

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

October 07, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 09/30/2013

Group Number: 1422474

SDG: PEL80

PO Number: B0086003.1301

State of Sample Origin: AR

Client Sample DescriptionLancaster Labs (LL) #

WS-014(1.5-2.0)092813 Grab Surface Water	7217752
WS-014(5.5-6.0)092813 Grab Surface Water	7217753
WS-012(1.5-2.0)092813 Grab Surface Water	7217754
WS-012(5.0-5.5)092813 Grab Surface Water	7217755
WS-010(1.5-2.0)092813 Grab Surface Water	7217756
WS-010(3.5-4.0)092813 Grab Surface Water	7217757
WS-006(0.5-1.0)092813 Grab Surface Water	7217758
WS-005(Surface)092813 Grab Surface Water	7217759
WS-011(1.5-2.0)092813 Grab Surface Water	7217760
WS-011(5.0-5.5)092813 Grab Surface Water	7217761
WS-002(Surface)092813 Grab Surface Water	7217762
WS-018(Surface)092813 Grab Surface Water	7217763
WS-003(Surface)092813 Grab Surface Water	7217764
WS-007(0.5-1.0)092813 Grab Surface Water	7217765
WS-001(0.5-1.0)092813 Grab Surface Water	7217766
WS-EB-75-092813 Grab Water	7217767
DUP-WS-94-092813 Grab Surface Water	7217768

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

ELECTRONIC COPY TO
ARCADIS

Attn: Stephen Barrick

ELECTRONIC COPY TO
ARCADIS

Attn: Lyndi Mott

ELECTRONIC COPY TO
ExxonMobil

Attn: Michael J. Firth

ELECTRONIC COPY TO
ARCADIS

Attn: Emily Leamer

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ELECTRONIC	ARCADIS	Attn: Rhiannon Parmalee
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ELECTRONIC	ARCADIS	Attn: Jamie Pritchard
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ELECTRONIC	ExxonMobil	Attn: Michael L Sixsmith
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ELECTRONIC	ExxonMobil	Attn: Julie Foster
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Respectfully Submitted,



Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Project Name: Mayflower, AR Pipeline Incident
LLI Group #: 1422474

General Comments:

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

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

Project specific QC samples are not included in this data set

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

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

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

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

Batch #: 13273WAJ026 (Sample number(s): 7217752-7217768)

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7217756, 7217758, 7217759

Sample #s: 7217752, 7217753, 7217754, 7217755, 7217757, 7217760, 7217761, 7217762, 7217763, 7217764, 7217765, 7217766, 7217767, 7217768

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

Sample #s: 7217756, 7217758, 7217759

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis. 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.

EPA 1664A, Wet Chemistry

Batch #: 13280807901A (Sample number(s): 7217752-7217766, 7217768 UNSPK: 7217752)

The recovery(ies) for the following analyte(s) in the MS was outside the acceptance window: HEM (oil & grease)

Sample Description: WS-014(1.5-2.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217752
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 08:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28141 SDG#: PEL80-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

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Mayflower, AR
Pipeline Incident

LL Sample # WW 7217752
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 08:40 by HV

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
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Submitted: 09/30/2013 10:40

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28141 SDG#: PEL80-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	29.9	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0621	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-014(1.5-2.0)092813 Grab Surface Water
Mayflower, AR
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LL Sample # WW 7217752
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

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ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
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Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28141 SDG#: PEL80-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	6.81	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.13	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
	mg/l		mg/l	mg/l		
00259	Mercury	7439-97-6	0.000079 J	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132732AA	10/01/2013 02:26	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132732AA	10/01/2013 02:26	Stephanie A Selis	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAJ026	10/03/2013 15:12	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAJ026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132796256001	10/06/2013 06:24	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848004	10/04/2013 17:52	John P Hook	1
07046	Barium	SW-846 6010B	1	132731848004	10/04/2013 17:52	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132731848004	10/04/2013 17:52	John P Hook	1
01750	Calcium	SW-846 6010B	1	132731848004	10/04/2013 17:52	John P Hook	1
07051	Chromium	SW-846 6010B	1	132731848004	10/04/2013 17:52	John P Hook	1
07055	Lead	SW-846 6010B	1	132731848004	10/04/2013 17:52	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132731848004	10/04/2013 17:52	John P Hook	1
07061	Nickel	SW-846 6010B	1	132731848004	10/04/2013 17:52	John P Hook	1
07036	Selenium	SW-846 6010B	1	132731848004	10/04/2013 17:52	John P Hook	1
07066	Silver	SW-846 6010B	1	132731848004	10/04/2013 17:52	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132731848004	10/04/2013 17:52	John P Hook	1
00259	Mercury	SW-846 7470A	1	132745713002	10/02/2013 05:07	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848004	10/01/2013 08:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132745713002	10/01/2013 14:50	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13280807901A	10/07/2013 06:17	Yolunder Y Bunch	1

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

Sample Description: WS-014(5.5-6.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217753
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 08:30 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28145 SDG#: PEL80-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

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Mayflower, AR
Pipeline Incident

LL Sample # WW 7217753
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 08:30 by HV

ExxonMobil c/o Arcadis
630 Plaza Drive, Suite 600
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Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28145 SDG#: PEL80-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	30.0	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0599	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-014(5.5-6.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217753
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 08:30 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28145 SDG#: PEL80-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	6.84	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.15	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132732AA	10/01/2013 02:49	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132732AA	10/01/2013 02:49	Stephanie A Selis	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAJ026	10/03/2013 15:41	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAJ026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132796256001	10/06/2013 06:24	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848004	10/04/2013 17:56	John P Hook	1
07046	Barium	SW-846 6010B	1	132731848004	10/04/2013 17:56	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132731848004	10/04/2013 17:56	John P Hook	1
01750	Calcium	SW-846 6010B	1	132731848004	10/04/2013 17:56	John P Hook	1
07051	Chromium	SW-846 6010B	1	132731848004	10/04/2013 17:56	John P Hook	1
07055	Lead	SW-846 6010B	1	132731848004	10/04/2013 17:56	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132731848004	10/04/2013 17:56	John P Hook	1
07061	Nickel	SW-846 6010B	1	132731848004	10/04/2013 17:56	John P Hook	1
07036	Selenium	SW-846 6010B	1	132731848004	10/04/2013 17:56	John P Hook	1
07066	Silver	SW-846 6010B	1	132731848004	10/04/2013 17:56	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132731848004	10/04/2013 17:56	John P Hook	1
00259	Mercury	SW-846 7470A	1	132745713002	10/02/2013 05:09	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848004	10/01/2013 08:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132745713002	10/01/2013 14:50	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13280807901A	10/07/2013 06:17	Yolunder Y Bunch	1

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

Sample Description: WS-012(1.5-2.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217754
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 08:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28121 SDG#: PEL80-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: WS-012(1.5-2.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217754
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 08:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28121 SDG#: PEL80-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	29.3	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0352	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-012(1.5-2.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217754
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 08:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28121 SDG#: PEL80-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	6.65	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.07	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
	mg/l		mg/l	mg/l		
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132732AA	10/01/2013 03:11	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132732AA	10/01/2013 03:11	Stephanie A Selis	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAJ026	10/03/2013 16:10	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAJ026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132796256001	10/06/2013 06:24	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848004	10/04/2013 18:07	John P Hook	1
07046	Barium	SW-846 6010B	1	132731848004	10/04/2013 18:07	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132731848004	10/04/2013 18:07	John P Hook	1
01750	Calcium	SW-846 6010B	1	132731848004	10/04/2013 18:07	John P Hook	1
07051	Chromium	SW-846 6010B	1	132731848004	10/04/2013 18:07	John P Hook	1
07055	Lead	SW-846 6010B	1	132731848004	10/04/2013 18:07	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132731848004	10/04/2013 18:07	John P Hook	1
07061	Nickel	SW-846 6010B	1	132731848004	10/04/2013 18:07	John P Hook	1
07036	Selenium	SW-846 6010B	1	132731848004	10/04/2013 18:07	John P Hook	1
07066	Silver	SW-846 6010B	1	132731848004	10/04/2013 18:07	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132731848004	10/04/2013 18:07	John P Hook	1
00259	Mercury	SW-846 7470A	1	132745713002	10/02/2013 05:11	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848004	10/01/2013 08:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132745713002	10/01/2013 14:50	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13280807901A	10/07/2013 06:17	Yolunder Y Bunch	1

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

Sample Description: WS-012(5.0-5.5)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217755
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 09:00 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28125 SDG#: PEL80-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: WS-012(5.0-5.5)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217755
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 09:00 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28125 SDG#: PEL80-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	30.5	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0429	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-012(5.0-5.5)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217755
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 09:00 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28125 SDG#: PEL80-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	6.92	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.20	0.0167	0.100	1
07061	Nickel	7440-02-0	0.0018 J	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
	mg/l		mg/l	mg/l		
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132732AA	10/01/2013 03:34	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132732AA	10/01/2013 03:34	Stephanie A Selis	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAJ026	10/03/2013 16:40	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAJ026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132796256001	10/06/2013 06:24	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848004	10/04/2013 18:11	John P Hook	1
07046	Barium	SW-846 6010B	1	132731848004	10/04/2013 18:11	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132731848004	10/04/2013 18:11	John P Hook	1
01750	Calcium	SW-846 6010B	1	132731848004	10/04/2013 18:11	John P Hook	1
07051	Chromium	SW-846 6010B	1	132731848004	10/04/2013 18:11	John P Hook	1
07055	Lead	SW-846 6010B	1	132731848004	10/04/2013 18:11	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132731848004	10/04/2013 18:11	John P Hook	1
07061	Nickel	SW-846 6010B	1	132731848004	10/04/2013 18:11	John P Hook	1
07036	Selenium	SW-846 6010B	1	132731848004	10/04/2013 18:11	John P Hook	1
07066	Silver	SW-846 6010B	1	132731848004	10/04/2013 18:11	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132731848004	10/04/2013 18:11	John P Hook	1
00259	Mercury	SW-846 7470A	1	132745713002	10/02/2013 05:13	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848004	10/01/2013 08:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132745713002	10/01/2013 14:50	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13280807901A	10/07/2013 06:17	Yolunder Y Bunch	1

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

Sample Description: WS-010(1.5-2.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217756
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 09:10 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28101 SDG#: PEL80-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: WS-010(1.5-2.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217756
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 09:10 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28101 SDG#: PEL80-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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	0.011 J	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

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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.

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	29.6	0.033	0.20

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

Sample Description: WS-010(1.5-2.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217756
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 09:10 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28101 SDG#: PEL80-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0469	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.70	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.12	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000084 J	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132732AA	10/01/2013 03:57	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132732AA	10/01/2013 03:57	Stephanie A Selis	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAJ026	10/03/2013 17:09	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAJ026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132796256001	10/06/2013 06:24	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848004	10/04/2013 18:15	John P Hook	1
07046	Barium	SW-846 6010B	1	132731848004	10/04/2013 18:15	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132731848004	10/04/2013 18:15	John P Hook	1
01750	Calcium	SW-846 6010B	1	132731848004	10/04/2013 18:15	John P Hook	1
07051	Chromium	SW-846 6010B	1	132731848004	10/04/2013 18:15	John P Hook	1
07055	Lead	SW-846 6010B	1	132731848004	10/04/2013 18:15	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132731848004	10/04/2013 18:15	John P Hook	1
07061	Nickel	SW-846 6010B	1	132731848004	10/04/2013 18:15	John P Hook	1
07036	Selenium	SW-846 6010B	1	132731848004	10/04/2013 18:15	John P Hook	1
07066	Silver	SW-846 6010B	1	132731848004	10/04/2013 18:15	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132731848004	10/04/2013 18:15	John P Hook	1
00259	Mercury	SW-846 7470A	1	132745713002	10/02/2013 05:26	Damary Valentin	1

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

Sample Description: WS-010(1.5-2.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217756
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 09:10 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28101 SDG#: PEL80-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848004	10/01/2013 08:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132745713002	10/01/2013 14:50	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13280807901A	10/07/2013 06:17	Yolunder Y Bunch	1

Sample Description: WS-010(3.5-4.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217757
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 09:20 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28103 SDG#: PEL80-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: WS-010(3.5-4.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217757
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 09:20 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28103 SDG#: PEL80-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	29.8	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0465	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-010(3.5-4.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217757
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 09:20 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28103 SDG#: PEL80-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	6.76	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.15	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000087 J	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132732AA	10/01/2013 04:20	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132732AA	10/01/2013 04:20	Stephanie A Selis	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAJ026	10/03/2013 17:38	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAJ026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132796256001	10/06/2013 06:24	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848004	10/04/2013 18:19	John P Hook	1
07046	Barium	SW-846 6010B	1	132731848004	10/04/2013 18:19	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132731848004	10/04/2013 18:19	John P Hook	1
01750	Calcium	SW-846 6010B	1	132731848004	10/04/2013 18:19	John P Hook	1
07051	Chromium	SW-846 6010B	1	132731848004	10/04/2013 18:19	John P Hook	1
07055	Lead	SW-846 6010B	1	132731848004	10/04/2013 18:19	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132731848004	10/04/2013 18:19	John P Hook	1
07061	Nickel	SW-846 6010B	1	132731848004	10/04/2013 18:19	John P Hook	1
07036	Selenium	SW-846 6010B	1	132731848004	10/04/2013 18:19	John P Hook	1
07066	Silver	SW-846 6010B	1	132731848004	10/04/2013 18:19	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132731848004	10/04/2013 18:19	John P Hook	1
00259	Mercury	SW-846 7470A	1	132745713002	10/02/2013 05:28	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848004	10/01/2013 08:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132745713002	10/01/2013 14:50	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13280807901A	10/07/2013 06:17	Yolunder Y Bunch	1

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

Sample Description: WS-006(0.5-1.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217758
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 09:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28060 SDG#: PEL80-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: WS-006(0.5-1.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217758
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 09:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28060 SDG#: PEL80-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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.

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	29.6	0.033	0.20

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

Sample Description: WS-006(0.5-1.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217758
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 09:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28060 SDG#: PEL80-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0438	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.69	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.13	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	1.7 J	1.4	5.0	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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132732AA	10/01/2013 04:42	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132732AA	10/01/2013 04:42	Stephanie A Selis	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAWJ026	10/03/2013 18:08	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAWJ026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132796256001	10/06/2013 06:24	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848004	10/04/2013 17:28	John P Hook	1
07046	Barium	SW-846 6010B	1	132731848004	10/04/2013 17:28	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132731848004	10/04/2013 17:28	John P Hook	1
01750	Calcium	SW-846 6010B	1	132731848004	10/04/2013 17:28	John P Hook	1
07051	Chromium	SW-846 6010B	1	132731848004	10/04/2013 17:28	John P Hook	1
07055	Lead	SW-846 6010B	1	132731848004	10/04/2013 17:28	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132731848004	10/04/2013 17:28	John P Hook	1
07061	Nickel	SW-846 6010B	1	132731848004	10/04/2013 17:28	John P Hook	1
07036	Selenium	SW-846 6010B	1	132731848004	10/04/2013 17:28	John P Hook	1
07066	Silver	SW-846 6010B	1	132731848004	10/04/2013 17:28	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132731848004	10/04/2013 17:28	John P Hook	1
00259	Mercury	SW-846 7470A	1	132745713002	10/02/2013 05:30	Damary Valentin	1

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

Sample Description: WS-006(0.5-1.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217758
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 09:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28060 SDG#: PEL80-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848004	10/01/2013 08:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132745713002	10/01/2013 14:50	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13280807901A	10/07/2013 06:17	Yolunder Y Bunch	1

Sample Description: WS-005(Surface)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217759
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 10:10 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

2805S SDG#: PEL80-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	3.5 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: WS-005(Surface)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217759
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 10:10 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

2805S SDG#: PEL80-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.

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.

Metals	SM 2340 B-1997	mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	29.1	0.033	0.20

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

Sample Description: WS-005(Surface)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217759
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 10:10 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

2805S SDG#: PEL80-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6010B	mg/l	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0369	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1
01750	Calcium	7440-70-2	6.66	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.04	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
		EPA 1664A	mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	1.8 J	1.4	5.0	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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132732AA	10/01/2013 05:50	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132732AA	10/01/2013 05:50	Stephanie A Selis	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WJ026	10/03/2013 18:37	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WJ026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132796256001	10/06/2013 06:24	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848004	10/04/2013 18:23	John P Hook	1
07046	Barium	SW-846 6010B	1	132731848004	10/04/2013 18:23	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132731848004	10/04/2013 18:23	John P Hook	1
01750	Calcium	SW-846 6010B	1	132731848004	10/04/2013 18:23	John P Hook	1
07051	Chromium	SW-846 6010B	1	132731848004	10/04/2013 18:23	John P Hook	1
07055	Lead	SW-846 6010B	1	132731848004	10/04/2013 18:23	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132731848004	10/04/2013 18:23	John P Hook	1
07061	Nickel	SW-846 6010B	1	132731848004	10/04/2013 18:23	John P Hook	1
07036	Selenium	SW-846 6010B	1	132731848004	10/04/2013 18:23	John P Hook	1
07066	Silver	SW-846 6010B	1	132731848004	10/04/2013 18:23	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132731848004	10/04/2013 18:23	John P Hook	1
00259	Mercury	SW-846 7470A	1	132745713002	10/02/2013 05:32	Damary Valentin	1

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

Sample Description: WS-005(Surface)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217759
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 10:10 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

2805S SDG#: PEL80-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848004	10/01/2013 08:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132745713002	10/01/2013 14:50	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13280807901A	10/07/2013 06:17	Yolunder Y Bunch	1

Sample Description: WS-011(1.5-2.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217760
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 10:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28111 SDG#: PEL80-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: WS-011(1.5-2.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217760
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 10:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

281111 SDG#: PEL80-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	31.3	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.00539	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-011(1.5-2.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217760
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 10:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28111 SDG#: PEL80-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	7.04	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.33	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000088 J	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132732AA	10/01/2013 06:13	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132732AA	10/01/2013 06:13	Stephanie A Selis	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAJ026	10/03/2013 19:07	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAJ026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132796256001	10/06/2013 06:24	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848004	10/04/2013 18:27	John P Hook	1
07046	Barium	SW-846 6010B	1	132731848004	10/04/2013 18:27	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132731848004	10/04/2013 18:27	John P Hook	1
01750	Calcium	SW-846 6010B	1	132731848004	10/04/2013 18:27	John P Hook	1
07051	Chromium	SW-846 6010B	1	132731848004	10/04/2013 18:27	John P Hook	1
07055	Lead	SW-846 6010B	1	132731848004	10/04/2013 18:27	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132731848004	10/04/2013 18:27	John P Hook	1
07061	Nickel	SW-846 6010B	1	132731848004	10/04/2013 18:27	John P Hook	1
07036	Selenium	SW-846 6010B	1	132731848004	10/04/2013 18:27	John P Hook	1
07066	Silver	SW-846 6010B	1	132731848004	10/04/2013 18:27	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132731848004	10/04/2013 18:27	John P Hook	1
00259	Mercury	SW-846 7470A	1	132745713002	10/02/2013 05:34	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848004	10/01/2013 08:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132745713002	10/01/2013 14:50	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13280807901A	10/07/2013 06:17	Yolunder Y Bunch	1

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

Sample Description: WS-011(5.0-5.5)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217761
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 10:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28115 SDG#: PEL80-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: WS-011(5.0-5.5)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217761
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 10:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28115 SDG#: PEL80-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.053	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.053	1
08357	Anthracene	120-12-7	N.D.	0.011	0.053	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.053	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.053	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.053	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.053	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.053	1
08357	Chrysene	218-01-9	N.D.	0.011	0.053	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.053	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.053	1
08357	Fluorene	86-73-7	N.D.	0.011	0.053	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.053	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.053	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.053	1
08357	Naphthalene	91-20-3	N.D.	0.032	0.053	1
08357	Phenanthrene	85-01-8	N.D.	0.032	0.053	1
08357	Pyrene	129-00-0	N.D.	0.011	0.053	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	30.7	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0573	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-011(5.0-5.5)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217761
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 10:50 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28115 SDG#: PEL80-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	6.91	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.26	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
	mg/l		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000092 J	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132732AA	10/01/2013 06:36	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132732AA	10/01/2013 06:36	Stephanie A Selis	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAJ026	10/03/2013 19:36	Chad A Moline	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAJ026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132796256001	10/06/2013 06:24	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848004	10/04/2013 18:31	John P Hook	1
07046	Barium	SW-846 6010B	1	132731848004	10/04/2013 18:31	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132731848004	10/04/2013 18:31	John P Hook	1
01750	Calcium	SW-846 6010B	1	132731848004	10/04/2013 18:31	John P Hook	1
07051	Chromium	SW-846 6010B	1	132731848004	10/04/2013 18:31	John P Hook	1
07055	Lead	SW-846 6010B	1	132731848004	10/04/2013 18:31	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132731848004	10/04/2013 18:31	John P Hook	1
07061	Nickel	SW-846 6010B	1	132731848004	10/04/2013 18:31	John P Hook	1
07036	Selenium	SW-846 6010B	1	132731848004	10/04/2013 18:31	John P Hook	1
07066	Silver	SW-846 6010B	1	132731848004	10/04/2013 18:31	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132731848004	10/04/2013 18:31	John P Hook	1
00259	Mercury	SW-846 7470A	1	132745713002	10/02/2013 05:36	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848004	10/01/2013 08:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132745713002	10/01/2013 14:50	Nelli S Markaryan	1
08079	HEM (oil & grease)	EPA 1664A	1	13280807901A	10/07/2013 06:17	Yolunder Y Bunch	1

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

Sample Description: WS-002(Surface)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217762
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 11:00 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

2802S SDG#: PEL80-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: WS-002(Surface)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217762
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 11:00 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

2802S SDG#: PEL80-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	30.0	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0471	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-002(Surface)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217762
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 11:00 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

2802S SDG#: PEL80-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	6.83	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.14	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132732AA	10/01/2013 06:58	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132732AA	10/01/2013 06:58	Stephanie A Selis	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAJ026	10/04/2013 01:59	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAJ026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132796256001	10/06/2013 06:24	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848004	10/04/2013 18:35	John P Hook	1
07046	Barium	SW-846 6010B	1	132731848004	10/04/2013 18:35	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132731848004	10/04/2013 18:35	John P Hook	1
01750	Calcium	SW-846 6010B	1	132731848004	10/04/2013 18:35	John P Hook	1
07051	Chromium	SW-846 6010B	1	132731848004	10/04/2013 18:35	John P Hook	1
07055	Lead	SW-846 6010B	1	132731848004	10/04/2013 18:35	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132731848004	10/04/2013 18:35	John P Hook	1
07061	Nickel	SW-846 6010B	1	132731848004	10/04/2013 18:35	John P Hook	1
07036	Selenium	SW-846 6010B	1	132731848004	10/04/2013 18:35	John P Hook	1
07066	Silver	SW-846 6010B	1	132731848004	10/04/2013 18:35	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132731848004	10/04/2013 18:35	John P Hook	1
00259	Mercury	SW-846 7470A	1	132745713002	10/02/2013 05:38	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848004	10/01/2013 08:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132745713002	10/01/2013 14:50	Nelli S Markaryan	1

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

Sample Description: WS-002(Surface)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217762
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 11:00 by HV

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 09/30/2013 10:40

Highlands Ranch CO 80129

Reported: 10/07/2013 13:39

2802S SDG#: PEL80-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13280807901A	10/07/2013 06:17	Yolunder Y Bunch	1

Sample Description: WS-018(Surface)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217763
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 11:20 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

2818S SDG#: PEL80-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: WS-018(Surface)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217763
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 11:20 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

2818S SDG#: PEL80-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	30.5	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0791	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-018(Surface)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217763
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 11:20 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

2818S SDG#: PEL80-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	6.88	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.24	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132732AA	10/01/2013 07:21	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132732AA	10/01/2013 07:21	Stephanie A Selis	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAJ026	10/04/2013 02:28	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAJ026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132796256001	10/06/2013 06:24	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848004	10/04/2013 18:39	John P Hook	1
07046	Barium	SW-846 6010B	1	132731848004	10/04/2013 18:39	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132731848004	10/04/2013 18:39	John P Hook	1
01750	Calcium	SW-846 6010B	1	132731848004	10/04/2013 18:39	John P Hook	1
07051	Chromium	SW-846 6010B	1	132731848004	10/04/2013 18:39	John P Hook	1
07055	Lead	SW-846 6010B	1	132731848004	10/04/2013 18:39	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132731848004	10/04/2013 18:39	John P Hook	1
07061	Nickel	SW-846 6010B	1	132731848004	10/04/2013 18:39	John P Hook	1
07036	Selenium	SW-846 6010B	1	132731848004	10/04/2013 18:39	John P Hook	1
07066	Silver	SW-846 6010B	1	132731848004	10/04/2013 18:39	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132731848004	10/04/2013 18:39	John P Hook	1
00259	Mercury	SW-846 7470A	1	132745713002	10/02/2013 05:40	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848004	10/01/2013 08:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132745713002	10/01/2013 14:50	Nelli S Markaryan	1

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

Sample Description: WS-018(Surface)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217763
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 11:20 by HV

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 09/30/2013 10:40

Highlands Ranch CO 80129

Reported: 10/07/2013 13:39

2818S SDG#: PEL80-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13280807901A	10/07/2013 06:17	Yolunder Y Bunch	1

Sample Description: WS-003(Surface)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217764
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 11:30 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

2803S SDG#: PEL80-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: WS-003(Surface)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217764
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 11:30 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

2803S SDG#: PEL80-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.4 J	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	0.1 J	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	0.2 J	0.1	0.5	1
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	0.028 J	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	0.026 J	0.010	0.051	1
08357	Naphthalene	91-20-3	0.071	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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	31.7	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0701	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-003 (Surface) 092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217764
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 11:30 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

2803S SDG#: PEL80-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	7.14	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.37	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	1.8 J	1.4	5.0	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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132732AA	10/01/2013 07:43	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132732AA	10/01/2013 07:43	Stephanie A Selis	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAJ026	10/04/2013 02:58	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAJ026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132796256001	10/06/2013 06:24	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848004	10/04/2013 18:42	John P Hook	1
07046	Barium	SW-846 6010B	1	132731848004	10/04/2013 18:42	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132731848004	10/04/2013 18:42	John P Hook	1
01750	Calcium	SW-846 6010B	1	132731848004	10/04/2013 18:42	John P Hook	1
07051	Chromium	SW-846 6010B	1	132731848004	10/04/2013 18:42	John P Hook	1
07055	Lead	SW-846 6010B	1	132731848004	10/04/2013 18:42	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132731848004	10/04/2013 18:42	John P Hook	1
07061	Nickel	SW-846 6010B	1	132731848004	10/04/2013 18:42	John P Hook	1
07036	Selenium	SW-846 6010B	1	132731848004	10/04/2013 18:42	John P Hook	1
07066	Silver	SW-846 6010B	1	132731848004	10/04/2013 18:42	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132731848004	10/04/2013 18:42	John P Hook	1
00259	Mercury	SW-846 7470A	1	132745713002	10/02/2013 05:42	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848004	10/01/2013 08:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132745713002	10/01/2013 14:50	Nelli S Markaryan	1

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

Sample Description: WS-003 (Surface) 092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217764
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 11:30 by HV

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 09/30/2013 10:40

Highlands Ranch CO 80129

Reported: 10/07/2013 13:39

2803S SDG#: PEL80-13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13280807901A	10/07/2013 06:17	Yolunder Y Bunch	1

Sample Description: WS-007(0.5-1.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217765
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 11:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28070 SDG#: PEL80-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	8.6	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	1.2 J	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: WS-007(0.5-1.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217765
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 11:40 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28070 SDG#: PEL80-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	0.6	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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	0.013 J	0.010	0.052	1
08357	Benzo(a)anthracene	56-55-3	0.027 J	0.010	0.052	1
08357	Benzo(a)pyrene	50-32-8	0.031 J	0.010	0.052	1
08357	Benzo(b)fluoranthene	205-99-2	0.079	0.010	0.052	1
08357	Benzo(g,h,i)perylene	191-24-2	0.045 J	0.010	0.052	1
08357	Benzo(k)fluoranthene	207-08-9	0.026 J	0.010	0.052	1
08357	Chrysene	218-01-9	0.11	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	0.069	0.010	0.052	1
08357	Fluorene	86-73-7	0.023 J	0.010	0.052	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.028 J	0.010	0.052	1
08357	1-Methylnaphthalene	90-12-0	0.037 J	0.010	0.052	1
08357	2-Methylnaphthalene	91-57-6	0.055	0.010	0.052	1
08357	Naphthalene	91-20-3	0.046 J	0.031	0.052	1
08357	Phenanthrene	85-01-8	0.064	0.031	0.052	1
08357	Pyrene	129-00-0	0.061	0.010	0.052	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	176	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	0.0608	0.0068	0.0200	1
07046	Barium	7440-39-3	1.55	0.00033	0.0050	1
07049	Cadmium	7440-43-9	0.0012 J	0.00076	0.0050	1

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

Sample Description: WS-007(0.5-1.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217765
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 11:40 by HV

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

Submitted: 09/30/2013 10:40

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28070 SDG#: PEL80-14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	37.7	0.0334	0.200	1
07051	Chromium	7440-47-3	0.167	0.0016	0.0150	1
07055	Lead	7439-92-1	0.247	0.0047	0.0150	1
01757	Magnesium	7439-95-4	19.8	0.0167	0.100	1
07061	Nickel	7440-02-0	0.214	0.0015	0.0100	1
07036	Selenium	7782-49-2	0.0211	0.0084	0.0200	1
07066	Silver	7440-22-4	0.0045 J	0.0021	0.0050	1
07071	Vanadium	7440-62-2	0.260	0.0020	0.0050	1
SW-846 7470A						
			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.00038	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132732AA	10/01/2013 08:06	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132732AA	10/01/2013 08:06	Stephanie A Selis	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAJ026	10/04/2013 03:27	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAJ026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132796256001	10/06/2013 06:24	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848004	10/04/2013 18:54	John P Hook	1
07046	Barium	SW-846 6010B	1	132731848004	10/04/2013 18:54	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132731848004	10/04/2013 18:54	John P Hook	1
01750	Calcium	SW-846 6010B	1	132731848004	10/04/2013 18:54	John P Hook	1
07051	Chromium	SW-846 6010B	1	132731848004	10/04/2013 18:54	John P Hook	1
07055	Lead	SW-846 6010B	1	132731848004	10/04/2013 18:54	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132731848004	10/04/2013 18:54	John P Hook	1
07061	Nickel	SW-846 6010B	1	132731848004	10/04/2013 18:54	John P Hook	1
07036	Selenium	SW-846 6010B	1	132731848004	10/04/2013 18:54	John P Hook	1
07066	Silver	SW-846 6010B	1	132731848004	10/04/2013 18:54	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132731848004	10/04/2013 18:54	John P Hook	1
00259	Mercury	SW-846 7470A	1	132745713002	10/02/2013 05:44	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848004	10/01/2013 08:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132745713002	10/01/2013 14:50	Nelli S Markaryan	1

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

Sample Description: WS-007(0.5-1.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217765
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 11:40 by HV

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 09/30/2013 10:40

Highlands Ranch CO 80129

Reported: 10/07/2013 13:39

28070 SDG#: PEL80-14

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13280807901A	10/07/2013 06:17	Yolunder Y Bunch	1

Sample Description: WS-001(0.5-1.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217766
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 12:00 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28010 SDG#: PEL80-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	3.2 J	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: WS-001(0.5-1.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217766
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 12:00 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28010 SDG#: PEL80-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	29.8	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0454	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-001(0.5-1.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217766
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 12:00 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

28010 SDG#: PEL80-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	6.76	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.15	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
			mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	1.6 J	1.4	5.0	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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132732AA	10/01/2013 08:28	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132732AA	10/01/2013 08:28	Stephanie A Selis	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAJ026	10/04/2013 03:56	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAJ026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132796256001	10/06/2013 06:24	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848004	10/04/2013 18:58	John P Hook	1
07046	Barium	SW-846 6010B	1	132731848004	10/04/2013 18:58	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132731848004	10/04/2013 18:58	John P Hook	1
01750	Calcium	SW-846 6010B	1	132731848004	10/04/2013 18:58	John P Hook	1
07051	Chromium	SW-846 6010B	1	132731848004	10/04/2013 18:58	John P Hook	1
07055	Lead	SW-846 6010B	1	132731848004	10/04/2013 18:58	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132731848004	10/04/2013 18:58	John P Hook	1
07061	Nickel	SW-846 6010B	1	132731848004	10/04/2013 18:58	John P Hook	1
07036	Selenium	SW-846 6010B	1	132731848004	10/04/2013 18:58	John P Hook	1
07066	Silver	SW-846 6010B	1	132731848004	10/04/2013 18:58	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132731848004	10/04/2013 18:58	John P Hook	1
00259	Mercury	SW-846 7470A	1	132745713002	10/02/2013 05:50	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848004	10/01/2013 08:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132745713002	10/01/2013 14:50	Nelli S Markaryan	1

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

Sample Description: WS-001(0.5-1.0)092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217766
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 12:00 by HV

ExxonMobil c/o Arcadis

630 Plaza Drive, Suite 600

Submitted: 09/30/2013 10:40

Highlands Ranch CO 80129

Reported: 10/07/2013 13:39

28010 SDG#: PEL80-15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13280807901A	10/07/2013 06:17	Yolunder Y Bunch	1

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

Sample Description: WS-EB-75-092813 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217767
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 12:30 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

-EB75 SDG#: PEL80-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: WS-EB-75-092813 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217767
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 12:30 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

-EB75 SDG#: PEL80-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.011	0.057	1
08357	Acenaphthylene	208-96-8	N.D.	0.011	0.057	1
08357	Anthracene	120-12-7	N.D.	0.011	0.057	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.011	0.057	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.011	0.057	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.011	0.057	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.011	0.057	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.011	0.057	1
08357	Chrysene	218-01-9	N.D.	0.011	0.057	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.011	0.057	1
08357	Fluoranthene	206-44-0	N.D.	0.011	0.057	1
08357	Fluorene	86-73-7	N.D.	0.011	0.057	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.011	0.057	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.011	0.057	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.011	0.057	1
08357	Naphthalene	91-20-3	N.D.	0.034	0.057	1
08357	Phenanthrene	85-01-8	N.D.	0.034	0.057	1
08357	Pyrene	129-00-0	N.D.	0.011	0.057	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	0.36	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.00078 J	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: WS-EB-75-092813 Grab Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217767
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 12:30 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

-EB75 SDG#: PEL80-16EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	0.146 J	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	N.D.	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
		SW-846 7470A	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132732AA	10/01/2013 08:51	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132732AA	10/01/2013 08:51	Stephanie A Selis	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAJ026	10/04/2013 04:26	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAJ026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132796256001	10/06/2013 06:24	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848004	10/04/2013 19:02	John P Hook	1
07046	Barium	SW-846 6010B	1	132731848004	10/04/2013 19:02	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132731848004	10/04/2013 19:02	John P Hook	1
01750	Calcium	SW-846 6010B	1	132731848004	10/04/2013 19:02	John P Hook	1
07051	Chromium	SW-846 6010B	1	132731848004	10/04/2013 19:02	John P Hook	1
07055	Lead	SW-846 6010B	1	132731848004	10/04/2013 19:02	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132731848004	10/04/2013 19:02	John P Hook	1
07061	Nickel	SW-846 6010B	1	132731848004	10/04/2013 19:02	John P Hook	1
07036	Selenium	SW-846 6010B	1	132731848004	10/04/2013 19:02	John P Hook	1
07066	Silver	SW-846 6010B	1	132731848004	10/04/2013 19:02	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132731848004	10/04/2013 19:02	John P Hook	1
00259	Mercury	SW-846 7470A	1	132745713002	10/02/2013 05:52	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848004	10/01/2013 08:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132745713002	10/01/2013 14:50	Nelli S Markaryan	1

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

Sample Description: DUP-WS-94-092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217768
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

DUP94 SDG#: PEL80-17FD*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL purge	ug/l	ug/l	ug/l	
02898	Acetone	67-64-1	N.D.	3.0	5.0	1
02898	Allyl Chloride	107-05-1	N.D.	0.1	0.5	1
02898	Benzene	71-43-2	N.D.	0.1	0.5	1
02898	Bromobenzene	108-86-1	N.D.	0.1	0.5	1
02898	Bromochloromethane	74-97-5	N.D.	0.1	0.5	1
02898	Bromodichloromethane	75-27-4	N.D.	0.1	0.5	1
02898	Bromoform	75-25-2	N.D.	0.1	0.5	1
02898	Bromomethane	74-83-9	N.D.	0.1	0.5	1
02898	2-Butanone	78-93-3	N.D.	1.0	5.0	1
02898	n-Butylbenzene	104-51-8	N.D.	0.1	0.5	1
02898	sec-Butylbenzene	135-98-8	N.D.	0.1	0.5	1
02898	tert-Butylbenzene	98-06-6	N.D.	0.1	0.5	1
02898	Carbon Tetrachloride	56-23-5	N.D.	0.1	0.5	1
02898	Chlorobenzene	108-90-7	N.D.	0.1	0.5	1
02898	Chloroethane	75-00-3	N.D.	0.1	0.5	1
02898	Chloroform	67-66-3	N.D.	0.1	0.5	1
02898	Chloromethane	74-87-3	N.D.	0.2	0.5	1
02898	2-Chlorotoluene	95-49-8	N.D.	0.1	0.5	1
02898	4-Chlorotoluene	106-43-4	N.D.	0.1	0.5	1
02898	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.2	0.5	1
02898	Dibromochloromethane	124-48-1	N.D.	0.1	0.5	1
02898	1,2-Dibromoethane	106-93-4	N.D.	0.1	0.5	1
02898	Dibromomethane	74-95-3	N.D.	0.1	0.5	1
02898	1,2-Dichlorobenzene	95-50-1	N.D.	0.1	0.5	1
02898	1,3-Dichlorobenzene	541-73-1	N.D.	0.1	0.5	1
02898	1,4-Dichlorobenzene	106-46-7	N.D.	0.1	0.5	1
02898	Dichlorodifluoromethane	75-71-8	N.D.	0.1	0.5	1
02898	1,1-Dichloroethane	75-34-3	N.D.	0.1	0.5	1
02898	1,2-Dichloroethane	107-06-2	N.D.	0.1	0.5	1
02898	1,1-Dichloroethene	75-35-4	N.D.	0.1	0.5	1
02898	cis-1,2-Dichloroethene	156-59-2	N.D.	0.1	0.5	1
02898	trans-1,2-Dichloroethene	156-60-5	N.D.	0.1	0.5	1
02898	Dichlorofluoromethane	75-43-4	N.D.	0.2	0.5	1
02898	1,2-Dichloropropane	78-87-5	N.D.	0.1	0.5	1
02898	1,3-Dichloropropane	142-28-9	N.D.	0.1	0.5	1
02898	2,2-Dichloropropane	594-20-7	N.D.	0.1	0.5	1
02898	1,1-Dichloropropene	563-58-6	N.D.	0.1	0.5	1
02898	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.1	0.5	1
02898	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.1	0.5	1
02898	Ethyl ether	60-29-7	N.D.	0.1	0.5	1
02898	Ethylbenzene	100-41-4	N.D.	0.1	0.5	1
02898	Freon 113	76-13-1	N.D.	0.2	0.5	1
02898	Hexachlorobutadiene	87-68-3	N.D.	0.1	0.5	1
02898	Isopropylbenzene	98-82-8	N.D.	0.1	0.5	1
02898	p-Isopropyltoluene	99-87-6	N.D.	0.1	0.5	1
02898	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.1	0.5	1
02898	4-Methyl-2-Pentanone	108-10-1	N.D.	1.0	5.0	1
02898	Methylene Chloride	75-09-2	N.D.	0.2	0.5	1

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

Sample Description: DUP-WS-94-092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217768
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

DUP94 SDG#: PEL80-17FD*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260B 25mL	ug/l	ug/l	ug/l	
	purge					
02898	n-Propylbenzene	103-65-1	N.D.	0.1	0.5	1
02898	Styrene	100-42-5	N.D.	0.1	0.5	1
02898	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.1	0.5	1
02898	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.1	0.5	1
02898	Tetrachloroethene	127-18-4	N.D.	0.1	0.5	1
02898	Tetrahydrofuran	109-99-9	N.D.	2.0	5.0	1
02898	Toluene	108-88-3	N.D.	0.1	0.5	1
02898	1,2,3-Trichlorobenzene	87-61-6	N.D.	0.1	0.5	1
02898	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.1	0.5	1
02898	1,1,1-Trichloroethane	71-55-6	N.D.	0.1	0.5	1
02898	1,1,2-Trichloroethane	79-00-5	N.D.	0.1	0.5	1
02898	Trichloroethene	79-01-6	N.D.	0.1	0.5	1
02898	Trichlorofluoromethane	75-69-4	N.D.	0.1	0.5	1
02898	1,2,3-Trichloropropane	96-18-4	N.D.	0.3	1.0	1
02898	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.1	0.5	1
02898	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.1	0.5	1
02898	Vinyl Chloride	75-01-4	N.D.	0.1	0.5	1
02898	Xylene (Total)	1330-20-7	N.D.	0.1	0.5	1
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	0.032 J	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1
The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.						
Metals	SM 2340 B-1997	mg/l	mg/l	mg/l		
06256	Total Hardness as CaCO3	471-34-1	30.2	0.033	0.20	1
	SW-846 6010B	mg/l	mg/l	mg/l		
07035	Arsenic	7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium	7440-39-3	0.0430	0.00033	0.0050	1
07049	Cadmium	7440-43-9	N.D.	0.00076	0.0050	1

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

Sample Description: DUP-WS-94-092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217768
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 by HV

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

Submitted: 09/30/2013 10:40

Reported: 10/07/2013 13:39

DUP94 SDG#: PEL80-17FD*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01750	Calcium	7440-70-2	6.85	0.0334	0.200	1
07051	Chromium	7440-47-3	N.D.	0.0016	0.0150	1
07055	Lead	7439-92-1	N.D.	0.0047	0.0150	1
01757	Magnesium	7439-95-4	3.19	0.0167	0.100	1
07061	Nickel	7440-02-0	N.D.	0.0015	0.0100	1
07036	Selenium	7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver	7440-22-4	N.D.	0.0021	0.0050	1
07071	Vanadium	7440-62-2	N.D.	0.0020	0.0050	1
SW-846 7470A						
	mg/l		mg/l	mg/l		
00259	Mercury	7439-97-6	N.D.	0.000060	0.00020	1
Wet Chemistry						
	EPA 1664A		mg/l	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	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
02898	Silvertip & Mayflower VOCs8260	SW-846 8260B 25mL purge	1	C132732AA	10/01/2013 09:14	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	C132732AA	10/01/2013 09:14	Stephanie A Selis	1
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13273WAJ026	10/04/2013 04:55	Catherine E Bachman	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13273WAJ026	10/01/2013 10:30	Anna E Stager	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	132796256001	10/06/2013 06:24	Deborah A Krady	1
07035	Arsenic	SW-846 6010B	1	132731848004	10/04/2013 19:06	John P Hook	1
07046	Barium	SW-846 6010B	1	132731848004	10/04/2013 19:06	John P Hook	1
07049	Cadmium	SW-846 6010B	1	132731848004	10/04/2013 19:06	John P Hook	1
01750	Calcium	SW-846 6010B	1	132731848004	10/04/2013 19:06	John P Hook	1
07051	Chromium	SW-846 6010B	1	132731848004	10/04/2013 19:06	John P Hook	1
07055	Lead	SW-846 6010B	1	132731848004	10/04/2013 19:06	John P Hook	1
01757	Magnesium	SW-846 6010B	1	132731848004	10/04/2013 19:06	John P Hook	1
07061	Nickel	SW-846 6010B	1	132731848004	10/04/2013 19:06	John P Hook	1
07036	Selenium	SW-846 6010B	1	132731848004	10/04/2013 19:06	John P Hook	1
07066	Silver	SW-846 6010B	1	132731848004	10/04/2013 19:06	John P Hook	1
07071	Vanadium	SW-846 6010B	1	132731848004	10/04/2013 19:06	John P Hook	1
00259	Mercury	SW-846 7470A	1	132745713002	10/02/2013 05:54	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132731848004	10/01/2013 08:06	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132745713002	10/01/2013 14:50	Nelli S Markaryan	1

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

Sample Description: DUP-WS-94-092813 Grab Surface Water
Mayflower, AR
Pipeline Incident

LL Sample # WW 7217768
LL Group # 1422474
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 09/28/2013 by HV

ExxonMobil c/o Arcadis

Submitted: 09/30/2013 10:40

630 Plaza Drive, Suite 600

Reported: 10/07/2013 13:39

Highlands Ranch CO 80129

DUP94 SDG#: PEL80-17FD*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08079	HEM (oil & grease)	EPA 1664A	1	13280807901A	10/07/2013 06:17	Yolunder Y Bunch	1

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

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 10/07/13 at 01:39 PM

Group Number: 1422474

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: C132732AA	Sample number(s): 7217752-7217768								
Acetone	N.D.	3.0	5.0	ug/l	99		60-139		
Allyl Chloride	N.D.	0.1	0.5	ug/l	80		61-130		
Benzene	N.D.	0.1	0.5	ug/l	103		80-120		
Bromobenzene	N.D.	0.1	0.5	ug/l	102		80-120		
Bromochloromethane	N.D.	0.1	0.5	ug/l	107		80-125		
Bromodichloromethane	N.D.	0.1	0.5	ug/l	107		80-120		
Bromoform	N.D.	0.1	0.5	ug/l	105		73-128		
Bromomethane	N.D.	0.1	0.5	ug/l	99		62-126		
2-Butanone	N.D.	1.0	5.0	ug/l	110		70-130		
n-Butylbenzene	N.D.	0.1	0.5	ug/l	103		80-120		
sec-Butylbenzene	N.D.	0.1	0.5	ug/l	100		80-120		
tert-Butylbenzene	N.D.	0.1	0.5	ug/l	108		80-120		
Carbon Tetrachloride	N.D.	0.1	0.5	ug/l	120		80-129		
Chlorobenzene	N.D.	0.1	0.5	ug/l	108		80-120		
Chloroethane	N.D.	0.1	0.5	ug/l	92		68-120		
Chloroform	N.D.	0.1	0.5	ug/l	111		80-120		
Chloromethane	N.D.	0.2	0.5	ug/l	84		55-120		
2-Chlorotoluene	N.D.	0.1	0.5	ug/l	103		80-120		
4-Chlorotoluene	N.D.	0.1	0.5	ug/l	104		80-120		
1,2-Dibromo-3-chloropropane	N.D.	0.2	0.5	ug/l	120		64-141		
Dibromochloromethane	N.D.	0.1	0.5	ug/l	110		80-126		
1,2-Dibromoethane	N.D.	0.1	0.5	ug/l	101		80-120		
Dibromomethane	N.D.	0.1	0.5	ug/l	109		80-120		
1,2-Dichlorobenzene	N.D.	0.1	0.5	ug/l	103		80-120		
1,3-Dichlorobenzene	N.D.	0.1	0.5	ug/l	105		80-120		
1,4-Dichlorobenzene	N.D.	0.1	0.5	ug/l	105		80-120		
Dichlorodifluoromethane	N.D.	0.1	0.5	ug/l	85		39-120		
1,1-Dichloroethane	N.D.	0.1	0.5	ug/l	104		80-120		
1,2-Dichloroethane	N.D.	0.1	0.5	ug/l	110		80-127		
1,1-Dichloroethene	N.D.	0.1	0.5	ug/l	110		80-123		
cis-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	105		80-120		
trans-1,2-Dichloroethene	N.D.	0.1	0.5	ug/l	109		80-120		
Dichlorofluoromethane	N.D.	0.2	0.5	ug/l	105		75-145		
1,2-Dichloropropane	N.D.	0.1	0.5	ug/l	100		80-120		
1,3-Dichloropropane	N.D.	0.1	0.5	ug/l	98		80-120		
2,2-Dichloropropane	N.D.	0.1	0.5	ug/l	103		75-122		
1,1-Dichloropropene	N.D.	0.1	0.5	ug/l	103		80-121		
cis-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	95		80-123		
trans-1,3-Dichloropropene	N.D.	0.1	0.5	ug/l	91		80-120		
Ethyl ether	N.D.	0.1	0.5	ug/l	97		59-130		
Ethylbenzene	N.D.	0.1	0.5	ug/l	105		80-120		
Freon 113	N.D.	0.2	0.5	ug/l	107		78-132		
Hexachlorobutadiene	N.D.	0.1	0.5	ug/l	104		73-120		

*- 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 SummaryClient Name: ExxonMobil c/o Arcadis
Reported: 10/07/13 at 01:39 PM

Group Number: 1422474

<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>
Isopropylbenzene	N.D.	0.1	0.5	ug/l	103		80-120		
p-Isopropyltoluene	N.D.	0.1	0.5	ug/l	101		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.1	0.5	ug/l	87		80-120		
4-Methyl-2-Pentanone	N.D.	1.0	5.0	ug/l	77		69-135		
Methylene Chloride	N.D.	0.2	0.5	ug/l	108		80-120		
n-Propylbenzene	N.D.	0.1	0.5	ug/l	102		80-120		
Styrene	N.D.	0.1	0.5	ug/l	104		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	109		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.1	0.5	ug/l	94		80-125		
Tetrachloroethene	N.D.	0.1	0.5	ug/l	111		80-120		
Tetrahydrofuran	N.D.	2.0	5.0	ug/l	122		65-131		
Toluene	N.D.	0.1	0.5	ug/l	104		80-120		
1,2,3-Trichlorobenzene	N.D.	0.1	0.5	ug/l	91		63-120		
1,2,4-Trichlorobenzene	N.D.	0.1	0.5	ug/l	88		70-120		
1,1,1-Trichloroethane	N.D.	0.1	0.5	ug/l	115		80-120		
1,1,2-Trichloroethane	N.D.	0.1	0.5	ug/l	103		80-120		
Trichloroethene	N.D.	0.1	0.5	ug/l	110		80-120		
Trichlorofluoromethane	N.D.	0.1	0.5	ug/l	109		77-132		
1,2,3-Trichloropropane	N.D.	0.3	1.0	ug/l	101		80-120		
1,2,4-Trimethylbenzene	N.D.	0.1	0.5	ug/l	101		80-120		
1,3,5-Trimethylbenzene	N.D.	0.1	0.5	ug/l	101		80-120		
Vinyl Chloride	N.D.	0.1	0.5	ug/l	92		65-127		
Xylene (Total)	N.D.	0.1	0.5	ug/l	104		80-120		

Batch number: 13273WAJ026	Sample number(s): 7217752-7217768								
Acenaphthene	N.D.	0.010	0.050	ug/l	98	97	77-118	2	30
Acenaphthylene	N.D.	0.010	0.050	ug/l	104	103	80-123	1	30
Anthracene	N.D.	0.010	0.050	ug/l	101	100	78-123	1	30
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	100	97	73-127	2	30
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	103	102	72-120	1	30
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	104	106	79-136	2	30
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	97	97	64-130	0	30
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	107	109	73-131	2	30
Chrysene	N.D.	0.010	0.050	ug/l	104	102	76-125	1	30
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	96	96	58-131	0	30
Fluoranthene	N.D.	0.010	0.050	ug/l	115	112	79-124	2	30
Fluorene	N.D.	0.010	0.050	ug/l	102	100	74-115	2	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	94	94	62-130	0	30
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	110	109	80-126	1	30
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	107	105	81-124	2	30
Naphthalene	N.D.	0.030	0.050	ug/l	102	100	75-120	1	30
Phenanthrene	N.D.	0.030	0.050	ug/l	103	102	75-120	1	30
Pyrene	N.D.	0.010	0.050	ug/l	100	100	71-130	0	30

Batch number: 132731848004	Sample number(s): 7217752-7217768								
Arsenic	N.D.	0.0068	0.0200	mg/l	100		90-113		
Barium	N.D.	0.00033	0.0050	mg/l	102		90-110		
Cadmium	N.D.	0.00076	0.0050	mg/l	101		90-112		
Calcium	0.0544 J	0.0334	0.200	mg/l	104		90-112		
Chromium	N.D.	0.0016	0.0150	mg/l	102		90-110		
Lead	N.D.	0.0047	0.0150	mg/l	106		88-110		
Magnesium	0.0383 J	0.0167	0.100	mg/l	103		89-110		
Nickel	N.D.	0.0015	0.0100	mg/l	104		90-111		
Selenium	N.D.	0.0084	0.0200	mg/l	99		80-120		
Silver	N.D.	0.0021	0.0050	mg/l	98		80-120		
Vanadium	N.D.	0.0020	0.0050	mg/l	104		90-110		

*- 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: 1422474

Reported: 10/07/13 at 01:39 PM

<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: 132745713002	Sample number(s): 7217752-7217768								
Mercury	N.D.	0.00006	0.00020	mg/l	99		80-120		
		0							
Batch number: 13280807901A	Sample number(s): 7217752-7217766, 7217768								
HEM (oil & grease)	1.8	J 1.4	5.0	mg/l	99	93	78-114	5	16

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: C132732AA	Sample number(s): 7217752-7217768 UNSPK: 7217752								
Acetone	108	119	57-163	9	30				
Allyl Chloride	80	85	56-160	5	30				
Benzene	110	104	87-126	6	30				
Bromobenzene	108	101	80-123	6	30				
Bromochloromethane	113	113	82-125	1	30				
Bromodichloromethane	114	107	82-133	7	30				
Bromoform	117	108	60-138	7	30				
Bromomethane	102	108	66-130	6	30				
2-Butanone	97	108	56-160	11	30				
n-Butylbenzene	112	104	83-131	8	30				
sec-Butylbenzene	108	102	84-128	6	30				
tert-Butylbenzene	110	110	84-135	0	30				
Carbon Tetrachloride	138	128	81-148	8	30				
Chlorobenzene	116	109	78-133	6	30				
Chloroethane	96	100	70-139	5	30				
Chloroform	120	113	86-136	6	30				
Chloromethane	85	91	49-135	8	30				
2-Chlorotoluene	108	103	75-134	5	30				
4-Chlorotoluene	112	104	76-134	7	30				
1,2-Dibromo-3-chloropropane	103	112	43-143	8	30				
Dibromochloromethane	116	108	79-125	7	30				
1,2-Dibromoethane	104	100	84-127	5	30				
Dibromomethane	116	107	83-126	8	30				
1,2-Dichlorobenzene	110	103	83-117	7	30				
1,3-Dichlorobenzene	112	105	79-132	6	30				
1,4-Dichlorobenzene	110	105	79-120	5	30				
Dichlorodifluoromethane	98	99	28-136	0	30				
1,1-Dichloroethane	109	105	88-136	4	30				
1,2-Dichloroethane	119	110	82-135	7	30				
1,1-Dichloroethene	119	114	83-150	4	30				
cis-1,2-Dichloroethene	112	105	82-129	6	30				
trans-1,2-Dichloroethene	118	111	88-127	6	30				
Dichlorofluoromethane	111	116	81-161	4	30				
1,2-Dichloropropane	106	101	91-126	5	30				
1,3-Dichloropropane	102	97	80-127	6	30				
2,2-Dichloropropane	113	107	80-134	5	30				
1,1-Dichloropropene	113	107	86-139	6	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
Reported: 10/07/13 at 01:39 PM

Group Number: 1422474

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
cis-1,3-Dichloropropene	96	92	74-132	4	30				
trans-1,3-Dichloropropene	93	88	71-128	6	30				
Ethyl ether	95	102	57-139	7	30				
Ethylbenzene	114	106	80-140	7	30				
Freon 113	130	115	77-147	12	30				
Hexachlorobutadiene	114	105	65-128	9	30				
Isopropylbenzene	113	106	81-133	7	30				
p-Isopropyltoluene	109	103	84-124	5	30				
Methyl Tertiary Butyl Ether	90	86	82-132	4	30				
4-Methyl-2-Pentanone	83	78	69-149	6	30				
Methylene Chloride	113	110	77-135	3	30				
n-Propylbenzene	110	103	79-131	6	30				
Styrene	112	105	63-151	6	30				
1,1,1,2-Tetrachloroethane	121	113	87-126	7	30				
1,1,2,2-Tetrachloroethane	99	95	75-131	5	30				
Tetrachloroethene	122	113	75-129	8	30				
Tetrahydrofuran	100	116	56-154	14	30				
Toluene	112	106	83-127	5	30				
1,2,3-Trichlorobenzene	95	88	73-125	8	30				
1,2,4-Trichlorobenzene	94	88	77-120	6	30				
1,1,1-Trichloroethane	127	119	85-140	7	30				
1,1,2-Trichloroethane	109	103	85-129	6	30				
Trichloroethene	120	113	85-131	6	30				
Trichlorofluoromethane	127	128	73-139	1	30				
1,2,3-Trichloropropane	105	100	76-120	5	30				
1,2,4-Trimethylbenzene	108	101	87-126	6	30				
1,3,5-Trimethylbenzene	109	102	89-129	7	30				
Vinyl Chloride	97	103	62-135	6	30				
Xylene (Total)	113	106	81-137	7	30				

Batch number: 132731848004	Sample number(s): 7217752-7217768 UNSPK: 7217758 BKG: 7217758								
Arsenic	101	103	81-123	2	20	N.D.	N.D.	0 (1)	20
Barium	101	104	78-118	2	20	0.0438	0.0433	1	20
Cadmium	98	99	83-116	1	20	N.D.	N.D.	0 (1)	20
Calcium	97	101	75-125	1	20	6.69	6.81	2	20
Chromium	101	103	76-120	2	20	N.D.	N.D.	0 (1)	20
Lead	104	105	75-125	2	20	N.D.	N.D.	0 (1)	20
Magnesium	97	101	75-125	1	20	3.13	3.18	2	20
Nickel	101	103	86-115	2	20	N.D.	N.D.	0 (1)	20
Selenium	97	98	75-125	1	20	N.D.	N.D.	0 (1)	20
Silver	99	99	75-125	1	20	N.D.	N.D.	0 (1)	20
Vanadium	103	106	90-117	3	20	N.D.	N.D.	0 (1)	20

Batch number: 132745713002	Sample number(s): 7217752-7217768 UNSPK: 7217755 BKG: 7217755								
Mercury	100	101	80-120	1	20	N.D.	N.D.	0 (1)	20

Batch number: 13280807901A	Sample number(s): 7217752-7217766,7217768 UNSPK: 7217752								
HEM (oil & grease)	24*		78-114						

*- Outside of specification

**.-This limit was used in the evaluation of the final result for the blank

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil c/o Arcadis
Reported: 10/07/13 at 01:39 PM

Group Number: 1422474

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: BTEX 25-ml purge

Batch number: C132732AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7217752	107	102	96	95
7217753	108	99	95	94
7217754	108	103	95	95
7217755	109	101	95	94
7217756	110	103	96	95
7217757	109	102	95	94
7217758	109	102	94	94
7217759	108	101	95	94
7217760	109	102	96	95
7217761	110	103	96	94
7217762	110	101	96	94
7217763	110	102	95	94
7217764	109	101	95	96
7217765	111	102	94	94
7217766	111	103	95	93
7217767	112	101	95	93
7217768	113	103	95	95
Blank	108	99	96	94
LCS	104	101	98	100
MS	107	103	99	101
MSD	106	103	99	101
Limits:	77-114	74-113	77-110	78-110

Analysis Name: PAHs in waters by SIM

Batch number: 13273WAJ026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7217752	106	70	103
7217753	104	68	101
7217754	108	74	102
7217755	106	76	102
7217756	87	60*	82
7217757	102	72	98
7217758	79	30*	89
7217759	73	27*	84
7217760	105	67	100
7217761	110	69	106
7217762	101	62	101
7217763	104	67	103
7217764	102	70	101
7217765	81	69	89
7217766	102	74	101
7217767	105	100	101
7217768	100	68	91
Blank	98	87	96
LCS	108	105	108
LCSD	104	103	106

*- 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
Reported: 10/07/13 at 01:39 PM

Group Number: 1422474

Surrogate Quality Control

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 # 1422474 Sample # 7217752-68
Instructions on reverse side correspond with circled numbers.

1 of 3

1 Client Information				4 Matrix		5 Analyses Requested										SCR#: _____ Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other	
Facility #/SID: <u>Mayflower Pipeline Incident</u> Site Address: <u>Mayflower, AR</u> ExxonMobil PM: <u>Scott Boshroe</u> Cost Center/AFE: _____ Consultant/Office: <u>ARCADIS</u> Consultant PM: <u>Steve Barrick</u> Consultant Phone #: <u>919-302-6779</u> Sampler: <u>Hans Van Aller / Ryan Lewis</u>				Sediment ☐ Ground ☐ Surface ☒ Potable ☐ NPDES ☐ Air ☐ Soil ☐ Water ☐ Oil ☐		Preservation Code H ☐ N ☐ S ☐ T ☐ B ☐ O ☐ VOCs 8260 B PAH 8270 SIM RCR Metals + G, Ni, Pb, V Diss Metals HEM Oil & Grease											
2 Sample Identification				3 Grab Composite		6 Remarks											
Collected Date Time WS-014 (1.5-2.0) 092813 9-28-13 0840 WS-014 (5.5-6.0) 092813 9-28-13 0830 WS-012 (1.5-2.0) 092813 9-28-13 0850 WS-012 (5.0-5.5) 092813 9-28-13 0900 WS-010 (1.5-2.0) 092813 9-28-13 0910 WS-010 (3.5-4.5) 092813 9-28-13 0920 WS-006 (0.5-1.0) 092813 9-28-13 0940 WS-005 (surface) 092813 9-28-13 1010 WS-011 (1.5-2.0) 092813 9-28-13 1040 WS-011 (5.0-5.5) 092813 9-28-13 1050 WS-002 (surface) 092813 9-28-13 1100 WS-018 (surface) 092813 9-28-13 1120				Grab ☐ Composite ☐													
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by: <u>[Signature]</u> Date: <u>9-29-13</u> Time: <u>1400</u> Relinquished by: _____ Date: _____ Time: _____ Relinquished by: _____ Date: _____ Time: _____ Relinquished by Commercial Carrier: _____ UPS _____ FedEx _____ Other <u>Southwest</u>		Received by: _____ Date: _____ Time: _____ Received by: _____ Date: _____ Time: _____ Received by: _____ Date: _____ Time: _____ Received by: <u>[Signature]</u> Date: <u>9-30-13</u> Time: <u>1040</u>											
Standard <u>5 day</u> 4 day 72 hour 48 hour 24 hour																	
8 Data Package (circle if required)				Temperature Upon Receipt: <u>0.7-4.4°C</u>		Custody Seals Intact? <u>Yes</u> No											
Type I - Full Type VI (Raw Data) NJ Reduced Other _____ EDD (circle if required) Locus EIM (default) Other _____																	

eurofins

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only
Group # 1422474 Sample # 7217752-68
Instructions on reverse side correspond with circled numbers.

2 of 3

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.

Environmental Sample Administration
Receipt Documentation Log

1422474

Client/Project: Exxon MobilShipping Container Sealed: YES NODate of Receipt: 9/30/13Custody Seal Present * : YES NOTime of Receipt: 1040* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: 01

Package:

ChilledNot 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	DT131	1.7	TB	WI	Y	B	
2	↓	1.0	↓	↓	↓	↓	
3	↓	1.9	↓	↓	↓	↓	
4	↓	2.3	↓	↓	↓	↓	
5	↓	1.1	↓	↓	↓	↓	
6	↓	2.7	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Anne H. Owen / 210 Date/Time: 9/30/13 1125

Issued by Dept. 6042 Management

2174.06

Environmental Sample Administration
Receipt Documentation Log

1422474

Client/Project: Exxon MobilShipping Container Sealed: YES NODate of Receipt: 9-30-13Custody Seal Present *: YES NOTime of Receipt: 1040* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: 01Package: 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
7/8 7/8	DT121	2.7°	TB	WI	Y	B	
8/8 8/8	↓	2.4°	↓	↓	↓	↓	
9/8 9/8	↓	3.0°	↓	↓	↓	↓	
10/8 10/8	↓	0.7°	↓	↓	↓	↓	
11/8 11/8	↓	0.9°	↓	↓	↓	↓	
8/8 8/8	↓	4.4°	↓	↓	↓	↓	

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

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Kunitz 2123 Date/Time: 9-30-13 1125

Issued by Dept. 6042 Management

2174.06

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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