

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

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

January 09, 2014

Project: Mayflower, AR Pipeline Incident

Submittal Date: 12/20/2013

Group Number: 1442461

SDG: PEM77

PO Number: B0086003.1301

State of Sample Origin: AR

Client Sample DescriptionLancaster Labs (LL) #

WS-008(Surface)121813 Grab Surface Water	7320343
WS-007(0.5-1.0)121813 Grab Surface Water	7320344
WS-009(Surface)121813 Grab Surface Water	7320345
WS-001(0.5-1.0)121813 Grab Surface Water	7320346
WS-021(Surface)121813 Grab Surface Water	7320347
WS-004(0.5-1.0)121813 Grab Surface Water	7320348
WS-020(Surface)121813 Grab Surface Water	7320349
WS-011(1.5-2.0)121913 Grab Surface Water	7320350
WS-011(5.0-5.5)121913 Grab Surface Water	7320351
WS-014(1.5-2.0)121913 Grab Surface Water	7320352
WS-014(5.5-6.0)121913 Grab Surface Water	7320353
WS-015(1.5-2.0)121913 Grab Surface Water	7320354
WS-015(3.5-4.0)121913 Grab Surface Water	7320355
WS-012(1.5-2.0)121913 Grab Surface Water	7320356
WS-012(5.0-5.5)121913 Grab Surface Water	7320357
WS-010(1.5-2.0)121913 Grab Surface Water	7320358
WS-010(3.5-4.0)121913 Grab Surface Water	7320359
WS-006(0.5-1.0)121913 Grab Surface Water	7320360
WS-006(0.5-1.0)121913MS Grab Surface Water	7320361
WS-006(0.5-1.0)121913MSD Grab Surface Water	7320362
DUP-WS-117-121913 Grab Surface Water	7320363
WS-EB-119-121913 Grab Water	7320364

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 #: 1442461

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:

No additional comments are necessary.

Sample Description: WS-008(Surface)121813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320343
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/18/2013 11:00 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18008 SDG#: PEM77-01

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	0.050 J	0.011	0.055	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.055	1
08357	Anthracene	120-12-7	N.D.	0.011	0.055	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.055	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.055	1
08357	Benzo(b)fluoranthene	205-99-2	0.012 J	0.011	0.055	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.055	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.055	1
08357	Chrysene	218-01-9	0.016 J	0.011	0.055	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.055	1
08357	Fluoranthene	206-44-0	0.038 J	0.011	0.055	1
08357	Fluorene	86-73-7	0.014 J	0.011	0.055	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.055	1
08357	1-Methylnaphthalene	90-12-0	0.022 J	0.011	0.055	1
08357	2-Methylnaphthalene	91-57-6	0.014 J	0.011	0.055	1
08357	Naphthalene	91-20-3	0.14	0.033	0.055	1
08357	Phenanthrene	85-01-8	N.D.	0.033	0.055	1
08357	Pyrene	129-00-0	0.027 J	0.011	0.055	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	13357WAF026	01/02/2014 05:03	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-007(0.5-1.0)121813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320344
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/18/2013 12:30 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18007 SDG#: PEM77-02

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	0.050	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	0.011 J	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	0.013 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	N.D.	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.

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	13357WAF026	01/02/2014 05:31	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-009(Surface)121813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320345
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/18/2013 13:00 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18009 SDG#: PEM77-03

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.	0.030	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	13357WAF026	01/02/2014 05:59	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-001(0.5-1.0)121813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320346
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/18/2013 13:10 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18001 SDG#: PEM77-04

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.	0.031	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	13357WAF026	01/02/2014 06:27	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-021(Surface)121813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320347
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/18/2013 13:25 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18021 SDG#: PEM77-05

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	0.020 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.028 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	0.025 J	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.019 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	0.029 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	0.016 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	13357WAF026	01/02/2014 06:55	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-004(0.5-1.0)121813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320348
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/18/2013 13:45 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18004 SDG#: PEM77-06

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	0.050	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

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	13357WAF026	01/02/2014 07:22	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-020(Surface)121813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320349
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/18/2013 14:10 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18020 SDG#: PEM77-07

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	0.012 J	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	0.029 J	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	0.019 J	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	0.013 J	0.010	0.051	1
08357	Chrysene	218-01-9	0.020 J	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	0.013 J	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	0.019 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	0.024 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	13357WAF026	01/02/2014 07:50	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-011(1.5-2.0)121913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320350
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/19/2013 12:10 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18111 SDG#: PEM77-08

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.	0.011	0.056	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.056	1
08357	Anthracene	120-12-7	N.D.	0.011	0.056	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.056	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.056	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.056	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.056	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.056	1
08357	Chrysene	218-01-9	N.D.	0.011	0.056	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.056	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.056	1
08357	Fluorene	86-73-7	N.D.	0.011	0.056	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.056	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.056	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.056	1
08357	Naphthalene	91-20-3	N.D.	0.034	0.056	1
08357	Phenanthrene	85-01-8	N.D.	0.034	0.056	1
08357	Pyrene	129-00-0	N.D.	0.011	0.056	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	13357WAF026	01/02/2014 08:18	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-011(5.0-5.5)121913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320351
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/19/2013 12:20 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18112 SDG#: PEM77-09

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.	0.011	0.056	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.056	1
08357	Anthracene	120-12-7	N.D.	0.011	0.056	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.056	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.056	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.056	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.056	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.056	1
08357	Chrysene	218-01-9	N.D.	0.011	0.056	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.056	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.056	1
08357	Fluorene	86-73-7	N.D.	0.011	0.056	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.056	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.056	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.056	1
08357	Naphthalene	91-20-3	N.D.	0.034	0.056	1
08357	Phenanthrene	85-01-8	N.D.	0.034	0.056	1
08357	Pyrene	129-00-0	N.D.	0.011	0.056	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	13357WAF026	01/02/2014 08:46	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-014(1.5-2.0)121913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320352
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/19/2013 13:10 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18141 SDG#: PEM77-10

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	0.052	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	13357WAF026	01/02/2014 09:14	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-014(5.5-6.0)121913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320353
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/19/2013 13:20 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18142 SDG#: PEM77-11

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.

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	13357WAF026	01/02/2014 09:42	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-015(1.5-2.0)121913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320354
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/19/2013 13:30 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18151 SDG#: PEM77-12

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	0.052	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	13357WAF026	01/02/2014 10:09	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-015(3.5-4.0)121913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320355
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/19/2013 13:40 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18152 SDG#: PEM77-13

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.	0.011	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	0.016 J	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	0.015 J	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	0.013 J	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	0.015 J	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	13357WAF026	01/02/2014 10:37	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-012(1.5-2.0)121913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320356
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/19/2013 13:50 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18121 SDG#: PEM77-14

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.	0.031	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	13357WAF026	01/02/2014 11:05	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-012(5.0-5.5)121913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320357
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/19/2013 14:00 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18122 SDG#: PEM77-15

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	13357WAF026	01/02/2014 11:33	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-010(1.5-2.0)121913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320358
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/19/2013 14:10 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18101 SDG#: PEM77-16

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	13357WAF026	01/02/2014 12:01	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-010(3.5-4.0)121913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320359
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/19/2013 14:20 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18102 SDG#: PEM77-17

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.	0.011	0.054	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.054	1
08357	Anthracene	120-12-7	N.D.	0.011	0.054	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.054	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.054	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.054	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.054	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.054	1
08357	Chrysene	218-01-9	N.D.	0.011	0.054	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.054	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.054	1
08357	Fluorene	86-73-7	N.D.	0.011	0.054	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.054	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.054	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.054	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.054	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.054	1
08357	Pyrene	129-00-0	N.D.	0.011	0.054	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	13357WAF026	01/02/2014 12:28	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-006(0.5-1.0)121913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320360
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/19/2013 14:30 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18006 SDG#: PEM77-18BKG

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	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	13357WAF026	01/02/2014 03:40	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-006(0.5-1.0)121913MS Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320361
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/19/2013 14:30 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18006 SDG#: PEM77-18MS

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	0.052	1
08357	Acenaphthylene	208-96-8	1.1	0.010	0.052	1
08357	Anthracene	120-12-7	0.96	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	0.99	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	0.83	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	0.99	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	0.88	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	0.98	0.010	0.052	1
08357	Chrysene	218-01-9	0.94	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	0.92	0.010	0.052	1
08357	Fluoranthene	206-44-0	1.0	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	0.90	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	1.1	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	1.1	0.010	0.052	1
08357	Naphthalene	91-20-3	1.1	0.031	0.052	1
08357	Phenanthrene	85-01-8	1.0	0.031	0.052	1
08357	Pyrene	129-00-0	1.1	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	13357WAF026	01/02/2014 04:08	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-006(0.5-1.0)121913MSD Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320362
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/19/2013 14:30 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18006 SDG#: PEM77-18MSD

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	1.1	0.010	0.052	1
08357	Anthracene	120-12-7	0.96	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	0.95	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	0.94	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	0.81	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	0.95	0.010	0.052	1
08357	Chrysene	218-01-9	0.92	0.010	0.052	1
08357	Dibenz(a,h)anthracene	53-70-3	0.85	0.010	0.052	1
08357	Fluoranthene	206-44-0	1.0	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	0.84	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	1.1	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	1.1	0.010	0.052	1
08357	Naphthalene	91-20-3	1.1	0.031	0.052	1
08357	Phenanthrene	85-01-8	1.0	0.031	0.052	1
08357	Pyrene	129-00-0	1.0	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	13357WAF026	01/02/2014 04:36	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: DUP-WS-117-121913 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320363
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/19/2013 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18117 SDG#: PEM77-19FD

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	0.052	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	13357WAF026	01/02/2014 12:56	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Sample Description: WS-EB-119-121913 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7320364
LL Group # 1442461
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/19/2013 15:30 by RL

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

Submitted: 12/20/2013 11:35

Reported: 01/09/2014 10:19

18119 SDG#: PEM77-20EB*

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.	0.011	0.054	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.054	1
08357	Anthracene	120-12-7	N.D.	0.011	0.054	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.054	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.054	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.054	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.054	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.054	1
08357	Chrysene	218-01-9	N.D.	0.011	0.054	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.054	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.054	1
08357	Fluorene	86-73-7	N.D.	0.011	0.054	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.054	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.054	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.054	1
08357	Naphthalene	91-20-3	0.069	0.032	0.054	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.054	1
08357	Pyrene	129-00-0	N.D.	0.011	0.054	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	13357WAF026	01/02/2014 13:24	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13357WAF026	12/24/2013 10:30	Anna E Stager	1

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 01/09/14 at 10:19 AM

Group Number: 1442461

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: 13357WAF026	Sample number(s): 7320343-7320364								
Acenaphthene	N.D.	0.010	0.050	ug/l	104		77-118		
Acenaphthylene	N.D.	0.010	0.050	ug/l	104		80-123		
Anthracene	N.D.	0.010	0.050	ug/l	103		78-123		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	100		73-127		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	102		72-120		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	107		79-136		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	99		64-130		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	106		73-131		
Chrysene	N.D.	0.010	0.050	ug/l	101		76-125		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	101		58-131		
Fluoranthene	N.D.	0.010	0.050	ug/l	101		79-124		
Fluorene	N.D.	0.010	0.050	ug/l	106		74-115		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	99		62-130		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	108		80-126		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	105		81-124		
Naphthalene	N.D.	0.030	0.050	ug/l	105		75-120		
Phenanthrene	N.D.	0.030	0.050	ug/l	100		75-120		
Pyrene	N.D.	0.010	0.050	ug/l	109		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

<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: 13357WAF026	Sample number(s): 7320343-7320364 UNSPK: 7320360								
Acenaphthene	104	105	47-136	0	30				
Acenaphthylene	102	103	33-146	0	30				
Anthracene	93	93	69-119	0	30				
Benzo(a)anthracene	95	92	37-150	4	30				
Benzo(a)pyrene	80	77	64-123	4	30				
Benzo(b)fluoranthene	95	91	33-152	6	30				
Benzo(g,h,i)perylene	85	78	36-138	8	30				
Benzo(k)fluoranthene	94	92	31-142	3	30				
Chrysene	91	89	34-135	3	30				
Dibenz(a,h)anthracene	89	82	17-134	8	30				
Fluoranthene	98	99	39-147	0	30				
Fluorene	106	107	38-149	0	30				
Indeno(1,2,3-cd)pyrene	87	81	29-143	7	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 c/o Arcadis

Group Number: 1442461

Reported: 01/09/14 at 10:19 AM

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 MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1-Methylnaphthalene	109	110	49-152	0	30				
2-Methylnaphthalene	106	106	51-146	0	30				
Naphthalene	107	107	58-131	0	30				
Phenanthrene	99	99	48-140	0	30				
Pyrene	110	101	59-125	9	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: 13357WAF026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7320343	98	98	100
7320344	90	74	103
7320345	101	92	108
7320346	99	90	110
7320347	99	91	106
7320348	92	78	102
7320349	92	77	106
7320350	99	84	105
7320351	101	86	108
7320352	90	68	101
7320353	97	90	104
7320354	100	93	110
7320355	98	94	109
7320356	100	86	108
7320357	101	90	110
7320358	96	84	102
7320359	98	93	107
7320360	101	94	108
7320361	98	87	110
7320362	98	84	109
7320363	99	93	109
7320364	100	102	107
Blank	95	98	102
LCS	99	102	108
MS	98	87	110
MSD	98	84	109
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



Lancaster Laboratories
Environmental

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only
Group # 1442461 Sample # 7320343-64
Instructions on reverse side correspond with circled numbers.

1 of 2

1 Client Information						4 Matrix			5 Analyses Requested												6 Remarks		
Facility #/SID <u>Mayflower Pipeline Incident</u>						<input type="checkbox"/> Sediment <input type="checkbox"/> Soil <input type="checkbox"/> Potable <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Ground <input type="checkbox"/> NPDES <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Air			Preservation Code												SCR#: _____ Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other		
Site Address <u>Mayflower, AR</u>																							
ExxonMobil PM <u>Scott Bushroe</u>			Cost Center/AFE			Total # of Containers <u>PAHs 8270 SIM</u>																	
Consultant/Office <u>ARCADIS</u>																							
Consultant PM <u>Steve Barrick</u>			Consultant Phone # <u>919-302-6799</u>																				
Sampler <u>Ryan Lewis / Clement Quarrey-Papafio</u>																							
2 Sample Identification						3 Collected																	
						Date	Time																
WS-008 (Surface) 121813						12-18-2013	1100	X	X	2	X												
WS-007 (O.S.-1.0) 121813						12-18-2013	1230	X	X	2	X												
WS-009 (Surface) 121813						12-18-2013	1300	X	X	2	X												
WS-001 (O.S.-1.0) 121813						12-18-2013	1310	X	X	2	X												
WS-021 (Surface) 121813						12-18-2013	1325	X	X	2	X												
WS-004 (O.S.-1.0) 121813						12-18-2013	1345	X	X	2	X												
WS-020 (Surface) 121813						12-18-2013	1410	X	X	2	X												
WS-011 (LS-2.0) 121913						12-19-2013	1210	X	X	2	X												
WS-011 (S.O.-5.5) 121913						12-19-2013	1220	X	X	2	X												
WS-014 (LS-2.0) 121913						12-19-2013	1310	X	X	2	X												
WS-014 (S.O.-6.0) 121913						12-19-2013	1320	X	X	2	X												
WS-015 (LS-2.0) 121913						12-14-2013	1330	X	X	2	X												
7 Turnaround Time Requested (TAT) (please circle)						Relinquished by <u>[Signature]</u>			Date <u>12-19-2013</u>		Time <u>1700</u>		Received by <u>[Signature]</u>		Date _____		Time _____						
Standard 5 day 4 day 72 hour 48 hour 24 hour						Relinquished by			Date		Time		Received by		Date		Time						
						Relinquished by			Date		Time		Received by		Date		Time						
8 Data Package (circle if required)						Relinquished by Commercial Carrier			Date		Time		Received by <u>[Signature]</u>		Date <u>12/20/13</u>		Time <u>1135</u>						
Type I - Full Type VI (Raw Data) NJ Reduced Other _____						EDD (circle if required) Locus EIM (default) Other _____			UPS <u>X</u> FedEx _____ Other _____		Temperature Upon Receipt <u>0.5-0.6°C</u>		Custody Seals Intact? <u>Yes</u> No										

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

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

ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories
Environmental

Acct. # 14739 For Eurofins Lancaster Laboratories Environmental use only
Group # 1442461 Sample # 7320343-64
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								Temperature Upon Receipt <u>0.5-0.6</u> °C				Custody Seals Intact? <u>(Yes)</u> No																																																																																	

Environmental Sample Administration 1442461
Receipt Documentation LogClient/Project: ExxonmobilShipping Container Sealed: YES NODate of Receipt: 12/20/13Custody Seal Present * : YES NOTime of Receipt: 1135* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: 60-1Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	0.5	TB	WI	Y	B	
2	↓	0.6	↓	↓	↓	↓	
3			/				
4							
5							
6							

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: [Signature] 2308 Date/Time: 12/20/13 1424

Issued by Dept. 6042 Management

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 <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but \geq IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	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
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	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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