

## ANALYTICAL RESULTS

Prepared by:

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Lancaster, PA 17601

Prepared for:

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

July 27, 2013

Project: Mayflower, AR Pipeline Incident

Submittal Date: 07/20/2013

Group Number: 1405523

SDG: PEJ27

PO Number: 4510076246

Release Number: MAYFLOWER 1406

State of Sample Origin: AR

Client Sample DescriptionLancaster Labs (LL) #

|                                          |         |
|------------------------------------------|---------|
| WS-005(Surface)071913 Grab Surface Water | 7133315 |
| WS-014(1.5-2.0)071913 Grab Surface Water | 7133316 |
| WS-012(1.5-2.0)071913 Grab Surface Water | 7133317 |
| WS-010(1.5-2.0)071913 Grab Surface Water | 7133318 |
| WS-011(1.5-2.0)071913 Grab Surface Water | 7133319 |
| WS-003(Surface)071913 Grab Surface Water | 7133320 |
| WS-018(Surface)071913 Grab Surface Water | 7133321 |
| WS-002(Surface)071913 Grab Surface Water | 7133322 |
| WS-001(0.5-1.0)071913 Grab Surface Water | 7133323 |
| WS-007(0.5-1.0)071913 Grab Surface Water | 7133324 |
| WS-006(0.5-1.0)071913 Grab Surface Water | 7133325 |
| DUP-WS-58-071913 Grab Surface Water      | 7133326 |
| WS-EB-05-071913 Grab Surface Water       | 7133327 |
| WS-TB-101-071913 Water                   | 7133328 |

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

ELECTRONIC     ARCADIS

COPY TO

Attn: Stephen Barrick

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Attn: Lyndi Mott

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Attn: Michael J. Firth

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Attn: Emily Leamer

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Attn: Rhiannon Parmalee

|            |            |                          |
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Respectfully Submitted,



Katherine A. Klinefelter  
Principal Specialist

(717) 556-7256

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Project Name: Mayflower, AR Pipeline Incident  
LLI Group #: 1405523

**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 8260B 25mL purge, GC/MS Volatiles**

Batch #: H132031AA (Sample number(s): 7133315-7133328 UNSPK: 7133317)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: 1,2-Dichloropropane, Dibromomethane

**SW-846 8270C SIM, GC/MS Semivolatiles**

Batch #: 13203WAD026 (Sample number(s): 7133315-7133327)

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7133319, 7133320, 7133321

Sample #s: 7133315, 7133316, 7133317, 7133318, 7133322, 7133323, 7133324, 7133325, 7133326, 7133327

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

Sample #s: 7133319, 7133320, 7133321

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.

**Sample Description:** WS-005(Surface)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133315  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 07:25 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

M05S- SDG#: PEJ27-01

| 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

**Sample Description:** WS-005(Surface)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133315  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 07:25 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

M05S- SDG#: PEJ27-01

| CAT No.                                                                                                                     | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>                                                                                                                | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|                                                                                                                             | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>                                                                                                                | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 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. |                           |                          |                    |                                     |                                   |                 |
| <b>Metals</b>                                                                                                               | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256                                                                                                                       | Total Hardness as CaCO3   | 471-34-1                 | 26.8               | 0.033                               | 0.20                              | 1               |
|                                                                                                                             | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035                                                                                                                       | Arsenic                   | 7440-38-2                | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046                                                                                                                       | Barium                    | 7440-39-3                | 0.0332             | 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-005(Surface)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133315  
LL Group # 1405523  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/19/2013 07:25 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/20/2013 09:15

PO Box 4416

Reported: 07/27/2013 04:34

Houston TX 77210-4416

M05S- SDG#: PEJ27-01

| CAT No.       | Analysis Name       | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b> |                     |            |                    |                                     |                                   |                 |
|               | <b>SW-846 6010B</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 01750         | Calcium             | 7440-70-2  | 6.22               | 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  | 2.74               | 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               |
|               | <b>SW-846 7470A</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259         | Mercury             | 7439-97-6  | N.D.               | 0.000060                            | 0.00020                           | 1               |

## General Sample Comments

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      | H132031AA    | 07/22/2013 13:45       | Kerri E Legerlotz  | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | H132031AA    | 07/22/2013 13:45       | Kerri E Legerlotz  | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13203WAD026  | 07/23/2013 07:05       | Brian K Graham     | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 1      | 13203WAD026  | 07/22/2013 18:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132036256001 | 07/23/2013 05:02       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:46       | John P Hook        | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:46       | John P Hook        | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:46       | John P Hook        | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:46       | John P Hook        | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:46       | John P Hook        | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:46       | John P Hook        | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:46       | John P Hook        | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:46       | John P Hook        | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:46       | John P Hook        | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:46       | John P Hook        | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:46       | John P Hook        | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132035713002 | 07/24/2013 04:18       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132011848003 | 07/22/2013 10:33       | James L Mertzt     | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132035713002 | 07/23/2013 13:00       | Nelli S Markaryan  | 1               |

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

**Sample Description:** WS-014(1.5-2.0)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133316  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 08:20 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

M141- SDG#: PEJ27-02

| 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

**Sample Description:** WS-014(1.5-2.0)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133316  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 08:20 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

M141- SDG#: PEJ27-02

| CAT No.                                                                                                                     | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>                                                                                                                | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|                                                                                                                             | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>                                                                                                                | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 08357                                                                                                                       | Acenaphthene              | 83-32-9                  | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357                                                                                                                       | Acenaphthylene            | 208-96-8                 | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357                                                                                                                       | Anthracene                | 120-12-7                 | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357                                                                                                                       | Benzo(a)anthracene        | 56-55-3                  | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357                                                                                                                       | Benzo(a)pyrene            | 50-32-8                  | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357                                                                                                                       | Benzo(b)fluoranthene      | 205-99-2                 | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357                                                                                                                       | Benzo(g,h,i)perylene      | 191-24-2                 | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357                                                                                                                       | Benzo(k)fluoranthene      | 207-08-9                 | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357                                                                                                                       | Chrysene                  | 218-01-9                 | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357                                                                                                                       | Dibenz(a,h)anthracene     | 53-70-3                  | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357                                                                                                                       | Fluoranthene              | 206-44-0                 | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357                                                                                                                       | Fluorene                  | 86-73-7                  | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357                                                                                                                       | Indeno(1,2,3-cd)pyrene    | 193-39-5                 | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357                                                                                                                       | 1-Methylnaphthalene       | 90-12-0                  | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357                                                                                                                       | 2-Methylnaphthalene       | 91-57-6                  | N.D.               | 0.011                               | 0.055                             | 1               |
| 08357                                                                                                                       | Naphthalene               | 91-20-3                  | N.D.               | 0.033                               | 0.055                             | 1               |
| 08357                                                                                                                       | Phenanthrene              | 85-01-8                  | N.D.               | 0.033                               | 0.055                             | 1               |
| 08357                                                                                                                       | Pyrene                    | 129-00-0                 | N.D.               | 0.011                               | 0.055                             | 1               |
| The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis. |                           |                          |                    |                                     |                                   |                 |
| <b>Metals</b>                                                                                                               | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256                                                                                                                       | Total Hardness as CaCO3   | 471-34-1                 | 26.3               | 0.033                               | 0.20                              | 1               |
|                                                                                                                             | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035                                                                                                                       | Arsenic                   | 7440-38-2                | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046                                                                                                                       | Barium                    | 7440-39-3                | 0.0404             | 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)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133316  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 08:20 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/20/2013 09:15

PO Box 4416

Reported: 07/27/2013 04:34

Houston TX 77210-4416

M141- SDG#: PEJ27-02

| CAT No.       | Analysis Name       | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b> |                     |            |                    |                                     |                                   |                 |
|               | <b>SW-846 6010B</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 01750         | Calcium             | 7440-70-2  | 6.01               | 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  | 2.74               | 0.0167                              | 0.100                             | 1               |
| 07061         | Nickel              | 7440-02-0  | 0.0017 J           | 0.0015                              | 0.0100                            | 1               |
| 07036         | Selenium            | 7782-49-2  | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066         | Silver              | 7440-22-4  | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071         | Vanadium            | 7440-62-2  | N.D.               | 0.0020                              | 0.0050                            | 1               |
|               | <b>SW-846 7470A</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259         | Mercury             | 7439-97-6  | N.D.               | 0.000060                            | 0.00020                           | 1               |

## General Sample Comments

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      | H132031AA    | 07/22/2013 14:06       | Kerri E Legerlotz  | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | H132031AA    | 07/22/2013 14:06       | Kerri E Legerlotz  | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13203WAD026  | 07/23/2013 07:32       | Brian K Graham     | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 1      | 13203WAD026  | 07/22/2013 18:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132036256001 | 07/23/2013 05:02       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:50       | John P Hook        | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:50       | John P Hook        | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:50       | John P Hook        | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:50       | John P Hook        | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:50       | John P Hook        | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:50       | John P Hook        | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:50       | John P Hook        | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:50       | John P Hook        | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:50       | John P Hook        | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:50       | John P Hook        | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:50       | John P Hook        | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132035713002 | 07/24/2013 04:20       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132011848003 | 07/22/2013 10:33       | James L Mertzt     | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132035713002 | 07/23/2013 13:00       | Nelli S Markaryan  | 1               |

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

**Sample Description:** WS-012(1.5-2.0)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133317  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 08:40 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

M121- SDG#: PEJ27-03

| 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)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133317  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 08:40 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/20/2013 09:15

PO Box 4416

Reported: 07/27/2013 04:34

Houston TX 77210-4416

M121- SDG#: PEJ27-03

| CAT No.                                                                                                                     | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>                                                                                                                | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|                                                                                                                             | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>                                                                                                                | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 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.               | 0.033                               | 0.054                             | 1               |
| 08357                                                                                                                       | Phenanthrene              | 85-01-8                  | N.D.               | 0.033                               | 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. |                           |                          |                    |                                     |                                   |                 |
| <b>Metals</b>                                                                                                               | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256                                                                                                                       | Total Hardness as CaCO3   | 471-34-1                 | 25.8               | 0.033                               | 0.20                              | 1               |
|                                                                                                                             | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035                                                                                                                       | Arsenic                   | 7440-38-2                | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046                                                                                                                       | Barium                    | 7440-39-3                | 0.0341             | 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)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133317  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 08:40 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/20/2013 09:15

PO Box 4416

Reported: 07/27/2013 04:34

Houston TX 77210-4416

M121- SDG#: PEJ27-03

| CAT No.       | Analysis Name       | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b> |                     |            |                    |                                     |                                   |                 |
|               | <b>SW-846 6010B</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 01750         | Calcium             | 7440-70-2  | 5.89               | 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  | 2.69               | 0.0167                              | 0.100                             | 1               |
| 07061         | Nickel              | 7440-02-0  | 0.0023 J           | 0.0015                              | 0.0100                            | 1               |
| 07036         | Selenium            | 7782-49-2  | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066         | Silver              | 7440-22-4  | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071         | Vanadium            | 7440-62-2  | N.D.               | 0.0020                              | 0.0050                            | 1               |
|               | <b>SW-846 7470A</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259         | Mercury             | 7439-97-6  | N.D.               | 0.000060                            | 0.00020                           | 1               |

## General Sample Comments

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      | H132031AA    | 07/22/2013 11:42       | Kerri E Legerlotz  | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | H132031AA    | 07/22/2013 11:42       | Kerri E Legerlotz  | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13203WAD026  | 07/23/2013 07:59       | Brian K Graham     | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 1      | 13203WAD026  | 07/22/2013 18:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132036256001 | 07/23/2013 05:02       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:01       | John P Hook        | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:01       | John P Hook        | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:01       | John P Hook        | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:01       | John P Hook        | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:01       | John P Hook        | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:01       | John P Hook        | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:01       | John P Hook        | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:01       | John P Hook        | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:01       | John P Hook        | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:01       | John P Hook        | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:01       | John P Hook        | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132035713002 | 07/24/2013 04:22       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132011848003 | 07/22/2013 10:33       | James L Mertzt     | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132035713002 | 07/23/2013 13:00       | Nelli S Markaryan  | 1               |

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

**Sample Description:** WS-010(1.5-2.0)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133318  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 09:05 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

M101- SDG#: PEJ27-04

| 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-010(1.5-2.0)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133318  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 09:05 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

M101- SDG#: PEJ27-04

| CAT No.                                                                                                                     | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>                                                                                                                | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|                                                                                                                             | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>                                                                                                                | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 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. |                           |                          |                    |                                     |                                   |                 |
| <b>Metals</b>                                                                                                               | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256                                                                                                                       | Total Hardness as CaCO3   | 471-34-1                 | 25.2               | 0.033                               | 0.20                              | 1               |
|                                                                                                                             | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035                                                                                                                       | Arsenic                   | 7440-38-2                | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046                                                                                                                       | Barium                    | 7440-39-3                | 0.0293             | 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(1.5-2.0)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133318  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 09:05 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/20/2013 09:15

PO Box 4416

Reported: 07/27/2013 04:34

Houston TX 77210-4416

M101- SDG#: PEJ27-04

| CAT No.       | Analysis Name       | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b> |                     |            |                    |                                     |                                   |                 |
|               | <b>SW-846 6010B</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 01750         | Calcium             | 7440-70-2  | 5.71               | 0.0334                              | 0.200                             | 1               |
| 07051         | Chromium            | 7440-47-3  | 0.0028 J           | 0.0016                              | 0.0150                            | 1               |
| 07055         | Lead                | 7439-92-1  | N.D.               | 0.0047                              | 0.0150                            | 1               |
| 01757         | Magnesium           | 7439-95-4  | 2.65               | 0.0167                              | 0.100                             | 1               |
| 07061         | Nickel              | 7440-02-0  | 0.0028 J           | 0.0015                              | 0.0100                            | 1               |
| 07036         | Selenium            | 7782-49-2  | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066         | Silver              | 7440-22-4  | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071         | Vanadium            | 7440-62-2  | N.D.               | 0.0020                              | 0.0050                            | 1               |
|               | <b>SW-846 7470A</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259         | Mercury             | 7439-97-6  | N.D.               | 0.000060                            | 0.00020                           | 1               |

## General Sample Comments

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      | H132031AA    | 07/22/2013 12:02       | Kerri E Legerlotz  | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | H132031AA    | 07/22/2013 12:02       | Kerri E Legerlotz  | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13203WAD026  | 07/23/2013 08:27       | Brian K Graham     | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 1      | 13203WAD026  | 07/22/2013 18:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132036256001 | 07/23/2013 05:02       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:05       | John P Hook        | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:05       | John P Hook        | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:05       | John P Hook        | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:05       | John P Hook        | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:05       | John P Hook        | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:05       | John P Hook        | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:05       | John P Hook        | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:05       | John P Hook        | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:05       | John P Hook        | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:05       | John P Hook        | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:05       | John P Hook        | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132035713002 | 07/24/2013 04:24       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132011848003 | 07/22/2013 10:33       | James L Mertzt     | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132035713002 | 07/23/2013 13:00       | Nelli S Markaryan  | 1               |

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

**Sample Description:** WS-011(1.5-2.0)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133319  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 10:00 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

M111- SDG#: PEJ27-05

| 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-011(1.5-2.0)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133319  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 10:00 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

M111- SDG#: PEJ27-05

| CAT No.      | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|--------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b> | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|              | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b> | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 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.

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.

|               |                                     |             |             |             |      |
|---------------|-------------------------------------|-------------|-------------|-------------|------|
| <b>Metals</b> | <b>SM 2340 B-1997</b>               | <b>mg/l</b> | <b>mg/l</b> | <b>mg/l</b> |      |
| 06256         | Total Hardness as CaCO <sub>3</sub> | 471-34-1    | 26.6        | 0.033       | 0.20 |

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

Sample Description: WS-011(1.5-2.0)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133319  
LL Group # 1405523  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/19/2013 10:00 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/20/2013 09:15

PO Box 4416

Reported: 07/27/2013 04:34

Houston TX 77210-4416

M111- SDG#: PEJ27-05

| CAT No.       | Analysis Name | CAS Number          | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b> |               | <b>SW-846 6010B</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07035         | Arsenic       | 7440-38-2           | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046         | Barium        | 7440-39-3           | 0.0534             | 0.00033                             | 0.0050                            | 1               |
| 07049         | Cadmium       | 7440-43-9           | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750         | Calcium       | 7440-70-2           | 6.03               | 0.0334                              | 0.200                             | 1               |
| 07051         | Chromium      | 7440-47-3           | 0.0026 J           | 0.0016                              | 0.0150                            | 1               |
| 07055         | Lead          | 7439-92-1           | N.D.               | 0.0047                              | 0.0150                            | 1               |
| 01757         | Magnesium     | 7439-95-4           | 2.80               | 0.0167                              | 0.100                             | 1               |
| 07061         | Nickel        | 7440-02-0           | 0.0020 J           | 0.0015                              | 0.0100                            | 1               |
| 07036         | Selenium      | 7782-49-2           | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066         | Silver        | 7440-22-4           | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071         | Vanadium      | 7440-62-2           | N.D.               | 0.0020                              | 0.0050                            | 1               |
|               |               | <b>SW-846 7470A</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259         | Mercury       | 7439-97-6           | N.D.               | 0.000060                            | 0.00020                           | 1               |

## General Sample Comments

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      | H132031AA    | 07/22/2013 12:23       | Kerri E Legerlotz  | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | H132031AA    | 07/22/2013 12:23       | Kerri E Legerlotz  | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13203WAD026  | 07/23/2013 08:54       | Brian K Graham     | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 1      | 13203WAD026  | 07/22/2013 18:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132036256001 | 07/23/2013 05:02       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:09       | John P Hook        | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:09       | John P Hook        | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:09       | John P Hook        | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:09       | John P Hook        | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:09       | John P Hook        | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:09       | John P Hook        | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:09       | John P Hook        | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:09       | John P Hook        | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:09       | John P Hook        | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:09       | John P Hook        | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:09       | John P Hook        | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132035713002 | 07/24/2013 04:26       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132011848003 | 07/22/2013 10:33       | James L Mertz      | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132035713002 | 07/23/2013 13:00       | Nelli S Markaryan  | 1               |

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

Sample Description: WS-003(Surface)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133320  
LL Group # 1405523  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/19/2013 10:20 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

M03S- SDG#: PEJ27-06

| 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-003(Surface)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133320  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 10:20 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/20/2013 09:15

PO Box 4416

Reported: 07/27/2013 04:34

Houston TX 77210-4416

M03S- SDG#: PEJ27-06

| CAT No.      | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|--------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b> | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|              | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b> | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 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                  | 0.013 J            | 0.011                               | 0.053                             | 1               |
| 08357        | Benzo(a)pyrene            | 50-32-8                  | N.D.               | 0.011                               | 0.053                             | 1               |
| 08357        | Benzo(b)fluoranthene      | 205-99-2                 | 0.018 J            | 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                 | 0.013 J            | 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                 | 0.24               | 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.

|               |                         |             |             |             |      |
|---------------|-------------------------|-------------|-------------|-------------|------|
| <b>Metals</b> | <b>SM 2340 B-1997</b>   | <b>mg/l</b> | <b>mg/l</b> | <b>mg/l</b> |      |
| 06256         | Total Hardness as CaCO3 | 471-34-1    | 27.0        | 0.033       | 0.20 |

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

Sample Description: WS-003(Surface)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133320  
LL Group # 1405523  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/19/2013 10:20 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/20/2013 09:15

PO Box 4416

Reported: 07/27/2013 04:34

Houston TX 77210-4416

M03S- SDG#: PEJ27-06

| CAT No.       | Analysis Name | CAS Number          | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b> |               |                     |                    |                                     |                                   |                 |
|               |               | <b>SW-846 6010B</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07035         | Arsenic       | 7440-38-2           | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046         | Barium        | 7440-39-3           | 0.0495             | 0.00033                             | 0.0050                            | 1               |
| 07049         | Cadmium       | 7440-43-9           | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750         | Calcium       | 7440-70-2           | 6.08               | 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           | 2.86               | 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               |
|               |               | <b>SW-846 7470A</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259         | Mercury       | 7439-97-6           | N.D.               | 0.000060                            | 0.00020                           | 1               |

## General Sample Comments

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      | H132031AA    | 07/22/2013 12:43       | Kerri E Legerlotz  | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | H132031AA    | 07/22/2013 12:43       | Kerri E Legerlotz  | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13203WAD026  | 07/23/2013 09:21       | Brian K Graham     | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 1      | 13203WAD026  | 07/22/2013 18:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132036256001 | 07/23/2013 05:02       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:13       | John P Hook        | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:13       | John P Hook        | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:13       | John P Hook        | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:13       | John P Hook        | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:13       | John P Hook        | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:13       | John P Hook        | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:13       | John P Hook        | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:13       | John P Hook        | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:13       | John P Hook        | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:13       | John P Hook        | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:13       | John P Hook        | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132035713002 | 07/24/2013 04:39       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132011848003 | 07/22/2013 10:33       | James L Mertzt     | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132035713002 | 07/23/2013 13:00       | Nelli S Markaryan  | 1               |

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

**Sample Description:** WS-018(Surface)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133321  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 10:30 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

M18S- SDG#: PEJ27-07

| 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-018(Surface)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133321  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 10:30 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/20/2013 09:15

PO Box 4416

Reported: 07/27/2013 04:34

Houston TX 77210-4416

M18S- SDG#: PEJ27-07

| CAT No.      | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|--------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b> | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|              | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b> | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 08357        | Acenaphthene              | 83-32-9                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357        | Acenaphthylene            | 208-96-8                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357        | Anthracene                | 120-12-7                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357        | Benzo(a)anthracene        | 56-55-3                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357        | Benzo(a)pyrene            | 50-32-8                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357        | Benzo(b)fluoranthene      | 205-99-2                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357        | Benzo(g,h,i)perylene      | 191-24-2                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357        | Benzo(k)fluoranthene      | 207-08-9                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357        | Chrysene                  | 218-01-9                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357        | Dibenz(a,h)anthracene     | 53-70-3                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357        | Fluoranthene              | 206-44-0                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357        | Fluorene                  | 86-73-7                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357        | Indeno(1,2,3-cd)pyrene    | 193-39-5                 | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357        | 1-Methylnaphthalene       | 90-12-0                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357        | 2-Methylnaphthalene       | 91-57-6                  | N.D.               | 0.010                               | 0.050                             | 1               |
| 08357        | Naphthalene               | 91-20-3                  | 0.035 J            | 0.030                               | 0.050                             | 1               |
| 08357        | Phenanthrene              | 85-01-8                  | N.D.               | 0.030                               | 0.050                             | 1               |
| 08357        | Pyrene                    | 129-00-0                 | N.D.               | 0.010                               | 0.050                             | 1               |

The 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.

|               |                         |             |             |             |      |
|---------------|-------------------------|-------------|-------------|-------------|------|
| <b>Metals</b> | <b>SM 2340 B-1997</b>   | <b>mg/l</b> | <b>mg/l</b> | <b>mg/l</b> |      |
| 06256         | Total Hardness as CaCO3 | 471-34-1    | 26.2        | 0.033       | 0.20 |

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

Sample Description: WS-018(Surface)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133321  
LL Group # 1405523  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/19/2013 10:30 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/20/2013 09:15

PO Box 4416

Reported: 07/27/2013 04:34

Houston TX 77210-4416

M18S- SDG#: PEJ27-07

| CAT No.       | Analysis Name | CAS Number          | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------|---------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b> |               |                     |                    |                                     |                                   |                 |
|               |               | <b>SW-846 6010B</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 07035         | Arsenic       | 7440-38-2           | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046         | Barium        | 7440-39-3           | 0.0358             | 0.00033                             | 0.0050                            | 1               |
| 07049         | Cadmium       | 7440-43-9           | N.D.               | 0.00076                             | 0.0050                            | 1               |
| 01750         | Calcium       | 7440-70-2           | 5.91               | 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           | 2.78               | 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               |
|               |               | <b>SW-846 7470A</b> | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259         | Mercury       | 7439-97-6           | N.D.               | 0.000060                            | 0.00020                           | 1               |

## General Sample Comments

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      | H132031AA    | 07/22/2013 13:04       | Kerri E Legerlotz  | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | H132031AA    | 07/22/2013 13:04       | Kerri E Legerlotz  | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13203WAD026  | 07/23/2013 09:48       | Brian K Graham     | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 1      | 13203WAD026  | 07/22/2013 18:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132036256001 | 07/23/2013 05:02       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:22       | John P Hook        | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:22       | John P Hook        | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:22       | John P Hook        | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:22       | John P Hook        | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:22       | John P Hook        | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:22       | John P Hook        | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:22       | John P Hook        | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:22       | John P Hook        | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:22       | John P Hook        | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:22       | John P Hook        | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 17:22       | John P Hook        | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132035713002 | 07/24/2013 04:41       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132011848003 | 07/22/2013 10:33       | James L Mertz      | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132035713002 | 07/23/2013 13:00       | Nelli S Markaryan  | 1               |

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



Sample Description: WS-002(Surface)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133322  
LL Group # 1405523  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/19/2013 10:50 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

M02S- SDG#: PEJ27-08

| 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           | 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)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133322  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 10:50 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/20/2013 09:15

PO Box 4416

Reported: 07/27/2013 04:34

Houston TX 77210-4416

M02S- SDG#: PEJ27-08

| CAT No.                                                                                                                     | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>                                                                                                                | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|                                                                                                                             | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>                                                                                                                | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 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                 | 0.014 J            | 0.010                               | 0.052                             | 1               |
| 08357                                                                                                                       | Benzo(k)fluoranthene      | 207-08-9                 | N.D.               | 0.010                               | 0.052                             | 1               |
| 08357                                                                                                                       | Chrysene                  | 218-01-9                 | 0.012 J            | 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. |                           |                          |                    |                                     |                                   |                 |
| <b>Metals</b>                                                                                                               | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256                                                                                                                       | Total Hardness as CaCO3   | 471-34-1                 | 26.1               | 0.033                               | 0.20                              | 1               |
|                                                                                                                             | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035                                                                                                                       | Arsenic                   | 7440-38-2                | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046                                                                                                                       | Barium                    | 7440-39-3                | 0.0298             | 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)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133322  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 10:50 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/20/2013 09:15

PO Box 4416

Reported: 07/27/2013 04:34

Houston TX 77210-4416

M02S- SDG#: PEJ27-08

| CAT No.       | Analysis Name       | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b> |                     |            |                    |                                     |                                   |                 |
|               | <b>SW-846 6010B</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 01750         | Calcium             | 7440-70-2  | 5.95               | 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  | 2.72               | 0.0167                              | 0.100                             | 1               |
| 07061         | Nickel              | 7440-02-0  | 0.0017 J           | 0.0015                              | 0.0100                            | 1               |
| 07036         | Selenium            | 7782-49-2  | N.D.               | 0.0084                              | 0.0200                            | 1               |
| 07066         | Silver              | 7440-22-4  | N.D.               | 0.0021                              | 0.0050                            | 1               |
| 07071         | Vanadium            | 7440-62-2  | N.D.               | 0.0020                              | 0.0050                            | 1               |
|               | <b>SW-846 7470A</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259         | Mercury             | 7439-97-6  | N.D.               | 0.000060                            | 0.00020                           | 1               |

## General Sample Comments

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      | H132031AA    | 07/22/2013 13:25       | Kerri E Legerlotz  | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | H132031AA    | 07/22/2013 13:25       | Kerri E Legerlotz  | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13203WAD026  | 07/23/2013 10:15       | Brian K Graham     | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 1      | 13203WAD026  | 07/22/2013 18:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132036256001 | 07/23/2013 05:02       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:17       | John P Hook        | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:17       | John P Hook        | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:17       | John P Hook        | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:17       | John P Hook        | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:17       | John P Hook        | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:17       | John P Hook        | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:17       | John P Hook        | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:17       | John P Hook        | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:17       | John P Hook        | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:17       | John P Hook        | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:17       | John P Hook        | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132035713002 | 07/24/2013 04:43       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132011848003 | 07/22/2013 10:33       | James L Mertzt     | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132035713002 | 07/23/2013 13:00       | Nelli S Markaryan  | 1               |

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

**Sample Description:** WS-001(0.5-1.0)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133323  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 12:00 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

M010- SDG#: PEJ27-09

| 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-001(0.5-1.0)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133323  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 12:00 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

M010- SDG#: PEJ27-09

| CAT No.                                                                                                                     | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>                                                                                                                | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|                                                                                                                             | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>                                                                                                                | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 08357                                                                                                                       | Acenaphthene              | 83-32-9                  | N.D.               | 0.010                               | 0.051                             | 1               |
| 08357                                                                                                                       | Acenaphthylene            | 208-96-8                 | N.D.               | 0.010                               | 0.051                             | 1               |
| 08357                                                                                                                       | Anthracene                | 120-12-7                 | N.D.               | 0.010                               | 0.051                             | 1               |
| 08357                                                                                                                       | Benzo(a)anthracene        | 56-55-3                  | N.D.               | 0.010                               | 0.051                             | 1               |
| 08357                                                                                                                       | Benzo(a)pyrene            | 50-32-8                  | N.D.               | 0.010                               | 0.051                             | 1               |
| 08357                                                                                                                       | Benzo(b)fluoranthene      | 205-99-2                 | N.D.               | 0.010                               | 0.051                             | 1               |
| 08357                                                                                                                       | Benzo(g,h,i)perylene      | 191-24-2                 | N.D.               | 0.010                               | 0.051                             | 1               |
| 08357                                                                                                                       | Benzo(k)fluoranthene      | 207-08-9                 | N.D.               | 0.010                               | 0.051                             | 1               |
| 08357                                                                                                                       | Chrysene                  | 218-01-9                 | N.D.               | 0.010                               | 0.051                             | 1               |
| 08357                                                                                                                       | Dibenz(a,h)anthracene     | 53-70-3                  | N.D.               | 0.010                               | 0.051                             | 1               |
| 08357                                                                                                                       | Fluoranthene              | 206-44-0                 | N.D.               | 0.010                               | 0.051                             | 1               |
| 08357                                                                                                                       | Fluorene                  | 86-73-7                  | N.D.               | 0.010                               | 0.051                             | 1               |
| 08357                                                                                                                       | Indeno(1,2,3-cd)pyrene    | 193-39-5                 | N.D.               | 0.010                               | 0.051                             | 1               |
| 08357                                                                                                                       | 1-Methylnaphthalene       | 90-12-0                  | N.D.               | 0.010                               | 0.051                             | 1               |
| 08357                                                                                                                       | 2-Methylnaphthalene       | 91-57-6                  | N.D.               | 0.010                               | 0.051                             | 1               |
| 08357                                                                                                                       | Naphthalene               | 91-20-3                  | N.D.               | 0.031                               | 0.051                             | 1               |
| 08357                                                                                                                       | Phenanthrene              | 85-01-8                  | N.D.               | 0.031                               | 0.051                             | 1               |
| 08357                                                                                                                       | Pyrene                    | 129-00-0                 | N.D.               | 0.010                               | 0.051                             | 1               |
| The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis. |                           |                          |                    |                                     |                                   |                 |
| <b>Metals</b>                                                                                                               | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256                                                                                                                       | Total Hardness as CaCO3   | 471-34-1                 | 25.3               | 0.033                               | 0.20                              | 1               |
|                                                                                                                             | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035                                                                                                                       | Arsenic                   | 7440-38-2                | 0.0077 J           | 0.0068                              | 0.0200                            | 1               |
| 07046                                                                                                                       | Barium                    | 7440-39-3                | 0.0030             | 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)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133323  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 12:00 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/20/2013 09:15

PO Box 4416

Reported: 07/27/2013 04:34

Houston TX 77210-4416

M010- SDG#: PEJ27-09

| CAT No.       | Analysis Name       | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b> |                     |            |                    |                                     |                                   |                 |
|               | <b>SW-846 6010B</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 01750         | Calcium             | 7440-70-2  | 5.77               | 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  | 2.64               | 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               |
|               | <b>SW-846 7470A</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259         | Mercury             | 7439-97-6  | N.D.               | 0.000060                            | 0.00020                           | 1               |

## General Sample Comments

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      | H132031AA    | 07/22/2013 14:27       | Kerri E Legerlotz  | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | H132031AA    | 07/22/2013 14:27       | Kerri E Legerlotz  | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13203WAD026  | 07/23/2013 10:42       | Brian K Graham     | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 1      | 13203WAD026  | 07/22/2013 18:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132036256001 | 07/23/2013 05:02       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:21       | John P Hook        | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:21       | John P Hook        | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:21       | John P Hook        | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:21       | John P Hook        | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:21       | John P Hook        | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:21       | John P Hook        | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:21       | John P Hook        | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:21       | John P Hook        | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:21       | John P Hook        | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:21       | John P Hook        | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:21       | John P Hook        | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132035713002 | 07/24/2013 04:45       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132011848003 | 07/22/2013 10:33       | James L Mertzt     | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132035713002 | 07/23/2013 13:00       | Nelli S Markaryan  | 1               |

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

**Sample Description:** WS-007(0.5-1.0)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133324  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 11:30 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

M070- SDG#: PEJ27-10

| 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           | 4.5 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-007(0.5-1.0)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133324  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 11:30 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

M070- SDG#: PEJ27-10

| CAT No.                                                                                                                     | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>                                                                                                                | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|                                                                                                                             | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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                 | 0.2 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                  | 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               |
| <b>GC/MS</b>                                                                                                                | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 08357                                                                                                                       | Acenaphthene              | 83-32-9                  | 0.098              | 0.011                               | 0.053                             | 1               |
| 08357                                                                                                                       | Acenaphthylene            | 208-96-8                 | 0.029 J            | 0.011                               | 0.053                             | 1               |
| 08357                                                                                                                       | Anthracene                | 120-12-7                 | 0.041 J            | 0.011                               | 0.053                             | 1               |
| 08357                                                                                                                       | Benzo(a)anthracene        | 56-55-3                  | 0.067              | 0.011                               | 0.053                             | 1               |
| 08357                                                                                                                       | Benzo(a)pyrene            | 50-32-8                  | 0.068              | 0.011                               | 0.053                             | 1               |
| 08357                                                                                                                       | Benzo(b)fluoranthene      | 205-99-2                 | 0.19               | 0.011                               | 0.053                             | 1               |
| 08357                                                                                                                       | Benzo(g,h,i)perylene      | 191-24-2                 | 0.068              | 0.011                               | 0.053                             | 1               |
| 08357                                                                                                                       | Benzo(k)fluoranthene      | 207-08-9                 | 0.066              | 0.011                               | 0.053                             | 1               |
| 08357                                                                                                                       | Chrysene                  | 218-01-9                 | 0.14               | 0.011                               | 0.053                             | 1               |
| 08357                                                                                                                       | Dibenz(a,h)anthracene     | 53-70-3                  | 0.019 J            | 0.011                               | 0.053                             | 1               |
| 08357                                                                                                                       | Fluoranthene              | 206-44-0                 | 0.18               | 0.011                               | 0.053                             | 1               |
| 08357                                                                                                                       | Fluorene                  | 86-73-7                  | 0.070              | 0.011                               | 0.053                             | 1               |
| 08357                                                                                                                       | Indeno(1,2,3-cd)pyrene    | 193-39-5                 | 0.070              | 0.011                               | 0.053                             | 1               |
| 08357                                                                                                                       | 1-Methylnaphthalene       | 90-12-0                  | 0.034 J            | 0.011                               | 0.053                             | 1               |
| 08357                                                                                                                       | 2-Methylnaphthalene       | 91-57-6                  | 0.035 J            | 0.011                               | 0.053                             | 1               |
| 08357                                                                                                                       | Naphthalene               | 91-20-3                  | 0.070              | 0.032                               | 0.053                             | 1               |
| 08357                                                                                                                       | Phenanthrene              | 85-01-8                  | 0.097              | 0.032                               | 0.053                             | 1               |
| 08357                                                                                                                       | Pyrene                    | 129-00-0                 | 0.17               | 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. |                           |                          |                    |                                     |                                   |                 |
| <b>Metals</b>                                                                                                               | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256                                                                                                                       | Total Hardness as CaCO3   | 471-34-1                 | 108                | 0.033                               | 0.20                              | 1               |
|                                                                                                                             | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035                                                                                                                       | Arsenic                   | 7440-38-2                | 0.0500             | 0.0068                              | 0.0200                            | 1               |
| 07046                                                                                                                       | Barium                    | 7440-39-3                | 1.02               | 0.00033                             | 0.0050                            | 1               |
| 07049                                                                                                                       | Cadmium                   | 7440-43-9                | 0.0038 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)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133324  
LL Group # 1405523  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/19/2013 11:30 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/20/2013 09:15

PO Box 4416

Reported: 07/27/2013 04:34

Houston TX 77210-4416

M070- SDG#: PEJ27-10

| CAT No.       | Analysis Name       | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b> |                     |            |                    |                                     |                                   |                 |
|               | <b>SW-846 6010B</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 01750         | Calcium             | 7440-70-2  | 17.5               | 0.0334                              | 0.200                             | 1               |
| 07051         | Chromium            | 7440-47-3  | 0.109              | 0.0016                              | 0.0150                            | 1               |
| 07055         | Lead                | 7439-92-1  | 0.257              | 0.0047                              | 0.0150                            | 1               |
| 01757         | Magnesium           | 7439-95-4  | 15.5               | 0.0167                              | 0.100                             | 1               |
| 07061         | Nickel              | 7440-02-0  | 0.109              | 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  | 0.175              | 0.0020                              | 0.0050                            | 1               |
|               | <b>SW-846 7470A</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259         | Mercury             | 7439-97-6  | 0.00037            | 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      | H132031AA    | 07/22/2013 14:48       | Kerri E Legerlotz  | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | H132031AA    | 07/22/2013 14:48       | Kerri E Legerlotz  | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13203WAD026  | 07/23/2013 11:09       | Brian K Graham     | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 1      | 13203WAD026  | 07/22/2013 18:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132036256001 | 07/23/2013 05:02       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:25       | John P Hook        | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:25       | John P Hook        | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:25       | John P Hook        | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:25       | John P Hook        | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:25       | John P Hook        | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:25       | John P Hook        | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:25       | John P Hook        | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:25       | John P Hook        | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:25       | John P Hook        | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:25       | John P Hook        | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:25       | John P Hook        | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132035713002 | 07/24/2013 04:47       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132011848003 | 07/22/2013 10:33       | James L Mertzt     | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132035713002 | 07/23/2013 13:00       | Nelli S Markaryan  | 1               |

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

**Sample Description:** WS-006(0.5-1.0)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133325  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 11:50 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

M060- SDG#: PEJ27-11

| 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           | 0.2 J              | 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)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133325  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 11:50 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

M060- SDG#: PEJ27-11

| CAT No.                                                                                                                     | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>                                                                                                                | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|                                                                                                                             | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>                                                                                                                | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 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                 | 0.013 J            | 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                  | 0.041 J            | 0.031                               | 0.052                             | 1               |
| 08357                                                                                                                       | Phenanthrene              | 85-01-8                  | N.D.               | 0.031                               | 0.052                             | 1               |
| 08357                                                                                                                       | Pyrene                    | 129-00-0                 | 0.065              | 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. |                           |                          |                    |                                     |                                   |                 |
| <b>Metals</b>                                                                                                               | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256                                                                                                                       | Total Hardness as CaCO3   | 471-34-1                 | 34.7               | 0.033                               | 0.20                              | 1               |
|                                                                                                                             | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035                                                                                                                       | Arsenic                   | 7440-38-2                | 0.0140 J           | 0.0068                              | 0.0200                            | 1               |
| 07046                                                                                                                       | Barium                    | 7440-39-3                | 0.130              | 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-006(0.5-1.0)071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133325  
LL Group # 1405523  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/19/2013 11:50 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/20/2013 09:15

PO Box 4416

Reported: 07/27/2013 04:34

Houston TX 77210-4416

M060- SDG#: PEJ27-11

| CAT No.       | Analysis Name       | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b> |                     |            |                    |                                     |                                   |                 |
|               | <b>SW-846 6010B</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 01750         | Calcium             | 7440-70-2  | 6.87               | 0.0334                              | 0.200                             | 1               |
| 07051         | Chromium            | 7440-47-3  | 0.0150             | 0.0016                              | 0.0150                            | 1               |
| 07055         | Lead                | 7439-92-1  | 0.0158             | 0.0047                              | 0.0150                            | 1               |
| 01757         | Magnesium           | 7439-95-4  | 4.26               | 0.0167                              | 0.100                             | 1               |
| 07061         | Nickel              | 7440-02-0  | 0.0095 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  | 0.0266             | 0.0020                              | 0.0050                            | 1               |
|               | <b>SW-846 7470A</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259         | Mercury             | 7439-97-6  | N.D.               | 0.000060                            | 0.00020                           | 1               |

## General Sample Comments

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      | H132031AA    | 07/22/2013 16:11       | Kerri E Legerlotz  | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | H132031AA    | 07/22/2013 16:11       | Kerri E Legerlotz  | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13203WAD026  | 07/23/2013 11:36       | Brian K Graham     | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 1      | 13203WAD026  | 07/22/2013 18:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132036256001 | 07/23/2013 05:02       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:29       | John P Hook        | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:29       | John P Hook        | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:29       | John P Hook        | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:29       | John P Hook        | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:29       | John P Hook        | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:29       | John P Hook        | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:29       | John P Hook        | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:29       | John P Hook        | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:29       | John P Hook        | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:29       | John P Hook        | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:29       | John P Hook        | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132035713002 | 07/24/2013 04:49       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132011848003 | 07/22/2013 10:33       | James L Mertzt     | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132035713002 | 07/23/2013 13:00       | Nelli S Markaryan  | 1               |

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

**Sample Description:** DUP-WS-58-071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133326  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

MFD58 SDG#: PEJ27-12FD

| 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           | 0.2 J              | 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-58-071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133326  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

MFD58 SDG#: PEJ27-12FD

| CAT No.                                                                                                                     | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>                                                                                                                | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|                                                                                                                             | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>                                                                                                                | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 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                  | 0.054              | 0.031                               | 0.052                             | 1               |
| 08357                                                                                                                       | Phenanthrene              | 85-01-8                  | N.D.               | 0.031                               | 0.052                             | 1               |
| 08357                                                                                                                       | Pyrene                    | 129-00-0                 | 0.098              | 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. |                           |                          |                    |                                     |                                   |                 |
| <b>Metals</b>                                                                                                               | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256                                                                                                                       | Total Hardness as CaCO3   | 471-34-1                 | 103                | 0.033                               | 0.20                              | 1               |
|                                                                                                                             | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035                                                                                                                       | Arsenic                   | 7440-38-2                | 0.0601             | 0.0068                              | 0.0200                            | 1               |
| 07046                                                                                                                       | Barium                    | 7440-39-3                | 0.797              | 0.00033                             | 0.0050                            | 1               |
| 07049                                                                                                                       | Cadmium                   | 7440-43-9                | 0.0014 J           | 0.00076                             | 0.0050                            | 1               |

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

**Sample Description:** DUP-WS-58-071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133326  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/20/2013 09:15

PO Box 4416

Reported: 07/27/2013 04:34

Houston TX 77210-4416

MFD58 SDG#: PEJ27-12FD

| CAT No.       | Analysis Name       | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b> |                     |            |                    |                                     |                                   |                 |
|               | <b>SW-846 6010B</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 01750         | Calcium             | 7440-70-2  | 19.0               | 0.0334                              | 0.200                             | 1               |
| 07051         | Chromium            | 7440-47-3  | 0.0978             | 0.0016                              | 0.0150                            | 1               |
| 07055         | Lead                | 7439-92-1  | 0.126              | 0.0047                              | 0.0150                            | 1               |
| 01757         | Magnesium           | 7439-95-4  | 13.6               | 0.0167                              | 0.100                             | 1               |
| 07061         | Nickel              | 7440-02-0  | 0.0679             | 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  | 0.182              | 0.0020                              | 0.0050                            | 1               |
|               | <b>SW-846 7470A</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259         | Mercury             | 7439-97-6  | 0.00017 J          | 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      | H132031AA    | 07/22/2013 16:32       | Kerri E Legerlotz  | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | H132031AA    | 07/22/2013 16:32       | Kerri E Legerlotz  | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13203WAD026  | 07/23/2013 12:04       | Brian K Graham     | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 1      | 13203WAD026  | 07/22/2013 18:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132036256001 | 07/23/2013 05:02       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:32       | John P Hook        | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:32       | John P Hook        | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:32       | John P Hook        | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:32       | John P Hook        | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:32       | John P Hook        | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:32       | John P Hook        | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:32       | John P Hook        | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:32       | John P Hook        | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:32       | John P Hook        | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:32       | John P Hook        | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:32       | John P Hook        | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132035713002 | 07/24/2013 04:51       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132011848003 | 07/22/2013 10:33       | James L Mertzt     | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132035713002 | 07/23/2013 13:00       | Nelli S Markaryan  | 1               |

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

Sample Description: WS-EB-05-071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133327  
LL Group # 1405523  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/19/2013 13:05 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

MEB05 SDG#: PEJ27-13EB

| 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-05-071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133327  
LL Group # 1405523  
Account # 14739

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

Collected: 07/19/2013 13:05 by HVA

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

MEB05 SDG#: PEJ27-13EB

| CAT No.                                                                                                                     | Analysis Name             | CAS Number               | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>GC/MS</b>                                                                                                                | <b>Volatiles</b>          | <b>SW-846 8260B 25mL</b> | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
|                                                                                                                             | <b>purge</b>              |                          |                    |                                     |                                   |                 |
| 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               |
| <b>GC/MS</b>                                                                                                                | <b>Semivolatiles</b>      | <b>SW-846 8270C SIM</b>  | <b>ug/l</b>        | <b>ug/l</b>                         | <b>ug/l</b>                       |                 |
| 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. |                           |                          |                    |                                     |                                   |                 |
| <b>Metals</b>                                                                                                               | <b>SM 2340 B-1997</b>     | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 06256                                                                                                                       | Total Hardness as CaCO3   | 471-34-1                 | N.D.               | 0.033                               | 0.20                              | 1               |
|                                                                                                                             | <b>SW-846 6010B</b>       | <b>mg/l</b>              | <b>mg/l</b>        | <b>mg/l</b>                         |                                   |                 |
| 07035                                                                                                                       | Arsenic                   | 7440-38-2                | N.D.               | 0.0068                              | 0.0200                            | 1               |
| 07046                                                                                                                       | Barium                    | 7440-39-3                | N.D.               | 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-05-071913 Grab Surface Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133327  
LL Group # 1405523  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/19/2013 13:05 by HVA

ExxonMobil

Mobil Pipeline Company

Submitted: 07/20/2013 09:15

PO Box 4416

Reported: 07/27/2013 04:34

Houston TX 77210-4416

MEB05 SDG#: PEJ27-13EB

| CAT No.       | Analysis Name       | CAS Number | As Received Result | As Received Method Detection Limit* | As Received Limit of Quantitation | Dilution Factor |
|---------------|---------------------|------------|--------------------|-------------------------------------|-----------------------------------|-----------------|
| <b>Metals</b> |                     |            |                    |                                     |                                   |                 |
|               | <b>SW-846 6010B</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 01750         | Calcium             | 7440-70-2  | N.D.               | 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               |
|               | <b>SW-846 7470A</b> |            | <b>mg/l</b>        | <b>mg/l</b>                         | <b>mg/l</b>                       |                 |
| 00259         | Mercury             | 7439-97-6  | N.D.               | 0.000060                            | 0.00020                           | 1               |

## General Sample Comments

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      | H132031AA    | 07/22/2013 17:14       | Kerri E Legerlotz  | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B            | 1      | H132031AA    | 07/22/2013 17:14       | Kerri E Legerlotz  | 1               |
| 08357   | PAHs in waters by SIM          | SW-846 8270C SIM        | 1      | 13203WAD026  | 07/23/2013 12:31       | Brian K Graham     | 1               |
| 10470   | BNA Water Extraction (SIM)     | SW-846 3510C            | 1      | 13203WAD026  | 07/22/2013 18:45       | Nicholas W Shroyer | 1               |
| 06256   | Total Hardness as CaCO3        | SM 2340 B-1997          | 1      | 132036256001 | 07/23/2013 05:02       | Deborah A Krady    | 1               |
| 07035   | Arsenic                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:37       | John P Hook        | 1               |
| 07046   | Barium                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:37       | John P Hook        | 1               |
| 07049   | Cadmium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:37       | John P Hook        | 1               |
| 01750   | Calcium                        | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:37       | John P Hook        | 1               |
| 07051   | Chromium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:37       | John P Hook        | 1               |
| 07055   | Lead                           | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:37       | John P Hook        | 1               |
| 01757   | Magnesium                      | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:37       | John P Hook        | 1               |
| 07061   | Nickel                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:37       | John P Hook        | 1               |
| 07036   | Selenium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:37       | John P Hook        | 1               |
| 07066   | Silver                         | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:37       | John P Hook        | 1               |
| 07071   | Vanadium                       | SW-846 6010B            | 1      | 132011848003 | 07/22/2013 18:37       | John P Hook        | 1               |
| 00259   | Mercury                        | SW-846 7470A            | 1      | 132035713002 | 07/24/2013 04:53       | Damary Valentin    | 1               |
| 01848   | WW SW846 ICP Digest (tot rec)  | SW-846 3005A            | 1      | 132011848003 | 07/22/2013 10:33       | James L Mertzt     | 1               |
| 05713   | WW SW846 Hg Digest             | SW-846 7470A            | 1      | 132035713002 | 07/23/2013 13:00       | Nelli S Markaryan  | 1               |

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

Sample Description: WS-TB-101-071913 Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133328  
LL Group # 1405523  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/19/2013

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

MT101 SDG#: PEJ27-14TB\*

| 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-TB-101-071913 Water  
Mayflower, AR  
Pipeline Incident

LL Sample # WW 7133328  
LL Group # 1405523  
Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/19/2013

ExxonMobil

Submitted: 07/20/2013 09:15

Mobil Pipeline Company

Reported: 07/27/2013 04:34

PO Box 4416

Houston TX 77210-4416

MT101 SDG#: PEJ27-14TB\*

| 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               |

## 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<br>purge | 1      | H132031AA | 07/22/2013 17:34       | Kerri E Legerlotz | 1               |
| 01163   | GC/MS VOA Water Prep           | SW-846 5030B               | 1      | H132031AA | 07/22/2013 17:34       | Kerri E Legerlotz | 1               |

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

## Quality Control Summary

Client Name: ExxonMobil  
Reported: 07/27/13 at 04:34 AM

Group Number: 1405523

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: H132031AA     | Sample number(s): 7133315-7133328 |                    |                  |                     |                 |                  |                        |            |                |
| Acetone                     | N.D.                              | 3.0                | 5.0              | ug/l                | 99              |                  | 73-135                 |            |                |
| Allyl Chloride              | N.D.                              | 0.1                | 0.5              | ug/l                | 89              |                  | 61-130                 |            |                |
| Benzene                     | N.D.                              | 0.1                | 0.5              | ug/l                | 103             |                  | 80-120                 |            |                |
| Bromobenzene                | N.D.                              | 0.1                | 0.5              | ug/l                | 101             |                  | 80-120                 |            |                |
| Bromochloromethane          | N.D.                              | 0.1                | 0.5              | ug/l                | 107             |                  | 80-125                 |            |                |
| Bromodichloromethane        | N.D.                              | 0.1                | 0.5              | ug/l                | 103             |                  | 80-120                 |            |                |
| Bromoform                   | N.D.                              | 0.1                | 0.5              | ug/l                | 104             |                  | 63-132                 |            |                |
| Bromomethane                | N.D.                              | 0.1                | 0.5              | ug/l                | 102             |                  | 38-146                 |            |                |
| 2-Butanone                  | N.D.                              | 1.0                | 5.0              | ug/l                | 103             |                  | 70-130                 |            |                |
| n-Butylbenzene              | N.D.                              | 0.1                | 0.5              | ug/l                | 96              |                  | 80-120                 |            |                |
| sec-Butylbenzene            | N.D.                              | 0.1                | 0.5              | ug/l                | 98              |                  | 80-120                 |            |                |
| tert-Butylbenzene           | N.D.                              | 0.1                | 0.5              | ug/l                | 104             |                  | 80-120                 |            |                |
| Carbon Tetrachloride        | N.D.                              | 0.1                | 0.5              | ug/l                | 112             |                  | 74-133                 |            |                |
| Chlorobenzene               | N.D.                              | 0.1                | 0.5              | ug/l                | 105             |                  | 80-120                 |            |                |
| Chloroethane                | N.D.                              | 0.1                | 0.5              | ug/l                | 99              |                  | 67-124                 |            |                |
| Chloroform                  | N.D.                              | 0.1                | 0.5              | ug/l                | 105             |                  | 80-120                 |            |                |
| Chloromethane               | N.D.                              | 0.2                | 0.5              | ug/l                | 94              |                  | 55-135                 |            |                |
| 2-Chlorotoluene             | N.D.                              | 0.1                | 0.5              | ug/l                | 101             |                  | 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             |                  | 57-141                 |            |                |
| Dibromochloromethane        | N.D.                              | 0.1                | 0.5              | ug/l                | 103             |                  | 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                | 99              |                  | 80-120                 |            |                |
| 1,2-Dichlorobenzene         | N.D.                              | 0.1                | 0.5              | ug/l                | 100             |                  | 80-120                 |            |                |
| 1,3-Dichlorobenzene         | N.D.                              | 0.1                | 0.5              | ug/l                | 103             |                  | 80-120                 |            |                |
| 1,4-Dichlorobenzene         | N.D.                              | 0.1                | 0.5              | ug/l                | 103             |                  | 80-112                 |            |                |
| Dichlorodifluoromethane     | N.D.                              | 0.1                | 0.5              | ug/l                | 97              |                  | 39-120                 |            |                |
| 1,1-Dichloroethane          | N.D.                              | 0.1                | 0.5              | ug/l                | 102             |                  | 80-120                 |            |                |
| 1,2-Dichloroethane          | N.D.                              | 0.1                | 0.5              | ug/l                | 96              |                  | 80-127                 |            |                |
| 1,1-Dichloroethene          | N.D.                              | 0.1                | 0.5              | ug/l                | 113             |                  | 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                | 113             |                  | 80-120                 |            |                |
| Dichlorofluoromethane       | N.D.                              | 0.2                | 0.5              | ug/l                | 110             |                  | 63-149                 |            |                |
| 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                | 104             |                  | 75-122                 |            |                |
| 1,1-Dichloropropene         | N.D.                              | 0.1                | 0.5              | ug/l                | 107             |                  | 80-121                 |            |                |
| cis-1,3-Dichloropropene     | N.D.                              | 0.1                | 0.5              | ug/l                | 102             |                  | 74-120                 |            |                |
| trans-1,3-Dichloropropene   | N.D.                              | 0.1                | 0.5              | ug/l                | 98              |                  | 73-126                 |            |                |
| Ethyl ether                 | N.D.                              | 0.1                | 0.5              | ug/l                | 99              |                  | 59-130                 |            |                |
| Ethylbenzene                | N.D.                              | 0.1                | 0.5              | ug/l                | 100             |                  | 80-120                 |            |                |
| Freon 113                   | N.D.                              | 0.2                | 0.5              | ug/l                | 108             |                  | 78-132                 |            |                |
| Hexachlorobutadiene         | N.D.                              | 0.1                | 0.5              | ug/l                | 95              |                  | 61-125                 |            |                |

\*- 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

Group Number: 1405523

Reported: 07/27/13 at 04:34 AM

| <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                | 98              |                  | 80-120                 |            |                |
| Methyl Tertiary Butyl Ether | N.D.                | 0.1                | 0.5              | ug/l                | 101             |                  | 80-125                 |            |                |
| 4-Methyl-2-Pentanone        | N.D.                | 1.0                | 5.0              | ug/l                | 89              |                  | 69-135                 |            |                |
| Methylene Chloride          | N.D.                | 0.2                | 0.5              | ug/l                | 104             |                  | 80-120                 |            |                |
| n-Propylbenzene             | N.D.                | 0.1                | 0.5              | ug/l                | 97              |                  | 80-120                 |            |                |
| Styrene                     | N.D.                | 0.1                | 0.5              | ug/l                | 105             |                  | 80-120                 |            |                |
| 1,1,1,2-Tetrachloroethane   | N.D.                | 0.1                | 0.5              | ug/l                | 103             |                  | 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                | 109             |                  | 80-120                 |            |                |
| Tetrahydrofuran             | N.D.                | 2.0                | 5.0              | ug/l                | 110             |                  | 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                | 90              |                  | 63-120                 |            |                |
| 1,2,4-Trichlorobenzene      | N.D.                | 0.1                | 0.5              | ug/l                | 94              |                  | 70-120                 |            |                |
| 1,1,1-Trichloroethane       | N.D.                | 0.1                | 0.5              | ug/l                | 107             |                  | 79-127                 |            |                |
| 1,1,2-Trichloroethane       | N.D.                | 0.1                | 0.5              | ug/l                | 102             |                  | 80-120                 |            |                |
| Trichloroethene             | N.D.                | 0.1                | 0.5              | ug/l                | 106             |                  | 80-120                 |            |                |
| Trichlorofluoromethane      | N.D.                | 0.1                | 0.5              | ug/l                | 105             |                  | 77-132                 |            |                |
| 1,2,3-Trichloropropane      | N.D.                | 0.3                | 1.0              | ug/l                | 93              |                  | 80-120                 |            |                |
| 1,2,4-Trimethylbenzene      | N.D.                | 0.1                | 0.5              | ug/l                | 100             |                  | 80-120                 |            |                |
| 1,3,5-Trimethylbenzene      | N.D.                | 0.1                | 0.5              | ug/l                | 100             |                  | 80-120                 |            |                |
| Vinyl Chloride              | N.D.                | 0.1                | 0.5              | ug/l                | 100             |                  | 65-127                 |            |                |
| Xylene (Total)              | N.D.                | 0.1                | 0.5              | ug/l                | 106             |                  | 80-120                 |            |                |

|                           |                                   |       |       |      |     |     |        |   |    |
|---------------------------|-----------------------------------|-------|-------|------|-----|-----|--------|---|----|
| Batch number: 13203WAD026 | Sample number(s): 7133315-7133327 |       |       |      |     |     |        |   |    |
| Acenaphthene              | N.D.                              | 0.010 | 0.050 | ug/l | 100 | 101 | 65-124 | 1 | 30 |
| Acenaphthylene            | N.D.                              | 0.010 | 0.050 | ug/l | 103 | 104 | 72-113 | 2 | 30 |
| Anthracene                | N.D.                              | 0.010 | 0.050 | ug/l | 106 | 106 | 70-117 | 0 | 30 |
| Benzo(a)anthracene        | N.D.                              | 0.010 | 0.050 | ug/l | 105 | 105 | 75-115 | 0 | 30 |
| Benzo(a)pyrene            | N.D.                              | 0.010 | 0.050 | ug/l | 103 | 103 | 72-120 | 0 | 30 |
| Benzo(b)fluoranthene      | N.D.                              | 0.010 | 0.050 | ug/l | 114 | 114 | 74-130 | 0 | 30 |
| Benzo(g,h,i)perylene      | N.D.                              | 0.010 | 0.050 | ug/l | 107 | 108 | 63-121 | 1 | 30 |
| Benzo(k)fluoranthene      | N.D.                              | 0.010 | 0.050 | ug/l | 107 | 110 | 74-118 | 2 | 30 |
| Chrysene                  | N.D.                              | 0.010 | 0.050 | ug/l | 98  | 100 | 75-112 | 2 | 30 |
| Dibenz(a,h)anthracene     | N.D.                              | 0.010 | 0.050 | ug/l | 98  | 99  | 66-122 | 1 | 30 |
| Fluoranthene              | N.D.                              | 0.010 | 0.050 | ug/l | 108 | 109 | 73-116 | 1 | 30 |
| Fluorene                  | N.D.                              | 0.010 | 0.050 | ug/l | 98  | 100 | 74-115 | 2 | 30 |
| Indeno(1,2,3-cd)pyrene    | N.D.                              | 0.010 | 0.050 | ug/l | 105 | 107 | 66-122 | 1 | 30 |
| 1-Methylnaphthalene       | N.D.                              | 0.010 | 0.050 | ug/l | 101 | 101 | 72-114 | 1 | 30 |
| 2-Methylnaphthalene       | N.D.                              | 0.010 | 0.050 | ug/l | 93  | 92  | 74-119 | 0 | 30 |
| Naphthalene               | N.D.                              | 0.030 | 0.050 | ug/l | 100 | 100 | 67-118 | 0 | 30 |
| Phenanthrene              | N.D.                              | 0.030 | 0.050 | ug/l | 102 | 103 | 72-109 | 1 | 30 |
| Pyrene                    | N.D.                              | 0.010 | 0.050 | ug/l | 102 | 104 | 71-116 | 1 | 30 |

|                            |                                   |         |        |      |     |  |        |  |  |
|----------------------------|-----------------------------------|---------|--------|------|-----|--|--------|--|--|
| Batch number: 132011848003 | Sample number(s): 7133315-7133327 |         |        |      |     |  |        |  |  |
| Arsenic                    | N.D.                              | 0.0068  | 0.0200 | mg/l | 101 |  | 90-113 |  |  |
| Barium                     | N.D.                              | 0.00033 | 0.0050 | mg/l | 97  |  | 90-110 |  |  |
| Cadmium                    | N.D.                              | 0.00076 | 0.0050 | mg/l | 97  |  | 90-112 |  |  |
| Calcium                    | 0.0843 J                          | 0.0334  | 0.200  | mg/l | 98  |  | 90-110 |  |  |
| Chromium                   | N.D.                              | 0.0016  | 0.0150 | mg/l | 97  |  | 90-110 |  |  |
| Lead                       | N.D.                              | 0.0047  | 0.0150 | mg/l | 95  |  | 88-110 |  |  |
| Magnesium                  | N.D.                              | 0.0167  | 0.100  | mg/l | 95  |  | 90-110 |  |  |
| Nickel                     | N.D.                              | 0.0015  | 0.0100 | mg/l | 99  |  | 90-111 |  |  |
| Selenium                   | N.D.                              | 0.0084  | 0.0200 | mg/l | 98  |  | 80-120 |  |  |
| Silver                     | N.D.                              | 0.0021  | 0.0050 | mg/l | 87  |  | 80-120 |  |  |
| Vanadium                   | N.D.                              | 0.0020  | 0.0050 | mg/l | 100 |  | 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

Group Number: 1405523

Reported: 07/27/13 at 04:34 AM

| <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: 132035713002 | Sample number(s): 7133315-7133327 |                    |                  |                     |                 |                  |                        |            |                |
| Mercury                    | N.D.                              | 0.00006            | 0.00020          | mg/l                | 112             |                  | 80-120                 |            |                |
|                            |                                   | 0                  |                  |                     |                 |                  |                        |            |                |

## Sample Matrix Quality Control

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

Background (BKG) = the sample used in conjunction with the duplicate

| <u>Analysis Name</u>        | <u>MS %REC</u>                                   | <u>MSD %REC</u> | <u>MS/MSD Limits</u> | <u>RPD</u> | <u>RPD MAX</u> | <u>BKG Conc</u> | <u>DUP Conc</u> | <u>DUP RPD</u> | <u>Dup RPD Max</u> |
|-----------------------------|--------------------------------------------------|-----------------|----------------------|------------|----------------|-----------------|-----------------|----------------|--------------------|
| Batch number: H132031AA     | Sample number(s): 7133315-7133328 UNSPK: 7133317 |                 |                      |            |                |                 |                 |                |                    |
| Acetone                     | 101                                              | 93              | 57-163               | 8          | 30             |                 |                 |                |                    |
| Allyl Chloride              | 83                                               | 81              | 67-139               | 2          | 30             |                 |                 |                |                    |
| Benzene                     | 99                                               | 91              | 87-126               | 9          | 30             |                 |                 |                |                    |
| Bromobenzene                | 102                                              | 90              | 80-123               | 12         | 30             |                 |                 |                |                    |
| Bromochloromethane          | 101                                              | 99              | 82-125               | 2          | 30             |                 |                 |                |                    |
| Bromodichloromethane        | 101                                              | 88              | 82-133               | 13         | 30             |                 |                 |                |                    |
| Bromoform                   | 103                                              | 85              | 60-138               | 19         | 30             |                 |                 |                |                    |
| Bromomethane                | 102                                              | 97              | 41-145               | 5          | 30             |                 |                 |                |                    |
| 2-Butanone                  | 104                                              | 89              | 63-146               | 15         | 30             |                 |                 |                |                    |
| n-Butylbenzene              | 98                                               | 88              | 83-131               | 11         | 30             |                 |                 |                |                    |
| sec-Butylbenzene            | 100                                              | 89              | 84-128               | 12         | 30             |                 |                 |                |                    |
| tert-Butylbenzene           | 104                                              | 92              | 84-135               | 12         | 30             |                 |                 |                |                    |
| Carbon Tetrachloride        | 109                                              | 99              | 81-148               | 10         | 30             |                 |                 |                |                    |
| Chlorobenzene               | 104                                              | 92              | 78-133               | 13         | 30             |                 |                 |                |                    |
| Chloroethane                | 102                                              | 94              | 70-139               | 8          | 30             |                 |                 |                |                    |
| Chloroform                  | 104                                              | 92              | 86-136               | 11         | 30             |                 |                 |                |                    |
| Chloromethane               | 96                                               | 90              | 55-152               | 6          | 30             |                 |                 |                |                    |
| 2-Chlorotoluene             | 103                                              | 90              | 81-120               | 13         | 30             |                 |                 |                |                    |
| 4-Chlorotoluene             | 104                                              | 93              | 82-119               | 12         | 30             |                 |                 |                |                    |
| 1,2-Dibromo-3-chloropropane | 127                                              | 96              | 43-143               | 28         | 30             |                 |                 |                |                    |
| Dibromochloromethane        | 103                                              | 87              | 79-125               | 17         | 30             |                 |                 |                |                    |
| 1,2-Dibromoethane           | 99                                               | 87              | 84-127               | 14         | 30             |                 |                 |                |                    |
| Dibromomethane              | 98                                               | 82*             | 83-126               | 18         | 30             |                 |                 |                |                    |
| 1,2-Dichlorobenzene         | 103                                              | 89              | 83-117               | 15         | 30             |                 |                 |                |                    |
| 1,3-Dichlorobenzene         | 103                                              | 91              | 81-118               | 13         | 30             |                 |                 |                |                    |
| 1,4-Dichlorobenzene         | 104                                              | 90              | 79-120               | 14         | 30             |                 |                 |                |                    |
| Dichlorodifluoromethane     | 104                                              | 92              | 28-136               | 12         | 30             |                 |                 |                |                    |
| 1,1-Dichloroethane          | 97                                               | 90              | 88-136               | 8          | 30             |                 |                 |                |                    |
| 1,2-Dichloroethane          | 94                                               | 84              | 82-135               | 11         | 30             |                 |                 |                |                    |
| 1,1-Dichloroethene          | 110                                              | 99              | 83-150               | 11         | 30             |                 |                 |                |                    |
| cis-1,2-Dichloroethene      | 103                                              | 94              | 82-129               | 9          | 30             |                 |                 |                |                    |
| trans-1,2-Dichloroethene    | 107                                              | 99              | 88-127               | 8          | 30             |                 |                 |                |                    |
| Dichlorofluoromethane       | 112                                              | 107             | 59-176               | 5          | 30             |                 |                 |                |                    |
| 1,2-Dichloropropane         | 100                                              | 88*             | 91-126               | 12         | 30             |                 |                 |                |                    |
| 1,3-Dichloropropane         | 94                                               | 80              | 80-127               | 16         | 30             |                 |                 |                |                    |
| 2,2-Dichloropropane         | 101                                              | 92              | 80-134               | 9          | 30             |                 |                 |                |                    |
| 1,1-Dichloropropene         | 104                                              | 97              | 86-139               | 7          | 30             |                 |                 |                |                    |
| cis-1,3-Dichloropropene     | 100                                              | 86              | 74-132               | 15         | 30             |                 |                 |                |                    |
| trans-1,3-Dichloropropene   | 96                                               | 82              | 71-128               | 16         | 30             |                 |                 |                |                    |
| Ethyl ether                 | 92                                               | 92              | 67-127               | 0          | 30             |                 |                 |                |                    |

\*- Outside of specification

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

(1) The result for one or both determinations was less than five times the LOQ.

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

**Quality Control Summary**Client Name: ExxonMobil  
Reported: 07/27/13 at 04:34 AM

Group Number: 1405523

**Sample Matrix Quality Control**Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
Background (BKG) = the sample used in conjunction with the duplicate

| <u>Analysis Name</u>        | <u>MS</u><br><u>%REC</u> | <u>MSD</u><br><u>%REC</u> | <u>MS/MSD</u><br><u>Limits</u> | <u>RPD</u><br><u>MAX</u> | <u>BKG</u><br><u>Conc</u> | <u>DUP</u><br><u>Conc</u> | <u>DUP</u><br><u>RPD</u> | <u>Dup RPD</u><br><u>Max</u> |
|-----------------------------|--------------------------|---------------------------|--------------------------------|--------------------------|---------------------------|---------------------------|--------------------------|------------------------------|
| Ethylbenzene                | 99                       | 89                        | 80-140                         | 11                       | 30                        |                           |                          |                              |
| Freon 113                   | 107                      | 96                        | 87-158                         | 11                       | 30                        |                           |                          |                              |
| Hexachlorobutadiene         | 98                       | 89                        | 65-128                         | 9                        | 30                        |                           |                          |                              |
| Isopropylbenzene            | 103                      | 91                        | 81-133                         | 12                       | 30                        |                           |                          |                              |
| p-Isopropyltoluene          | 100                      | 89                        | 84-124                         | 11                       | 30                        |                           |                          |                              |
| Methyl Tertiary Butyl Ether | 94                       | 85                        | 82-132                         | 10                       | 30                        |                           |                          |                              |
| 4-Methyl-2-Pentanone        | 93                       | 76                        | 69-149                         | 21                       | 30                        |                           |                          |                              |
| Methylene Chloride          | 97                       | 90                        | 84-122                         | 8                        | 30                        |                           |                          |                              |
| n-Propylbenzene             | 99                       | 89                        | 79-131                         | 11                       | 30                        |                           |                          |                              |
| Styrene                     | 105                      | 92                        | 63-151                         | 13                       | 30                        |                           |                          |                              |
| 1,1,1,2-Tetrachloroethane   | 104                      | 90                        | 87-126                         | 14                       | 30                        |                           |                          |                              |
| 1,1,2,2-Tetrachloroethane   | 96                       | 81                        | 75-131                         | 17                       | 30                        |                           |                          |                              |
| Tetrachloroethene           | 108                      | 97                        | 75-129                         | 11                       | 30                        |                           |                          |                              |
| Tetrahydrofuran             | 107                      | 96                        | 56-154                         | 10                       | 30                        |                           |                          |                              |
| Toluene                     | 103                      | 92                        | 83-127                         | 11                       | 30                        |                           |                          |                              |
| 1,2,3-Trichlorobenzene      | 92                       | 74                        | 73-125                         | 21                       | 30                        |                           |                          |                              |
| 1,2,4-Trichlorobenzene      | 96                       | 81                        | 77-120                         | 17                       | 30                        |                           |                          |                              |
| 1,1,1-Trichloroethane       | 106                      | 96                        | 85-140                         | 10                       | 30                        |                           |                          |                              |
| 1,1,2-Trichloroethane       | 102                      | 87                        | 85-129                         | 15                       | 30                        |                           |                          |                              |
| Trichloroethene             | 106                      | 96                        | 85-131                         | 10                       | 30                        |                           |                          |                              |
| Trichlorofluoromethane      | 111                      | 100                       | 67-161                         | 10                       | 30                        |                           |                          |                              |
| 1,2,3-Trichloropropane      | 97                       | 83                        | 76-120                         | 16                       | 30                        |                           |                          |                              |
| 1,2,4-Trimethylbenzene      | 101                      | 89                        | 87-126                         | 12                       | 30                        |                           |                          |                              |
| 1,3,5-Trimethylbenzene      | 100                      | 90                        | 89-129                         | 10                       | 30                        |                           |                          |                              |
| Vinyl Chloride              | 103                      | 96                        | 65-151                         | 7                        | 30                        |                           |                          |                              |
| Xylene (Total)              | 105                      | 93                        | 81-137                         | 12                       | 30                        |                           |                          |                              |

|                            |                                                               |     |        |   |    |        |        |          |
|----------------------------|---------------------------------------------------------------|-----|--------|---|----|--------|--------|----------|
| Batch number: 132011848003 | Sample number(s): 7133315-7133327 UNSPK: 7133321 BKG: 7133321 |     |        |   |    |        |        |          |
| Arsenic                    | 106                                                           | 106 | 81-123 | 1 | 20 | N.D.   | N.D.   | 0 (1) 20 |
| Barium                     | 99                                                            | 99  | 78-118 | 0 | 20 | 0.0358 | 0.0368 | 3 20     |
| Cadmium                    | 98                                                            | 98  | 83-116 | 0 | 20 | N.D.   | N.D.   | 0 (1) 20 |
| Calcium                    | 100                                                           | 97  | 81-118 | 1 | 20 | 5.91   | 6.07   | 3 20     |
| Chromium                   | 100                                                           | 100 | 81-120 | 0 | 20 | N.D.   | N.D.   | 0 (1) 20 |
| Lead                       | 97                                                            | 97  | 75-125 | 0 | 20 | N.D.   | N.D.   | 0 (1) 20 |
| Magnesium                  | 97                                                            | 95  | 75-125 | 1 | 20 | 2.78   | 2.85   | 3 20     |
| Nickel                     | 101                                                           | 101 | 86-115 | 0 | 20 | N.D.   | N.D.   | 0 (1) 20 |
| Selenium                   | 99                                                            | 99  | 75-125 | 0 | 20 | N.D.   | N.D.   | 0 (1) 20 |
| Silver                     | 89                                                            | 88  | 75-125 | 2 | 20 | N.D.   | N.D.   | 0 (1) 20 |
| Vanadium                   | 102                                                           | 102 | 90-111 | 0 | 20 | N.D.   | N.D.   | 0 (1) 20 |

|                            |                                                               |     |        |   |    |      |      |          |
|----------------------------|---------------------------------------------------------------|-----|--------|---|----|------|------|----------|
| Batch number: 132035713002 | Sample number(s): 7133315-7133327 UNSPK: 7133319 BKG: 7133319 |     |        |   |    |      |      |          |
| Mercury                    | 108                                                           | 109 | 80-120 | 2 | 20 | N.D. | N.D. | 0 (1) 20 |

**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

\*- 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

Group Number: 1405523

Reported: 07/27/13 at 04:34 AM

### Surrogate Quality Control

Batch number: H132031AA

|         | Dibromofluoromethane | 1,2-Dichloroethane-d4 | Toluene-d8 | 4-Bromofluorobenzene |
|---------|----------------------|-----------------------|------------|----------------------|
| 7133315 | 107                  | 100                   | 98         | 97                   |
| 7133316 | 108                  | 97                    | 99         | 98                   |
| 7133317 | 104                  | 98                    | 99         | 96                   |
| 7133318 | 105                  | 100                   | 100        | 98                   |
| 7133319 | 106                  | 100                   | 98         | 97                   |
| 7133320 | 106                  | 102                   | 100        | 97                   |
| 7133321 | 106                  | 100                   | 98         | 97                   |
| 7133322 | 107                  | 103                   | 99         | 97                   |
| 7133323 | 107                  | 100                   | 99         | 97                   |
| 7133324 | 106                  | 103                   | 100        | 99                   |
| 7133325 | 106                  | 101                   | 99         | 97                   |
| 7133326 | 106                  | 102                   | 100        | 98                   |
| 7133327 | 106                  | 98                    | 99         | 96                   |
| 7133328 | 106                  | 101                   | 99         | 96                   |
| Blank   | 104                  | 101                   | 99         | 98                   |
| LCS     | 104                  | 99                    | 99         | 100                  |
| MS      | 104                  | 100                   | 100        | 99                   |
| MSD     | 105                  | 100                   | 99         | 100                  |
| Limits: | 77-114               | 74-113                | 77-110     | 78-110               |

Analysis Name: PAHs in waters by SIM

Batch number: 13203WAD026

|         | Fluoranthene-d10 | Benzo(a)pyrene-d12 | 1-Methylnaphthalene-d10 |
|---------|------------------|--------------------|-------------------------|
| 7133315 | 91               | 71                 | 92                      |
| 7133316 | 95               | 68                 | 96                      |
| 7133317 | 95               | 67                 | 97                      |
| 7133318 | 94               | 62                 | 94                      |
| 7133319 | 71               | 26*                | 79                      |
| 7133320 | 69               | 19*                | 81                      |
| 7133321 | 93               | 52*                | 94                      |
| 7133322 | 91               | 62                 | 92                      |
| 7133323 | 97               | 63                 | 96                      |
| 7133324 | 70               | 65                 | 74                      |
| 7133325 | 84               | 70                 | 85                      |
| 7133326 | 89               | 75                 | 90                      |
| 7133327 | 100              | 109                | 100                     |
| Blank   | 99               | 110                | 96                      |
| LCS     | 104              | 116                | 105                     |
| LCSD    | 101              | 115                | 102                     |
| Limits: | 64-120           | 62-141             | 58-134                  |

\*- Outside of specification

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

(1) The result for one or both determinations was less than five times the LOQ.

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

# ExxonMobil Analysis Request/Chain of Custody



Lancaster  
Laboratories

Acct. # 14739 Group # 1405523 Sample # 7133315-28 1 of 2  
For Lancaster Laboratories use only  
Instructions on reverse side correspond with circled numbers.

|                                                                  |  |                                           |  |                                                                                                                                                                                                                                                                                                                                   |  |      |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
|------------------------------------------------------------------|--|-------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------|--|-------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------|--|--|--|--|--|--|--|--------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>1 Client Information</b>                                      |  |                                           |  | <b>4 Matrix</b>                                                                                                                                                                                                                                                                                                                   |  |      |  | <b>5 Analyses Requested</b>                                                                                                   |  |  |  |                                                                         |  |  |  |  |  |  |  | <b>6 Remarks</b>                                                                                                                           |  |
| Facility #/SID<br><u>mayflower Pipeline Incident</u>             |  |                                           |  | <input type="checkbox"/> Sediment<br><input type="checkbox"/> Potable<br><input type="checkbox"/> Ground<br><input checked="" type="checkbox"/> Surface<br><input type="checkbox"/> Water<br><input type="checkbox"/> NPDES<br><input type="checkbox"/> Air<br><input type="checkbox"/> Oil<br><input type="checkbox"/> Composite |  |      |  | <b>Preservation Code</b>                                                                                                      |  |  |  |                                                                         |  |  |  |  |  |  |  | <b>Preservation Codes</b><br>H = HCl      T = Thiosulfate<br>N = HNO <sub>3</sub> B = NaOH<br>S = H <sub>2</sub> SO <sub>4</sub> O = Other |  |
| Site Address<br><u>mayflower, AR</u>                             |  |                                           |  |                                                                                                                                                                                                                                                                                                                                   |  |      |  | # <u>8260</u><br><u>PATs 8270</u><br><u>RCRA metals</u><br><u>Diss metals</u>                                                 |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| ExxonMobil PM<br><u>Scott Bushroe</u>                            |  | Cost Center/AFE                           |  |                                                                                                                                                                                                                                                                                                                                   |  |      |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| Consultant/Office<br><u>ARCADIS</u>                              |  |                                           |  |                                                                                                                                                                                                                                                                                                                                   |  |      |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| Consultant PM<br><u>Steve Barnick</u>                            |  | Consultant Phone #<br><u>919 202 6779</u> |  |                                                                                                                                                                                                                                                                                                                                   |  |      |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| Sampler<br><u>H. Van Allen / L. de marthy</u>                    |  |                                           |  |                                                                                                                                                                                                                                                                                                                                   |  |      |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  | <b>Lab to Filter and preserve Diss metals upon receipt</b>                                                                                 |  |
| <b>2 Sample Identification</b>                                   |  |                                           |  | <b>3 Collected</b>                                                                                                                                                                                                                                                                                                                |  |      |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
|                                                                  |  | Date                                      |  | Time                                                                                                                                                                                                                                                                                                                              |  | Grab |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| WS-005 (surface)                                                 |  | 071913                                    |  | 725                                                                                                                                                                                                                                                                                                                               |  | X    |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| WS-014 (1.5-2.0)                                                 |  | 071913                                    |  | 820                                                                                                                                                                                                                                                                                                                               |  | X    |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| WS-012 (1.5-2.0)                                                 |  | 071913                                    |  | 840                                                                                                                                                                                                                                                                                                                               |  | X    |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| WS-010 (1.5-2.0)                                                 |  | 071913                                    |  | 905                                                                                                                                                                                                                                                                                                                               |  | X    |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| WS-011 (1.5-2.0)                                                 |  | 071913                                    |  | 1000                                                                                                                                                                                                                                                                                                                              |  | X    |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| WS-003 (surface)                                                 |  | 071913                                    |  | 1020                                                                                                                                                                                                                                                                                                                              |  | X    |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| WS-018 (surface)                                                 |  | 071913                                    |  | 1030                                                                                                                                                                                                                                                                                                                              |  | X    |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| WS-002 (surface)                                                 |  | 071913                                    |  | 1050                                                                                                                                                                                                                                                                                                                              |  | X    |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| WS-001 (0.5-1.0)                                                 |  | 071913                                    |  | 1100                                                                                                                                                                                                                                                                                                                              |  | X    |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| WS-007 (0.5-1.0)                                                 |  | 071913                                    |  | 1130                                                                                                                                                                                                                                                                                                                              |  | X    |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| WS-006 (0.5-1.0)                                                 |  | 071913                                    |  | 1150                                                                                                                                                                                                                                                                                                                              |  | X    |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| Dup - WS-58 - 071913                                             |  | 7/19/13                                   |  | -                                                                                                                                                                                                                                                                                                                                 |  | X    |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| <b>7 Turnaround Time Requested (TAT) (please circle)</b>         |  |                                           |  | Relinquished by _____ Date _____ Time _____<br>Relinquished by _____ Date _____ Time _____<br>Relinquished by _____ Date _____ Time _____                                                                                                                                                                                         |  |      |  | Received by _____ Date _____ Time _____<br>Received by _____ Date _____ Time _____<br>Received by _____ Date _____ Time _____ |  |  |  | Date _____ Time _____<br>Date _____ Time _____<br>Date _____ Time _____ |  |  |  |  |  |  |  |                                                                                                                                            |  |
| Standard <u>5 day</u> 4 day<br>72 hour      48 hour      24 hour |  |                                           |  |                                                                                                                                                                                                                                                                                                                                   |  |      |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
|                                                                  |  |                                           |  |                                                                                                                                                                                                                                                                                                                                   |  |      |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| <b>8 Data Package (circle if required)</b>                       |  |                                           |  | Relinquished by Commercial Carrier<br>UPS _____ FedEx <u>X</u> Other _____<br>Temperature Upon Receipt <u>0.6-0.9°C</u>                                                                                                                                                                                                           |  |      |  | Received by <u>Bucarely King</u> Date <u>7-20-13</u> Time <u>915</u><br>Custody Seals Intact? <u>Yes</u> No                   |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| Type I - Full<br>Type VI (Raw Data)<br>NJ Reduced<br>Other _____ |  |                                           |  |                                                                                                                                                                                                                                                                                                                                   |  |      |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |
| EDD (circle if required)<br>Locus EIM (default)<br>Other _____   |  |                                           |  |                                                                                                                                                                                                                                                                                                                                   |  |      |  |                                                                                                                               |  |  |  |                                                                         |  |  |  |  |  |  |  |                                                                                                                                            |  |



Acct. # 14739

For Eurofins Lancaster Laboratories use only  
Group # 1405523 Sample # 7133315-28  
Instructions on reverse side correspond with circled numbers.

- 2 of 2

Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300  
The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.  
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Issued by Dept. 40 Management  
7053 0413

Environmental Sample Administration  
Receipt Documentation Log

Grp # 1405523

Client/Project: Exxon MobilShipping Container Sealed: ☒ YES ☐ NODate of Receipt: 7.20.13Custody Seal Present \* : ☒ YES ☐ NOTime of Receipt: 915

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

Source Code: 50-1Package: ☒ Chilled ☐ Not Chilled

Temperature of Shipping Containers

| Cooler # | Thermometer ID | Temperature (°C) | Temp Bottle (TB) or Surface Temp (ST) | Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP) | Ice Present? Y/N | Loose (L) Bagged Ice (B) or NA | Comments |
|----------|----------------|------------------|---------------------------------------|------------------------------------------------|------------------|--------------------------------|----------|
| 1        | DH46           | 0.7              | TB                                    | WI                                             | X                | B                              |          |
| 2        | ↓              | 0.6              | ↓                                     | ↓                                              | ↓                | ↓                              |          |
| 3        |                |                  |                                       |                                                |                  |                                |          |
| 4        |                |                  |                                       |                                                |                  |                                |          |
| 5        |                |                  |                                       |                                                |                  |                                |          |
| 6        |                |                  |                                       |                                                |                  |                                |          |

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

## Paperwork Discrepancy/Unpacking Problems:

WS-EB-05-071913 = WS-EB-S-071913TB have no label

Unpacker Signature/Emp#:

Branchy Barclay 2299

Date/Time:

7.20.13 949

Issued by Dept. 6042 Management

# Explanation of Symbols and Abbreviations

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

|                         |                                                                                                                                                                                                                                                                                                                                                             |                 |                                  |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------------------|
| <b>RL</b>               | Reporting Limit                                                                                                                                                                                                                                                                                                                                             | <b>BMQL</b>     | Below Minimum Quantitation Level |
| <b>N.D.</b>             | none detected                                                                                                                                                                                                                                                                                                                                               | <b>MPN</b>      | Most Probable Number             |
| <b>TNTC</b>             | Too Numerous To Count                                                                                                                                                                                                                                                                                                                                       | <b>CP Units</b> | cobalt-chloroplatinate units     |
| <b>IU</b>               | International Units                                                                                                                                                                                                                                                                                                                                         | <b>NTU</b>      | nephelometric turbidity units    |
| <b>umhos/cm</b>         | micromhos/cm                                                                                                                                                                                                                                                                                                                                                | <b>ng</b>       | nanogram(s)                      |
| <b>C</b>                | degrees Celsius                                                                                                                                                                                                                                                                                                                                             | <b>F</b>        | degrees Fahrenheit               |
| <b>meq</b>              | milliequivalents                                                                                                                                                                                                                                                                                                                                            | <b>lb.</b>      | pound(s)                         |
| <b>g</b>                | gram(s)                                                                                                                                                                                                                                                                                                                                                     | <b>kg</b>       | kilogram(s)                      |
| <b>µg</b>               | microgram(s)                                                                                                                                                                                                                                                                                                                                                | <b>mg</b>       | milligram(s)                     |
| <b>mL</b>               | milliliter(s)                                                                                                                                                                                                                                                                                                                                               | <b>L</b>        | liter(s)                         |
| <b>m3</b>               | cubic meter(s)                                                                                                                                                                                                                                                                                                                                              | <b>µL</b>       | microliter(s)                    |
|                         |                                                                                                                                                                                                                                                                                                                                                             | <b>pg/L</b>     | picogram/liter                   |
| <b>&lt;</b>             | 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.                                                                                                                                                                                   |                 |                                  |
| <b>&gt;</b>             | greater than                                                                                                                                                                                                                                                                                                                                                |                 |                                  |
| <b>ppm</b>              | 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. |                 |                                  |
| <b>ppb</b>              | parts per billion                                                                                                                                                                                                                                                                                                                                           |                 |                                  |
| <b>Dry weight basis</b> | 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 |                                                         |
|--------------------|---------------------------------------------------------------------------|----------------------|---------------------------------------------------------|
| <b>A</b>           | TIC is a possible aldol-condensation product                              | <b>B</b>             | Value is $<$ CRDL, but $\geq$ IDL                       |
| <b>B</b>           | Analyte was also detected in the blank                                    | <b>E</b>             | Estimated due to interference                           |
| <b>C</b>           | Pesticide result confirmed by GC/MS                                       | <b>M</b>             | Duplicate injection precision not met                   |
| <b>D</b>           | Compound quantitated on a diluted sample                                  | <b>N</b>             | Spike sample not within control limits                  |
| <b>E</b>           | Concentration exceeds the calibration range of the instrument             | <b>S</b>             | Method of standard additions (MSA) used for calculation |
| <b>N</b>           | Presumptive evidence of a compound (TICs only)                            | <b>U</b>             | Compound was not detected                               |
| <b>P</b>           | Concentration difference between primary and confirmation columns $>25\%$ | <b>W</b>             | Post digestion spike out of control limits              |
| <b>U</b>           | Compound was not detected                                                 | <b>*</b>             | Duplicate analysis not within control limits            |
| <b>X,Y,Z</b>       | Defined in case narrative                                                 | <b>+</b>             | 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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