ALPHA ANALYTICAL

World Class Chemistry

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Lab Number: L1702766

Client: Floyd Snider, Inc.

ATTN: Teri Floyd

Project Name: LDW ENR/AC PILOT STUDY

Project Number:

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Sample Delivery Group Information

Sample Delivery Group Form

Laboratory Job number: L1702766
Project Manager: Elizabeth Porta **Review Date:** 01/30/2017
Project Number:
Project Name: LDW ENR/AC PILOT STUDY **Received:** 12/06/2016 10:40
Client Account: Floyd Snider Inc **Received by:** KB

Samples Delivered by: FEDEX **Call Tracker #**
Bill Of Laden Yes **Trackingnum** 777853313200, 778050620444
Coc Present Present 778088705407

Container Status Intact **Sample IDs**

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? Yes

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt N/A **Are samples Properly Preserved?** Yes
Initial pH **preserved in house with** **Final pH**
Other Issues
Chlorine Check N/A

Are VOA/VPH Vials Present? No
Aqueous: Do Vials Contain Head Space? N/A
Soils: Is MeOHCovering the Soil? N/A
Reagent H2O Preserved vials Frozen on N/A
Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp. (Celsius)	Frozen upon Receipt	Delivered Direct from Site
A	Absent	No	Yes	13.2 - IR Gun	No	No

C	Absent	Yes	No	3.2 - IR Gun	No	No
B	Absent	Yes	No	4.3 - IR Gun	No	No

LIMS Chain of Custody

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Feb 03 2017, 05:14 pm

Login Number: L1702766
Account: FLOYDSNI Floyd Snider Inc
Received: 06DEC16 Due Date: 03FEB17

Sample #	Client ID	Mat	PR	Collected	Container
L1702766-01	LDW-BA-PC-BLEND-SAN	3	S0	16NOV16 10:45	1-Glass-A.120,1-SGlass-A.06

This is a relog L1639525-01 Samples dosed with activated carbon, please mix/shake samples WELL before prep Ok to run TVS outside of hold per client request. Samples were held frozen in MF DPKG-FULL Package Due Date: 02/03/17

DPKG-FULL,TVS-2540

L1702766-02	LDW-BA-PC-BLEND-GRV	3	S0	16NOV16 10:45	1-Glass-A.120,1-SGlass-A.06

This is a relog L1639525-02 Samples dosed with activated carbon, please mix/shake samples WELL before prep Ok to run TVS outside of hold per client request. Samples were held frozen in MF Package Due Date: 02/03/17

TVS-2540

L1702766-03	LDW-BA-BL-GRVSAND-0	3	S0	23NOV16 10:30	1-Glass-A.120,1-SGlass-A.06

Samples dosed with activated carbon, please mix/shake samples WELL before prep This is a relog L1639525-03 Ok to run TVS outside of hold per client request. Samples were held frozen in MF Package Due Date: 02/03/17

TVS-2540

L1702766-04	LDW-BA-BL-GRVSAND-5	3	S0	23NOV16 10:30	1-Glass-A.120,1-SGlass-A.06

Sample rec'd out of HOLD. Not "environmental" samples, ok per client. This is a relog L1639525-04 Samples dosed with activated carbon, please mix/shake samples WELL before prep Ok to run TVS outside of hold per client request. Samples were held frozen in MF Package Due Date: 02/03/17

TVS-2540

L1702766-05	LDW-BA-BL-GRVSAND-1	3	S0	13DEC16 12:35	1-Glass-A.120,1-SGlass-A.06

Samples need to be shaken/mixed well prior to analysis! This is a relog L1642217-01 Ok to run TVS outside of hold per client request. Samples were held frozen in MF Package Due Date: 02/03/17

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Feb 03 2017, 05:14 pm

Login Number: L1702766
Account: FLOYDSNI Floyd Snider Inc
Received: 06DEC16 Due Date: 03FEB17

Sample #	Client ID	Mat	PR	Collected	Container
TVS-2540					
L1702766-06	LDW-BA-BL-GRVSAND-1	3	S0	13DEC16 12:55	1-Glass-A.120,1-SGlass-A.06
Samples need to be shaken/mixed well prior to analysis! This is a relog L1642217-02 Ok to run TVS outside of hold per client request. Samples were held frozen in MF Package Due Date: 02/03/17					
TVS-2540					
L1702766-07	LDW-BA-BL-GRVSAND-2	3	S0	13DEC16 13:15	1-Glass-A.120,1-SGlass-A.06
Samples need to be shaken/mixed well prior to analysis! This is a relog L1642217-03 Ok to run TVS outside of hold per client request. Samples were held frozen in MF Package Due Date: 02/03/17					
TVS-2540					
L1702766-08	LDW-BA-BL-SAND-0-50	3	S0	30DEC16 09:20	1-Glass-A.120,1-SGlass-A.06
Samples need to be shaken/mixed well prior to analysis! This is a relog L1700165-01 Ok to run TVS outside of hold per client request. Samples were held frozen in MF Package Due Date: 02/03/17					
TVS-2540					
L1702766-09	LDW-BA-BL-SAND-500-	3	S0	30DEC16 09:40	1-Glass-A.120,1-SGlass-A.06
Samples need to be shaken/mixed well prior to analysis! This is a relog L1700165-02 Ok to run TVS outside of hold per client request. Samples were held frozen in MF Package Due Date: 02/03/17					
TVS-2540					
L1702766-10	LDW-BA-BL-SAND-1K-1	3	S0	30DEC16 10:10	1-Glass-A.120,1-SGlass-A.06
Samples need to be shaken/mixed well prior to analysis! This is a relog L1700165-03 Ok to run TVS outside of hold per client request. Samples were held frozen in MF Package Due Date: 02/03/17					
TVS-2540					

Logged By: Bethany Bedard

Container Tracking

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1702766-01A	Glass-A.120	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z3	A2-CUSTODY-FRZ1-Z3	Bethany Bedard
L1702766-01A	Glass-A.120	INTACT	27-JAN-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1702766-01B	SGlass-A.06	EMPTY	01-FEB-17	CUSTODY	WETCHEM	Deb Whelan	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Deb Whelan
L1702766-01B	SGlass-A.06	INTACT	01-FEB-17	CUSTODY	W11-S3-A CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1702766-01B	SGlass-A.06	INTACT	30-JAN-17		CUSTODY	Christina Mazza	W11-S3-A CUSTODY	W11-S3-A CUSTODY	Christina Mazza
L1702766-01B	SGlass-A.06	INTACT	30-JAN-17	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Emily Keith
L1702766-01B	SGlass-A.06	INTACT	30-JAN-17	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	E
L1702766-01B	SGlass-A.06	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethany
L1702766-01B	SGlass-A.06	INTACT	28-JAN-17	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard
L1702766-02A	Glass-A.120	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z3	A2-CUSTODY-FRZ1-Z3	Bethany Bedard
L1702766-02A	Glass-A.120	INTACT	27-JAN-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1702766-02B	SGlass-A.06	EMPTY	01-FEB-17	CUSTODY	WETCHEM	Deb Whelan	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Deb Whelan
L1702766-02B	SGlass-A.06	INTACT	01-FEB-17	CUSTODY	W11-S3-A CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1702766-02B	SGlass-A.06	INTACT	30-JAN-17		CUSTODY	Christina Mazza	W11-S3-A CUSTODY	W11-S3-A CUSTODY	Christina Mazza
L1702766-02B	SGlass-A.06	INTACT	30-JAN-17	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Emily Keith
L1702766-02B	SGlass-A.06	INTACT	30-JAN-17	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	E
L1702766-02B	SGlass-A.06	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethany
L1702766-02B	SGlass-A.06	INTACT	28-JAN-17	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard
L1702766-03A	Glass-A.120	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z3	A2-CUSTODY-FRZ1-Z3	Bethany Bedard
L1702766-03A	Glass-A.120	INTACT	27-JAN-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1702766-03B	SGlass-A.06	EMPTY	01-FEB-17	CUSTODY	WETCHEM	Deb Whelan	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Deb Whelan
L1702766-03B	SGlass-A.06	INTACT	01-FEB-17	CUSTODY	W11-S3-A CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1702766-03B	SGlass-A.06	INTACT	30-JAN-17		CUSTODY	Christina Mazza	W11-S3-A CUSTODY	W11-S3-A CUSTODY	Christina Mazza
L1702766-03B	SGlass-A.06	INTACT	30-JAN-17	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Emily Keith
L1702766-03B	SGlass-A.06	INTACT	30-JAN-17	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	E

Container ID	Type	Status	Transaction Date	From Response	Location	Operator	To Response	Location	Operator
L1702766-03B	SGlass-A.06	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethan
L1702766-03B	SGlass-A.06	INTACT	28-JAN-17	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard
L1702766-04A	Glass-A.120	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z3	A2-CUSTODY-FRZ1-Z3	Bethany Bedard
L1702766-04A	Glass-A.120	INTACT	27-JAN-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1702766-04B	SGlass-A.06	EMPTY	01-FEB-17	CUSTODY	WETCHEM	Deb Whelan	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Deb Whelan
L1702766-04B	SGlass-A.06	INTACT	01-FEB-17	CUSTODY	W11-S3-A CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1702766-04B	SGlass-A.06	INTACT	30-JAN-17		CUSTODY	Christina Mazza	W11-S3-A CUSTODY	W11-S3-A CUSTODY	Christina Mazza
L1702766-04B	SGlass-A.06	INTACT	30-JAN-17	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Emily Keith
L1702766-04B	SGlass-A.06	INTACT	30-JAN-17	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	
L1702766-04B	SGlass-A.06	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethan
L1702766-04B	SGlass-A.06	INTACT	28-JAN-17	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard
L1702766-05A	Glass-A.120	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z3	A2-CUSTODY-FRZ1-Z3	Bethany Bedard
L1702766-05A	Glass-A.120	INTACT	27-JAN-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1702766-05B	SGlass-A.06	EMPTY	01-FEB-17	CUSTODY	WETCHEM	Deb Whelan	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Deb Whelan
L1702766-05B	SGlass-A.06	INTACT	01-FEB-17	CUSTODY	W11-S3-A CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1702766-05B	SGlass-A.06	INTACT	30-JAN-17		CUSTODY	Christina Mazza	W11-S3-A CUSTODY	W11-S3-A CUSTODY	Christina Mazza
L1702766-05B	SGlass-A.06	INTACT	30-JAN-17	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Emily Keith
L1702766-05B	SGlass-A.06	INTACT	30-JAN-17	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	
L1702766-05B	SGlass-A.06	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethan
L1702766-05B	SGlass-A.06	INTACT	28-JAN-17	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard
L1702766-06A	Glass-A.120	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z3	A2-CUSTODY-FRZ1-Z3	Bethany Bedard
L1702766-06A	Glass-A.120	INTACT	27-JAN-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1702766-06B	SGlass-A.06	EMPTY	01-FEB-17	CUSTODY	WETCHEM	Deb Whelan	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Deb Whelan
L1702766-06B	SGlass-A.06	INTACT	01-FEB-17	CUSTODY	W11-S3-A CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1702766-06B	SGlass-A.06	INTACT	30-JAN-17		CUSTODY	Christina Mazza	W11-S3-A CUSTODY	W11-S3-A CUSTODY	Christina Mazza

Container ID	Type	Status	Transaction Date	From Response	Location	Operator	To Response	Location	Operator
L1702766-06B	SGlass-A.06	INTACT	30-JAN-17	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Emily Keith
L1702766-06B	SGlass-A.06	INTACT	30-JAN-17	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	
L1702766-06B	SGlass-A.06	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethar
L1702766-06B	SGlass-A.06	INTACT	28-JAN-17	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard
L1702766-07A	Glass-A.120	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z3	A2-CUSTODY-FRZ1-Z3	Bethany Bedard
L1702766-07A	Glass-A.120	INTACT	27-JAN-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1702766-07B	SGlass-A.06	EMPTY	01-FEB-17	CUSTODY	WETCHEM	Deb Whelan	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Deb Whelan
L1702766-07B	SGlass-A.06	INTACT	01-FEB-17	CUSTODY	W11-S3-A CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1702766-07B	SGlass-A.06	INTACT	30-JAN-17		CUSTODY	Christina Mazza	W11-S3-A CUSTODY	W11-S3-A CUSTODY	Christina Mazza
L1702766-07B	SGlass-A.06	INTACT	30-JAN-17	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Emily Keith
L1702766-07B	SGlass-A.06	INTACT	30-JAN-17	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	
L1702766-07B	SGlass-A.06	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethar
L1702766-07B	SGlass-A.06	INTACT	28-JAN-17	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard
L1702766-08A	Glass-A.120	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z3	A2-CUSTODY-FRZ1-Z3	Bethany Bedard
L1702766-08A	Glass-A.120	INTACT	27-JAN-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1702766-08B	SGlass-A.06	EMPTY	01-FEB-17	CUSTODY	WETCHEM	Deb Whelan	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Deb Whelan
L1702766-08B	SGlass-A.06	INTACT	01-FEB-17	CUSTODY	W11-S3-A CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1702766-08B	SGlass-A.06	INTACT	30-JAN-17		CUSTODY	Christina Mazza	W11-S3-A CUSTODY	W11-S3-A CUSTODY	Christina Mazza
L1702766-08B	SGlass-A.06	INTACT	30-JAN-17	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Emily Keith
L1702766-08B	SGlass-A.06	INTACT	30-JAN-17	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	
L1702766-08B	SGlass-A.06	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethar
L1702766-08B	SGlass-A.06	INTACT	28-JAN-17	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard
L1702766-09A	Glass-A.120	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z3	A2-CUSTODY-FRZ1-Z3	Bethany Bedard
L1702766-09A	Glass-A.120	INTACT	27-JAN-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1702766-09B	SGlass-A.06	EMPTY	01-FEB-17	CUSTODY	WETCHEM	Deb Whelan	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Deb Whelan

Container ID	Type	Status	Transaction Date	From Response	Location	Operator	To Response	Location	Operator
L1702766-09B	SGlass-A.06	INTACT	01-FEB-17	CUSTODY	W11-S3-A CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1702766-09B	SGlass-A.06	INTACT	30-JAN-17		CUSTODY	Christina Mazza	W11-S3-A CUSTODY	W11-S3-A CUSTODY	Christina Mazza
L1702766-09B	SGlass-A.06	INTACT	30-JAN-17	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Emily Keith
L1702766-09B	SGlass-A.06	INTACT	30-JAN-17	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	
L1702766-09B	SGlass-A.06	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethar
L1702766-09B	SGlass-A.06	INTACT	28-JAN-17	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard
L1702766-10A	Glass-A.120	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-Z3	A2-CUSTODY-FRZ1-Z3	Bethany Bedard
L1702766-10A	Glass-A.120	INTACT	27-JAN-17	A2-LOGIN	A2-LOGIN	Brett Read	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brett Read
L1702766-10B	SGlass-A.06	EMPTY	01-FEB-17	CUSTODY	WETCHEM	Deb Whelan	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Deb Whelan
L1702766-10B	SGlass-A.06	INTACT	01-FEB-17	CUSTODY	W11-S3-A CUSTODY	Deb Whelan	WETCHEM	WETCHEM	Deb Whelan
L1702766-10B	SGlass-A.06	INTACT	30-JAN-17		CUSTODY	Christina Mazza	W11-S3-A CUSTODY	W11-S3-A CUSTODY	Christina Mazza
L1702766-10B	SGlass-A.06	INTACT	30-JAN-17	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	CUSTODY	CUSTODY	Emily Keith
L1702766-10B	SGlass-A.06	INTACT	30-JAN-17	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethany Bedard	TRANSIT COURIER	COOLER11-TRANSFER_TO_WESTBORO	
L1702766-10B	SGlass-A.06	INTACT	28-JAN-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	COOLER11-TRANSFER_TO_WESTBORO	COOLER11-TRANSFER_TO_WESTBORO	Bethar
L1702766-10B	SGlass-A.06	INTACT	28-JAN-17	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard

Chain of Custody

L1702766

MANSFIELD CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193

Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 12/6/16

ALPHA Job #: TBD ~~L1703952~~ 12/8/17

Project Information

Project Name: LDW ENR/AC Pilot Study

Project Location: LDW

Project #: TBD

Project Manager: Liz Porta

ALPHA Quote #: M2015033

Client Information

Client: Amec Foster Wheeler

Address: 3500 188TH St. SW, Suite 601

Lynnwood, WA 98037

Phone: 425-921-4023

Fax:

Email: cliff.whitmus@amecfw.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: TBD Time: TBD

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

Other Project Specific Requirements/Comments/Detection Limits:

POC: Gretchen Heavner- gretchen.heavner@floydsnider.com #206.292.2078

☒ MS/MSD (at unit cost) will be omitted unless you check here

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TAL Metals EPA 6020B/7474	SVOCs EPA 8270D	TOC EPA 9060A(m)	Grain Size ASTM D422	Black Carbon Gustafsson (1997)								Sample Specific Comments	TOTAL # BOTTLES
2766-01 ~~3952-01~~	LDW-BA-PC-BLEND-Sand	11-16-16	10:45	sediment	RM	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
-02 -02	LDW-BA-PC-BLEND-GrvSand	11-16-16	10:45	sediment	RM	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
-03 -03	LDW-BA-BL-GrvSand-0-500	11-23-16	10:30	sediment	RM	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
-04 -04	LDW-BA-BL-GrvSand-500-1k	10-23-16	11:30	sediment	RM	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
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				Container Type		A	A	A	-	-	-	-	-	-	-	-	-		
				Preservative		A	A	A	-	-	-	-	-	-	-	-	-		

Relinquished By:	Date/Time	Received By:	Date/Time
Richard May FedEx	12/2/16/1300	FedEx Kim Elkins-AAL	12/6/16 1010

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 101-09(I-NJ) (rev. 5-JAN-12)

L1702766

MANSFIELD CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 12/28/16

ALPHA Job #: TBD ~~L1642217~~ BB 12/28/16

Project Information

Project Name: LDW ENR/AC Pilot Study

Project Location: LDW

Project #: TBD

Project Manager: Liz Porta

ALPHA Quote #: M2015033

Report Information / Data Deliverables

- ☐ FAX
- ☐ ADEx
- ☒ EMAIL
- ☐ Add'l Deliverables

Billing Information

☒ Same as Client Info

PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

Client Information

Client: Amec Foster Wheeler

Address: 3500 188TH St. SW, Suite 601

Lynnwood, WA 98037

Phone: 425-921-4023

Fax:

Email: cliff.whitmus@amecfw.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: TBD Time: TBD

Other Project Specific Requirements/Comments/Detection Limits:
POC: Gretchen Heavner- gretchen.heavner@floydsnider.com #206.292.2078

☒ MS/MSD (at unit cost) will be omitted unless you check here

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TAL Metals EPA 6020B/7474	SVOCs EPA 8270D	TOC EPA 9060A(m)	Grain Size ASTM D422	Black Carbon Gustafsson (1997)								Sample Specific Comments	TOTAL # BOTTLES
-05 ~~L1642217-01~~	LDW-BA-BL-GrvSand-1K-1.5K	12-13-16	12:35	sediment	RW	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
-06 .02	LDW-BA-BL-GrvSand-1.5K-2K	12-13-16	12:55	sediment	RM	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
-07 .03	LDW-BA-BL-GrvSand-2K-2.5K	12-13-16	13:15	sediment	RM	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
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				Container Type		A	A	A	-	-	-	-	-	-	-	-	-		
				Preservative		A	A	A	-	-	-	-	-	-	-	-	-		

Relinquished By:	Date/Time	Received By:	Date/Time
Richard May / DOF	12/27/16 13:15	Fedex	
Fedex		~~Bob~~ Bd	12/28/16 1037

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 101-09(I-NJ) (rev. 5-JAN-12)

L1702766 1/28/17

MANSFIELD CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 1/4/17

ALPHA Job #: TBD ~~L1700165~~ (BB)

Project Information

Project Name: LDW ENR/AC Pilot Study

Project Location: LDW

Project #: TBD

Project Manager: Liz Porta

ALPHA Quote #: M2015033

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: TBD Time: TBD

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client Info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

Client Information

Client: Amec Foster Wheeler

Address: 3500 188TH St. SW, Suite 601

Lynnwood, WA 98037

Phone: 425-921-4023

Fax:

Email: cliff.whitmus@amecfw.com

☐ These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

POC: Gretchen Heavner- gretchen.heavner@floydsnider.com #206.292.2078

☒ MS/MSD (at unit cost) will be omitted unless you check here

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TAL Metals EPA 6020B/7474	SVOCs EPA 8270D	TOC EPA 9060A(m)	Grain Size ASTM D422	Black Carbon Gustafsson (1997)								Sample Specific Comments	TOTAL # BOTTLES
-08 ~~001605.01~~	LDW-BA-BL-Sand-0-500	12-30-16	09:20	sediment	RW	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
-09 .02	LDW-BA-BL-Sand-500-1k	12-30-16	09:40	sediment	RM	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
-10 .03	LDW-BA-BL-Sand-1k-1.5k	12-30-16	10:10	sediment	RM	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		1
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				Container Type		A	A	A	-	-	-	-	-	-	-	-	-		
				Preservative		A	A	A	-	-	-	-	-	-	-	-	-		

Relinquished By:	Date/Time	Received By:	Date/Time
Richard May / DOF fed Ex	1/3/17 / 1300	FedEx Ken Barb	1/4/17 11:20

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 101-09(I-NJ) (rev. 5-JAN-12)

Wet Chemistry

Total Volatile Solids Analysis

Sample Raw Data

ALPHA ANALYTICAL LABS

WET CHEMISTRY DEPARTMENT

TOTAL VOLATILE SOLIDS

Last Change 08/26/05 GFF
File tvs_s.xlt

oven C

Sample Number: _____ in 105 7:15
out 10:00
Client: _____ in 11:40
out 9:10 2-2
Analysis: T V S in 550 13:00
Method: SM 2540E out 5:45 2-3
in 6:45
out 7:45

Product: TVS-2540
Analyte: Solids, Total Volatile
Analysis Date: 2/1/2017 7:00
Technician: dw
Work group: wg974254
MDL: 0.10%

	Sample Number	Symbol	Tare weight (gm)	Sample Weight (gm)	105 degree C Net Weight(1) (gm)	105 degree C Net Weight(2) (gm)	550 degree C Net Weight(1) (gm)	550 degree C Net Weight(2) (gm)	MDL MULT.	RESULT %	
BLANK	WG974254-1	11	18.1435	0	18.143	18.1443	18.1432	18.1429		0.0	
DUP	WG974254-2	1	17.0389	12.6289	28.7683	28.7697	28.2038	28.2053		4.8	L1702766-01
SAMP	L1702766-01	16	16.6141	8.0199	24.0662	24.067	23.7011	23.7015		4.9	
SAMP	L1702766-02	6	18.2927	17.5294	35.799	35.8008	34.6589	34.6612		6.5	
SAMP	L1702766-03	47	19.3108	17.2515	36.5313	36.534	35.8327	35.8348		4.1	
SAMP	L1702766-04	17	19.8447	18.3391	38.1453	38.1455	37.4084	37.4111		4.0	
SAMP	L1702766-05	big1	29.4989	18.7291	48.2032	48.2043	47.1347	47.1365		5.7	
SAMP	L1702766-06	h	27.4023	19.5735	46.9342	46.934	46.0096	46.0124		4.7	
SAMP	L1702766-07	7	26.7574	20.7575	47.4801	47.4794	46.8257	46.8284		3.2	
SAMP	L1702766-08	big6	29.1357	19.4693	47.2426	47.2401	46.5509	46.554		3.8	
SAMP	L1702766-09	10	30.0304	21.3718	49.7539	49.7505	48.8503	48.8528		4.6	
SAMP	L1702766-10	4	22.353	22.353	47.6819	47.6768	47.0486	47.0521		2.5	
										0.0	
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Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Feb 03 2017, 11:53 am

Work Group: WG974254 for Department: 7 Wet Chemistry

Created: 01-FEB-17 Due: Operator: dw

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1702766-01	LDW-BA-PC-BLEND-SAND	S	TVS-2540	SOIL	DONE	U	1123	0203	S0	SGlass-A.1
L1702766-02	LDW-BA-PC-BLEND-GRVS	S	TVS-2540	SOIL	DONE	U	1123	0203	S0	SGlass-A.1
L1702766-03	LDW-BA-BL-GRVSAND-0-	S	TVS-2540	SOIL	DONE	U	1130	0203	S0	SGlass-A.1
L1702766-04	LDW-BA-BL-GRVSAND-50	S	TVS-2540	SOIL	DONE	U	1130	0203	S0	SGlass-A.1
L1702766-05	LDW-BA-BL-GRVSAND-1K	S	TVS-2540	SOIL	DONE	U	1220	0203	S0	SGlass-A.1
L1702766-06	LDW-BA-BL-GRVSAND-1.	S	TVS-2540	SOIL	DONE	U	1220	0203	S0	SGlass-A.1
L1702766-07	LDW-BA-BL-GRVSAND-2K	S	TVS-2540	SOIL	DONE	U	1220	0203	S0	SGlass-A.1
L1702766-08	LDW-BA-BL-SAND-0-500	S	TVS-2540	SOIL	DONE	U	0106	0203	S0	SGlass-A.1
L1702766-09	LDW-BA-BL-SAND-500-1	S	TVS-2540	SOIL	DONE	U	0106	0203	S0	SGlass-A.1
L1702766-10	LDW-BA-BL-SAND-1K-1.	S	TVS-2540	SOIL	DONE	U	0106	0203	S0	SGlass-A.1
WG974254-1	Laboratory Method Bl	S	TVS-2540	SOIL	DONE	U				
WG974254-2	Duplicate Sample	S	TVS-2540	SOIL	DONE	U				

Comments:

WG974254-2 L1702766-01

Alpha Report

ANALYTICAL REPORT

Lab Number:	L1702766
Client:	Floyd Snider Inc 601 Union Street Suite 600 Seattle, WA 98101
ATTN:	Teri Floyd
Phone:	(206) 292-2078
Project Name:	LDW ENR/AC PILOT STUDY
Project Number:	Not Specified
Report Date:	02/03/17

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: LDW ENR/AC PILOT STUDY
Project Number: Not Specified

Lab Number: L1702766
Report Date: 02/03/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1702766-01	LDW-BA-PC-BLEND-SAND	SEDIMENT	LDW	11/16/16 10:45	12/06/16
L1702766-02	LDW-BA-PC-BLEND-GRVSAND	SEDIMENT	LDW	11/16/16 10:45	12/06/16
L1702766-03	LDW-BA-BL-GRVSAND-0-500	SEDIMENT	LDW	11/23/16 10:30	12/06/16
L1702766-04	LDW-BA-BL-GRVSAND-500-1K	SEDIMENT	LDW	11/23/16 10:30	12/06/16
L1702766-05	LDW-BA-BL-GRVSAND-1K-1.5K	SEDIMENT	LDW	12/13/16 12:35	12/28/16
L1702766-06	LDW-BA-BL-GRVSAND-1.5K-2K	SEDIMENT	LDW	12/13/16 12:55	12/28/16
L1702766-07	LDW-BA-BL-GRVSAND-2K-2.5K	SEDIMENT	LDW	12/13/16 13:15	12/28/16
L1702766-08	LDW-BA-BL-SAND-0-500	SEDIMENT	LDW	12/30/16 09:20	01/04/17
L1702766-09	LDW-BA-BL-SAND-500-1K	SEDIMENT	LDW	12/30/16 09:40	01/04/17
L1702766-10	LDW-BA-BL-SAND-1K-1.5K	SEDIMENT	LDW	12/30/16 10:10	01/04/17

Project Name: LDW ENR/AC PILOT STUDY **Lab Number:** L1702766
Project Number: Not Specified **Report Date:** 02/03/17

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	LDW ENR/AC PILOT STUDY	**Lab Number:**	L1702766
Project Number:	Not Specified	**Report Date:**	02/03/17

Case Narrative (continued)

Sample Receipt

At the client's request, the samples were analyzed for TVS.

L1702766-01 through -04: The samples were received via express courier in a cooler with blue ice; however, the samples were above the required temperature range. The client was notified of the exceedance, and all requested analyses were performed.

Solids, Total Volatile

L1702766-01 through -10 were analyzed with the method required holding time exceeded.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 02/03/17

INORGANICS
&
MISCELLANEOUS

Project Name: LDW ENR/AC PILOT STUDY
Project Number: Not Specified

Lab Number: L1702766
Report Date: 02/03/17

SAMPLE RESULTS

Lab ID: L1702766-01
Client ID: LDW-BA-PC-BLEND-SAND
Sample Location: LDW
Matrix: Sediment

Date Collected: 11/16/16 10:45
Date Received: 12/06/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Volatile	4.9		%	0.10	--	1	-	02/01/17 07:00	121,2540E	DW

Project Name: LDW ENR/AC PILOT STUDY
Project Number: Not Specified

Lab Number: L1702766
Report Date: 02/03/17

SAMPLE RESULTS

Lab ID: L1702766-02
Client ID: LDW-BA-PC-BLEND-GRVSAND
Sample Location: LDW
Matrix: Sediment

Date Collected: 11/16/16 10:45
Date Received: 12/06/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Volatile	6.5		%	0.10	--	1	-	02/01/17 07:00	121,2540E	DW

Project Name: LDW ENR/AC PILOT STUDY
Project Number: Not Specified

Lab Number: L1702766
Report Date: 02/03/17

SAMPLE RESULTS

Lab ID: L1702766-03
Client ID: LDW-BA-BL-GRVSAND-0-500
Sample Location: LDW
Matrix: Sediment

Date Collected: 11/23/16 10:30
Date Received: 12/06/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Volatile	4.1		%	0.10	--	1	-	02/01/17 07:00	121,2540E	DW

Project Name: LDW ENR/AC PILOT STUDY
Project Number: Not Specified

Lab Number: L1702766
Report Date: 02/03/17

SAMPLE RESULTS

Lab ID: L1702766-04
Client ID: LDW-BA-BL-GRVSAND-500-1K
Sample Location: LDW
Matrix: Sediment

Date Collected: 11/23/16 10:30
Date Received: 12/06/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Volatile	4.0		%	0.10	--	1	-	02/01/17 07:00	121,2540E	DW

Project Name: LDW ENR/AC PILOT STUDY
Project Number: Not Specified

Lab Number: L1702766
Report Date: 02/03/17

SAMPLE RESULTS

Lab ID: L1702766-05
Client ID: LDW-BA-BL-GRVSAND-1K-1.5K
Sample Location: LDW
Matrix: Sediment

Date Collected: 12/13/16 12:35
Date Received: 12/28/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Volatile	5.7		%	0.10	--	1	-	02/01/17 07:00	121,2540E	DW

Project Name: LDW ENR/AC PILOT STUDY
Project Number: Not Specified

Lab Number: L1702766
Report Date: 02/03/17

SAMPLE RESULTS

Lab ID: L1702766-06
Client ID: LDW-BA-BL-GRVSAND-1.5K-2K
Sample Location: LDW
Matrix: Sediment

Date Collected: 12/13/16 12:55
Date Received: 12/28/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Volatile	4.7		%	0.10	--	1	-	02/01/17 07:00	121,2540E	DW

Project Name: LDW ENR/AC PILOT STUDY
Project Number: Not Specified

Lab Number: L1702766
Report Date: 02/03/17

SAMPLE RESULTS

Lab ID: L1702766-07
Client ID: LDW-BA-BL-GRVSAND-2K-2.5K
Sample Location: LDW
Matrix: Sediment

Date Collected: 12/13/16 13:15
Date Received: 12/28/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Volatile	3.2		%	0.10	--	1	-	02/01/17 07:00	121,2540E	DW

Project Name: LDW ENR/AC PILOT STUDY
Project Number: Not Specified

Lab Number: L1702766
Report Date: 02/03/17

SAMPLE RESULTS

Lab ID: L1702766-08
Client ID: LDW-BA-BL-SAND-0-500
Sample Location: LDW
Matrix: Sediment

Date Collected: 12/30/16 09:20
Date Received: 01/04/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Volatile	3.8		%	0.10	--	1	-	02/01/17 07:00	121,2540E	DW

Project Name: LDW ENR/AC PILOT STUDY
Project Number: Not Specified

Lab Number: L1702766
Report Date: 02/03/17

SAMPLE RESULTS

Lab ID: L1702766-09
Client ID: LDW-BA-BL-SAND-500-1K
Sample Location: LDW
Matrix: Sediment

Date Collected: 12/30/16 09:40
Date Received: 01/04/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Volatile	4.6		%	0.10	--	1	-	02/01/17 07:00	121,2540E	DW

Project Name: LDW ENR/AC PILOT STUDY
Project Number: Not Specified

Lab Number: L1702766
Report Date: 02/03/17

SAMPLE RESULTS

Lab ID: L1702766-10
Client ID: LDW-BA-BL-SAND-1K-1.5K
Sample Location: LDW
Matrix: Sediment

Date Collected: 12/30/16 10:10
Date Received: 01/04/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Volatile	2.5		%	0.10	--	1	-	02/01/17 07:00	121,2540E	DW

Project Name: LDW ENR/AC PILOT STUDY **Lab Number:** L1702766

Project Number: Not Specified **Report Date:** 02/03/17

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-10 Batch: WG974254-1										
Solids, Total Volatile	ND		%	0.10	--	1	-	02/01/17 07:00	121,2540E	DW

Lab Duplicate Analysis
Batch Quality Control

Project Name: LDW ENR/AC PILOT STUDY
Project Number: Not Specified

Lab Number: L1702766
Report Date: 02/03/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-10 QC Batch ID: WG974254-2 QC Sample: L1702766-01 Client ID: LDW-BA-PC-BLEND-SAND						
Solids, Total Volatile	4.9	4.8	%	2		11

Project Name: LDW ENR/AC PILOT STUDY
Project Number: Not Specified

Lab Number: L1702766
Report Date: 02/03/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information	Custody Seal
Cooler	
A	Absent
B	Absent
C	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1702766-01A	Glass 120ml/4oz unpreserved	A	N/A	13.2	Y	Absent	TVS-2540(7)
L1702766-01B	Glass 60ml unpreserved split	A	N/A	13.2	Y	Absent	TVS-2540(7)
L1702766-02A	Glass 120ml/4oz unpreserved	A	N/A	13.2	Y	Absent	TVS-2540(7)
L1702766-02B	Glass 60ml unpreserved split	A	N/A	13.2	Y	Absent	TVS-2540(7)
L1702766-03A	Glass 120ml/4oz unpreserved	A	N/A	13.2	Y	Absent	TVS-2540(7)
L1702766-03B	Glass 60ml unpreserved split	A	N/A	13.2	Y	Absent	TVS-2540(7)
L1702766-04A	Glass 120ml/4oz unpreserved	A	N/A	13.2	Y	Absent	TVS-2540(7)
L1702766-04B	Glass 60ml unpreserved split	A	N/A	13.2	Y	Absent	TVS-2540(7)
L1702766-05A	Glass 120ml/4oz unpreserved	B	N/A	4.3	Y	Absent	TVS-2540(7)
L1702766-05B	Glass 60ml unpreserved split	B	N/A	4.3	Y	Absent	TVS-2540(7)
L1702766-06A	Glass 120ml/4oz unpreserved	B	N/A	4.3	Y	Absent	TVS-2540(7)
L1702766-06B	Glass 60ml unpreserved split	B	N/A	4.3	Y	Absent	TVS-2540(7)
L1702766-07A	Glass 120ml/4oz unpreserved	B	N/A	4.3	Y	Absent	TVS-2540(7)
L1702766-07B	Glass 60ml unpreserved split	B	N/A	4.3	Y	Absent	TVS-2540(7)
L1702766-08A	Glass 120ml/4oz unpreserved	C	N/A	3.2	Y	Absent	TVS-2540(7)
L1702766-08B	Glass 60ml unpreserved split	C	N/A	3.2	Y	Absent	TVS-2540(7)
L1702766-09A	Glass 120ml/4oz unpreserved	C	N/A	3.2	Y	Absent	TVS-2540(7)
L1702766-09B	Glass 60ml unpreserved split	C	N/A	3.2	Y	Absent	TVS-2540(7)
L1702766-10A	Glass 120ml/4oz unpreserved	C	N/A	3.2	Y	Absent	TVS-2540(7)
L1702766-10B	Glass 60ml unpreserved split	C	N/A	3.2	Y	Absent	TVS-2540(7)

*Values in parentheses indicate holding time in days

Project Name:	LDW ENR/AC PILOT STUDY	**Lab Number:**	L1702766
Project Number:	Not Specified	**Report Date:**	02/03/17

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Project Name:	LDW ENR/AC PILOT STUDY	**Lab Number:**	L1702766
Project Number:	Not Specified	**Report Date:**	02/03/17

Data Qualifiers

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name: LDW ENR/AC PILOT STUDY **Lab Number:** L1702766
Project Number: Not Specified **Report Date:** 02/03/17

REFERENCES

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E.**

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

L1702766

MANSFIELD CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193

Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 12/6/16

ALPHA Job #: TBD ~~L1703952~~ 12/8/17

Client Information

Client: Amec Foster Wheeler

Address: 3500 188TH St. SW, Suite 601

Lynnwood, WA 98037

Phone: 425-921-4023

Fax:

Email: cliff.whitmus@amecfw.com

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: LDW ENR/AC Pilot Study

Project Location: LDW

Project #: TBD

Project Manager: Liz Porta

ALPHA Quote #: M2015033

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: TBD Time: TBD

Report Information Data Deliverables

☐ FAX ☒ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program Criteria

Other Project Specific Requirements/Comments/Detection Limits:

POC: Gretchen Heavner- gretchen.heavner@floydsnider.com #206.292.2078

☒ MS/MSD (at unit cost) will be omitted unless you check here

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TAL Metals EPA 6020B/7474	SVOCs EPA 8270D	TOC EPA 9060A(m)	Grain Size ASTM D422	Black Carbon Gustafsson (1997)								Sample Specific Comments	TOTAL # BOTTLES
2766-01 ~~3952-01~~	LDW-BA-PC-BLEND-Sand	11-16-16	10:45	sediment	RM	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
-02 -02	LDW-BA-PC-BLEND-GrvSand	11-16-16	10:45	sediment	RM	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
-03 -03	LDW-BA-BL-GrvSand-0-500	11-23-16	10:30	sediment	RM	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
-04 -04	LDW-BA-BL-GrvSand-500-1k	10-23-16	11:30	sediment	RM	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
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Container Type						A	A	A	-	-	-	-	-	-	-	-	-		
Preservative						A	A	A	-	-	-	-	-	-	-	-	-		

Relinquished By:	Date/Time	Received By:	Date/Time
Richard May FedEx	12/2/16/1300	FedEx Kimberly Beals - AAL	12/6/16 1010

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 101-09(I-NJ) (rev. 5-JAN-12)

L1702766

MANSFIELD CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 12/28/16

ALPHA Job #: TBD ~~L1642217~~ BB 12/28/16

Project Information

Project Name: LDW ENR/AC Pilot Study

Project Location: LDW

Project #: TBD

Project Manager: Liz Porta

ALPHA Quote #: M2015033

Report Information

☐ FAX ☒ EMAIL

☐ ADEx ☐ Add'l Deliverables

Data Deliverables

Billing Information

☒ Same as Client Info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

Client Information

Client: Amec Foster Wheeler

Address: 3500 188TH St. SW, Suite 601

Lynnwood, WA 98037

Phone: 425-921-4023

Fax:

Email: cliff.whitmus@amecfw.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: TBD Time: TBD

Other Project Specific Requirements/Comments/Detection Limits:

POC: Gretchen Heavner- gretchen.heavner@floydsnider.com #206.292.2078

☒ MS/MSD (at unit cost) will be omitted unless you check here

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TAL Metals EPA 6020B/7474	SVOCs EPA 8270D	TOC EPA 9060A(m)	Grain Size ASTM D422	Black Carbon Gustafsson (1997)								Sample Specific Comments	TOTAL # BOTTLES
-05 ~~L1702217-01~~	LDW-BA-BL-GrvSand-1K-1.5K	12-13-16	12:35	sediment	RW	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
-06 .02	LDW-BA-BL-GrvSand-1.5K-2K	12-13-16	12:55	sediment	RM	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
-07 .03	LDW-BA-BL-GrvSand-2K-2.5K	12-13-16	13:15	sediment	RM	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
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				Container Type		A	A	A	-	-	-	-	-	-	-	-	-		
				Preservative		A	A	A	-	-	-	-	-	-	-	-	-		

Relinquished By:	Date/Time	Received By:	Date/Time
Richard May / DOF	12/27/16 13:15	Fedex	
Fedex		~~Bob~~ Bd	12/28/16 1037

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L1702766 1/28/17

MANSFIELD CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 1/4/17

ALPHA Job #: TBD ~~L1700165~~ (BS)

Project Information

Project Name: LDW ENR/AC Pilot Study

Project Location: LDW

Project #: TBD

Project Manager: Liz Porta

ALPHA Quote #: M2015033

Report Information Data Deliverables

- ☐ FAX
- ☒ EMAIL
- ☐ ADEx
- ☐ Add'l Deliverables

Billing Information

- ☒ Same as Client Info
- PO #:

Regulatory Requirements/Report Limits

State/Fed Program	Criteria

Client Information

Client: Amec Foster Wheeler

Address: 3500 188TH St. SW, Suite 601

Lynnwood, WA 98037

Phone: 425-921-4023

Fax:

Email: cliff.whitmus@amecfw.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: TBD Time: TBD

Other Project Specific Requirements/Comments/Detection Limits:
POC: Gretchen Heavner- gretchen.heavner@floydsnider.com #206.292.2078

☒ MS/MSD (at unit cost) will be omitted unless you check here

ANALYSIS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TAL Metals EPA 6020B/7474	SVOCs EPA 8270D	TOC EPA 9060A(m)	Grain Size ASTM D422	Black Carbon Gustafsson (1997)								Sample Specific Comments	TOTAL # BOTTLES
-08 ~~001605.01~~	LDW-BA-BL-Sand-0-500	12-30-16	09:20	sediment	RW	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
-09 .02	LDW-BA-BL-Sand-500-1k	12-30-16	09:40	sediment	RM	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
-10 .03	LDW-BA-BL-Sand-1k-1.5k	12-30-16	10:10	sediment	RM	☐	☐	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐		1
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				Container Type		A	A	A	-	-	-	-	-	-	-	-	-		
				Preservative		A	A	A	-	-	-	-	-	-	-	-	-		

Relinquished By:	Date/Time	Received By:	Date/Time
Richard May / DOF fed Ex	1/3/17 / 1300	Fed Ex Kim Berk	1/4/17 11:20

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FORM NO: 101-09(I-NJ) (rev. 5-JAN-12)