

## ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

August 11, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 08/05/2013

Group Number: 1409111

SDG: PEK08

PO Number: ARCADIS

Release Number: MAYFLOWER 1406

State of Sample Origin: AR

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
WS-014(1.5-2.0)080413 Filt Grab Surface Water	7150193
WS-014(5.5-6.0)080413 Filt Grab Surface Water	7150194
WS-012(1.5-2.0)080413 Filt Grab Surface Water	7150195
WS-012(5.0-5.5)080413 Filt Grab Surface Water	7150196
WS-010(1.5-2.0)080413 Filt Grab Surface Water	7150197
WS-010(3.5-4.0)080413 Filt Grab Surface Water	7150198
WS-006(0.5-1.0)080413 Filt Grab Surface Water	7150199
WS-005(Surface)080413 Filt Grab Surface Water	7150200
WS-011(1.5-2.0)080413 Filt Grab Surface Water	7150201
WS-011(5.0-5.5)080413 Filt Grab Surface Water	7150202
WS-003(Surface)080413 Filt Grab Surface Water	7150203
WS-002(Surface)080413 Filt Grab Surface Water	7150204
WS-018(Surface)080413 Filt Grab Surface Water	7150205
WS-007(0.5-1.0)080413 Filt Grab Surface Water	7150206
WS-001(0.5-1.0)080413 Filt Grab Surface Water	7150207
WS-EB-20-080413 Filt Grab Water	7150208
DUP-WS-66-080413 Filt Grab Surface Water	7150209

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

Respectfully Submitted,



Katherine A. Klinefelter  
Principal Specialist

(717) 556-7256

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Project Name: Mayflower, AR Pipeline Incident  
LLI Group #: 1409111

**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 #: 132181848005 (Sample number(s): 7150193-7150209 UNSPK: 7150199 BKG: 7150199)

The duplicate RPD for the following analyte(s) exceeded the acceptance window:  
Lead

Sample Description: WS-014(1.5-2.0)080413 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150193  
LL Group # 1409111  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 08:30 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 08/05/2013 10:10

Reported: 08/11/2013 08:13

4141F SDG#: PEK08-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0104	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
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	132181848005	08/09/2013 17:04	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848005	08/09/2013 17:04	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848005	08/09/2013 17:04	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848005	08/09/2013 17:04	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848005	08/09/2013 17:04	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848005	08/09/2013 17:04	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848005	08/10/2013 07:46	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132181848005	08/09/2013 17:04	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848005	08/09/2013 17:04	John P Hook	1
00259	Mercury	SW-846 7470A	1	132185713006	08/08/2013 05:40	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848005	08/07/2013 10:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713006	08/07/2013 16:05	Nelli S Markaryan	1

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

Sample Description: WS-014(5.5-6.0)080413 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150194  
LL Group # 1409111  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 08:40 by JW ExxonMobil  
Mobil Pipeline Company  
Submitted: 08/05/2013 10:10 PO Box 4416  
Reported: 08/11/2013 08:13 Houston TX 77210-4416

4145F SDG#: PEK08-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0118	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	132181848005	08/09/2013 17:07	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848005	08/09/2013 17:07	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848005	08/09/2013 17:07	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848005	08/09/2013 17:07	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848005	08/09/2013 17:07	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848005	08/09/2013 17:07	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848005	08/10/2013 07:50	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132181848005	08/09/2013 17:07	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848005	08/09/2013 17:07	John P Hook	1
00259	Mercury	SW-846 7470A	1	132185713006	08/08/2013 05:42	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848005	08/07/2013 10:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713006	08/07/2013 16:05	Nelli S Markaryan	1

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

Sample Description: WS-012(1.5-2.0)080413 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150195  
LL Group # 1409111  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 09:00 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 08/05/2013 10:10

Reported: 08/11/2013 08:13

4121F SDG#: PEK08-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0096	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
<b>SW-846 6010B</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	

### 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	132181848005	08/09/2013 17:18	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848005	08/09/2013 17:18	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848005	08/09/2013 17:18	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848005	08/09/2013 17:18	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848005	08/09/2013 17:18	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848005	08/09/2013 17:18	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848005	08/10/2013 08:02	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132181848005	08/09/2013 17:18	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848005	08/09/2013 17:18	John P Hook	1
00259	Mercury	SW-846 7470A	1	132185713006	08/08/2013 05:44	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848005	08/07/2013 10:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713006	08/07/2013 16:05	Nelli S Markaryan	1

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

Sample Description: WS-012(5.0-5.5)080413 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150196  
LL Group # 1409111  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 09:10 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 08/05/2013 10:10

Reported: 08/11/2013 08:13

4125F SDG#: PEK08-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0105	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
<b>SW-846 6010B</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	

### 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	132181848005	08/09/2013 17:22	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848005	08/09/2013 17:22	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848005	08/09/2013 17:22	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848005	08/09/2013 17:22	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848005	08/09/2013 17:22	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848005	08/09/2013 17:22	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848005	08/10/2013 08:05	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132181848005	08/09/2013 17:22	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848005	08/09/2013 17:22	John P Hook	1
00259	Mercury	SW-846 7470A	1	132185713006	08/08/2013 05:46	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848005	08/07/2013 10:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713006	08/07/2013 16:05	Nelli S Markaryan	1

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

Sample Description: WS-010(1.5-2.0)080413 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150197  
LL Group # 1409111  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 09:20 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 08/05/2013 10:10

Reported: 08/11/2013 08:13

4101F SDG#: PEK08-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0111	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
<b>SW-846 6010B</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	

### 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	132181848005	08/09/2013 17:25	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848005	08/09/2013 17:25	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848005	08/09/2013 17:25	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848005	08/09/2013 17:25	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848005	08/09/2013 17:25	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848005	08/09/2013 17:25	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848005	08/10/2013 08:09	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132181848005	08/09/2013 17:25	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848005	08/09/2013 17:25	John P Hook	1
00259	Mercury	SW-846 7470A	1	132185713006	08/08/2013 05:48	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848005	08/07/2013 10:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713006	08/07/2013 16:05	Nelli S Markaryan	1

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



Sample Description: WS-010(3.5-4.0)080413 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150198  
LL Group # 1409111  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 09:30 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 08/05/2013 10:10

Reported: 08/11/2013 08:13

4103F SDG#: PEK08-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0133	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
<b>SW-846 6010B</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	

### 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	132181848005	08/09/2013 17:29	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848005	08/09/2013 17:29	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848005	08/09/2013 17:29	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848005	08/09/2013 17:29	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848005	08/09/2013 17:29	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848005	08/09/2013 17:29	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848005	08/10/2013 08:13	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132181848005	08/09/2013 17:29	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848005	08/09/2013 17:29	John P Hook	1
00259	Mercury	SW-846 7470A	1	132185713006	08/08/2013 05:50	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848005	08/07/2013 10:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713006	08/07/2013 16:05	Nelli S Markaryan	1

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

Sample Description: WS-006(0.5-1.0)080413 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150199  
LL Group # 1409111  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 09:50 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 08/05/2013 10:10

Reported: 08/11/2013 08:13

4060F SDG#: PEK08-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0116	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	132181848005	08/09/2013 16:42	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848005	08/09/2013 16:42	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848005	08/09/2013 16:42	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848005	08/09/2013 16:42	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848005	08/09/2013 16:42	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848005	08/09/2013 16:42	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848005	08/10/2013 07:24	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132181848005	08/09/2013 16:42	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848005	08/09/2013 16:42	John P Hook	1
00259	Mercury	SW-846 7470A	1	132185713006	08/08/2013 05:52	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848005	08/07/2013 10:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713006	08/07/2013 16:05	Nelli S Markaryan	1

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

Sample Description: WS-005 (Surface) 080413 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150200  
LL Group # 1409111  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 10:20 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 08/05/2013 10:10

Reported: 08/11/2013 08:13

405SF SDG#: PEK08-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0080	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
<b>SW-846 6010B</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	

### 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	132181848005	08/09/2013 17:32	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848005	08/09/2013 17:32	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848005	08/09/2013 17:32	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848005	08/09/2013 17:32	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848005	08/09/2013 17:32	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848005	08/09/2013 17:32	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848005	08/10/2013 08:17	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132181848005	08/09/2013 17:32	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848005	08/09/2013 17:32	John P Hook	1
00259	Mercury	SW-846 7470A	1	132185713006	08/08/2013 05:58	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848005	08/07/2013 10:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713006	08/07/2013 16:05	Nelli S Markaryan	1

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

Sample Description: WS-011(1.5-2.0)080413 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150201  
LL Group # 1409111  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 10:40 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 08/05/2013 10:10

Reported: 08/11/2013 08:13

4111F SDG#: PEK08-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0098	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	132181848005	08/09/2013 17:36	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848005	08/09/2013 17:36	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848005	08/09/2013 17:36	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848005	08/09/2013 17:36	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848005	08/09/2013 17:36	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848005	08/09/2013 17:36	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848005	08/10/2013 08:21	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132181848005	08/09/2013 17:36	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848005	08/09/2013 17:36	John P Hook	1
00259	Mercury	SW-846 7470A	1	132185713006	08/08/2013 06:00	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848005	08/07/2013 10:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713006	08/07/2013 16:05	Nelli S Markaryan	1

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

Sample Description: WS-011(5.0-5.5)080413 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150202  
LL Group # 1409111  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 10:50 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 08/05/2013 10:10

Reported: 08/11/2013 08:13

4115F SDG#: PEK08-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0113	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
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	132181848005	08/09/2013 17:40	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848005	08/09/2013 17:40	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848005	08/09/2013 17:40	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848005	08/09/2013 17:40	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848005	08/09/2013 17:40	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848005	08/09/2013 17:40	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848005	08/10/2013 08:25	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132181848005	08/09/2013 17:40	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848005	08/09/2013 17:40	John P Hook	1
00259	Mercury	SW-846 7470A	1	132185713006	08/08/2013 06:02	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848005	08/07/2013 10:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713006	08/07/2013 16:05	Nelli S Markaryan	1

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

Sample Description: WS-003 (Surface) 080413 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150203  
LL Group # 1409111  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 11:00 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 08/05/2013 10:10

Reported: 08/11/2013 08:13

403SF SDG#: PEK08-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0111	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
<b>SW-846 6010B</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	

### 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	132181848005	08/09/2013 17:43	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848005	08/09/2013 17:43	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848005	08/09/2013 17:43	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848005	08/09/2013 17:43	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848005	08/09/2013 17:43	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848005	08/09/2013 17:43	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848005	08/10/2013 08:28	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132181848005	08/09/2013 17:43	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848005	08/09/2013 17:43	John P Hook	1
00259	Mercury	SW-846 7470A	1	132185713006	08/08/2013 06:11	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848005	08/07/2013 10:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713006	08/07/2013 16:05	Nelli S Markaryan	1

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

Sample Description: WS-002 (Surface) 080413 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150204  
LL Group # 1409111  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 11:40 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 08/05/2013 10:10

Reported: 08/11/2013 08:13

402SF SDG#: PEK08-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0095	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
<b>SW-846 6010B</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	

### 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	132181848005	08/09/2013 17:47	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848005	08/09/2013 17:47	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848005	08/09/2013 17:47	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848005	08/09/2013 17:47	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848005	08/09/2013 17:47	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848005	08/09/2013 17:47	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848005	08/10/2013 08:32	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132181848005	08/09/2013 17:47	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848005	08/09/2013 17:47	John P Hook	1
00259	Mercury	SW-846 7470A	1	132185713006	08/08/2013 06:13	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848005	08/07/2013 10:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713006	08/07/2013 16:05	Nelli S Markaryan	1

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

Sample Description: WS-018 (Surface) 080413 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150205  
LL Group # 1409111  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 11:20 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 08/05/2013 10:10

Reported: 08/11/2013 08:13

418SF SDG#: PEK08-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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
<b>SW-846 6010B</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	

### 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	132181848005	08/09/2013 17:50	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848005	08/09/2013 17:50	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848005	08/09/2013 17:50	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848005	08/09/2013 17:50	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848005	08/09/2013 17:50	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848005	08/09/2013 17:50	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848005	08/10/2013 08:36	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132181848005	08/09/2013 17:50	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848005	08/09/2013 17:50	John P Hook	1
00259	Mercury	SW-846 7470A	1	132185713006	08/08/2013 06:15	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848005	08/07/2013 10:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713006	08/07/2013 16:05	Nelli S Markaryan	1

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



Sample Description: WS-007(0.5-1.0)080413 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150206  
LL Group # 1409111  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 12:00 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 08/05/2013 10:10

Reported: 08/11/2013 08:13

4070F SDG#: PEK08-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0185	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
<b>SW-846 6010B</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
<b>SW-846 7470A</b>			<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	

### 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	132181848005	08/09/2013 18:01	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848005	08/09/2013 18:01	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848005	08/09/2013 18:01	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848005	08/09/2013 18:01	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848005	08/09/2013 18:01	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848005	08/09/2013 18:01	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848005	08/10/2013 08:47	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132181848005	08/09/2013 18:01	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848005	08/09/2013 18:01	John P Hook	1
00259	Mercury	SW-846 7470A	1	132185713006	08/08/2013 06:17	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848005	08/07/2013 10:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713006	08/07/2013 16:05	Nelli S Markaryan	1

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

Sample Description: WS-001(0.5-1.0)080413 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150207  
LL Group # 1409111  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 12:10 by JW

ExxonMobil  
Mobil Pipeline Company  
PO Box 4416  
Houston TX 77210-4416

Submitted: 08/05/2013 10:10

Reported: 08/11/2013 08:13

4010F SDG#: PEK08-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0134	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
	<b>SW-846 7470A</b>		<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	132181848005	08/09/2013 18:05	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848005	08/09/2013 18:05	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848005	08/09/2013 18:05	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848005	08/09/2013 18:05	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848005	08/09/2013 18:05	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848005	08/09/2013 18:05	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848005	08/10/2013 08:51	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132181848005	08/09/2013 18:05	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848005	08/09/2013 18:05	John P Hook	1
00259	Mercury	SW-846 7470A	1	132185713006	08/08/2013 06:23	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848005	08/07/2013 10:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713006	08/07/2013 16:05	Nelli S Markaryan	1

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

Sample Description: **WS-EB-20-080413 Filt Grab Water**  
**Mayflower, AR**  
**Pipeline Incident**

LL Sample # **WW 7150208**  
 LL Group # **1409111**  
 Account # **14739**

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

Collected: 08/04/2013 16:00 by JW ExxonMobil  
 Submitted: 08/05/2013 10:10 Mobil Pipeline Company  
 Reported: 08/11/2013 08:13 PO Box 4416  
 Houston TX 77210-4416

EB20F SDG#: PEK08-16

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.00059 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
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	132181848005	08/09/2013 18:08	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848005	08/09/2013 18:08	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848005	08/09/2013 18:08	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848005	08/09/2013 18:08	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848005	08/09/2013 18:08	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848005	08/09/2013 18:08	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848005	08/10/2013 08:55	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132181848005	08/09/2013 18:08	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848005	08/09/2013 18:08	John P Hook	1
00259	Mercury	SW-846 7470A	1	132185713006	08/08/2013 06:25	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848005	08/07/2013 10:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713006	08/07/2013 16:05	Nelli S Markaryan	1

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

Sample Description: DUP-WS-66-080413 Filt Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7150209  
LL Group # 1409111  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 08/04/2013 by JW

ExxonMobil

Mobil Pipeline Company

Submitted: 08/05/2013 10:10

PO Box 4416

Reported: 08/11/2013 08:13

Houston TX 77210-4416

DP66F SDG#: PEK08-17FD\*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>Metals Dissolved</b>						
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0112	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		<b>SW-846 7470A</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	
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	132181848005	08/09/2013 18:12	John P Hook	1
07046	Barium	SW-846 6010B	1	132181848005	08/09/2013 18:12	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132181848005	08/09/2013 18:12	John P Hook	1
07051	Chromium	SW-846 6010B	1	132181848005	08/09/2013 18:12	John P Hook	1
07055	Lead	SW-846 6010B	1	132181848005	08/09/2013 18:12	John P Hook	1
07061	Nickel	SW-846 6010B	1	132181848005	08/09/2013 18:12	John P Hook	1
07036	Selenium	SW-846 6010B	1	132181848005	08/10/2013 08:59	Eric L Eby	1
07066	Silver	SW-846 6010B	1	132181848005	08/09/2013 18:12	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132181848005	08/09/2013 18:12	John P Hook	1
00259	Mercury	SW-846 7470A	1	132185713006	08/08/2013 06:27	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132181848005	08/07/2013 10:30	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132185713006	08/07/2013 16:05	Nelli S Markaryan	1

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

## Quality Control Summary

Client Name: ExxonMobil  
Reported: 08/11/13 at 08:13 AM

Group Number: 1409111

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: 132181848005	Sample number(s): 7150193-7150209								
Arsenic	N.D.	0.0068	0.0200	mg/l	98		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	99		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	99		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	100		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	97		88-110		
Nickel	N.D.	0.0015	0.0100	mg/l	102		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	99		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	108		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	98		90-110		
Batch number: 132185713006	Sample number(s): 7150193-7150209								
Mercury	N.D.	0.00006	0.00020	mg/l	92		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: 132181848005	Sample number(s): 7150193-7150209 UNSPK: 7150199 BKG: 7150199								
Arsenic	101	100	81-123	1	20	N.D.	N.D.	0 (1)	20
Barium	99	98	78-118	1	20	0.0116	0.0110	5 (1)	20
Cadmium	98	98	83-116	1	20	N.D.	N.D.	0 (1)	20
Chromium	100	99	81-120	1	20	N.D.	N.D.	0 (1)	20
Lead	96	96	75-125	0	20	N.D.	0.0105 J	200* (1)	20
Nickel	102	102	86-115	1	20	N.D.	N.D.	0 (1)	20
Selenium	102	98	75-125	5	20	N.D.	N.D.	0 (1)	20
Silver	108	106	75-125	2	20	N.D.	N.D.	0 (1)	20
Vanadium	98	97	90-111	1	20	N.D.	N.D.	0 (1)	20
Batch number: 132185713006	Sample number(s): 7150193-7150209 UNSPK: 7150202 BKG: 7150202								
Mercury	95	92	80-120	3	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 # 1409111

Sample # 7150193-209

1 of 2

Instructions on reverse side correspond with circled numbers.

1 Client Information				4 Matrix				5 Analyses Requested						6 Remarks	
Facility #/SID <u>MAYFLOWER PIPELINE INCIDENT</u>				Soil <input type="checkbox"/>	Water <input type="checkbox"/>	Oil <input type="checkbox"/>	Total # of Containers	Preservation Code						SCR#: _____ Preservation Codes H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other	
Site Address <u>MAYFLOWER, AR</u>								Potable <input type="checkbox"/>	NPDES <input type="checkbox"/>	Air <input type="checkbox"/>	H				
ExxonMobil PM <u>SCOTT BUSHROE</u>		Cost Center/AFE		Ground <input type="checkbox"/>	Surface <input checked="" type="checkbox"/>										
Consultant/Office <u>ARCADIS</u>															
Consultant PM <u>STEVE BARRICK</u>		Consultant Phone # <u>919 202 6799</u>													
Sampler <u>J. WALDRON / S. LIPIKA</u>															
2 Sample Identification		3 Collected		Grab	Composite										
Date	Time	Date	Time			Soil	Water	Oil							
<u>WS-014 (1.5-2.0) 080413</u>	<u>8/4/13 0830</u>	<u>8/4/13</u>	<u>0830</u>	X			9	X	X	X	X	X			
<u>WS-014 (5.5-6.0) 080413</u>	<u>8/4/13 0840</u>	<u>8/4/13</u>	<u>0840</u>	X			9	X	X	X	X	X			
<u>WS-012 (1.5-2.0) 080413</u>	<u>8/4/13 0900</u>	<u>8/4/13</u>	<u>0900</u>	X			9	X	X	X	X	X			
<u>WS-012 (5.0-5.5) 080413</u>	<u>8/4/13 0910</u>	<u>8/4/13</u>	<u>0910</u>	X			9	X	X	X	X	X			
<u>WS-010 (1.5-2.0) 080413</u>	<u>8/4/13 0920</u>	<u>8/4/13</u>	<u>0920</u>	X			9	X	X	X	X	X			
<u>WS-010 (3.5-4.0) 080413</u>	<u>8/4/13 0930</u>	<u>8/4/13</u>	<u>0930</u>	X			9	X	X	X	X	X			
<u>WS-010 (0.5-1.0) 080413</u>	<u>8/4/13 0950</u>	<u>8/4/13</u>	<u>0950</u>	X			9	X	X	X	X	X			
<u>WS-005 (Surface) 080413</u>	<u>8/4/13 1020</u>	<u>8/4/13</u>	<u>1020</u>	X			9	X	X	X	X	X			
<u>WS-011 (1.5-2.0) 080413</u>	<u>8/4/13 1040</u>	<u>8/4/13</u>	<u>1040</u>	X			9	X	X	X	X	X			
<u>WS-011 (5.0-5.5) 080413</u>	<u>8/4/13 1050</u>	<u>8/4/13</u>	<u>1050</u>	X			9	X	X	X	X	X			
<u>WS-003 (Surface) 080413</u>	<u>8/4/13 1100</u>	<u>8/4/13</u>	<u>1100</u>	X			9	X	X	X	X	X			
<u>WS-002 (Surface) 080413</u>	<u>8/4/13 1140</u>	<u>8/4/13</u>	<u>1140</u>	X			9	X	X	X	X	X			
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by <u>[Signature]</u>		Date <u>8/4/13</u>	Time <u>1600</u>	Received by <u>[Signature]</u>		Date	Time	9			
Standard <input checked="" type="radio"/> 5 day      4 day				Relinquished by		Date	Time	Received by		Date	Time				
72 hour      48 hour      24 hour				Relinquished by		Date	Time	Received by		Date	Time				
8 Data Package (circle if required)				Relinquished by Commercial Carrier		Temperature Upon Receipt <u>03-3.0°C</u>		Received by <u>Brennly March</u>		Date <u>8-5-13</u>	Time <u>1010</u>	Custody Seals Intact? <input checked="" type="radio"/> Yes      No			
Type I - Full		EDD (circle if required)		UPS _____ FedEx _____ Other <u>SOUTHWEST</u>											
Type VI (Raw Data)		Locus EIM (default)													
NJ Reduced		Other _____													
Other _____															

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

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

# ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories  
Environmental

Acct. # 14739 For Eurofins Lancaster Laboratories Environmental use only  
Group # 1409111 Sample # 7150193-209  
Instructions on reverse side correspond with circled numbers.

2 of 2

<b>1 Client Information</b>				<b>4 Matrix</b>				<b>5 Analyses Requested</b>								SCR#: _____																							
Facility #/SID <u>MAY FLOWER PIPELINE INCIDENT</u>				<input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> NPDES <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Air				<b>Preservation Code</b>								<b>Preservation Codes</b> H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other																							
Site Address <u>MAY FLOWER, AR.</u>								<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>H</th> <th>N</th> <th>A</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> </tr> </table>										H	N	A												X	X	X	X	X	X	X	X
H	N	A																																					
X	X	X	X	X	X	X	X	X	X	X	X	X	X																										
ExxonMobil PM <u>SCOTT BUSHROE</u>		Cost Center/AFE		Total # of Containers				VOC's 82600 B PAH's 8270 SIM HEAVY METALS U.V.I. AS, M, X DISS METALS HEX OIL & GREASE								<b>6 Remarks</b>																							
Consultant/Office <u>ARCADIS</u>																																							
Consultant PM <u>STEVE BARRICK</u>		Consultant Phone # <u>919 202 6799</u>		Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/>																																			
Sampler <u>J. WALDRON / S. LIPKA</u>																																							
<b>2 Sample Identification</b>		<b>Collected</b>		<b>3</b>																																			
		Date	Time	Grab	Composite																																		
<u>WS-018 (SURFACE) 080413</u>		<u>8/4/13</u>	<u>1120</u>	X																																			
<u>WS-007 (0.5-1.0) 080413</u>		<u>8/4/13</u>	<u>1200</u>	X																																			
<u>WS-001 (0.5-1.0) 080413</u>		<u>8/4/13</u>	<u>1240</u>	X																																			
<u>WS-TB-115-080413</u>		<u>8/4/13</u>	<u>—</u>	X																																			
<u>WS-EB-20-080413</u>		<u>8/4/13</u>	<u>—</u>	X																																			
<u>DUP-WS-60-080413</u>		<u>8/4/13</u>	<u>—</u>	X																																			
<b>7 Turnaround Time Requested (TAT) (please circle)</b>						Relinquished by <u>[Signature]</u>		Date <u>8/4/13</u>		Time <u>1600</u>		Received by <u>[Signature]</u>		Date		Time <b>9</b>																							
Standard <u>5 day</u> 4 day						Relinquished by		Date		Time		Received by		Date		Time																							
72 hour      48 hour      24 hour						Relinquished by		Date		Time		Received by		Date		Time																							
<b>8 Data Package (circle if required)</b>				<b>EDD (circle if required)</b>				Relinquished by Commercial Carrier				Received by																											
Type I - Full				Locus EIM (default)				UPS _____ FedEx _____ Other <u>SOUTHWEST</u>				<u>[Signature]</u>																											
Type VI (Raw Data)				Other _____				Temperature Upon Receipt <u>0.3-3.0°C</u>				Custody Seals Intact? <u>Yes</u> No																											
NJ Reduced												Date <u>8-5-13</u> Time <u>1010</u>																											
Other _____																																							

Rachel L. Kreamer

Acct 14739, Gr. 1409111, Samples 7150193-209

**From:** Chandler, Jennifer [Jennifer.Chandler@arcadis-us.com]  
**Sent:** Monday, August 05, 2013 4:47 PM  
**To:** Rachel L. Kreamer  
**Subject:** RE: More COC/Label Discrepancies

Rachel,

Please use WS-011(1.5-2.0), as listed on the COC.  
As for sample WS-EB-20-080413, yes, please use 1600.

Thanks,

Jennifer Chandler | Scientist 2 | jennifer.chandler@arcadis-us.com ARCADIS U.S., Inc. |  
630 Plaza Drive, Suite 100 | Highlands Ranch, CO, 80129 T. 303.471.3549 | F. 720.344.3535  
www.arcadis-us.com Please consider the environment before printing this email.

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

From: Rachel L. Kreamer [mailto:RKreamer@lancasterlabs.com]  
Sent: Monday, August 05, 2013 2:41 PM  
To: Chandler, Jennifer  
Cc: Kathy Klinefelter  
Subject: More COC/Label Discrepancies

Jennifer,

So sorry, but I have a few more questions. I attached chains and the first page of the doc log for the surface waters.

On the chain from 8/3, sample WS-011(1.5-2.0) is labeled WS-11(1.0-1.5).  
What should we use on the report?

On the chain from 8/4, sample WS-EB-20-080413 has no collection time.  
The labels list a collection time of 1600. Should we use 1600?

Thanks,  
RADchel

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

From: 39Scanner@lancasterlabs.com [mailto:39Scanner@lancasterlabs.com]  
Sent: Monday, August 05, 2013 4:34 PM  
To: Rachel L. Kreamer  
Subject:

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

Scan Date: 08.05.2013 16:34:28 (-0400)  
Queries to: 39Scanner@lancasterlabs.com

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Environmental Sample Administration  
Receipt Documentation Log

1409111

Client/Project: Exxon mobil  
Date of Receipt: 8.5.13  
Time of Receipt: 1010  
Source Code: 01

Shipping Container Sealed:  YES NO

Custody Seal Present \* :  YES NO

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

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	DH21	0.5	TB	WI	Y	B	
2	↓	0.3	↓	↓	↓	↓	
3	↓	1.5	↓	↓	↓	↓	
4	↓	1.9	↓	↓	↓	↓	
5	↓	1.2	↓	↓	↓	↓	
6	↓	0.5	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:

~~WS-011 (1.0 - BUB 2299 ③ 8.5.13)~~  
 WS-011 (1.5-2.0) = WS-011 (1.0-1.5) Gr. 1409108 + 1409109  
 WS-EB-20 Time = 1600 Gr. 1409110 + 1409111

Unpacker Signature/Emp#: Branely Barclay 2299 Date/Time: 8.5.13 1213

Issued by Dept. 6042 Management

Environmental Sample Administration  
Receipt Documentation Log

1409111

Client/Project: Exxon mobil  
Date of Receipt: 8.5.13  
Time of Receipt: 1010  
Source Code: 01

Shipping Container Sealed:  YES NO  
Custody Seal Present \* :  YES NO  
\* Custody seal was intact unless otherwise noted in the discrepancy section  
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
77	DH121	0.9	TB	WI	Y	B	
78	↓	0.6	↓	↓	↓	↓	
79	↓	1.2	↓	↓	↓	↓	
710	↓	3.0	↓	↓	↓	↓	
711	1396	2.4	ST	↓	↓	↓	
712	DH121	1.5	TB	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Unpacker Signature/Emp#: Buandy Barclay 2299 Date/Time: 8.5.13 1213

Issued by Dept. 6042 Management

Environmental Sample Administration  
Receipt Documentation Log

1409111

Client/Project: Exxon mobil  
 Date of Receipt: 8.5.13  
 Time of Receipt: 1010  
 Source Code: 01

Shipping Container Sealed:  YES NO  
 Custody Seal Present \* :  YES NO  
\* Custody seal was intact unless otherwise noted in the discrepancy section  
 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
13	DH121	1.0	TB	WI	Y	B	
14	↓	2.9	↓	↓	↓	↓	
3	/						
4	/						
5	/						
6	/						

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

Paperwork Discrepancy/Unpacking Problems:

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Unpacker Signature/Emp#: Biranchy Banckley <sup>2299</sup> Date/Time: 8.5.13 1213

Issued by Dept. 6042 Management

# Explanation of Symbols and Abbreviations

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

<b>RL</b>	Reporting Limit	<b>BMQL</b>	Below Minimum Quantitation Level
<b>N.D.</b>	none detected	<b>MPN</b>	Most Probable Number
<b>TNTC</b>	Too Numerous To Count	<b>CP Units</b>	cobalt-chloroplatinate units
<b>IU</b>	International Units	<b>NTU</b>	nephelometric turbidity units
<b>umhos/cm</b>	micromhos/cm	<b>ng</b>	nanogram(s)
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>meq</b>	milliequivalents	<b>lb.</b>	pound(s)
<b>g</b>	gram(s)	<b>kg</b>	kilogram(s)
<b>µg</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>mL</b>	milliliter(s)	<b>L</b>	liter(s)
<b>m<sup>3</sup></b>	cubic meter(s)	<b>µL</b>	microliter(s)
		<b>pg/L</b>	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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