

Lancaster Laboratories Environmental



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

Partial Report - Page 1 of 1

Sample	Description:	WS-007(0.5-1.0)072613	Filtered	Grab	Surface	Water
		Mayflower, AR				
		Pipeline Incident				

LL Sample # WW 7142325 LL Group # 1407335 Account # 14739

Project Name: Mayflower, AR Pipeline Incident

Collected:	07/26/2013	13:20	by JW
Submitted:	07/27/2013	09:35	
Reported:	07/30/2013	13:31	

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

-0705 SDG#: PEJ50-13

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals	Dissolved	SW-846	6010B	mg/l	mg/l	mg/l	
07035	Arsenic		7440-38-2	N.D.	0.0068	0.0200	1
07046	Barium		7440-39-3	0.0193	0.00033	0.0050	1
07049	Cadmium		7440-43-9	N.D.	0.00076	0.0050	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
07061	Nickel		7440-02-0	0.0021 J	0.0015	0.0100	1
07036	Selenium		7782-49-2	N.D.	0.0084	0.0200	1
07066	Silver		7440-22-4	0.0024 J	0.0021	0.0050	1
07071	Vanadium		7440-62-2	N.D.	0.0020	0.0050	1
		SW-846	7470A	mg/l	mg/l	mg/l	
00259	Mercury		7439-97-6	N.D.	0.000060	0.00020	1

General Sample Comments

This sample was filtered in the laboratory for dissolved metals.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	132081848002	07/30/2013	02:33	Tara L Snyder	1
07046	Barium	SW-846 6010B	1	132081848002	07/30/2013	02:33	Tara L Snyder	1
07049	Cadmium	SW-846 6010B	1	132081848002	07/30/2013	02:33	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	132081848002	07/30/2013	02:33	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	132081848002	07/30/2013	02:33	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	132081848002	07/30/2013	02:33	Tara L Snyder	1
07036	Selenium	SW-846 6010B	1	132081848002	07/30/2013	02:33	Tara L Snyder	1
07066	Silver	SW-846 6010B	1	132081848002	07/30/2013	02:33	Tara L Snyder	1
07071	Vanadium	SW-846 6010B	1	132081848002	07/30/2013	02:33	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	132085713001	07/30/2013	05:59	Damary Valentin	1

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Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 () The white copy should accompany samples to Lancaster Laboratories. The yellow copy should be retained by the client. Tssued by Dept. 40 Management 7053.01

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

Carolyn M. Cyms A# 14739, Gr# 1407335, Sampler 7142313-31

From: Parmelee, Rhiannon [Rhiannon.Parmelee@arcadis-us.com]

Sent: Saturday, July 27, 2013 2:34 PM

To: Kathy Klinefelter; Van Aller, Hans; Mott, Lyndi; Barrick, Stephen; Brewer, Stacey; Kull, Valerie; SA Env Entry; Capria, Dennis; Rachel L. Kreamer; McKenzie, Mary; Chandler, Jennifer

Cc: Molina, Joe; Lipka, Shelby; Pritchard, Jamie

Subject: RE: Mayflower COCs Surface water sampling 072613

Email rush results is fine (option #2).

Rhiannon Parmelee ARCADIS Office (303 471 3904) Cell (206 914 9625)

------ Original message ------From: Kathy Klinefelter <KKlinefelter@lancasterlabs.com>

Date: 07/27/2013 1:13 PM (GMT-06:00)

To: "Parmelee, Rhiannon" < Rhiannon.Parmelee@arcadis-us.com>, "Van Aller, Hans"

<Hans.VanAller@arcadis-us.com>,"Mott, Lyndi" <Lyndi.Mott@arcadis-us.com>,"Barrick, Stephen" <Stephen.Barrick@arcadis-us.com>,"Brewer, Stacey" <Stacey.Brewer@arcadis-us.com>,"Kull,

Valerie" <Valerie.Kull@arcadis-us.com>,SA Env Entry <SAEnvEntry@lancasterlabs.com>,"Capria, Dennis" <Dennis.Capria@arcadis-us.com>,"Rachel L. Kreamer"

<RKreamer@lancasterlabs.com>,"McKenzie, Mary" <Mary.McKenzie@arcadis-us.com>,"Chandler, Jennifer" <Jennifer.Chandler@arcadis-us.com>

Cc: "Molina, Joe" <Joe.Molina@arcadis-us.com>,"Lipka, Shelby" <Shelby.Lipka@arcadis-

us.com>,"Pritchard, Jamie" <Jamie.Pritchard@arcadis-us.com>

Subject: RE: Mayflower COCs Surface water sampling 072613

Does WS-007(0.5-1.0)072613 need to be voided and entered in its own group in order to issue the final report and EDD in 24 hours, or can we leave it entered with the rest of the 5 day group, email rush results for the sample on Tuesday, and then have it included in the final report and EDD issued when the 5 day TAT samples report?

From: Parmelee, Rhiannon [mailto:Rhiannon.Parmelee@arcadis-us.com]
Sent: Saturday, July 27, 2013 2:08 PM
To: Kathy Klinefelter; Van Aller, Hans; Mott, Lyndi; Barrick, Stephen; Brewer, Stacey; Kull, Valerie; SA Env Entry; Capria, Dennis; Rachel L. Kreamer; McKenzie, Mary; Chandler, Jennifer
Cc: Molina, Joe; Lipka, Shelby; Pritchard, Jamie
Subject: RE: Mayflower COCs Surface water sampling 072613

Yes, that is the correct sample id. The rest of the samples would be 5 day TAT. Thank you.

Rhiannon Parmelee ARCADIS Office (303 471 3904) Cell (206 914 9625)

A# 14739, Gr# 1407335, Sample 7142313-31

------ Original message ------From: Kathy Klinefelter <KKlinefelter@lancasterlabs.com> Date: 07/27/2013 11:59 AM (GMT-06:00) To: "Parmelee, Rhiannon" <Rhiannon.Parmelee@arcadis-us.com>,"Van Aller, Hans" <Hans.VanAller@arcadis-us.com>,"Mott, Lyndi" <Lyndi.Mott@arcadis-us.com>,"Barrick, Stephen" <Stephen.Barrick@arcadis-us.com>,"Brewer, Stacey" <Stacey.Brewer@arcadis-us.com>,"Kull, Valerie" <Valerie.Kull@arcadis-us.com>,SA Env Entry <SAEnvEntry@lancasterlabs.com>,"Capria, Dennis" <Dennis.Capria@arcadis-us.com>,"Rachel L. Kreamer" <RKreamer@lancasterlabs.com>,"McKenzie, Mary" <Mary.McKenzie@arcadis-us.com>,"Chandler, Jennifer" <Jennifer.Chandler@arcadis-us.com> Cc: "Molina, Joe" <Joe.Molina@arcadis-us.com>,"Lipka, Shelby" <Shelby.Lipka@arcadisus.com>,"Pritchard, Jamie" <Jamie.Pritchard@arcadis-us.com> Subject: RE: Mayflower COCs Surface water sampling 072613

Please confirm full sample ID for 24 hour request is WS-007(0.5-1.0)072613. The rest of the samples in the surface water group will still be on 5 day TAT, but we will try to have results for this one sample on Tuesday 7/30.

From: Parmelee, Rhiannon [mailto:Rhiannon.Parmelee@arcadis-us.com]
Sent: Saturday, July 27, 2013 8:49 AM
To: Kathy Klinefelter; Van Aller, Hans; Mott, Lyndi; Barrick, Stephen; Brewer, Stacey; Kull, Valerie; SA Env Entry; Capria, Dennis; Rachel L. Kreamer; McKenzie, Mary; Chandler, Jennifer
Cc: Molina, Joe; Lipka, Shelby; Pritchard, Jamie
Subject: RE: Mayflower COCs Surface water sampling 072613

Kathy -

The attached COC was a different from the "Downstream Areas Remedial Sampling Plan (DARSP)" that is kicking off today. For reference, we are using the letters "DA" for sediment/soils/SW associated with that sampling event. For example, a sediment sample ID will look like this: SED-DA-033(0.5-1.0). Obviously, that's more important on our end, but would help you understand when the samples are associated with that event.

And I am task managing both the daily surface water sampling (more from the office) and the DARSP sampling. DARSP a ridiculous acronym, but helps us keep that sampling separate from the other activities.

As for the additional cove samples collected yesterday, those should be the same analytes as the daily surface water sampling (meaning, don't worry about TSS or the alkylated PAHs). And I forgot yesterday when Hans asked me, but is it too late to move WS-007(0.5-1.0) from the 5-day TAT time to the 24-hour TAT. We had asked for 24-hour TAT because the client would like the two SH samples back as soon as possible, realizing that would be Tuesday because of the weekend.

And per Shelby's email yesterday regarding the weekend sampling, that list does include the sediment sampling for the DARSP. We will be starting with sediment sampling this week. (the only sediment sampling currently underway is associated with the DARSP sampling event).

Does this make more sense? I'm out in Arkansas through today and tomorrow. I'm going to attempt to catch up on emails from yesterday – but if you don't hear back on something specific, please re-send.

Rhiannon

A# 14739, Gr # 1407335, Sampler 7142313-31

From: Kathy Klinefelter [mailto:KKlinefelter@lancasterlabs.com]
Sent: Friday, July 26, 2013 10:57 PM
To: Van Aller, Hans; Mott, Lyndi; Barrick, Stephen; Brewer, Stacey; Kull, Valerie; SA Env Entry; Capria, Dennis; Rachel L. Kreamer; McKenzie, Mary; Chandler, Jennifer
Cc: Molina, Joe; Lipka, Shelby; Parmelee, Rhiannon; Pritchard, Jamie
Subject: RE: Mayflower COCs Surface water sampling 072613

Please clarify. Is the attached cove COC part of the Downstream Cove project, or from another cove? Are the 24 hour cove surface water results needed Monday or Tuesday? Tuesday would be the due date for 24 hours = 1 business day rush TAT. Also, please confirm the analyses requested for the cove surface water samples. The COC requests PAHs by SIM, but does not request TSS. Was TSS dropped for this set of cove samples and PAHs SIM added? Our understanding was that Lancaster would not be analyzing any Downstream Cove samples for PAHs SIM and that B&B would be analyzing all cove surface water samples for Alkylated PAHs. Thanks!

From: Van Aller, Hans [mailto:Hans.VanAller@arcadis-us.com]
Sent: Friday, July 26, 2013 9:19 PM
To: Kathy Klinefelter; Mott, Lyndi; Barrick, Stephen; Brewer, Stacey; Kull, Valerie; SA Env Entry; Capria, Dennis; Rachel L. Kreamer; McKenzie, Mary; Chandler, Jennifer
Cc: Molina, Joe; Lipka, Shelby; Parmelee, Rhiannon; Pritchard, Jamie
Subject: Mayflower COCs Surface water sampling 072613

Hello All

Attached are the COCs from today's surface water sampling activities. Thanks,

Hans H. van Aller IV | Field Tech 3 | <u>Hans.VanAller@arcadis-us.com</u> ARCADIS U.S., Inc. | 630 Plaza Drive, Suite 100 | Highlands Ranch, CO 80129 T. 720.344.35300 | M.720.635.0173| F. 720.344.3535

www.arcadis-us.com

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Client/	Client/Project: <u>Exton Mobil</u> Shipping Container Sealed: YES NO											
Date of Receipt: 7/27/13 Custody Seal Present *: YES NO												
Time o	f Receipt:	02	35	* Custody seal was intact unless otherwise noted in the discremancy section								
Source	e Code:	50		Package	e:	Chilled	Not Chilled					
			Temperature of	Shipping Contai	ners							
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					
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3						·						
4												
5												
6												
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Lancaster Laboratories Environmental

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 \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

- A TIC is a possible aldol-condensation product
- **B** Analyte was also detected in the blank
- C Pesticide result confirmed by GC/MS
- **D** Compound quantitated on a diluted sample
- E Concentration exceeds the calibration range of the instrument
- **N** Presumptive evidence of a compound (TICs only)
- **P** Concentration difference between primary and confirmation columns >25%
- U Compound was not detected
- X,Y,Z Defined in case narrative

Inorganic Qualifiers

- B Value is <CRDL, but ≥IDL
- **E** Estimated due to interference
- M Duplicate injection precision not met
- **N** Spike sample not within control limits
- **S** Method of standard additions (MSA) used for calculation
- U Compound was not detected
- W Post digestion spike out of control limits
- * Duplicate analysis not within control limits
- + 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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