# Analysis Report

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

#### ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 ExxonMobil Mobil Pipeline Company PO Box 4416 Houston TX 77210-4416

August 18, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 08/13/2013 Group Number: 1410958 SDG: PEK52 PO Number: ARCADIS Release Number: MAYFLOWER 1406 State of Sample Origin: AR

Client Sample Description	<u>Lancaster Labs (LL) #</u>
WS-014(1.5-2.0)081213 Filt Grab Surface Water	7158532
WS-014(5.5-6.0)081213 Filt Grab Surface Water	7158533
WS-012(1.5-2.0)081213 Filt Grab Surface Water	7158534
WS-012(5.0-5.5)081213 Filt Grab Surface Water	7158535
WS-010(1.5-2.0)081213 Filt Grab Surface Water	7158536
WS-010(3.5-4.0)081213 Filt Grab Surface Water	7158537
WS-006(0.5-1.0)081213 Filt Grab Surface Water	7158538
WS-005(Surface)081213 Filt Grab Surface Water	7158539
WS-011(1.5-2.0)081213 Filt Grab Surface Water	7158540
WS-011(5.0-5.5)081213 Filt Grab Surface Water	7158541
WS-003(Surface)081213 Filt Grab Surface Water	7158542
WS-002(Surface)081213 Filt Grab Surface Water	7158543
WS-018(Surface)081213 Filt Grab Surface Water	7158544
WS-007(0.5-1.0)081213 Filt Grab Surface Water	7158545
WS-001(0.5-1.0)081213 Filt Grab Surface Water	7158546
WS-008(Surface)081213 Filt Grab Surface Water	7158547
WS-BKG-002(Surface)081213 Filt Grab Surface Water	7158548
WS-EB-28-081213 Filt Grab Water	7158549
DUP-WS-70-081213 Filt Grab Surface Water	7158550

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

ELECTRONIC ARCADIS Attn: Stephen Barrick

COPY TO

ELECTRONIC ARCADIS Attn: Lyndi Mott COPY TO

# **Analysis Report**

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

Respectfully Submitted,

Katherine A. Klinefelter Principal Specialist

Katherine a. Klinefelter

(717) 556-7256



### Case Narrative

Project Name: Mayflower, AR Pipeline Incident LLI Group #: 1410958

#### 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.



# Analysis Report

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Sample Description: WS-014(1.5-2.0)081213 Filt Grab Surface Water

LL Sample # WW 7158532 Mayflower, AR LL Group # 1410958 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/12/2013 08:20 by HVA ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

141D-SDG#: PEK52-01

Submitted: 08/13/2013 09:20

Reported: 08/18/2013 09:11

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	s 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	0.0126	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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132251848006	08/17/2013	22:33	John P Hook	1
07046	Barium	SW-846 6010B	1	132251848006	08/17/2013	22:33	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132251848006	08/17/2013	22:33	John P Hook	1
07051	Chromium	SW-846 6010B	1	132251848006	08/17/2013	22:33	John P Hook	1
07055	Lead	SW-846 6010B	1	132251848006	08/17/2013	22:33	John P Hook	1
07061	Nickel	SW-846 6010B	1	132251848006	08/17/2013	22:33	John P Hook	1
07036	Selenium	SW-846 6010B	1	132251848006	08/17/2013	22:33	John P Hook	1
07066	Silver	SW-846 6010B	1	132251848006	08/17/2013	22:33	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132251848006	08/17/2013	22:33	John P Hook	1
00259	Mercury	SW-846 7470A	1	132255713005	08/16/2013	01:36	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848006	08/14/2013	17:05	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713005	08/14/2013	12:31	Katlin N Cataldi	1



# Analysis Report

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Sample Description: WS-014(5.5-6.0)081213 Filt Grab Surface Water

LL Sample # WW 7158533 Mayflower, AR LL Group # 1410958 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

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

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

142D-SDG#: PEK52-02

Submitted: 08/13/2013 09:20

Reported: 08/18/2013 09:11

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	s 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	0.0150	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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	ime	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132251848006	08/17/2013	22:37	John P Hook	1
07046	Barium	SW-846 6010B	1	132251848006	08/17/2013	22:37	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132251848006	08/17/2013	22:37	John P Hook	1
07051	Chromium	SW-846 6010B	1	132251848006	08/17/2013	22:37	John P Hook	1
07055	Lead	SW-846 6010B	1	132251848006	08/17/2013	22:37	John P Hook	1
07061	Nickel	SW-846 6010B	1	132251848006	08/17/2013	22:37	John P Hook	1
07036	Selenium	SW-846 6010B	1	132251848006	08/17/2013	22:37	John P Hook	1
07066	Silver	SW-846 6010B	1	132251848006	08/17/2013	22:37	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132251848006	08/17/2013	22:37	John P Hook	1
00259	Mercury	SW-846 7470A	1	132255713005	08/16/2013	01:44	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848006	08/14/2013	17:05	Kevin C Piaskowski	1
05713	WW SW846 Ha Digest	SW-846 7470A	1	132255713005	08/14/2013	12.31	Katlin N Cataldi	1



# Analysis Report

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Sample Description: WS-012(1.5-2.0)081213 Filt Grab Surface Water

LL Sample # WW 7158534 Mayflower, AR LL Group # 1410958 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

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

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

121D-SDG#: PEK52-03

Submitted: 08/13/2013 09:20

Reported: 08/18/2013 09:11

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	0.0124	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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132251848006	08/17/2013	22:49	John P Hook	1
07046	Barium	SW-846 6010B	1	132251848006	08/17/2013	22:49	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132251848006	08/17/2013	22:49	John P Hook	1
07051	Chromium	SW-846 6010B	1	132251848006	08/17/2013	22:49	John P Hook	1
07055	Lead	SW-846 6010B	1	132251848006	08/17/2013	22:49	John P Hook	1
07061	Nickel	SW-846 6010B	1	132251848006	08/17/2013	22:49	John P Hook	1
07036	Selenium	SW-846 6010B	1	132251848006	08/17/2013	22:49	John P Hook	1
07066	Silver	SW-846 6010B	1	132251848006	08/17/2013	22:49	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132251848006	08/17/2013	22:49	John P Hook	1
00259	Mercury	SW-846 7470A	1	132255713005	08/16/2013	01:46	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848006	08/14/2013	17:05	Kevin C Piaskowski	1
05713	WW SW846 Ha Diaest	SW-846 7470A	1	132255713005	08/14/2013	12.31	Katlin N Cataldi	1



# Analysis Report

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Sample Description: WS-012(5.0-5.5)081213 Filt Grab Surface Water

LL Sample # WW 7158535 Mayflower, AR LL Group # 1410958 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

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

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

122D-SDG#: PEK52-04

Submitted: 08/13/2013 09:20

Reported: 08/18/2013 09:11

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	s 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	0.0107	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.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	me		Factor
07035	Arsenic	SW-846 6010B	1	132251848006	08/17/2013	22:52	John P Hook	1
07046	Barium	SW-846 6010B	1	132251848006	08/17/2013	22:52	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132251848006	08/17/2013	22:52	John P Hook	1
07051	Chromium	SW-846 6010B	1	132251848006	08/17/2013	22:52	John P Hook	1
07055	Lead	SW-846 6010B	1	132251848006	08/17/2013	22:52	John P Hook	1
07061	Nickel	SW-846 6010B	1	132251848006	08/17/2013	22:52	John P Hook	1
07036	Selenium	SW-846 6010B	1	132251848006	08/17/2013	22:52	John P Hook	1
07066	Silver	SW-846 6010B	1	132251848006	08/17/2013	22:52	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132251848006	08/17/2013	22:52	John P Hook	1
00259	Mercury	SW-846 7470A	1	132255713005	08/16/2013	01:48	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848006	08/14/2013	17:05	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713005	08/14/2013	12:31	Katlin N Cataldi	1



# Analysis Report

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Sample Description: WS-010(1.5-2.0)081213 Filt Grab Surface Water

LL Sample # WW 7158536 Mayflower, AR LL Group # 1410958 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/12/2013 09:00 by HVA ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

101D-SDG#: PEK52-05

Submitted: 08/13/2013 09:20

Reported: 08/18/2013 09:11

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	s Dissolved	SW-846	6010B	mg/l	mg/l	mg/l	
07035	Arsenic		7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium		7440-39-3	0.0117	0.00033	0.0050	1
07049	Cadmium		7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium		7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead		7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel		7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium		7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver		7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium		7440-62-2	N.D.	0.0020	0.0050	1
		SW-846	7470A	mg/l	mg/l	mg/l	
00259	Mercury		7439-97-6	N.D.	0.000060	0.00020	1

#### General Sample Comments

This sample was filtered in the lab for dissolved metals.

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132251848006	08/17/2013	22:56	John P Hook	1
07046	Barium	SW-846 6010B	1	132251848006	08/17/2013	22:56	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132251848006	08/17/2013	22:56	John P Hook	1
07051	Chromium	SW-846 6010B	1	132251848006	08/17/2013	22:56	John P Hook	1
07055	Lead	SW-846 6010B	1	132251848006	08/17/2013	22:56	John P Hook	1
07061	Nickel	SW-846 6010B	1	132251848006	08/17/2013	22:56	John P Hook	1
07036	Selenium	SW-846 6010B	1	132251848006	08/17/2013	22:56	John P Hook	1
07066	Silver	SW-846 6010B	1	132251848006	08/17/2013	22:56	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132251848006	08/17/2013	22:56	John P Hook	1
00259	Mercury	SW-846 7470A	1	132255713005	08/16/2013	01:50	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848006	08/14/2013	17:05	Kevin C Piaskowski	. 1
05713	WW SW846 Ha Digest	SW-846 7470A	1	132255713005	08/14/2013	12.31	Katlin N Cataldi	1



# Analysis Report

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Sample Description: WS-010(3.5-4.0)081213 Filt Grab Surface Water

LL Sample # WW 7158537 Mayflower, AR LL Group # 1410958 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/12/2013 09:10 by HVA ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

102D-SDG#: PEK52-06

Submitted: 08/13/2013 09:20

Reported: 08/18/2013 09:11

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

#### General Sample Comments

This sample was filtered in the 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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132251848006	08/17/2013	23:00	John P Hook	1
07046	Barium	SW-846 6010B	1	132251848006	08/17/2013	23:00	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132251848006	08/17/2013	23:00	John P Hook	1
07051	Chromium	SW-846 6010B	1	132251848006	08/17/2013	23:00	John P Hook	1
07055	Lead	SW-846 6010B	1	132251848006	08/17/2013	23:00	John P Hook	1
07061	Nickel	SW-846 6010B	1	132251848006	08/17/2013	23:00	John P Hook	1
07036	Selenium	SW-846 6010B	1	132251848006	08/17/2013	23:00	John P Hook	1
07066	Silver	SW-846 6010B	1	132251848006	08/17/2013	23:00	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132251848006	08/17/2013	23:00	John P Hook	1
00259	Mercury	SW-846 7470A	1	132255713005	08/16/2013	02:01	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848006	08/14/2013	17:05	Kevin C Piaskowski	1
05713	WW SW846 Ha Digest	SW-846 7470A	1	132255713005	08/14/2013	12.31	Katlin N Cataldi	1



# Analysis Report

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Sample Description: WS-006(0.5-1.0)081213 Filt Grab Surface Water

LL Sample # WW 7158538 Mayflower, AR LL Group # 1410958 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/12/2013 09:30 by HVA ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

006D-SDG#: PEK52-07

Submitted: 08/13/2013 09:20

Reported: 08/18/2013 09:11

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	0.0149	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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132251848006	08/17/2013	23:04	John P Hook	1
07046	Barium	SW-846 6010B	1	132251848006	08/17/2013	23:04	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132251848006	08/17/2013	23:04	John P Hook	1
07051	Chromium	SW-846 6010B	1	132251848006	08/17/2013	23:04	John P Hook	1
07055	Lead	SW-846 6010B	1	132251848006	08/17/2013	23:04	John P Hook	1
07061	Nickel	SW-846 6010B	1	132251848006	08/17/2013	23:04	John P Hook	1
07036	Selenium	SW-846 6010B	1	132251848006	08/17/2013	23:04	John P Hook	1
07066	Silver	SW-846 6010B	1	132251848006	08/17/2013	23:04	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132251848006	08/17/2013	23:04	John P Hook	1
00259	Mercury	SW-846 7470A	1	132255713005	08/16/2013	02:03	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848006	08/14/2013	17:05	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713005	08/14/2013	12:31	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: WS-005(Surface)081213 Filt Grab Surface Water

LL Sample # WW 7158539 Mayflower, AR LL Group # 1410958 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/12/2013 09:50 by HVA ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

005D-SDG#: PEK52-08

Submitted: 08/13/2013 09:20

Reported: 08/18/2013 09:11

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	0.0135	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.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	me		Factor
07035	Arsenic	SW-846 6010B	1	132251848006	08/17/2013	23:08	John P Hook	1
07046	Barium	SW-846 6010B	1	132251848006	08/17/2013	23:08	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132251848006	08/17/2013	23:08	John P Hook	1
07051	Chromium	SW-846 6010B	1	132251848006	08/17/2013	23:08	John P Hook	1
07055	Lead	SW-846 6010B	1	132251848006	08/17/2013	23:08	John P Hook	1
07061	Nickel	SW-846 6010B	1	132251848006	08/17/2013	23:08	John P Hook	1
07036	Selenium	SW-846 6010B	1	132251848006	08/17/2013	23:08	John P Hook	1
07066	Silver	SW-846 6010B	1	132251848006	08/17/2013	23:08	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132251848006	08/17/2013	23:08	John P Hook	1
00259	Mercury	SW-846 7470A	1	132255713005	08/16/2013	02:05	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848006	08/14/2013	17:05	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713005	08/14/2013	12:31	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: WS-011(1.5-2.0)081213 Filt Grab Surface Water

LL Sample # WW 7158540 Mayflower, AR LL Group # 1410958 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/12/2013 10:40 by HVA ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

111D-SDG#: PEK52-09

Submitted: 08/13/2013 09:20

Reported: 08/18/2013 09:11

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	0.0138	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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132251848006	08/17/2013	23:12	John P Hook	1
07046	Barium	SW-846 6010B	1	132251848006	08/17/2013	23:12	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132251848006	08/17/2013	23:12	John P Hook	1
07051	Chromium	SW-846 6010B	1	132251848006	08/17/2013	23:12	John P Hook	1
07055	Lead	SW-846 6010B	1	132251848006	08/17/2013	23:12	John P Hook	1
07061	Nickel	SW-846 6010B	1	132251848006	08/17/2013	23:12	John P Hook	1
07036	Selenium	SW-846 6010B	1	132251848006	08/17/2013	23:12	John P Hook	1
07066	Silver	SW-846 6010B	1	132251848006	08/17/2013	23:12	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132251848006	08/17/2013	23:12	John P Hook	1
00259	Mercury	SW-846 7470A	1	132255713005	08/16/2013	02:07	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848006	08/14/2013	17:05	Kevin C Piaskowski	1
05713	WW SW846 Ha Diaest	SW-846 7470A	1	132255713005	08/14/2013	12.31	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: WS-011(5.0-5.5)081213 Filt Grab Surface Water

LL Sample # WW 7158541 Mayflower, AR LL Group # 1410958 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/12/2013 10:50 by HVA ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

112D-SDG#: PEK52-10

Submitted: 08/13/2013 09:20

Reported: 08/18/2013 09:11

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	0.0115	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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132251848006	08/17/2013	23:15	John P Hook	1
07046	Barium	SW-846 6010B	1	132251848006	08/17/2013	23:15	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132251848006	08/17/2013	23:15	John P Hook	1
07051	Chromium	SW-846 6010B	1	132251848006	08/17/2013	23:15	John P Hook	1
07055	Lead	SW-846 6010B	1	132251848006	08/17/2013	23:15	John P Hook	1
07061	Nickel	SW-846 6010B	1	132251848006	08/17/2013	23:15	John P Hook	1
07036	Selenium	SW-846 6010B	1	132251848006	08/17/2013	23:15	John P Hook	1
07066	Silver	SW-846 6010B	1	132251848006	08/17/2013	23:15	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132251848006	08/17/2013	23:15	John P Hook	1
00259	Mercury	SW-846 7470A	1	132255713005	08/16/2013	02:09	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848006	08/14/2013	17:05	Kevin C Piaskowski	1
05713	WW SW846 Ha Digest	SW-846 7470A	1	132255713005	08/14/2013	12.31	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: WS-003(Surface)081213 Filt Grab Surface Water

LL Sample # WW 7158542 Mayflower, AR LL Group # 1410958 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/12/2013 11:00 by HVA ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

003D-SDG#: PEK52-11

Submitted: 08/13/2013 09:20

Reported: 08/18/2013 09:11

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	0.0129	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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132251848006	08/17/2013	23:19	John P Hook	1
07046	Barium	SW-846 6010B	1	132251848006	08/17/2013	23:19	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132251848006	08/17/2013	23:19	John P Hook	1
07051	Chromium	SW-846 6010B	1	132251848006	08/17/2013	23:19	John P Hook	1
07055	Lead	SW-846 6010B	1	132251848006	08/17/2013	23:19	John P Hook	1
07061	Nickel	SW-846 6010B	1	132251848006	08/17/2013	23:19	John P Hook	1
07036	Selenium	SW-846 6010B	1	132251848006	08/17/2013	23:19	John P Hook	1
07066	Silver	SW-846 6010B	1	132251848006	08/17/2013	23:19	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132251848006	08/17/2013	23:19	John P Hook	1
00259	Mercury	SW-846 7470A	1	132255713005	08/16/2013	02:11	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848006	08/14/2013	17:05	Kevin C Piaskowski	1
05713	WW SW846 Ha Diaest	SW-846 7470A	1	132255713005	08/14/2013	12.31	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: WS-002(Surface)081213 Filt Grab Surface Water

LL Sample # WW 7158543 Mayflower, AR LL Group # 1410958 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/12/2013 10:00 by HVA ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

002D-SDG#: PEK52-12

Submitted: 08/13/2013 09:20

Reported: 08/18/2013 09:11

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	0.0137	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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	ime	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132251848006	08/17/2013	23:23	John P Hook	1
07046	Barium	SW-846 6010B	1	132251848006	08/17/2013	23:23	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132251848006	08/17/2013	23:23	John P Hook	1
07051	Chromium	SW-846 6010B	1	132251848006	08/17/2013	23:23	John P Hook	1
07055	Lead	SW-846 6010B	1	132251848006	08/17/2013	23:23	John P Hook	1
07061	Nickel	SW-846 6010B	1	132251848006	08/17/2013	23:23	John P Hook	1
07036	Selenium	SW-846 6010B	1	132251848006	08/17/2013	23:23	John P Hook	1
07066	Silver	SW-846 6010B	1	132251848006	08/17/2013	23:23	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132251848006	08/17/2013	23:23	John P Hook	1
00259	Mercury	SW-846 7470A	1	132255713005	08/16/2013	02:14	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848006	08/14/2013	17:05	Kevin C Piaskowski	. 1
05713	WW SW846 Ha Digest	SW-846 7470A	1	132255713005	08/14/2013	12.31	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: WS-018(Surface)081213 Filt Grab Surface Water

LL Sample # WW 7158544 Mayflower, AR LL Group # 1410958 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/12/2013 10:20 by HVA ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

018D-SDG#: PEK52-13

Submitted: 08/13/2013 09:20

Reported: 08/18/2013 09:11

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	s 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	0.0260	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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132251848006	08/17/2013	22:10	John P Hook	1
07046	Barium	SW-846 6010B	1	132251848006	08/17/2013	22:10	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132251848006	08/17/2013	22:10	John P Hook	1
07051	Chromium	SW-846 6010B	1	132251848006	08/17/2013	22:10	John P Hook	1
07055	Lead	SW-846 6010B	1	132251848006	08/17/2013	22:10	John P Hook	1
07061	Nickel	SW-846 6010B	1	132251848006	08/17/2013	22:10	John P Hook	1
07036	Selenium	SW-846 6010B	1	132251848006	08/17/2013	22:10	John P Hook	1
07066	Silver	SW-846 6010B	1	132251848006	08/17/2013	22:10	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132251848006	08/17/2013	22:10	John P Hook	1
00259	Mercury	SW-846 7470A	1	132255713005	08/16/2013	02:16	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848006	08/14/2013	17:05	Kevin C Piaskowski	1
05713	WW SW846 Ha Digest	SW-846 7470A	1	132255713005	08/14/2013	12.31	Katlin N Cataldi	1



# Analysis Report

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)081213 Filt Grab Surface Water

LL Sample # WW 7158545 Mayflower, AR LL Group # 1410958 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/12/2013 11:20 by HVA ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

007D-SDG#: PEK52-14

Submitted: 08/13/2013 09:20

Reported: 08/18/2013 09:11

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	s 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	0.0207	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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132251848006	08/17/2013	23:35	John P Hook	1
07046	Barium	SW-846 6010B	1	132251848006	08/17/2013	23:35	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132251848006	08/17/2013	23:35	John P Hook	1
07051	Chromium	SW-846 6010B	1	132251848006	08/17/2013	23:35	John P Hook	1
07055	Lead	SW-846 6010B	1	132251848006	08/17/2013	23:35	John P Hook	1
07061	Nickel	SW-846 6010B	1	132251848006	08/17/2013	23:35	John P Hook	1
07036	Selenium	SW-846 6010B	1	132251848006	08/17/2013	23:35	John P Hook	1
07066	Silver	SW-846 6010B	1	132251848006	08/17/2013	23:35	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132251848006	08/17/2013	23:35	John P Hook	1
00259	Mercury	SW-846 7470A	1	132255713005	08/16/2013	02:18	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848006	08/14/2013	17:05	Kevin C Piaskowski	1
05713	WW SW846 Ha Diaest	SW-846 7470A	1	132255713005	08/14/2013	12.31	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: WS-001(0.5-1.0)081213 Filt Grab Surface Water

LL Sample # WW 7158546 Mayflower, AR LL Group # 1410958 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/12/2013 11:30 by HVA ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

001D-SDG#: PEK52-15

Submitted: 08/13/2013 09:20

Reported: 08/18/2013 09:11

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	0.0202	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.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	me		Factor
07035	Arsenic	SW-846 6010B	1	132251848006	08/17/2013	23:38	John P Hook	1
07046	Barium	SW-846 6010B	1	132251848006	08/17/2013	23:38	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132251848006	08/17/2013	23:38	John P Hook	1
07051	Chromium	SW-846 6010B	1	132251848006	08/17/2013	23:38	John P Hook	1
07055	Lead	SW-846 6010B	1	132251848006	08/17/2013	23:38	John P Hook	1
07061	Nickel	SW-846 6010B	1	132251848006	08/17/2013	23:38	John P Hook	1
07036	Selenium	SW-846 6010B	1	132251848006	08/17/2013	23:38	John P Hook	1
07066	Silver	SW-846 6010B	1	132251848006	08/17/2013	23:38	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132251848006	08/17/2013	23:38	John P Hook	1
00259	Mercury	SW-846 7470A	1	132255713005	08/16/2013	02:20	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848006	08/14/2013	17:05	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713005	08/14/2013	12:31	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: WS-008(Surface)081213 Filt Grab Surface Water

LL Sample # WW 7158547 Mayflower, AR LL Group # 1410958 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/12/2013 11:40 by HVA ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

008D-SDG#: PEK52-16

Submitted: 08/13/2013 09:20

Reported: 08/18/2013 09:11

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	0.0262	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	0.0060 J	0.0015	0.0100	1
07036	Selenium		7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver		7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium		7440-62-2	N.D.	0.0020	0.0050	1
		SW-846	7470A	mg/l	mg/l	mg/l	
00259	Mercury		7439-97-6	N.D.	0.000060	0.00020	1

#### General Sample Comments

This sample was filtered in the 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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132251848006	08/17/2013	23:42	John P Hook	1
07046	Barium	SW-846 6010B	1	132251848006	08/17/2013	23:42	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132251848006	08/17/2013	23:42	John P Hook	1
07051	Chromium	SW-846 6010B	1	132251848006	08/17/2013	23:42	John P Hook	1
07055	Lead	SW-846 6010B	1	132251848006	08/17/2013	23:42	John P Hook	1
07061	Nickel	SW-846 6010B	1	132251848006	08/17/2013	23:42	John P Hook	1
07036	Selenium	SW-846 6010B	1	132251848006	08/17/2013	23:42	John P Hook	1
07066	Silver	SW-846 6010B	1	132251848006	08/17/2013	23:42	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132251848006	08/17/2013	23:42	John P Hook	1
00259	Mercury	SW-846 7470A	1	132255713005	08/16/2013	02:26	Parker D Lindstrom	. 1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848006	08/14/2013	17:05	Kevin C Piaskowski	1
05713	WW SW846 Ha Digest	SW-846 7470A	1	132255713005	08/14/2013	12.31	Katlin N Cataldi	1



# Analysis Report

LL Sample # WW 7158548

# 14739

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

Sample Description: WS-BKG-002(Surface)081213 Filt Grab Surface Water

Mayflower, AR LL Group # 1410958 Pipeline Incident Account

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/12/2013 12:00 by HVA ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

BKGD-SDG#: PEK52-17

Submitted: 08/13/2013 09:20

Reported: 08/18/2013 09:11

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	s 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	0.0243	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	0.0016 J	0.0015	0.0100	1
07036	Selenium		7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver		7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium		7440-62-2	N.D.	0.0020	0.0050	1
		SW-846	7470A	mg/l	mg/l	mg/l	
00259	Mercury		7439-97-6	N.D.	0.000060	0.00020	1

#### General Sample Comments

This sample was filtered in the 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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132251848006	08/17/2013	23:46	John P Hook	1
07046	Barium	SW-846 6010B	1	132251848006	08/17/2013	23:46	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132251848006	08/17/2013	23:46	John P Hook	1
07051	Chromium	SW-846 6010B	1	132251848006	08/17/2013	23:46	John P Hook	1
07055	Lead	SW-846 6010B	1	132251848006	08/17/2013	23:46	John P Hook	1
07061	Nickel	SW-846 6010B	1	132251848006	08/17/2013	23:46	John P Hook	1
07036	Selenium	SW-846 6010B	1	132251848006	08/17/2013	23:46	John P Hook	1
07066	Silver	SW-846 6010B	1	132251848006	08/17/2013	23:46	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132251848006	08/17/2013	23:46	John P Hook	1
00259	Mercury	SW-846 7470A	1	132255713005	08/16/2013	02:28	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848006	08/14/2013	17:05	Kevin C Piaskowski	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132255713005	08/14/2013	12:31	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: WS-EB-28-081213 Filt Grab Water

LL Sample # WW 7158549 Mayflower, AR LL Group # 1410958 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

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

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

E28D-SDG#: PEK52-18EB

Submitted: 08/13/2013 09:20

Reported: 08/18/2013 09:11

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	0.0010 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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132251848006	08/17/2013	23:50	John P Hook	1
07046	Barium	SW-846 6010B	1	132251848006	08/17/2013	23:50	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132251848006	08/17/2013	23:50	John P Hook	1
07051	Chromium	SW-846 6010B	1	132251848006	08/17/2013	23:50	John P Hook	1
07055	Lead	SW-846 6010B	1	132251848006	08/17/2013	23:50	John P Hook	1
07061	Nickel	SW-846 6010B	1	132251848006	08/17/2013	23:50	John P Hook	1
07036	Selenium	SW-846 6010B	1	132251848006	08/17/2013	23:50	John P Hook	1
07066	Silver	SW-846 6010B	1	132251848006	08/17/2013	23:50	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132251848006	08/17/2013	23:50	John P Hook	1
00259	Mercury	SW-846 7470A	1	132255713005	08/16/2013	02:30	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848006	08/14/2013	17:05	Kevin C Piaskowski	1
05713	WW SW846 Ha Diaest	SW-846 7470A	1	132255713005	08/14/2013	12.31	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: DUP-WS-70-081213 Filt Grab Surface Water

LL Sample # WW 7158550 Mayflower, AR LL Group # 1410958 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/12/2013 by HVA ExxonMobil

Mobil Pipeline Company

PO Box 4416

Houston TX 77210-4416

D70D-SDG#: PEK52-19FD\*

Submitted: 08/13/2013 09:20

Reported: 08/18/2013 09:11

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	s 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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132251848006	08/17/2013	23:54	John P Hook	1
07046	Barium	SW-846 6010B	1	132251848006	08/17/2013	23:54	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132251848006	08/17/2013	23:54	John P Hook	1
07051	Chromium	SW-846 6010B	1	132251848006	08/17/2013	23:54	John P Hook	1
07055	Lead	SW-846 6010B	1	132251848006	08/17/2013	23:54	John P Hook	1
07061	Nickel	SW-846 6010B	1	132251848006	08/17/2013	23:54	John P Hook	1
07036	Selenium	SW-846 6010B	1	132251848006	08/17/2013	23:54	John P Hook	1
07066	Silver	SW-846 6010B	1	132251848006	08/17/2013	23:54	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132251848006	08/17/2013	23:54	John P Hook	1
00259	Mercury	SW-846 7470A	1	132255713005	08/16/2013	02:32	Parker D Lindstrom	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132251848006	08/14/2013	17:05	Kevin C Piaskowski	1
05713	WW SW846 Ha Digest	SW-846 7470A	1	132255713005	08/14/2013	12.31	Katlin N Cataldi	1

**Environmental** 



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Page 1 of 1

## Quality Control Summary

Client Name: ExxonMobil Group Number: 1410958

Reported: 08/18/13 at 09:11 AM

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

Analysis Name	Blank <u>Result</u>	Blank MDL**	Blank <u>LOO</u>	Report <u>Units</u>	LCS <u>%REC</u>	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 132251848006	Sample numi	ber(s): 71	.58532-715	8550					
Arsenic	N.D.	0.0068	0.0200	mg/l	97		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	95		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	96		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	95		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	96		88-110		
Nickel	N.D.	0.0015	0.0100	mg/l	98		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	93		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	108		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	97		90-110		
Batch number: 132255713005	Sample numi	ber(s): 71	.58532-715	8550					
Mercury	N.D.	0.00006 0	0.00020	mg/l	101		80-120		

#### 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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD <u>MAX</u>	BKG Conc	DUP Conc	DUP <u>RPD</u>	Dup RPD <u>Max</u>
Batch number: 132251848006	Sample	number(s	): 7158532	-71585	50 UNS	 PK: 7158544	BKG: 71585	44	
Arsenic Barium	99 98	101 98	81-123 78-118	3	20 20	N.D. 0.0260	N.D. 0.0276	0 (1) 6	20 20
Cadmium	97	97	83-116	1	20	N.D.	N.D.	0 (1)	20
Chromium Lead	98 98	98 97	81-120 75-125	0 1	20 20	N.D. N.D.	N.D. N.D.	0 (1) 0 (1)	20 20
Nickel Selenium	100 96	100 94	86-115 75-125	1 2	20 20	N.D. N.D.	N.D. N.D.	0 (1) 0 (1)	20 20
Silver	112	111	75-125	0	20	N.D.	N.D.	0 (1)	20
Vanadium	99	100	90-111	1	20	N.D.	N.D.	0 (1)	20
Batch number: 132255713005	_		): 7158532 80-120			PK: 7158532 N.D.	BKG: 71585		20
Mercury	102	102	80-120	0	20	N.D.	N.D.	0 (1)	20

<sup>\*-</sup> Outside of specification

<sup>\*\*-</sup>This limit was used in the evaluation of the final result for the blank

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.

# ExxonMobil Analysis Request/Chain of Custody

eurofins

Lancaster Laboratories Environmental Acct. # 14739 Fo

58532-50 Jofa

rmation			(4)	Matrix		ſ	(5)		An	alys	es l	Request	ed			CCD#.				
						1										SUK#:				
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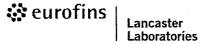
# ExxonMobil Analysis Request/Chain of Custody

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# Environmental Sample Administration / 4/0958 Receipt Documentation Log

Client/F	Project:	May flo 8/13/13	we	Shippin	g Containe	r Sealed: YES	NO (s					
	Receipt:	8/13/13		Custody Seal Present *: YES NO  * Custody seal was intact unless otherwise noted in the discrepancy section								
Source	Code:	60-1	<u> </u>	Package	•	Chilled	Not Chilled					
<u> </u>			Temperature of	Shipping Conta	iners							
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	1,3	TB	WI	Y	В	·					
2	(	4.7				1						
3		1.2										
4		0.5										
5		2.3		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \								
6	V	0.5		V								
Numbe	er of Trip Blan	ks received <u>N</u>	NOT listed on chain	of custody:	ø							
Paper	work Discrep	ancy/Unpacl	king Problems:									
Unpac	cker Signatur	e/Emp#:(	Eshl	3647	Date/T	ime: <u>8/13/</u>	13 1000					



# Environmental Sample Administration /4/0958 Receipt Documentation Log

Client/	Project:	Mayfe	lou c	Shippin	g Containe	er Sealed: YE	s) no
Date o	f Receipt:	8/13/	/(3	Custody	/ Seal Pres	sent*: (YÉ	S) NO
Time o	f Receipt: _	29	70		seal was inta	ct unless otherwise	noted in the
Source	e Code:	6	3-1	Package		Chilled	Not Chilled
			Temperature of	Shipping Contai	ners		
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	DTIJI	0,7	TB	WI	Y	В	
2		/					
3							
4							
5							
6							
	•		OT listed on chain ing Problems:	of custody:		<i>\$</i>	
		<u></u>	Cell	3/11/2		ghal.	1000
Unpacl	ker Signature	/Emp#: <u> </u>	well -	_ 2641	_ Date/Tii	me: <u>0/13/1</u> 2	) '



# **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)
С	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 ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

	Organic Qualifiers		Inorganic Qualifiers
Α	TIC is a possible aldol-condensation product	В	Value is <crdl, but="" th="" ≥idl<=""></crdl,>
В	Analyte was also detected in the blank	Ε	Estimated due to interference
С	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
Ε	Concentration exceeds the calibration range of	S	Method of standard additions (MSA) used
	the instrument		for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
Р	Concentration difference between primary and	W	Post digestion spike out of control limits
	confirmation columns >25%	*	Duplicate analysis not within control limits
U	Compound was not detected	+	Correlation coefficient for MSA < 0.995
X,Y,Z	Defined in case narrative		

### 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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