Analysis Report

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ANALYTICAL RESULTS

Prepared by: Prepared for:

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

December 31, 2014

Project: Mayflower, AR Pipeline Incident

Submittal Date: 12/23/2014 Group Number: 1527674 SDG: PEO47 PO Number: 4410263810 Release Number: SIXSMITH State of Sample Origin: AR

Client Sample Description	Lancaster Labs (LL) #				
WS-007(0.5-1.0)122214 Grab Surface Water	7723582				
WS-009(Surface)122214 Grab Surface Water	7723583				
WS-001(0.5-1.0)122214 Grab Surface Water	7723584				
WS-021(Surface)122214 Grab Surface Water	7723585				
WS-004(0.5-1.0)122214 Grab Surface Water	7723586				

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/.

ELECTRONIC	ARCADIS	Attn: Stephen Barrick
COPY TO		
ELECTRONIC	ARCADIS	Attn: Lyndi Mott
COPY TO		
ELECTRONIC	ExxonMobil	Attn: Michael J. Firth
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ELECTRONIC	ARCADIS	Attn: Emily Leamer
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ELECTRONIC	ARCADIS	Attn: Rhiannon Parmelee
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ELECTRONIC	ExxonMobil	Attn: Michael L Sixsmith
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ELECTRONIC	ExxonMobil	Attn: Julie Foster
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Analysis Report

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ELECTRONIC COPY TO ARCADIS

Attn: Sonal Patil

COPY TO ELECTRONIC COPY TO

ARCADIS

Attn: Kim Abbott

Katherine a. Klinefelter

Respectfully Submitted,

Katherine A. Klinefelter Principal Specialist

(717) 556-7256



Project Name: Mayflower, AR Pipeline Incident LL Group #: 1527674

General Comments:

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

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

Project specific QC samples are not included in this data set

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

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

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

Analysis Specific Comments:

SW-846 8270C SIM, GC/MS Semivolatiles

<u>Sample #s: 7723582, 7723583, 7723584, 7723585, 7723586</u> The laboratory did not receive sufficient sample volume to perform the method QC requirement for MS/MSD or MS/DUP analysis.



Analysis Report

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Sample Description: WS-007(0.5-1.0)122214 Grab Surface Water

LL Sample # WW 7723582 S20135565 Mayflower, AR LL Group # 1527674 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/22/2014 10:10 by ZP ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 12/23/2014 10:20 Reported: 12/31/2014 13:03

-007-SDG#: PEO47-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.052	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	0.063	1
08357	Phenanthrene	85-01-8	N.D.	0.031	0.063	1
08357	Pyrene	129-00-0	N.D.	0.010	0.052	1
The	laboratory did not receive suf	ficient sample vo	lume to perform			

the method QC requirement for MS/MSD or MS/DUP analysis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14357WAC026	12/30/2014	07:56	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14357WAC026	12/24/2014	08:30	Jessica M Velez	1



Analysis Report

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Sample Description: WS-009(Surface)122214 Grab Surface Water

S20135565 Mayflower, AR

Pipeline Incident

LL Sample # WW 7723583

LL Group # 1527674 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/22/2014 10:15 by ZP ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 12/23/2014 10:20 Reported: 12/31/2014 13:03

-009-SDG#: PEO47-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b) fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.060	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.060	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
	laboratory did not receive su					

the method QC requirement for ${\rm MS/MSD}$ or ${\rm MS/DUP}$ analysis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14357WAC026	12/30/2014	08:24	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14357WAC026	12/24/2014	08:30	Jessica M Velez	1



Analysis Report

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Sample Description: WS-001(0.5-1.0)122214 Grab Surface Water

LL Sample # WW 7723584 S20135565 Mayflower, AR LL Group # 1527674 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/22/2014 10:25 by ZP ExxonMobil PO Box 4592

Submitted: 12/23/2014 10:20 Houston TX 77210-4592

Reported: 12/31/2014 13:03

-001-SDG#: PEO47-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b) fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k) fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.060	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.060	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
The	laboratory did not receive suf	ficient sample vo	lume to perform			

the method QC requirement for MS/MSD or MS/DUP analysis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14357WAC026	12/30/2014	08:51	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14357WAC026	12/24/2014	08:30	Jessica M Velez	1



Analysis Report

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Sample Description: WS-021(Surface)122214 Grab Surface Water

S20135565 Mayflower, AR

Pipeline Incident

LL Sample # WW 7723585

LL Group # 1527674 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/22/2014 10:30 by ZP ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 12/23/2014 10:20 Reported: 12/31/2014 13:03

-021- SDG#: PEO47-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b) fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.060	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.060	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
The	laboratory did not receive sur					

the method QC requirement for MS/MSD or MS/DUP analysis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14357WAC026	12/30/2014	09:19	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14357WAC026	12/24/2014	08:30	Jessica M Velez	1



Analysis Report

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Sample Description: WS-004(0.5-1.0)122214 Grab Surface Water

LL Sample # WW 7723586 S20135565 Mayflower, AR LL Group # 1527674 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 12/22/2014 10:35 by ZP ExxonMobil PO Box 4592

Submitted: 12/23/2014 10:20 Houston TX 77210-4592

Reported: 12/31/2014 13:03

-004-SDG#: PEO47-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.050	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.050	1
08357	Anthracene	120-12-7	N.D.	0.010	0.050	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.050	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.050	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.050	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.050	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.050	1
08357	Chrysene	218-01-9	N.D.	0.010	0.050	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.050	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.050	1
08357	Fluorene	86-73-7	N.D.	0.010	0.050	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.050	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.050	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.050	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.060	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.060	1
08357	Pyrene	129-00-0	N.D.	0.010	0.050	1
The	laboratory did not receive su	fficient sample vo	lume to perform			

the method QC requirement for MS/MSD or MS/DUP analysis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14357WAC026	12/30/2014	09:47	Mark A Clark	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14357WAC026	12/24/2014	08:30	Jessica M Velez	1



Analysis Report

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Quality Control Summary

Client Name: ExxonMobil Group Number: 1527674

Reported: 12/31/14 at 01:03 PM

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

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

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank MDL**	Blank <u>LOO</u>	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD <u>Max</u>
Batch number: 14357WAC026	Sample num	ber(s): 7	723582-772	3586					
Acenaphthene	N.D.	0.010	0.050	ug/l	94	94	82-126	0	30
Acenaphthylene	N.D.	0.010	0.050	uq/l	102	100	72-124	2	30
Anthracene	N.D.	0.010	0.050	ug/l	102	101	83-125	0	30
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	90	94	79-122	4	30
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	84	90	72-126	7	30
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	92	99	79-136	8	30
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	80	91	59-137	13	30
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	89	95	72-129	7	30
Chrysene	N.D.	0.010	0.050	ug/l	98	101	77-122	3	30
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	76	90	42-143	16	30
Fluoranthene	N.D.	0.010	0.050	ug/l	106	106	76-121	0	30
Fluorene	N.D.	0.010	0.050	ug/l	107	105	82-119	2	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	77	88	53-136	13	30
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	98	99	75-117	1	30
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	93	95	68-124	2	30
Naphthalene	N.D.	0.030	0.060	ug/l	97	97	78-117	0	30
Phenanthrene	N.D.	0.030	0.060	ug/l	103	102	83-116	1	30
Pyrene	N.D.	0.010	0.050	ug/l	86	88	70-124	2	30

Surrogate Quality Control

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

Analysis Name: PAHs in waters by SIM

Batch number: 14357WAC026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene- d10
7723582	87	70	80
7723583	90	56	85
7723584	83	49	80
7723585	90	46	87
7723586	79	44	76
Blank	101	104	93
LCS	103	100	93
LCSD	103	106	95
Limits:	56-134	36-156	59-132

^{*-} Outside of specification

^{**-}This limit was used in the evaluation of the final result for the blank

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

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



Analysis Report

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Quality Control Summary

Client Name: ExxonMobil Group Number: 1527674

Reported: 12/31/14 at 01:03 PM

Surrogate Quality Control

^{*-} Outside of specification

^{**-}This limit was used in the evaluation of the final result for the blank

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

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

ExxonMobil Analysis Request/Chain of Custody

eurofins

Lancaster Laboratories Environmental

For Eurofins Lancaster Laboratories Environmental use only
Group # 1527674 Sample # 7 7 2 3 5 8 2 - 8 6
Instructions on reverse side correspond with circled numbers.

Proservation Codes Which Shamed Codes Consider Phone F Consider	1 Client Information Facility #/SID			(4)	Matri						Requested					SCR#:	15	97	51	
N	Facility #/SID	- 1 ,								Pro	eserva	tion (Code		ciaco po prime ndo	4		7	1	
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Sample Administration Receipt Documentation Log

Doc Log ID:

47680

Group Number(s): 1527674

Client: ExxonMobil

Delivery and Receipt Information

Delivery Method:

UPS

Arrival Timestamp:

12/23/2014 10:20

Number of Packages:

1

Number of Projects:

1

State/Province of Origin:

AR

Arrival Condition Summary

Shipping Container Sealed:

Yes

Sample IDs on COC match Containers:

Yes

Custody Seal Present:

Yes

Sample Date/Times match COC:

Yes

Custody Seal Intact:

Yes

VOA Vial Headspace ≥ 6mm:

N/A

Samples Chilled:

Yes

Total Trip Blank Qty:

0

Paperwork Enclosed:

Yes

Air Quality Samples Present:

No

Samples Intact:

Yes

Missing Samples:

No

Extra Samples:

No

Discrepancy in Container Qty on COC:

No

Unpacked by Brandy Barclay (2299) at 10:42 on 12/23/2014

Samples Chilled Details

Thermometer Types:

DT = Digital (Temp. Bottle)

IR = Infrared (Surface Temp)

All Temperatures in °C.

Cooler # Thermometer ID

DT121

Corrected Temp 0.7

Therm. Type DT

Ice Type Wet

Ice Present? Υ

Ice Container Bagged

Elevated Temp? Ν



Explanation of Symbols and Abbreviations

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

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

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

Data Qualifiers:

C - result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

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

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

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

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

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

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