

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

November 04, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 10/29/2013

Group Number: 1429647

SDG: PEM52

PO Number: B0086003.1301

State of Sample Origin: AR

Client Sample Description

WS-018(Surface)102813 Filt Grab Surface Water
WS-003(Surface)102813 Filt Grab Surface Water
WS-007(0.5-1.0)102813 Filt Grab Surface Water
WS-001(0.5-1.0)102813 Filt Grab Surface Water
WS-005(Surface)102813 Filt Grab Surface Water
WS-014(1.5-2.0)102813 Filt Grab Surface Water
WS-014(5.5-6.0)102813 Filt Grab Surface Water
WS-012(1.5-2.0)102813 Filt Grab Surface Water
WS-012(5.0-5.5)102813 Filt Grab Surface Water
WS-010(1.5-2.0)102813 Filt Grab Surface Water
WS-010(3.5-4.0)102813 Filt Grab Surface Water
WS-006(0.5-1.0)102813 Filt Grab Surface Water
WS-002(Surface)102813 Filt Grab Surface Water
WS-011(1.5-2.0)102813 Filt Grab Surface Water
WS-011(5.0-5.5)102813 Filt Grab Surface Water
WS-EB-105-102813 Filt Grab Water
DUP-WS-109-102813 Filt Grab Surface Water

Lancaster Labs (LL)

7255018
7255019
7255020
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7255033
7255034

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	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 #: 1429647

General Comments:

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

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

Project specific QC samples are not included in this data set

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

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

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

Analysis Specific Comments:**SW-846 6010B, Metals Dissolved**

Batch #: 133031848001 (Sample number(s): 7255018-7255034 UNSPK: 7255024 BKG: 7255024)

The recovery(ies) for the following analyte(s) in the LCS exceeded the acceptance window indicating a positive bias: Lead

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Sample Description: WS-018(Surface)102813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255018
LL Group # 1429647
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 08:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/04/2013 11:03

2818F SDG#: PEM52-01

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	0.0211	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	133031848001	11/03/2013 14:15	Eric L Eby	1
07046	Barium	SW-846 6010B	1	133031848001	11/03/2013 14:15	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	133031848001	11/03/2013 14:15	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	133031848001	11/03/2013 14:15	Eric L Eby	1
07055	Lead	SW-846 6010B	1	133031848001	11/03/2013 14:15	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	133031848001	11/03/2013 14:15	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	133031848001	11/03/2013 14:15	Eric L Eby	1
07066	Silver	SW-846 6010B	1	133031848001	11/03/2013 14:15	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	133031848001	11/03/2013 14:15	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	133035713004	11/02/2013 14:44	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133031848001	10/31/2013 08:17	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133035713004	10/31/2013 15:15	Nelli S Markaryan	1

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

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

Sample Description: WS-003 (Surface)102813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255019
LL Group # 1429647
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 08:40 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/04/2013 11:03

2803F SDG#: PEM52-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0197	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 6010B			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
SW-846 7470A			mg/l	mg/l	mg/l	

General Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	133031848001	11/03/2013 14:19	Eric L Eby	1
07046	Barium	SW-846 6010B	1	133031848001	11/03/2013 14:19	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	133031848001	11/03/2013 14:19	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	133031848001	11/03/2013 14:19	Eric L Eby	1
07055	Lead	SW-846 6010B	1	133031848001	11/03/2013 14:19	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	133031848001	11/03/2013 14:19	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	133031848001	11/03/2013 14:19	Eric L Eby	1
07066	Silver	SW-846 6010B	1	133031848001	11/03/2013 14:19	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	133031848001	11/03/2013 14:19	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	133035713004	11/02/2013 14:46	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133031848001	10/31/2013 08:17	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133035713004	10/31/2013 15:15	Nelli S Markaryan	1

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

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

Sample Description: WS-007(0.5-1.0)102813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255020
LL Group # 1429647
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 09:00 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/04/2013 11:03

2807F SDG#: PEM52-03

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	0.0189	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		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	133031848001	11/03/2013 14:31	Eric L Eby	1
07046	Barium	SW-846 6010B	1	133031848001	11/03/2013 14:31	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	133031848001	11/03/2013 14:31	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	133031848001	11/03/2013 14:31	Eric L Eby	1
07055	Lead	SW-846 6010B	1	133031848001	11/03/2013 14:31	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	133031848001	11/03/2013 14:31	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	133031848001	11/03/2013 14:31	Eric L Eby	1
07066	Silver	SW-846 6010B	1	133031848001	11/03/2013 14:31	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	133031848001	11/03/2013 14:31	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	133035713004	11/02/2013 14:48	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133031848001	10/31/2013 08:17	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133035713004	10/31/2013 15:15	Nelli S Markaryan	1

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

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Sample Description: WS-001(0.5-1.0)102813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255021
LL Group # 1429647
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 09:20 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/04/2013 11:03

2801F SDG#: PEM52-04

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	0.0175	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	133031848001	11/03/2013 14:35	Eric L Eby	1
07046	Barium	SW-846 6010B	1	133031848001	11/03/2013 14:35	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	133031848001	11/03/2013 14:35	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	133031848001	11/03/2013 14:35	Eric L Eby	1
07055	Lead	SW-846 6010B	1	133031848001	11/03/2013 14:35	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	133031848001	11/03/2013 14:35	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	133031848001	11/03/2013 14:35	Eric L Eby	1
07066	Silver	SW-846 6010B	1	133031848001	11/03/2013 14:35	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	133031848001	11/03/2013 14:35	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	133035713004	11/02/2013 14:56	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133031848001	10/31/2013 08:17	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133035713004	10/31/2013 15:15	Nelli S Markaryan	1

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

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Sample Description: WS-005(Surface)102813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255022
LL Group # 1429647
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 09:40 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/04/2013 11:03

2805F SDG#: PEM52-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0179	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	133031848001	11/03/2013 14:39	Eric L Eby	1
07046	Barium	SW-846 6010B	1	133031848001	11/03/2013 14:39	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	133031848001	11/03/2013 14:39	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	133031848001	11/03/2013 14:39	Eric L Eby	1
07055	Lead	SW-846 6010B	1	133031848001	11/03/2013 14:39	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	133031848001	11/03/2013 14:39	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	133031848001	11/03/2013 14:39	Eric L Eby	1
07066	Silver	SW-846 6010B	1	133031848001	11/03/2013 14:39	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	133031848001	11/03/2013 14:39	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	133035713004	11/02/2013 14:58	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133031848001	10/31/2013 08:17	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133035713004	10/31/2013 15:15	Nelli S Markaryan	1

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

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

Sample Description: WS-014(1.5-2.0)102813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255023
LL Group # 1429647
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:20 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/04/2013 11:03

2814F SDG#: PEM52-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0159	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	133031848001	11/03/2013 14:43	Eric L Eby	1
07046	Barium	SW-846 6010B	1	133031848001	11/03/2013 14:43	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	133031848001	11/03/2013 14:43	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	133031848001	11/03/2013 14:43	Eric L Eby	1
07055	Lead	SW-846 6010B	1	133031848001	11/03/2013 14:43	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	133031848001	11/03/2013 14:43	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	133031848001	11/03/2013 14:43	Eric L Eby	1
07066	Silver	SW-846 6010B	1	133031848001	11/03/2013 14:43	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	133031848001	11/03/2013 14:43	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	133035713004	11/02/2013 15:05	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133031848001	10/31/2013 08:17	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133035713004	10/31/2013 15:15	Nelli S Markaryan	1

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

Sample Description: WS-014(5.5-6.0)102813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255024
LL Group # 1429647
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/04/2013 11:03

28F14 SDG#: PEM52-07

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	133031848001	11/03/2013 13:52	Eric L Eby	1
07046	Barium	SW-846 6010B	1	133031848001	11/03/2013 13:52	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	133031848001	11/03/2013 13:52	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	133031848001	11/03/2013 13:52	Eric L Eby	1
07055	Lead	SW-846 6010B	1	133031848001	11/03/2013 13:52	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	133031848001	11/03/2013 13:52	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	133031848001	11/03/2013 13:52	Eric L Eby	1
07066	Silver	SW-846 6010B	1	133031848001	11/03/2013 13:52	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	133031848001	11/03/2013 13:52	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	133035713004	11/02/2013 15:07	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133031848001	10/31/2013 08:17	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133035713004	10/31/2013 15:15	Nelli S Markaryan	1

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

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

Sample Description: WS-012(1.5-2.0)102813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255025
LL Group # 1429647
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:40 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/04/2013 11:03

2812F SDG#: PEM52-08

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	0.0168	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	133031848001	11/03/2013 14:47	Eric L Eby	1
07046	Barium	SW-846 6010B	1	133031848001	11/03/2013 14:47	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	133031848001	11/03/2013 14:47	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	133031848001	11/03/2013 14:47	Eric L Eby	1
07055	Lead	SW-846 6010B	1	133031848001	11/03/2013 14:47	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	133031848001	11/03/2013 14:47	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	133031848001	11/03/2013 14:47	Eric L Eby	1
07066	Silver	SW-846 6010B	1	133031848001	11/03/2013 14:47	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	133031848001	11/03/2013 14:47	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	133035713004	11/02/2013 15:09	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133031848001	10/31/2013 08:17	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133035713004	10/31/2013 15:15	Nelli S Markaryan	1

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

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Sample Description: WS-012(5.0-5.5)102813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255026
LL Group # 1429647
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 10:50 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/04/2013 11:03

28F12 SDG#: PEM52-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved			mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0166	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 6010B			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
SW-846 7470A			mg/l	mg/l	mg/l	

General Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	133031848001	11/03/2013 14:50	Eric L Eby	1
07046	Barium	SW-846 6010B	1	133031848001	11/03/2013 14:50	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	133031848001	11/03/2013 14:50	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	133031848001	11/03/2013 14:50	Eric L Eby	1
07055	Lead	SW-846 6010B	1	133031848001	11/03/2013 14:50	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	133031848001	11/03/2013 14:50	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	133031848001	11/03/2013 14:50	Eric L Eby	1
07066	Silver	SW-846 6010B	1	133031848001	11/03/2013 14:50	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	133031848001	11/03/2013 14:50	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	133035713004	11/02/2013 15:11	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133031848001	10/31/2013 08:17	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133035713004	10/31/2013 15:15	Nelli S Markaryan	1

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

Sample Description: WS-010(1.5-2.0)102813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255027
LL Group # 1429647
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 11:00 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/04/2013 11:03

2810F SDG#: PEM52-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0172	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	133031848001	11/03/2013 14:54	Eric L Eby	1
07046	Barium	SW-846 6010B	1	133031848001	11/03/2013 14:54	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	133031848001	11/03/2013 14:54	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	133031848001	11/03/2013 14:54	Eric L Eby	1
07055	Lead	SW-846 6010B	1	133031848001	11/03/2013 14:54	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	133031848001	11/03/2013 14:54	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	133031848001	11/03/2013 14:54	Eric L Eby	1
07066	Silver	SW-846 6010B	1	133031848001	11/03/2013 14:54	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	133031848001	11/03/2013 14:54	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	133035713004	11/02/2013 15:13	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133031848001	10/31/2013 08:17	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133035713004	10/31/2013 15:15	Nelli S Markaryan	1

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

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Sample Description: WS-010(3.5-4.0)102813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255028
LL Group # 1429647
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 11:10 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/04/2013 11:03

28F10 SDG#: PEM52-11

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	0.0170	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	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	133031848001	11/03/2013 14:58	Eric L Eby	1
07046	Barium	SW-846 6010B	1	133031848001	11/03/2013 14:58	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	133031848001	11/03/2013 14:58	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	133031848001	11/03/2013 14:58	Eric L Eby	1
07055	Lead	SW-846 6010B	1	133031848001	11/03/2013 14:58	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	133031848001	11/03/2013 14:58	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	133031848001	11/03/2013 14:58	Eric L Eby	1
07066	Silver	SW-846 6010B	1	133031848001	11/03/2013 14:58	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	133031848001	11/03/2013 14:58	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	133035713004	11/02/2013 15:15	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133031848001	10/31/2013 08:17	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133035713004	10/31/2013 15:15	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)102813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255029
LL Group # 1429647
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 11:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/04/2013 11:03

2806F SDG#: PEM52-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0178	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	133031848001	11/03/2013 15:02	Eric L Eby	1
07046	Barium	SW-846 6010B	1	133031848001	11/03/2013 15:02	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	133031848001	11/03/2013 15:02	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	133031848001	11/03/2013 15:02	Eric L Eby	1
07055	Lead	SW-846 6010B	1	133031848001	11/03/2013 15:02	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	133031848001	11/03/2013 15:02	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	133031848001	11/03/2013 15:02	Eric L Eby	1
07066	Silver	SW-846 6010B	1	133031848001	11/03/2013 15:02	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	133031848001	11/03/2013 15:02	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	133035713004	11/02/2013 15:17	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133031848001	10/31/2013 08:17	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133035713004	10/31/2013 15:15	Nelli S Markaryan	1

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

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

Sample Description: WS-002 (Surface)102813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255030
LL Group # 1429647
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 12:00 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/04/2013 11:03

2802F SDG#: PEM52-13

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	0.0168	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	133031848001	11/03/2013 15:06	Eric L Eby	1
07046	Barium	SW-846 6010B	1	133031848001	11/03/2013 15:06	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	133031848001	11/03/2013 15:06	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	133031848001	11/03/2013 15:06	Eric L Eby	1
07055	Lead	SW-846 6010B	1	133031848001	11/03/2013 15:06	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	133031848001	11/03/2013 15:06	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	133031848001	11/03/2013 15:06	Eric L Eby	1
07066	Silver	SW-846 6010B	1	133031848001	11/03/2013 15:06	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	133031848001	11/03/2013 15:06	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	133035713004	11/02/2013 15:19	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133031848001	10/31/2013 08:17	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133035713004	10/31/2013 15:15	Nelli S Markaryan	1

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

Sample Description: WS-011(1.5-2.0)102813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255031
LL Group # 1429647
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 12:20 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/04/2013 11:03

2811F SDG#: PEM52-14

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	0.0182	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	133031848001	11/03/2013 15:18	Eric L Eby	1
07046	Barium	SW-846 6010B	1	133031848001	11/03/2013 15:18	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	133031848001	11/03/2013 15:18	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	133031848001	11/03/2013 15:18	Eric L Eby	1
07055	Lead	SW-846 6010B	1	133031848001	11/03/2013 15:18	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	133031848001	11/03/2013 15:18	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	133031848001	11/03/2013 15:18	Eric L Eby	1
07066	Silver	SW-846 6010B	1	133031848001	11/03/2013 15:18	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	133031848001	11/03/2013 15:18	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	133035713004	11/02/2013 15:21	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133031848001	10/31/2013 08:17	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133035713004	10/31/2013 15:15	Nelli S Markaryan	1

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

Sample Description: WS-011(5.0-5.5)102813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255032
LL Group # 1429647
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 12:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/04/2013 11:03

28F11 SDG#: PEM52-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals Dissolved						
	SW-846 6010B		mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0178	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	133031848001	11/03/2013 15:21	Eric L Eby	1
07046	Barium	SW-846 6010B	1	133031848001	11/03/2013 15:21	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	133031848001	11/03/2013 15:21	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	133031848001	11/03/2013 15:21	Eric L Eby	1
07055	Lead	SW-846 6010B	1	133031848001	11/03/2013 15:21	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	133031848001	11/03/2013 15:21	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	133031848001	11/03/2013 15:21	Eric L Eby	1
07066	Silver	SW-846 6010B	1	133031848001	11/03/2013 15:21	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	133031848001	11/03/2013 15:21	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	133035713004	11/02/2013 15:23	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133031848001	10/31/2013 08:17	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133035713004	10/31/2013 15:15	Nelli S Markaryan	1

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

Sample Description: **WS-EB-105-102813 Filt Grab Water**
Mayflower, AR
Pipeline Incident

LL Sample # **WW 7255033**
 LL Group # **1429647**
 Account # **14739**

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

Collected: 10/28/2013 13:30 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/04/2013 11:03

E105F SDG#: PEM52-16EB

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

General Sample Comments

This sample was filtered in the lab for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	133031848001	11/03/2013 15:25	Eric L Eby	1
07046	Barium	SW-846 6010B	1	133031848001	11/03/2013 15:25	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	133031848001	11/03/2013 15:25	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	133031848001	11/03/2013 15:25	Eric L Eby	1
07055	Lead	SW-846 6010B	1	133031848001	11/03/2013 15:25	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	133031848001	11/03/2013 15:25	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	133031848001	11/03/2013 15:25	Eric L Eby	1
07066	Silver	SW-846 6010B	1	133031848001	11/03/2013 15:25	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	133031848001	11/03/2013 15:25	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	133035713004	11/02/2013 15:29	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133031848001	10/31/2013 08:17	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133035713004	10/31/2013 15:15	Nelli S Markaryan	1

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

Sample Description: DUP-WS-109-102813 Filt Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7255034
LL Group # 1429647
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 10/28/2013 by CP

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

Submitted: 10/29/2013 10:15

Reported: 11/04/2013 11:03

D109F SDG#: PEM52-17FD*

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	0.0175	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	133031848001	11/03/2013 15:29	Eric L Eby	1
07046	Barium	SW-846 6010B	1	133031848001	11/03/2013 15:29	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	133031848001	11/03/2013 15:29	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	133031848001	11/03/2013 15:29	Eric L Eby	1
07055	Lead	SW-846 6010B	1	133031848001	11/03/2013 15:29	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	133031848001	11/03/2013 15:29	Eric L Eby	1
07036	Selenium	SW-846 6010B	1	133031848001	11/03/2013 15:29	Eric L Eby	1
07066	Silver	SW-846 6010B	1	133031848001	11/03/2013 15:29	Eric L Eby	1
07071	Vanadium	SW-846 6010B	1	133031848001	11/03/2013 15:29	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	133035713004	11/02/2013 15:31	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133031848001	10/31/2013 08:17	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133035713004	10/31/2013 15:15	Nelli S Markaryan	1

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 11/04/13 at 11:03 AM

Group Number: 1429647

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: 133031848001	Sample number(s): 7255018-7255034								
Arsenic	N.D.	0.0068	0.0200	mg/l	105		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	103		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	106		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	103		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	111*		88-110		
Nickel	N.D.	0.0015	0.0100	mg/l	109		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	105		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	110		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	100		90-110		
Batch number: 133035713004	Sample number(s): 7255018-7255034								
Mercury	N.D.	0.00006	0.00020	mg/l	104		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: 133031848001	Sample number(s): 7255018-7255034 UNSPK: 7255024 BKG: 7255024								
Arsenic	105	107	81-123	2	20	N.D.	N.D.	0 (1)	20
Barium	102	102	78-118	0	20	0.0158	0.0161	2 (1)	20
Cadmium	107	106	83-116	1	20	N.D.	N.D.	0 (1)	20
Chromium	102	101	76-120	2	20	N.D.	N.D.	0 (1)	20
Lead	113	112	75-125	1	20	N.D.	N.D.	0 (1)	20
Nickel	109	108	86-115	1	20	N.D.	N.D.	0 (1)	20
Selenium	108	105	75-125	3	20	N.D.	N.D.	0 (1)	20
Silver	110	107	75-125	2	20	N.D.	N.D.	0 (1)	20
Vanadium	99	98	90-117	2	20	N.D.	N.D.	0 (1)	20
Batch number: 133035713004	Sample number(s): 7255018-7255034 UNSPK: 7255020 BKG: 7255020								
Mercury	104	103	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 # 1429647 Sample # 7255018-34
Instructions on reverse side correspond with circled numbers.

1 of 2

1 Client Information				4 Matrix		5 Analyses Requested										6 Remarks	
Facility #/SID: <u>Mayflower Pipeline Incident</u> Site Address: <u>Mayflower, AR</u> ExxonMobil PM: <u>Scott Bushroe</u> Cost Center/AFE: _____ Consultant/Office: <u>ARCADIS</u> Consultant PM: <u>Steve Barrick</u> Consultant Phone #: <u>919-302-6799</u> Sampler: <u>Clement Papafio / Ryan Lewis</u>				Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> Soil <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input checked="" type="checkbox"/> Water <input type="checkbox"/> Air <input type="checkbox"/>		Preservation Code: _____ H <input type="checkbox"/> N <input type="checkbox"/> H <input type="checkbox"/> VOCs 8260 B <input checked="" type="checkbox"/> PAH 8270 SIM <input checked="" type="checkbox"/> RCRA Metals <input checked="" type="checkbox"/> Thickness <input checked="" type="checkbox"/> Diss Metals <input checked="" type="checkbox"/> <i>WV, Calif, NY</i> HEM Oil & Grease <input checked="" type="checkbox"/>										SCR#: _____ Preservation Codes: H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other	
2 Sample Identification				3 Grab Composite		Total # of Containers											
		Collected															
		Date	Time	Grab	Composite												
WS-018 (Surface)		10-28-13	0830	X													
WS-003 (Surface)		10-28-13	0840	X													
WS-007 (0.5-1.0)		10-28-13	0900	X													
WS-001 (0.5-1.0)		10-28-13	0920	X													
WS-005 (Surface)		10-28-13	0940	X													
WS-014 (1.5-2.0)		10-28-13	1020	X													
WS-014 (5.5-6.0)		10-28-13	1030	X													
WS-012 (1.5-2.0)		10-28-13	1040	X													
WS-012 (5.0-5.5)		10-28-13	1050	X													
WS-010 (1.5-2.0)		10-28-13	1100	X													
WS-016 (3.5-4.0)		10-28-13	1110	X													
WS-006 (0.5-1.0)		10-28-13	1130	X													
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by		Date		Time		Received by		Date		Time			
Standard <input checked="" type="radio"/> 5 day 4 day 72 hour 48 hour 24 hour				Relinquished by: <u>[Signature]</u> Relinquished by: _____ Relinquished by: _____ Relinquished by Commercial Carrier: _____		Date: <u>10-28-13</u> Date: _____ Date: _____ Date: _____		Time: <u>1530</u> Time: _____ Time: _____ Time: _____		Received by: _____ Received by: _____ Received by: _____ Received by: _____		Date: _____ Date: _____ Date: _____ Date: _____		Time: _____ Time: _____ Time: _____ Time: _____			
8 Data Package (circle if required)				EDD (circle if required)		Temperature Upon Receipt						Custody Seals Intact?					
Type I - Full Type VI (Raw Data) NJ Reduced Other _____				Locus EIM (default) Other _____		UPS <input checked="" type="checkbox"/> FedEx _____ Other _____						Received by: <u>[Signature]</u> Date: <u>10/29/13</u> Time: <u>1015</u> Temperature Upon Receipt: <u>0.3-1.4 °C</u> Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					

1 Client Information				4 Matrix				5 Analyses Requested												6 Remarks	
Facility #/SID Mayflower Pipeline Incident				<input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> NPDES <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air				Preservation Code H N H VOCS 8260B PAH 8270 SIM RCRA Metals Pb, Cd, Cr, Ni, Cu, Mg Diss Metals HEM Oil & Grease												SCR#: _____ Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other	
Site Address Mayflower, AR								Total # of Containers 9 X X X X X 9 X X X X X 4 X X X X X 7 X X X X 2 X 9 X X X X X													
ExxonMobil PM Scott Bushroe		Cost Center/AFE		Consultant/Office ARCADIS		Consultant PM Steve Barndk															
Sampler Clement Pagano / Ryan Lewis																					
2 Sample Identification				3 Composite																	
		Collected		Grab	Composite																
		Date	Time																		
WS-062 (Surface) 102813		10-28-13	1200	X																	
WS-011 (1.5-2.0) 102813		10-28-13	1220	X																	
WS-011 (5.0-5.5) 102813		10-28-13	1230	X																	
WS-EB-105-102813		10-28-13	1330	X																	
WS-TB-188-102813		10-28-13	—	X																	
Dup-WS-109-102813		10-28-13	—	X																	
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by				Date		Time		Received by		Date		Time					
Standard <u>5 day</u> 4 day				<i>[Signature]</i>				10-28-13		1530		<i>[Signature]</i>									
72 hour 48 hour 24 hour																					
8 Data Package (circle if required)				Relinquished by Commercial Carrier				Date		Time		Received by		Date		Time					
Type I - Full		EDD (circle if required)		UPS <input checked="" type="checkbox"/> FedEx _____ Other _____								<i>[Signature]</i>									
Type VI (Raw Data)		Locus EIM (default)																			
NJ Reduced		Other _____												10/29/13		1015					
Other _____								Temperature Upon Receipt <u>0.3-1.4 °C</u>				Custody Seals Intact? <u>(Yes)</u> No									

Environmental Sample Administration
Receipt Documentation Log

1429647

Client/Project: Mayflowers

Shipping Container Sealed: YES NO

Date of Receipt: 10/29/13

Custody Seal Present * : YES NO

Time of Receipt: 1015

* 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	DT121	1.4	TB	WI	Y	B	
2	↓	1.3	↓	↓	↓	↓	
3	↓	1.0	↓	↓	↓	↓	
4	↓	0.4	↓	↓	↓	↓	
5	↓	1.1	↓	↓	↓	↓	
6	↓	0.3	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:
016 jar for WS-003 @ 0840 received cracked (jar still intact)
1 broken 016 jar for WS-018 @ 0830

Unpacker Signature/Emp#: Cash 3647 Date/Time: 10/29/13 1048

Explanation of Symbols and Abbreviations

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

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m³	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter

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

> greater than

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

ppb parts per billion

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

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

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

Inorganic Qualifiers

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

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

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

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

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

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