Analysis Report

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

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

August 06, 2014

Project: Mayflower, AR Pipeline Incident

Submittal Date: 08/01/2014 Group Number: 1493075 SDG: PEO15 PO Number: 4410181435 Release Number: SIXSMITH State of Sample Origin: AR

Client Sample Description	Lancaster Labs (LL) #
WS-007(0.5-1.0)073114 Grab Surface Water	7551651
WS-009(Surface)073114 Grab Surface Water	7551652
WS-001(0.5-1.0)073114 Grab Surface Water	7551653
WS-021(Surface)073114 Grab Surface Water	7551654
WS-004(0.5-1.0)073114 Grab Surface Water	7551655

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

ELECTRONIC	ARCADIS	Attn: Stephen Barrick
COPY TO		_
ELECTRONIC	ARCADIS	Attn: Lyndi Mott
COPY TO		
ELECTRONIC	ExxonMobil	Attn: Michael J. Firth
COPY TO		
ELECTRONIC	ARCADIS	Attn: Emily Leamer
COPY TO		
ELECTRONIC	ARCADIS	Attn: Rhiannon Parmalee
COPY TO		
ELECTRONIC	ExxonMobil	Attn: Michael L Sixsmith
COPY TO		
ELECTRONIC	ExxonMobil	Attn: Julie Foster
COPY TO		
ELECTRONIC	ARCADIS	Attn: Kim Abbott
COPY TO		

Analysis Report

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Respectfully Submitted,

Katherine A. Klinefelter Principal Specialist

Katherine a. Klinefelter

(717) 556-7256



Case Narrative

Project Name: Mayflower, AR Pipeline Incident LL Group #: 1493075

General Comments:

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

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

Project specific QC samples are not included in this data set

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

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

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

Analysis Specific Comments:

SW-846 8270C SIM, GC/MS Semivolatiles

Batch #: 14214WAA026 (Sample number(s): 7551651-7551655 UNSPK: P552061)

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



Analysis Report

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Sample Description: WS-007(0.5-1.0)073114 Grab Surface Water

S20135565 Mayflower, AR

Pipeline Incident

LL Sample # WW 7551651

LL Group # 1493075 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/31/2014 12:35 by ZP ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 08/01/2014 09:40 Reported: 08/06/2014 17:19

P1501 SDG#: PEO15-01

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	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a) anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b) fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	0.011 J	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

General Sample Comments

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14214WAA026	08/04/2014	04:25	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14214WAA026	08/02/2014	11:00	William H Saadeh	1



Analysis Report

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Sample Description: WS-009(Surface)073114 Grab Surface Water

S20135565 Mayflower, AR

Pipeline Incident

LL Sample # WW 7551652

LL Group # 1493075 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/31/2014 12:40 by ZP ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 08/01/2014 09:40 Reported: 08/06/2014 17:19

P1502 SDG#: PEO15-02

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	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b) fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

General Sample Comments

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14214WAA026	08/04/2014	04:52	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14214WAA026	08/02/2014	11:00	William H Saadeh	1



Analysis Report

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Sample Description: WS-001(0.5-1.0)073114 Grab Surface Water

LL Sample # WW 7551653 S20135565 Mayflower, AR LL Group # 1493075 Pipeline Incident Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/31/2014 12:45 by ZP ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 08/01/2014 09:40 Reported: 08/06/2014 17:19

P1503 SDG#: PEO15-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b) fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

General Sample Comments

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

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	14214WAA026	08/04/2014	05:19	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14214WAA026	08/02/2014	11:00	William H Saadeh	1



Analysis Report

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Sample Description: WS-021(Surface)073114 Grab Surface Water

S20135565 Mayflower, AR

Pipeline Incident

LL Sample # WW 7551654

LL Group # 1493075 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/31/2014 12:50 by ZP ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 08/01/2014 09:40 Reported: 08/06/2014 17:19

P1504 SDG#: PEO15-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

General Sample Comments

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14214WAA026	08/04/2014	05:46	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14214WAA026	08/02/2014	11:00	William H Saadeh	1



Analysis Report

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Sample Description: WS-004(0.5-1.0)073114 Grab Surface Water

S20135565 Mayflower, AR

Pipeline Incident

LL Sample # WW 7551655

LL Group # 1493075 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected: 07/31/2014 12:55 by ZP ExxonMobil PO Box 4592

Houston TX 77210-4592

Submitted: 08/01/2014 09:40 Reported: 08/06/2014 17:19

P1505 SDG#: PEO15-05*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270C SIM	ug/l	ug/l	ug/l	
08357	Acenaphthene	83-32-9	N.D.	0.010	0.051	1
08357	Acenaphthylene	208-96-8	N.D.	0.010	0.051	1
08357	Anthracene	120-12-7	N.D.	0.010	0.051	1
08357	Benzo(a)anthracene	56-55-3	N.D.	0.010	0.051	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.010	0.051	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.010	0.051	1
08357	Benzo(g,h,i)perylene	191-24-2	N.D.	0.010	0.051	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.010	0.051	1
08357	Chrysene	218-01-9	N.D.	0.010	0.051	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.010	0.051	1
08357	Fluoranthene	206-44-0	N.D.	0.010	0.051	1
08357	Fluorene	86-73-7	N.D.	0.010	0.051	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.010	0.051	1
08357	1-Methylnaphthalene	90-12-0	N.D.	0.010	0.051	1
08357	2-Methylnaphthalene	91-57-6	N.D.	0.010	0.051	1
08357	Naphthalene	91-20-3	N.D.	0.030	0.051	1
08357	Phenanthrene	85-01-8	N.D.	0.030	0.051	1
08357	Pyrene	129-00-0	N.D.	0.010	0.051	1

General Sample Comments

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

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	14214WAA026	08/04/2014	06:14	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	14214WAA026	08/02/2014	11:00	William H Saadeh	1



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Quality Control Summary

Client Name: ExxonMobil Group Number: 1493075

Reported: 08/06/14 at 05:19 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>LOQ</u>	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 14214WAA026	Sample numl	per(s): 75	551651-755	1655					
Acenaphthene	N.D.	0.010	0.050	ug/l	115		82-126		
Acenaphthylene	N.D.	0.010	0.050	ug/l	106		72-124		
Anthracene	N.D.	0.010	0.050	ug/l	109		83-125		
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	103		79-122		
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	108		72-126		
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	105		79-136		
Benzo(g,h,i)perylene	N.D.	0.010	0.050	ug/l	99		59-137		
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	107		72-129		
Chrysene	N.D.	0.010	0.050	ug/l	107		77-122		
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	91		42-143		
Fluoranthene	N.D.	0.010	0.050	ug/l	104		76-121		
Fluorene	N.D.	0.010	0.050	ug/l	102		82-119		
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	93		53-136		
1-Methylnaphthalene	N.D.	0.010	0.050	ug/l	101		75-117		
2-Methylnaphthalene	N.D.	0.010	0.050	ug/l	97		68-124		
Naphthalene	N.D.	0.030	0.050	ug/l	102		78-117		
Phenanthrene	N.D.	0.030	0.050	ug/l	102		83-116		
Pyrene	N.D.	0.010	0.050	ug/l	105		70-124		

Sample Matrix Quality Control

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

Analysis Name	MS <u>%REC</u>	MSD %REC	MS/MSD <u>Limits</u>	RPD	RPD <u>MAX</u>	BKG <u>Conc</u>	DUP Conc	DUP <u>RPD</u>	Dup RPD Max
Batch number: 14214WAA026	Sample	number(s)	: 7551651	-75516	55 UNSP	K: P552061			
Acenaphthene	118	110	69-134	3	30				
Acenaphthylene	109	107	66-132	2	30				
Anthracene	110	105	64-129	0	30				
Benzo(a)anthracene	79	72	37-135	4	30				
Benzo(a)pyrene	48	44	32-137	4	30				
Benzo(b)fluoranthene	50	46	41-137	4	30				
Benzo(g,h,i)perylene	29	27	21-127	5	30				
Benzo(k)fluoranthene	47	40	36-139	9	30				
Chrysene	64	58	51-129	6	30				
Dibenz(a,h)anthracene	33	28	17-134	13	30				
Fluoranthene	102	97	53-133	0	30				
Fluorene	104	99	59-137	1	30				
Indeno(1,2,3-cd)pyrene	32	29	26-130	5	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.

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Quality Control Summary

Client Name: ExxonMobil Group Number: 1493075

Reported: 08/06/14 at 05:19 PM

Sample Matrix Quality Control

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

	MS	MSD	MS/MSD		RPD	BKG	DUP	DUP	Dup RPD
Analysis Name	%REC	%REC	<u>Limits</u>	RPD	<u>MAX</u>	Conc	Conc	<u>RPD</u>	Max
1-Methylnaphthalene	103	100	60-129	1	30				
2-Methylnaphthalene	100	98	64-129	2	30				
Naphthalene	101	100	58-131	2	30				
Phenanthrene	101	97	66-126	0	30				
Pyrene	100	97	49-136	1	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: 14214WAA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene- d10
7551651	98	54	84
7551652	91	37	87
7551653	97	50	89
7551654	102	67	88
7551655	96	55	84
Blank	102	92	91
LCS	100	106	95
MS	97	43	96
MSD	87	34*	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.

ExxonMobil Analysis Request/Chain of Custody

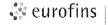
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Lancaster Laboratories Environmental

Acct. # 14739

For Eurofins Lancaster Laboratories Environmental use only
Group # 1493075 Sample # 7551651-55
Instructions on reverse side correspond with circled numbers.

1) Client Info	rmation				4)	Matrix			5						ieste	d			SCR#	. 10	585	5/1	
Facility #/SID	- 10 1									<u> </u>	ļ	rese	ervat	ion (Code	v.000000000000000000000000000000000000				·			+
Mayflower lipeline I	-in Cident					_ W														Preserv			
Site Address				2000					Rest (size photosis)											: HCI		hiosulfa	ate
Maylburer AR	T					gg ud									l					: HNO ₃	B = 1		
ExxonMobil PM Mike Sixsmith	Cost Center/AFE				ļ.	Ground Surface			5								l		S = 6	H ₂ SO ₄	0 = 0 marks		
Consultant/Office					ıeı	"	ΙП		Ī									Î				•	
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WS-001 (0.5-1.0)073114	7-31-14	1245	X			X		2	Ϋ́														***
WS-021 (Surface) 073114	7-31-14	1250	X			Х		2	×														
WS-004(0.5-1.0)073114	7-131-14	1255	X			Х		2	X												***************************************		
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Sample Administration Receipt Documentation Log

Doc Log ID:

22218

Group Number(s): 1493075

Client: Arcadis

Delivery and Receipt Information

Delivery Method:

<u>UPS</u>

Arrival Timestamp:

08/01/2014 9:40

Number of Packages:

1

Number of Projects:

1

Arrival Condition Summary

Shipping Container Sealed:

Yes

Total Trip Blank Qty:

0

Custody Seal Present:

Yes

Trip Blank Type:

Air Quality Returns:

<u>N/A</u>

Custody Seal Intact:

Yes <u>Yes</u> Air Quality Samples Present:

No <u>N/A</u>

Paperwork Enclosed:

Yes

Air Quality Flow Controllers Present: Flow Controller Quantity:

0

N/A

Samples Intact: Missing Samples:

Samples Chilled:

Yes No

Extra Samples:

No

Discrepancy in Container Qty on COC:

No Yes

Sample IDs on COC match Containers: Sample Date/Times match COC:

Yes Yes

VOA Vial Headspace ≥ 6mm:

N/A

VOA IDs (\geq 6mm):

N/A

Unpacked by Timothy Cubberley (6520) at 11:07 on 08/01/2014

Samples Chilled Details

Thermometer Types:

DT = Digital (Temp. Bottle)

IR = Infrared (Surface Temp)

All Temperatures in °C.

Samples Collected Same

Cooler # Thermometer ID

1

Corrected Temp

Therm. Type

Ice Type Ice Present? Ice Container

Day as Receipt?

Elevated Temp?

DT131

1.0

DT

Wet

Υ

Bagged

Ν

Ν

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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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