

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

September 09, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 08/31/2013

Group Number: 1415628

SDG: PEL16

PO Number: B0086003.1301

State of Sample Origin: AR

Client Sample DescriptionLancaster Labs (LL) #

WS-014(1.5-2.0)083013 Filt Grab Surface Water	7182151
WS-014(5.5-6.0)083013 Filt Grab Surface Water	7182152
WS-012(1.5-2.0)083013 Filt Grab Surface Water	7182153
WS-012(5.0-5.5)083013 Filt Grab Surface Water	7182154
WS-010(1.5-2.0)083013 Filt Grab Surface Water	7182155
WS-010(3.5-4.0)083013 Filt Grab Surface Water	7182156
WS-006(0.5-1.0)083013 Filt Grab Surface Water	7182157
WS-006(0.5-1.0)083013MS Filt Grab Surface Water	7182158
WS-006(0.5-1.0)083013MSD Filt Grab Surface Water	7182159
WS-006(0.5-1.0)083013DUP Filt Grab Surface Water	7182160
WS-005(Surface)083013 Filt Grab Surface Water	7182161
WS-002(Surface)083013 Filt Grab Surface Water	7182162
WS-018(Surface)083013 Filt Grab Surface Water	7182163
WS-011(1.5-2.0)083013 Filt Grab Surface Water	7182164
WS-011(5.0-5.5)083013 Filt Grab Surface Water	7182165
WS-003(Surface)083013 Filt Grab Surface Water	7182166
WS-007(0.5-1.0)083013 Filt Grab Surface Water	7182167
WS-001(0.5-1.0)083013 Filt Grab Surface Water	7182168
WS-EB-046-083013 Filt Grab Water	7182169

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

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1415628

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)083013 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7182151
LL Group # 1415628
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/30/2013 09:10 by HVA

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

Submitted: 08/31/2013 08:50

Reported: 09/09/2013 16:03

P1601 SDG#: PEL16-01

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	0.0117	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	132461848005	09/04/2013 19:51	John P Hook	1
07046	Barium	SW-846 6010B	1	132461848005	09/04/2013 19:51	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132461848005	09/04/2013 19:51	John P Hook	1
07051	Chromium	SW-846 6010B	1	132461848005	09/04/2013 19:51	John P Hook	1
07055	Lead	SW-846 6010B	1	132461848005	09/04/2013 19:51	John P Hook	1
07061	Nickel	SW-846 6010B	1	132461848005	09/04/2013 19:51	John P Hook	1
07036	Selenium	SW-846 6010B	1	132461848005	09/04/2013 19:51	John P Hook	1
07066	Silver	SW-846 6010B	1	132461848005	09/04/2013 19:51	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132461848005	09/04/2013 19:51	John P Hook	1
00259	Mercury	SW-846 7470A	1	132465713006	09/05/2013 08:21	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132461848005	09/04/2013 09:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132465713006	09/04/2013 17:15	Nelli S Markaryan	1

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

Sample Description: WS-014(5.5-6.0)083013 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7182152
LL Group # 1415628
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/30/2013 09:20 by HVA

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

Submitted: 08/31/2013 08:50

Reported: 09/09/2013 16:03

P1602 SDG#: PEL16-02

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	0.0111	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	132461848005	09/04/2013 19:55	John P Hook	1
07046	Barium	SW-846 6010B	1	132461848005	09/04/2013 19:55	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132461848005	09/04/2013 19:55	John P Hook	1
07051	Chromium	SW-846 6010B	1	132461848005	09/04/2013 19:55	John P Hook	1
07055	Lead	SW-846 6010B	1	132461848005	09/04/2013 19:55	John P Hook	1
07061	Nickel	SW-846 6010B	1	132461848005	09/04/2013 19:55	John P Hook	1
07036	Selenium	SW-846 6010B	1	132461848005	09/04/2013 19:55	John P Hook	1
07066	Silver	SW-846 6010B	1	132461848005	09/04/2013 19:55	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132461848005	09/04/2013 19:55	John P Hook	1
00259	Mercury	SW-846 7470A	1	132465713006	09/05/2013 08:23	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132461848005	09/04/2013 09:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132465713006	09/04/2013 17:15	Nelli S Markaryan	1

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

Sample Description: WS-012(1.5-2.0)083013 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7182153
LL Group # 1415628
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/30/2013 09:45 by HVA

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

Submitted: 08/31/2013 08:50

Reported: 09/09/2013 16:03

P1603 SDG#: PEL16-03

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	0.0153	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	132461848005	09/04/2013 20:06	John P Hook	1
07046	Barium	SW-846 6010B	1	132461848005	09/04/2013 20:06	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132461848005	09/04/2013 20:06	John P Hook	1
07051	Chromium	SW-846 6010B	1	132461848005	09/04/2013 20:06	John P Hook	1
07055	Lead	SW-846 6010B	1	132461848005	09/04/2013 20:06	John P Hook	1
07061	Nickel	SW-846 6010B	1	132461848005	09/04/2013 20:06	John P Hook	1
07036	Selenium	SW-846 6010B	1	132461848005	09/04/2013 20:06	John P Hook	1
07066	Silver	SW-846 6010B	1	132461848005	09/04/2013 20:06	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132461848005	09/04/2013 20:06	John P Hook	1
00259	Mercury	SW-846 7470A	1	132465713006	09/05/2013 08:25	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132461848005	09/04/2013 09:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132465713006	09/04/2013 17:15	Nelli S Markaryan	1

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

Sample Description: WS-012(5.0-5.5)083013 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7182154
LL Group # 1415628
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/30/2013 09:55 by HVA

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

Submitted: 08/31/2013 08:50

Reported: 09/09/2013 16:03

P1604 SDG#: PEL16-04

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	0.0147	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	132461848005	09/04/2013 20:09	John P Hook	1
07046	Barium	SW-846 6010B	1	132461848005	09/04/2013 20:09	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132461848005	09/04/2013 20:09	John P Hook	1
07051	Chromium	SW-846 6010B	1	132461848005	09/04/2013 20:09	John P Hook	1
07055	Lead	SW-846 6010B	1	132461848005	09/04/2013 20:09	John P Hook	1
07061	Nickel	SW-846 6010B	1	132461848005	09/04/2013 20:09	John P Hook	1
07036	Selenium	SW-846 6010B	1	132461848005	09/04/2013 20:09	John P Hook	1
07066	Silver	SW-846 6010B	1	132461848005	09/04/2013 20:09	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132461848005	09/04/2013 20:09	John P Hook	1
00259	Mercury	SW-846 7470A	1	132465713006	09/05/2013 08:27	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132461848005	09/04/2013 09:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132465713006	09/04/2013 17:15	Nelli S Markaryan	1

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

Sample Description: WS-010(1.5-2.0)083013 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7182155
LL Group # 1415628
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/30/2013 10:15 by HVA

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

Submitted: 08/31/2013 08:50

Reported: 09/09/2013 16:03

P1605 SDG#: PEL16-05

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.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0304	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	132461848005	09/04/2013 20:13	John P Hook	1
07046	Barium	SW-846 6010B	1	132461848005	09/04/2013 20:13	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132461848005	09/04/2013 20:13	John P Hook	1
07051	Chromium	SW-846 6010B	1	132461848005	09/04/2013 20:13	John P Hook	1
07055	Lead	SW-846 6010B	1	132461848005	09/04/2013 20:13	John P Hook	1
07061	Nickel	SW-846 6010B	1	132461848005	09/04/2013 20:13	John P Hook	1
07036	Selenium	SW-846 6010B	1	132461848005	09/04/2013 20:13	John P Hook	1
07066	Silver	SW-846 6010B	1	132461848005	09/04/2013 20:13	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132461848005	09/04/2013 20:13	John P Hook	1
00259	Mercury	SW-846 7470A	1	132465713006	09/05/2013 08:29	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132461848005	09/04/2013 09:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132465713006	09/04/2013 17:15	Nelli S Markaryan	1

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

Sample Description: WS-010(3.5-4.0)083013 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7182156
LL Group # 1415628
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/30/2013 10:25 by HVA

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

Submitted: 08/31/2013 08:50

Reported: 09/09/2013 16:03

P1606 SDG#: PEL16-06

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	0.0905	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	132461848005	09/04/2013 20:17	John P Hook	1
07046	Barium	SW-846 6010B	1	132461848005	09/04/2013 20:17	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132461848005	09/04/2013 20:17	John P Hook	1
07051	Chromium	SW-846 6010B	1	132461848005	09/04/2013 20:17	John P Hook	1
07055	Lead	SW-846 6010B	1	132461848005	09/04/2013 20:17	John P Hook	1
07061	Nickel	SW-846 6010B	1	132461848005	09/04/2013 20:17	John P Hook	1
07036	Selenium	SW-846 6010B	1	132461848005	09/04/2013 20:17	John P Hook	1
07066	Silver	SW-846 6010B	1	132461848005	09/04/2013 20:17	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132461848005	09/04/2013 20:17	John P Hook	1
00259	Mercury	SW-846 7470A	1	132465713006	09/05/2013 08:31	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132461848005	09/04/2013 09:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132465713006	09/04/2013 17:15	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)083013 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7182157
LL Group # 1415628
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/30/2013 10:45 by HVA

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

Submitted: 08/31/2013 08:50

Reported: 09/09/2013 16:03

P1607 SDG#: PEL16-07BKG

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	0.0163	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	132461848005	09/04/2013 19:30	John P Hook	1
07046	Barium	SW-846 6010B	1	132461848005	09/04/2013 19:30	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132461848005	09/04/2013 19:30	John P Hook	1
07051	Chromium	SW-846 6010B	1	132461848005	09/04/2013 19:30	John P Hook	1
07055	Lead	SW-846 6010B	1	132461848005	09/04/2013 19:30	John P Hook	1
07061	Nickel	SW-846 6010B	1	132461848005	09/04/2013 19:30	John P Hook	1
07036	Selenium	SW-846 6010B	1	132461848005	09/04/2013 19:30	John P Hook	1
07066	Silver	SW-846 6010B	1	132461848005	09/04/2013 19:30	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132461848005	09/04/2013 19:30	John P Hook	1
00259	Mercury	SW-846 7470A	1	132465713006	09/05/2013 08:34	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132461848005	09/04/2013 09:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132465713006	09/04/2013 17:15	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)083013MS Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7182158
LL Group # 1415628
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/30/2013 10:45 by HVA

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

Submitted: 08/31/2013 08:50

Reported: 09/09/2013 16:03

P1607 SDG#: PEL16-07MS

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	0.160	0.0068	0.0200	1
07046	Barium	7440-39-3	2.08	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0524	0.00076	0.0050	1
07051	Chromium	7440-47-3	0.205	0.0016	0.0150	1
07055	Lead	7439-92-1	0.153	0.0047	0.0150	1
07061	Nickel	7440-02-0	0.529	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.154	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0550	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.500	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.0010	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	132461848005	09/04/2013 19:40	John P Hook	1
07046	Barium	SW-846 6010B	1	132461848005	09/04/2013 19:40	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132461848005	09/04/2013 19:40	John P Hook	1
07051	Chromium	SW-846 6010B	1	132461848005	09/04/2013 19:40	John P Hook	1
07055	Lead	SW-846 6010B	1	132461848005	09/04/2013 19:40	John P Hook	1
07061	Nickel	SW-846 6010B	1	132461848005	09/04/2013 19:40	John P Hook	1
07036	Selenium	SW-846 6010B	1	132461848005	09/04/2013 19:40	John P Hook	1
07066	Silver	SW-846 6010B	1	132461848005	09/04/2013 19:40	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132461848005	09/04/2013 19:40	John P Hook	1
00259	Mercury	SW-846 7470A	1	132465713006	09/05/2013 08:38	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132461848005	09/04/2013 09:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132465713006	09/04/2013 17:15	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)083013MSD Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7182159
LL Group # 1415628
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/30/2013 10:45 by HVA

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

Submitted: 08/31/2013 08:50

Reported: 09/09/2013 16:03

P1607 SDG#: PEL16-07MSD

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	0.158	0.0068	0.0200	1
07046	Barium	7440-39-3	2.03	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0518	0.00076	0.0050	1
07051	Chromium	7440-47-3	0.202	0.0016	0.0150	1
07055	Lead	7439-92-1	0.151	0.0047	0.0150	1
07061	Nickel	7440-02-0	0.521	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.150	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0549	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.491	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.0011	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	132461848005	09/04/2013 19:44	John P Hook	1
07046	Barium	SW-846 6010B	1	132461848005	09/04/2013 19:44	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132461848005	09/04/2013 19:44	John P Hook	1
07051	Chromium	SW-846 6010B	1	132461848005	09/04/2013 19:44	John P Hook	1
07055	Lead	SW-846 6010B	1	132461848005	09/04/2013 19:44	John P Hook	1
07061	Nickel	SW-846 6010B	1	132461848005	09/04/2013 19:44	John P Hook	1
07036	Selenium	SW-846 6010B	1	132461848005	09/04/2013 19:44	John P Hook	1
07066	Silver	SW-846 6010B	1	132461848005	09/04/2013 19:44	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132461848005	09/04/2013 19:44	John P Hook	1
00259	Mercury	SW-846 7470A	1	132465713006	09/05/2013 08:44	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132461848005	09/04/2013 09:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132465713006	09/04/2013 17:15	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)083013DUP Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7182160
LL Group # 1415628
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/30/2013 10:45 by HVA

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

Submitted: 08/31/2013 08:50

Reported: 09/09/2013 16:03

P1607 SDG#: PEL16-07DUP

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	0.0163	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	132461848005	09/04/2013 19:37	John P Hook	1
07046	Barium	SW-846 6010B	1	132461848005	09/04/2013 19:37	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132461848005	09/04/2013 19:37	John P Hook	1
07051	Chromium	SW-846 6010B	1	132461848005	09/04/2013 19:37	John P Hook	1
07055	Lead	SW-846 6010B	1	132461848005	09/04/2013 19:37	John P Hook	1
07061	Nickel	SW-846 6010B	1	132461848005	09/04/2013 19:37	John P Hook	1
07036	Selenium	SW-846 6010B	1	132461848005	09/04/2013 19:37	John P Hook	1
07066	Silver	SW-846 6010B	1	132461848005	09/04/2013 19:37	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132461848005	09/04/2013 19:37	John P Hook	1
00259	Mercury	SW-846 7470A	1	132465713006	09/05/2013 08:36	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132461848005	09/04/2013 09:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132465713006	09/04/2013 17:15	Nelli S Markaryan	1

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

Sample Description: WS-005(Surface)083013 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7182161
LL Group # 1415628
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/30/2013 11:25 by HVA

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

Submitted: 08/31/2013 08:50

Reported: 09/09/2013 16:03

P1608 SDG#: PEL16-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
07035	Arsenic	SW-846 6010B 7440-38-2	mg/l N.D.	mg/l 0.0068	mg/l 0.0200	1
07046	Barium	7440-39-3	0.0112	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						
00259	Mercury	7439-97-6	mg/l N.D.	mg/l 0.000060	mg/l 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	132461848005	09/04/2013 20:20	John P Hook	1
07046	Barium	SW-846 6010B	1	132461848005	09/04/2013 20:20	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132461848005	09/04/2013 20:20	John P Hook	1
07051	Chromium	SW-846 6010B	1	132461848005	09/04/2013 20:20	John P Hook	1
07055	Lead	SW-846 6010B	1	132461848005	09/04/2013 20:20	John P Hook	1
07061	Nickel	SW-846 6010B	1	132461848005	09/04/2013 20:20	John P Hook	1
07036	Selenium	SW-846 6010B	1	132461848005	09/04/2013 20:20	John P Hook	1
07066	Silver	SW-846 6010B	1	132461848005	09/04/2013 20:20	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132461848005	09/04/2013 20:20	John P Hook	1
00259	Mercury	SW-846 7470A	1	132465713006	09/05/2013 08:46	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132461848005	09/04/2013 09:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132465713006	09/04/2013 17:15	Nelli S Markaryan	1

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

Sample Description: WS-002(Surface)083013 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7182162
LL Group # 1415628
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/30/2013 12:05 by HVA

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

Submitted: 08/31/2013 08:50

Reported: 09/09/2013 16:03

P1609 SDG#: PEL16-09

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	0.0114	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	132461848005	09/04/2013 20:24	John P Hook	1
07046	Barium	SW-846 6010B	1	132461848005	09/04/2013 20:24	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132461848005	09/04/2013 20:24	John P Hook	1
07051	Chromium	SW-846 6010B	1	132461848005	09/04/2013 20:24	John P Hook	1
07055	Lead	SW-846 6010B	1	132461848005	09/04/2013 20:24	John P Hook	1
07061	Nickel	SW-846 6010B	1	132461848005	09/04/2013 20:24	John P Hook	1
07036	Selenium	SW-846 6010B	1	132461848005	09/04/2013 20:24	John P Hook	1
07066	Silver	SW-846 6010B	1	132461848005	09/04/2013 20:24	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132461848005	09/04/2013 20:24	John P Hook	1
00259	Mercury	SW-846 7470A	1	132465713006	09/05/2013 08:48	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132461848005	09/04/2013 09:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132465713006	09/04/2013 17:15	Nelli S Markaryan	1

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

Sample Description: WS-018(Surface)083013 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7182163
LL Group # 1415628
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/30/2013 13:25 by HVA

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

Submitted: 08/31/2013 08:50

Reported: 09/09/2013 16:03

P1610 SDG#: PEL16-10

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	0.0427	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	132461848005	09/04/2013 20:28	John P Hook	1
07046	Barium	SW-846 6010B	1	132461848005	09/04/2013 20:28	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132461848005	09/04/2013 20:28	John P Hook	1
07051	Chromium	SW-846 6010B	1	132461848005	09/04/2013 20:28	John P Hook	1
07055	Lead	SW-846 6010B	1	132461848005	09/04/2013 20:28	John P Hook	1
07061	Nickel	SW-846 6010B	1	132461848005	09/04/2013 20:28	John P Hook	1
07036	Selenium	SW-846 6010B	1	132461848005	09/04/2013 20:28	John P Hook	1
07066	Silver	SW-846 6010B	1	132461848005	09/04/2013 20:28	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132461848005	09/04/2013 20:28	John P Hook	1
00259	Mercury	SW-846 7470A	1	132465713006	09/05/2013 08:50	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132461848005	09/04/2013 09:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132465713006	09/04/2013 17:15	Nelli S Markaryan	1

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

Sample Description: WS-011(1.5-2.0)083013 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7182164
LL Group # 1415628
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/30/2013 12:40 by HVA

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

Submitted: 08/31/2013 08:50

Reported: 09/09/2013 16:03

P1611 SDG#: PEL16-11

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	0.0047 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
		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	132461848005	09/04/2013 20:31	John P Hook	1
07046	Barium	SW-846 6010B	1	132461848005	09/04/2013 20:31	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132461848005	09/04/2013 20:31	John P Hook	1
07051	Chromium	SW-846 6010B	1	132461848005	09/04/2013 20:31	John P Hook	1
07055	Lead	SW-846 6010B	1	132461848005	09/04/2013 20:31	John P Hook	1
07061	Nickel	SW-846 6010B	1	132461848005	09/04/2013 20:31	John P Hook	1
07036	Selenium	SW-846 6010B	1	132461848005	09/04/2013 20:31	John P Hook	1
07066	Silver	SW-846 6010B	1	132461848005	09/04/2013 20:31	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132461848005	09/04/2013 20:31	John P Hook	1
00259	Mercury	SW-846 7470A	1	132465713006	09/05/2013 08:52	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132461848005	09/04/2013 09:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132465713006	09/04/2013 17:15	Nelli S Markaryan	1

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

Sample Description: WS-011(5.0-5.5)083013 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7182165
LL Group # 1415628
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/30/2013 12:50 by HVA

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

Submitted: 08/31/2013 08:50

Reported: 09/09/2013 16:03

P1612 SDG#: PEL16-12

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	0.0090	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	132461848005	09/04/2013 20:35	John P Hook	1
07046	Barium	SW-846 6010B	1	132461848005	09/04/2013 20:35	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132461848005	09/04/2013 20:35	John P Hook	1
07051	Chromium	SW-846 6010B	1	132461848005	09/04/2013 20:35	John P Hook	1
07055	Lead	SW-846 6010B	1	132461848005	09/04/2013 20:35	John P Hook	1
07061	Nickel	SW-846 6010B	1	132461848005	09/04/2013 20:35	John P Hook	1
07036	Selenium	SW-846 6010B	1	132461848005	09/04/2013 20:35	John P Hook	1
07066	Silver	SW-846 6010B	1	132461848005	09/04/2013 20:35	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132461848005	09/04/2013 20:35	John P Hook	1
00259	Mercury	SW-846 7470A	1	132465713006	09/05/2013 08:54	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132461848005	09/04/2013 09:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132465713006	09/04/2013 17:15	Nelli S Markaryan	1

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

Sample Description: WS-003(Surface)083013 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7182166
LL Group # 1415628
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/30/2013 13:35 by HVA

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

Submitted: 08/31/2013 08:50

Reported: 09/09/2013 16:03

P1613 SDG#: PEL16-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
07035	Arsenic	SW-846 6010B 7440-38-2	mg/l N.D.	mg/l 0.0068	mg/l 0.0200	1
07046	Barium	7440-39-3	0.0158	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						
00259	Mercury	7439-97-6	mg/l N.D.	mg/l 0.000060	mg/l 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	132461848005	09/04/2013 20:39	John P Hook	1
07046	Barium	SW-846 6010B	1	132461848005	09/04/2013 20:39	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132461848005	09/04/2013 20:39	John P Hook	1
07051	Chromium	SW-846 6010B	1	132461848005	09/04/2013 20:39	John P Hook	1
07055	Lead	SW-846 6010B	1	132461848005	09/04/2013 20:39	John P Hook	1
07061	Nickel	SW-846 6010B	1	132461848005	09/04/2013 20:39	John P Hook	1
07036	Selenium	SW-846 6010B	1	132461848005	09/04/2013 20:39	John P Hook	1
07066	Silver	SW-846 6010B	1	132461848005	09/04/2013 20:39	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132461848005	09/04/2013 20:39	John P Hook	1
00259	Mercury	SW-846 7470A	1	132465713006	09/05/2013 08:56	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132461848005	09/04/2013 09:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132465713006	09/04/2013 17:15	Nelli S Markaryan	1

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

Sample Description: WS-007(0.5-1.0)083013 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7182167
LL Group # 1415628
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/30/2013 14:00 by HVA

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

Submitted: 08/31/2013 08:50

Reported: 09/09/2013 16:03

P1614 SDG#: PEL16-14

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	0.0164	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	0.000063 J	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	132461848005	09/04/2013 20:49	John P Hook	1
07046	Barium	SW-846 6010B	1	132461848005	09/04/2013 20:49	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132461848005	09/04/2013 20:49	John P Hook	1
07051	Chromium	SW-846 6010B	1	132461848005	09/04/2013 20:49	John P Hook	1
07055	Lead	SW-846 6010B	1	132461848005	09/04/2013 20:49	John P Hook	1
07061	Nickel	SW-846 6010B	1	132461848005	09/04/2013 20:49	John P Hook	1
07036	Selenium	SW-846 6010B	1	132461848005	09/04/2013 20:49	John P Hook	1
07066	Silver	SW-846 6010B	1	132461848005	09/04/2013 20:49	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132461848005	09/04/2013 20:49	John P Hook	1
00259	Mercury	SW-846 7470A	1	132465713006	09/05/2013 08:58	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132461848005	09/04/2013 09:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132465713006	09/04/2013 17:15	Nelli S Markaryan	1

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

Sample Description: WS-001(0.5-1.0)083013 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7182168
LL Group # 1415628
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/30/2013 14:15 by HVA

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

Submitted: 08/31/2013 08:50

Reported: 09/09/2013 16:03

P1615 SDG#: PEL16-15

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	0.0194	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	132461848005	09/04/2013 20:53	John P Hook	1
07046	Barium	SW-846 6010B	1	132461848005	09/04/2013 20:53	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132461848005	09/04/2013 20:53	John P Hook	1
07051	Chromium	SW-846 6010B	1	132461848005	09/04/2013 20:53	John P Hook	1
07055	Lead	SW-846 6010B	1	132461848005	09/04/2013 20:53	John P Hook	1
07061	Nickel	SW-846 6010B	1	132461848005	09/04/2013 20:53	John P Hook	1
07036	Selenium	SW-846 6010B	1	132461848005	09/04/2013 20:53	John P Hook	1
07066	Silver	SW-846 6010B	1	132461848005	09/04/2013 20:53	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132461848005	09/04/2013 20:53	John P Hook	1
00259	Mercury	SW-846 7470A	1	132465713006	09/05/2013 09:00	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132461848005	09/04/2013 09:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132465713006	09/04/2013 17:15	Nelli S Markaryan	1

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

Sample Description: WS-EB-046-083013 Filt Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7182169
LL Group # 1415628
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/30/2013 15:00

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

Submitted: 08/31/2013 08:50

Reported: 09/09/2013 16:03

P1616 SDG#: PEL16-16EB*

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	N.D.	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	132461848005	09/04/2013 20:57	John P Hook	1
07046	Barium	SW-846 6010B	1	132461848005	09/04/2013 20:57	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132461848005	09/04/2013 20:57	John P Hook	1
07051	Chromium	SW-846 6010B	1	132461848005	09/04/2013 20:57	John P Hook	1
07055	Lead	SW-846 6010B	1	132461848005	09/04/2013 20:57	John P Hook	1
07061	Nickel	SW-846 6010B	1	132461848005	09/04/2013 20:57	John P Hook	1
07036	Selenium	SW-846 6010B	1	132461848005	09/04/2013 20:57	John P Hook	1
07066	Silver	SW-846 6010B	1	132461848005	09/04/2013 20:57	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132461848005	09/04/2013 20:57	John P Hook	1
00259	Mercury	SW-846 7470A	1	132465713006	09/05/2013 09:02	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132461848005	09/04/2013 09:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132465713006	09/04/2013 17:15	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: 09/09/13 at 04:03 PM

Group Number: 1415628

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: 132461848005	Sample number(s): 7182151-7182169								
Arsenic	N.D.	0.0068	0.0200	mg/l	103		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	101		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	104		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	100		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	101		88-110		
Nickel	N.D.	0.0015	0.0100	mg/l	105		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	101		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	110		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	98		90-110		
Batch number: 132465713006	Sample number(s): 7182151-7182169								
Mercury	N.D.	0.00006	0.00020	mg/l	107		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: 132461848005	Sample number(s): 7182151-7182169 UNSPK: 7182157 BKG: 7182157								
Arsenic	107	105	81-123	1	20	N.D.	N.D.	0 (1)	20
Barium	103	101	78-118	2	20	0.0163	0.0163	0 (1)	20
Cadmium	105	104	83-116	1	20	N.D.	N.D.	0 (1)	20
Chromium	102	101	81-120	2	20	N.D.	N.D.	0 (1)	20
Lead	102	101	75-125	1	20	N.D.	N.D.	0 (1)	20
Nickel	106	104	86-115	2	20	N.D.	N.D.	0 (1)	20
Selenium	103	100	75-125	2	20	N.D.	N.D.	0 (1)	20
Silver	110	110	75-125	0	20	N.D.	N.D.	0 (1)	20
Vanadium	100	98	90-111	2	20	N.D.	N.D.	0 (1)	20
Batch number: 132465713006	Sample number(s): 7182151-7182169 UNSPK: 7182157 BKG: 7182157								
Mercury	105	106	80-120	2	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 # 1415628 Sample # 7182151-69

Instructions on reverse side correspond with circled numbers.

1 of 2

1 Client Information				4 Matrix		5 Analyses Requested										6 Remarks																																																																																																																																																																																																																																																						
Facility #/SID <u>Mayflower Pipeline Incident</u>				☐ Sediment ☐ Potable ☐ Ground ☒ Surface ☐ NPDES ☐ Air ☐ Oil		Preservation Code										SCR#: _____ 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></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></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>																																																																																																																																																																																																																																																																
ExxonMobil PM <u>Scott Bushroe</u>		Cost Center/AFE																																																																																																																																																																																																																																																																				
Consultant/Office <u>Arcadis</u>																																																																																																																																																																																																																																																																						
Consultant PM <u>Steve Barrick</u>		Consultant Phone # <u>919 302 6799</u>		Total # of Containers <u>1065 B260 B</u> <u>PAH B270 SIM</u> <u>RCRA Metals Ni, V, Cu, Mg</u> <u>Diss Metals</u> <u>HEM Oil & Grease</u>												Lab to filter & preserve Diss Metals upon receipt																																																																																																																																																																																																																																																						
Sampler <u>Hans Van Aller / Dave Drost</u>																																																																																																																																																																																																																																																																						
2 Sample Identification				3 Collected		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Date</th> <th>Time</th> <th>Grab</th> <th>Composite</th> <th>Soil</th> <th>Water</th> <th>Oil</th> <th>Total # of Containers</th> <th>VOCs B260 B</th> <th>PAH B270 SIM</th> <th>RCRA Metals Ni, V, Cu, Mg</th> <th>Diss Metals</th> <th>HEM Oil & Grease</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> <tr><td>WS-014(1.5-2.0)083013</td><td>8/30/13</td><td>910</td><td>Y</td><td></td><td>X</td><td></td><td>9</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>WS-014(5.5-6.0)083013</td><td></td><td>920</td><td>Y</td><td></td><td>X</td><td></td><td>9</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>WS-012(1.5-2.0)083013</td><td></td><td>945</td><td>Y</td><td></td><td>X</td><td></td><td>9</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>WS-012(5.0-5.5)083013</td><td></td><td>955</td><td>X</td><td></td><td>X</td><td></td><td>9</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>WS-010(1.5-2.0)083013</td><td></td><td>1015</td><td>Y</td><td></td><td>X</td><td></td><td>9</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>WS-010(3.5-4.0)083013</td><td></td><td>1025</td><td>Y</td><td></td><td>Y</td><td></td><td>9</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>WS-006(0.5-1.0)083013</td><td></td><td>1045</td><td>X</td><td></td><td>X</td><td></td><td>9</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>WS-006(0.5-1.0)083013 MS/MSD</td><td></td><td>1045</td><td>X</td><td></td><td>X</td><td></td><td>18</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>WS-005(Surface)083013</td><td></td><td>1125</td><td>X</td><td></td><td>X</td><td></td><td>9</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>WS-002(Surface)083013</td><td></td><td>1205</td><td>Y</td><td></td><td>X</td><td></td><td>9</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>WS-018(Surface)083013</td><td></td><td>1325</td><td>X</td><td></td><td>X</td><td></td><td>9</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>WS-011(1.5-2.0)083013</td><td></td><td>1240</td><td>Y</td><td></td><td>X</td><td></td><td>9</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>										Date	Time	Grab	Composite	Soil	Water	Oil	Total # of Containers	VOCs B260 B	PAH B270 SIM	RCRA Metals Ni, V, Cu, Mg	Diss Metals	HEM Oil & Grease							WS-014(1.5-2.0)083013	8/30/13	910	Y		X		9	X	X	X	X	X							WS-014(5.5-6.0)083013		920	Y		X		9	X	X	X	X	X							WS-012(1.5-2.0)083013		945	Y		X		9	X	X	X	X	X							WS-012(5.0-5.5)083013		955	X		X		9	X	X	X	X	X							WS-010(1.5-2.0)083013		1015	Y		X		9	X	X	X	X	X							WS-010(3.5-4.0)083013		1025	Y		Y		9	X	X	X	X	X							WS-006(0.5-1.0)083013		1045	X		X		9	X	X	X	X	X							WS-006(0.5-1.0)083013 MS/MSD		1045	X		X		18	X	X	X	X	X							WS-005(Surface)083013		1125	X		X		9	X	X	X	X	X							WS-002(Surface)083013		1205	Y		X		9	X	X	X	X	X							WS-018(Surface)083013		1325	X		X		9	X	X	X	X	X							WS-011(1.5-2.0)083013		1240	Y		X		9	X	X	X	X	X						
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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>8/30/13</u>		Time <u>1700</u>		Received by		Date		Time																																																																																																																																																																																																																																																								
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8 Data Package (circle if required) Type I - Full Type VI (Raw Data) NJ Reduced Other _____				EDD (circle if required) Locus EIM (default) Other _____				UPS <u>X</u> FedEx _____ Other _____				Received by <u>[Signature]</u> Date <u>8/31/13</u> Time <u>850</u>																																																																																																																																																																																																																																																										
								Temperature Upon Receipt <u>0.64.2 °C</u>				Custody Seals Intact? <u>Yes</u> No																																																																																																																																																																																																																																																										

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

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

7053 0713

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only
Group # 1415628 Sample # 7182151-69
Instructions on reverse side correspond with circled numbers.

2 of 2

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

Kathy Klinefelter

14739, 1415628, 7182151-69

From: Chandler, Jennifer [Jennifer.Chandler@arcadis-us.com]
Sent: Wednesday, September 04, 2013 12:08 PM
To: Kathy Klinefelter; Mott, Lyndi
Subject: RE: Mayflower Surface water sampling COCs and tracking numbers 083013

Hi Kathy,

Yes, you have entered (the items listed below) correctly. Thank you for correcting these errors.

Thanks,

Jennifer Chandler | Scientist 2 | jennifer.chandler@arcadis-us.com
ARCADIS U.S., Inc. | 630 Plaza Drive, Suite 100 | Highlands Ranch, CO, 80129
T. 303.471.3549 | F. 720.344.3535

www.arcadis-us.com

Please consider the environment before printing this email.

From: Kathy Klinefelter [mailto:KKlinefelter@lancasterlabs.com]
Sent: Wednesday, September 04, 2013 9:54 AM
To: Mott, Lyndi; Chandler, Jennifer
Subject: FW: Mayflower Surface water sampling COCs and tracking numbers 083013

Hello,

Please see the attached COCs. The following discrepancies were noted.

The dissolved metals bottle for WS-011(1.5-2.0)083013 was labeled WS-011(0.5-1.0)083013. We entered the sample ID for dissolved metals per the COC as WS-011(1.5-2.0)083013.

The O&G and PAHs bottles for WS-001(0.5-1.0)083013 were labeled with collection time of 1445. We entered the collection time as 1415 per the COC and times on the labels for the VOCs, Metals and Dissolved Metals bottles submitted for this location.

Please confirm that we have entered correctly per the information on the COCs.

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: Friday, August 30, 2013 7:18 PM
To: Kathy Klinefelter; Mott, Lyndi; Barrick, Stephen; Brewer, Stacey; Kull, Valerie; SA Env Entry; Capria, Dennis; Rachel L. Kreamer; McKenzie, Mary; Chandler, Jennifer
Cc: Molina, Joe; Lipka, Shelby; Parmelee, Rhiannon; Pritchard, Jamie; Drost, Dave
Subject: Mayflower Surface water sampling COCs and tracking numbers 083013

9/4/2013

14739, 1415628, 7182151-69

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

Thanks,

Tyler Milburn, G.I.T. | Geologist 1 | tyler.milburn@arcadis-us.com
ARCADIS U.S., Inc. | 2464 Fortune Dr., Suite 170 | Lexington, KY 40509
T: 859.253.9036 | M: 859.559.5680 | F: 859.253.9136
www.arcadis-us.com

ARCADIS, Imagine the result
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9/4/2013

Environmental Sample Administration
Receipt Documentation LogClient/Project: ExxonmobilShipping Container Sealed: YES NODate of Receipt: 8/31/13Custody Seal Present * : YES NOTime of Receipt: 850* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: 60-1Package: Chilled Not Chilled

Temperature of Shipping Containers

Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	1.0	TB	WI	Y	B	
2	↓	0.6	↓	↓	↓	↓	
3	↓	4.2	↓	↓	↓	↓	
4	↓	1.6	↓	↓	↓	↓	
5	↓	3.0	↓	↓	↓	↓	
6	↓	2.3	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:

dissolved metals bottle for WS-011(1.5-2.0) labeled WS-011(0.5-1.0)
OTG bottles and both ambers for WS-001(0.5-1.0) times=1445Unpacker Signature/Emp#: [Signature] 2308 Date/Time: 8/31/13 1122

Issued by Dept. 6042 Management

Environmental Sample Administration
Receipt Documentation LogClient/Project: Exxon MobilShipping Container Sealed: YES NODate of Receipt: 8/31/13Custody Seal Present * : YES NOTime of Receipt: 850* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: 60-1Package: Chilled Not Chilled

Temperature of Shipping Containers

Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
<u>✓ 7</u>	<u>DT121</u>	<u>0.8</u>	<u>TB</u>	<u>WI</u>	<u>Y</u>	<u>B</u>	
<u>✓ 2</u>							
<u>✓ 3</u>							
<u>✓ 4</u>							
<u>✓ 5</u>							
<u>✓ 6</u>							

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: [Signature] 2308 Date/Time: 8/31/13 1122

Issued by Dept. 6042 Management

Explanation of Symbols and Abbreviations

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

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
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	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

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

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

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

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

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