ALPHA ANALYTICAL

World Class Chemistry

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Lab Number: L1703709

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: L1703709
Project Manager: Elizabeth Porta **Review Date:** 02/21/2017
Project Number:
Project Name: LDW ENR/AC PILOT STUDY **Received:** 02/06/2017 10:15
Client Account: Floyd Snider Inc **Received by:** KB

Samples Delivered by: FEDEX **Call Tracker #**
Bill Of Laden Yes **Trackingnum** 785501858278
Coc Present Present

Container Status Broken **Sample IDs** LDW-BA-PC-ENRMAT-SAND3 rec'd cracked, transfered to new container.

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	14.8 - IR Gun	No	No

LIMS Chain of Custody

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Feb 27 2017, 04:47 pm

Login Number: L1703709
Account: FLOYDSNI Floyd Snider Inc
Received: 06FEB17 Due Date: 27FEB17

Sample #	Client ID	Mat	PR	Collected	Container
L1703709-01	LDW-BA-PC-ENRMAT-GA	3	S0	02FEB17 12:15	1-Glass-A.25,1-SGlass-A.06

L1703709-01 MS weigh 20-25mg for each sample for both TOC and Soot L1703709-01 DUP 1 Rep per sample, Mix thoroughly before removing sample aliquot. SOOT on HOLD as of 2/13/17 - TOC ok to run as of 2/15/17 TVS added per client 2/15/17 L1703709-01 also labeled as L1703709-02, L1703709-03 DPKG-FULL Package Due Date: 02/27/17

A2-DUP,A2-MS,A2-TOC-9060,DPKG-FULL,TVS-2540

Sample #	Client ID	Mat	PR	Collected	Container
L1703709-02	LDW-BA-PC-ENRMAT-GA	3	S0	02FEB17 12:15	1-SGlass-A.06,1-SGlass-A.1

weigh 20-25mg for each sample for both TOC and Soot 1 Rep per sample, Mix thoroughly before removing sample aliquot. SOOT on HOLD as of 2/13/17 - TOC ok to run as of 2/15/17 TVS added per client 2/15/17 L1703709-01 also labeled as L1703709-02, L1703709-03 Package Due Date: 02/27/17

A2-TOC-9060,TVS-2540

Sample #	Client ID	Mat	PR	Collected	Container
L1703709-03	LDW-BA-PC-ENRMAT-GA	3	S0	02FEB17 12:15	1-SGlass-A.06,1-SGlass-A.1

weigh 20-25mg for each sample for both TOC and Soot 1 Rep per sample, Mix thoroughly before removing sample aliquot. SOOT on HOLD as of 2/13/17 - TOC ok to run as of 2/15/17 TVS added per client 2/15/17 L1703709-01 also labeled as L1703709-02, L1703709-03 Package Due Date: 02/27/17

A2-TOC-9060,TVS-2540

Sample #	Client ID	Mat	PR	Collected	Container
L1703709-04	LDW-BA-PC-ENRMAT-SA	3	S0	02FEB17 12:20	1-Glass-A.25,1-SGlass-A.06

weigh 20-25mg for each sample for both TOC and Soot 1 Rep per sample, Mix thoroughly before removing sample aliquot. SOOT on HOLD as of 2/13/17 - TOC ok to run as of 2/15/17 TVS added per client 2/15/17 L1703709-04 also labeled as L1703709-05, L1703709-06 Package Due Date: 02/27/17

A2-SOOT,A2-TOC-9060,TVS-2540

Sample #	Client ID	Mat	PR	Collected	Container
L1703709-05	LDW-BA-PC-ENRMAT-SA	3	S0	02FEB17 12:20	1-SGlass-A.06,1-SGlass-A.1

weigh 20-25mg for each sample for both TOC and Soot 1 Rep per sample, Mix thoroughly before removing sample aliquot. SOOT on HOLD as of 2/13/17 - TOC ok to run as of 2/15/17 TVS added per client 2/15/17 L1703709-04 also labeled as L1703709-05, L1703709-06 Package Due Date: 02/27/17

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Feb 27 2017, 04:47 pm

Login Number: L1703709
Account: FLOYDSNI Floyd Snider Inc
Received: 06FEB17 Due Date: 27FEB17

Sample #	Client ID	Mat	PR	Collected	Container

A2-SOOT,A2-TOC-9060,TVS-2540

L1703709-06 LDW-BA-PC-ENRMAT-SA 3 S0 02FEB17 12:20 1-SGlass-A.06,1-SGlass-A.1
weigh 20-25mg for each sample for both TOC and Soot 1 Rep per sample, Mix thoroughly before removing sample aliquot. SOOT on HOLD as of 2/13/17 - TOC ok to run as of 2/15/17 TVS added per client 2/15/17
L1703709-04 also labeled as L1703709-05, L1703709-06 Package Due Date: 02/27/17

A2-SOOT,A2-TOC-9060,TVS-2540

L1703709-07 LDW-BA-PC-ENRMAT-SA 3 S0 02FEB17 12:25 1-Glass-A.25,1-SGlass-A.06
weigh 20-25mg for each sample for both TOC and Soot 1 Rep per sample, Mix thoroughly before removing sample aliquot. SOOT on HOLD as of 2/13/17 - TOC ok to run as of 2/15/17 TVS added per client 2/15/17
L1703709-07 also labeled as L1703709-08, L1703709-09 Package Due Date: 02/27/17

A2-SOOT,A2-TOC-9060,TVS-2540

L1703709-08 LDW-BA-PC-ENRMAT-SA 3 S0 02FEB17 12:25 1-SGlass-A.06,1-SGlass-A.1
weigh 20-25mg for each sample for both TOC and Soot 1 Rep per sample, Mix thoroughly before removing sample aliquot. SOOT on HOLD as of 2/13/17 - TOC ok to run as of 2/15/17 TVS added per client 2/15/17
L1703709-07 also labeled as L1703709-08, L1703709-09 Package Due Date: 02/27/17

A2-SOOT,A2-TOC-9060,TVS-2540

L1703709-09 LDW-BA-PC-ENRMAT-SA 3 S0 02FEB17 12:25 1-SGlass-A.06,1-SGlass-A.1
weigh 20-25mg for each sample for both TOC and Soot 1 Rep per sample, Mix thoroughly before removing sample aliquot. SOOT on HOLD as of 2/13/17 - TOC ok to run as of 2/15/17 TVS added per client 2/15/17
L1703709-07 also labeled as L1703709-08, L1703709-09 Package Due Date: 02/27/17

A2-SOOT,A2-TOC-9060,TVS-2540

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Feb 27 2017, 04:47 pm

Login Number: L1703709
Account: FLOYDSNI Floyd Snider Inc
Received: 06FEB17 Due Date: 27FEB17

Sample #	Client ID	Mat	PR	Collected	Container
L1703709-10	LDW-BA-PC-ENRMAT-SA	3	S0	02FEB17 12:30	1-Glass-A.25,1-SGlass-A.06

weigh 20-25mg for each sample for both TOC and Soot 1 Rep per sample, Mix thoroughly before removing sample aliquot. SOOT on HOLD as of 2/13/17 - TOC ok to run as of 2/15/17 TVS added per client 2/15/17 L1703709-10 also labeled as L1703709-11, L1703709-12 Package Due Date: 02/27/17

A2-SOOT,A2-TOC-9060,TVS-2540

| L1703709-11 | LDW-BA-PC-ENRMAT-SA | 3 | S0 | 02FEB17 12:30 | 1-SGlass-A.06,1-SGlass-A.1 |

weigh 20-25mg for each sample for both TOC and Soot 1 Rep per sample, Mix thoroughly before removing sample aliquot. SOOT on HOLD as of 2/13/17 - TOC ok to run as of 2/15/17 TVS added per client 2/15/17 L1703709-10 also labeled as L1703709-11, L1703709-12 Package Due Date: 02/27/17

A2-SOOT,A2-TOC-9060,TVS-2540

| L1703709-12 | LDW-BA-PC-ENRMAT-SA | 3 | S0 | 02FEB17 12:30 | 1-SGlass-A.06,1-SGlass-A.1 |

weigh 20-25mg for each sample for both TOC and Soot 1 Rep per sample, Mix thoroughly before removing sample aliquot. SOOT on HOLD as of 2/13/17 - TOC ok to run as of 2/15/17 TVS added per client 2/15/17 L1703709-10 also labeled as L1703709-11, L1703709-12 Package Due Date: 02/27/17

A2-SOOT,A2-TOC-9060,TVS-2540

| L1703709-13 | LDW-BA-PC-ENRMAT-SA | 3 | S0 | 02FEB17 12:40 | 1-Glass-A.25,1-SGlass-A.06 |

weigh 20-25mg for each sample for both TOC and Soot 1 Rep per sample, Mix thoroughly before removing sample aliquot. SOOT on HOLD as of 2/13/17 - TOC ok to run as of 2/15/17 TVS added per client 2/15/17 L1703709-13 also labeled as L1703709-14, L1703709-15 Package Due Date: 02/27/17

A2-SOOT,A2-TOC-9060,TVS-2540

| L1703709-14 | LDW-BA-PC-ENRMAT-SA | 3 | S0 | 02FEB17 12:40 | 1-SGlass-A.06,1-SGlass-A.1 |

weigh 20-25mg for each sample for both TOC and Soot 1 Rep per sample, Mix thoroughly before removing sample aliquot. SOOT on HOLD as of 2/13/17 - TOC ok to run as of 2/15/17 TVS added per client 2/15/17 L1703709-13 also labeled as L1703709-14, L1703709-15 Package Due Date: 02/27/17

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Feb 27 2017, 04:47 pm

Login Number: L1703709
Account: FLOYDSNI Floyd Snider Inc
Received: 06FEB17 Due Date: 27FEB17

Sample #	Client ID	Mat	PR	Collected	Container

A2-SOOT,A2-TOC-9060,TVS-2540

L1703709-15 LDW-BA-PC-ENRMAT-SA 3 S0 02FEB17 12:40 1-SGlass-A.06,1-SGlass-A.1
weigh 20-25mg for each sample for both TOC and Soot 1 Rep per sample, Mix thoroughly before removing sample aliquot. SOOT on HOLD as of 2/13/17 - TOC ok to run as of 2/15/17 TVS added per client 2/15/17 L1703709-13 also labeled as L1703709-14, L1703709-15 Package Due Date: 02/27/17

A2-SOOT,A2-TOC-9060,TVS-2540

L1703709-16 LDW-BA-PC-ENRMAT-SA 3 S0 02FEB17 12:35 1-Glass-A.25,1-SGlass-A.06
weigh 20-25mg for each sample for both TOC and Soot 1 Rep per sample, Mix thoroughly before removing sample aliquot. SOOT on HOLD as of 2/13/17 - TOC ok to run as of 2/15/17 TVS added per client 2/15/17 L1703709-16 also labeled as L1703709-17, L1703709-18 Package Due Date: 02/27/17

A2-SOOT,A2-TOC-9060,TVS-2540

L1703709-17 LDW-BA-PC-ENRMAT-SA 3 S0 02FEB17 12:35 1-SGlass-A.06,1-SGlass-A.1
weigh 20-25mg for each sample for both TOC and Soot 1 Rep per sample, Mix thoroughly before removing sample aliquot. SOOT on HOLD as of 2/13/17 - TOC ok to run as of 2/15/17 TVS added per client 2/15/17 L1703709-16 also labeled as L1703709-17, L1703709-18 Package Due Date: 02/27/17

A2-SOOT,A2-TOC-9060,TVS-2540

L1703709-18 LDW-BA-PC-ENRMAT-SA 3 S0 02FEB17 12:35 1-SGlass-A.06,1-SGlass-A.1
weigh 20-25mg for each sample for both TOC and Soot 1 Rep per sample, Mix thoroughly before removing sample aliquot. SOOT on HOLD as of 2/13/17 - TOC ok to run as of 2/15/17 TVS added per client 2/15/17 L1703709-16 also labeled as L1703709-17, L1703709-18 Package Due Date: 02/27/17

A2-SOOT,A2-TOC-9060,TVS-2540

Logged By: Elizabeth Porta

Container Tracking

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID Type	Status	Transaction Date	From Response	Location	Operator	To Response	Location	Operator
L1703709-01A Glass-A.25	INTACT	17-FEB-17	CUSTODY	RETURN WALK-IN	CUSTODY Emily Keith	W18-S5-C CUSTODY	W18-S5-C	CUSTODY Emily Keith
L1703709-01A Glass-A.25	INTACT	17-FEB-17	WETCHEM	WETCHEM	Sonja Dayn	CUSTODY	RETURN WALK-IN	CUSTODY Sonja Dayn
L1703709-01A Glass-A.25	INTACT	17-FEB-17	WETCHEM	W18-S4-D CUSTODY	Sonja Dayn	WETCHEM	WETCHEM	Sonja Dayn
L1703709-01A Glass-A.25	INTACT	15-FEB-17	CUSTODY	CUSTODY	Sharon Hoffman	W18-S4-D CUSTODY	W18-S4-D	CUSTODY Sharon Hoffman
L1703709-01A Glass-A.25	INTACT	15-FEB-17	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	CUSTODY	CUSTODY	Sam Bardsley
L1703709-01A Glass-A.25	INTACT	15-FEB-17	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	S
L1703709-01A Glass-A.25	INTACT	15-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Y1	Sam Bardsley	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bard
L1703709-01A Glass-A.25	INTACT	07-FEB-17	CUSTODY	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-Y1	A2-CUSTODY-FRZ1-Y1	Sonal Patel
L1703709-01A Glass-A.25	INTACT	07-FEB-17	CUSTODY	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1703709-01A Glass-A.25	INTACT	06-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Kim L. Bailey
L1703709-01A Glass-A.25	INTACT	06-FEB-17	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1703709-02A SGlass-A.1	INTACT	15-FEB-17	CUSTODY	CUSTODY	Sharon Hoffman	W18-S4-D CUSTODY	W18-S4-D	CUSTODY Sharon Hoffman
L1703709-02A SGlass-A.1	INTACT	15-FEB-17	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	CUSTODY	CUSTODY	Sam Bardsley
L1703709-02A SGlass-A.1	INTACT	15-FEB-17	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	S
L1703709-02A SGlass-A.1	INTACT	15-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Y1	Sam Bardsley	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bard
L1703709-02A SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-Y1	A2-CUSTODY-FRZ1-Y1	Sonal Patel
L1703709-02A SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1703709-02A SGlass-A.1	INTACT	06-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Kim L. Bailey
L1703709-02A SGlass-A.1	INTACT	06-FEB-17	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1703709-03A SGlass-A.1	INTACT	15-FEB-17	CUSTODY	CUSTODY	Sharon Hoffman	W18-S4-D CUSTODY	W18-S4-D	CUSTODY Sharon Hoffman
L1703709-03A SGlass-A.1	INTACT	15-FEB-17	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	CUSTODY	CUSTODY	Sam Bardsley
L1703709-03A SGlass-A.1	INTACT	15-FEB-17	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	S
L1703709-03A SGlass-A.1	INTACT	15-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Y1	Sam Bardsley	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bard
L1703709-03A SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-Y1	A2-CUSTODY-FRZ1-Y1	Sonal Patel
L1703709-03A SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1703709-03A	SGlass-A.1	INTACT	06-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Kim L. Bailey
L1703709-03A	SGlass-A.1	INTACT	06-FEB-17	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1703709-04A	Glass-A.25	INTACT	17-FEB-17	CUSTODY	RETURN WALK-IN CUSTODY	Emily Keith	W18-S5-C CUSTODY	W18-S5-C CUSTODY	Emily Keith
L1703709-04A	Glass-A.25	INTACT	17-FEB-17	WETCHEM	WETCHEM	Sonja Dayn	CUSTODY	RETURN WALK-IN CUSTODY	Sonja Dayn
L1703709-04A	Glass-A.25	INTACT	17-FEB-17	WETCHEM	W18-S4-D CUSTODY	Sonja Dayn	WETCHEM	WETCHEM	Sonja Dayn
L1703709-04A	Glass-A.25	INTACT	15-FEB-17	CUSTODY	CUSTODY	Sharon Hoffman	W18-S4-D CUSTODY	W18-S4-D CUSTODY	Sharon Hoffman
L1703709-04A	Glass-A.25	INTACT	15-FEB-17	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	CUSTODY	CUSTODY	Sam Bardsley
L1703709-04A	Glass-A.25	INTACT	15-FEB-17	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	
L1703709-04A	Glass-A.25	INTACT	15-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Y1	Sam Bardsley	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Ba
L1703709-04A	Glass-A.25	INTACT	07-FEB-17	CUSTODY	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-Y1	A2-CUSTODY-FRZ1-Y1	Sonal Patel
L1703709-04A	Glass-A.25	INTACT	07-FEB-17	CUSTODY	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1703709-04A	Glass-A.25	INTACT	06-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Kim L. Bailey
L1703709-04A	Glass-A.25	INTACT	06-FEB-17	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1703709-05A	SGlass-A.1	INTACT	15-FEB-17	CUSTODY	CUSTODY	Sharon Hoffman	W18-S4-D CUSTODY	W18-S4-D CUSTODY	Sharon Hoffman
L1703709-05A	SGlass-A.1	INTACT	15-FEB-17	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	CUSTODY	CUSTODY	Sam Bardsley
L1703709-05A	SGlass-A.1	INTACT	15-FEB-17	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	
L1703709-05A	SGlass-A.1	INTACT	15-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Y1	Sam Bardsley	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Ba
L1703709-05A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-Y1	A2-CUSTODY-FRZ1-Y1	Sonal Patel
L1703709-05A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1703709-05A	SGlass-A.1	INTACT	06-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Kim L. Bailey
L1703709-05A	SGlass-A.1	INTACT	06-FEB-17	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1703709-06A	SGlass-A.1	INTACT	15-FEB-17	CUSTODY	CUSTODY	Sharon Hoffman	W18-S4-D CUSTODY	W18-S4-D CUSTODY	Sharon Hoffman
L1703709-06A	SGlass-A.1	INTACT	15-FEB-17	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	CUSTODY	CUSTODY	Sam Bardsley
L1703709-06A	SGlass-A.1	INTACT	15-FEB-17	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	
L1703709-06A	SGlass-A.1	INTACT	15-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Y1	Sam Bardsley	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Ba

Container ID	Type	Status	Transaction Date	From Response	Location	Operator	To Response	Location	Operator
L1703709-06A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-Y1	A2-CUSTODY-FRZ1-Y1	Sonal Patel
L1703709-06A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1703709-06A	SGlass-A.1	INTACT	06-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Kim L. Bailey
L1703709-06A	SGlass-A.1	INTACT	06-FEB-17	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1703709-07A	Glass-A.25	INTACT	17-FEB-17	CUSTODY	RETURN WALK-IN CUSTODY	Emily Keith	W18-S5-C CUSTODY	W18-S5-C CUSTODY	Emily Keith
L1703709-07A	Glass-A.25	INTACT	17-FEB-17	WETCHEM	WETCHEM	Sonja Dayn	CUSTODY	RETURN WALK-IN CUSTODY	Sonja Dayn
L1703709-07A	Glass-A.25	INTACT	17-FEB-17	WETCHEM	W18-S4-D CUSTODY	Sonja Dayn	WETCHEM	WETCHEM	Sonja Dayn
L1703709-07A	Glass-A.25	INTACT	15-FEB-17	CUSTODY	CUSTODY	Sharon Hoffman	W18-S4-D CUSTODY	W18-S4-D CUSTODY	Sharon Hoffman
L1703709-07A	Glass-A.25	INTACT	15-FEB-17	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	CUSTODY	CUSTODY	Sam Bardsley
L1703709-07A	Glass-A.25	INTACT	15-FEB-17	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	
L1703709-07A	Glass-A.25	INTACT	15-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Y1	Sam Bardsley	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Ba
L1703709-07A	Glass-A.25	INTACT	07-FEB-17	CUSTODY	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-Y1	A2-CUSTODY-FRZ1-Y1	Sonal Patel
L1703709-07A	Glass-A.25	INTACT	07-FEB-17	CUSTODY	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1703709-07A	Glass-A.25	INTACT	06-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Kim L. Bailey
L1703709-07A	Glass-A.25	INTACT	06-FEB-17	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1703709-08A	SGlass-A.1	INTACT	15-FEB-17	CUSTODY	CUSTODY	Sharon Hoffman	W18-S4-D CUSTODY	W18-S4-D CUSTODY	Sharon Hoffman
L1703709-08A	SGlass-A.1	INTACT	15-FEB-17	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	CUSTODY	CUSTODY	Sam Bardsley
L1703709-08A	SGlass-A.1	INTACT	15-FEB-17	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	
L1703709-08A	SGlass-A.1	INTACT	15-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Y1	Sam Bardsley	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Ba
L1703709-08A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-Y1	A2-CUSTODY-FRZ1-Y1	Sonal Patel
L1703709-08A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1703709-08A	SGlass-A.1	INTACT	06-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Kim L. Bailey
L1703709-08A	SGlass-A.1	INTACT	06-FEB-17	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1703709-09A	SGlass-A.1	INTACT	15-FEB-17	CUSTODY	CUSTODY	Sharon Hoffman	W18-S4-D CUSTODY	W18-S4-D CUSTODY	Sharon Hoffman
L1703709-09A	SGlass-A.1	INTACT	15-FEB-17	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	CUSTODY	CUSTODY	Sam Bardsley

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1703709-09A	SGlass-A.1	INTACT	15-FEB-17	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	
L1703709-09A	SGlass-A.1	INTACT	15-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Y1	Sam Bardsley	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Ba
L1703709-09A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-Y1	A2-CUSTODY-FRZ1-Y1	Sonal Patel
L1703709-09A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1703709-09A	SGlass-A.1	INTACT	06-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Kim L. Bailey
L1703709-09A	SGlass-A.1	INTACT	06-FEB-17	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1703709-10A	Glass-A.25	INTACT	17-FEB-17	CUSTODY	RETURN WALK-IN CUSTODY	Emily Keith	W18-S5-C CUSTODY	W18-S5-C CUSTODY	Emily Keith
L1703709-10A	Glass-A.25	INTACT	17-FEB-17	WETCHEM	WETCHEM	Sonja Dayn	CUSTODY	RETURN WALK-IN CUSTODY	Sonja Dayn
L1703709-10A	Glass-A.25	INTACT	17-FEB-17	WETCHEM	W18-S4-D CUSTODY	Sonja Dayn	WETCHEM	WETCHEM	Sonja Dayn
L1703709-10A	Glass-A.25	INTACT	15-FEB-17	CUSTODY	CUSTODY	Sharon Hoffman	W18-S4-D CUSTODY	W18-S4-D CUSTODY	Sharon Hoffman
L1703709-10A	Glass-A.25	INTACT	15-FEB-17	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	CUSTODY	CUSTODY	Sam Bardsley
L1703709-10A	Glass-A.25	INTACT	15-FEB-17	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	
L1703709-10A	Glass-A.25	INTACT	15-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Y1	Sam Bardsley	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Ba
L1703709-10A	Glass-A.25	INTACT	07-FEB-17	CUSTODY	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-Y1	A2-CUSTODY-FRZ1-Y1	Sonal Patel
L1703709-10A	Glass-A.25	INTACT	07-FEB-17	CUSTODY	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1703709-10A	Glass-A.25	INTACT	06-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Kim L. Bailey
L1703709-10A	Glass-A.25	INTACT	06-FEB-17	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1703709-11A	SGlass-A.1	INTACT	15-FEB-17	CUSTODY	CUSTODY	Sharon Hoffman	W18-S4-D CUSTODY	W18-S4-D CUSTODY	Sharon Hoffman
L1703709-11A	SGlass-A.1	INTACT	15-FEB-17	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	CUSTODY	CUSTODY	Sam Bardsley
L1703709-11A	SGlass-A.1	INTACT	15-FEB-17	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	
L1703709-11A	SGlass-A.1	INTACT	15-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Y1	Sam Bardsley	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Ba
L1703709-11A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-Y1	A2-CUSTODY-FRZ1-Y1	Sonal Patel
L1703709-11A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1703709-11A	SGlass-A.1	INTACT	06-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Kim L. Bailey
L1703709-11A	SGlass-A.1	INTACT	06-FEB-17	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey

Container ID	Type	Status	Transaction Date	From Response	Location	Operator	To Response	Location	Operator
L1703709-12A	SGlass-A.1	INTACT	15-FEB-17	CUSTODY	CUSTODY	Sharon Hoffman	W18-S4-D CUSTODY	W18-S4-D CUSTODY	Sharon Hoffman
L1703709-12A	SGlass-A.1	INTACT	15-FEB-17	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	CUSTODY	CUSTODY	Sam Bardsley
L1703709-12A	SGlass-A.1	INTACT	15-FEB-17	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	
L1703709-12A	SGlass-A.1	INTACT	15-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Y1	Sam Bardsley	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Ba
L1703709-12A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-Y1	A2-CUSTODY-FRZ1-Y1	Sonal Patel
L1703709-12A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1703709-12A	SGlass-A.1	INTACT	06-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Kim L. Bailey
L1703709-12A	SGlass-A.1	INTACT	06-FEB-17	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1703709-13A	Glass-A.25	INTACT	17-FEB-17	CUSTODY	RETURN WALK-IN CUSTODY	Emily Keith	W18-S5-C CUSTODY	W18-S5-C CUSTODY	Emily Keith
L1703709-13A	Glass-A.25	INTACT	17-FEB-17	WETCHEM	WETCHEM	Sonja Dayn	CUSTODY	RETURN WALK-IN CUSTODY	Sonja Dayn
L1703709-13A	Glass-A.25	INTACT	17-FEB-17	WETCHEM	W18-S4-D CUSTODY	Sonja Dayn	WETCHEM	WETCHEM	Sonja Dayn
L1703709-13A	Glass-A.25	INTACT	15-FEB-17	CUSTODY	CUSTODY	Sharon Hoffman	W18-S4-D CUSTODY	W18-S4-D CUSTODY	Sharon Hoffman
L1703709-13A	Glass-A.25	INTACT	15-FEB-17	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	CUSTODY	CUSTODY	Sam Bardsley
L1703709-13A	Glass-A.25	INTACT	15-FEB-17	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	
L1703709-13A	Glass-A.25	INTACT	15-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Y1	Sam Bardsley	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Ba
L1703709-13A	Glass-A.25	INTACT	07-FEB-17	CUSTODY	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-Y1	A2-CUSTODY-FRZ1-Y1	Sonal Patel
L1703709-13A	Glass-A.25	INTACT	07-FEB-17	CUSTODY	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1703709-13A	Glass-A.25	INTACT	06-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Kim L. Bailey
L1703709-13A	Glass-A.25	INTACT	06-FEB-17	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1703709-14A	SGlass-A.1	INTACT	15-FEB-17	CUSTODY	CUSTODY	Sharon Hoffman	W18-S4-D CUSTODY	W18-S4-D CUSTODY	Sharon Hoffman
L1703709-14A	SGlass-A.1	INTACT	15-FEB-17	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	CUSTODY	CUSTODY	Sam Bardsley
L1703709-14A	SGlass-A.1	INTACT	15-FEB-17	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	
L1703709-14A	SGlass-A.1	INTACT	15-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Y1	Sam Bardsley	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Ba
L1703709-14A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-Y1	A2-CUSTODY-FRZ1-Y1	Sonal Patel
L1703709-14A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1703709-14A	SGlass-A.1	INTACT	06-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Kim L. Bailey
L1703709-14A	SGlass-A.1	INTACT	06-FEB-17	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1703709-15A	SGlass-A.1	INTACT	15-FEB-17	CUSTODY	CUSTODY	Sharon Hoffman	W18-S4-D CUSTODY	W18-S4-D CUSTODY	Sharon Hoffman
L1703709-15A	SGlass-A.1	INTACT	15-FEB-17	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	CUSTODY	CUSTODY	Sam Bardsley
L1703709-15A	SGlass-A.1	INTACT	15-FEB-17	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	
L1703709-15A	SGlass-A.1	INTACT	15-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Y1	Sam Bardsley	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Ba
L1703709-15A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-Y1	A2-CUSTODY-FRZ1-Y1	Sonal Patel
L1703709-15A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1703709-15A	SGlass-A.1	INTACT	06-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Kim L. Bailey
L1703709-15A	SGlass-A.1	INTACT	06-FEB-17	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1703709-16A	Glass-A.25	INTACT	17-FEB-17	CUSTODY	RETURN WALK-IN CUSTODY	Emily Keith	W18-S5-C CUSTODY	W18-S5-C CUSTODY	Emily Keith
L1703709-16A	Glass-A.25	INTACT	17-FEB-17	WETCHEM	WETCHEM	Sonja Dayn	CUSTODY	RETURN WALK-IN CUSTODY	Sonja Dayn
L1703709-16A	Glass-A.25	INTACT	17-FEB-17	WETCHEM	W18-S4-D CUSTODY	Sonja Dayn	WETCHEM	WETCHEM	Sonja Dayn
L1703709-16A	Glass-A.25	INTACT	15-FEB-17	CUSTODY	CUSTODY	Sharon Hoffman	W18-S4-D CUSTODY	W18-S4-D CUSTODY	Sharon Hoffman
L1703709-16A	Glass-A.25	INTACT	15-FEB-17	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	CUSTODY	CUSTODY	Sam Bardsley
L1703709-16A	Glass-A.25	INTACT	15-FEB-17	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	
L1703709-16A	Glass-A.25	INTACT	15-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Y1	Sam Bardsley	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Ba
L1703709-16A	Glass-A.25	INTACT	07-FEB-17	CUSTODY	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-Y1	A2-CUSTODY-FRZ1-Y1	Sonal Patel
L1703709-16A	Glass-A.25	INTACT	07-FEB-17	CUSTODY	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1703709-16A	Glass-A.25	INTACT	06-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Kim L. Bailey
L1703709-16A	Glass-A.25	INTACT	06-FEB-17	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1703709-17A	SGlass-A.1	INTACT	15-FEB-17	CUSTODY	CUSTODY	Sharon Hoffman	W18-S4-D CUSTODY	W18-S4-D CUSTODY	Sharon Hoffman
L1703709-17A	SGlass-A.1	INTACT	15-FEB-17	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	CUSTODY	CUSTODY	Sam Bardsley
L1703709-17A	SGlass-A.1	INTACT	15-FEB-17	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	
L1703709-17A	SGlass-A.1	INTACT	15-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Y1	Sam Bardsley	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Ba

Container ID	Type	Status	Transaction Date	From Response	Location	Operator	To Response	Location	Operator
L1703709-17A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-Y1	A2-CUSTODY-FRZ1-Y1	Sonal Patel
L1703709-17A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1703709-17A	SGlass-A.1	INTACT	06-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Kim L. Bailey
L1703709-17A	SGlass-A.1	INTACT	06-FEB-17	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1703709-18A	SGlass-A.1	INTACT	15-FEB-17	CUSTODY	CUSTODY	Sharon Hoffman	W18-S4-D CUSTODY	W18-S4-D CUSTODY	Sharon Hoffman
L1703709-18A	SGlass-A.1	INTACT	15-FEB-17	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	CUSTODY	CUSTODY	Sam Bardsley
L1703709-18A	SGlass-A.1	INTACT	15-FEB-17	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Bardsley	TRANSIT COURIER	COOLER14-TRANSFER_TO_WESTBORO	
L1703709-18A	SGlass-A.1	INTACT	15-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-Y1	Sam Bardsley	COOLER14-TRANSFER_TO_WESTBORO	COOLER14-TRANSFER_TO_WESTBORO	Sam Ba
L1703709-18A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-WET CHEMISTRY	Sonal Patel	A2-CUSTODY-FRZ1-Y1	A2-CUSTODY-FRZ1-Y1	Sonal Patel
L1703709-18A	SGlass-A.1	INTACT	07-FEB-17	CUSTODY	A2-CUSTODY-FRZ1-Z1	Sonal Patel	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Sonal Patel
L1703709-18A	SGlass-A.1	INTACT	06-FEB-17	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-Z1	A2-CUSTODY-FRZ1-Z1	Kim L. Bailey
L1703709-18A	SGlass-A.1	INTACT	06-FEB-17	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey

Chain of Custody

MANSFIELD CHAIN OF CUSTODY

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: 2/6/17

ALPHA Job #: TBD L1703709

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	TOC EPA 9060A(m)	GS ASTM D422 using #230 sieve	Black Carbon Gustafsson (1997)	MS									Sample Specific Comments	TOTAL # BOTTLES
03709.01,02,03	LDW-BA-PC-ENRMAT-GAC	02/02/17	1215	sediment	HTB	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	run in triplicate	1
.04,05,06.02	LDW-BA-PC-ENRMAT-SAND1	↓	1220	sediment	↓	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	run in triplicate	1
.07,08,09.03	LDW-BA-PC-ENRMAT-SAND2	↓	1225	sediment	↓	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	run in triplicate	1
.10,11,12.04	LDW-BA-PC-ENRMAT-SAND3	↓	1230	sediment	↓	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	run in triplicate	1
.13,14,15.05	LDW-BA-PC-ENRMAT-SAND4	↓	1240	sediment	↓	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	run in triplicater	1
.16,17,18.06	LDW-BA-PC-ENRMAT-SAND5	↓	1235	sediment	↓	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	run in triplicate	1
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		

Container Type	A	A	A	-	-	-	-	-	-	-	-	-	
Preservative	A	A	A	-	-	-	-	-	-	-	-	-	

Samples need to be homogenized prior to analysis.

Relinquished By:	Date/Time	Received By:	Date/Time
Harold Benny FedEx	2/3/17 10:50	FedEx	
		[signature] AAL	2/6/17 10:15

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

in 105: 2/17 11:15
out 105: 13:13
in 105: 13:48
out 6:00 2-20
in 550 12:40
out 6:20 2-21
in 7:45
out 9:05

Sample Number: _____
Client: _____
Analysis: T V S
Method: SM 2540E

Product: TVS-2540
Analyte: Solids, Total Volatile
Analysis Date: 2/17/2017 11:05
Technician: sd
Work group: wg978701
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	WG978701-1	C	21.0027	0	21.0022	20.0013	21.0014	21.0011		0.0	
DUP	WG978701-2	10	16.616	5.3085	21.5546	21.5549	16.7309	16.7312		97.7	L1703709-01
	L1703709-01	A	29.3192	5.5208	34.4592	34.4593	29.4363	29.4359		97.7	
	L1703709-02	XO	28.4341	5.8829	33.911	33.9104	28.5626	28.5625		97.7	
	L1703709-03	11	29.4923	5.2277	34.3635	34.3628	29.5983	29.5988		97.8	
	L1703709-04	01	30.0307	17.9268	47.9451	47.9452	47.7111	47.7072		1.3	
	L1703709-05	1	29.5006	15.9489	45.4364	45.4367	45.2174	45.2132		1.4	
	L1703709-06	11	18.1428	13.6803	31.8108	31.8101	31.5922	31.5886		1.6	
	L1703709-07	MS	18.5454	13.4042	31.9283	31.9262	31.6185	31.6163		2.3	
	L1703709-08	13	17.9198	12.2977	30.1985	30.1963	29.9175	29.9147		2.3	
	L1703709-09	47	19.3099	12.0003	31.2922	31.2937	30.945	30.9426		2.9	
	L1703709-10	8	18.1271	10.0962	28.1326	28.134	27.7473	27.7452		3.9	
	L1703709-11	9	17.8643	12.6296	30.3685	30.3695	29.8379	29.8064		4.5	
	L1703709-12		19.2759	12.7241	31.8603	31.8605	31.2939	31.1996		5.3	
	L1703709-13	A	19.8726	10.7857	30.6149	30.6144	30.0796	30.0415		5.3	
	L1703709-14	H	17.7304	11.7239	29.3997	29.4029	28.7206	28.579		7.0	
	L1703709-15	I	17.0391	11.8147	28.8007	28.804	28.1546	28.0098		6.7	
	L1703709-16	B	18.4836	11.4919	29.9093	29.9112	29.2276	29.0269		7.7	
	L1703709-17	49	19.2459	12.1912	31.3707	31.371	30.6894	30.4862		7.3	
	L1703709-18	79	18.4337	12.0104	30.3778	30.375	29.6034	29.4282		7.9	
	L1704650-01	12	18.2647	14.8827	27.7432	23.7361	20.2096	20.2088		64.5	
										0.0	
										0.0	
										0.0	

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Feb 23 2017, 03:36 pm

Work Group: WG978701 for Department: 7 Wet Chemistry

Created: 17-FEB-17 Due: Operator: sd

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1703709-01	LDW-BA-PC-ENRMAT-GAC	S	TVS-2540	SOIL	DONE	U	0209	0227	S0	SGlass-A.06
L1703709-02	LDW-BA-PC-ENRMAT-GAC	S	TVS-2540	SOIL	DONE	U	0209	0227	S0	SGlass-A.06
L1703709-03	LDW-BA-PC-ENRMAT-GAC	S	TVS-2540	SOIL	DONE	U	0209	0227	S0	SGlass-A.06
L1703709-04	LDW-BA-PC-ENRMAT-SAN	S	TVS-2540	SOIL	DONE	U	0209	0227	S0	SGlass-A.06
L1703709-05	LDW-BA-PC-ENRMAT-SAN	S	TVS-2540	SOIL	DONE	U	0209	0227	S0	SGlass-A.06
L1703709-06	LDW-BA-PC-ENRMAT-SAN	S	TVS-2540	SOIL	DONE	U	0209	0227	S0	SGlass-A.06
L1703709-07	LDW-BA-PC-ENRMAT-SAN	S	TVS-2540	SOIL	DONE	U	0209	0227	S0	SGlass-A.06
L1703709-08	LDW-BA-PC-ENRMAT-SAN	S	TVS-2540	SOIL	DONE	U	0209	0227	S0	SGlass-A.06
L1703709-09	LDW-BA-PC-ENRMAT-SAN	S	TVS-2540	SOIL	DONE	U	0209	0227	S0	SGlass-A.06
L1703709-10	LDW-BA-PC-ENRMAT-SAN	S	TVS-2540	SOIL	DONE	U	0209	0227	S0	SGlass-A.06
L1703709-11	LDW-BA-PC-ENRMAT-SAN	S	TVS-2540	SOIL	DONE	U	0209	0227	S0	SGlass-A.06
L1703709-12	LDW-BA-PC-ENRMAT-SAN	S	TVS-2540	SOIL	DONE	U	0209	0227	S0	SGlass-A.06
L1703709-13	LDW-BA-PC-ENRMAT-SAN	S	TVS-2540	SOIL	DONE	U	0209	0227	S0	SGlass-A.06
L1703709-14	LDW-BA-PC-ENRMAT-SAN	S	TVS-2540	SOIL	DONE	U	0209	0227	S0	SGlass-A.06
L1703709-15	LDW-BA-PC-ENRMAT-SAN	S	TVS-2540	SOIL	DONE	U	0209	0227	S0	SGlass-A.06
L1703709-16	LDW-BA-PC-ENRMAT-SAN	S	TVS-2540	SOIL	DONE	U	0209	0227	S0	SGlass-A.06
L1703709-17	LDW-BA-PC-ENRMAT-SAN	S	TVS-2540	SOIL	DONE	U	0209	0227	S0	SGlass-A.06
L1703709-18	LDW-BA-PC-ENRMAT-SAN	S	TVS-2540	SOIL	DONE	U	0209	0227	S0	SGlass-A.06
L1704650-01	PLSA-WTP RESIDUAL-01	S	TVS-2540	SLUDGE	DONE	U	0221	0221	S0	Glass-A.25
WG978701-1	Laboratory Method Bl	S	TVS-2540	SLUDGE	DONE	U				
WG978701-1	Laboratory Method Bl	S	TVS-2540	SOIL	DONE	U				
WG978701-2	Duplicate Sample	S	TVS-2540	SOIL	DONE	U				
WG978701-2	Duplicate Sample	S	TVS-2540	SLUDGE	DONE	U				

Comments:

WG978701-2 L1703709-01

Organic Carbon Analysis

Sequence Logs

Date of report: 2/16/2017 9:07 AM
User ID: Alpha Analytical

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydroge	Nitrogen	ZR	CR	HR	NR
K1	1	9.720	2/15/2017 7:44:15 A	21.265	0.094	1.145	27865	31247	31274	29139
BLANK	2		2/15/2017 7:49:03 A	60	8	258	27878	28196	28204	28136
0	3	9.850	2/15/2017 7:53:53 A	-.010%	2.992%	0.843%	27875	27978	28000	27949
1000	4	9.600	2/15/2017 7:58:40 A	0.087%	0.439%	0.542%	27886	28143	28141	27923
5000	5	9.930	2/15/2017 8:03:27 A	0.455%	-.106%	0.372%	27880	28871	28864	27899
10000	6	10.0	2/15/2017 8:08:13 A	0.926%	0.211%	0.361%	27861	29817	29813	27879
20000	7	10.100	2/15/2017 8:13:00 A	1.943%	0.313%	0.299%	27862	31924	31921	27873
40000	8	10.140	2/15/2017 8:17:47 A	3.593%	-.104%	0.381%	27841	35342	35335	27862
ICV	9	10.120	2/15/2017 8:29:01 A	0.903%	1.664%	0.249%	27818	29736	29746	27823
ICB	10	73.070	2/15/2017 8:33:47 A	0.0%	0.130%	0.049%	27810	27874	27877	27828
HICV	11	49.450	2/15/2017 8:38:35 A	3.591%	0.213%	0.092%	27818	64106	64110	27847
SRM1944	12	10.520	2/15/2017 8:53:04 A	3.622%	114.769	1.603%	27816	35811	36952	27992
MB	13	54.390	2/15/2017 8:57:49 A	0.018%	0.232%	0.063%	27814	28084	28090	27830
SRM1944	14	11.960	2/15/2017 9:02:35 A	3.560%	0.792%	1.473%	27797	36715	36718	27982
MB	15	62.920	2/15/2017 9:07:20 A	0.030%	0.033%	0.064%	27790	28244	28240	27813
170421301	16	12.430	2/15/2017 9:57:00 A	1.987%	0.508%	1.296%	27820	33074	33074	27987
170421301D	17	7.080	2/15/2017 10:01:45 A	1.991%	0.892%	1.363%	27832	30846	30846	27922
170421301MS	18	10.100	2/15/2017 10:07:39 A	3.126%	-.625%	1.387%	27847	34478	34466	27989
170421302	19	6.980	2/15/2017 10:12:23 A	0.615%	0.302%	0.781%	27848	28813	28809	27888
170421303	20	9.360	2/15/2017 10:17:07 A	0.551%	1.125%	0.780%	27826	28989	28993	27888
170421304	21	8.870	2/15/2017 10:21:52 A	0.266%	0.356%	0.643%	27825	28399	28396	27868
CCV	22	9.510	2/15/2017 10:26:36 A	0.961%	1.882%	0.291%	27820	29742	29753	27828
CCB	23	79.450	2/15/2017 10:31:20 A	-.001%	0.238%	0.045%	27813	27864	27876	27831
170421305	24	5.150	2/15/2017 10:48:19 A	4.234%	1.635%	2.574%	27803	32433	32435	27936
170421306	25	15.610	2/15/2017 10:59:23 A	0.218%	-.607%	0.398%	27792	28586	28571	27841
CCV	26	10.280	2/15/2017 11:04:07 A	0.957%	2.560%	0.326%	27810	29881	29900	27825

Reported on 2/16/2017 9:07 AM by Alpha Analytical

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydroge	Nitrogen	ZR	CR	HR	NR
170421305	24	5.150	2/15/2017 10:48:19 A	4.234%	1.635%	2.574%	27803	32433	32435	27936
170421306	25	15.610	2/15/2017 10:59:23 A	0.218%	-.607%	0.398%	27792	28586	28571	27841
CCV	26	10.280	2/15/2017 11:04:07 A	0.957%	2.560%	0.326%	27810	29881	29900	27825
CCB	27	81.280	2/15/2017 11:08:50 A	-.001%	0.091%	0.046%	27799	27856	27857	27819
170370901D	29	6.540	2/15/2017 4:24:46 PM	65.705%	27.845	1651.646%	38168	254576	254743	166900
170370901MS	30	7.300	2/15/2017 4:29:47 PM	63.260%	46.864	-17.261%	29145	121838	122157	27618
170370902	31	7.860	2/15/2017 4:34:48 PM	91.633%	32.275	-3.330%	28889	175473	175708	28552
170370901	32	7.410	2/15/2017 4:39:49 PM	80.154%	25.144	-.826%	28756	149825	149996	28658
170370903	33	5.410	2/15/2017 4:44:50 PM	75.377%	15.371	-.326%	28679	111840	111913	28633
170370904	34	21.040	2/15/2017 4:49:51 PM	7.092%	1.001%	-.032%	28604	59051	59065	28571
170370905	35	21.590	2/15/2017 4:54:52 PM	0.090%	-1.073%	-.109%	28572	28965	28937	28519
170370906	36	20.720	2/15/2017 4:59:54 PM	0.168%	-1.575%	-.105%	28549	29257	29220	28498
170370904	37	21.780	2/16/2017 7:24:12 A	0.109%	-1.982%	3.921%	28412	29938	29891	29405
CCV	38	10.590	2/16/2017 7:29:14 A	0.976%	1.392%	1.236%	28393	30682	30690	28524
CCB	39	74.120	2/16/2017 7:34:17 A	-.003%	-.114%	0.094%	28374	28437	28423	28432
170370907	40	28.740	2/16/2017 7:43:22 A	0.614%	-.659%	0.152%	28342	32017	31993	28369
17370908	41	28.160	2/16/2017 7:48:24 A	1.362%	0.673%	0.167%	28311	36216	36228	28342
170370909	42	27.990	2/16/2017 7:53:26 A	0.623%	0.301%	0.138%	28323	31950	31952	28344
170370910	43	22.180	2/16/2017 7:58:29 A	1.198%	-1.186%	0.151%	28327	33810	33779	28342
170370911	44	21.490	2/16/2017 8:03:31 A	0.588%	-.441%	0.211%	28309	30964	30949	28338
170370912	45	28.850	2/16/2017 8:08:33 A	2.273%	-.438%	0.166%	28314	41768	41750	28346
170370913	46	29.790	2/16/2017 8:13:36 A	1.165%	0.318%	0.180%	28299	35467	35470	28338
170370914	47	23.570	2/16/2017 8:18:38 A	2.067%	0.357%	0.206%	28280	38298	38300	28313
170370915	48	21.840	2/16/2017 8:23:41 A	1.492%	-.096%	0.181%	28275	34991	34983	28297
170370916	49	26.890	2/16/2017 8:28:43 A	2.541%	0.548%	0.172%	28281	42293	42301	28311
CCV	50	9.570	2/16/2017 8:33:46 A	0.968%	-.880%	0.298%	28280	30229	30215	28289
CCB	51	80.120	2/16/2017 8:38:48 A	-.002%	-.013%	0.035%	28284	28303	28296	28292

Reported on 2/17/2017 8:23 AM by Alpha Analytical

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydroge	Nitrogen	ZR	CR	HR	NR
HICV	7	49.300	2/16/2017 12:57:07 P	3.929%	-.384%	3.110%	28283	64539	64523	28312
SRM1944	8	6.810	2/16/2017 1:07:45 PM	3.959%	375.454	104.748%	28259	33449	35880	28372
MB	9	74.120	2/16/2017 1:12:48 PM	0.005%	0.043%	1.079%	28240	28374	28379	28258
170370904	10	24.490	2/16/2017 1:17:51 PM	0.135%	-.215%	2.994%	28225	28899	28896	28242
170370905	11	34.100	2/16/2017 1:24:50 PM	0.639%	-.309%	4.888%	28208	32352	32344	28239
170370906	12	28.310	2/16/2017 1:34:12 PM	0.562%	0.223%	4.474%	28188	31227	31235	28213
170370907	13	27.580	2/16/2017 1:39:15 PM	0.970%	0.076%	5.560%	28184	33249	33253	28213
170370908	14	27.930	2/16/2017 1:44:18 PM	0.723%	0.151%	3.819%	28184	32016	32022	28206
170370909	15	21.340	2/16/2017 1:49:21 PM	1.696%	-.296%	8.122%	28201	35034	35030	28233
170370910	16	26.700	2/16/2017 1:54:24 PM	0.970%	-.039%	5.743%	28172	33080	33081	28201
170370911	17	30.150	2/16/2017 1:59:27 PM	0.588%	-.279%	3.538%	28168	31540	31534	28190
CCV	18	12.050	2/16/2017 2:04:31 PM	-.002%	-.699%	6.639%	28174	28227	28221	28192
CCB	19	66.390	2/16/2017 2:09:34 PM	0.184%	0.0%	1.305%	28173	30513	30515	28192
CCV	20	9.840	2/16/2017 2:24:00 PM	1.083%	0.107%	12.195%	28192	30247	30250	28216
CCB	21	68.870	2/16/2017 2:29:04 PM	-.001%	0.0%	0.484%	28206	28248	28250	28217
170370912	22	33.0	2/16/2017 2:58:31 PM	1.948%	-.702%	7.677%	28189	40284	40264	28233
170370913	23	38.790	2/16/2017 3:03:34 PM	2.092%	0.217%	4.984%	28203	43436	43446	28238
170370914	24	27.130	2/16/2017 3:08:37 PM	1.525%	-.078%	5.406%	28199	35998	35998	28227
170370915	25	29.640	2/16/2017 3:13:41 PM	0.964%	-.036%	5.173%	28216	33624	33625	28245
170370916	26	29.520	2/16/2017 3:18:43 PM	2.670%	0.071%	8.130%	28207	43014	43018	28249
170370917	27	29.630	2/16/2017 3:23:46 PM	2.492%	0.071%	4.950%	28208	42071	42075	28236
170370917D	28	22.880	2/16/2017 3:28:49 PM	2.474%	-.046%	9.324%	28191	38844	38845	28229
170370917MS	29	25.260	2/16/2017 3:33:52 PM	2.695%	-.458%	8.446%	28192	40989	40980	28230
170370918	30	30.310	2/16/2017 3:38:56 PM	3.391%	0.660%	6.818%	28203	47483	47504	28240
170370917MS	31	29.260	2/16/2017 3:47:25 PM	2.505%	0.072%	11.392%	28181	41970	41974	28237
CCV	32	9.930	2/16/2017 3:52:28 PM	1.070%	1.272%	5.371%	28200	30239	30253	28214
CCB	33	55.320	2/16/2017 3:57:32 PM	-.001%	-.114%	1.567%	28180	28231	28227	28199

Date of report: 2/17/2017 8:23 AM
User ID: Alpha Analytical

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydroge	Nitrogen	ZR	CR	HR	NR
K1	1	10.260	2/16/2017 12:05:19 P	573.596	0.019	0.061	28307	87256	87259	28370
BLANK	2		2/16/2017 12:10:21 P	46	11	23	28303	28372	28383	28326
K1	3	10.040	2/16/2017 12:15:25 P	18.735	-.038	0.015	28287	30232	30215	28311
K1	4	10.440	2/16/2017 12:38:38 P	18.630	0.008	0.016	28240	30250	30256	28265
ICV	5	10.390	2/16/2017 12:46:26 P	0.985%	2.938%	7.700%	28249	30219	30250	28267
ICB	6	73.570	2/16/2017 12:51:29 P	0.0%	0.029%	0.906%	28269	28325	28329	28285
HICV	7	49.300	2/16/2017 12:57:07 P	3.929%	-.384%	3.110%	28283	64539	64523	28312
SRM1944	8	6.810	2/16/2017 1:07:45 PM	3.959%	375.454	104.748%	28259	33449	35880	28372
MB	9	74.120	2/16/2017 1:12:48 PM	0.005%	0.043%	1.079%	28240	28374	28379	28258
170370904	10	24.490	2/16/2017 1:17:51 PM	0.135%	-.215%	2.994%	28225	28899	28896	28242
170370905	11	34.100	2/16/2017 1:24:50 PM	0.639%	-.309%	4.888%	28208	32352	32344	28239
170370906	12	28.310	2/16/2017 1:34:12 PM	0.562%	0.223%	4.474%	28188	31227	31235	28213
170370907	13	27.580	2/16/2017 1:39:15 PM	0.970%	0.076%	5.560%	28184	33249	33253	28213
170370908	14	27.930	2/16/2017 1:44:18 PM	0.723%	0.151%	3.819%	28184	32016	32022	28206
170370909	15	21.340	2/16/2017 1:49:21 PM	1.696%	-.296%	8.122%	28201	35034	35030	28233
170370910	16	26.700	2/16/2017 1:54:24 PM	0.970%	-.039%	5.743%	28172	33080	33081	28201
170370911	17	30.150	2/16/2017 1:59:27 PM	0.588%	-.279%	3.538%	28168	31540	31534	28190
CCV	18	12.050	2/16/2017 2:04:31 PM	-.002%	-.699%	6.639%	28174	28227	28221	28192
CCB	19	66.390	2/16/2017 2:09:34 PM	0.184%	0.0%	1.305%	28173	30513	30515	28192
CCV	20	9.840	2/16/2017 2:24:00 PM	1.083%	0.107%	12.195%	28192	30247	30250	28216
CCB	21	68.870	2/16/2017 2:29:04 PM	-.001%	0.0%	0.484%	28206	28248	28250	28217
170370912	22	33.0	2/16/2017 2:58:31 PM	1.948%	-.702%	7.677%	28189	40284	40264	28233
170370913	23	38.790	2/16/2017 3:03:34 PM	2.092%	0.217%	4.984%	28203	43436	43446	28238
170370914	24	27.130	2/16/2017 3:08:37 PM	1.525%	-.078%	5.406%	28199	35998	35998	28227
170370915	25	29.640	2/16/2017 3:13:41 PM	0.964%	-.036%	5.173%	28216	33624	33625	28245
170370916	26	29.520	2/16/2017 3:18:43 PM	2.670%	0.071%	8.130%	28207	43014	43018	28249

Date of report: 2/22/2017 9:20 AM
User ID: mansfield_toc1

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydroge	Nitrogen	ZR	CR	HR	NR
K1	1	10.170	2/21/2017 2:12:30 PM	14.798	21.022	1.634	1589	19638	30466	18103
BLANK	2		2/21/2017 2:18:20 PM	61	1126	610	1591	16584	17710	16523
K1	3	10.220	2/21/2017 2:32:39 PM	14.726	20.665	-.086	1588	17605	28302	16055
K1	4	9.960	2/21/2017 2:52:44 PM	14.649	22.013	-.176	1591	17487	28589	15983
ICV	5	10.500	2/21/2017 3:09:41 PM	1.872%	4.697%	-1.413%	1591	18888	29531	15958
ICB	6	72.890	2/21/2017 3:14:42 PM	-.003%	0.181%	-.196%	1593	15998	18896	15984
ICV	7	10.420	2/21/2017 3:20:53 PM	0.887%	4.682%	-1.442%	1591	17356	27885	15954
ICB	8	61.230	2/21/2017 3:25:53 PM	-.003%	0.075%	-.237%	1592	15996	17048	15978
HICV	9	50.120	2/21/2017 3:38:21 PM	3.674%	1.040%	-.256%	1590	43045	54290	15976
SRM1944	10	7.540	2/21/2017 3:47:41 PM	4.168%	10.728	-1.199%	1588	20680	38087	16022
MB	11	63.140	2/21/2017 3:52:42 PM	0.0%	1.111%	-.239%	1599	16082	31189	16035
170370404	12	27.970	2/21/2017 3:57:43 PM	0.014%	0.435%	-.547%	1599	16132	18811	16031
170370404D	13	28.610	2/21/2017 4:02:45 PM	0.011%	0.358%	-.521%	1596	16098	18366	16008
170370404MS	14	30.990	2/21/2017 4:07:47 PM	0.341%	1.704%	-.472%	1595	17598	28987	16004
170370405	15	26.650	2/21/2017 4:29:36 PM	0.072%	0.529%	-.522%	1596	16352	19445	16025
170370406	16	23.300	2/21/2017 4:34:37 PM	0.066%	0.404%	-.606%	1597	16296	18387	16027
170370407	17	28.880	2/21/2017 4:39:37 PM	0.055%	0.324%	-.480%	1596	16305	18387	16026
170370408	18	21.130	2/21/2017 4:44:38 PM	0.023%	0.340%	-.677%	1597	16142	17754	16025
170370409	19	40.260	2/21/2017 4:49:38 PM	0.127%	0.398%	-.351%	1597	16825	20333	16031
CCV	20	10.160	2/21/2017 4:54:39 PM	1.035%	5.413%	-1.422%	1597	17616	29474	16027
CCB	21	55.220	2/21/2017 4:59:40 PM	-.002%	0.045%	-.266%	1600	16079	16683	16052
SRM1650B	22	.950	2/22/2017 7:27:14 AM	73.592	5.227%	25.066%	1607	27015	28153	16709
MB	23	82.750	2/22/2017 7:32:15 AM	-.002%	-.002%	-.039%	1607	16315	16360	16297
170370410	24	37.840	2/22/2017 7:44:29 AM	0.068%	0.291%	-.272%	1606	16598	19035	16175
170370411	25	38.740	2/22/2017 7:49:30 AM	0.115%	0.376%	-.316%	1606	16842	20040	16145
170370412	26	24.830	2/22/2017 7:54:30 AM	0.184%	0.427%	-.516%	1608	16877	19225	16163

LC 02/24/17

Reported on 2/22/2017 9:20 AM by mansfield_toc1

LC 02/24/17

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydroge	Nitrogen	ZR	CR	HR	NR
1703709 13	27	23.640	2/22/2017 8:00:16 AM	0.060%	0.341%	-.575%	1606	16385	18187	16132
1703709 14	28	27.870	2/22/2017 8:08:52 AM	0.012%	0.429%	-.472%	1606	16226	18859	16132
1703709 14MS	29	21.240	2/22/2017 8:13:54 AM	0.508%	2.426%	-.668%	1608	17768	28884	16139
1703709 15	30	21.950	2/22/2017 8:18:54 AM	0.010%	0.570%	-.634%	1609	16233	18990	16155
1703709 16	31	24.590	2/22/2017 8:23:55 AM	0.019%	0.363%	-.561%	1609	16267	18253	16153
CCV	32	10.040	2/22/2017 8:28:56 AM	0.962%	5.026%	-1.400%	1607	17592	28479	16130
CCB	33	81.820	2/22/2017 8:33:57 AM	-.001%	0.039%	-.178%	1609	16185	16949	16147
1703709 17	34	20.600	2/22/2017 8:43:12 AM	0.002%	0.345%	-.635%	1609	16214	17809	16162
1703709 18	35	22.260	2/22/2017 8:48:13 AM	0.013%	0.465%	-.623%	1609	16238	18530	16152
CCV	36	10.150	2/22/2017 8:53:15 AM	0.950%	5.084%	-1.327%	1609	17624	28755	16164
CCB	37	74.070	2/22/2017 8:58:16 AM	-.001%	0.040%	-.200%	1611	16190	16902	16159

Sample Raw Data

Date of report	2/16/2017 9:08:06AM
User ID	Alpha Analytical

DATE & TIME	2/15/2017 7:44:15 AM	P_ID	021517LC
RUN TYPE	K1	USER ID	alpha
WEIGHT (mg)	9.720	MODE	CHN

			SIGNALS			
			ZR	27865	AVERAGE RESULTS	
KC	21.265		NR	29139	KC	20.392
KH	0.094		CR	31247	KH	0.095
KN	1.145		HR	31274	KN	1.192
BLANKS	41	-19	-25			
K FACTORS	1.0%	5.03%	11.67%			
FILL TIME	24 Seconds					

DATE & TIME	2/15/2017 7:49:03 AM	P_ID	021517LC
RUN TYPE	BLANK	USER ID	alpha
		MODE	CHN

			SIGNALS			
			ZR	27878	AVERAGE RESULTS	
CARBON	60		NR	28136	CARBON	50
HYDROGEN	8		CR	28196	HYDROGEN	-6
NITROGEN	258		HR	28204	NITROGEN	-25
FILL TIME	24 Seconds					

NUMBER	MESSAGE
17	NITROGEN BLANK OUT OF TOLERANCE

DATE & TIME	2/15/2017 7:53:53 AM	P_ID	021517LC
SAMPLE ID	0	USER ID	alpha
WEIGHT (mg)	9.850	MODE	CHN

			SIGNALS		
			ZR	27875	
CARBON	-.010%		NR	27949	
HYDROGEN	2.992%		CR	27978	
NITROGEN	0.843%		HR	28000	
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	24 Seconds				

DATE & TIME	2/15/2017 7:58:40 AM	P_ID	021517LC
SAMPLE ID	1000	USER ID	alpha
WEIGHT (mg)	9.600	MODE	CHN

			SIGNALS		
			ZR	27886	
CARBON	0.087%		NR	27923	
HYDROGEN	0.439%		CR	28143	
NITROGEN	0.542%		HR	28141	
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		

FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	23 Seconds		

DATE & TIME	2/15/2017 8:03:27 AM	P_ID	021517LC
SAMPLE ID	5000	USER ID	alpha
WEIGHT (mg)	9.930	MODE	CHN

				SIGNALS	
				ZR	27880
CARBON	0.455%			NR	27899
HYDROGEN	-.106%			CR	28871
NITROGEN	0.372%			HR	28864
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	23 Seconds				

DATE & TIME	2/15/2017 8:08:13 AM	P_ID	021517LC
SAMPLE ID	10000	USER ID	alpha
WEIGHT (mg)	10.0	MODE	CHN

				SIGNALS	
				ZR	27861
CARBON	0.926%			NR	27879
HYDROGEN	0.211%			CR	29817
NITROGEN	0.361%			HR	29813
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	23 Seconds				

DATE & TIME	2/15/2017 8:13:00 AM	P_ID	021517LC
SAMPLE ID	20000	USER ID	alpha
WEIGHT (mg)	10.100	MODE	CHN

				SIGNALS	
				ZR	27862
CARBON	1.943%			NR	27873
HYDROGEN	0.313%			CR	31924
NITROGEN	0.299%			HR	31921
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	23 Seconds				

DATE & TIME	2/15/2017 8:17:47 AM	P_ID	021517LC
SAMPLE ID	40000	USER ID	alpha
WEIGHT (mg)	10.140	MODE	CHN

				SIGNALS	
				ZR	27841

CARBON	3.593%			NR	27862
HYDROGEN	-.104%			CR	35342
NITROGEN	0.381%			HR	35335
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	23 Seconds				

DATE & TIME	2/15/2017 8:29:01 AM	P_ID	021517LC
SAMPLE ID	ICV	USER ID	alpha
WEIGHT (mg)	10.120	MODE	CHN

				SIGNALS	
				ZR	27818
CARBON	0.903%			NR	27823
HYDROGEN	1.664%			CR	29736
NITROGEN	0.249%			HR	29746
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	23 Seconds				

DATE & TIME	2/15/2017 8:33:47 AM	P_ID	021517LC
SAMPLE ID	ICB	USER ID	alpha
WEIGHT (mg)	73.070	MODE	CHN

				SIGNALS	
				ZR	27810
CARBON	0.0%			NR	27828
HYDROGEN	0.130%			CR	27874
NITROGEN	0.049%			HR	27877
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	23 Seconds				

DATE & TIME	2/15/2017 8:38:35 AM	P_ID	021517LC
SAMPLE ID	HICV	USER ID	alpha
WEIGHT (mg)	49.450	MODE	CHN

				SIGNALS	
				ZR	27818
CARBON	3.591%			NR	27847
HYDROGEN	0.213%			CR	64106
NITROGEN	0.092%			HR	64110
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	24 Seconds				

DATE & TIME	2/15/2017 8:53:04 AM	P_ID	021517LC
SAMPLE ID	SRM1944	USER ID	alpha
WEIGHT (mg)	10.520	MODE	CHN

				SIGNALS	
				ZR	27816
CARBON	3.622%			NR	27992
HYDROGEN	114.769%			CR	35811
NITROGEN	1.603%			HR	36952
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	22 Seconds				

DATE & TIME	2/15/2017 8:57:49 AM	P_ID	021517LC
SAMPLE ID	MB	USER ID	alpha
WEIGHT (mg)	54.390	MODE	CHN

				SIGNALS	
				ZR	27814
CARBON	0.018%			NR	27830
HYDROGEN	0.232%			CR	28084
NITROGEN	0.063%			HR	28090
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	22 Seconds				

DATE & TIME	2/15/2017 9:02:35 AM	P_ID	021517LC
SAMPLE ID	SRM1944	USER ID	alpha
WEIGHT (mg)	11.960	MODE	CHN

				SIGNALS	
				ZR	27797
CARBON	3.560%			NR	27982
HYDROGEN	0.792%			CR	36715
NITROGEN	1.473%			HR	36718
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	22 Seconds				

DATE & TIME	2/15/2017 9:07:20 AM	P_ID	021517LC
SAMPLE ID	MB	USER ID	alpha
WEIGHT (mg)	62.920	MODE	CHN

				SIGNALS	
				ZR	27790
CARBON	0.030%			NR	27813
HYDROGEN	0.033%			CR	28244
NITROGEN	0.064%			HR	28240
BLANKS	50	-6	-25		

K FACTORS	20.392	0.095	1.192
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	22 Seconds		

DATE & TIME	2/15/2017 9:57:00 AM	P_ID	021517LC
SAMPLE ID	170421301	USER ID	alpha
WEIGHT (mg)	12.430	MODE	CHN

			SIGNALS	
			ZR	27820
CARBON	1.987%		NR	27987
HYDROGEN	0.508%		CR	33074
NITROGEN	1.296%		HR	33074
BLANKS	50	-6	-25	
K FACTORS	20.392	0.095	1.192	
FILL	COMB	BOOST1	BOOST2	
1	2	1	1	
FILL TIME	21 Seconds			

DATE & TIME	2/15/2017 10:01:45 AM	P_ID	021517LC
SAMPLE ID	170421301D	USER ID	alpha
WEIGHT (mg)	7.080	MODE	CHN

			SIGNALS	
			ZR	27832
CARBON	1.991%		NR	27922
HYDROGEN	0.892%		CR	30846
NITROGEN	1.363%		HR	30846
BLANKS	50	-6	-25	
K FACTORS	20.392	0.095	1.192	
FILL	COMB	BOOST1	BOOST2	
1	2	1	1	
FILL TIME	21 Seconds			

DATE & TIME	2/15/2017 10:07:39 AM	P_ID	021517LC
SAMPLE ID	170421301MS	USER ID	alpha
WEIGHT (mg)	10.100	MODE	CHN

			SIGNALS	
			ZR	27847
CARBON	3.126%		NR	27989
HYDROGEN	-.625%		CR	34478
NITROGEN	1.387%		HR	34466
BLANKS	50	-6	-25	
K FACTORS	20.392	0.095	1.192	
FILL	COMB	BOOST1	BOOST2	
1	2	1	1	
FILL TIME	21 Seconds			

DATE & TIME	2/15/2017 10:12:23 AM	P_ID	021517LC
SAMPLE ID	170421302	USER ID	alpha
WEIGHT (mg)	6.980	MODE	CHN

				SIGNALS	
				ZR	27848
CARBON	0.615%			NR	27888
HYDROGEN	0.302%			CR	28813
NITROGEN	0.781%			HR	28809
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	21 Seconds				

DATE & TIME	2/15/2017 10:17:07 AM	P_ID	021517LC
SAMPLE ID	170421303	USER ID	alpha
WEIGHT (mg)	9.360	MODE	CHN

				SIGNALS	
				ZR	27826
CARBON	0.551%			NR	27888
HYDROGEN	1.125%			CR	28989
NITROGEN	0.780%			HR	28993
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	21 Seconds				

DATE & TIME	2/15/2017 10:21:52 AM	P_ID	021517LC
SAMPLE ID	170421304	USER ID	alpha
WEIGHT (mg)	8.870	MODE	CHN

				SIGNALS	
				ZR	27825
CARBON	0.266%			NR	27868
HYDROGEN	0.356%			CR	28399
NITROGEN	0.643%			HR	28396
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	21 Seconds				

DATE & TIME	2/15/2017 10:26:36 AM	P_ID	021517LC
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	9.510	MODE	CHN

				SIGNALS	
				ZR	27820
CARBON	0.961%			NR	27828
HYDROGEN	1.882%			CR	29742
NITROGEN	0.291%			HR	29753
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	21 Seconds				

DATE & TIME	2/15/2017 10:31:20 AM	P_ID	021517LC
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	79.450	MODE	CHN

				SIGNALS	
				ZR	27813
CARBON	-.001%			NR	27831
HYDROGEN	0.238%			CR	27864
NITROGEN	0.045%			HR	27876
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	21 Seconds				

DATE & TIME	2/15/2017 10:48:19 AM	P_ID	021517LC
SAMPLE ID	170421305	USER ID	alpha
WEIGHT (mg)	5.150	MODE	CHN

				SIGNALS	
				ZR	27803
CARBON	4.234%			NR	27936
HYDROGEN	1.635%			CR	32433
NITROGEN	2.574%			HR	32435
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	20 Seconds				

DATE & TIME	2/15/2017 10:59:23 AM	P_ID	021517LC
SAMPLE ID	170421306	USER ID	alpha
WEIGHT (mg)	15.610	MODE	CHN

				SIGNALS	
				ZR	27792
CARBON	0.218%			NR	27841
HYDROGEN	-.607%			CR	28586
NITROGEN	0.398%			HR	28571
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	20 Seconds				

DATE & TIME	2/15/2017 11:04:07 AM	P_ID	021517LC
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.280	MODE	CHN

		SIGNALS	
		ZR	27810
CARBON	0.957%	NR	27825
HYDROGEN	2.560%	CR	29881
NITROGEN	0.326%	HR	29900

BLANKS	50	-6	-25
K FACTORS	20.392	0.095	1.192
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	20 Seconds		

DATE & TIME	2/15/2017 11:08:50 AM	P_ID	021517LC
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	81.280	MODE	CHN

		SIGNALS	
		ZR	27799
CARBON	-.001%	NR	27819
HYDROGEN	0.091%	CR	27856
NITROGEN	0.046%	HR	27857
BLANKS	50	-6	-25
K FACTORS	20.392	0.095	1.192
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	20 Seconds		

DATE & TIME	2/15/2017 4:24:46 PM	P_ID	021517LC
SAMPLE ID	170370901D	USER ID	alpha
WEIGHT (mg)	6.540	MODE	CHN

		SIGNALS	
		ZR	38168
CARBON	65.705%	NR	166900
HYDROGEN	27.845%	CR	254576
NITROGEN	1651.646%	HR	254743
BLANKS	50	-6	-25
K FACTORS	20.392	0.095	1.192
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	131 Seconds		

DATE & TIME	2/15/2017 4:29:47 PM	P_ID	021517LC
SAMPLE ID	170370901MS	USER ID	alpha
WEIGHT (mg)	7.300	MODE	CHN

		SIGNALS	
		ZR	29145
CARBON	63.260%	NR	27618
HYDROGEN	46.864%	CR	121838
NITROGEN	-17.261%	HR	122157
BLANKS	50	-6	-25
K FACTORS	20.392	0.095	1.192
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	37 Seconds		

DATE & TIME	2/15/2017 4:34:48 PM	P_ID	021517LC
SAMPLE ID	170370902	USER ID	alpha
WEIGHT (mg)	7.860	MODE	CHN

				SIGNALS	
				ZR	28889
CARBON	91.633%			NR	28552
HYDROGEN	32.275%			CR	175473
NITROGEN	-3.330%			HR	175708
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	37 Seconds				

DATE & TIME	2/15/2017 4:39:49 PM	P_ID	021517LC
SAMPLE ID	170370901	USER ID	alpha
WEIGHT (mg)	7.410	MODE	CHN

				SIGNALS	
				ZR	28756
CARBON	80.154%			NR	28658
HYDROGEN	25.144%			CR	149825
NITROGEN	-.826%			HR	149996
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	37 Seconds				

DATE & TIME	2/15/2017 4:44:50 PM	P_ID	021517LC
SAMPLE ID	170370903	USER ID	alpha
WEIGHT (mg)	5.410	MODE	CHN

				SIGNALS	
				ZR	28679
CARBON	75.377%			NR	28633
HYDROGEN	15.371%			CR	111840
NITROGEN	-.326%			HR	111913
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	38 Seconds				

DATE & TIME	2/15/2017 4:49:51 PM	P_ID	021517LC
SAMPLE ID	170370904	USER ID	alpha
WEIGHT (mg)	21.040	MODE	CHN

				SIGNALS	
				ZR	28604
CARBON	7.092%			NR	28571
HYDROGEN	1.001%			CR	59051
NITROGEN	-.032%			HR	59065
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	38 Seconds				

DATE & TIME	2/15/2017 4:54:52 PM	P_ID	021517LC
SAMPLE ID	170370905	USER ID	alpha
WEIGHT (mg)	21.590	MODE	CHN

				SIGNALS	
				ZR	28572
CARBON	0.090%			NR	28519
HYDROGEN	-1.073%			CR	28965
NITROGEN	-.109%			HR	28937
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	38 Seconds				

DATE & TIME	2/15/2017 4:59:54 PM	P_ID	021517LC
SAMPLE ID	170370906	USER ID	alpha
WEIGHT (mg)	20.720	MODE	CHN

				SIGNALS	
				ZR	28549
CARBON	0.168%			NR	28498
HYDROGEN	-1.575%			CR	29257
NITROGEN	-.105%			HR	29220
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	38 Seconds				

DATE & TIME	2/16/2017 7:24:12 AM	P_ID	021517LC
SAMPLE ID	170370904	USER ID	alpha
WEIGHT (mg)	21.780	MODE	CHN

				SIGNALS	
				ZR	28412
CARBON	0.109%			NR	29405
HYDROGEN	-1.982%			CR	29938
NITROGEN	3.921%			HR	29891
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	39 Seconds				

DATE & TIME	2/16/2017 7:29:14 AM	P_ID	021517LC
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.590	MODE	CHN

		SIGNALS	
		ZR	28393
CARBON	0.976%	NR	28524
HYDROGEN	1.392%	CR	30682
NITROGEN	1.236%	HR	30690

BLANKS	50	-6	-25
K FACTORS	20.392	0.095	1.192
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	39 Seconds		

DATE & TIME	2/16/2017 7:34:17 AM	P_ID	021517LC
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	74.120	MODE	CHN

		SIGNALS	
		ZR	28374
CARBON	-.003%	NR	28432
HYDROGEN	-.114%	CR	28437
NITROGEN	0.094%	HR	28423
BLANKS	50	-6	-25
K FACTORS	20.392	0.095	1.192
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	39 Seconds		

DATE & TIME	2/16/2017 7:43:22 AM	P_ID	021517LC
SAMPLE ID	170370907	USER ID	alpha
WEIGHT (mg)	28.740	MODE	CHN

		SIGNALS	
		ZR	28342
CARBON	0.614%	NR	28369
HYDROGEN	-.659%	CR	32017
NITROGEN	0.152%	HR	31993
BLANKS	50	-6	-25
K FACTORS	20.392	0.095	1.192
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	39 Seconds		

DATE & TIME	2/16/2017 7:48:24 AM	P_ID	021517LC
SAMPLE ID	17370908	USER ID	alpha
WEIGHT (mg)	28.160	MODE	CHN

		SIGNALS	
		ZR	28311
CARBON	1.362%	NR	28342
HYDROGEN	0.673%	CR	36216
NITROGEN	0.167%	HR	36228
BLANKS	50	-6	-25
K FACTORS	20.392	0.095	1.192
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	39 Seconds		

DATE & TIME	2/16/2017 7:53:26 AM	P_ID	021517LC
SAMPLE ID	170370909	USER ID	alpha
WEIGHT (mg)	27.990	MODE	CHN

				SIGNALS	
				ZR	28323
CARBON	0.623%			NR	28344
HYDROGEN	0.301%			CR	31950
NITROGEN	0.138%			HR	31952
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	39 Seconds				

DATE & TIME	2/16/2017 7:58:29 AM	P_ID	021517LC
SAMPLE ID	170370910	USER ID	alpha
WEIGHT (mg)	22.180	MODE	CHN

				SIGNALS	
				ZR	28327
CARBON	1.198%			NR	28342
HYDROGEN	-1.186%			CR	33810
NITROGEN	0.151%			HR	33779
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	39 Seconds				

DATE & TIME	2/16/2017 8:03:31 AM	P_ID	021517LC
SAMPLE ID	170370911	USER ID	alpha
WEIGHT (mg)	21.490	MODE	CHN

				SIGNALS	
				ZR	28309
CARBON	0.588%			NR	28338
HYDROGEN	-.441%			CR	30964
NITROGEN	0.211%			HR	30949
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	39 Seconds				

DATE & TIME	2/16/2017 8:08:33 AM	P_ID	021517LC
SAMPLE ID	170370912	USER ID	alpha
WEIGHT (mg)	28.850	MODE	CHN

				SIGNALS	
				ZR	28314
CARBON	2.273%			NR	28346
HYDROGEN	-.438%			CR	41768
NITROGEN	0.166%			HR	41750
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	39 Seconds				

DATE & TIME	2/16/2017 8:13:36 AM	P_ID	021517LC
SAMPLE ID	170370913	USER ID	alpha
WEIGHT (mg)	29.790	MODE	CHN

				SIGNALS	
				ZR	28299
CARBON	1.165%			NR	28338
HYDROGEN	0.318%			CR	35467
NITROGEN	0.180%			HR	35470
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	39 Seconds				

DATE & TIME	2/16/2017 8:18:38 AM	P_ID	021517LC
SAMPLE ID	170370914	USER ID	alpha
WEIGHT (mg)	23.570	MODE	CHN

				SIGNALS	
				ZR	28280
CARBON	2.067%			NR	28313
HYDROGEN	0.357%			CR	38298
NITROGEN	0.206%			HR	38300
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	39 Seconds				

DATE & TIME	2/16/2017 8:23:41 AM	P_ID	021517LC
SAMPLE ID	170370915	USER ID	alpha
WEIGHT (mg)	21.840	MODE	CHN

				SIGNALS	
				ZR	28275
CARBON	1.492%			NR	28297
HYDROGEN	-.096%			CR	34991
NITROGEN	0.181%			HR	34983
BLANKS	50	-6	-25		
K FACTORS	20.392	0.095	1.192		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	39 Seconds				

DATE & TIME	2/16/2017 8:28:43 AM	P_ID	021517LC
SAMPLE ID	170370916	USER ID	alpha
WEIGHT (mg)	26.890	MODE	CHN

		SIGNALS	
		ZR	28281
CARBON	2.541%	NR	28311
HYDROGEN	0.548%	CR	42293
NITROGEN	0.172%	HR	42301

BLANKS	50	-6	-25
K FACTORS	20.392	0.095	1.192
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	39 Seconds		

DATE & TIME	2/16/2017 8:33:46 AM	P_ID	021517LC
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	9.570	MODE	CHN

		SIGNALS	
		ZR	28280
CARBON	0.968%	NR	28289
HYDROGEN	-.880%	CR	30229
NITROGEN	0.298%	HR	30215
BLANKS	50	-6	-25
K FACTORS	20.392	0.095	1.192
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	39 Seconds		

DATE & TIME	2/16/2017 8:38:48 AM	P_ID	021517LC
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	80.120	MODE	CHN

		SIGNALS	
		ZR	28284
CARBON	-.002%	NR	28292
HYDROGEN	-.013%	CR	28303
NITROGEN	0.035%	HR	28296
BLANKS	50	-6	-25
K FACTORS	20.392	0.095	1.192
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	39 Seconds		

Date of report	2/17/2017 7:49:48AM
User ID	Alpha Analytical

DATE & TIME	2/16/2017 12:05:19 PM	P_ID	021617LEC
RUN TYPE	K1	USER ID	alpha
WEIGHT (mg)	10.260	MODE	CHN

				SIGNALS			
				ZR	28307	AVERAGE RESULTS	
KC	573.596			NR	28370	KC	296.781
KH	0.019			CR	87256	KH	0.095
KN	0.061			HR	87259	KN	0.045
BLANKS	35	-7	-10				
K FACTORS	1.0%	5.03%	11.67%				
FILL TIME	39 Seconds						

DATE & TIME	2/16/2017 12:10:21 PM	P_ID	021617LEC
RUN TYPE	BLANK	USER ID	alpha
		MODE	CHN

		SIGNALS			
		ZR	28303	AVERAGE RESULTS	
CARBON	46	NR	28326	CARBON	40
HYDROGEN	11	CR	28372	HYDROGEN	2
NITROGEN	23	HR	28383	NITROGEN	6
FILL TIME	39 Seconds				

DATE & TIME	2/16/2017 12:15:25 PM	P_ID	021617LEC
RUN TYPE	K1	USER ID	alpha
WEIGHT (mg)	10.040	MODE	CHN

				SIGNALS			
				ZR	28287	AVERAGE RESULTS	
KC	18.735			NR	28311	KC	296.781
KH	-.038			CR	30232	KH	0.095
KN	0.015			HR	30215	KN	0.045
BLANKS	40	2	6				
K FACTORS	1.0%	5.03%	11.67%				
FILL TIME	39 Seconds						

NUMBER	MESSAGE
8	CHECK FOR SAMPLE DROP

DATE & TIME	2/16/2017 12:38:38 PM	P_ID	021617LEC
RUN TYPE	K1	USER ID	alpha
WEIGHT (mg)	10.440	MODE	CHN

				SIGNALS			
				ZR	28240	AVERAGE RESULTS	
KC	18.630			NR	28265	KC	18.682
KH	0.008			CR	30250	KH	0.095
KN	0.016			HR	30256	KN	0.015
BLANKS	40	2	6				
K FACTORS	1.0%	5.03%	11.67%				
FILL TIME	39 Seconds						

DATE & TIME	2/16/2017 12:46:26 PM	P_ID	021617LEC
SAMPLE ID	ICV	USER ID	alpha
WEIGHT (mg)	10.390	MODE	CHN

				SIGNALS	
				ZR	28249
CARBON	0.985%			NR	28267
HYDROGEN	2.938%			CR	30219
NITROGEN	7.700%			HR	30250
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	39 Seconds				

DATE & TIME	2/16/2017 12:51:29 PM	P_ID	021617LEC
SAMPLE ID	ICB	USER ID	alpha
WEIGHT (mg)	73.570	MODE	CHN

				SIGNALS	
				ZR	28269
CARBON	0.0%			NR	28285
HYDROGEN	0.029%			CR	28325
NITROGEN	0.906%			HR	28329
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	40 Seconds				

DATE & TIME	2/16/2017 12:57:07 PM	P_ID	021617LEC
SAMPLE ID	HICV	USER ID	alpha
WEIGHT (mg)	49.300	MODE	CHN

				SIGNALS	
				ZR	28283
CARBON	3.929%			NR	28312
HYDROGEN	-.384%			CR	64539
NITROGEN	3.110%			HR	64523
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	44 Seconds				

DATE & TIME	2/16/2017 1:07:45 PM	P_ID	021617LEC
SAMPLE ID	SRM1944	USER ID	alpha
WEIGHT (mg)	6.810	MODE	CHN

				SIGNALS	
				ZR	28259
CARBON	3.959%			NR	28372
HYDROGEN	375.454%			CR	33449
NITROGEN	104.748%			HR	35880
BLANKS	40	2	6		

K FACTORS	18.682	0.095	0.015
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	39 Seconds		

DATE & TIME	2/16/2017 1:12:48 PM	P_ID	021617LEC
SAMPLE ID	MB	USER ID	alpha
WEIGHT (mg)	74.120	MODE	CHN

		SIGNALS	
		ZR	28240
CARBON	0.005%	NR	28258
HYDROGEN	0.043%	CR	28374
NITROGEN	1.079%	HR	28379
BLANKS	40	2	6
K FACTORS	18.682	0.095	0.015
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	40 Seconds		

DATE & TIME	2/16/2017 1:17:51 PM	P_ID	021617LEC
SAMPLE ID	170370904	USER ID	alpha
WEIGHT (mg)	24.490	MODE	CHN

		SIGNALS	
		ZR	28225
CARBON	0.135%	NR	28242
HYDROGEN	-.215%	CR	28899
NITROGEN	2.994%	HR	28896
BLANKS	40	2	6
K FACTORS	18.682	0.095	0.015
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	40 Seconds		

DATE & TIME	2/16/2017 1:24:50 PM	P_ID	021617LEC
SAMPLE ID	170370905	USER ID	alpha
WEIGHT (mg)	34.100	MODE	CHN

		SIGNALS	
		ZR	28208
CARBON	0.639%	NR	28239
HYDROGEN	-.309%	CR	32352
NITROGEN	4.888%	HR	32344
BLANKS	40	2	6
K FACTORS	18.682	0.095	0.015
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	39 Seconds		

DATE & TIME	2/16/2017 1:34:12 PM	P_ID	021617LEC
SAMPLE ID	170370906	USER ID	alpha
WEIGHT (mg)	28.310	MODE	CHN

				SIGNALS	
				ZR	28188
CARBON	0.562%			NR	28213
HYDROGEN	0.223%			CR	31227
NITROGEN	4.474%			HR	31235
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	39 Seconds				

DATE & TIME	2/16/2017 1:39:15 PM	P_ID	021617LEC
SAMPLE ID	170370907	USER ID	alpha
WEIGHT (mg)	27.580	MODE	CHN

				SIGNALS	
				ZR	28184
CARBON	0.970%			NR	28213
HYDROGEN	0.076%			CR	33249
NITROGEN	5.560%			HR	33253
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	40 Seconds				

DATE & TIME	2/16/2017 1:44:18 PM	P_ID	021617LEC
SAMPLE ID	170370908	USER ID	alpha
WEIGHT (mg)	27.930	MODE	CHN

				SIGNALS	
				ZR	28184
CARBON	0.723%			NR	28206
HYDROGEN	0.151%			CR	32016
NITROGEN	3.819%			HR	32022
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	40 Seconds				

DATE & TIME	2/16/2017 1:49:21 PM	P_ID	021617LEC
SAMPLE ID	170370909	USER ID	alpha
WEIGHT (mg)	21.340	MODE	CHN

				SIGNALS	
				ZR	28201
CARBON	1.696%			NR	28233
HYDROGEN	-.296%			CR	35034
NITROGEN	8.122%			HR	35030
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	40 Seconds				

DATE & TIME	2/16/2017 1:54:24 PM	P_ID	021617LEC
SAMPLE ID	170370910	USER ID	alpha
WEIGHT (mg)	26.700	MODE	CHN

				SIGNALS	
				ZR	28172
CARBON	0.970%			NR	28201
HYDROGEN	-.039%			CR	33080
NITROGEN	5.743%			HR	33081
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	40 Seconds				

DATE & TIME	2/16/2017 1:59:27 PM	P_ID	021617LEC
SAMPLE ID	170370911	USER ID	alpha
WEIGHT (mg)	30.150	MODE	CHN

				SIGNALS	
				ZR	28168
CARBON	0.588%			NR	28190
HYDROGEN	-.279%			CR	31540
NITROGEN	3.538%			HR	31534
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	40 Seconds				

DATE & TIME	2/16/2017 2:04:31 PM	P_ID	021617LEC
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	12.050	MODE	CHN

				SIGNALS	
				ZR	28174
CARBON	-.002%			NR	28192
HYDROGEN	-.699%			CR	28227
NITROGEN	6.639%			HR	28221
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	40 Seconds				

DATE & TIME	2/16/2017 2:09:34 PM	P_ID	021617LEC
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	66.390	MODE	CHN

		SIGNALS	
		ZR	28173
CARBON	0.184%	NR	28192
HYDROGEN	0.0%	CR	30513
NITROGEN	1.305%	HR	30515

BLANKS	40	2	6
K FACTORS	18.682	0.095	0.015
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	40 Seconds		

DATE & TIME	2/16/2017 2:24:00 PM	P_ID	021617LEC
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	9.840	MODE	CHN

				SIGNALS	
				ZR	28192
CARBON	1.083%			NR	28216
HYDROGEN	0.107%			CR	30247
NITROGEN	12.195%			HR	30250
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	40 Seconds				

DATE & TIME	2/16/2017 2:29:04 PM	P_ID	021617LEC
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	68.870	MODE	CHN

				SIGNALS	
				ZR	28206
CARBON	-.001%			NR	28217
HYDROGEN	0.0%			CR	28248
NITROGEN	0.484%			HR	28250
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	40 Seconds				

DATE & TIME	2/16/2017 2:58:31 PM	P_ID	021617LEC
SAMPLE ID	170370912	USER ID	alpha
WEIGHT (mg)	33.0	MODE	CHN

				SIGNALS	
				ZR	28189
CARBON	1.948%			NR	28233
HYDROGEN	-.702%			CR	40284
NITROGEN	7.677%			HR	40264
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	39 Seconds				

DATE & TIME	2/16/2017 3:03:34 PM	P_ID	021617LEC
SAMPLE ID	170370913	USER ID	alpha
WEIGHT (mg)	38.790	MODE	CHN

				SIGNALS	
				ZR	28203
CARBON	2.092%			NR	28238
HYDROGEN	0.217%			CR	43436
NITROGEN	4.984%			HR	43446
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	39 Seconds				

DATE & TIME	2/16/2017 3:08:37 PM	P_ID	021617LEC
SAMPLE ID	170370914	USER ID	alpha
WEIGHT (mg)	27.130	MODE	CHN

				SIGNALS	
				ZR	28199
CARBON	1.525%			NR	28227
HYDROGEN	-.078%			CR	35998
NITROGEN	5.406%			HR	35998
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	40 Seconds				

DATE & TIME	2/16/2017 3:13:41 PM	P_ID	021617LEC
SAMPLE ID	170370915	USER ID	alpha
WEIGHT (mg)	29.640	MODE	CHN

				SIGNALS	
				ZR	28216
CARBON	0.964%			NR	28245
HYDROGEN	-.036%			CR	33624
NITROGEN	5.173%			HR	33625
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	40 Seconds				

DATE & TIME	2/16/2017 3:18:43 PM	P_ID	021617LEC
SAMPLE ID	170370916	USER ID	alpha
WEIGHT (mg)	29.520	MODE	CHN

				SIGNALS	
				ZR	28207
CARBON	2.670%			NR	28249
HYDROGEN	0.071%			CR	43014
NITROGEN	8.130%			HR	43018
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	40 Seconds				

DATE & TIME	2/16/2017 3:23:46 PM	P_ID	021617LEC
SAMPLE ID	170370917	USER ID	alpha
WEIGHT (mg)	29.630	MODE	CHN

				SIGNALS	
				ZR	28208
CARBON	2.492%			NR	28236
HYDROGEN	0.071%			CR	42071
NITROGEN	4.950%			HR	42075
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	40 Seconds				

DATE & TIME	2/16/2017 3:28:49 PM	P_ID	021617LEC
SAMPLE ID	170370917D	USER ID	alpha
WEIGHT (mg)	22.880	MODE	CHN

				SIGNALS	
				ZR	28191
CARBON	2.474%			NR	28229
HYDROGEN	-.046%			CR	38844
NITROGEN	9.324%			HR	38845
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	40 Seconds				

DATE & TIME	2/16/2017 3:33:52 PM	P_ID	021617LEC
SAMPLE ID	170370917MS	USER ID	alpha
WEIGHT (mg)	25.260	MODE	CHN

				SIGNALS	
				ZR	28192
CARBON	2.695%			NR	28230
HYDROGEN	-.458%			CR	40989
NITROGEN	8.446%			HR	40980
BLANKS	40	2	6		
K FACTORS	18.682	0.095	0.015		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	40 Seconds				

DATE & TIME	2/16/2017 3:38:56 PM	P_ID	021617LEC
SAMPLE ID	170370918	USER ID	alpha
WEIGHT (mg)	30.310	MODE	CHN

		SIGNALS	
		ZR	28203
CARBON	3.391%	NR	28240
HYDROGEN	0.660%	CR	47483
NITROGEN	6.818%	HR	47504

BLANKS	40	2	6
K FACTORS	18.682	0.095	0.015

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 40 Seconds

DATE & TIME	2/16/2017 3:47:25 PM	P_ID	021617LEC
SAMPLE ID	170370917MS	USER ID	alpha
WEIGHT (mg)	29.260	MODE	CHN

		SIGNALS	
		ZR	28181
CARBON	2.505%	NR	28237
HYDROGEN	0.072%	CR	41970
NITROGEN	11.392%	HR	41974

BLANKS	40	2	6
K FACTORS	18.682	0.095	0.015

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 40 Seconds

DATE & TIME	2/16/2017 3:52:28 PM	P_ID	021617LEC
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	9.930	MODE	CHN

		SIGNALS	
		ZR	28200
CARBON	1.070%	NR	28214
HYDROGEN	1.272%	CR	30239
NITROGEN	5.371%	HR	30253

BLANKS	40	2	6
K FACTORS	18.682	0.095	0.015

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 40 Seconds

DATE & TIME	2/16/2017 3:57:32 PM	P_ID	021617LEC
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	55.320	MODE	CHN

		SIGNALS	
		ZR	28180
CARBON	-.001%	NR	28199
HYDROGEN	-.114%	CR	28231
NITROGEN	1.567%	HR	28227

BLANKS	40	2	6
K FACTORS	18.682	0.095	0.015

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 40 Seconds

Date of report	2/22/2017 9:18:28AM
User ID	mansfield_toc1

DATE & TIME	2/21/2017 2:12:30 PM	P_ID	022117LC
RUN TYPE	K1	USER ID	mansfield_toc1
WEIGHT (mg)	10.170	MODE	CHN

				SIGNALS			
				ZR	15891	AVERAGE RESULTS	
KC	14.798			NR	18103	KC	14.685
KH	21.022			CR	19638	KH	26.884
KN	1.634			HR	30466	KN	1.537
BLANKS	30	74	273				
K FACTORS	1.0%	5.03%	11.67%				
FILL TIME	42 Seconds						

NUMBER	MESSAGE
12	NITROGEN KFACTOR OUT OF TOLERANCE

DATE & TIME	2/21/2017 2:18:20 PM	P_ID	022117LC
RUN TYPE	BLANK	USER ID	mansfield_toc1
		MODE	CHN

				SIGNALS			
				ZR	15913	AVERAGE RESULTS	
CARBON	61			NR	16523	CARBON	45
HYDROGEN	1126			CR	16584	HYDROGEN	74
NITROGEN	610			HR	17710	NITROGEN	273
FILL TIME	42 Seconds						

NUMBER	MESSAGE
16	HYDROGEN BLANK OUT OF TOLERANCE
17	NITROGEN BLANK OUT OF TOLERANCE

DATE & TIME	2/21/2017 2:32:39 PM	P_ID	022117LC
RUN TYPE	K1	USER ID	mansfield_toc1
WEIGHT (mg)	10.220	MODE	CHN

				SIGNALS			
				ZR	15884	AVERAGE RESULTS	
KC	14.726			NR	16055	KC	14.705
KH	20.665			CR	17605	KH	20.843
KN	-.086			HR	28302	KN	1.537
BLANKS	45	74	273				
K FACTORS	1.0%	5.03%	11.67%				
FILL TIME	42 Seconds						

NUMBER	MESSAGE
8	CHECK FOR SAMPLE DROP

DATE & TIME	2/21/2017 2:52:44 PM	P_ID	022117LC
RUN TYPE	K1	USER ID	mansfield_toc1
WEIGHT (mg)	9.960	MODE	CHN

				SIGNALS			
				ZR	15914	AVERAGE RESULTS	
KC	14.649			NR	15983	KC	14.677
KH	22.013			CR	17487	KH	21.428
KN	-.176			HR	28589	KN	1.537

BLANKS	45	74	273
K FACTORS	1.0%	5.03%	11.67%
FILL TIME	43 Seconds		

NUMBER	MESSAGE
8	CHECK FOR SAMPLE DROP

DATE & TIME	2/21/2017 3:09:41 PM	P_ID	022117LC
SAMPLE ID	ICV	USER ID	mansfield_toc1
WEIGHT (mg)	10.500	MODE	CHN

				SIGNALS	
				ZR	15913
CARBON	1.872%			NR	15958
HYDROGEN	4.697%			CR	18888
NITROGEN	-1.413%			HR	29531
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	43 Seconds				

DATE & TIME	2/21/2017 3:14:42 PM	P_ID	022117LC
SAMPLE ID	ICB	USER ID	mansfield_toc1
WEIGHT (mg)	72.890	MODE	CHN

				SIGNALS	
				ZR	15931
CARBON	-.003%			NR	15984
HYDROGEN	0.181%			CR	15998
NITROGEN	-.196%			HR	18896
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	2/21/2017 3:20:53 PM	P_ID	022117LC
SAMPLE ID	ICV	USER ID	mansfield_toc1
WEIGHT (mg)	10.420	MODE	CHN

				SIGNALS	
				ZR	15912
CARBON	0.887%			NR	15954
HYDROGEN	4.682%			CR	17356
NITROGEN	-1.442%			HR	27885
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	2/21/2017 3:25:53 PM	P_ID	022117LC
SAMPLE ID	ICB	USER ID	mansfield_toc1
WEIGHT (mg)	61.230	MODE	CHN

				SIGNALS	
				ZR	15928
CARBON	-.003%			NR	15978
HYDROGEN	0.075%			CR	15996
NITROGEN	-.237%			HR	17048
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	2/21/2017 3:38:21 PM	P_ID	022117LC
SAMPLE ID	HICV	USER ID	mansfield_toc1
WEIGHT (mg)	50.120	MODE	CHN

				SIGNALS	
				ZR	15900
CARBON	3.674%			NR	15976
HYDROGEN	1.040%			CR	43045
NITROGEN	-.256%			HR	54290
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	44 Seconds				

DATE & TIME	2/21/2017 3:47:41 PM	P_ID	022117LC
SAMPLE ID	SRM1944	USER ID	mansfield_toc1
WEIGHT (mg)	7.540	MODE	CHN

				SIGNALS	
				ZR	15888
CARBON	4.168%			NR	16022
HYDROGEN	10.728%			CR	20680
NITROGEN	-1.199%			HR	38087
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	2/21/2017 3:52:42 PM	P_ID	022117LC
SAMPLE ID	MB	USER ID	mansfield_toc1
WEIGHT (mg)	63.140	MODE	CHN

				SIGNALS	
				ZR	15994
CARBON	0.0%			NR	16035
HYDROGEN	1.111%			CR	16082
NITROGEN	-.239%			HR	31189
BLANKS	45	74	273		

K FACTORS	14.677	21.428	1.537	
FILL	COMB	BOOST1	BOOST2	
0	0	0	0	
FILL TIME	42 Seconds			

DATE & TIME	2/21/2017 3:57:43 PM	P_ID	022117LC
SAMPLE ID	170370404	USER ID	mansfield_toc1
WEIGHT (mg)	27.970	MODE	CHN

			SIGNALS	
			ZR	15993
CARBON	0.014%		NR	16031
HYDROGEN	0.435%		CR	16132
NITROGEN	-.547%		HR	18811
BLANKS	45	74	273	
K FACTORS	14.677	21.428	1.537	
FILL	COMB	BOOST1	BOOST2	
0	0	0	0	
FILL TIME	43 Seconds			

DATE & TIME	2/21/2017 4:02:45 PM	P_ID	022117LC
SAMPLE ID	170370404D	USER ID	mansfield_toc1
WEIGHT (mg)	28.610	MODE	CHN

			SIGNALS	
			ZR	15964
CARBON	0.011%		NR	16008
HYDROGEN	0.358%		CR	16098
NITROGEN	-.521%		HR	18366
BLANKS	45	74	273	
K FACTORS	14.677	21.428	1.537	
FILL	COMB	BOOST1	BOOST2	
0	0	0	0	
FILL TIME	43 Seconds			

DATE & TIME	2/21/2017 4:07:47 PM	P_ID	022117LC
SAMPLE ID	170370404MS	USER ID	mansfield_toc1
WEIGHT (mg)	30.990	MODE	CHN

			SIGNALS	
			ZR	15956
CARBON	0.341%		NR	16004
HYDROGEN	1.704%		CR	17598
NITROGEN	-.472%		HR	28987
BLANKS	45	74	273	
K FACTORS	14.677	21.428	1.537	
FILL	COMB	BOOST1	BOOST2	
0	0	0	0	
FILL TIME	43 Seconds			

DATE & TIME	2/21/2017 4:29:36 PM	P_ID	022117LC
SAMPLE ID	170370405	USER ID	mansfield_toc1
WEIGHT (mg)	26.650	MODE	CHN

				SIGNALS	
				ZR	15966
CARBON	0.072%			NR	16025
HYDROGEN	0.529%			CR	16352
NITROGEN	-.522%			HR	19445
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	2/21/2017 4:34:37 PM	P_ID	022117LC
SAMPLE ID	170370406	USER ID	mansfield_toc1
WEIGHT (mg)	23.300	MODE	CHN

				SIGNALS	
				ZR	15971
CARBON	0.066%			NR	16027
HYDROGEN	0.404%			CR	16296
NITROGEN	-.606%			HR	18387
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	2/21/2017 4:39:37 PM	P_ID	022117LC
SAMPLE ID	170370407	USER ID	mansfield_toc1
WEIGHT (mg)	28.880	MODE	CHN

				SIGNALS	
				ZR	15966
CARBON	0.055%			NR	16026
HYDROGEN	0.324%			CR	16305
NITROGEN	-.480%			HR	18387
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	2/21/2017 4:44:38 PM	P_ID	022117LC
SAMPLE ID	170370408	USER ID	mansfield_toc1
WEIGHT (mg)	21.130	MODE	CHN

				SIGNALS	
				ZR	15972
CARBON	0.023%			NR	16025
HYDROGEN	0.340%			CR	16142
NITROGEN	-.677%			HR	17754
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	2/21/2017 4:49:38 PM	P_ID	022117LC
SAMPLE ID	170370409	USER ID	mansfield_toc1
WEIGHT (mg)	40.260	MODE	CHN

				SIGNALS	
				ZR	15975
CARBON	0.127%			NR	16031
HYDROGEN	0.398%			CR	16825
NITROGEN	-.351%			HR	20333
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	2/21/2017 4:54:39 PM	P_ID	022117LC
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	10.160	MODE	CHN

				SIGNALS	
				ZR	15976
CARBON	1.035%			NR	16027
HYDROGEN	5.413%			CR	17616
NITROGEN	-1.422%			HR	29474
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	2/21/2017 4:59:40 PM	P_ID	022117LC
SAMPLE ID	CCB	USER ID	mansfield_toc1
WEIGHT (mg)	55.220	MODE	CHN

				SIGNALS	
				ZR	16005
CARBON	-.002%			NR	16052
HYDROGEN	0.045%			CR	16079
NITROGEN	-.266%			HR	16683
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	2/22/2017 7:27:14 AM	P_ID	022117LC
SAMPLE ID	SRM1650B	USER ID	mansfield_toc1
WEIGHT (mg)	.950	MODE	CHN

		SIGNALS	
		ZR	16070
CARBON	73.592%	NR	16709
HYDROGEN	5.227%	CR	27015
NITROGEN	25.066%	HR	28153

BLANKS	45	74	273
K FACTORS	14.677	21.428	1.537
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	42 Seconds		

DATE & TIME	2/22/2017 7:32:15 AM	P_ID	022117LC
SAMPLE ID	MB	USER ID	mansfield_toc1
WEIGHT (mg)	82.750	MODE	CHN

				SIGNALS	
				ZR	16073
CARBON	-.002%			NR	16297
HYDROGEN	-.002%			CR	16315
NITROGEN	-.039%			HR	16360
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	2/22/2017 7:44:29 AM	P_ID	022117LC
SAMPLE ID	170370410	USER ID	mansfield_toc1
WEIGHT (mg)	37.840	MODE	CHN

				SIGNALS	
				ZR	16060
CARBON	0.068%			NR	16175
HYDROGEN	0.291%			CR	16598
NITROGEN	-.272%			HR	19035
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	2/22/2017 7:49:30 AM	P_ID	022117LC
SAMPLE ID	170370411	USER ID	mansfield_toc1
WEIGHT (mg)	38.740	MODE	CHN

				SIGNALS	
				ZR	16060
CARBON	0.115%			NR	16145
HYDROGEN	0.376%			CR	16842
NITROGEN	-.316%			HR	20040
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	2/22/2017 7:54:30 AM	P_ID	022117LC
SAMPLE ID	170370412	USER ID	mansfield_toc1
WEIGHT (mg)	24.830	MODE	CHN

				SIGNALS	
				ZR	16087
CARBON	0.184%			NR	16163
HYDROGEN	0.427%			CR	16877
NITROGEN	-.516%			HR	19225
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	2/22/2017 8:00:16 AM	P_ID	022117LC
SAMPLE ID	170370413	USER ID	mansfield_toc1
WEIGHT (mg)	23.640	MODE	CHN

				SIGNALS	
				ZR	16068
CARBON	0.060%			NR	16132
HYDROGEN	0.341%			CR	16385
NITROGEN	-.575%			HR	18187
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	2/22/2017 8:08:52 AM	P_ID	022117LC
SAMPLE ID	170370414	USER ID	mansfield_toc1
WEIGHT (mg)	27.870	MODE	CHN

				SIGNALS	
				ZR	16061
CARBON	0.012%			NR	16132
HYDROGEN	0.429%			CR	16226
NITROGEN	-.472%			HR	18859
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	2/22/2017 8:13:54 AM	P_ID	022117LC
SAMPLE ID	170370414MS	USER ID	mansfield_toc1
WEIGHT (mg)	21.240	MODE	CHN

				SIGNALS	
				ZR	16084
CARBON	0.508%			NR	16139
HYDROGEN	2.426%			CR	17768
NITROGEN	-.668%			HR	28884
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	43 Seconds				

DATE & TIME	2/22/2017 8:18:54 AM	P_ID	022117LC
SAMPLE ID	170370415	USER ID	mansfield_toc1
WEIGHT (mg)	21.950	MODE	CHN

				SIGNALS	
				ZR	16096
CARBON	0.010%			NR	16155
HYDROGEN	0.570%			CR	16233
NITROGEN	-.634%			HR	18990
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	2/22/2017 8:23:55 AM	P_ID	022117LC
SAMPLE ID	170370416	USER ID	mansfield_toc1
WEIGHT (mg)	24.590	MODE	CHN

				SIGNALS	
				ZR	16092
CARBON	0.019%			NR	16153
HYDROGEN	0.363%			CR	16267
NITROGEN	-.561%			HR	18253
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	42 Seconds				

DATE & TIME	2/22/2017 8:28:56 AM	P_ID	022117LC
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	10.040	MODE	CHN

				SIGNALS	
				ZR	16073
CARBON	0.962%			NR	16130
HYDROGEN	5.026%			CR	17592
NITROGEN	-1.400%			HR	28479
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	43 Seconds				

DATE & TIME	2/22/2017 8:33:57 AM	P_ID	022117LC
SAMPLE ID	CCB	USER ID	mansfield_toc1
WEIGHT (mg)	81.820	MODE	CHN

		SIGNALS	
		ZR	16098
CARBON	-.001%	NR	16147
HYDROGEN	0.039%	CR	16185
NITROGEN	-.178%	HR	16949

BLANKS	45	74	273
K FACTORS	14.677	21.428	1.537
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	42 Seconds		

DATE & TIME	2/22/2017 8:43:12 AM	P_ID	022117LC
SAMPLE ID	170370417	USER ID	mansfield_toc1
WEIGHT (mg)	20.600	MODE	CHN

				SIGNALS	
				ZR	16090
CARBON	0.002%			NR	16162
HYDROGEN	0.345%			CR	16214
NITROGEN	-.635%			HR	17809
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	43 Seconds				

DATE & TIME	2/22/2017 8:48:13 AM	P_ID	022117LC
SAMPLE ID	170370418	USER ID	mansfield_toc1
WEIGHT (mg)	22.260	MODE	CHN

				SIGNALS	
				ZR	16092
CARBON	0.013%			NR	16152
HYDROGEN	0.465%			CR	16238
NITROGEN	-.623%			HR	18530
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	43 Seconds				

DATE & TIME	2/22/2017 8:53:15 AM	P_ID	022117LC
SAMPLE ID	CCV	USER ID	mansfield_toc1
WEIGHT (mg)	10.150	MODE	CHN

				SIGNALS	
				ZR	16098
CARBON	0.950%			NR	16164
HYDROGEN	5.084%			CR	17624
NITROGEN	-1.327%			HR	28755
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	43 Seconds				

DATE & TIME	2/22/2017 8:58:16 AM	P_ID	022117LC
SAMPLE ID	CCB	USER ID	mansfield_toc1
WEIGHT (mg)	74.070	MODE	CHN

				SIGNALS	
				ZR	16114
CARBON	-.001%			NR	16159
HYDROGEN	0.040%			CR	16190
NITROGEN	-.200%			HR	16902
BLANKS	45	74	273		
K FACTORS	14.677	21.428	1.537		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	43 Seconds				

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Feb 27 2017, 01:40 pm

Work Group: WG978423 for Department: 7 Wet Chemistry

Created: 16-FEB-17 Due: Operator:

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1703709-01	LDW-BA-PC-ENRMAT-GAC	S	A2-TOC-9060	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-02	LDW-BA-PC-ENRMAT-GAC	S	A2-TOC-9060	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-03	LDW-BA-PC-ENRMAT-GAC	S	A2-TOC-9060	SOIL	DONE	U	0302	0227	S0	Glass-A.25
WG978423-1	Laboratory Method Bl	S	A2-TOC-9060	SOIL	DONE	U				
WG978423-2	Standard Reference M	S	A2-TOC-9060	SOIL	DONE	U				
WG978423-3	Duplicate Sample	S	A2-TOC-9060	SOIL	DONE	U				
WG978423-4	Matrix Spike	S	A2-TOC-9060	SOIL	DONE	U				

Comments:

WG978423-3 L1703709-01
WG978423-4 L1703709-01

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Feb 27 2017, 01:40 pm

Work Group: WG980810 for Department: 7 Wet Chemistry

Created: 24-FEB-17 Due: Operator: LC

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1703709-04	LDW-BA-PC-ENRMAT-SAN	S	A2-TOC-9060	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-05	LDW-BA-PC-ENRMAT-SAN	S	A2-TOC-9060	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-06	LDW-BA-PC-ENRMAT-SAN	S	A2-TOC-9060	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-07	LDW-BA-PC-ENRMAT-SAN	S	A2-TOC-9060	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-08	LDW-BA-PC-ENRMAT-SAN	S	A2-TOC-9060	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-09	LDW-BA-PC-ENRMAT-SAN	S	A2-TOC-9060	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-10	LDW-BA-PC-ENRMAT-SAN	S	A2-TOC-9060	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-11	LDW-BA-PC-ENRMAT-SAN	S	A2-TOC-9060	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-12	LDW-BA-PC-ENRMAT-SAN	S	A2-TOC-9060	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-13	LDW-BA-PC-ENRMAT-SAN	S	A2-TOC-9060	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-14	LDW-BA-PC-ENRMAT-SAN	S	A2-TOC-9060	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-15	LDW-BA-PC-ENRMAT-SAN	S	A2-TOC-9060	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-16	LDW-BA-PC-ENRMAT-SAN	S	A2-TOC-9060	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-17	LDW-BA-PC-ENRMAT-SAN	S	A2-TOC-9060	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-18	LDW-BA-PC-ENRMAT-SAN	S	A2-TOC-9060	SOIL	DONE	U	0302	0227	S0	Glass-A.25
WG980810-1	Laboratory Method Bl	S	A2-TOC-9060	SOIL	DONE	U				
WG980810-2	Standard Reference M	S	A2-TOC-9060	SOIL	DONE	U				
WG980810-3	Duplicate Sample	S	A2-TOC-9060	SOIL	DONE	U				
WG980810-4	Matrix Spike	S	A2-TOC-9060	SOIL	DONE	U				

Comments:

WG980810-3	L1703709-17
WG980810-4	L1703709-17

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Feb 27 2017, 01:40 pm

Work Group: WG980814 for Department: 7 Wet Chemistry

Created: 24-FEB-17 Due: Operator: LC

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1703709-04	LDW-BA-PC-ENRMAT-SAN	S	A2-SOOT	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-05	LDW-BA-PC-ENRMAT-SAN	S	A2-SOOT	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-06	LDW-BA-PC-ENRMAT-SAN	S	A2-SOOT	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-07	LDW-BA-PC-ENRMAT-SAN	S	A2-SOOT	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-08	LDW-BA-PC-ENRMAT-SAN	S	A2-SOOT	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-09	LDW-BA-PC-ENRMAT-SAN	S	A2-SOOT	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-10	LDW-BA-PC-ENRMAT-SAN	S	A2-SOOT	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-11	LDW-BA-PC-ENRMAT-SAN	S	A2-SOOT	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-12	LDW-BA-PC-ENRMAT-SAN	S	A2-SOOT	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-13	LDW-BA-PC-ENRMAT-SAN	S	A2-SOOT	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-14	LDW-BA-PC-ENRMAT-SAN	S	A2-SOOT	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-15	LDW-BA-PC-ENRMAT-SAN	S	A2-SOOT	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-16	LDW-BA-PC-ENRMAT-SAN	S	A2-SOOT	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-17	LDW-BA-PC-ENRMAT-SAN	S	A2-SOOT	SOIL	DONE	U	0302	0227	S0	Glass-A.25
L1703709-18	LDW-BA-PC-ENRMAT-SAN	S	A2-SOOT	SOIL	DONE	U	0302	0227	S0	Glass-A.25
WG980814-1	Laboratory Method Bl	S	A2-SOOT	SOIL	DONE	U				
WG980814-2	Standard Reference M	S	A2-SOOT	SOIL	DONE	U				
WG980814-3	Duplicate Sample	S	A2-SOOT	SOIL	DONE	U				
WG980814-4	Matrix Spike	S	A2-SOOT	SOIL	DONE	U				
WG980814-5	Matrix Spike	S	A2-SOOT	SOIL	DONE	U				

Comments:

WG980814-3	L1703709-04
WG980814-4	L1703709-04
WG980814-5	L1703709-14

Sample Preparation

TOC Instrument: #1 - SN: 241N8102003 #3 - SN: 241L1308211
(Circle one) #2 - SN: 241N9041221

Date: 02/15/17
Analyst: LC
2° Review: _____

CCV ID: WW102116A → E
SRM 1944 ID: WS081814A
Filter Aid ID: WS120415A

ICV ID: WW102116F
Balance ID: 655C105140Y
Other SRM ID: NA

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
~~Conditioning Std~~					
~~Blank~~					
K Factor				1	9.72
Blank				2	58.67
~~K Factor~~ 0				3	9.85
~~K Factor~~ 1000				4	9.60
~~ICV~~ 5000				5	9.93
~~ICB~~ 10000				6	10.00
~~LCS~~ 20000				7	10.16
~~Blank~~ 40000				8	10.14
ICV				9	10.12
ICB				10	73.07
HICV				11	49.45
SRM1944				12	10.52
MB				13	54.39
SRM1944				14	11.96
MB				15	62.92
L704213	01			16	12.43
CCV	01D			17	7.08
CCB	01MS	10.46		18	10.10
	02			19	6.98
	03			20	9.36

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
L704213	04			21	8.87
CCV				22	9.51
CCB				23	79.45
L704213	05			24	5.15
	06			25	15.61
CCV				26	10.28
CCB				27	81.28
L703709	01			28	5.81
CCV	01D			29	6.54
CCB	01MS	10.40		30	7.30
	02			31	7.86
	01RR			32	7.41
	03			33	5.41
	04			34	21.04
	05			35	21.59
	06			36	20.72
	04RR			37	21.78
CCV				38	10.59
CCB				39	74.12
L703709	07			40	28.74
CCV	08			41	28.16
CCB	09			42	27.99

TOC Instrument: #1 - SN: 241N8102003 #3 - SN: 241L1308211
(Circle one) #2 - SN: 241N9041221

Date: _____ 2° Review: _____
Analyst: _____

CCV ID: _____
SRM 1944 ID: _____
Filter Aid ID: _____

ICV ID: _____
Balance ID: _____
Other SRM ID: _____

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
Conditioning Std					
Blank					
K Factor					
Blank					
K Factor					
K Factor					
ICV					
ICB					
LCS					
Blank					
L1703709	10			43	22.18
	11			44	21.49
	12			45	28.85
	13			46	29.79
LC 02/16/17	184			47	23.57
	15			48	21.84
	16			49	26.89
CCV				50	9.57
CCV CCB				51	80.12
CCB					

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
CCV					
CCB					
CCV					
CCB					

TOC Instrument: #1 - SN: 241N8102003 #3 - SN: 241L1308211
(Circle one) #2 - SN: 241N9041221

Date: 02/16/17
Analyst: LC
2° Review: _____

CCV ID: WW102116A → E
SRM 1944 ID: WS081814A
Filter Aid ID: WS120415A

ICV ID: WW102116F
Balance ID: 055C105140U
Other SRM ID: N/A

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
~~Conditioning Std~~					
Blank					
K Factor				1	10.26
Blank				2	73.42
K Factor				3	10.04
K Factor				4	10.44
ICV				5	10.39
ICB				6	73.57
~~LCS~~ HICV				7	49.30
~~Blank~~ SRM1944				8	6.81
MB				9	74.12
~~SRM1944~~ L1703709 04		LC02/16/17		10	~~8.36~~ 24.49
~~MB~~ L1703709 05		LC02/16/17		11	~~64.14~~ 34.10
	06			12	28.31
	07			13	27.58
	08			14	27.93
	09			15	21.34
	10			16	26.70
~~CCV~~	11			17	30.57 15 LC02/16/17
~~CCB~~ CCV				18	12.05
CCB				19	66.39
CCV				20	9.84

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
CCB				21	68.87
L1703709	12			22	33.00
	13			23	38.79
	14			24	27.13
	15			25	29.64
	16			26	29.52
	17			27	29.63
	17D			28	22.88
CCV	17MS	10.08		29	25.26
CCB	18			30	30.31
	17MSR	10.03		31	29.26
LC 02/16/17 CCV				32	9.93
CCB				33	55.32
CCV					
CCB					

TOC Instrument: (#1) - SN: 241N8102003 #3 - SN: 241L1308211
(Circle one) #2 - SN: 241N9041221

Date: 02/21/17
Analyst: LC
2° Review: _____

CCV ID: WW102116L
SRM 1944 ID: NA
Filter Aid ID: WS120415A

ICV ID: WW102116F
Balance ID: 055C105404
Other SRM ID: WS081814A

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
~~Conditioning Std~~					
Blank					
K Factor				1	10.17
Blank				2	58.67
K Factor				3	10.22
K Factor				4	9.96
ICV				5	10.50
ICB				6	72.89
~~LCS HICV~~ ICV			10.42	7	~~39.12~~ 50.12
Blank ICB				8	61.23
HICV				9	50.12
SRM1944				10	7.54
MB LC 02/24/17				11	63.14
L1703704	04			12	27.97
	04D			13	28.61
	04MS	9.98		14	30.99
	05			15	26.65
	06			16	23.30
CCV	07			17	28.88
CCB	08			18	21.13
LC 2/21/17	10.09			19	40.26
CCV				20	10.16

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
CCB				21	55.22
SRM11650b				22	0.95
MB LC 02/24/17				23	82.75
L1703704	10			24	37.84
	11			25	38.71
	12			26	24.83
	13			27	23.64
	14			28	27.87
LC 02/21/17				29	21.24
CCV	14MS	10.21		30	21.95
CCB	15			31	24.59
	16			32	~~10.24~~ 10.04
CCV				33	81.82
CCB 02/24/17				34	20.60
L1703704	17			35	22.26
	18			36	10.15
CCV				37	74.97
CCB					
CCV					
CCB					

Pre-Qualtrax Document ID: 107-02

Document Type: Form

Alpha Report

ANALYTICAL REPORT

Lab Number:	L1703709
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:	02/27/17

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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: L1703709
Report Date: 02/27/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1703709-01	LDW-BA-PC-ENRMAT-GAC (REP1)	SOIL	LDW	02/02/17 12:15	02/06/17
L1703709-02	LDW-BA-PC-ENRMAT-GAC (REP2)	SOIL	LDW	02/02/17 12:15	02/06/17
L1703709-03	LDW-BA-PC-ENRMAT-GAC (REP3)	SOIL	LDW	02/02/17 12:15	02/06/17
L1703709-04	LDW-BA-PC-ENRMAT-SAND1 (REP1)	SOIL	LDW	02/02/17 12:20	02/06/17
L1703709-05	LDW-BA-PC-ENRMAT-SAND1 (REP2)	SOIL	LDW	02/02/17 12:20	02/06/17
L1703709-06	LDW-BA-PC-ENRMAT-SAND1 (REP3)	SOIL	LDW	02/02/17 12:20	02/06/17
L1703709-07	LDW-BA-PC-ENRMAT-SAND2 (REP1)	SOIL	LDW	02/02/17 12:25	02/06/17
L1703709-08	LDW-BA-PC-ENRMAT-SAND2 (REP2)	SOIL	LDW	02/02/17 12:25	02/06/17
L1703709-09	LDW-BA-PC-ENRMAT-SAND2 (REP3)	SOIL	LDW	02/02/17 12:25	02/06/17
L1703709-10	LDW-BA-PC-ENRMAT-SAND3 (REP1)	SOIL	LDW	02/02/17 12:30	02/06/17
L1703709-11	LDW-BA-PC-ENRMAT-SAND3 (REP2)	SOIL	LDW	02/02/17 12:30	02/06/17
L1703709-12	LDW-BA-PC-ENRMAT-SAND3 (REP3)	SOIL	LDW	02/02/17 12:30	02/06/17
L1703709-13	LDW-BA-PC-ENRMAT-SAND4 (REP1)	SOIL	LDW	02/02/17 12:40	02/06/17
L1703709-14	LDW-BA-PC-ENRMAT-SAND4 (REP2)	SOIL	LDW	02/02/17 12:40	02/06/17
L1703709-15	LDW-BA-PC-ENRMAT-SAND4 (REP3)	SOIL	LDW	02/02/17 12:40	02/06/17
L1703709-16	LDW-BA-PC-ENRMAT-SAND5 (REP1)	SOIL	LDW	02/02/17 12:35	02/06/17
L1703709-17	LDW-BA-PC-ENRMAT-SAND5 (REP2)	SOIL	LDW	02/02/17 12:35	02/06/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1703709-18	LDW-BA-PC-ENRMAT-SAND5 (REP3)	SOIL	LDW	02/02/17 12:35	02/06/17

Project Name: LDW ENR/AC PILOT STUDY **Lab Number:** L1703709
Project Number: Not Specified **Report Date:** 02/27/17

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:**	L1703709
Project Number:	Not Specified	**Report Date:**	02/27/17

Case Narrative (continued)

Sample Receipt

The samples were received at the laboratory above the required temperature range. The client was notified of the exceedance, and all requested analyses were authorized.

Soot analysis could not be performed on samples L1703709-01, -02, and -03.

Total Organic Carbon and Total Volatile Solids analyses were requested for all samples.

Solids, Total Volatile

L1703709-01 through -18 were analyzed with the method required holding time exceeded.

Total Organic Carbon

The WG978423-1 Method Blank, associated with L1703709-01 through -03, has a concentration above the reporting limit. Since the associated sample concentrations are greater than 10x the blank concentration for this analyte, no corrective action is required.

The WG978423-4 MS recovery (0%), performed on L1703709-01, does not apply because the sample concentration is greater than four times the spike amount added.

The WG980810-4 MS recovery (53%), performed on L1703709-17, does not apply because the sample concentration is greater than four times the spike amount added.

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: Susan E O'Neil Susan O' Neil

Title: Technical Director/Representative Date: 02/27/17

INORGANICS
&
MISCELLANEOUS

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

Lab Number: L1703709
Report Date: 02/27/17

SAMPLE RESULTS

Lab ID: L1703709-01
Client ID: LDW-BA-PC-ENRMAT-GAC (REP1)
Sample Location: LDW
Matrix: Soil

Date Collected: 02/02/17 12:15
Date Received: 02/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	80.2		%	0.010	--	1	-	02/15/17 16:39	1,9060A	LC
General Chemistry - Westborough Lab										
Solids, Total Volatile	98		%	0.10	--	1	-	02/17/17 11:05	121,2540E	SD

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

Lab Number: L1703709
Report Date: 02/27/17

SAMPLE RESULTS

Lab ID: L1703709-02
Client ID: LDW-BA-PC-ENRMAT-GAC (REP2)
Sample Location: LDW
Matrix: Soil

Date Collected: 02/02/17 12:15
Date Received: 02/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	91.6		%	0.010	--	1	-	02/15/17 16:34	1,9060A	LC
General Chemistry - Westborough Lab										
Solids, Total Volatile	98		%	0.10	--	1	-	02/17/17 11:05	121,2540E	SD

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

Lab Number: L1703709
Report Date: 02/27/17

SAMPLE RESULTS

Lab ID: L1703709-03
Client ID: LDW-BA-PC-ENRMAT-GAC (REP3)
Sample Location: LDW
Matrix: Soil

Date Collected: 02/02/17 12:15
Date Received: 02/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	75.4		%	0.010	--	1	-	02/15/17 16:44	1,9060A	LC
General Chemistry - Westborough Lab										
Solids, Total Volatile	98		%	0.10	--	1	-	02/17/17 11:05	121,2540E	SD

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

Lab Number: L1703709
Report Date: 02/27/17

SAMPLE RESULTS

Lab ID: L1703709-04
Client ID: LDW-BA-PC-ENRMAT-SAND1 (REP1)
Sample Location: LDW
Matrix: Soil

Date Collected: 02/02/17 12:20
Date Received: 02/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	0.135		%	0.010	--	1	-	02/16/17 13:17	1,9060A	LC
General Chemistry - Westborough Lab										
Solids, Total Volatile	1.3		%	0.10	--	1	-	02/17/17 11:05	121,2540E	SD
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.014		%	0.010	NA	1	-	02/21/17 14:12	91,-	LC

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

Lab Number: L1703709
Report Date: 02/27/17

SAMPLE RESULTS

Lab ID: L1703709-05
Client ID: LDW-BA-PC-ENRMAT-SAND1 (REP2)
Sample Location: LDW
Matrix: Soil

Date Collected: 02/02/17 12:20
Date Received: 02/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	0.639		%	0.010	--	1	-	02/16/17 13:24	1,9060A	LC
General Chemistry - Westborough Lab										
Solids, Total Volatile	1.4		%	0.10	--	1	-	02/17/17 11:05	121,2540E	SD
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.072		%	0.010	NA	1	-	02/21/17 14:12	91,-	LC

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

Lab Number: L1703709
Report Date: 02/27/17

SAMPLE RESULTS

Lab ID: L1703709-06
Client ID: LDW-BA-PC-ENRMAT-SAND1 (REP3)
Sample Location: LDW
Matrix: Soil

Date Collected: 02/02/17 12:20
Date Received: 02/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	0.562		%	0.010	--	1	-	02/16/17 13:34	1,9060A	LC
General Chemistry - Westborough Lab										
Solids, Total Volatile	1.6		%	0.10	--	1	-	02/17/17 11:05	121,2540E	SD
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.066		%	0.010	NA	1	-	02/21/17 14:12	91,-	LC

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

Lab Number: L1703709
Report Date: 02/27/17

SAMPLE RESULTS

Lab ID: L1703709-07
Client ID: LDW-BA-PC-ENRMAT-SAND2 (REP1)
Sample Location: LDW
Matrix: Soil

Date Collected: 02/02/17 12:25
Date Received: 02/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	0.970		%	0.010	--	1	-	02/16/17 13:39	1,9060A	LC
General Chemistry - Westborough Lab										
Solids, Total Volatile	2.3		%	0.10	--	1	-	02/17/17 11:05	121,2540E	SD
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.055		%	0.010	NA	1	-	02/21/17 14:12	91,-	LC

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

Lab Number: L1703709
Report Date: 02/27/17

SAMPLE RESULTS

Lab ID: L1703709-08
Client ID: LDW-BA-PC-ENRMAT-SAND2 (REP2)
Sample Location: LDW
Matrix: Soil

Date Collected: 02/02/17 12:25
Date Received: 02/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	0.723		%	0.010	--	1	-	02/16/17 13:44	1,9060A	LC
General Chemistry - Westborough Lab										
Solids, Total Volatile	2.3		%	0.10	--	1	-	02/17/17 11:05	121,2540E	SD
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.023		%	0.010	NA	1	-	02/21/17 14:12	91,-	LC

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

Lab Number: L1703709
Report Date: 02/27/17

SAMPLE RESULTS

Lab ID: L1703709-09
Client ID: LDW-BA-PC-ENRMAT-SAND2 (REP3)
Sample Location: LDW
Matrix: Soil

Date Collected: 02/02/17 12:25
Date Received: 02/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	1.70		%	0.010	--	1	-	02/16/17 13:49	1,9060A	LC
General Chemistry - Westborough Lab										
Solids, Total Volatile	2.9		%	0.10	--	1	-	02/17/17 11:05	121,2540E	SD
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.127		%	0.010	NA	1	-	02/21/17 14:12	91,-	LC

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

Lab Number: L1703709
Report Date: 02/27/17

SAMPLE RESULTS

Lab ID: L1703709-10
Client ID: LDW-BA-PC-ENRMAT-SAND3 (REP1)
Sample Location: LDW
Matrix: Soil

Date Collected: 02/02/17 12:30
Date Received: 02/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	0.970		%	0.010	--	1	-	02/16/17 13:54	1,9060A	LC
General Chemistry - Westborough Lab										
Solids, Total Volatile	3.9		%	0.10	--	1	-	02/17/17 11:05	121,2540E	SD
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.068		%	0.010	NA	1	-	02/21/17 14:12	91,-	LC

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

Lab Number: L1703709
Report Date: 02/27/17

SAMPLE RESULTS

Lab ID: L1703709-11
Client ID: LDW-BA-PC-ENRMAT-SAND3 (REP2)
Sample Location: LDW
Matrix: Soil

Date Collected: 02/02/17 12:30
Date Received: 02/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	0.588		%	0.010	--	1	-	02/16/17 13:59	1,9060A	LC
General Chemistry - Westborough Lab										
Solids, Total Volatile	4.5		%	0.10	--	1	-	02/17/17 11:05	121,2540E	SD
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.115		%	0.010	NA	1	-	02/21/17 14:12	91,-	LC

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

Lab Number: L1703709
Report Date: 02/27/17

SAMPLE RESULTS

Lab ID: L1703709-12
Client ID: LDW-BA-PC-ENRMAT-SAND3 (REP3)
Sample Location: LDW
Matrix: Soil

Date Collected: 02/02/17 12:30
Date Received: 02/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	1.95		%	0.010	--	1	-	02/16/17 14:58	1,9060A	LC
General Chemistry - Westborough Lab										
Solids, Total Volatile	5.3		%	0.10	--	1	-	02/17/17 11:05	121,2540E	SD
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.184		%	0.010	NA	1	-	02/21/17 14:12	91,-	LC

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

Lab Number: L1703709
Report Date: 02/27/17

SAMPLE RESULTS

Lab ID: L1703709-13
Client ID: LDW-BA-PC-ENRMAT-SAND4 (REP1)
Sample Location: LDW
Matrix: Soil

Date Collected: 02/02/17 12:40
Date Received: 02/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	2.09		%	0.010	--	1	-	02/16/17 15:03	1,9060A	LC
General Chemistry - Westborough Lab										
Solids, Total Volatile	5.3		%	0.10	--	1	-	02/17/17 11:05	121,2540E	SD
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.060		%	0.010	NA	1	-	02/21/17 14:12	91,-	LC

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

Lab Number: L1703709
Report Date: 02/27/17

SAMPLE RESULTS

Lab ID: L1703709-14
Client ID: LDW-BA-PC-ENRMAT-SAND4 (REP2)
Sample Location: LDW
Matrix: Soil

Date Collected: 02/02/17 12:40
Date Received: 02/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	1.52		%	0.010	--	1	-	02/16/17 15:08	1,9060A	LC
General Chemistry - Westborough Lab										
Solids, Total Volatile	7.0		%	0.10	--	1	-	02/17/17 11:05	121,2540E	SD
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.012		%	0.010	NA	1	-	02/21/17 14:12	91,-	LC

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

Lab Number: L1703709
Report Date: 02/27/17

SAMPLE RESULTS

Lab ID: L1703709-15
Client ID: LDW-BA-PC-ENRMAT-SAND4 (REP3)
Sample Location: LDW
Matrix: Soil

Date Collected: 02/02/17 12:40
Date Received: 02/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	0.964		%	0.010	--	1	-	02/16/17 15:13	1,9060A	LC
General Chemistry - Westborough Lab										
Solids, Total Volatile	6.7		%	0.10	--	1	-	02/17/17 11:05	121,2540E	SD
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.010		%	0.010	NA	1	-	02/21/17 14:12	91,-	LC

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

Lab Number: L1703709
Report Date: 02/27/17

SAMPLE RESULTS

Lab ID: L1703709-16
Client ID: LDW-BA-PC-ENRMAT-SAND5 (REP1)
Sample Location: LDW
Matrix: Soil

Date Collected: 02/02/17 12:35
Date Received: 02/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	2.67		%	0.010	--	1	-	02/16/17 15:18	1,9060A	LC
General Chemistry - Westborough Lab										
Solids, Total Volatile	7.7		%	0.10	--	1	-	02/17/17 11:05	121,2540E	SD
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.019		%	0.010	NA	1	-	02/21/17 14:12	91,-	LC

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

Lab Number: L1703709
Report Date: 02/27/17

SAMPLE RESULTS

Lab ID: L1703709-17
Client ID: LDW-BA-PC-ENRMAT-SAND5 (REP2)
Sample Location: LDW
Matrix: Soil

Date Collected: 02/02/17 12:35
Date Received: 02/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	2.49		%	0.010	--	1	-	02/16/17 15:23	1,9060A	LC
General Chemistry - Westborough Lab										
Solids, Total Volatile	7.3		%	0.10	--	1	-	02/17/17 11:05	121,2540E	SD
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	02/21/17 14:12	91,-	LC

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

Lab Number: L1703709
Report Date: 02/27/17

SAMPLE RESULTS

Lab ID: L1703709-18
Client ID: LDW-BA-PC-ENRMAT-SAND5 (REP3)
Sample Location: LDW
Matrix: Soil

Date Collected: 02/02/17 12:35
Date Received: 02/06/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon	3.39		%	0.010	--	1	-	02/16/17 15:38	1,9060A	LC
General Chemistry - Westborough Lab										
Solids, Total Volatile	7.9		%	0.10	--	1	-	02/17/17 11:05	121,2540E	SD
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.013		%	0.010	NA	1	-	02/21/17 14:12	91,-	LC

Project Name: LDW ENR/AC PILOT STUDY **Lab Number:** L1703709

Project Number: Not Specified **Report Date:** 02/27/17

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab for sample(s): 01-03 Batch: WG978423-1										
Total Organic Carbon	0.018		%	0.010	--	1	-	02/15/17 08:57	1,9060A	LC
General Chemistry - Westborough Lab for sample(s): 01-18 Batch: WG978701-1										
Solids, Total Volatile	ND		%	0.10	--	1	-	02/17/17 11:05	121,2540E	SD
Total Organic Carbon - Mansfield Lab for sample(s): 04-18 Batch: WG980810-1										
Total Organic Carbon	ND		%	0.010	--	1	-	02/16/17 13:12	1,9060A	LC
General Chemistry - Mansfield Lab for sample(s): 04-18 Batch: WG980814-1										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	02/21/17 14:12	91,-	LC

Matrix Spike Analysis
Batch Quality Control

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

Lab Number: L1703709
Report Date: 02/27/17

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Organic Carbon - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG978423-4 QC Sample: L1703709-01 Client ID: LDW-BA-PC-ENRMAT-GAC (REP1)												
Total Organic Carbon	80.2	1.42	63.3	**0**	Q	-	-		75-125	-		25
Total Organic Carbon - Mansfield Lab Associated sample(s): 04-18 QC Batch ID: WG980810-4 QC Sample: L1703709-17 Client ID: LDW-BA-PC-ENRMAT-SAND5 (REP2)												
Total Organic Carbon	2.49	0.399	2.70	**53**	Q	-	-		75-125	-		25
General Chemistry - Mansfield Lab Associated sample(s): 04-18 QC Batch ID: WG980814-4 QC Sample: L1703709-04 Client ID: LDW-BA-PC-ENRMAT-SAND1 (REP1)												
% Soot (Rep 1)	0.014	0.322	0.341	102		-	-		75-125	-		25
General Chemistry - Mansfield Lab Associated sample(s): 04-18 QC Batch ID: WG980814-5 QC Sample: L1703709-14 Client ID: LDW-BA-PC-ENRMAT-SAND4 (REP2)												
% Soot (Rep 1)	0.012	0.481	0.508	103		-	-		75-125	-		25

Lab Duplicate Analysis
Batch Quality Control

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

Lab Number: L1703709
Report Date: 02/27/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Organic Carbon - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG978423-3 QC Sample: L1703709-01 Client ID: LDW-BA-PC-ENRMAT-GAC (REP1)						
Total Organic Carbon	80.2	65.7	%	20		25
General Chemistry - Westborough Lab Associated sample(s): 01-18 QC Batch ID: WG978701-2 QC Sample: L1703709-01 Client ID: LDW-BA-PC-ENRMAT-GAC (REP1)						
Solids, Total Volatile	98	98	%	0		11
Total Organic Carbon - Mansfield Lab Associated sample(s): 04-18 QC Batch ID: WG980810-3 QC Sample: L1703709-17 Client ID: LDW-BA-PC-ENRMAT-SAND5 (REP2)						
Total Organic Carbon	2.49	2.47	%	1		25
General Chemistry - Mansfield Lab Associated sample(s): 04-18 QC Batch ID: WG980814-3 QC Sample: L1703709-04 Client ID: LDW-BA-PC-ENRMAT-SAND1 (REP1)						
% Soot (Rep 1)	0.014	0.011	%	24		25

Project Name: LDW ENR/AC PILOT STUDY **Lab Number:** L1703709

Project Number: Not Specified **Report Date:** 02/27/17

S.R.M. Standard Quality Control

Standard Reference Material (SRM): WG978423-2

Parameter	% Recovery	Qual	QC Criteria
Total Organic Carbon	82		75-125

Project Name: LDW ENR/AC PILOT STUDY **Lab Number:** L1703709

Project Number: Not Specified **Report Date:** 02/27/17

S.R.M. Standard Quality Control

Standard Reference Material (SRM): WG980810-2

Parameter	% Recovery	Qual	QC Criteria
Total Organic Carbon	90		75-125

Project Name: LDW ENR/AC PILOT STUDY **Lab Number:** L1703709

Project Number: Not Specified **Report Date:** 02/27/17

S.R.M. Standard Quality Control

Standard Reference Material (SRM): WG980814-2

Parameter	% Recovery	Qual	QC Criteria
% Soot (Rep 1)	94		75-125

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

Lab Number: L1703709
Report Date: 02/27/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1703709-01A	Glass 250ml/8oz unpreserved	A	N/A	14.8	Y	Absent	A2-TOC-9060(28)
L1703709-01X	Glass 60ml unpreserved split	A	N/A	14.8	Y	Absent	TVS-2540(7)
L1703709-02A	Glass 100ml unpreserved split	A	N/A	14.8	Y	Absent	A2-TOC-9060(28)
L1703709-02X	Glass 60ml unpreserved split	A	N/A	14.8	Y	Absent	TVS-2540(7)
L1703709-03A	Glass 100ml unpreserved split	A	N/A	14.8	Y	Absent	A2-TOC-9060(28)
L1703709-03X	Glass 60ml unpreserved split	A	N/A	14.8	Y	Absent	TVS-2540(7)
L1703709-04A	Glass 250ml/8oz unpreserved	A	N/A	14.8	Y	Absent	A2-SOOT(28),A2-TOC-9060(28)
L1703709-04X	Glass 60ml unpreserved split	A	N/A	14.8	Y	Absent	TVS-2540(7)
L1703709-05A	Glass 100ml unpreserved split	A	N/A	14.8	Y	Absent	A2-SOOT(28),A2-TOC-9060(28)
L1703709-05X	Glass 60ml unpreserved split	A	N/A	14.8	Y	Absent	TVS-2540(7)
L1703709-06A	Glass 100ml unpreserved split	A	N/A	14.8	Y	Absent	A2-SOOT(28),A2-TOC-9060(28)
L1703709-06X	Glass 60ml unpreserved split	A	N/A	14.8	Y	Absent	TVS-2540(7)
L1703709-07A	Glass 250ml/8oz unpreserved	A	N/A	14.8	Y	Absent	A2-SOOT(28),A2-TOC-9060(28)
L1703709-07X	Glass 60ml unpreserved split	A	N/A	14.8	Y	Absent	TVS-2540(7)
L1703709-08A	Glass 100ml unpreserved split	A	N/A	14.8	Y	Absent	A2-SOOT(28),A2-TOC-9060(28)
L1703709-08X	Glass 60ml unpreserved split	A	N/A	14.8	Y	Absent	TVS-2540(7)
L1703709-09A	Glass 100ml unpreserved split	A	N/A	14.8	Y	Absent	A2-SOOT(28),A2-TOC-9060(28)
L1703709-09X	Glass 60ml unpreserved split	A	N/A	14.8	Y	Absent	TVS-2540(7)
L1703709-10A	Glass 250ml/8oz unpreserved	A	N/A	14.8	Y	Absent	A2-SOOT(28),A2-TOC-9060(28)
L1703709-10X	Glass 60ml unpreserved split	A	N/A	14.8	Y	Absent	TVS-2540(7)
L1703709-11A	Glass 100ml unpreserved split	A	N/A	14.8	Y	Absent	A2-SOOT(28),A2-TOC-9060(28)
L1703709-11X	Glass 60ml unpreserved split	A	N/A	14.8	Y	Absent	TVS-2540(7)
L1703709-12A	Glass 100ml unpreserved split	A	N/A	14.8	Y	Absent	A2-SOOT(28),A2-TOC-9060(28)
L1703709-12X	Glass 60ml unpreserved split	A	N/A	14.8	Y	Absent	TVS-2540(7)
L1703709-13A	Glass 250ml/8oz unpreserved	A	N/A	14.8	Y	Absent	A2-SOOT(28),A2-TOC-9060(28)
L1703709-13X	Glass 60ml unpreserved split	A	N/A	14.8	Y	Absent	TVS-2540(7)
L1703709-14A	Glass 100ml unpreserved split	A	N/A	14.8	Y	Absent	A2-SOOT(28),A2-TOC-9060(28)
L1703709-14X	Glass 60ml unpreserved split	A	N/A	14.8	Y	Absent	TVS-2540(7)
L1703709-15A	Glass 100ml unpreserved split	A	N/A	14.8	Y	Absent	A2-SOOT(28),A2-TOC-9060(28)

*Values in parentheses indicate holding time in days

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

Lab Number: L1703709
Report Date: 02/27/17

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1703709-15X	Glass 60ml unpreserved split	A	N/A	14.8	Y	Absent	TVS-2540(7)
L1703709-16A	Glass 250ml/8oz unpreserved	A	N/A	14.8	Y	Absent	A2-SOOT(28),A2-TOC-9060(28)
L1703709-16X	Glass 60ml unpreserved split	A	N/A	14.8	Y	Absent	TVS-2540(7)
L1703709-17A	Glass 100ml unpreserved split	A	N/A	14.8	Y	Absent	A2-SOOT(28),A2-TOC-9060(28)
L1703709-17X	Glass 60ml unpreserved split	A	N/A	14.8	Y	Absent	TVS-2540(7)
L1703709-18A	Glass 100ml unpreserved split	A	N/A	14.8	Y	Absent	A2-SOOT(28),A2-TOC-9060(28)
L1703709-18X	Glass 60ml unpreserved split	A	N/A	14.8	Y	Absent	TVS-2540(7)

*Values in parentheses indicate holding time in days

Project Name: LDW ENR/AC PILOT STUDY **Lab Number:** L1703709

Project Number: Not Specified **Report Date:** 02/27/17

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:**	L1703709
Project Number:	Not Specified	**Report Date:**	02/27/17

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:** L1703709
Project Number: Not Specified **Report Date:** 02/27/17

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

91 Analysis of Soot following ES&T publications by Accardi-Dey and Gschwend, 2003; and Gustafsson (et. al.), 1997.

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.

MANSFIELD CHAIN OF CUSTODY

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: 2/6/17

ALPHA Job #: TBD L1703709

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	TOC EPA 9060A(m)	GS ASTM D422 using #230 sieve	Black Carbon Gustafsson (1997)	MS									Sample Specific Comments	TOTAL # BOTTLES
03709.01,02,03	LDW-BA-PC-ENRMAT-GAC	02/02/17	1215	sediment	HTB	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	run in triplicate	1
.04,05,06.02	LDW-BA-PC-ENRMAT-SAND1	↓	1220	sediment	↓	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	run in triplicate	1
.07,08,09.03	LDW-BA-PC-ENRMAT-SAND2	↓	1225	sediment	↓	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	run in triplicate	1
.10,11,12.04	LDW-BA-PC-ENRMAT-SAND3	↓	1230	sediment	↓	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	run in triplicate	1
.13,14,15.05	LDW-BA-PC-ENRMAT-SAND4	↓	1240	sediment	↓	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	run in triplicater	1
.16,17,18.06	LDW-BA-PC-ENRMAT-SAND5	↓	1235	sediment	↓	☒	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	run in triplicate	1
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
					Container Type	A	A	A	-	-	-	-	-	-	-	-	-		
					Preservative	A	A	A	-	-	-	-	-	-	-	-	-		

Samples need to be homogenized prior to analysis.

Relinquished By:	Date/Time	Received By:	Date/Time
Harold Benny FedEx	2/3/17 10:50	FedEx	
		[signature] AAL	2/6/17 10:15

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)