

## ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

October 01, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 09/26/2013

Group Number: 1421678

SDG: PEL75

PO Number: B0086003.1301

State of Sample Origin: AR

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
WS-014(1.5-2.0)092513 Filt Grab Surface Water	7213267
WS-014(5.5-6.0)092513 Filt Grab Surface Water	7213268
WS-012(1.5-2.0)092513 Filt Grab Surface Water	7213269
WS-012(5.0-5.5)092513 Filt Grab Surface Water	7213270
WS-010(1.5-2.0)092513 Filt Grab Surface Water	7213271
WS-010(3.5-4.0)092513 Filt Grab Surface Water	7213272
WS-006(0.5-1.0)092513 Filt Grab Surface Water	7213273
WS-006(0.5-1.0)092513MS Filt Grab Surface Water	7213274
WS-006(0.5-1.0)092513MSD Filt Grab Surface Water	7213275
WS-006(0.5-1.0)092513DUP Filt Grab Surface Water	7213276
WS-005(Surface)092513 Filt Grab Surface Water	7213277
WS-002(Surface)092513 Filt Grab Surface Water	7213278
WS-011(1.5-2.0)092513 Filt Grab Surface Water	7213279
WS-011(5.0-5.5)092513 Filt Grab Surface Water	7213280
WS-018(Surface)092513 Filt Grab Surface Water	7213281
WS-003(Surface)092513 Filt Grab Surface Water	7213282
WS-007(0.5-1.0)092513 Filt Grab Surface Water	7213283
WS-001(0.5-1.0)092513 Filt Grab Surface Water	7213284
WS-EB-72-092513 Filt Grab Water	7213285

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

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

Respectfully Submitted,



Katherine A. Klinefelter  
Principal Specialist

(717) 556-7256

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Project Name: Mayflower, AR Pipeline Incident  
LLI Group #: 1421678

**General Comments:**

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

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

Project specific QC samples are included in this data set

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

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

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

**Analysis Specific Comments:**

No additional comments are necessary.

Sample Description: WS-014(1.5-2.0)092513 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213267  
LL Group # 1421678  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 08:40 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/01/2013 05:51

2514F SDG#: PEL75-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0201	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

### General Sample Comments

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	132691848003	10/01/2013 00:37	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848003	10/01/2013 00:37	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848003	10/01/2013 00:37	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848003	10/01/2013 00:37	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848003	10/01/2013 00:37	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848003	10/01/2013 00:37	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848003	10/01/2013 00:37	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848003	10/01/2013 00:37	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848003	10/01/2013 00:37	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713004	09/29/2013 08:05	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848003	09/27/2013 09:54	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713004	09/27/2013 16:20	Nelli S Markaryan	1

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

Sample Description: WS-014(5.5-6.0)092513 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213268  
LL Group # 1421678  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 08:50 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/01/2013 05:51

25F14 SDG#: PEL75-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0196	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

### General Sample Comments

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	132691848003	10/01/2013 00:41	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848003	10/01/2013 00:41	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848003	10/01/2013 00:41	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848003	10/01/2013 00:41	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848003	10/01/2013 00:41	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848003	10/01/2013 00:41	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848003	10/01/2013 00:41	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848003	10/01/2013 00:41	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848003	10/01/2013 00:41	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713004	09/29/2013 08:07	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848003	09/27/2013 09:54	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713004	09/27/2013 16:20	Nelli S Markaryan	1

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

Sample Description: WS-012(1.5-2.0)092513 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213269  
LL Group # 1421678  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 09:00 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/01/2013 05:51

2512F SDG#: PEL75-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0212	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

### General Sample Comments

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	132691848003	10/01/2013 00:52	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848003	10/01/2013 00:52	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848003	10/01/2013 00:52	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848003	10/01/2013 00:52	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848003	10/01/2013 00:52	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848003	10/01/2013 00:52	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848003	10/01/2013 00:52	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848003	10/01/2013 00:52	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848003	10/01/2013 00:52	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713004	09/29/2013 08:09	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848003	09/27/2013 09:54	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713004	09/27/2013 16:20	Nelli S Markaryan	1

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

Sample Description: **WS-012(5.0-5.5)092513 Filt Grab Surface Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213270**  
 LL Group # **1421678**  
 Account # **14739**

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

Collected: 09/25/2013 09:10 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/01/2013 05:51

25F12 SDG#: PEL75-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0386	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

### General Sample Comments

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	132691848003	10/01/2013 00:56	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848003	10/01/2013 00:56	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848003	10/01/2013 00:56	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848003	10/01/2013 00:56	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848003	10/01/2013 00:56	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848003	10/01/2013 00:56	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848003	10/01/2013 00:56	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848003	10/01/2013 00:56	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848003	10/01/2013 00:56	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713004	09/29/2013 08:11	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848003	09/27/2013 09:54	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713004	09/27/2013 16:20	Nelli S Markaryan	1

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

Sample Description: WS-010(1.5-2.0)092513 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213271  
LL Group # 1421678  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 09:20 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/01/2013 05:51

2510F SDG#: PEL75-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0209	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

### General Sample Comments

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	132691848003	10/01/2013 01:00	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848003	10/01/2013 01:00	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848003	10/01/2013 01:00	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848003	10/01/2013 01:00	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848003	10/01/2013 01:00	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848003	10/01/2013 01:00	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848003	10/01/2013 01:00	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848003	10/01/2013 01:00	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848003	10/01/2013 01:00	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713004	09/29/2013 08:13	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848003	09/27/2013 09:54	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713004	09/27/2013 16:20	Nelli S Markaryan	1

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



Sample Description: WS-010(3.5-4.0)092513 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213272  
LL Group # 1421678  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 09:30 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/01/2013 05:51

25F10 SDG#: PEL75-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0232	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

### General Sample Comments

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	132691848003	10/01/2013 01:04	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848003	10/01/2013 01:04	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848003	10/01/2013 01:04	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848003	10/01/2013 01:04	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848003	10/01/2013 01:04	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848003	10/01/2013 01:04	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848003	10/01/2013 01:04	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848003	10/01/2013 01:04	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848003	10/01/2013 01:04	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713004	09/29/2013 08:15	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848003	09/27/2013 09:54	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713004	09/27/2013 16:20	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)092513 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213273  
LL Group # 1421678  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 09:40 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/01/2013 05:51

2506F SDG#: PEL75-07BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0176	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

### General Sample Comments

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	132691848003	10/01/2013 00:14	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848003	10/01/2013 00:14	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848003	10/01/2013 00:14	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848003	10/01/2013 00:14	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848003	10/01/2013 00:14	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848003	10/01/2013 00:14	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848003	10/01/2013 00:14	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848003	10/01/2013 00:14	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848003	10/01/2013 00:14	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713004	09/29/2013 08:17	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848003	09/27/2013 09:54	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713004	09/27/2013 16:20	Nelli S Markaryan	1

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

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Sample Description: WS-006(0.5-1.0)092513MS Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213274  
LL Group # 1421678  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 09:40 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/01/2013 05:51

2506F SDG#: PEL75-07MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.149	0.0068	0.0200	1
07046	Barium	7440-39-3	1.97	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0496	0.00076	0.0050	1
07051	Chromium	7440-47-3	0.198	0.0016	0.0150	1
07055	Lead	7439-92-1	0.151	0.0047	0.0150	1
07061	Nickel	7440-02-0	0.504	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.146	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0478	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.498	0.0020	0.0050	1
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	0.00093	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	132691848003	10/01/2013 00:26	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848003	10/01/2013 00:26	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848003	10/01/2013 00:26	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848003	10/01/2013 00:26	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848003	10/01/2013 00:26	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848003	10/01/2013 00:26	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848003	10/01/2013 00:26	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848003	10/01/2013 00:26	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848003	10/01/2013 00:26	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713004	09/29/2013 08:25	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848003	09/27/2013 09:54	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713004	09/27/2013 16:20	Nelli S Markaryan	1

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

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Sample Description: WS-006(0.5-1.0)092513MSD Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213275  
LL Group # 1421678  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 09:40 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/01/2013 05:51

2506F SDG#: PEL75-07MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.150	0.0068	0.0200	1
07046	Barium	7440-39-3	2.00	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0500	0.00076	0.0050	1
07051	Chromium	7440-47-3	0.199	0.0016	0.0150	1
07055	Lead	7439-92-1	0.152	0.0047	0.0150	1
07061	Nickel	7440-02-0	0.509	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.144	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0478	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.503	0.0020	0.0050	1
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	0.00093	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	132691848003	10/01/2013 00:29	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848003	10/01/2013 00:29	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848003	10/01/2013 00:29	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848003	10/01/2013 00:29	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848003	10/01/2013 00:29	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848003	10/01/2013 00:29	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848003	10/01/2013 00:29	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848003	10/01/2013 00:29	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848003	10/01/2013 00:29	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713004	09/29/2013 08:27	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848003	09/27/2013 09:54	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713004	09/27/2013 16:20	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)092513DUP Filtr Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213276  
LL Group # 1421678  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 09:40 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/01/2013 05:51

2506F SDG#: PEL75-07DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0177	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

### General Sample Comments

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	132691848003	10/01/2013 00:22	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848003	10/01/2013 00:22	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848003	10/01/2013 00:22	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848003	10/01/2013 00:22	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848003	10/01/2013 00:22	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848003	10/01/2013 00:22	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848003	10/01/2013 00:22	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848003	10/01/2013 00:22	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848003	10/01/2013 00:22	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713004	09/29/2013 08:23	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848003	09/27/2013 09:54	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713004	09/27/2013 16:20	Nelli S Markaryan	1

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

Sample Description: WS-005 (Surface) 092513 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213277  
LL Group # 1421678  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 10:10 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/01/2013 05:51

2505F SDG#: PEL75-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0281	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

### General Sample Comments

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	132691848003	10/01/2013 01:08	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848003	10/01/2013 01:08	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848003	10/01/2013 01:08	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848003	10/01/2013 01:08	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848003	10/01/2013 01:08	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848003	10/01/2013 01:08	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848003	10/01/2013 01:08	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848003	10/01/2013 01:08	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848003	10/01/2013 01:08	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713004	09/29/2013 08:30	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848003	09/27/2013 09:54	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713004	09/27/2013 16:20	Nelli S Markaryan	1

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

Sample Description: WS-002 (Surface) 092513 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213278  
LL Group # 1421678  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 10:50 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/01/2013 05:51

2502F SDG#: PEL75-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0204	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
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

### General Sample Comments

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	132691848003	10/01/2013 01:12	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848003	10/01/2013 01:12	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848003	10/01/2013 01:12	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848003	10/01/2013 01:12	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848003	10/01/2013 01:12	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848003	10/01/2013 01:12	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848003	10/01/2013 01:12	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848003	10/01/2013 01:12	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848003	10/01/2013 01:12	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713004	09/29/2013 08:32	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848003	09/27/2013 09:54	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713004	09/27/2013 16:20	Nelli S Markaryan	1

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

Sample Description: WS-011(1.5-2.0)092513 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213279  
LL Group # 1421678  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 10:30 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/01/2013 05:51

2511F SDG#: PEL75-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0245	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

### General Sample Comments

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	132691848003	10/01/2013 01:15	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848003	10/01/2013 01:15	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848003	10/01/2013 01:15	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848003	10/01/2013 01:15	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848003	10/01/2013 01:15	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848003	10/01/2013 01:15	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848003	10/01/2013 01:15	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848003	10/01/2013 01:15	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848003	10/01/2013 01:15	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713004	09/29/2013 08:34	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848003	09/27/2013 09:54	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713004	09/27/2013 16:20	Nelli S Markaryan	1

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



Sample Description: WS-011(5.0-5.5)092513 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213280  
LL Group # 1421678  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 10:40 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/01/2013 05:51

25F11 SDG#: PEL75-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0248	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

### General Sample Comments

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	132691848003	10/01/2013 01:19	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848003	10/01/2013 01:19	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848003	10/01/2013 01:19	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848003	10/01/2013 01:19	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848003	10/01/2013 01:19	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848003	10/01/2013 01:19	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848003	10/01/2013 01:19	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848003	10/01/2013 01:19	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848003	10/01/2013 01:19	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713004	09/29/2013 08:36	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848003	09/27/2013 09:54	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713004	09/27/2013 16:20	Nelli S Markaryan	1

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

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Sample Description: WS-018 (Surface) 092513 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213281  
LL Group # 1421678  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 11:00 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/01/2013 05:51

2518F SDG#: PEL75-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0404	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

### General Sample Comments

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	132691848003	10/01/2013 01:23	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848003	10/01/2013 01:23	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848003	10/01/2013 01:23	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848003	10/01/2013 01:23	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848003	10/01/2013 01:23	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848003	10/01/2013 01:23	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848003	10/01/2013 01:23	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848003	10/01/2013 01:23	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848003	10/01/2013 01:23	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713004	09/29/2013 08:38	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848003	09/27/2013 09:54	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713004	09/27/2013 16:20	Nelli S Markaryan	1

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

Sample Description: WS-003 (Surface) 092513 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213282  
LL Group # 1421678  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 11:10 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/01/2013 05:51

2503F SDG#: PEL75-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0132	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

### General Sample Comments

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	132691848003	10/01/2013 01:27	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848003	10/01/2013 01:27	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848003	10/01/2013 01:27	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848003	10/01/2013 01:27	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848003	10/01/2013 01:27	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848003	10/01/2013 01:27	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848003	10/01/2013 01:27	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848003	10/01/2013 01:27	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848003	10/01/2013 01:27	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713004	09/29/2013 08:40	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848003	09/27/2013 09:54	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713004	09/27/2013 16:20	Nelli S Markaryan	1

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

Sample Description: WS-007(0.5-1.0)092513 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213283  
LL Group # 1421678  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 11:20 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/01/2013 05:51

2507F SDG#: PEL75-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0230	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
<b>SW-846 6010B</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	

### 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	132691848003	10/01/2013 01:38	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848003	10/01/2013 01:38	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848003	10/01/2013 01:38	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848003	10/01/2013 01:38	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848003	10/01/2013 01:38	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848003	10/01/2013 01:38	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848003	10/01/2013 01:38	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848003	10/01/2013 01:38	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848003	10/01/2013 01:38	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713004	09/29/2013 08:42	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848003	09/27/2013 09:54	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713004	09/27/2013 16:20	Nelli S Markaryan	1

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

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Sample Description: WS-001(0.5-1.0)092513 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7213284  
LL Group # 1421678  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/25/2013 11:30 by RL

ExxonMobil c/o Arcadis  
630 Plaza Drive, Suite 600  
Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/01/2013 05:51

2501F SDG#: PEL75-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0189	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

### General Sample Comments

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	132691848003	10/01/2013 01:42	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848003	10/01/2013 01:42	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848003	10/01/2013 01:42	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848003	10/01/2013 01:42	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848003	10/01/2013 01:42	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848003	10/01/2013 01:42	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848003	10/01/2013 01:42	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848003	10/01/2013 01:42	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848003	10/01/2013 01:42	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713004	09/29/2013 08:48	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848003	09/27/2013 09:54	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713004	09/27/2013 16:20	Nelli S Markaryan	1

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

Sample Description: **WS-EB-72-092513 Filt Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7213285**  
 LL Group # **1421678**  
 Account # **14739**

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

Collected: 09/25/2013 12:30 by RL

ExxonMobil c/o Arcadis  
 630 Plaza Drive, Suite 600  
 Highlands Ranch CO 80129

Submitted: 09/26/2013 09:50

Reported: 10/01/2013 05:51

2572F SDG#: PEL75-16EB\*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.00044 J	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

### General Sample Comments

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	132691848003	10/01/2013 01:46	John W Yanzuk II	1
07046	Barium	SW-846 6010B	1	132691848003	10/01/2013 01:46	John W Yanzuk II	1
07049	Cadmium	SW-846 6010B	1	132691848003	10/01/2013 01:46	John W Yanzuk II	1
07051	Chromium	SW-846 6010B	1	132691848003	10/01/2013 01:46	John W Yanzuk II	1
07055	Lead	SW-846 6010B	1	132691848003	10/01/2013 01:46	John W Yanzuk II	1
07061	Nickel	SW-846 6010B	1	132691848003	10/01/2013 01:46	John W Yanzuk II	1
07036	Selenium	SW-846 6010B	1	132691848003	10/01/2013 01:46	John W Yanzuk II	1
07066	Silver	SW-846 6010B	1	132691848003	10/01/2013 01:46	John W Yanzuk II	1
07071	Vanadium	SW-846 6010B	1	132691848003	10/01/2013 01:46	John W Yanzuk II	1
00259	Mercury	SW-846 7470A	1	132695713004	09/29/2013 08:50	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132691848003	09/27/2013 09:54	Denise K Connors	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132695713004	09/27/2013 16:20	Nelli S Markaryan	1

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

## Quality Control Summary

Client Name: ExxonMobil c/o Arcadis  
Reported: 10/01/13 at 05:51 AM

Group Number: 1421678

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: 132691848003	Sample number(s): 7213267-7213285								
Arsenic	N.D.	0.0068	0.0200	mg/l	99		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	100		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	100		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	100		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	104		88-110		
Nickel	N.D.	0.0015	0.0100	mg/l	103		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	97		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	98		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	101		90-110		
Batch number: 132695713004	Sample number(s): 7213267-7213285								
Mercury	N.D.	0.00006	0.00020	mg/l	91		80-120		
		0							

### 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: 132691848003	Sample number(s): 7213267-7213285 UNSPK: 7213273 BKG: 7213273								
Arsenic	99	100	81-123	1	20	N.D.	N.D.	0 (1)	20
Barium	97	99	78-118	2	20	0.0176	0.0177	0 (1)	20
Cadmium	99	100	83-116	1	20	N.D.	N.D.	0 (1)	20
Chromium	99	100	76-120	1	20	N.D.	N.D.	0 (1)	20
Lead	101	101	75-125	1	20	N.D.	N.D.	0 (1)	20
Nickel	101	102	86-115	1	20	N.D.	N.D.	0 (1)	20
Selenium	97	96	75-125	1	20	N.D.	N.D.	0 (1)	20
Silver	96	96	75-125	0	20	N.D.	N.D.	0 (1)	20
Vanadium	100	101	90-117	1	20	N.D.	N.D.	0 (1)	20
Batch number: 132695713004	Sample number(s): 7213267-7213285 UNSPK: 7213273 BKG: 7213273								
Mercury	93	93	80-120	0	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.

# ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only

Group # 1421678

Sample # 7213267-85

Instructions on reverse side correspond with circled numbers.

1082

1 Client Information				4 Matrix				5 Analyses Requested										6 Remarks	
Facility #/SID <u>Mayflower Pipeline Incident</u>				Soil <input type="checkbox"/>	Water <input type="checkbox"/>	Oil <input type="checkbox"/>	Total # of Containers	Preservation Code										SCR#: _____ Preservation Codes H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other	
Site Address <u>Mayflower, AR</u>								Sediment <input type="checkbox"/>	Potable <input type="checkbox"/>	Ground <input type="checkbox"/>	Surface <input checked="" type="checkbox"/>	H	N	H					
ExxonMobil PM <u>Scott Bushroe</u>		Cost Center/AFE						VOCs 8260 B	PAH 8270 SIM	PCRA Metals Ni, V, Cr, Mg	Diss Metals	HEM Oil & Grease							
Consultant/Office <u>Arcadis</u>																			
Consultant PM <u>Steve Barrick</u>		Consultant Phone # <u>919-302-6799</u>																	
Sampler <u>Ryan Lewis / H. Van Aller</u>				3															
2 Sample Identification		Collected		Grab	Composite														
		Date	Time																
<u>WS-014(1.5-2.0) 092513</u>		<u>9/25/13</u>	<u>840</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
<u>WS-014(5.5-6.0) 092513</u>		<u>9/25/13</u>	<u>850</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
<u>WS-012(1.5-2.0) 092513</u>		<u>9/25/13</u>	<u>900</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
<u>WS-012(5.0-5.5) 092513</u>		<u>9/25/13</u>	<u>910</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
<u>WS-010(1.5-2.0) 092513</u>		<u>9/25/13</u>	<u>920</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
<u>WS-010(3.5-4.0) 092513</u>		<u>9/25/13</u>	<u>930</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
<u>WS-006(0.5-1.0) 092513</u>		<u>9/25/13</u>	<u>940</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
<u>WS-006(0.5-1.0) 092513 msp/ms</u>		<u>9/25/13</u>	<u>940</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	MS/MSP		
<u>WS-005(surface) 092513</u>		<u>9/25/13</u>	<u>1010</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
<u>WS-011(1.5-2.0) 092513</u>		<u>9/25/13</u>	<u>1030</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
<u>WS-011(5.0-5.5) 092513</u>		<u>9/25/13</u>	<u>1040</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
<u>WS-018(surface) 092513</u>		<u>9/25/13</u>	<u>1100</u>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			

  

7 Turnaround Time Requested (TAT) (please circle)			Relinquished by <u>H. Van Aller</u>		Date <u>9/25/13</u>	Time <u>1500</u>	Received by	Date	Time	9	
Standard	<u>5 day</u>	4 day	Relinquished by		Date	Time	Received by	Date	Time		
72 hour	48 hour	24 hour	Relinquished by		Date	Time	Received by	Date	Time		
8 Data Package (circle if required) Type I - Full Type VI (Raw Data) NJ Reduced Other _____			EDD (circle if required) Locus EIM (default) Other _____			Relinquished by Commercial Carrier		Received by	Date	Time	
						UPS <input checked="" type="checkbox"/>	FedEx _____	Other _____	<u>Brennely Benz</u>	<u>9/26/13</u>	<u>950</u>
Temperature Upon Receipt <u>0.5-2.8 °C</u>						Custody Seals Intact? <u>Yes</u> No					



# ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only

Group # 1421678

Sample # 7213267-85

Instructions on reverse side correspond with circled numbers.

2 of 2

1 Client Information				4 Matrix				5 Analyses Requested								6 Remarks	
Facility #/SID <u>Mayflower, Pipeline Incident</u>				Soil <input type="checkbox"/>	Water <input type="checkbox"/>	Oil <input type="checkbox"/>	Total # of Containers	Preservation Code								SCR#: _____ Preservation Codes H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other	
Site Address <u>Mayflower, AR</u>								Potable <input type="checkbox"/>	Ground <input type="checkbox"/>	Surface <input checked="" type="checkbox"/>	H	N	H				
ExxonMobil PM <u>Scott Bushroe</u>		Cost Center/AFE															Lab to filter & preserve diss metals upon receipt
Consultant/Office <u>Arcadis</u>																	
Consultant PM <u>Steve Barrick</u>		Consultant Phone # <u>919 302 6799</u>															
Sampler <u>Ryan Lewis / H. Van Allen</u>																	
2 Sample Identification		3 Collected		Grab	Composite												
Date	Time	Date	Time			Soil	Water	Oil									
<u>WS-002 (surface) 092513</u>	<u>09/25/13</u>	<u>1050</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>WS-003 (surface) 092513</u>	<u>9/25/13</u>	<u>1110</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>WS-007 (0.5-1.0) 092513</u>	<u>9/25/13</u>	<u>1120</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>WS-001 (0.5-1.0) 092513</u>	<u>9/25/13</u>	<u>1130</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>WS-EB-72-092513</u>	<u>9/25/13</u>	<u>1230</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>WS-TB-160-092513</u>	<u>9/25/13</u>	<u>---</u>	<u>X</u>		<u>X</u>		<u>2</u>	<u>X</u>									

7 Turnaround Time Requested (TAT) (please circle)			Relinquished by <u>H. Van Allen</u>		Date <u>9/25/13</u>	Time <u>1500</u>	Received by	Date	Time	9
Standard	<u>5 day</u>	4 day	Relinquished by		Date	Time	Received by	Date	Time	
72 hour	48 hour	24 hour	Relinquished by		Date	Time	Received by	Date	Time	
8 Data Package (circle if required) Type I - Full Type VI (Raw Data) NJ Reduced Other _____			EDD (circle if required) Locus EIM (default) Other _____		Relinquished by Commercial Carrier			Received by	Date	Time
					UPS <u>X</u>	FedEx _____	Other _____	<u>Bruno Kelly</u>	<u>9/26/13</u>	<u>950</u>
Temperature Upon Receipt <u>0.5-2.8°C</u>							Custody Seals Intact? <u>Yes</u> No			

Environmental Sample Administration 1421678  
 Receipt Documentation Log

Client/Project: Exxon mobil  
 Date of Receipt: 9-26-13  
 Time of Receipt: 950  
 Source Code: 60-1

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	DT121	0.3	TB	WI	Y	B	
2	↓	0.4	↓	↓	↓	↓	
3	↓	2.8	↓	↓	↓	↓	
4	↓	0.9	↓	↓	↓	↓	
5	↓	1.0	↓	↓	↓	↓	
6	↓	1.1	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:

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Unpacker Signature/Emp#: Bruce [Signature] 2299 Date/Time: 9-26-13 1028

Issued by Dept. 6042 Management

# Explanation of Symbols and Abbreviations

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

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

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

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

**ppb** parts per billion

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

*Data Qualifiers:*

**C** – result confirmed by reanalysis.

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

*U.S. EPA CLP Data Qualifiers:*

**Organic Qualifiers**

**Inorganic Qualifiers**

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

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

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

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

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

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