Analysis Report

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ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 ExxonMobil PO Box 4592 Houston TX 77210-4592

January 28, 2014

Project: Mayflower, AR Pipeline Incident

Submittal Date: 01/18/2014 Group Number: 1446983 SDG: PEM81 PO Number: 4410181435 Release Number: SIXSMITH State of Sample Origin: AR

Client Sample Description	Lancaster Labs (LL) #
WS-020(Surface)011514 Grab Surface Water	7341091
WS-007(0.5-1.0)011514 Grab Surface Water	7341092
WS-009(Surface)011514 Grab Surface Water	7341093
WS-001(0.5-1.0)011514 Grab Surface Water	7341094
WS-021(Surface)011514 Grab Surface Water	7341095
WS-004(0.5-1.0)011514 Grab Surface Water	7341096
WS-011(1.5-2.0)011614 Grab Surface Water	7341097
WS-011(4.5-5.0)011614 Grab Surface Water	7341098
WS-014(1.5-2.0)011614 Grab Surface Water	7341099
WS-EB-123-011614 Grab Water	7341100
WS-014(6.0-6.5)011614 Grab Surface Water	7341101
WS-015(1.5-2.0)011714 Grab Surface Water	7341102
WS-015(3.5-4.0)011714 Grab Surface Water	7341103
WS-012(1.5-2.0)011714 Grab Surface Water	7341104
WS-012(5.0-5.5)011714 Grab Surface Water	7341105
WS-010(1.5-2.0)011714 Grab Surface Water	7341106
WS-010(3.5-4.0)011714 Grab Surface Water	7341107
WS-006(0.5-1.0)011714 Grab Surface Water	7341108
WS-006(0.5-1.0)011714MS Grab Surface Water	7341109
WS-006(0.5-1.0)011714MSD Grab Surface Water	7341110
DUP-WS-121-011714 Grab Surface Water	7341111
WS-EB-124-011714 Grab Water	7341112

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

ELECTRONIC ARCADIS Attn: Stephen Barrick

COPY TO

Lancaster Laboratories Environmental

Analysis Report

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ELECTRONIC	ExxonMobil	Attn: Julie Foster

Respectfully Submitted,

Katherine A. Klinefelter Principal Specialist

Katherine a. Klinefelter

(717) 556-7256

Case Narrative

Project Name: Mayflower, AR Pipeline Incident LLI Group #: 1446983

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: 7341110

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 #: 14021wAD026 (Sample number(s): 7341091-7341112 UNSPK: 7341108)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Benzo(a)pyrene

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside outside acceptance windows: Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, Benzo(g,h,i)perylene

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7341110, MSD



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Sample Description: WS-020(Surface)011514 Grab Surface Water

S20135565 Mayflower, AR

Pipeline Incident

LL Sample # WW 7341091

LL Group # 1446983 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/15/2014 13:50 by MH ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 01/18/2014 09:50 Reported: 01/28/2014 13:51

MYF01 SDG#: PEM81-01

CAT No.	Analysis Name	CAS Number	As Receiv Result	As Received ed 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	0.012 J	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.015 J	0.010	0.051	1
08357	Benzo(b) fluoranthene	205-99-2	0.036 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.024 J	0.010	0.051	1
08357	Benzo(k) fluoranthene	207-08-9	0.014 J	0.010	0.051	1
08357	Chrysene	218-01-9	0.024 J	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	0.031 J	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	0.020 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	0.033 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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14021WAD026	01/23/2014	02:38	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

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Sample Description: WS-007(0.5-1.0)011514 Grab Surface Water

LL Sample # WW 7341092 S20135565 Mayflower, AR LL Group # 1446983 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/15/2014 14:30 by MH ExxonMobil PO Box 4592

Submitted: 01/18/2014 09:50 Houston TX 77210-4592

Reported: 01/28/2014 13:51

MYF02 SDG#: PEM81-02

CAT No.	Analysis Name	CAS Number	As Receive 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	0.011 J	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.014 J	0.010	0.051	1
08357	Benzo(b) fluoranthene	205-99-2	0.035 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.015 J	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.012 J	0.010	0.051	1
08357	Chrysene	218-01-9	0.017 J	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	0.035 J	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	0.012 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.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	0.036 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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14021WAD026	01/23/2014	03:06	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

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Sample Description: WS-009(Surface)011514 Grab Surface Water

LL Sample # WW 7341093 S20135565 Mayflower, AR LL Group # 1446983 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/15/2014 14:40 by MH ExxonMobil

PO Box 4592

Houston TX 77210-4592

Submitted: 01/18/2014 09:50 Reported: 01/28/2014 13:51

MYF03 SDG#: PEM81-03

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	0.011 J	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	0.013 J	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	0.011 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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14021WAD026	01/23/2014	03:34	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

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Sample Description: WS-001(0.5-1.0)011514 Grab Surface Water

 ${\tt S20135565}$ Mayflower, AR

Pipeline Incident

LL Sample # WW 7341094

LL Group # 1446983 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/15/2014 14:50 by MH ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 01/18/2014 09:50 Reported: 01/28/2014 13:51

MYF04 SDG#: PEM81-04

CAT No.	Analysis Name	CAS Number	As Receiv Result	As Received ed 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	0.019 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.022 J	0.010	0.051	1
08357	Benzo(k) fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	0.014 J	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.017 J	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.017 J	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	0.022 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	0.017 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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14021WAD026	01/23/2014	04:01	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

14739

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Sample Description: WS-021(Surface)011514 Grab Surface Water

LL Sample # WW 7341095 S20135565 Mayflower, AR LL Group # 1446983 Pipeline Incident Account

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/15/2014 15:00 by MH ExxonMobil PO Box 4592

Submitted: 01/18/2014 09:50 Houston TX 77210-4592

Reported: 01/28/2014 13:51

MYF05 SDG#: PEM81-05

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	0.015 J	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	0.012 J	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	0.017 J	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	0.015 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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14021WAD026	01/23/2014	04:29	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

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Sample Description: WS-004(0.5-1.0)011514 Grab Surface Water

LL Sample # WW 7341096 S20135565 Mayflower, AR LL Group # 1446983 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/15/2014 15:10 by MH ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 01/18/2014 09:50 Reported: 01/28/2014 13:51

MYF06 SDG#: PEM81-06

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	0.011 J	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.012 J	0.010	0.051	1
08357	Benzo(b) fluoranthene	205-99-2	0.032 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.016 J	0.010	0.051	1
08357	Benzo(k) fluoranthene	207-08-9	0.011 J	0.010	0.051	1
08357	Chrysene	218-01-9	0.022 J	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	0.027 J	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	0.013 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.	0.031	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.051	1
08357	Pyrene	129-00-0	0.028 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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14021WAD026	01/23/2014	04:57	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

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Sample Description: WS-011(1.5-2.0)011614 Grab Surface Water

LL Sample # WW 7341097 S20135565 Mayflower, AR LL Group # 1446983 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/16/2014 12:20 by MH ExxonMobil PO Box 4592

Submitted: 01/18/2014 09:50 Houston TX 77210-4592

Reported: 01/28/2014 13:51

MYF07 SDG#: PEM81-07

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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14021WAD026	01/23/2014	05:25	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

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

Sample Description: WS-011(4.5-5.0)011614 Grab Surface Water

LL Sample # WW 7341098 S20135565 Mayflower, AR LL Group # 1446983 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/16/2014 12:25 by MH ExxonMobil PO Box 4592

Submitted: 01/18/2014 09:50 Houston TX 77210-4592

Reported: 01/28/2014 13:51

MYF08 SDG#: PEM81-08

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	0.011 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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14021WAD026	01/23/2014	05:52	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

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

Sample Description: WS-014(1.5-2.0)011614 Grab Surface Water

LL Sample # WW 7341099 S20135565 Mayflower, AR LL Group # 1446983 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/16/2014 13:05 by MH ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 01/18/2014 09:50 Reported: 01/28/2014 13:51

MYF09 SDG#: PEM81-09

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.	0.031	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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14021WAD026	01/23/2014	06:20	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

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

Sample Description: WS-EB-123-011614 Grab Water

S20135565 Mayflower, AR

Pipeline Incident

LL Sample # WW 7341100 LL Group # 1446983 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/16/2014 13:50 by MH ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 01/18/2014 09:50 Reported: 01/28/2014 13:51

MYF10 SDG#: PEM81-10EB

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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14021WAD026	01/23/2014	06:48	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

Account

LL Sample # WW 7341101

14739

LL Group # 1446983

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

Sample Description: WS-014(6.0-6.5)011614 Grab Surface Water

S20135565 Mayflower, AR Pipeline Incident

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/16/2014 13:10 by MH ExxonMobil PO Box 4592

Submitted: 01/18/2014 09:50 Houston TX 77210-4592

Reported: 01/28/2014 13:51

MYF11 SDG#: PEM81-11

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	0.052	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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14021WAD026	01/23/2014	07:15	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

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

Sample Description: WS-015(1.5-2.0)011714 Grab Surface Water

LL Sample # WW 7341102 S20135565 Mayflower, AR LL Group # 1446983 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/17/2014 08:40 by ZP ExxonMobil PO Box 4592

Submitted: 01/18/2014 09:50 Houston TX 77210-4592

Reported: 01/28/2014 13:51

MYF12 SDG#: PEM81-12

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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14021WAD026	01/23/2014	07:43	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

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

Sample Description: WS-015(3.5-4.0)011714 Grab Surface Water

LL Sample # WW 7341103 S20135565 Mayflower, AR LL Group # 1446983 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/17/2014 08:50 by ZP ExxonMobil PO Box 4592

Submitted: 01/18/2014 09:50 Houston TX 77210-4592

Reported: 01/28/2014 13:51

MYF13 SDG#: PEM81-13

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.	0.030	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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14021WAD026	01/23/2014	08:11	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

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

Sample Description: WS-012(1.5-2.0)011714 Grab Surface Water

LL Sample # WW 7341104 S20135565 Mayflower, AR LL Group # 1446983 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/17/2014 09:00 by ZP ExxonMobil PO Box 4592

Submitted: 01/18/2014 09:50 Houston TX 77210-4592

Reported: 01/28/2014 13:51

MYF14 SDG#: PEM81-14

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	0.011 J	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	0.035 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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14021WAD026	01/23/2014	08:38	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

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

Sample Description: WS-012(5.0-5.5)011714 Grab Surface Water

LL Sample # WW 7341105 S20135565 Mayflower, AR LL Group # 1446983 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/17/2014 09:10 by ZP ExxonMobil PO Box 4592

Submitted: 01/18/2014 09:50 Houston TX 77210-4592

Reported: 01/28/2014 13:51

MYF15 SDG#: PEM81-15

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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14021WAD026	01/23/2014	09:06	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

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

Sample Description: WS-010(1.5-2.0)011714 Grab Surface Water

LL Sample # WW 7341106 S20135565 Mayflower, AR LL Group # 1446983 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/17/2014 09:20 by ZP ExxonMobil PO Box 4592

Submitted: 01/18/2014 09:50 Houston TX 77210-4592

Reported: 01/28/2014 13:51

MYF16 SDG#: PEM81-16

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	0.050	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	0.012 J	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	0.011 J	0.010	0.050	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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14021WAD026	01/23/2014	09:34	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

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Sample Description: WS-010(3.5-4.0)011714 Grab Surface Water

LL Sample # WW 7341107 S20135565 Mayflower, AR LL Group # 1446983 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/17/2014 09:30 by ZP ExxonMobil PO Box 4592

Submitted: 01/18/2014 09:50 Houston TX 77210-4592

Reported: 01/28/2014 13:51

MYF17 SDG#: PEM81-17

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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14021WAD026	01/23/2014	10:01	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

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

Sample Description: WS-006(0.5-1.0)011714 Grab Surface Water

LL Sample # WW 7341108 S20135565 Mayflower, AR LL Group # 1446983 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/17/2014 09:40 by ZP ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 01/18/2014 09:50 Reported: 01/28/2014 13:51

MYF18 SDG#: PEM81-18BKG

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	0.012 J	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	0.012 J	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	0.011 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.

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	14021WAD026	01/23/2014	01:15	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

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

Sample Description: WS-006(0.5-1.0)011714MS Grab Surface Water

LL Sample # WW 7341109 S20135565 Mayflower, AR LL Group # 1446983 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/17/2014 09:40 by ZP ExxonMobil

PO Box 4592

Houston TX 77210-4592

Submitted: 01/18/2014 09:50 Reported: 01/28/2014 13:51

MYF18 SDG#: PEM81-18MS

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	0.051	1
08357	Acenaphthylene	208-96-8	1.2	0.010	0.051	1
08357	Anthracene	120-12-7	1.1	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	0.93	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	0.87	0.010	0.051	1
08357	Benzo(b) fluoranthene	205-99-2	0.96	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.97	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	1.0	0.010	0.051	1
08357	Chrysene	218-01-9	0.94	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.92	0.010	0.051	1
08357	Fluoranthene	206-44-0	1.0	0.010	0.051	1
08357	Fluorene	86-73-7	1.1	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.92	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	1.2	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	1.2	0.010	0.051	1
08357	Naphthalene	91-20-3	1.2	0.031	0.051	1
08357	Phenanthrene	85-01-8	1.1	0.031	0.051	1
08357	Pyrene	129-00-0	1.2	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.

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	14021WAD026	01/23/2014	01:43	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

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Sample Description: WS-006(0.5-1.0)011714MSD Grab Surface Water

LL Sample # WW 7341110 S20135565 Mayflower, AR LL Group # 1446983 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/17/2014 09:40 by ZP ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 01/18/2014 09:50 Reported: 01/28/2014 13:51

MYF18 SDG#: PEM81-18MSD

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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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14021WAD026	01/23/2014	02:11	Brian K Graham	1
10470	BNA Water Extraction (STM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

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

Sample Description: DUP-WS-121-011714 Grab Surface Water

LL Sample # WW 7341111 S20135565 Mayflower, AR LL Group # 1446983 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/17/2014 by ZP ExxonMobil PO Box 4592

Submitted: 01/18/2014 09:50 Houston TX 77210-4592

Reported: 01/28/2014 13:51

MYF19 SDG#: PEM81-19FD

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	0.018 J	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	0.012 J	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	0.016 J	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	0.015 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.

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	14021WAD026	01/23/2014	10:29	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1



Analysis Report

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Sample Description: WS-EB-124-011714 Grab Water

S20135565 Mayflower, AR

Pipeline Incident

LL Sample # WW 7341112 LL Group # 1446983 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 01/17/2014 14:40 by ZP ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 01/18/2014 09:50 Reported: 01/28/2014 13:51

MYF20 SDG#: PEM81-20EB*

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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14021WAD026	01/23/2014	10:57	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14021WAD026	01/22/2014	10:30	Anna E Stager	1

Environmental



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Quality Control Summary

Client Name: ExxonMobil Group Number: 1446983

Reported: 01/28/14 at 01:51 PM

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

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank MDL**	Blank <u>LOO</u>	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 14021WAD026	Sample num	ber(s): 7	341091-734	1112					
Acenaphthene	N.D.	0.010	0.050	ug/l	112		77-118		
Acenaphthylene	N.D.	0.010	0.050	ug/l	118		80-123		
Anthracene	N.D.	0.010	0.050	ug/l	113		78-123		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	103		73-127		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	109		72-120		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	122		79-136		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	124		64-130		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	113		73-131		
Chrysene	N.D.	0.010	0.050	ug/l	113		76-125		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	121		58-131		
Fluoranthene	N.D.	0.010	0.050	ug/l	101		79-124		
Fluorene	N.D.	0.010	0.050	ug/l	110		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	118		62-130		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	115		80-126		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	114		81-124		
Naphthalene	N.D.	0.030	0.050	ug/l	113		75-120		
Phenanthrene	N.D.	0.030	0.050	ug/l	110		75-120		
Pyrene	N.D.	0.010	0.050	ug/l	119		71-130		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD <u>MAX</u>	BKG Conc	DUP Conc	DUP RPD	Dup RPD <u>Max</u>
Batch number: 14021WAD026	Sample	number(s)	: 7341091	-73411	12 UNSP	K: 7341108			
Acenaphthene	111	98	47-136	14	30				
Acenaphthylene	117	104	33-146	15	30				
Anthracene	104	90	69-119	16	30				
Benzo(a)anthracene	91	71	37-150	27	30				
Benzo(a)pyrene	85	59*	64-123	38*	30				
Benzo(b)fluoranthene	92	69	33-152	31*	30				
Benzo(g,h,i)perylene	94	61	36-138	44*	30				
Benzo(k)fluoranthene	97	65	31-142	43*	30				
Chrysene	92	71	34-135	28	30				
Dibenz(a,h)anthracene	89	58	17-134	44*	30				
Fluoranthene	97	83	39-147	18	30				
Fluorene	109	97	38-149	14	30				
Indeno(1,2,3-cd)pyrene	89	58	29-143	45*	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.



Analysis Report

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Quality Control Summary

Client Name: ExxonMobil Group Number: 1446983

Reported: 01/28/14 at 01:51 PM

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

	MS	MSD	MS/MSD		RPD	BKG	DUP	DUP	Dup RPD
<u>Analysis Name</u>	%REC	%REC	<u>Limits</u>	RPD	<u>MAX</u>	Conc	Conc	RPD	<u>Max</u>
1-Methylnaphthalene	116	104	49-152	13	30				
2-Methylnaphthalene	114	103	51-146	13	30				
Naphthalene	115	105	58-131	12	30				
Phenanthrene	109	97	48-140	14	30				
Pyrene	116	99	59-125	18	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: 14021WAD026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-
			d10
7341091	90	82	105
7341092	86	80	101
7341093	93	85	109
7341094	89	83	104
7341095	91	87	103
7341096	92	89	107
7341097	98	96	112
7341098	93	90	106
7341099	96	89	109
7341100	95	101	110
7341101	83	74	104
7341102	94	84	109
7341103	94	90	109
7341104	97	87	111
7341105	93	89	107
7341106	93	84	110
7341107	75	79	84
7341108	92	83	109
7341109	96	88	114
7341110	81	54*	103
7341111	92	82	107
7341112	94	101	108
Blank	86	96	100
LCS	96	106	113
MS	96	88	114
MSD	81	54*	103
Limits:	44-137	62-141	51-136

^{*-} 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

eurofins

Lancaster Laboratories Environmental

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only

Group # 1446953 Sample # 7341091-112
Instructions on reverse side correspond with circled numbers.

1) Client Info	ormation			(4)	Matrix	=147	Ī	(5)		Analy	/ses	Rea	ueste	Ч		1		-	
Facility #/SID						T	1						Code	<u> </u>		SCF	R#:		
May flower Pierline In	rcident												П			-,,	Preserva	tion Cod	es
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May figures AR ExxonMobil PM					p 'g`	1										1	I = HNO ₃	B = NaO	
ExxonMobil PM	Cost Center/AFE				Ground												S = H ₂ SO ₄		
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Consultant PM	Consultant Phone #	<i>t</i>		ed	٣ يا	Ąi	ine	0											
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Steve Barrick	111)-6	2011	3 5		Pot NPI		ပိ	8											
Matt Humby			Grab © Composite				ğ	-											
2)	Colle	cted	ਫ਼ੂ ਫ਼ੂ	<u>-</u>	Water		Total #	A T											
Sample Identification	Date	Time	Grab Comp	Soil	∝	ō	ē	X						ĺ					
WS-020(Surface)011514	115/2014	1350	X				2	X											
WS-007(0.5-1.0)011514	1/15/2014	1430	λ				2	X											
WS-009(surface)011514	1/15/2014	1440	X				2	X											
WS-001 (0.5-1.0) 011514	1/15/2014		X				2	V											
WS-OZI (Surface) 011514	1/15/2014		X				2	$\hat{\lambda}$											
WS-004 (0,5-1,0) 0/1514	, -,	1510	X				2	λ			1								
WS-011 (1,5-2.0) 0/16/14	1/16/2014		X			 	2	X							+				
WS-011 (4,5-5.0) 011614	1/16/2014		X				7	λ											
WS-014 (1,5-2.0) 011614	1/16/2014		$\frac{\hat{\lambda}}{\hat{\lambda}}$				2	X											
WS-EB-123-011614	,	1350	$\hat{\chi}$				Z	X			1								
WS-014 (6.0-6.5) 011614		1310	X				2	×							1				
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	cus EIM (default)		by Commer									Receiv	ed by	2-	4		Date	Time	50
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ExxonMobil Analysis Request/Chain of Custody

eurofins

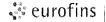
Lancaster Laboratories

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only

Group # 1446983 Sample # 7341091412

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					,			Surface 🔀	'		'	'	'		,		$\overline{\Box}$	i	$i \mid 1$	1		H = HCI		Thiosulfa	ate
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Sample Administration Receipt Documentation Log

Doc Log ID:

2591

1446983

Mayflower Pipeline Incident

Delivery and Receipt Information

Delivery Method:

Client: ExxonMobil

UPS

Arrival Timestamp:

01/18/2014 9:50

Number of Packages:

2

Number of Projects:

1

State/Province of Origin:

<u>AR</u>

Arrival Condition Summary

Shipping Container Sealed:

<u>Yes</u> Yes

Trip Blank Indicated on COC:

<u>No</u>

Custody Seal Intact:

<u>Yes</u>

Trip Blank Type:

<u>N/A</u>

Samples Chilled:

Yes

Trip Blank Qty:

Trip Blank Present:

<u>N/A</u> <u>0</u>

Paperwork Enclosed:

Yes

Air Quality Samples Present:

<u>No</u>

Samples Intact:

<u>Yes</u>

Air Quality Flow Controllers Present:

<u>N/A</u>

Missing Samples:

<u>No</u>

Flow Controller Quantity:

Air Quality Returns:

<u>0</u>

<u>N/A</u>

Extra Samples:
Discrepancy in Container Qty on COC:

<u>No</u> <u>No</u>

Sample IDs on COC match Containers:

<u>Yes</u>

Sample Date/Times match COC:

<u>Yes</u>

VOA Vial Headspace at least 6mm:

<u>N/A</u>

VOA IDs (\geq 6mm):

<u>N/A</u>

Unpacked by Wesley Miller (2308) at 10:56 on 01/18/2014

Samples Chilled Details: Mayflower Pipeline Incident

Cooler#	Thermometer ID	Raw Temp (°C)	Corrected Temp (°C)	Thermometer Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT121	0.4	0.4	DT	Wet	Υ	Bagged	N
2	DT121	0.3	0.3	DT	Wet	Υ	Bagged	N

2425 New Holland Pike Lancaster, PA 17605-2425 Page 30 of 31



Explanation of Symbols and Abbreviations

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

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

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

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

ppb parts per billion

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

Data Qualifiers:

C - result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

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

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

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

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

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

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