

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

August 19, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 08/12/2013

Group Number: 1410864

SDG: PEK49

PO Number: B0086003.1301

Release Number: MAYFLOWER 1406

State of Sample Origin: AR

Client Sample DescriptionLancaster Labs (LL) #

WS-014(1.5-2.0)081113 Filtered Grab Surface Water	7158094
WS-014(5.5-6.0)081113 Filtered Grab Surface Water	7158095
WS-012(1.5-2.0)081113 Filtered Grab Surface Water	7158096
WS-012(5.0-5.5)081113 Filtered Grab Surface Water	7158097
WS-010(1.5-2.0)081113 Filtered Grab Surface Water	7158098
WS-010(3.5-4.0)081113 Filtered Grab Surface Water	7158099
WS-006(0.5-1.0)081113 Filtered Grab Surface Water	7158100
WS-006(0.5-1.0)081113MS Filtered Grab	7158101
WS-006(0.5-1.0)081113MSD Filtered Grab	7158102
WS-006(0.5-1.0)081113DUP Filtered Grab	7158103
WS-005(Surface)081113 Filtered Grab Surface Water	7158104
WS-011(1.5-2.0)081113 Filtered Grab Surface Water	7158105
WS-011(5.0-5.5)081113 Filtered Grab Surface Water	7158106
WS-003(Surface)081113 Filtered Grab Surface Water	7158107
WS-002(Surface)081113 Filtered Grab Surface Water	7158108
WS-018(Surface)081113 Filtered Grab Surface Water	7158109
WS-007(0.5-1.0)081113 Filtered Grab Surface Water	7158110
WS-001(0.5-1.0)081113 Filtered Grab Surface Water	7158111
WS-008(Surface)081113 Filtered Grab Surface Water	7158112
WS-BKG-002-(Surface)081113 Filtered Grab	7158113
WS-EB-27-081113 Filtered Grab Surface Water	7158114

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

ELECTRONIC ARCADIS
COPY TO

Attn: Stephen Barrick

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

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1410864

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.

REVISED

Sample Description: WS-014(1.5-2.0)081113 Filtered Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7158094
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 08:30 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

0140F SDG#: PEK49-01

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	0.0152	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 laboratory 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	132251848004	08/17/2013 03:27	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 03:27	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 03:27	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 03:27	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 03:27	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 03:27	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 03:27	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 03:27	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 03:27	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 16:34	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-014(5.5-6.0)081113 Filtered Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7158095
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 08:40 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

0145F SDG#: PEK49-02

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	0.0166	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 laboratory 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	132251848004	08/17/2013 03:31	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 03:31	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 03:31	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 03:31	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 03:31	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 03:31	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 03:31	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 03:31	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 03:31	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 16:40	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-012(1.5-2.0)081113 Filtered Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7158096
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 08:50 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

0120F SDG#: PEK49-03

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	0.0122	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 laboratory 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	132251848004	08/17/2013 03:42	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 03:42	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 03:42	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 03:42	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 03:42	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 03:42	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 03:42	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 03:42	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 03:42	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 16:42	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-012(5.0-5.5)081113 Filtered Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7158097
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 09:00 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

0125F SDG#: PEK49-04

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	0.0118	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 laboratory 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	132251848004	08/17/2013 03:46	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 03:46	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 03:46	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 03:46	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 03:46	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 03:46	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 03:46	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 03:46	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 03:46	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 16:44	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-010(1.5-2.0)081113 Filtered Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7158098
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 09:10 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

0101F SDG#: PEK49-05

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	0.0118	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 laboratory 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	132251848004	08/17/2013 03:50	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 03:50	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 03:50	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 03:50	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 03:50	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 03:50	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 03:50	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 03:50	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 03:50	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 16:46	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-010(3.5-4.0)081113 Filtered Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7158099
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 09:20 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

0103F SDG#: PEK49-06

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	0.0128	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 laboratory 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	132251848004	08/17/2013 03:53	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 03:53	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 03:53	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 03:53	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 03:53	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 03:53	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 03:53	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 03:53	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 03:53	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 16:48	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-006(0.5-1.0)081113 Filtered Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7158100
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 09:30 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

0060F SDG#: PEK49-07BKG

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	0.0130	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 laboratory 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	132251848004	08/17/2013 03:04	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 03:04	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 03:04	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 03:04	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 03:04	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 03:04	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 03:04	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 03:04	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 03:04	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 16:50	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-006(0.5-1.0)081113MS Filtered Grab
Surface Water Mayflower, AR
Pipeline Incident

LL Sample # WW 7158101
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 09:30 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

0060F SDG#: PEK49-07MS

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	0.154	0.0068	0.0200	1
07046	Barium	7440-39-3	2.02	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0492	0.00076	0.0050	1
07051	Chromium	7440-47-3	0.201	0.0016	0.0150	1
07055	Lead	7439-92-1	0.149	0.0047	0.0150	1
07061	Nickel	7440-02-0	0.515	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.147	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0560	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.514	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 laboratory 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	132251848004	08/17/2013 03:15	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 03:15	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 03:15	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 03:15	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 03:15	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 03:15	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 03:15	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 03:15	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 03:15	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 16:54	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-006(0.5-1.0)081113MSD Filtered Grab
Surface Water Mayflower, AR
Pipeline Incident

LL Sample # WW 7158102
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 09:30 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

0060F SDG#: PEK49-07MSD

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	0.151	0.0068	0.0200	1
07046	Barium	7440-39-3	2.01	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0481	0.00076	0.0050	1
07051	Chromium	7440-47-3	0.199	0.0016	0.0150	1
07055	Lead	7439-92-1	0.144	0.0047	0.0150	1
07061	Nickel	7440-02-0	0.511	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.145	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0549	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.509	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 laboratory 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	132251848004	08/17/2013 03:19	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 03:19	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 03:19	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 03:19	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 03:19	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 03:19	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 03:19	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 03:19	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 03:19	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 16:56	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-006(0.5-1.0)081113DUP Filtered Grab
Surface Water Mayflower, AR
Pipeline Incident

LL Sample # WW 7158103
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 09:30 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

0060F SDG#: PEK49-07DUP

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	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0130	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 6010B						
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
SW-846 7470A						

General Sample Comments

This sample was filtered in the laboratory 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	132251848004	08/17/2013 03:11	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 03:11	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 03:11	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 03:11	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 03:11	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 03:11	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 03:11	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 03:11	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 03:11	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 16:52	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-005(Surface)081113 Filtered Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7158104
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 09:50 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

005SF SDG#: PEK49-08

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	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0139	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 6010B						
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
SW-846 7470A						

General Sample Comments

This sample was filtered in the laboratory 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	132251848004	08/17/2013 03:57	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 03:57	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 03:57	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 03:57	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 03:57	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 03:57	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 03:57	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 03:57	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 03:57	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 16:58	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-011(1.5-2.0)081113 Filtered Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7158105
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 10:40 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

0111F SDG#: PEK49-09

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	0.0117	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						
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 laboratory 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	132251848004	08/17/2013 04:01	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 04:01	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 04:01	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 04:01	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 04:01	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 04:01	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 04:01	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 04:01	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 04:01	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 17:05	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-011(5.0-5.5)081113 Filtered Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7158106
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 10:50 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

0115F SDG#: PEK49-10

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	0.0125	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 laboratory 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	132251848004	08/17/2013 04:05	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 04:05	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 04:05	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 04:05	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 04:05	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 04:05	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 04:05	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 04:05	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 04:05	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 17:07	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-003(Surface)081113 Filtered Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7158107
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 11:00 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

003SF SDG#: PEK49-11

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	0.0091	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 laboratory 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	132251848004	08/17/2013 04:09	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 04:09	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 04:09	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 04:09	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 04:09	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 04:09	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 04:09	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 04:09	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 04:09	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 17:09	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-002(Surface)081113 Filtered Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7158108
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 10:10 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

002SF SDG#: PEK49-12

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	0.0092 J	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0113	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0026 J	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 laboratory 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	132251848004	08/17/2013 04:13	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 04:13	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 04:13	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 04:13	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 04:13	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 04:13	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 04:13	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 04:13	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 04:13	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 17:11	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-018(Surface)081113 Filtered Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7158109
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 10:30 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

018SF SDG#: PEK49-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0231	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 laboratory 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	132251848004	08/17/2013 04:16	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 04:16	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 04:16	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 04:16	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 04:16	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 04:16	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 04:16	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 04:16	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 04:16	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 17:13	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-007(0.5-1.0)081113 Filtered Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7158110
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 11:20 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

0070F SDG#: PEK49-14

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	0.0223	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 laboratory 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	132251848004	08/17/2013 04:28	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 04:28	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 04:28	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 04:28	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 04:28	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 04:28	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 04:28	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 04:28	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 04:28	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 17:15	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-001(0.5-1.0)081113 Filtered Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7158111
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 11:30 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

0010F SDG#: PEK49-15

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	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0118	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 6010B						
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
SW-846 7470A						

General Sample Comments

This sample was filtered in the laboratory 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	132251848004	08/17/2013 04:31	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 04:31	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 04:31	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 04:31	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 04:31	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 04:31	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 04:31	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 04:31	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 04:31	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 17:17	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-008(Surface)081113 Filtered Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7158112
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 11:40 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

008SF SDG#: PEK49-16

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	0.0319	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	0.0046 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	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 laboratory 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	132251848004	08/17/2013 04:35	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 04:35	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 04:35	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 04:35	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 04:35	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 04:35	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 04:35	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 04:35	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 04:35	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 17:19	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-BKG-002- (Surface)081113 Filtered Grab
Surface Water Mayflower, AR
Pipeline Incident

LL Sample # WW 7158113
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 12:00 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

0B02F SDG#: PEK49-17

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	0.0226	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	0.0015 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	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 laboratory 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	132251848004	08/17/2013 04:39	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 04:39	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 04:39	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 04:39	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 04:39	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 04:39	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 04:39	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 04:39	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 04:39	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 17:21	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

REVISED

Sample Description: WS-EB-27-081113 Filtered Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7158114
LL Group # 1410864
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/11/2013 13:00 by HV

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

Submitted: 08/12/2013 17:22

Reported: 08/19/2013 16:27

EB27F SDG#: PEK49-18EB*

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	0.00050 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 laboratory 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	132251848004	08/17/2013 04:43	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132251848004	08/17/2013 04:43	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132251848004	08/17/2013 04:43	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132251848004	08/17/2013 04:43	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132251848004	08/17/2013 04:43	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132251848004	08/17/2013 04:43	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132251848004	08/17/2013 04:43	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132251848004	08/17/2013 04:43	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132251848004	08/17/2013 04:43	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132255713004	08/15/2013 17:23	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848004	08/14/2013 16:45	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713004	08/14/2013 11:29	Katlin N Cataldi	1

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 08/19/13 at 04:27 PM

Group Number: 1410864

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: 132251848004	Sample number(s): 7158094-7158114								
Arsenic	N.D.	0.0068	0.0200	mg/l	101		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	101		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	98		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	99		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	98		88-110		
Nickel	N.D.	0.0015	0.0100	mg/l	103		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	98		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	111		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	102		90-110		
Batch number: 132255713004	Sample number(s): 7158094-7158114								
Mercury	N.D.	0.00006	0.00020	mg/l	103		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: 132251848004	Sample number(s): 7158094-7158114 UNSPK: 7158100 BKG: 7158100								
Arsenic	103	101	81-123	2	20	N.D.	N.D.	0 (1)	20
Barium	101	100	78-118	1	20	0.0130	0.0130	1 (1)	20
Cadmium	98	96	83-116	2	20	N.D.	N.D.	0 (1)	20
Chromium	100	99	81-120	1	20	N.D.	N.D.	0 (1)	20
Lead	99	96	75-125	3	20	N.D.	N.D.	0 (1)	20
Nickel	103	102	86-115	1	20	N.D.	N.D.	0 (1)	20
Selenium	98	97	75-125	1	20	N.D.	N.D.	0 (1)	20
Silver	112	110	75-125	2	20	N.D.	N.D.	0 (1)	20
Vanadium	103	102	90-111	1	20	N.D.	N.D.	0 (1)	20
Batch number: 132255713004	Sample number(s): 7158094-7158114 UNSPK: 7158100 BKG: 7158100								
Mercury	105	100	80-120	5	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 # 1410864 Sample # 715 8094-114
Instructions on reverse side correspond with circled numbers.

1 Client Information				4 Matrix				5 Analyses Requested												6 Remarks																																										
Facility #/SID <u>Maryflower Pipeline Incident</u>				☐ Sediment ☐ Potable ☐ Ground ☒ Surface ☐ NPDES ☐ Air				Preservation Code												SCR#: <u>20fy</u>																																										
Site Address <u>Maryflower, AR</u>								<table border="1"><tr><td>4</td><td></td><td>2</td><td></td><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td colspan="4">ExxonMobil PM <u>Scott Bushroe</u></td><td colspan="4">Cost Center/AFE</td><td colspan="4">VOCs 8260 B</td><td colspan="4">PAHs 8270 SIM</td><td colspan="4">ACRA Metals ^{hardness} Ni, V, Cr, Pb</td><td colspan="4">Diss Metals</td><td colspan="4">HEM Oil & Grease</td></tr></table>												4		2		4													ExxonMobil PM <u>Scott Bushroe</u>				Cost Center/AFE				VOCs 8260 B				PAHs 8270 SIM				ACRA Metals ^{hardness} Ni, V, Cr, Pb				Diss Metals				HEM Oil & Grease	
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Consultant/Office <u>Arcadis</u>				Consultant PM <u>Steve Barrick</u>				Consultant Phone # <u>919-202-6749</u>																																																						
Sampler <u>H. Van Aller / M. Long</u>				3 Composite																																																										
2 Sample Identification		Collected		Grab	Composite	Soil	Water	Oil	Total # of Containers																																																					
		Date	Time																																																											
WS-018 (surface) 081013		8/10/13	1010	X			X		9	X	X	X	X	X																																																
WS-007 (4.5-1.0) 081013		8/10/13	1100	X			X		9	X	X	X	X	X																																																
WS-001 (0.5-1.0) 081013		8/10/13	1110	X			X		9	X	X	X	X	X																																																
WS-EB-26-081013		8/10/13	1200	X			X		9	X	X	X	X	X																																																
DUP-WS-69-081013		8/10/13		X			X		9	X	X	X	X	X																																																
WS-014 (1.5-2.0) 081113		8/11/13	830	X			X		9	X	X	X	X	X																																																
WS-014 (5.5-6.0) 081113			840	X			X		9	X	X	X	X	X																																																
WS-012 (1.5-2.0) 081113			850	X			X		9	X	X	X	X	X																																																
WS-012 (5.0-5.5) 081113			900	X			X		9	X	X	X	X	X																																																
WS-010 (1.5-2.0) 081113			910	X			X		9	X	X	X	X	X																																																
WS-010 (3.5-4.0) 081113			920	X			X		9	X	X	X	X	X																																																
WS-006 (0.5-1.0) 081113			930	X			X		9	X	X	X	X	X																																																

7 Turnaround Time Requested (TAT) (please circle)			Relinquished by <u>H. Van Aller</u>		Date <u>8/11/13</u>	Time <u>1600</u>	Received by		Date	Time
Standard	<u>5 day</u>	4 day								
72 hour	48 hour	24 hour								
			Relinquished by		Date	Time	Received by		Date	Time
			Relinquished by		Date	Time	Received by		Date	Time
			Relinquished by		Date	Time	Received by		Date	Time
			Relinquished by Commercial Carrier				Received by		Date	Time
			UPS		FedEx	Other <u>Southwest</u>	<u>Travis Bodard</u>		<u>8/12/13</u>	<u>1722</u>
			Temperature Upon Receipt <u>14-4.9°C</u>				Custody Seals Intact?		<u>Yes</u>	No

8 Data Package (circle if required)	EDD (circle if required)
Type I - Full	Locus EIM (default)
Type VI (Raw Data)	Other
NJ Reduced	
Other	

Acct. # 14739

Group # 1410864 Sample # 7158094-114

Instructions on reverse side correspond with circled numbers

3 of 4

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.

Rachel L. Creamer A# 14739 Gr# 1410864 Sample 7158094-114

From: Mott, Lyndi [Lyndi.Mott@arcadis-us.com]
Sent: Tuesday, August 13, 2013 10:52 AM
To: Kathy Klinefelter; Rachel L. Creamer
Cc: Van Aller, Hans; Chandler, Jennifer
Subject: FW: Surface water IDs on samples received Monday, 8/12

Attachments: 20130813094120100.pdf



2013081309412010
0.pdf (1 MB)

Rachel,

According to the sample notes, WS-006(0.5-1.0)081113 was collected at 930. Therefore, the label for the dissolved metals bottle collected at 930 is incorrect for the sample Id

WS-001(0.5-1.0)081113 was collected at 1130. Therefore, the label for the dissolved metals bottled collected at 1130 is incorrect for the sample Id.

According to the field notes, WS-011 (0.5-1.0)081113 was not collected. Only WS-011(1.5-2.0)081113 and WS-011 (5.0-5.5)081113 were collected.

The sample temperatures are noted as the lab can proceed with analyses.
I hope this resolves your questions.
Lyndi Mott

-----Original Message-----

From: Rachel L. Creamer [mailto:RKreamer@lanasterlabs.com]
Sent: Tuesday, August 13, 2013 9:03 AM
To: Mott, Lyndi
Cc: Kathy Klinefelter
Subject: Surface water IDs on samples received Monday, 8/12

Lyndi.

I attached surface water chains for samples collected 8/11, along with the doc logs from yesterday's samples.

The sample IDs on two of the dissolved (unpreserved) metals bottles do not match the chain. For WS-006(0.5-1.0)081113, the label says WS-011 (0.5-1.0)081113. For WS-001(1.5-1.0)081113, the label says WS-011(0.5-1.0)081113. Collection times match the chain. We received a bottle labeled WS-011(0.5-1.0)081113 so we believe the labels are incorrect.

Also, please note on Page 2 of the doc logs, the temperature blank in cooler #11 measured 9C. The unpacker checked surface temps of bottles in the four corners and the center of the cooler and those temps registered 4.0-4.9C. We will proceed with analyses unless instructed otherwise.

Thanks,
Rachel

-----Original Message-----

From: 39Scanner@lanasterlabs.com [mailto:39Scanner@lanasterlabs.com]
Sent: Tuesday, August 13, 2013 9:41 AM
To: Rachel L. Creamer
Subject:

This E-mail was sent from "RNP367EC2" (MP 4001/LD140).

Environmental Sample Administration
Receipt Documentation Log

1410864

Client/Project: Exxon MayflowerShipping Container Sealed: YES NODate of Receipt: 8/12/13Custody Seal Present *: YES NOTime of Receipt: 1722

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

Source Code: 01Package: 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	ST121	1.7	TB	WI	Y	B	
2		0.5					
3		3.7					
4		1.7					
5		1.9					
6		3.1					

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

Paperwork Discrepancy/Unpacking Problems:

15 bottle IM WS-001 (0.5-1.0) 081113 says
WS-011 (0.5-1.0) 081113
15 bottle IM WS-001 (0.5-1.0) 081113 says
WS-011 (0.5-1.0) 081113
~~15 bottle WS-014 (0.5-1.5) 081113 says WS-014 (1.5-2.0) 081113~~
~~15 bottle WS-012 (0.5-1.5) 081113 says WS-012 (1.5-2.0) 081113~~
Unpacker Signature/Emp#: Maugh, David 391 Date/Time: 8/12/13 2100

Issued by Dept. 6042 Management

Environmental Sample Administration
Receipt Documentation Log

1410864

Client/Project: Exxon MayflowerShipping Container Sealed: YES NODate of Receipt: 8/12/13Custody Seal Present *: YES NOTime of Receipt: 1722* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: 01Package: 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
17	DT121	2.6	TB	WI	Y	B	
18		2.5					
19		1.7					
110		3.8					
111		9.9	TB/ST				4.0 4.5 4.1 4.7 4.9
112		1.6					

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#:

Shaughnessy 391

Date/Time:

8/12/13 2100

Issued by Dept. 6042 Management

Environmental Sample Administration
Receipt Documentation Log

1410804

Client/Project:

Exxon Mayflower

Shipping Container Sealed: YES NO

Date of Receipt:

8/12/13

Custody Seal Present *: YES NO

Time of Receipt:

1722

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

Source Code:

01

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
113	BT121	1.9	TB	WI	Y	B	
114		1.2					
115		2.5					
116		5.1					
117		0.4					
118		3.9					

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#:

Craig Bodard 391

Date/Time:

8/12/13 2100

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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