

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 10, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 09/04/2013

Group Number: 1416142

SDG: PEL22

PO Number: B0086003.1301

State of Sample Origin: AR

Client Sample DescriptionLancaster Labs (LL) #

WS-014(1.5-2.0)090213 Filt Grab Surface Water	7184547
WS-014(5.5-6.0)090213 Filt Grab Surface Water	7184548
WS-012(1.5-2.0)090213 Filt Grab Surface Water	7184549
WS-012(5.0-5.5)090213 Filt Grab Surface Water	7184550
WS-010(1.5-2.0)090213 Filt Grab Surface Water	7184551
WS-010(3.5-4.0)090213 Filt Grab Surface Water	7184552
WS-006(0.5-1.0)090213 Filt Grab Surface Water	7184553
WS-005(Surface)090213 Filt Grab Surface Water	7184554
WS-002(Surface)090213 Filt Grab Surface Water	7184555
WS-011(1.5-2.0)090213 Filt Grab Surface Water	7184556
WS-011(5.0-5.5)090213 Filt Grab Surface Water	7184557
WS-018(Surface)090213 Filt Grab Surface Water	7184558
WS-003(Surface)090213 Filt Grab Surface Water	7184559
WS-007(0.5-1.0)090213 Filt Grab Surface Water	7184560
WS-001(0.5-1.0)090213 Filt Grab Surface Water	7184561
WS-EB-049-090213 Filt Grab Water	7184562
DUP-WS-81-090213 Filt Grab Surface Water	7184563

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

ELECTRONIC COPY TO
ARCADIS

Attn: Stephen Barrick

ELECTRONIC COPY TO
ARCADIS

Attn: Lyndi Mott

ELECTRONIC COPY TO
ExxonMobil

Attn: Michael J. Firth

ELECTRONIC COPY TO
ARCADIS

Attn: Emily Leamer

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 #: 1416142

General Comments:

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

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

Project specific QC samples are not included in this data set

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

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

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

Analysis Specific Comments:

No additional comments are necessary.

Sample Description: WS-014(1.5-2.0)090213 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7184547
LL Group # 1416142
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/02/2013 08:25 by HVA

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

Submitted: 09/04/2013 09:15

Reported: 09/10/2013 10:22

0214F SDG#: PEL22-01

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	0.0083	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	132481848001	09/06/2013 18:53	John P Hook	1
07046	Barium	SW-846 6010B	1	132481848001	09/06/2013 18:53	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132481848001	09/06/2013 18:53	John P Hook	1
07051	Chromium	SW-846 6010B	1	132481848001	09/06/2013 18:53	John P Hook	1
07055	Lead	SW-846 6010B	1	132481848001	09/06/2013 18:53	John P Hook	1
07061	Nickel	SW-846 6010B	1	132481848001	09/06/2013 18:53	John P Hook	1
07036	Selenium	SW-846 6010B	1	132481848001	09/06/2013 18:53	John P Hook	1
07066	Silver	SW-846 6010B	1	132481848001	09/06/2013 18:53	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132481848001	09/06/2013 18:53	John P Hook	1
00259	Mercury	SW-846 7470A	1	132485713003	09/08/2013 07:45	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132481848001	09/06/2013 07:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132485713003	09/06/2013 15:05	Nelli S Markaryan	1

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

Sample Description: WS-014(5.5-6.0)090213 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7184548
LL Group # 1416142
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/02/2013 08:35 by HVA

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

Submitted: 09/04/2013 09:15

Reported: 09/10/2013 10:22

02F14 SDG#: PEL22-02

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	N.D.	mg/l 0.0068	mg/l 0.0200	1
07046	Barium	7440-39-3	0.0093	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	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	132481848001	09/06/2013 18:57	John P Hook	1
07046	Barium	SW-846 6010B	1	132481848001	09/06/2013 18:57	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132481848001	09/06/2013 18:57	John P Hook	1
07051	Chromium	SW-846 6010B	1	132481848001	09/06/2013 18:57	John P Hook	1
07055	Lead	SW-846 6010B	1	132481848001	09/06/2013 18:57	John P Hook	1
07061	Nickel	SW-846 6010B	1	132481848001	09/06/2013 18:57	John P Hook	1
07036	Selenium	SW-846 6010B	1	132481848001	09/06/2013 18:57	John P Hook	1
07066	Silver	SW-846 6010B	1	132481848001	09/06/2013 18:57	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132481848001	09/06/2013 18:57	John P Hook	1
00259	Mercury	SW-846 7470A	1	132485713003	09/08/2013 07:47	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132481848001	09/06/2013 07:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132485713003	09/06/2013 15:05	Nelli S Markaryan	1

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

Sample Description: WS-012(1.5-2.0)090213 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7184549
LL Group # 1416142
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/02/2013 09:00 by HVA

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

Submitted: 09/04/2013 09:15

Reported: 09/10/2013 10:22

0212F SDG#: PEL22-03

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	0.0132	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		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	132481848001	09/06/2013 19:08	John P Hook	1
07046	Barium	SW-846 6010B	1	132481848001	09/06/2013 19:08	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132481848001	09/06/2013 19:08	John P Hook	1
07051	Chromium	SW-846 6010B	1	132481848001	09/06/2013 19:08	John P Hook	1
07055	Lead	SW-846 6010B	1	132481848001	09/06/2013 19:08	John P Hook	1
07061	Nickel	SW-846 6010B	1	132481848001	09/06/2013 19:08	John P Hook	1
07036	Selenium	SW-846 6010B	1	132481848001	09/06/2013 19:08	John P Hook	1
07066	Silver	SW-846 6010B	1	132481848001	09/06/2013 19:08	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132481848001	09/06/2013 19:08	John P Hook	1
00259	Mercury	SW-846 7470A	1	132485713003	09/08/2013 07:49	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132481848001	09/06/2013 07:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132485713003	09/06/2013 15:05	Nelli S Markaryan	1

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

Sample Description: WS-012(5.0-5.5)090213 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7184550
LL Group # 1416142
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/02/2013 09:10 by HVA

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

Submitted: 09/04/2013 09:15

Reported: 09/10/2013 10:22

02F12 SDG#: PEL22-04

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	0.0154	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	132481848001	09/06/2013 19:12	John P Hook	1
07046	Barium	SW-846 6010B	1	132481848001	09/06/2013 19:12	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132481848001	09/06/2013 19:12	John P Hook	1
07051	Chromium	SW-846 6010B	1	132481848001	09/06/2013 19:12	John P Hook	1
07055	Lead	SW-846 6010B	1	132481848001	09/06/2013 19:12	John P Hook	1
07061	Nickel	SW-846 6010B	1	132481848001	09/06/2013 19:12	John P Hook	1
07036	Selenium	SW-846 6010B	1	132481848001	09/06/2013 19:12	John P Hook	1
07066	Silver	SW-846 6010B	1	132481848001	09/06/2013 19:12	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132481848001	09/06/2013 19:12	John P Hook	1
00259	Mercury	SW-846 7470A	1	132485713003	09/08/2013 07:51	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132481848001	09/06/2013 07:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132485713003	09/06/2013 15:05	Nelli S Markaryan	1

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

Sample Description: WS-010(1.5-2.0)090213 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7184551
LL Group # 1416142
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/02/2013 09:25 by HVA

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

Submitted: 09/04/2013 09:15

Reported: 09/10/2013 10:22

0210F SDG#: PEL22-05

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	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0525	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						
SW-846 7470A						
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	132481848001	09/06/2013 19:16	John P Hook	1
07046	Barium	SW-846 6010B	1	132481848001	09/06/2013 19:16	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132481848001	09/06/2013 19:16	John P Hook	1
07051	Chromium	SW-846 6010B	1	132481848001	09/06/2013 19:16	John P Hook	1
07055	Lead	SW-846 6010B	1	132481848001	09/06/2013 19:16	John P Hook	1
07061	Nickel	SW-846 6010B	1	132481848001	09/06/2013 19:16	John P Hook	1
07036	Selenium	SW-846 6010B	1	132481848001	09/06/2013 19:16	John P Hook	1
07066	Silver	SW-846 6010B	1	132481848001	09/06/2013 19:16	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132481848001	09/06/2013 19:16	John P Hook	1
00259	Mercury	SW-846 7470A	1	132485713003	09/08/2013 08:00	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132481848001	09/06/2013 07:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132485713003	09/06/2013 15:05	Nelli S Markaryan	1

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

Sample Description: WS-010(3.5-4.0)090213 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7184552
LL Group # 1416142
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/02/2013 09:35 by HVA

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

Submitted: 09/04/2013 09:15

Reported: 09/10/2013 10:22

02F10 SDG#: PEL22-06

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	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.183	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 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	132481848001	09/06/2013 19:20	John P Hook	1
07046	Barium	SW-846 6010B	1	132481848001	09/06/2013 19:20	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132481848001	09/06/2013 19:20	John P Hook	1
07051	Chromium	SW-846 6010B	1	132481848001	09/06/2013 19:20	John P Hook	1
07055	Lead	SW-846 6010B	1	132481848001	09/06/2013 19:20	John P Hook	1
07061	Nickel	SW-846 6010B	1	132481848001	09/06/2013 19:20	John P Hook	1
07036	Selenium	SW-846 6010B	1	132481848001	09/06/2013 19:20	John P Hook	1
07066	Silver	SW-846 6010B	1	132481848001	09/06/2013 19:20	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132481848001	09/06/2013 19:20	John P Hook	1
00259	Mercury	SW-846 7470A	1	132485713003	09/08/2013 08:02	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132481848001	09/06/2013 07:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132485713003	09/06/2013 15:05	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)090213 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7184553
LL Group # 1416142
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/02/2013 09:50 by HVA

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

Submitted: 09/04/2013 09:15

Reported: 09/10/2013 10:22

0206F SDG#: PEL22-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0158	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	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	132481848001	09/06/2013 19:23	John P Hook	1
07046	Barium	SW-846 6010B	1	132481848001	09/06/2013 19:23	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132481848001	09/06/2013 19:23	John P Hook	1
07051	Chromium	SW-846 6010B	1	132481848001	09/06/2013 19:23	John P Hook	1
07055	Lead	SW-846 6010B	1	132481848001	09/06/2013 19:23	John P Hook	1
07061	Nickel	SW-846 6010B	1	132481848001	09/06/2013 19:23	John P Hook	1
07036	Selenium	SW-846 6010B	1	132481848001	09/06/2013 19:23	John P Hook	1
07066	Silver	SW-846 6010B	1	132481848001	09/06/2013 19:23	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132481848001	09/06/2013 19:23	John P Hook	1
00259	Mercury	SW-846 7470A	1	132485713003	09/08/2013 08:04	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132481848001	09/06/2013 07:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132485713003	09/06/2013 15:05	Nelli S Markaryan	1

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

Sample Description: WS-005(Surface)090213 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7184554
LL Group # 1416142
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/02/2013 10:30 by HVA

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

Submitted: 09/04/2013 09:15

Reported: 09/10/2013 10:22

0205F SDG#: PEL22-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0332	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	132481848001	09/06/2013 19:27	John P Hook	1
07046	Barium	SW-846 6010B	1	132481848001	09/06/2013 19:27	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132481848001	09/06/2013 19:27	John P Hook	1
07051	Chromium	SW-846 6010B	1	132481848001	09/06/2013 19:27	John P Hook	1
07055	Lead	SW-846 6010B	1	132481848001	09/06/2013 19:27	John P Hook	1
07061	Nickel	SW-846 6010B	1	132481848001	09/06/2013 19:27	John P Hook	1
07036	Selenium	SW-846 6010B	1	132481848001	09/06/2013 19:27	John P Hook	1
07066	Silver	SW-846 6010B	1	132481848001	09/06/2013 19:27	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132481848001	09/06/2013 19:27	John P Hook	1
00259	Mercury	SW-846 7470A	1	132485713003	09/08/2013 08:10	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132481848001	09/06/2013 07:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132485713003	09/06/2013 15:05	Nelli S Markaryan	1

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

Sample Description: WS-002(Surface)090213 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7184555
LL Group # 1416142
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/02/2013 10:55 by HVA

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

Submitted: 09/04/2013 09:15

Reported: 09/10/2013 10:22

0202F SDG#: PEL22-09

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	0.0119	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	132481848001	09/06/2013 19:31	John P Hook	1
07046	Barium	SW-846 6010B	1	132481848001	09/06/2013 19:31	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132481848001	09/06/2013 19:31	John P Hook	1
07051	Chromium	SW-846 6010B	1	132481848001	09/06/2013 19:31	John P Hook	1
07055	Lead	SW-846 6010B	1	132481848001	09/06/2013 19:31	John P Hook	1
07061	Nickel	SW-846 6010B	1	132481848001	09/06/2013 19:31	John P Hook	1
07036	Selenium	SW-846 6010B	1	132481848001	09/06/2013 19:31	John P Hook	1
07066	Silver	SW-846 6010B	1	132481848001	09/06/2013 19:31	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132481848001	09/06/2013 19:31	John P Hook	1
00259	Mercury	SW-846 7470A	1	132485713003	09/08/2013 08:12	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132481848001	09/06/2013 07:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132485713003	09/06/2013 15:05	Nelli S Markaryan	1

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

Sample Description: WS-011(1.5-2.0)090213 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7184556
LL Group # 1416142
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/02/2013 11:20 by HVA

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

Submitted: 09/04/2013 09:15

Reported: 09/10/2013 10:22

0211F SDG#: PEL22-10

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	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0056	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						
SW-846 7470A						
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	132481848001	09/06/2013 19:35	John P Hook	1
07046	Barium	SW-846 6010B	1	132481848001	09/06/2013 19:35	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132481848001	09/06/2013 19:35	John P Hook	1
07051	Chromium	SW-846 6010B	1	132481848001	09/06/2013 19:35	John P Hook	1
07055	Lead	SW-846 6010B	1	132481848001	09/06/2013 19:35	John P Hook	1
07061	Nickel	SW-846 6010B	1	132481848001	09/06/2013 19:35	John P Hook	1
07036	Selenium	SW-846 6010B	1	132481848001	09/06/2013 19:35	John P Hook	1
07066	Silver	SW-846 6010B	1	132481848001	09/06/2013 19:35	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132481848001	09/06/2013 19:35	John P Hook	1
00259	Mercury	SW-846 7470A	1	132485713003	09/08/2013 08:14	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132481848001	09/06/2013 07:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132485713003	09/06/2013 15:05	Nelli S Markaryan	1

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

Sample Description: WS-011(5.0-5.5)090213 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7184557
LL Group # 1416142
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/02/2013 11:30 by HVA

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

Submitted: 09/04/2013 09:15

Reported: 09/10/2013 10:22

02F11 SDG#: PEL22-11

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	0.0098	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	132481848001	09/06/2013 19:39	John P Hook	1
07046	Barium	SW-846 6010B	1	132481848001	09/06/2013 19:39	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132481848001	09/06/2013 19:39	John P Hook	1
07051	Chromium	SW-846 6010B	1	132481848001	09/06/2013 19:39	John P Hook	1
07055	Lead	SW-846 6010B	1	132481848001	09/06/2013 19:39	John P Hook	1
07061	Nickel	SW-846 6010B	1	132481848001	09/06/2013 19:39	John P Hook	1
07036	Selenium	SW-846 6010B	1	132481848001	09/06/2013 19:39	John P Hook	1
07066	Silver	SW-846 6010B	1	132481848001	09/06/2013 19:39	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132481848001	09/06/2013 19:39	John P Hook	1
00259	Mercury	SW-846 7470A	1	132485713003	09/08/2013 08:16	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132481848001	09/06/2013 07:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132485713003	09/06/2013 15:05	Nelli S Markaryan	1

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

Sample Description: WS-018(Surface)090213 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7184558
LL Group # 1416142
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/02/2013 12:00 by HVA

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

Submitted: 09/04/2013 09:15

Reported: 09/10/2013 10:22

0218F SDG#: PEL22-12

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	0.117	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	0.0018 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	0.0073	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 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	132481848001	09/06/2013 19:42	John P Hook	1
07046	Barium	SW-846 6010B	1	132481848001	09/06/2013 19:42	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132481848001	09/06/2013 19:42	John P Hook	1
07051	Chromium	SW-846 6010B	1	132481848001	09/06/2013 19:42	John P Hook	1
07055	Lead	SW-846 6010B	1	132481848001	09/06/2013 19:42	John P Hook	1
07061	Nickel	SW-846 6010B	1	132481848001	09/06/2013 19:42	John P Hook	1
07036	Selenium	SW-846 6010B	1	132481848001	09/08/2013 13:16	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132481848001	09/06/2013 19:42	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132481848001	09/06/2013 19:42	John P Hook	1
00259	Mercury	SW-846 7470A	1	132485713003	09/08/2013 08:18	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132481848001	09/06/2013 07:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132485713003	09/06/2013 15:05	Nelli S Markaryan	1

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

Sample Description: WS-003(Surface)090213 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7184559
LL Group # 1416142
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/02/2013 12:10 by HVA

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

Submitted: 09/04/2013 09:15

Reported: 09/10/2013 10:22

0203F SDG#: PEL22-13

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	N.D.	mg/l 0.0068	mg/l 0.0200	1
07046	Barium	7440-39-3	0.0193	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	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	132481848001	09/06/2013 18:30	John P Hook	1
07046	Barium	SW-846 6010B	1	132481848001	09/06/2013 18:30	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132481848001	09/06/2013 18:30	John P Hook	1
07051	Chromium	SW-846 6010B	1	132481848001	09/06/2013 18:30	John P Hook	1
07055	Lead	SW-846 6010B	1	132481848001	09/06/2013 18:30	John P Hook	1
07061	Nickel	SW-846 6010B	1	132481848001	09/06/2013 18:30	John P Hook	1
07036	Selenium	SW-846 6010B	1	132481848001	09/06/2013 18:30	John P Hook	1
07066	Silver	SW-846 6010B	1	132481848001	09/06/2013 18:30	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132481848001	09/06/2013 18:30	John P Hook	1
00259	Mercury	SW-846 7470A	1	132485713003	09/08/2013 08:20	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132481848001	09/06/2013 07:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132485713003	09/06/2013 15:05	Nelli S Markaryan	1

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

Sample Description: WS-007(0.5-1.0)090213 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7184560
LL Group # 1416142
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/02/2013 12:20 by HVA

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

Submitted: 09/04/2013 09:15

Reported: 09/10/2013 10:22

0207F SDG#: PEL22-14

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	0.0236	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	132481848001	09/06/2013 19:54	John P Hook	1
07046	Barium	SW-846 6010B	1	132481848001	09/06/2013 19:54	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132481848001	09/06/2013 19:54	John P Hook	1
07051	Chromium	SW-846 6010B	1	132481848001	09/06/2013 19:54	John P Hook	1
07055	Lead	SW-846 6010B	1	132481848001	09/06/2013 19:54	John P Hook	1
07061	Nickel	SW-846 6010B	1	132481848001	09/06/2013 19:54	John P Hook	1
07036	Selenium	SW-846 6010B	1	132481848001	09/06/2013 19:54	John P Hook	1
07066	Silver	SW-846 6010B	1	132481848001	09/06/2013 19:54	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132481848001	09/06/2013 19:54	John P Hook	1
00259	Mercury	SW-846 7470A	1	132485713003	09/08/2013 08:22	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132481848001	09/06/2013 07:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132485713003	09/06/2013 15:05	Nelli S Markaryan	1

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

Sample Description: WS-001(0.5-1.0)090213 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7184561
LL Group # 1416142
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/02/2013 12:30 by HVA

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

Submitted: 09/04/2013 09:15

Reported: 09/10/2013 10:22

0201F SDG#: PEL22-15

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	SW-846 6010B 7440-38-2	mg/l N.D.	mg/l 0.0068	mg/l 0.0200	1
07046	Barium	7440-39-3	0.0653	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	132481848001	09/06/2013 19:58	John P Hook	1
07046	Barium	SW-846 6010B	1	132481848001	09/06/2013 19:58	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132481848001	09/06/2013 19:58	John P Hook	1
07051	Chromium	SW-846 6010B	1	132481848001	09/06/2013 19:58	John P Hook	1
07055	Lead	SW-846 6010B	1	132481848001	09/06/2013 19:58	John P Hook	1
07061	Nickel	SW-846 6010B	1	132481848001	09/06/2013 19:58	John P Hook	1
07036	Selenium	SW-846 6010B	1	132481848001	09/06/2013 19:58	John P Hook	1
07066	Silver	SW-846 6010B	1	132481848001	09/06/2013 19:58	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132481848001	09/06/2013 19:58	John P Hook	1
00259	Mercury	SW-846 7470A	1	132485713003	09/08/2013 08:24	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132481848001	09/06/2013 07:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132485713003	09/06/2013 15:05	Nelli S Markaryan	1

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

Sample Description: WS-EB-049-090213 Filt Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7184562
LL Group # 1416142
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/02/2013 13:00 by HVA

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

Submitted: 09/04/2013 09:15

Reported: 09/10/2013 10:22

0249F SDG#: PEL22-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0012 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	132481848001	09/06/2013 20:01	John P Hook	1
07046	Barium	SW-846 6010B	1	132481848001	09/06/2013 20:01	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132481848001	09/06/2013 20:01	John P Hook	1
07051	Chromium	SW-846 6010B	1	132481848001	09/06/2013 20:01	John P Hook	1
07055	Lead	SW-846 6010B	1	132481848001	09/06/2013 20:01	John P Hook	1
07061	Nickel	SW-846 6010B	1	132481848001	09/06/2013 20:01	John P Hook	1
07036	Selenium	SW-846 6010B	1	132481848001	09/06/2013 20:01	John P Hook	1
07066	Silver	SW-846 6010B	1	132481848001	09/06/2013 20:01	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132481848001	09/06/2013 20:01	John P Hook	1
00259	Mercury	SW-846 7470A	1	132485713003	09/08/2013 08:26	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132481848001	09/06/2013 07:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132485713003	09/06/2013 15:05	Nelli S Markaryan	1

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

Sample Description: DUP-WS-81-090213 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7184563
LL Group # 1416142
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/02/2013 by HVA

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

Submitted: 09/04/2013 09:15

Reported: 09/10/2013 10:22

0281F SDG#: PEL22-17FD*

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	0.0228	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	132481848001	09/06/2013 20:05	John P Hook	1
07046	Barium	SW-846 6010B	1	132481848001	09/06/2013 20:05	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132481848001	09/06/2013 20:05	John P Hook	1
07051	Chromium	SW-846 6010B	1	132481848001	09/06/2013 20:05	John P Hook	1
07055	Lead	SW-846 6010B	1	132481848001	09/06/2013 20:05	John P Hook	1
07061	Nickel	SW-846 6010B	1	132481848001	09/06/2013 20:05	John P Hook	1
07036	Selenium	SW-846 6010B	1	132481848001	09/06/2013 20:05	John P Hook	1
07066	Silver	SW-846 6010B	1	132481848001	09/06/2013 20:05	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132481848001	09/06/2013 20:05	John P Hook	1
00259	Mercury	SW-846 7470A	1	132485713003	09/08/2013 08:28	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132481848001	09/06/2013 07:38	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132485713003	09/06/2013 15:05	Nelli S Markaryan	1

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

Quality Control SummaryClient Name: ExxonMobil c/o Arcadis
Reported: 09/10/13 at 10:22 AM

Group Number: 1416142

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: 132481848001	Sample number(s): 7184547-7184563								
Arsenic	N.D.	0.0068	0.0200	mg/l	106		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	106		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	107		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	103		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	109		88-110		
Nickel	N.D.	0.0015	0.0100	mg/l	110		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	105		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	106		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	101		90-110		
Batch number: 132485713003	Sample number(s): 7184547-7184563								
Mercury	N.D.	0.00006	0.00020	mg/l	99		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: 132481848001	Sample number(s): 7184547-7184563 UNSPK: 7184559 BKG: 7184559								
Arsenic	106	104	81-123	3	20	N.D.	N.D.	0 (1)	20
Barium	105	104	78-118	1	20	0.0193	0.0186	4 (1)	20
Cadmium	104	104	83-116	0	20	N.D.	N.D.	0 (1)	20
Chromium	102	101	81-120	0	20	N.D.	N.D.	0 (1)	20
Lead	107	106	75-125	1	20	N.D.	N.D.	0 (1)	20
Nickel	108	107	86-115	1	20	N.D.	N.D.	0 (1)	20
Selenium	105	104	75-125	2	20	N.D.	N.D.	0 (1)	20
Silver	104	104	75-125	1	20	N.D.	N.D.	0 (1)	20
Vanadium	100	99	90-111	1	20	N.D.	N.D.	0 (1)	20
Batch number: 132485713003	Sample number(s): 7184547-7184563 UNSPK: 7184550 BKG: 7184550								
Mercury	99	100	80-120	1	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 # 1416142 Sample # 7184547-63

Instructions on reverse side correspond with circled numbers.

1043

1 Client Information				4 Matrix				5 Analyses Requested												6 Remarks		
Facility #/SID <u>MAYFLOWER Pipeline Incident</u>				Matrix ☐ Sediment ☐ Ground ☒ Surface ☐ Potable ☐ NPDES ☐ Air ☐ Oil				Preservation Code H ☐ N ☐ H ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐												SCR#: _____		
Site Address <u>MAYFLOWER, AR</u>																				Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other		
ExxonMobil PM <u>SCOTT Bushroe</u>		Cost Center/AFE																		6 <u>LAB TO FILTER AND PRESERVE D.S.S. METALS UPON RECEIPT</u>		
Consultant/Office <u>ARCADIS</u>																						
Consultant PM <u>Steve BARRICK</u>		Consultant Phone # <u>919 302 6799</u>																				
Sampler <u>HANS VAN ALBE / Dave Drost</u>																						
2 Sample Identification			3 Collected		Grab	Composite	Soil	Water	Oil	Total # of Containers	Analyses Requested											
	Date	Time																				
WS-014 (1.5-2.0)	090213	9/2/13	0825	X			X		9	X	X	X	X	X								
WS-014 (5.5-6.0)	090213		0835	X			X		9	X	X	X	X	X								
WS-012 (1.5-2.0)	090213		0900	X			X		9	X	X	X	X	X								
WS-012 (5.0-5.5)	090213		0910	X			X		9	X	X	X	X	X								
WS-010 (1.5-2.0)	090213		0925	X			X		9	X	X	X	X	X								
WS-010 (3.5-4.0)	090213		0935	X			X		9	X	X	X	X	X								
WS-006 (0.5-1.0)	090213		0950	X			X		9	X	X	X	X	X								
WS-005 (Surface)	090213		1030	X			X		9	X	X	X	X	X								
WS-002 (Surface)	090213		1055	X			X		9	X	X	X	X	X								
WS-011 (1.5-2.0)	090213		1120	X			X		9	X	X	X	X	X								
WS-011 (5.0-5.5)	090213		1130	X			X		9	X	X	X	X	X								
WS-018 (Surface)	090213		1200	X			X		9	X	X	X	X	X								

7 Turnaround Time Requested (TAT) (please circle) Standard <u>5 day</u> 4 day 72 hour 48 hour 24 hour			Relinquished by <u>D. Drost</u> Date <u>9-3-13</u> Time <u>1600</u>		Received by _____ Date _____ Time _____	
			Relinquished by _____ Date _____ Time _____		Received by _____ Date _____ Time _____	
			Relinquished by _____ Date _____ Time _____		Received by _____ Date _____ Time _____	
8 Data Package (circle if required) Type I - Full Type VI (Raw Data) NJ Reduced Other _____			EDD (circle if required) Locus EIM (default) Other _____		Relinquished by Commercial Carrier UPS <u>X</u> FedEx _____ Other _____	
			Temperature Upon Receipt <u>0.6-1.7</u> °C		Received by <u>C. Cash</u> Date <u>9/4/13</u> Time <u>0915</u>	
			Custody Seals Intact? <u>(Yes)</u> No			

ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories
Environmental

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only

Group # 1416142 Sample # 7184547-63

Instructions on reverse side correspond with circled numbers.

2 of 3

1 Client Information				4 Matrix				5 Analyses Requested												6 Remarks																											
Facility #/SID <u>MAFLOWER PIPELINE INCIDENT</u>				☐ Sediment ☐ Ground ☒ Surface ☐ Potable ☐ NPDES ☐ Air ☐ Soil ☐ Water ☐ Oil Total # of Containers				Preservation Code												SCR#: _____ Preservation Codes: H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other																											
Site Address <u>MAFLOWER, AR</u>								<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>H</td><td></td><td>N</td><td>N</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="16"> <u>VOC: 8260 B</u> <u>PAH 8270 SIM</u> <u>RECA Metals+NI, V, Cr, Mg</u> <u>Diss Metals</u> <u>HEM Oil & Grease</u> </td> </tr> </table>														H		N	N													<u>VOC: 8260 B</u> <u>PAH 8270 SIM</u> <u>RECA Metals+NI, V, Cr, Mg</u> <u>Diss Metals</u> <u>HEM Oil & Grease</u>									
H		N	N																																												
<u>VOC: 8260 B</u> <u>PAH 8270 SIM</u> <u>RECA Metals+NI, V, Cr, Mg</u> <u>Diss Metals</u> <u>HEM Oil & Grease</u>																																															
ExxonMobil PM <u>SCOTT BUSHROE</u>				Cost Center/AFE																																											
Consultant/Office <u>ARCADIS</u>				Consultant PM <u>STEVE BACKER</u>																																											
Consultant Phone # <u>919-302-6799</u>																																															
Sampler <u>HANS VAN ALBE / DATE 1201</u>																																															
2 Sample Identification			3 Collected		Grab	Composite																																									
	Date	Time																																													
WS-003 (Surface) 090213	9.2.13	1210	X			X		9	X	X	X	X	X																																		
WS-007 (0.5-1.0) 090213		1220	X			X		9	X	X	X	X	X																																		
WS-001 (0.5-1.0) 090213		1230	X			X		9	X	X	X	X	X																																		
WS-EB-049-090213		1300	X			X		7	X	X	X	X	X																																		
DUP-WS-81-090213			X			X		9	X	X	X	X	X																																		
WS-014 (1.5-2.0) 090313	9.3.13	0825	X			X		9	X	X	X	X	X																																		
WS-014 (5.5-6.0) 090313		0835	X			X		9	X	X	X	X	X																																		
WS-012 (1.5-2.0) 090313		0850	X			X		9	X	X	X	X	X																																		
WS-012 (5.0-5.5) 090313		0900	X			X		9	X	X	X	X	X																																		
WS-010 (1.5-2.0) 090313		0915	X			X		9	X	X	X	X	X																																		
WS-010 (3.5-4.0) 090313		0925	X			X		9	X	X	X	X	X																																		
WS-006 (0.5-1.0) 090313		0935	X			X		9	X	X	X	X	X																																		
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by <u>[Signature]</u>				Date <u>9.3.13</u>		Time <u>1400</u>		Received by _____				Date _____ Time _____																															
Standard <u>5 day</u> 4 day				Relinquished by _____				Date _____		Time _____		Received by _____				Date _____ Time _____																															
72 hour 48 hour 24 hour				Relinquished by _____				Date _____		Time _____		Received by _____				Date _____ Time _____																															
8 Data Package (circle if required)				Relinquished by Commercial Carrier				Received by <u>[Signature]</u>				Date <u>9/4/13</u> Time <u>0915</u>																																			
Type I - Full				Locus EIM (default)				UPS <u>X</u> FedEx _____ Other _____				Temperature Upon Receipt <u>0.6-1.7</u> °C				Custody Seals Intact? <u>(Yes)</u> No																															
Type VI (Raw Data)				Other _____																																											
NJ Reduced																																															
Other _____																																															

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.

Environmental Sample Administration 1416142
Receipt Documentation LogClient/Project: Mayflower WatersShipping Container Sealed: YES NODate of Receipt: 9/4/13Custody Seal Present *: YES NOTime of Receipt: 0915

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

Source 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	DT146	1.4	TB	WI	Y	B	
2	↓	0.9	↓	↓	↓	↓	
3	↓	0.7	↓	↓	↓	↓	
4	↓	0.6	↓	↓	↓	↓	
5	↓	0.7	↓	↓	↓	↓	
6	↓	0.9	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:

9/2 0925 WS-010 (1.5-2.0) 1 broken O+G jar

Unpacker Signature/Emp#:

CEH 3647

Date/Time:

9/4/13 1050

Issued by Dept. 6042 Management

2174.06

Environmental Sample Administration
Receipt Documentation Log

1416142 2/2

Client/Project:

Mayflower Waters

Shipping Container Sealed:

YES

NO

Date of Receipt:

9/4/13

Custody Seal Present * :

YES

NO

Time of Receipt:

0915

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

Source Code:

60-1

Package:

Chilled

Not Chilled

Temperature of Shipping Containers

Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT146	1.3	TB	WI	Y	B	
2		1.3					
3		0.9					
4		1.0					
5		0.8					
6		1.7					

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

0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#:

C. E. 3647

Date/Time:

9/4/13 1050

Issued by Dept. 6042 Management

2174.06

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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