

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

ExxonMobil
PO Box 4592
Houston TX 77210-4592

March 31, 2014

Project: Mayflower, AR Pipeline Incident

Submittal Date: 03/21/2014
Group Number: 1461219
SDG: PEM91
PO Number: 4410181435
Release Number: SIXSMITH
State of Sample Origin: AR

Client Sample Description

Lancaster Labs (LL) #

WS-020(Surface)032014 Grab Surface Water	7402485
WS-007(0.5-1.0)032014 Grab Surface Water	7402486
WS-009(Surface)032014 Grab Surface Water	7402487
WS-001(0.5-1.0)032014 Grab Surface Water	7402488
WS-021(Surface)032014 Grab Surface Water	7402489
WS-004(0.5-1.0)032014 Grab Surface Water	7402490
WS-EB-132-032014 Grab Water	7402491
DUP-WS-129-032014 Grab Surface Water	7402492
WS-011(1.5-2.0)032014 Grab Surface Water	7402493
WS-011(5.0-5.5)032014 Grab Surface Water	7402494
WS-014(1.5-2.0)032014 Grab Surface Water	7402495
WS-014(6.0-6.5)032014 Grab Surface Water	7402496
WS-015(1.5-2.0)032014 Grab Surface Water	7402497
WS-015(4.0-4.5)032014 Grab Surface Water	7402498
WS-012(1.5-2.0)032014 Grab Surface Water	7402499
WS-012(6.0-6.5)032014 Grab Surface Water	7402500
WS-010(1.5-2.0)032014 Grab Surface Water	7402501
WS-010(4.5-5.0)032014 Grab Surface Water	7402502
WS-006(0.5-1.0)032014 Grab Surface Water	7402503
WS-006(0.5-1.0)032014MS Grab Surface Water	7402504
WS-006(0.5-1.0)032014MSD Grab Surface Water	7402505

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

ELECTRONIC ARCADIS
COPY TO

Attn: Stephen Barrick

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

Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1461219

General Comments:

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

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

Project specific QC samples are included in this data set

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

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

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

Analysis Specific Comments:**SW-846 8270C SIM, GC/MS Semivolatiles**

Sample #s: 7402494, 7402495

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

Batch #: 14084WAG026 (Sample number(s): 7402485-7402505 UNSPK: 7402503)

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7402494, 7402495

Sample Description: WS-020 (Surface) 032014 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402485
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 09:40 by LMH ExxonMobil
PO Box 4592
Submitted: 03/21/2014 09:35 Houston TX 77210-4592
Reported: 03/31/2014 15:46

2020- SDG#: PEM91-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 03:30	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: WS-007(0.5-1.0)032014 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402486
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 09:50 by LMH ExxonMobil
PO Box 4592
Submitted: 03/21/2014 09:35 Houston TX 77210-4592
Reported: 03/31/2014 15:46

2007- SDG#: PEM91-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.020 J	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.021 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.054	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.026 J	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.021 J	0.010	0.051	1
08357	Chrysene	218-01-9	0.035 J	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.011 J	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.068	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.027 J	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	0.045 J	0.010	0.051	1

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 03:58	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: WS-009 (Surface) 032014 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402487
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 09:55 by LMH ExxonMobil
PO Box 4592
Submitted: 03/21/2014 09:35 Houston TX 77210-4592
Reported: 03/31/2014 15:46

2009- SDG#: PEM91-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 04:26	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: WS-001(0.5-1.0)032014 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402488
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 10:00 by LMH ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 03/21/2014 09:35
Reported: 03/31/2014 15:46

2001- SDG#: PEM91-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 04:54	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: WS-021(Surface)032014 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402489
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 10:05 by LMH ExxonMobil
PO Box 4592
Submitted: 03/21/2014 09:35 Houston TX 77210-4592
Reported: 03/31/2014 15:46

2021- SDG#: PEM91-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 05:22	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: WS-004(0.5-1.0)032014 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402490
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 10:10 by LMH ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 03/21/2014 09:35
Reported: 03/31/2014 15:46

2004- SDG#: PEM91-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.021 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.034 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.037 J	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.027 J	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.037 J	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.039 J	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 05:49	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: **WS-EB-132-032014 Grab Water**
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # **WW 7402491**
 LL Group # **1461219**
 Account # **14739**

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

Collected: 03/20/2014 14:00 by LMH ExxonMobil
 PO Box 4592
 Houston TX 77210-4592

Submitted: 03/21/2014 09:35
 Reported: 03/31/2014 15:46

20132 SDG#: PEM91-07EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 06:17	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: DUP-WS-129-032014 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402492
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 by LMH

ExxonMobil

PO Box 4592

Submitted: 03/21/2014 09:35

Houston TX 77210-4592

Reported: 03/31/2014 15:46

20129 SDG#: PEM91-08FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 06:45	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: WS-011(1.5-2.0)032014 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402493
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 11:10 by LMH ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 03/21/2014 09:35
Reported: 03/31/2014 15:46

20111 SDG#: PEM91-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 07:13	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: WS-011(5.0-5.5)032014 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402494
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 11:15 by LMH ExxonMobil
PO Box 4592
Submitted: 03/21/2014 09:35 Houston TX 77210-4592
Reported: 03/31/2014 15:46

20112 SDG#: PEM91-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.050	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.050	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 07:41	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: WS-014(1.5-2.0)032014 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402495
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 11:50 by LMH ExxonMobil
PO Box 4592
Submitted: 03/21/2014 09:35 Houston TX 77210-4592
Reported: 03/31/2014 15:46

20141 SDG#: PEM91-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 08:09	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: WS-014(6.0-6.5)032014 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402496
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 11:55 by LMH ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 03/21/2014 09:35
Reported: 03/31/2014 15:46

20142 SDG#: PEM91-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 08:37	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: WS-015(1.5-2.0)032014 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402497
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 12:05 by LMH ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 03/21/2014 09:35
Reported: 03/31/2014 15:46

20151 SDG#: PEM91-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 09:05	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: WS-015(4.0-4.5)032014 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402498
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 12:10 by LMH ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 03/21/2014 09:35
Reported: 03/31/2014 15:46

20152 SDG#: PEM91-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 09:33	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: WS-012(1.5-2.0)032014 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402499
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 12:20 by LMH ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 03/21/2014 09:35
Reported: 03/31/2014 15:46

20121 SDG#: PEM91-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 10:01	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: WS-012(6.0-6.5)032014 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402500
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 12:25 by LMH ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 03/21/2014 09:35
Reported: 03/31/2014 15:46

20122 SDG#: PEM91-16

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 10:29	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: WS-010(1.5-2.0)032014 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402501
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 12:35 by LMH ExxonMobil
PO Box 4592
Submitted: 03/21/2014 09:35 Houston TX 77210-4592
Reported: 03/31/2014 15:46

20101 SDG#: PEM91-17

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 10:57	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: WS-010(4.5-5.0)032014 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402502
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 12:40 by LMH ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 03/21/2014 09:35
Reported: 03/31/2014 15:46

20102 SDG#: PEM91-18

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 11:24	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: WS-006(0.5-1.0)032014 Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402503
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 12:50 by LMH ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 03/21/2014 09:35
Reported: 03/31/2014 15:46

2006- SDG#: PEM91-19BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.052	1
08357	Anthracene	120-12-7	N.D.	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.052	1
08357	Chrysene	218-01-9	N.D.	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.052	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.052	1
08357	Fluorene	86-73-7	N.D.	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.052	1
08357	Naphthalene	91-20-3	N.D.	0.031	0.052	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.052	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 11:52	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: WS-006(0.5-1.0)032014MS Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402504
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 12:50 by LMH ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 03/21/2014 09:35
Reported: 03/31/2014 15:46

2006- SDG#: PEM91-19MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	1.0	0.010	0.051	1
08357	Acenaphthylene	208-96-8	0.95	0.010	0.051	1
08357	Anthracene	120-12-7	0.92	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.89	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.65	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.79	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.59	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.65	0.010	0.051	1
08357	Chrysene	218-01-9	0.74	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.63	0.010	0.051	1
08357	Fluoranthene	206-44-0	1.1	0.010	0.051	1
08357	Fluorene	86-73-7	1.0	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.60	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	0.96	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.94	0.010	0.051	1
08357	Naphthalene	91-20-3	0.99	0.030	0.051	1
08357	Phenanthrene	85-01-8	0.94	0.030	0.051	1
08357	Pyrene	129-00-0	0.75	0.010	0.051	1

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 12:20	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Sample Description: WS-006 (0.5-1.0) 032014MSD Grab Surface Water
S20135565 Mayflower, AR
Pipeline Incident

LL Sample # WW 7402505
LL Group # 1461219
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 03/20/2014 12:50 by LMH ExxonMobil
PO Box 4592
Houston TX 77210-4592
Submitted: 03/21/2014 09:35
Reported: 03/31/2014 15:46

2006- SDG#: PEM91-19MSD*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	1.1	0.010	0.052	1
08357	Acenaphthylene	208-96-8	0.99	0.010	0.052	1
08357	Anthracene	120-12-7	0.97	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	1.0	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	0.80	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	0.95	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	0.72	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	0.84	0.010	0.052	1
08357	Chrysene	218-01-9	0.90	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	0.76	0.010	0.052	1
08357	Fluoranthene	206-44-0	1.1	0.010	0.052	1
08357	Fluorene	86-73-7	1.1	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.74	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	1.0	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	1.0	0.010	0.052	1
08357	Naphthalene	91-20-3	1.0	0.031	0.052	1
08357	Phenanthrene	85-01-8	1.0	0.031	0.052	1
08357	Pyrene	129-00-0	0.93	0.010	0.052	1

General Sample Comments

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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14084WAG026	03/29/2014 12:48	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14084WAG026	03/26/2014 10:00	Anna E Stager	1

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

Quality Control Summary

Client Name: ExxonMobil
Reported: 03/31/14 at 03:46 PM

Group Number: 1461219

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: 14084WAG026	Sample number(s): 7402485-7402505								
Acenaphthene	N.D.	0.0025	0.013	ug/l	99		83-119		
Acenaphthylene	N.D.	0.0025	0.013	ug/l	93		81-130		
Anthracene	N.D.	0.0025	0.013	ug/l	98		83-125		
Benzo(a)anthracene	N.D.	0.0025	0.013	ug/l	98		79-122		
Benzo(a)pyrene	N.D.	0.0025	0.013	ug/l	93		80-121		
Benzo(b)fluoranthene	N.D.	0.0025	0.013	ug/l	105		79-136		
Benzo(g,h,i)perylene	N.D.	0.0025	0.013	ug/l	83		72-132		
Benzo(k)fluoranthene	N.D.	0.0025	0.013	ug/l	87		81-131		
Chrysene	N.D.	0.0025	0.013	ug/l	90		84-118		
Dibenz(a,h)anthracene	N.D.	0.0025	0.013	ug/l	75		66-133		
Fluoranthene	N.D.	0.0025	0.013	ug/l	104		84-124		
Fluorene	N.D.	0.0025	0.013	ug/l	102		82-119		
Indeno(1,2,3-cd)pyrene	N.D.	0.0025	0.013	ug/l	80		68-132		
1-Methylnaphthalene	N.D.	0.0025	0.013	ug/l	96		86-130		
2-Methylnaphthalene	N.D.	0.0025	0.013	ug/l	93		81-131		
Naphthalene	N.D.	0.0075	0.013	ug/l	95		82-122		
Phenanthrene	N.D.	0.0075	0.013	ug/l	92		83-116		
Pyrene	N.D.	0.0025	0.013	ug/l	87		78-125		

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: 14084WAG026	Sample number(s): 7402485-7402505 UNSPK: 7402503								
Acenaphthene	98	102	60-130	6	30				
Acenaphthylene	94	95	75-132	4	30				
Anthracene	90	94	69-119	6	30				
Benzo(a)anthracene	87	97	37-135	13	30				
Benzo(a)pyrene	64	77	64-123	20	30				
Benzo(b)fluoranthene	78	92	41-137	18	30				
Benzo(g,h,i)perylene	58	70	21-127	20	30				
Benzo(k)fluoranthene	64	81	38-130	26	30				
Chrysene	73	86	58-117	19	30				
Dibenz(a,h)anthracene	62	73	17-134	19	30				
Fluoranthene	105	110	63-129	7	30				
Fluorene	103	106	74-127	5	30				
Indeno(1,2,3-cd)pyrene	59	71	26-130	20	30				

*- 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.

Quality Control Summary

Client Name: ExxonMobil
Reported: 03/31/14 at 03:46 PM

Group Number: 1461219

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</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
1-Methylnaphthalene	95	99	82-133	7	30				
2-Methylnaphthalene	92	96	73-138	6	30				
Naphthalene	98	100	58-131	4	30				
Phenanthrene	93	96	72-126	5	30				
Pyrene	74	90	36-142	22	30				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs in waters by SIM
Batch number: 14084WAG026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7402485	103	96	94
7402486	109	100	98
7402487	108	98	94
7402488	103	86	94
7402489	107	82	95
7402490	105	96	96
7402491	107	97	94
7402492	108	94	96
7402493	108	82	96
7402494	86	40*	86
7402495	87	42*	84
7402496	98	62	91
7402497	110	100	97
7402498	110	97	98
7402499	109	87	96
7402500	107	88	95
7402501	109	84	97
7402502	110	99	97
7402503	107	98	93
7402504	103	68	95
7402505	108	85	99
Blank	89	76	84
LCS	99	99	97
MS	103	68	95
MSD	108	85	99
Limits:	59-128	62-141	70-134

*- 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

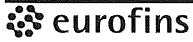
1 of 2

For Eurofins Lancaster Laboratories Environmental use only
 Acct. # 14739 Group # 1461219 Sample # 7402485-505
 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>				Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input checked="" type="checkbox"/> Oil <input type="checkbox"/> Air <input type="checkbox"/>	Preservation Code										SCR#: _____				
Site Address <u>Mayflower AR</u>															Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other				
ExxonMobil PM <u>Mike Sixsmith</u>		Cost Center/AFE													Total # of Containers <u>PAH (8270 SIM)</u>				
Consultant/Office <u>Arcadis</u>																			
Consultant PM <u>Steve Barrick</u>		Consultant Phone # <u>919 302 6799</u>																	
Sampler <u>L MH</u>																			
2 Sample Identification			3 Collected		Soil <input type="checkbox"/>	Water	Oil <input type="checkbox"/>	Total # of Containers											
Date	Time	Grab	Composite																
<u>WS-020 (surface) 032014</u>	<u>3/20/14</u>	<u>0940</u>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<u>2</u>	<input checked="" type="checkbox"/>										
<u>WS-007 (0.5-1.0) 032014</u>	<u>3/20/14</u>	<u>0950</u>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<u>2</u>	<input checked="" type="checkbox"/>										
<u>WS-009 (surface) 032014</u>	<u>3/20/14</u>	<u>0955</u>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<u>2</u>	<input checked="" type="checkbox"/>										
<u>WS-001 (0.5-1.0) 032014</u>	<u>3/20/14</u>	<u>1000</u>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<u>2</u>	<input checked="" type="checkbox"/>										
<u>WS-021 (surface) 032014</u>	<u>3/20/14</u>	<u>1005</u>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<u>2</u>	<input checked="" type="checkbox"/>										
<u>WS-004 (0.5-1.0) 032014</u>	<u>3/20/14</u>	<u>1010</u>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<u>2</u>	<input checked="" type="checkbox"/>										
<u>WS-EB-132-032014</u>	<u>3/20/14</u>	<u>1400</u>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<u>2</u>	<input checked="" type="checkbox"/>										
<u>Dup-WS-129-032014</u>	<u>3/20/14</u>	<u>—</u>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<u>2</u>	<input checked="" type="checkbox"/>										

7 Turnaround Time Requested (TAT) (please circle) Standard <input checked="" type="radio"/> 5 day 4 day 72 hour 48 hour 24 hour	Relinquished by <u>[Signature]</u>	Date <u>3/20/14</u>	Time <u>1600</u>	Received by <u>[Signature]</u>	Date	Time	
	Relinquished by	Date	Time	Received by	Date	Time	
	Relinquished by	Date	Time	Received by	Date	Time	
8 Data Package (circle if required) Type I - Full Type VI (Raw Data) NJ Reduced Other _____	EDD (circle if required) Locus EIM (default) Other _____	Relinquished by Commercial Carrier UPS <input checked="" type="checkbox"/> FedEx _____ Other _____			Received by <u>[Signature]</u>	Date <u>3/21/14</u>	Time <u>935</u>
		Temperature Upon Receipt <u>0.8-0.9 °C</u>			Custody Seals Intact? <input checked="" type="checkbox"/> Yes No		

ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # 14739 Group # 1461219 Sample # 7402485-505

Instructions on reverse side correspond with circled numbers.

2 of 2

1 Client Information				4 Matrix				5 Analyses Requested										6						
Facility #/SID <u>Mayflower Pipeline Incident</u>				Soil <input type="checkbox"/>	Sediment <input type="checkbox"/>	Potable <input type="checkbox"/>	Ground <input type="checkbox"/>	Water <input checked="" type="checkbox"/>	NPDES <input type="checkbox"/>	Surface <input checked="" type="checkbox"/>	Oil <input type="checkbox"/>	Air <input type="checkbox"/>	Preservation Code										SCR#: _____	
Site Address <u>Mayflower AR</u>																							Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other	
ExxonMobil PM <u>Miles Sixsmith</u>		Cost Center/AFE		Total # of Containers <u>DAH (8270 SIM)</u>														Remarks						
Consultant/Office <u>ARCADIS</u>		Consultant Phone # <u>919 302 6799</u>																						
Consultant PM <u>Steve Barrick</u>				Composite <input type="checkbox"/>																				
Sampler <u>LMH</u>																								
2 Sample Identification			3 Collected		Grab <input type="checkbox"/>																			
			Date	Time																				
<u>WS-011(1.5-2.0) 032014</u>			<u>03/20/14</u>	<u>1110</u>	X																			
<u>WS-011(3.0-3.5) 032014</u>			<u>03/20/14</u>	<u>1115</u>																				
<u>WS-014(1.5-2.0) 032014</u>			<u>03/20/14</u>	<u>1150</u>	X																			
<u>WS-014(6.0-6.5) 032014</u>			<u>03/20/14</u>	<u>1155</u>																				
<u>WS-015(1.5-2.0) 032014</u>			<u>03/20/14</u>	<u>1205</u>	X																			
<u>WS-015(4.0-4.5) 032014</u>			<u>03/20/14</u>	<u>1210</u>																				
<u>WS-012(1.5-2.0) 032014</u>			<u>03/20/14</u>	<u>1220</u>	X																			
<u>WS-012(6.0-6.5) 032014</u>			<u>03/20/14</u>	<u>1225</u>																				
<u>WS-010(1.5-2.0) 032014</u>			<u>03/20/14</u>	<u>1235</u>	X																			
<u>WS-010(4.5-5.0) 032014</u>			<u>03/20/14</u>	<u>1240</u>																				
<u>WS-006(0.5-1.0) 032014</u>			<u>03/20/14</u>	<u>1250</u>	X																			
<u>WS-006(0.5-1.0) 032014 - MMSD</u>			<u>03/20/14</u>	<u>1250</u>																				
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by				Date		Time		Received by		Date		Time								
<input checked="" type="radio"/> Standard 5 day 4 day 72 hour 48 hour 24 hour				<u>[Signature]</u>				<u>3/20/14</u>		<u>1600</u>		<u>[Signature]</u>				9								
8 Data Package (circle if required)				Relinquished by Commercial Carrier				Date		Time		Received by		Date		Time								
Type I - Full Type VI (Raw Data) NJ Reduced Other _____				EDD (circle if required) Locus EIM (default) Other _____				UPS <input checked="" type="checkbox"/> FedEx _____ Other _____		<u>3/21/14</u>		<u>935</u>		<u>[Signature]</u>		<u>3/21/14</u>		<u>935</u>						
Temperature Upon Receipt				Custody Seals Intact?				<u>0.8-0.9°C</u>		<input checked="" type="radio"/> Yes		<input type="radio"/> No												

Client: ExxonMobil

Mayflower Pipeline Incident

Delivery and Receipt Information

Delivery Method: UPS Arrival Timestamp: 03/21/2014 9:35
 Number of Packages: 2 Number of Projects: 1
 State/Province of Origin: AR

Arrival Condition Summary

Shipping Container Sealed:	<u>Yes</u>	Total Trip Blank Qty:	<u>0</u>
Custody Seal Present:	<u>Yes</u>	Trip Blank Type:	<u>N/A</u>
Custody Seal Intact:	<u>Yes</u>	Air Quality Samples Present:	<u>No</u>
Samples Chilled:	<u>Yes</u>	Air Quality Flow Controllers Present:	<u>N/A</u>
Paperwork Enclosed:	<u>Yes</u>	Flow Controller Quantity:	<u>0</u>
Samples Intact:	<u>Yes</u>	Air Quality Returns:	<u>N/A</u>
Missing Samples:	<u>No</u>		
Extra Samples:	<u>No</u>		
Discrepancy in Container Qty on COC:	<u>No</u>		
Sample IDs on COC match Containers:	<u>Yes</u>		
Sample Date/Times match COC:	<u>Yes</u>		
VOA Vial Headspace \geq 6mm:	<u>N/A</u>		
VOA IDs (\geq 6mm):	<u>N/A</u>		

Unpacked by Wesley Miller (2308) at 13:27 on 03/21/2014

Samples Chilled Details: Mayflower Pipeline Incident

Thermometer Types: DT = Digital IR = Infrared

Cooler #	Thermometer ID	Raw Temp (°C)	Corrected Temp (°C)	Thermometer Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT121	0.9	0.9	DT	Wet	Y	Bagged	N
2	DT121	0.8	0.8	DT	Wet	Y	Bagged	N

General Comments:

Explanation of Symbols and Abbreviations

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

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

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

> greater than

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

ppb parts per billion

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

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

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

Inorganic Qualifiers

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

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

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

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

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

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