	07/30/2013 11:00	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132101848002	07/30/2013 11:00	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132075713005	07/30/2013 05:04	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132091848002	07/28/2013 23:45	Annamaria Stipkovits	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	2	132101848002	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713005	07/29/2013 17:00	Nelli S Markaryan	1

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

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

LL Sample # WW 7141091
LL Group # 1407083
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 09:30 by JM ExxonMobil
Mobil Pipeline Company
Submitted: 07/26/2013 09:15 PO Box 4416
Reported: 08/02/2013 05:27 Houston TX 77210-4416

FM101 SDG#: PEJ48-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0136	0.0400	1
07046	Barium	7440-39-3	0.0185	0.00066	0.0100	1
07049	Cadmium	7440-43-9	N.D.	0.0015	0.0100	1
07051	Chromium	7440-47-3	N.D.	0.0032	0.0300	1
07055	Lead	7439-92-1	N.D.	0.0094	0.0300	1
07061	Nickel	7440-02-0	N.D.	0.0030	0.0200	1
07036	Selenium	7782-49-2	N.D.	0.0168	0.0400	1
07066	Silver	7440-22-4	N.D.	0.0042	0.0100	1
07071	Vanadium	7440-62-2	N.D.	0.0040	0.0100	1
Reporting limits for ICP metals were raised due to limited sample volume.						
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	2	132101848002	07/30/2013 11:04	Eric L Eby	1
07046	Barium	SW-846 6010B	2	132101848002	07/30/2013 11:04	Eric L Eby	1
07049	Cadmium	SW-846 6010B	2	132101848002	07/30/2013 11:04	Eric L Eby	1
07051	Chromium	SW-846 6010B	2	132101848002	07/30/2013 11:04	Eric L Eby	1
07055	Lead	SW-846 6010B	2	132101848002	07/30/2013 11:04	Eric L Eby	1
07061	Nickel	SW-846 6010B	2	132101848002	07/30/2013 11:04	Eric L Eby	1
07036	Selenium	SW-846 6010B	2	132101848002	07/30/2013 11:04	Eric L Eby	1
07066	Silver	SW-846 6010B	2	132101848002	07/30/2013 11:04	Eric L Eby	1
07071	Vanadium	SW-846 6010B	2	132101848002	07/30/2013 11:04	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132075713005	07/30/2013 05:10	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132091848002	07/28/2013 23:45	Annamaria Stipkovits	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	2	132101848002	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713005	07/29/2013 17:00	Nelli S Markaryan	1

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

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

LL Sample # WW 7141092
LL Group # 1407083
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

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

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

Submitted: 07/26/2013 09:15

Reported: 08/02/2013 05:27

FM105 SDG#: PEJ48-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
		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	0.0190	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132101848002	07/30/2013 11:08	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132101848002	07/30/2013 11:08	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132101848002	07/30/2013 11:08	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132101848002	07/30/2013 11:08	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132101848002	07/30/2013 11:08	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132101848002	07/30/2013 11:08	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132101848002	07/30/2013 11:08	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132101848002	07/30/2013 11:08	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132101848002	07/30/2013 11:08	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132075713005	07/30/2013 05:13	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132091848002	07/28/2013 23:45	Annamaria Stipkovits	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	2	132101848002	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713005	07/29/2013 17:00	Nelli S Markaryan	1

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

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

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

LL Sample # WW 7141093
LL Group # 1407083
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 10:10 by JM ExxonMobil
Mobil Pipeline Company
Submitted: 07/26/2013 09:15 PO Box 4416
Reported: 08/02/2013 05:27 Houston TX 77210-4416

FM05S SDG#: PEJ48-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
	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	0.0173	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	2	132121848002	08/01/2013 16:42	John P Hook	1
07046	Barium	SW-846 6010B	2	132121848002	08/01/2013 16:42	John P Hook	1
07049	Cadmium	SW-846 6010B	2	132121848002	08/01/2013 16:42	John P Hook	1
07051	Chromium	SW-846 6010B	2	132121848002	08/01/2013 16:42	John P Hook	1
07055	Lead	SW-846 6010B	2	132121848002	08/01/2013 16:42	John P Hook	1
07061	Nickel	SW-846 6010B	2	132121848002	08/01/2013 16:42	John P Hook	1
07036	Selenium	SW-846 6010B	2	132121848002	08/01/2013 16:42	John P Hook	1
07066	Silver	SW-846 6010B	2	132121848002	08/01/2013 16:42	John P Hook	1
07071	Vanadium	SW-846 6010B	2	132121848002	08/01/2013 16:42	John P Hook	1
00259	Mercury	SW-846 7470A	1	132075713005	07/30/2013 05:15	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132091848002	07/28/2013 23:45	Annamaria Stipkovits	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	2	132101848002	07/29/2013 17:28	Kevin C Piaskowski	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	3	132121848002	07/31/2013 23:30	Annamaria Stipkovits	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713005	07/29/2013 17:00	Nelli S Markaryan	1

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

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

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

LL Sample # WW 7141094
LL Group # 1407083
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 10:45 by JM ExxonMobil
Mobil Pipeline Company
Submitted: 07/26/2013 09:15 PO Box 4416
Reported: 08/02/2013 05:27 Houston TX 77210-4416

FM111 SDG#: PEJ48-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
		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	0.0179	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132101848002	07/30/2013 11:12	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132101848002	07/30/2013 11:12	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132101848002	07/30/2013 11:12	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132101848002	07/30/2013 11:12	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132101848002	07/30/2013 11:12	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132101848002	07/30/2013 11:12	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132101848002	07/30/2013 11:12	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132101848002	07/30/2013 11:12	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132101848002	07/30/2013 11:12	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132075713005	07/30/2013 05:17	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132091848002	07/28/2013 23:45	Annamaria Stipkovits	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	2	132101848002	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713005	07/29/2013 17:00	Nelli S Markaryan	1

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

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

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

LL Sample # WW 7141095
LL Group # 1407083
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

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

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

Submitted: 07/26/2013 09:15

Reported: 08/02/2013 05:27

FM115 SDG#: PEJ48-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
		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	0.0211	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132101848002	07/30/2013 11:16	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132101848002	07/30/2013 11:16	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132101848002	07/30/2013 11:16	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132101848002	07/30/2013 11:16	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132101848002	07/30/2013 11:16	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132101848002	07/30/2013 11:16	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132101848002	07/30/2013 11:16	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132101848002	07/30/2013 11:16	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132101848002	07/30/2013 11:16	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132075713005	07/30/2013 05:19	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132091848002	07/28/2013 23:45	Annamaria Stipkovits	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	2	132101848002	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713005	07/29/2013 17:00	Nelli S Markaryan	1

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

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

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

LL Sample # WW 7141096
LL Group # 1407083
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

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

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

Submitted: 07/26/2013 09:15

Reported: 08/02/2013 05:27

FM18S SDG#: PEJ48-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
		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	0.0188	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132101848002	07/30/2013 11:19	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132101848002	07/30/2013 11:19	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132101848002	07/30/2013 11:19	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132101848002	07/30/2013 11:19	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132101848002	07/30/2013 11:19	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132101848002	07/30/2013 11:19	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132101848002	07/30/2013 11:19	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132101848002	07/30/2013 11:19	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132101848002	07/30/2013 11:19	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132075713005	07/30/2013 05:21	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132091848002	07/28/2013 23:45	Annamaria Stipkovits	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	2	132101848002	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713005	07/29/2013 17:00	Nelli S Markaryan	1

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

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

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

LL Sample # WW 7141097
LL Group # 1407083
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

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

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

Submitted: 07/26/2013 09:15

Reported: 08/02/2013 05:27

FM03S SDG#: PEJ48-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0124	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 6010B			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
SW-846 7470A			mg/l	mg/l	mg/l	

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132101848002	07/30/2013 11:23	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132101848002	07/30/2013 11:23	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132101848002	07/30/2013 11:23	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132101848002	07/30/2013 11:23	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132101848002	07/30/2013 11:23	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132101848002	07/30/2013 11:23	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132101848002	07/30/2013 11:23	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132101848002	07/30/2013 11:23	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132101848002	07/30/2013 11:23	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132075713005	07/30/2013 05:23	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132091848002	07/28/2013 23:45	Annamaria Stipkovits	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	2	132101848002	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713005	07/29/2013 17:00	Nelli S Markaryan	1

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

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

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

LL Sample # WW 7141098
LL Group # 1407083
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 11:50 by JM ExxonMobil
Mobil Pipeline Company
Submitted: 07/26/2013 09:15 PO Box 4416
Reported: 08/02/2013 05:27 Houston TX 77210-4416

FM02S SDG#: PEJ48-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
	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	0.0161	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132101848002	07/30/2013 11:27	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132101848002	07/30/2013 11:27	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132101848002	07/30/2013 11:27	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132101848002	07/30/2013 11:27	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132101848002	07/30/2013 11:27	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132101848002	07/30/2013 11:27	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132101848002	07/30/2013 11:27	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132101848002	07/30/2013 11:27	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132101848002	07/30/2013 11:27	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132075713005	07/30/2013 05:35	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132091848002	07/28/2013 23:45	Annamaria Stipkovits	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	2	132101848002	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713005	07/29/2013 17:00	Nelli S Markaryan	1

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

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

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

LL Sample # WW 7141099
LL Group # 1407083
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

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

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

Submitted: 07/26/2013 09:15

Reported: 08/02/2013 05:27

FM070 SDG#: PEJ48-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
		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	0.0170	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	0.0024 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0022 J	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132101848002	07/30/2013 11:31	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132101848002	07/30/2013 11:31	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132101848002	07/30/2013 11:31	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132101848002	07/30/2013 11:31	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132101848002	07/30/2013 11:31	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132101848002	07/30/2013 11:31	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132101848002	07/30/2013 11:31	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132101848002	07/30/2013 11:31	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132101848002	07/30/2013 11:31	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132075713005	07/30/2013 05:37	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132091848002	07/28/2013 23:45	Annamaria Stipkovits	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	2	132101848002	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713005	07/29/2013 17:00	Nelli S Markaryan	1

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

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

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

LL Sample # WW 7141100
LL Group # 1407083
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

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

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

Submitted: 07/26/2013 09:15

Reported: 08/02/2013 05:27

FM060 SDG#: PEJ48-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
		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	0.0171	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132101848002	07/30/2013 11:42	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132101848002	07/30/2013 11:42	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132101848002	07/30/2013 11:42	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132101848002	07/30/2013 11:42	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132101848002	07/30/2013 11:42	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132101848002	07/30/2013 11:42	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132101848002	07/30/2013 11:42	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132101848002	07/30/2013 11:42	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132101848002	07/30/2013 11:42	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132075713005	07/30/2013 05:39	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132091848002	07/28/2013 23:45	Annamaria Stipkovits	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	2	132101848002	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713005	07/29/2013 17:00	Nelli S Markaryan	1

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

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

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

LL Sample # WW 7141101
LL Group # 1407083
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

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

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

Submitted: 07/26/2013 09:15

Reported: 08/02/2013 05:27

FM010 SDG#: PEJ48-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
		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	0.0107	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132101848002	07/30/2013 11:46	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132101848002	07/30/2013 11:46	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132101848002	07/30/2013 11:46	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132101848002	07/30/2013 11:46	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132101848002	07/30/2013 11:46	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132101848002	07/30/2013 11:46	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132101848002	07/30/2013 11:46	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132101848002	07/30/2013 11:46	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132101848002	07/30/2013 11:46	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132075713005	07/30/2013 05:41	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132091848002	07/28/2013 23:45	Annamaria Stipkovits	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	2	132101848002	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713005	07/29/2013 17:00	Nelli S Markaryan	1

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

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

LL Sample # **WW 7141102**
 LL Group # **1407083**
 Account # **14739**

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

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

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

Submitted: 07/26/2013 09:15

Reported: 08/02/2013 05:27

FME10 SDG#: PEJ48-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
	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	0.0075	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0023 J	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132101848002	07/30/2013 11:50	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132101848002	07/30/2013 11:50	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132101848002	07/30/2013 11:50	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132101848002	07/30/2013 11:50	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132101848002	07/30/2013 11:50	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132101848002	07/30/2013 11:50	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132101848002	07/30/2013 11:50	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132101848002	07/30/2013 11:50	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132101848002	07/30/2013 11:50	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132075713005	07/30/2013 05:43	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132091848002	07/28/2013 23:45	Annamaria Stipkovits	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	2	132101848002	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713005	07/29/2013 17:00	Nelli S Markaryan	1

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

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

LL Sample # WW 7141103
LL Group # 1407083
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/25/2013 by JM

ExxonMobil

Submitted: 07/26/2013 09:15

Mobil Pipeline Company

Reported: 08/02/2013 05:27

PO Box 4416

Houston TX 77210-4416

FMD61 SDG#: PEJ48-17FD*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0188	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 6010B			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
SW-846 7470A			mg/l	mg/l	mg/l	

General Sample Comments

This sample was filtered in the lab for dissolved metals.

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
07035	Arsenic	SW-846 6010B	1	132101848002	07/30/2013 11:54	Eric L Eby	1
07046	Barium	SW-846 6010B	1	132101848002	07/30/2013 11:54	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	132101848002	07/30/2013 11:54	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	132101848002	07/30/2013 11:54	Eric L Eby	1
07055	Lead	SW-846 6010B	1	132101848002	07/30/2013 11:54	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	132101848002	07/30/2013 11:54	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	132101848002	07/30/2013 11:54	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132101848002	07/30/2013 11:54	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	132101848002	07/30/2013 11:54	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	132075713005	07/30/2013 05:45	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132091848002	07/28/2013 23:45	Annamaria Stipkovits	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	2	132101848002	07/29/2013 17:28	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132075713005	07/29/2013 17:00	Nelli S Markaryan	1

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

Quality Control Summary

Client Name: ExxonMobil
Reported: 08/02/13 at 05:27 AM

Group Number: 1407083

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: 132075713005	Sample number(s): 7141087-7141103								
Mercury	N.D.	0.00006	0.00020	mg/l	100		80-120		
		0							
Batch number: 132101848002	Sample number(s): 7141087-7141092, 7141094-7141103								
Arsenic	N.D.	0.0068	0.0200	mg/l	101		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	104		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	103		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	104		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	107		88-110		
Nickel	N.D.	0.0015	0.0100	mg/l	107		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	99		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	105		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	106		90-110		
Batch number: 132121848002	Sample number(s): 7141093								
Arsenic	N.D.	0.0068	0.0200	mg/l	101		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	103		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	102		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	102		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	105		88-110		
Nickel	N.D.	0.0015	0.0100	mg/l	106		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	103		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	103		80-120		
Vanadium	N.D.	0.0020	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: 132075713005	Sample number(s): 7141087-7141103 UNSPK: 7141097 BKG: 7141097								
Mercury	102	105	80-120	3	20	N.D.	N.D.	0 (1)	20
Batch number: 132101848002	Sample number(s): 7141087-7141092, 7141094-7141103 UNSPK: P141093 BKG: P141093								
Arsenic	97	100	81-123	3	20	N.D.	N.D.	0 (1)	20
Barium	98	101	78-118	3	20	0.0174	0.0156	11 (1)	20
Cadmium	97	100	83-116	3	20	N.D.	N.D.	0 (1)	20
Chromium	96	100	81-120	4	20	N.D.	N.D.	0 (1)	20

*- Outside of specification

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

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

Quality Control Summary

Client Name: ExxonMobil
Reported: 08/02/13 at 05:27 AM

Group Number: 1407083

Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS</u>	<u>MSD</u>	<u>MS/MSD</u>	<u>RPD</u>	<u>RPD</u>	<u>BKG</u>	<u>DUP</u>	<u>DUP</u>	<u>Dup RPD</u>
	<u>%REC</u>	<u>%REC</u>	<u>Limits</u>	<u>RPD</u>	<u>MAX</u>	<u>Conc</u>	<u>Conc</u>	<u>RPD</u>	<u>Max</u>
Lead	100	103	75-125	3	20	N.D.	N.D.	0 (1)	20
Nickel	100	103	86-115	3	20	N.D.	N.D.	0 (1)	20
Selenium	92	99	75-125	7	20	N.D.	N.D.	0 (1)	20
Silver	91	91	75-125	0	20	0.0044 J	N.D.	200* (1)	20
Vanadium	98	101	90-111	3	20	N.D.	N.D.	0 (1)	20
Batch number: 132121848002 Sample number(s): 7141093 UNSPK: P145080 BKG: P145080									
Arsenic	104	104	81-123	1	20	N.D.	N.D.	0 (1)	20
Barium	105	105	78-118	0	20	0.0790	0.0801	1	20
Cadmium	101	100	83-116	1	20	N.D.	N.D.	0 (1)	20
Chromium	101	103	81-120	3	20	0.0065 J	0.0070 J	8 (1)	20
Lead	100	104	75-125	3	20	0.0133 J	0.0128 J	4 (1)	20
Nickel	105	105	86-115	0	20	0.0044 J	0.0044 J	1 (1)	20
Selenium	102	102	75-125	0	20	N.D.	N.D.	0 (1)	20
Silver	103	100	75-125	2	20	N.D.	N.D.	0 (1)	20
Vanadium	99	101	90-111	2	20	0.0145	0.0149	3 (1)	20

*- Outside of specification

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

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

ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories

Acct. # 14739

For Lancaster Laboratories use only

Group # 1407083 Sample # 7141087-103

Instructions on reverse side correspond with circled numbers.

1 of 2

1 Client Information				4 Matrix				5 Analyses Requested							SCR#: _____		
Facility #/SID <u>Mayflower Pipeline Incident</u>				<input type="checkbox"/> Sediment <input type="checkbox"/> Ground <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Air <input type="checkbox"/> Oil				Preservation Code							Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other		
Site Address <u>Mayflower, AR</u>								H N H VOCs PAHs RCRA Metals Diss Metals Oil and Grease HEM									
ExxonMobil PM <u>Scott Bushroe</u>		Cost Center/AFE		Consultant/Office <u>ARCADIS</u>				Consultant Phone # <u>919 202 6779</u>				6 Remarks * Lab to filter and preserve diss. metals upon receipt.					
Consultant PM <u>Steve Barick</u>		Sampler <u>J. Machado / H. Van Aller</u>		3 Grab Composite Date Time				Total # of Containers									
2 Sample Identification Collected																	
<u>WS-014 (1.5-2.0) 072513</u>				<u>7/25/13</u>				<u>820</u>				<u>X</u>					
<u>WS-014 (5.5-6.0) 072513</u>								<u>830</u>				<u>X</u>					
<u>WS-012 (1.5-2.0) 072513</u>								<u>850</u>				<u>X</u>					
<u>WS-012 (5.0-5.5) 072513</u>								<u>900</u>				<u>X</u>					
<u>WS-010 (1.5-2.0) 072513</u>								<u>930</u>				<u>X</u>					
<u>WS-010 (3.5-4.0) 072513</u>								<u>940</u>				<u>X</u>					
<u>WS-005 (surface) 072513</u>								<u>1010</u>				<u>X</u>					
<u>WS-011 (1.5-2.0) 072513</u>								<u>1045</u>				<u>X</u>					
<u>WS-011 (5.0-5.5) 072513</u>								<u>1100</u>				<u>X</u>					
<u>WS-018 (surface) 072513</u>								<u>1120</u>				<u>X</u>					
<u>WS-003 (surface) 072513</u>								<u>1130</u>				<u>X</u>					
<u>WS-002 (surface) 072513</u>								<u>1150</u>				<u>X</u>					

7 Turnaround Time Requested (TAT) (please circle) Standard <u>5 day</u> 4 day 72 hour 48 hour 24 hour			Relinquished by <u>H. Van Aller</u> Date <u>7/25/13</u>		Time <u>1700</u>		Received by _____ Date _____ Time _____			
			Relinquished by _____ Date _____		Time _____		Received by _____ Date _____ Time _____			
			Relinquished by _____ Date _____		Time _____		Received by _____ Date _____ Time _____			
8 Data Package (circle if required) Type I - Full Type VI (Raw Data) NJ Reduced Other _____			EDD (circle if required) Locus EIM (default) Other _____		Relinquished by Commercial Carrier UPS FedEx <u>X</u> Other _____		Received by <u>Brennanly Hantz</u> Date <u>7-26-13</u>		Time <u>915</u>	
Temperature Upon Receipt <u>05-3.1°C</u>					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

ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories

Acct. # 14739 Group # 1407083 Sample # 7141087-103
For Lancaster Laboratories use only
 Instructions on reverse side correspond with circled numbers.

2 of 2

1 Client Information				4 Matrix		5 Analyses Requested						SCR#: _____																																																					
Facility #/SID <u>Mayflower Pipeline Incident</u>				<input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Soil <input checked="" type="checkbox"/> Water <input type="checkbox"/> Ground <input type="checkbox"/> Air <input type="checkbox"/> Oil		Preservation Code						6 Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other																																																					
Site Address <u>Mayflower, AR</u>						<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">H</td><td style="width: 5%;">N</td><td style="width: 5%;">H</td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td><td style="width: 5%;"> </td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td colspan="13" style="text-align: center;"> Total # of Containers <u>Vocs 8260 B</u> <u>PAHs 8270 SIM</u> <u>PCRA metals U.Ni, Cr, Pb, Mg</u> <u>Diss Metals</u> <u>HEM Oil and Grease</u> </td> </tr> <tr> <td colspan="13" style="text-align: center;"> 6 Remarks <u>* Lab to filter and preserve diss metals upon receipt</u> </td> </tr> </table>								H	N	H																								Total # of Containers <u>Vocs 8260 B</u> <u>PAHs 8270 SIM</u> <u>PCRA metals U.Ni, Cr, Pb, Mg</u> <u>Diss Metals</u> <u>HEM Oil and Grease</u>													6 Remarks <u>* Lab to filter and preserve diss metals upon receipt</u>												
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ExxonMobil PM <u>Scott Bushroe</u>		Cost Center/AFE																																																															
Consultant/Office <u>ARCADIS</u>																																																																	
Consultant PM <u>Steve Barrick</u>		Consultant Phone # <u>919 202 6779</u>																																																															
Sampler <u>J. Machado / H. Van Aller</u>		<input type="checkbox"/> Composite <input checked="" type="checkbox"/> Grab																																																															
2 Sample Identification																																																																	
		Collected																																																															
		Date	Time	Grab	Composite																																																												
<u>WS-007(0.5-1.0)072513</u>		<u>7/25/13</u>	<u>1220</u>	<u>X</u>	<u>X</u>	<u>9</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>																																																				
<u>WS-006(0.5-1.0)072513</u>		↓	<u>1230</u>	<u>Y</u>	<u>X</u>	<u>9</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>																																																				
<u>WS-001(0.5-1.0)072513</u>		↓	<u>1300</u>	<u>X</u>	<u>X</u>	<u>9</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>																																																				
<u>WS-EB-10-072513</u>		↓	<u>1400</u>	<u>X</u>	<u>X</u>	<u>7</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>																																																				
<u>DUP-WS-61-072513</u>		↓	—	<u>X</u>	<u>X</u>	<u>9</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>																																																				
<u>WS-TB-105-072513</u>		↓	—	<u>X</u>	<u>X</u>	<u>2</u>	<u>X</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>																																																				
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Type VI (Raw Data)				Other		Relinquished by		Date		Time		Received by		Date Time																																																			
NJ Reduced						Relinquished by Commercial Carrier		Date		Time		Received by <u>Beverly Howard</u>		Date <u>7-26-13</u>																																																			
Other						UPS		FedEx <u>X</u>		Other		Custody Seals Intact? <u>Yes</u>		No																																																			
						Temperature Upon Receipt <u>0.5-3.0</u>																																																											

Kathy Klinefelter

14739, 1407083, 7141087-103

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

Kathy,

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

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

Lyndi Mott

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

Hello,

The following issues were noted today. Please advise asap.

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

Thanks,

Kathy Klinefelter
Principal Project Manager, Environmental Client Services

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

Website: www.LancasterLabsEnv.com

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

7/26/2013

14739, 1407083, 7141087-103

Cc: Molina, Joe; Lipka, Shelby; Parmelee, Rhiannon; Pritchard, Jamie
Subject: Mayflower COCs Surface water sampling 072513

Hello All

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

Thanks,

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

www.arcadis-us.com

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Environmental Sample Administration
Receipt Documentation Log

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

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

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	104146	1.5	TB	WI	X	B	
2	↓	0.5	↓	↓	↓	↓	
3	↓	3.1	↓	↓	↓	↓	
4	↓	1.1	↓	↓	↓	↓	
5	↓	0.8	↓	↓	↓	↓	
6	↓	1.5	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:

Rec 4 Sm Ambers for WS-011 (1.5-2.0)
Total 11
Did not Rec Sm Ambers for WS-011
(5.0-5.5) Total 7
WS-018 Surface o2G Jars Time = 1100

Unpacker Signature/Emp#: Brendy Barb 2299 Date/Time: 7-26-13 946

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 limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

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

ppb parts per billion

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

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

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

Inorganic Qualifiers

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

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

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

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

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

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