APPENDIX D. LABORATORY REPORTS AND DATA VALIDATION REPORT

Alpha Analytical Lab

ALPHA ANALYTICAL

World Class Chemistry

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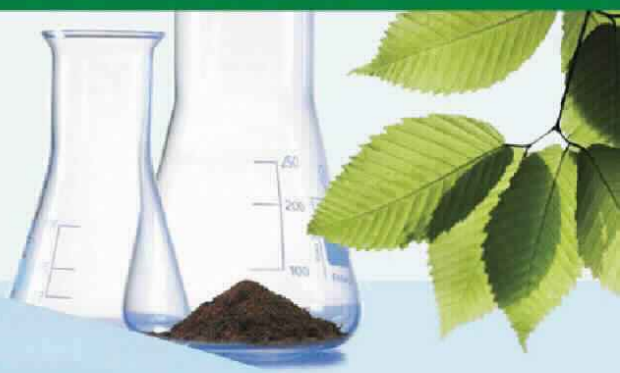

Lab Number: L1828580

Client: Analytical Resources, Inc.

ATTN: Susan Dunnihoo

Project Name: AOC3 BLACK CARBON

Project Number: TASK 4

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Sample Delivery Group Information

Sample Delivery Group Summary

Alpha Job Number : L1828580

Received : 25-JUL-2018
Reviewer : Bethany Bedard

Account Name : Analytical Resources, Inc.
Project Number : TASK 4
Project Name : AOC3 BLACK CARBON

Delivery Information

Samples Delivered By : Express Ship
FedEx (772803068440, 772803068521)

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Present/Intact/n/a	Ice	3.5	
B	Present/Intact/n/a	Ice	3.2	

Condition Information

1) All samples on COC received?	**YES**
2) Extra samples received?	**NO**
3) Are there any sample container discrepancies?	**NO**
4) Are there any discrepancies between sample labels & COC?	**NO**
5) Are samples in appropriate containers for requested analysis?	**YES**
6) Are samples properly preserved for requested analysis?	**YES**
7) Are samples within holding time for requested analysis?	**YES**
8) All sampling equipment returned?	**NA**

Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client?	**NA**

LIMS Chain of Custody

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 07 2018, 01:28 pm

Login Number: L1828580
Account: ARILAB Analytical Resources, Inc.Project: TASK 4
Received: 25JUL18 Due Date: 08AUG18

Sample #	Client ID	Mat	PR	Collected
L1828580-01	LDW18-SSCL-A01	3	S0	16MAY18 14:00
2 reps for soot L1828580-01 DUP A2-DPKG-FULL Package Due Date: 09/07/18				
A2-DPKG-FULL,A2-SOOT				
L1828580-02	LDW18-SSCL-A02	3	S0	16MAY18 14:00
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828580-03	LDW18-SSCL-A03	3	S0	16MAY18 13:20
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828580-04	LDW18-SSCL-A04	3	S0	16MAY18 12:32
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828580-05	LDW18-SSCL-A05	3	S0	16MAY18 13:00
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828580-06	LDW18-SSCL-A06	3	S0	16MAY18 12:07
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828580-07	LDW18-SSCL-A07	3	S0	19MAY18 14:35
2 reps for soot Package Due Date: 09/07/18				

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 07 2018, 01:28 pm

Login Number: L1828580
Account: ARILAB Analytical Resources, Inc.Project: TASK 4
Received: 25JUL18 Due Date: 08AUG18

Sample #	Client ID		Mat	PR	Collected
A2-SOOT					
L1828580-08	LDW18-SSCL-A08		3	S0	19MAY18 15:00
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					
L1828580-09	LDW18-SSCL-A09		3	S0	18MAY18 15:28
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					
L1828580-10	LDW18-SSCL-A10		3	S0	18MAY18 15:05
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					
L1828580-11	LDW18-SSCL-A11		3	S0	15MAY18 12:01
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					
L1828580-12	LDW18-SSCL-A12		3	S0	18MAY18 13:30
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					
L1828580-13	LDW18-SSCL-A13		3	S0	17MAY18 13:20
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 07 2018, 01:28 pm

Login Number: L1828580
Account: ARILAB Analytical Resources, Inc.Project: TASK 4
Received: 25JUL18 Due Date: 08AUG18

Sample #	Client ID	Mat	PR	Collected
L1828580-14	LDW18-SSCL-A17	3	S0	18MAY18 13:36
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828580-15	LDW18-SSCL-A18	3	S0	18MAY18 13:57
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828580-16	LDW18-SSCL-A19	3	S0	17MAY18 14:04
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828580-17	LDW18-SSCL-A11-FD	3	S0	15MAY18 12:01
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828580-18	LDW18-SS-COMP01	3	S0	26FEB18 13:49
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828580-19	LDW18-SS-COMP02	3	S0	28FEB18 13:02
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828580-20	LDW18-SS-COMP03	3	S0	06MAR18 12:49
2 reps for soot Package Due Date: 09/07/18				

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 07 2018, 01:28 pm

Login Number: L1828580
Account: ARILAB Analytical Resources, Inc.Project: TASK 4
Received: 25JUL18 Due Date: 08AUG18

Sample #	Client ID		Mat	PR	Collected
A2-SOOT					
L1828580-21	LDW18-SS-COMP04		3	S0	06MAR18 11:46
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					
L1828580-22	LDW18-SS-COMP05		3	S0	26FEB18 14:20
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					
L1828580-23	LDW18-SS-COMP06		3	S0	05MAR18 13:45
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					
L1828580-24	LDW18-SS-COMP07		3	S0	05MAR18 14:02
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					

Logged By: Sue ONeil

Container Tracking

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1828580-01A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-01A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-01A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-01A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-02A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-02A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-02A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-02A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-03A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-03A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-03A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-03A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-04A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-04A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-04A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-04A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-05A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-05A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-05A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-05A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-06A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-06A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-06A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-06A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-07A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1828580-07A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-07A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-07A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-08A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-08A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-08A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-08A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-09A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-09A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-09A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-09A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-10A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-10A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-10A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-10A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-11A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-11A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-11A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-11A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-12A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-12A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-12A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-12A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-13A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-13A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1828580-13A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-13A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-14A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-14A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-14A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-14A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-15A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-15A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-15A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-15A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-16A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-16A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-16A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-16A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-17A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-17A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-17A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-17A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-18A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-18A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-18A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-18A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-19A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-19A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-19A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1828580-19A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-20A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-20A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-20A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-20A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-21A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-21A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-21A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-21A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-22A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-22A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-22A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-22A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-23A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-23A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-23A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-23A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828580-24A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828580-24A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828580-24A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828580-24A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil

Chain of Custody

L1828580

1 of 6

CHAIN-OF-CUSTODY/TEST REQUEST FORM

Project/Client Name: AOC3 Black Carbon
Project Number: Task 4
Contact Name: Amara Vandervort
Sampled By: Windward

Ship to: Alpha Analytical
Attn: Susan O'Neil
Shipper: FedEx
Form filled out by: A. Vandervort

No. AOC3 2018-0092
Shipping Date:
Airbill Number:
Turnaround requested: Standard

	Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Black Carbon							Comments / Instructions [Composite/Bag ID]
-01	5/16/2018	1400	LDW18-SSCL-A01	1	sediment	X							
-02	5/16/2018	1400	LDW18-SSCL-A02	1	sediment	X							
-03	5/16/2018	1320	LDW18-SSCL-A03	1	sediment	X							
-04	5/16/2018	1232	LDW18-SSCL-A04	1	sediment	X							
-05	5/16/2018	1300	LDW18-SSCL-A05	1	sediment	X							
-06	5/16/2018	1207	LDW18-SSCL-A06	1	sediment	X							
-07	5/19/2018	1435	LDW18-SSCL-A07	1	sediment	X							
-08	5/19/2018	1500	LDW18-SSCL-A08	1	sediment	X							
-09	5/18/2018	1528	LDW18-SSCL-A09	1	sediment	X							
-10	5/18/2018	1505	LDW18-SSCL-A10	1	sediment	X							
-11	5/15/2018	1201	LDW18-SSCL-A11	1	sediment	X							
-12	5/18/2018	1330	LDW18-SSCL-A12	1	sediment	X							
	Total Number of Containers			12	Purchase Order / Statement of Work # PO 2018-0092								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Jacob Walter		Print name:	
Signature:		Signature:	
Company: ARI	Company: FedEx	Company: FedEx	Company: ARI
Date/Time: 07/24/18 0900	Date/Time:	Date/Time:	Date/Time: 7/25/18 10:03

* Distribution: White copies accompany shipment; yellow retained by consignor.

To be completed by Laboratory upon sample receipt:

Date of receipt:: 7/25/18	Laboratory W.O. #:
Condition upon receipt: Good	Time of receipt: 10:03
Cooler temperature: 3.5°C, 3.2°C	Received by:

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

L1828580

2 of 6

CHAIN-OF-CUSTODY/TEST REQUEST FORM

Project/Client Name: **AOC3 Black Carbon**
Project Number: Task 4
Contact Name: Amara Vandervort
Sampled By: Windward

Ship to: **Alpha Analytical** No. AOC3 2018-0092
Attn: Susan O'Neil Shipping Date:
Shipper: FedEx Airbill Number:
Form filled out by: B. Vandervort Turnaround requested: Standard

	Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Black Carbon							Comments / Instructions [Composite/Bag ID]
-13	5/17/2018	1320	LDW18-SSCL-A13	1	sediment	X							
-14	5/18/2018	1336	LDW18-SSCL-A17	1	sediment	X							
-15	5/18/2018	1357	LDW18-SSCL-A18	1	sediment	X							
-16	5/17/2018	1404	LDW18-SSCL-A19	1	sediment	X							
-17	05/15/2018	12:01	LDW18-SSCL-A11-FD	1	sediment	X							
-18	2/26/18	13:49	LDW18-SS-Comp01	1	sediment	X							
-19	2/28/18	13:02	LDW18-SS-Comp02	1	sediment	X							
-20	3/6/18	12:49	LDW18-SS-Comp03	1	sediment	X							
-21	3/6/18	11:46	LDW18-SS-Comp04	1	sediment	X							
-22	2/26/18	14:20	LDW18-SS-Comp05	1	sediment	X							
-23	3/5/18	13:45	LDW18-SS-Comp06	1	sediment	X							
-24	3/5/18	14:02	LDW18-SS-Comp07	1	sediment	X							
	Total Number of Containers			12	Purchase Order / Statement of Work # PO 2018-0092								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Jacob Walter		Print name:	
Signature:		Signature:	
Company: ARI	Company: Fedex	Company: Fedex	Company: ARL
Date/Time: 07/24/18 0900	Date/Time:	Date/Time:	Date/Time: 7/25/18 10:03

* Distribution: White copies accompany shipment; yellow retained by consignor.

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

Wet Chemistry

Organic Carbon Analysis

Sequence Logs

Date of report: 8/7/2018 3:10 PM
User ID: alpha

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydrogen	Nitrogen	ZR	CR	HR	NR
K1	1	10.170	8/7/2018 8:20:50 AM	17.699	28.556	0.567	14053	16717	32729	14863
BLANK	2		8/7/2018 8:25:30 AM	47	1729	189	14064	14300	16029	14253
K1	3	10.470	8/7/2018 8:30:10 AM	18.300	27.263	-.099	14058	16066	31828	14100
K1	4	10.330	8/7/2018 8:36:10 AM	17.628	27.594	-.134	14063	15935	31677	14064
ICV	5	10.410	8/7/2018 8:42:44 AM	0.997%	5.159%	-.254%	14064	15986	32241	14079
ICB	6	51.680	8/7/2018 8:47:24 AM	-.002%	0.015%	-.061%	14066	14079	15698	14052
HICV	7	51.220	8/7/2018 8:59:08 AM	-.005%	-.038%	-.049%	14036	14059	14926	14057
BLANK	8		8/7/2018 9:04:14 AM	-1	627	-4	14045	14040	14667	14041
HICV	9	52.130	8/7/2018 9:28:52 AM	2.984%	1.374%	-.182%	14135	41615	62822	13767
HICV	10	51.360	8/7/2018 9:35:43 AM	3.586%	1.051%	-.074%	14129	47051	63377	14080
SRM1650	11	.300	8/7/2018 9:42:23 AM	114.795%	20.999%	19.506%	13261	19936	23082	13752
MB	12	68.280	8/7/2018 9:47:59 AM	0.042%	0.023%	0.236%	13050	14651	16490	14116
SRM1650	13	.480	8/7/2018 9:53:21 AM	84.652%	-.768%	-6.653%	13994	21270	22572	13978
MB	14	59.500	8/7/2018 9:58:12 AM	0.0%	-.037%	-.049%	13991	14015	14804	13992
SRM1650	15	.390	8/7/2018 10:04:31 AM	76.133%	-4.692%	-5.718%	13986	19359	20257	14024
MB	16	50.530	8/7/2018 10:11:52 AM	0.0%	-.056%	-.051%	13983	14024	14642	14002
182858001	17	9.410	8/7/2018 10:19:19 AM	0.188%	-.061%	-.233%	13982	14362	15608	14022
182858001	18	9.130	8/7/2018 10:23:59 AM	0.163%	-.100%	-.252%	13988	14313	15464	14022
182858001D	19	8.850	8/7/2018 10:28:40 AM	0.162%	-.127%	-.260%	13988	14302	15396	14022
182858001D	20	9.530	8/7/2018 10:33:20 AM	0.175%	-.152%	-.238%	13988	14346	15349	14024
CCV	21	9.550	8/7/2018 10:38:00 AM	1.006%	5.967%	-.263%	13989	15754	32916	14011
CCB	22	45.270	8/7/2018 10:42:40 AM	0.001%	-.022%	-.049%	14001	14072	15203	14040
182858001MS	23	11.890	8/7/2018 10:48:59 AM	1.039%	4.853%	-.179%	13985	16262	33622	14029
182858001MS	24	12.760	8/7/2018 10:53:39 AM	0.946%	4.602%	-.168%	14002	16227	33870	14045
182858001MSD	25	14.530	8/7/2018 10:58:20 AM	1.678%	3.925%	-.141%	14007	18441	35613	14055
182858001MS	26	8.240	8/7/2018 11:03:00 AM	2.285%	7.246%	-.273%	14007	17436	35350	14044

Reported on 8/7/2018 3:10 PM by alpha

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydrogen	Nitrogen	ZR	CR	HR	NR
182858002	27	10.670	8/7/2018 11:07:41 AM	0.173%	0.310%	-.204%	14008	14404	16722	14049
182858002	28	8.090	8/7/2018 11:12:22 AM	0.162%	0.045%	-.276%	13991	14288	15793	14029
182858003	29	9.440	8/7/2018 11:17:02 AM	0.302%	0.098%	-.223%	13987	14566	16225	14032
182858003	30	9.870	8/7/2018 11:21:43 AM	0.259%	0.121%	-.210%	13984	14513	16248	14031
182858004	31	8.550	8/7/2018 11:26:24 AM	0.056%	-.188%	-.278%	13982	14121	15081	14012
182858004	32	9.520	8/7/2018 11:31:05 AM	0.089%	-.168%	-.242%	13981	14191	15153	14015
CCV	33	9.980	8/7/2018 11:47:47 AM	1.005%	5.719%	-.243%	13971	15816	33002	13998
CCB	34	77.410	8/7/2018 11:52:28 AM	0.0%	-.006%	-.032%	13986	14035	15303	14011
182858005	35	12.160	8/7/2018 12:00:42 PM	0.173%	0.150%	-.153%	13969	14429	16337	14028
182858005	36	13.110	8/7/2018 12:05:23 PM	-.011%	-.250%	-.189%	13972	13994	14493	13996
182858006	37	8.520	8/7/2018 12:10:04 PM	0.295%	0.211%	-.239%	13973	14496	16398	14022
182858006	38	9.570	8/7/2018 12:14:45 PM	0.072%	-.160%	-.237%	13970	14154	15134	14006
182858007	39	10.790	8/7/2018 12:19:26 PM	0.070%	-.125%	-.215%	13972	14164	15195	14005
182858007	40	10.310	8/7/2018 12:24:07 PM	0.068%	-.066%	-.225%	13972	14155	15370	14005
182858008	41	10.620	8/7/2018 12:28:49 PM	0.062%	-.124%	-.222%	13970	14143	15184	14001
182858008	42	7.670	8/7/2018 12:33:30 PM	0.227%	0.135%	-.305%	13969	14336	16027	14001
182858009	43	14.820	8/7/2018 12:38:11 PM	0.052%	-.005%	-.160%	13971	14162	15544	14001
182858009	44	10.700	8/7/2018 12:42:53 PM	0.060%	-.001%	-.210%	13971	14146	15547	14008
CCV	45	10.590	8/7/2018 1:04:09 PM	1.085%	5.242%	-.202%	13958	16081	32834	14001
CCB	46	75.980	8/7/2018 1:08:50 PM	0.0%	-.002%	-.032%	13977	14030	15394	14004
182858010	47	10.640	8/7/2018 1:19:42 PM	0.026%	0.156%	-.221%	13958	14063	15925	13989
182858010	48	10.130	8/7/2018 1:24:23 PM	0.021%	0.059%	-.199%	13965	14077	15645	14015
182858021	49	7.320	8/7/2018 1:29:05 PM	0.120%	0.054%	-.141%	13966	14252	15766	14071
182858021	50	6.050	8/7/2018 1:33:46 PM	0.124%	-.027%	0.156%	13962	14336	15694	14178
182858022	51	5.820	8/7/2018 1:38:28 PM	0.010%	-.284%	0.883%	13966	14451	15398	14417
182858022	52	5.370	8/7/2018 1:43:09 PM	0.010%	-.288%	2.542%	13968	14930	15906	14896
182858023	53	7.950	8/7/2018 1:47:51 PM	0.007%	-.201%	4.657%	13964	16236	17199	16202

Reported on 8/7/2018 3:10 PM by alpha

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydrogen	Nitrogen	ZR	CR	HR	NR
182858023	53	7.950	8/7/2018 1:47:51 PM	0.007%	-.201%	4.657%	13964	16236	17199	16202
182858023	54	7.750	8/7/2018 1:52:33 PM	-.004%	-.186%	8.129%	13961	17674	18679	17655
182858024	55	9.080	8/7/2018 1:57:15 PM	0.025%	-.107%	12.937%	13965	20776	21912	20712
182858024	56	7.480	8/7/2018 2:01:56 PM	0.074%	-.209%	21.789%	13964	23385	24357	23262
CCV	57	9.960	8/7/2018 2:07:42 PM	0.939%	5.828%	23.405%	13968	28893	46348	27197
CCB	58	112.65	8/7/2018 2:12:24 PM	0.012%	0.005%	2.899%	13978	32702	34259	32446
CCB	59	53.540	8/7/2018 2:20:18 PM	0.007%	-.045%	3.089%	13963	23489	24222	23397

Date of report: 8/8/2018 5:57 AM
User ID: Alpha Analytical

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydrogen	Nitrogen	ZR	CR	HR	NR
BLANK	1		8/7/2018 8:33:41 AM	-42	-68	-50	60947	60855	60787	60897
BLANK	2		8/7/2018 8:42:35 AM	-49	-133	-75	61010	60886	60753	60935
BLANK	3		8/7/2018 8:47:49 AM	-48	-39	-52	60931	60831	60792	60879
K1	4	9.790	8/7/2018 8:56:22 AM	20.174	-.282	-.022	60994	62844	62666	60917
BLANK	5		8/7/2018 9:04:15 AM	-22	-157	-74	60983	60887	60730	60909
K1	6	10.200	8/7/2018 9:09:29 AM	20.167	-.168	-.050	61037	62936	62811	60914
K1	7	9.550	8/7/2018 9:31:24 AM	21.120	-.050	0.007	60970	62897	62834	60915
ICV	8	10.380	8/7/2018 9:38:42 AM	0.943%	-12.141%	-.008%	61084	62917	62786	60966
ICB	9	49.500	8/7/2018 9:44:27 AM	-.001%	-2.297%	-.003%	61101	60913	60791	60957
HICV	10	48.390	8/7/2018 9:53:40 AM	3.702%	-1.670%	0.0%	61107	97346	97248	61047
SRM1650	11	.300	8/7/2018 9:59:41 AM	81.903%	232.877%	0.216%	61028	65955	65967	61007
MB	12	51.870	8/7/2018 10:04:56 A	-.004%	-1.453%	-.001%	61194	61019	60925	61100
SRM1650	13	.550	8/7/2018 10:10:10 A	61.063%	-127.024%	0.123%	61121	67878	67788	61102
MB	14	46.400	8/7/2018 10:15:25 A	0.007%	-1.033%	-.001%	60997	60937	60863	60910
SRM1650	15	.560	8/7/2018 10:22:32 A	80.806%	-247.065%	0.152%	61008	70142	70002	61000
182858011	16	8.970	8/7/2018 10:30:11 A	0.080%	-12.523%	-.001%	61018	61061	60940	60950
182858011	17	10.750	8/7/2018 10:35:26 A	0.117%	-6.371%	-.014%	61045	61108	61019	60887
182858011D	18	9.200	8/7/2018 10:40:41 A	0.099%	-8.934%	0.006%	60957	61078	60979	60929
182858011D	19	7.200	8/7/2018 10:45:56 A	0.215%	-23.973%	0.004%	60995	61231	61066	60952
182858011MS	20	10.920	8/7/2018 10:51:11 A	0.987%	-11.416%	0.008%	61105	63247	63117	61097
CCV	21	10.130	8/7/2018 11:01:51 A	1.032%	-1.352%	-.002%	61031	63039	62990	60954
CCB	22	74.240	8/7/2018 11:07:07 A	-.001%	-2.233%	0.001%	61144	61089	60929	61139
182858011MS	23	9.320	8/7/2018 11:14:01 A	1.199%	-2.205%	0.001%	61117	63290	63236	61059
182858011	24	9.250	8/7/2018 11:19:16 A	0.135%	-17.031%	0.005%	61124	61309	61155	61091
182858011	25	10.220	8/7/2018 11:24:31 A	0.179%	-12.197%	-.005%	61078	61319	61189	60984
182858011D	26	11.240	8/7/2018 11:29:47 A	0.153%	-20.962%	-.004%	61090	61313	61102	61000

Reported on 8/8/2018 5:57 AM by Alpha Analytical

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydrogen	Nitrogen	ZR	CR	HR	NR
182858011D	27	11.980	8/7/2018 11:35:02 A	0.143%	-10.177%	0.0%	61013	61260	61132	60948
182858012	28	13.240	8/7/2018 11:40:18 A	0.080%	-12.726%	-.004%	61070	61154	60992	60975
182858012	29	12.480	8/7/2018 11:45:34 A	0.078%	-5.818%	0.002%	60938	61051	60959	60888
182858013	30	14.820	8/7/2018 11:50:50 A	0.136%	-6.378%	0.005%	60858	61218	61110	60843
182858013	31	10.360	8/7/2018 11:56:06 A	0.144%	-10.843%	0.0%	60845	61052	60931	60784
182858014	32	8.990	8/7/2018 12:01:21 PM	0.279%	-10.819%	0.0%	60987	61397	61287	60923
CCV	33	9.460	8/7/2018 12:06:37 PM	1.046%	-23.314%	-.001%	60992	62893	62693	60921
CCB	34	82.070	8/7/2018 12:11:53 PM	0.006%	-1.786%	0.0%	61036	61059	60913	60988
182858014	35	12.220	8/7/2018 12:17:45 PM	0.258%	-10.986%	0.003%	60982	61550	61413	60945
182858015	36	9.850	8/7/2018 12:23:01 PM	0.192%	-10.570%	0.004%	61088	61399	61284	61050
182858015	37	7.340	8/7/2018 12:28:17 PM	0.268%	-11.944%	0.015%	60922	61296	61193	60932
182858016	38	7.500	8/7/2018 12:33:32 PM	0.177%	-10.228%	0.005%	60923	61116	61021	60882
182858016	39	10.470	8/7/2018 12:38:48 PM	0.143%	-2.224%	-.003%	60890	61077	61021	60808
182858017	40	9.660	8/7/2018 12:44:04 PM	0.157%	0.851%	-.001%	60887	61088	61055	60815
BLANK	41		8/7/2018 12:49:20 PM	-22	-117	-67	60970	60881	60764	60903
182858017	42	11.480	8/7/2018 12:54:36 PM	0.158%	4.176%	-.002%	60983	61246	61203	60906
182858018	43	9.910	8/7/2018 12:59:53 PM	0.409%	-11.611%	0.018%	60796	61639	61477	60846
182858018	44	10.280	8/7/2018 1:05:09 PM	0.617%	7.329%	0.001%	60862	62061	62038	60803
CCV	45	10.400	8/7/2018 1:17:54 PM	1.016%	-6.322%	0.003%	60925	62991	62865	60878
CCB	46	45.650	8/7/2018 1:23:10 PM	0.006%	-2.461%	0.0%	60914	60864	60704	60842
182858019	47	8.920	8/7/2018 1:36:20 PM	0.174%	-8.446%	0.004%	60950	61193	61060	60908
182858019	48	11.500	8/7/2018 1:41:37 PM	0.235%	7.385%	0.006%	60863	61361	61345	60841
182858020	49	8.800	8/7/2018 1:46:53 PM	0.059%	-2.646%	0.006%	60948	60991	60896	60915
182858020	50	8.430	8/7/2018 1:52:09 PM	0.139%	-5.362%	0.001%	60904	61053	60942	60844
182858015	51	9.280	8/7/2018 1:57:26 PM	0.190%	-8.709%	0.005%	60899	61191	61054	60862
182858015	52	7.640	8/7/2018 2:02:43 PM	0.281%	-29.585%	-.002%	60845	61179	60936	60772
182858018	53	10.430	8/7/2018 2:07:59 PM	0.403%	-8.012%	-.007%	60816	61526	61387	60703

Reported on 8/8/2018 5:57 AM by Alpha Analytical

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydrogen	Nitrogen	ZR	CR	HR	NR
182858018	53	10.430	8/7/2018 2:07:59 PM	0.403%	-8.012%	-.007%	60816	61526	61387	60703
182858018	54	9.030	8/7/2018 2:13:16 PM	0.154%	-11.074%	-.003%	60815	60988	60837	60735
182858020	55	9.070	8/7/2018 2:18:33 PM	0.048%	-8.760%	0.003%	60768	60779	60643	60720
182858020	56	5.650	8/7/2018 2:23:50 PM	0.099%	-24.973%	0.004%	60824	60857	60676	60772
CCV	57	10.030	8/7/2018 2:29:06 PM	1.021%	-5.600%	-.001%	60807	62780	62661	60733
CCB	58	71.400	8/7/2018 2:34:23 PM	-.007%	2.494%	0.0%	60881	60662	60714	60795
182858008	59	9.270	8/7/2018 2:41:25 PM	0.249%	1.773%	0.007%	60790	61204	61138	60765
182858008	60	10.260	8/7/2018 2:46:42 PM	0.214%	-18.692%	-.005%	60755	61075	60857	60659
182858011MS	61	7.080	8/7/2018 2:51:59 PM	1.525%	-12.576%	0.013%	60709	62862	62719	60702
182858011MS	62	5.760	8/7/2018 2:57:16 PM	1.970%	-36.625%	-.009%	60742	62916	62684	60644
182858004	63	10.360	8/7/2018 3:02:33 PM	0.038%	-7.934%	0.005%	60731	60751	60613	60700
182858004	64	8.610	8/7/2018 3:07:50 PM	0.026%	-6.523%	0.012%	60696	60712	60593	60696
182858005	65	7.400	8/7/2018 3:13:07 PM	0.139%	1.111%	0.005%	60739	60875	60803	60696
182858005	66	8.450	8/7/2018 3:18:24 PM	0.193%	-19.129%	-.001%	60740	60970	60774	60668
182858006	67	7.730	8/7/2018 3:23:41 PM	0.059%	-8.152%	0.002%	60752	60759	60635	60695
182858006	68	14.560	8/7/2018 3:28:58 PM	0.061%	-2.917%	-.002%	60874	60941	60832	60791
CCV	69	10.290	8/7/2018 3:35:01 PM	0.984%	-1.065%	-.001%	60894	62849	62763	60825
CCB	70	72.480	8/7/2018 3:40:18 PM	-.001%	-.491%	-.001%	60807	60667	60563	60713
182858023	71	6.460	8/7/2018 3:49:21 PM	-.010%	-16.752%	0.010%	60925	60859	60702	60901
182858023	72	8.180	8/7/2018 3:54:38 PM	0.002%	-4.354%	0.004%	60896	60828	60724	60853
CCV	73	10.130	8/7/2018 3:59:55 PM	1.028%	-8.925%	-.003%	60868	62866	62722	60784
CCB	74	77.150	8/7/2018 4:05:12 PM	0.003%	-1.065%	0.0%	60998	60932	60794	60919

Sample Raw Data

Date of report	8/7/2018 3:10:26PM
User ID	alpha

DATE & TIME	8/7/2018 8:20:50 AM		P_ID	080718SPP2	
RUN TYPE	K1		USER ID	alpha	
WEIGHT (mg)	10.170		MODE	CHN	
			SIGNALS		
			ZR	14053	AVERAGE RESULTS
KC	17.699		NR	14863	KC 17.992
KH	28.556		CR	16717	KH 28.157
KN	0.567		HR	32729	KN 5.605
BLANKS	54	1404	137		
K FACTORS	1.0%	5.03%	11.67%		
FILL TIME	21 Seconds				

DATE & TIME	8/7/2018 8:25:30 AM		P_ID	080718SPP2	
RUN TYPE	BLANK		USER ID	alpha	
			MODE	CHN	
			SIGNALS		
			ZR	14064	AVERAGE RESULTS
CARBON	47		NR	14253	CARBON 50
HYDROGEN	1729		CR	14300	HYDROGEN 1404
NITROGEN	189		HR	16029	NITROGEN 163
FILL TIME	21 Seconds				

DATE & TIME	8/7/2018 8:30:10 AM		P_ID	080718SPP2	
RUN TYPE	K1		USER ID	alpha	
WEIGHT (mg)	10.470		MODE	CHN	
			SIGNALS		
			ZR	14058	AVERAGE RESULTS
KC	18.300		NR	14100	KC 18.146
KH	27.263		CR	16066	KH 27.710
KN	-.099		HR	31828	KN 5.605
BLANKS	50	1404	163		
K FACTORS	1.0%	5.03%	11.67%		
FILL TIME	22 Seconds				

NUMBER	MESSAGE
8	CHECK FOR SAMPLE DROP

DATE & TIME	8/7/2018 8:36:10 AM		P_ID	080718SPP2	
RUN TYPE	K1		USER ID	alpha	
WEIGHT (mg)	10.330		MODE	CHN	
			SIGNALS		
			ZR	14063	AVERAGE RESULTS
KC	17.628		NR	14064	KC 17.887
KH	27.594		CR	15935	KH 27.652
KN	-.134		HR	31677	KN 5.605
BLANKS	50	1404	163		
K FACTORS	1.0%	5.03%	11.67%		
FILL TIME	22 Seconds				

NUMBER	MESSAGE
8	CHECK FOR SAMPLE DROP

DATE & TIME	8/7/2018 8:42:44 AM	P_ID	080718SPP2
SAMPLE ID	ICV	USER ID	alpha
WEIGHT (mg)	10.410	MODE	CHN

		SIGNALS	
		ZR	14064
CARBON	0.997%	NR	14079
HYDROGEN	5.159%	CR	15986
NITROGEN	-.254%	HR	32241

BLANKS	50	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 8:47:24 AM	P_ID	080718SPP2
SAMPLE ID	ICB	USER ID	alpha
WEIGHT (mg)	51.680	MODE	CHN

		SIGNALS	
		ZR	14066
CARBON	-.002%	NR	14052
HYDROGEN	0.015%	CR	14079
NITROGEN	-.061%	HR	15698

BLANKS	50	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 21 Seconds

DATE & TIME	8/7/2018 8:59:08 AM	P_ID	080718SPP2
SAMPLE ID	HICV	USER ID	alpha
WEIGHT (mg)	51.220	MODE	CHN

		SIGNALS	
		ZR	14036
CARBON	-.005%	NR	14057
HYDROGEN	-.038%	CR	14059
NITROGEN	-.049%	HR	14926

BLANKS	50	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 25 Seconds

DATE & TIME	8/7/2018 9:04:14 AM	P_ID	080718SPP2
RUN TYPE	BLANK	USER ID	alpha
		MODE	CHN

		SIGNALS		AVERAGE RESULTS	
		ZR	14045		
CARBON	-1	NR	14041	CARBON	24
HYDROGEN	627	CR	14040	HYDROGEN	1404
NITROGEN	-4	HR	14667	NITROGEN	163

FILL TIME	23 Seconds

NUMBER	MESSAGE
16	HYDROGEN BLANK OUT OF TOLERANCE

DATE & TIME	8/7/2018 9:28:52 AM	P_ID	080718SPP2
SAMPLE ID	HICV	USER ID	alpha
WEIGHT (mg)	52.130	MODE	CHN

		SIGNALS	
		ZR	14135
CARBON	2.984%	NR	13767
HYDROGEN	1.374%	CR	41615
NITROGEN	-.182%	HR	62822

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME	9 Seconds

DATE & TIME	8/7/2018 9:35:43 AM	P_ID	080718SPP2
SAMPLE ID	HICV	USER ID	alpha
WEIGHT (mg)	51.360	MODE	CHN

		SIGNALS	
		ZR	14129
CARBON	3.586%	NR	14080
HYDROGEN	1.051%	CR	47051
NITROGEN	-.074%	HR	63377

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME	8 Seconds

DATE & TIME	8/7/2018 9:42:23 AM	P_ID	080718SPP2
SAMPLE ID	SRM1650	USER ID	alpha
WEIGHT (mg)	.300	MODE	CHN

		SIGNALS	
		ZR	13261
CARBON	114.795%	NR	13752
HYDROGEN	20.999%	CR	19936
NITROGEN	19.506%	HR	23082

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME	8 Seconds

DATE & TIME	8/7/2018 9:47:59 AM	P_ID	080718SPP2
SAMPLE ID	MB	USER ID	alpha
WEIGHT (mg)	68.280	MODE	CHN

				SIGNALS	
				ZR	13050
CARBON	0.042%			NR	14116
HYDROGEN	0.023%			CR	14651
NITROGEN	0.236%			HR	16490
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	14 Seconds				

DATE & TIME	8/7/2018 9:53:21 AM	P_ID	080718SPP2
SAMPLE ID	SRM1650	USER ID	alpha
WEIGHT (mg)	.480	MODE	CHN

				SIGNALS	
				ZR	13994
CARBON	84.652%			NR	13978
HYDROGEN	-.768%			CR	21270
NITROGEN	-6.653%			HR	22572
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	21 Seconds				

DATE & TIME	8/7/2018 9:58:12 AM	P_ID	080718SPP2
SAMPLE ID	MB	USER ID	alpha
WEIGHT (mg)	59.500	MODE	CHN

				SIGNALS	
				ZR	13991
CARBON	0.0%			NR	13992
HYDROGEN	-.037%			CR	14015
NITROGEN	-.049%			HR	14804
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	21 Seconds				

DATE & TIME	8/7/2018 10:04:31 AM	P_ID	080718SPP2
SAMPLE ID	SRM1650	USER ID	alpha
WEIGHT (mg)	.390	MODE	CHN

				SIGNALS	
				ZR	13986
CARBON	76.133%			NR	14024
HYDROGEN	-4.692%			CR	19359
NITROGEN	-5.718%			HR	20257
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	21 Seconds				

DATE & TIME	8/7/2018 10:11:52 AM			P_ID	080718SPP2
SAMPLE ID	MB			USER ID	alpha
WEIGHT (mg)	50.530			MODE	CHN

				SIGNALS	
				ZR	13983
CARBON	0.0%			NR	14002
HYDROGEN	-.056%			CR	14024
NITROGEN	-.051%			HR	14642
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 21 Seconds

DATE & TIME	8/7/2018 10:19:19 AM			P_ID	080718SPP2
SAMPLE ID	182858001			USER ID	alpha
WEIGHT (mg)	9.410			MODE	CHN

				SIGNALS	
				ZR	13982
CARBON	0.188%			NR	14022
HYDROGEN	-.061%			CR	14362
NITROGEN	-.233%			HR	15608
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 21 Seconds

DATE & TIME	8/7/2018 10:23:59 AM			P_ID	080718SPP2
SAMPLE ID	182858001			USER ID	alpha
WEIGHT (mg)	9.130			MODE	CHN

				SIGNALS	
				ZR	13988
CARBON	0.163%			NR	14022
HYDROGEN	-.100%			CR	14313
NITROGEN	-.252%			HR	15464
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 21 Seconds

DATE & TIME	8/7/2018 10:28:40 AM			P_ID	080718SPP2
SAMPLE ID	182858001D			USER ID	alpha
WEIGHT (mg)	8.850			MODE	CHN

				SIGNALS	
				ZR	13988
CARBON	0.162%			NR	14022
HYDROGEN	-.127%			CR	14302
NITROGEN	-.260%			HR	15396

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 21 Seconds

DATE & TIME	8/7/2018 10:33:20 AM	P_ID	080718SPP2
SAMPLE ID	182858001D	USER ID	alpha
WEIGHT (mg)	9.530	MODE	CHN

		SIGNALS	
		ZR	13988
CARBON	0.175%	NR	14024
HYDROGEN	-.152%	CR	14346
NITROGEN	-.238%	HR	15349

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 21 Seconds

DATE & TIME	8/7/2018 10:38:00 AM	P_ID	080718SPP2
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	9.550	MODE	CHN

		SIGNALS	
		ZR	13989
CARBON	1.006%	NR	14011
HYDROGEN	5.967%	CR	15754
NITROGEN	-.263%	HR	32916

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 10:42:40 AM	P_ID	080718SPP2
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	45.270	MODE	CHN

		SIGNALS	
		ZR	14001
CARBON	0.001%	NR	14040
HYDROGEN	-.022%	CR	14072
NITROGEN	-.049%	HR	15203

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 10:48:59 AM	P_ID	080718SPP2
SAMPLE ID	182858001MS	USER ID	alpha
WEIGHT (mg)	11.890	MODE	CHN

				SIGNALS	
				ZR	13985
CARBON	1.039%			NR	14029
HYDROGEN	4.853%			CR	16262
NITROGEN	-.179%			HR	33622
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	22 Seconds				

DATE & TIME	8/7/2018 10:53:39 AM	P_ID	080718SPP2
SAMPLE ID	182858001MS	USER ID	alpha
WEIGHT (mg)	12.760	MODE	CHN

				SIGNALS	
				ZR	14002
CARBON	0.946%			NR	14045
HYDROGEN	4.602%			CR	16227
NITROGEN	-.168%			HR	33870
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	22 Seconds				

DATE & TIME	8/7/2018 10:58:20 AM	P_ID	080718SPP2
SAMPLE ID	182858001MSD	USER ID	alpha
WEIGHT (mg)	14.530	MODE	CHN

				SIGNALS	
				ZR	14007
CARBON	1.678%			NR	14055
HYDROGEN	3.925%			CR	18441
NITROGEN	-.141%			HR	35613
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	22 Seconds				

DATE & TIME	8/7/2018 11:03:00 AM	P_ID	080718SPP2
SAMPLE ID	182858001MS	USER ID	alpha
WEIGHT (mg)	8.240	MODE	CHN

				SIGNALS	
				ZR	14007
CARBON	2.285%			NR	14044
HYDROGEN	7.246%			CR	17436
NITROGEN	-.273%			HR	35350
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	22 Seconds				

DATE & TIME	8/7/2018 11:07:41 AM	P_ID	080718SPP2
SAMPLE ID	182858002	USER ID	alpha
WEIGHT (mg)	10.670	MODE	CHN

		SIGNALS	
		ZR	14008
CARBON	0.173%	NR	14049
HYDROGEN	0.310%	CR	14404
NITROGEN	-.204%	HR	16722

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 11:12:22 AM	P_ID	080718SPP2
SAMPLE ID	182858002	USER ID	alpha
WEIGHT (mg)	8.090	MODE	CHN

		SIGNALS	
		ZR	13991
CARBON	0.162%	NR	14029
HYDROGEN	0.045%	CR	14288
NITROGEN	-.276%	HR	15793

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 11:17:02 AM	P_ID	080718SPP2
SAMPLE ID	182858003	USER ID	alpha
WEIGHT (mg)	9.440	MODE	CHN

		SIGNALS	
		ZR	13987
CARBON	0.302%	NR	14032
HYDROGEN	0.098%	CR	14566
NITROGEN	-.223%	HR	16225

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 11:21:43 AM	P_ID	080718SPP2
SAMPLE ID	182858003	USER ID	alpha
WEIGHT (mg)	9.870	MODE	CHN

		SIGNALS	
		ZR	13984
CARBON	0.259%	NR	14031
HYDROGEN	0.121%	CR	14513
NITROGEN	-.210%	HR	16248

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 11:26:24 AM	P_ID	080718SPP2
SAMPLE ID	182858004	USER ID	alpha
WEIGHT (mg)	8.550	MODE	CHN

		SIGNALS	
		ZR	13982
CARBON	0.056%	NR	14012
HYDROGEN	-.188%	CR	14121
NITROGEN	-.278%	HR	15081

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 11:31:05 AM	P_ID	080718SPP2
SAMPLE ID	182858004	USER ID	alpha
WEIGHT (mg)	9.520	MODE	CHN

		SIGNALS	
		ZR	13981
CARBON	0.089%	NR	14015
HYDROGEN	-.168%	CR	14191
NITROGEN	-.242%	HR	15153

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 11:47:47 AM	P_ID	080718SPP2
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	9.980	MODE	CHN

		SIGNALS	
		ZR	13971
CARBON	1.005%	NR	13998
HYDROGEN	5.719%	CR	15816
NITROGEN	-.243%	HR	33002

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 11:52:28 AM	P_ID	080718SPP2
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	77.410	MODE	CHN

				SIGNALS	
				ZR	13986
CARBON	0.0%			NR	14011
HYDROGEN	-.006%			CR	14035
NITROGEN	-.032%			HR	15303
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 12:00:42 PM	P_ID	080718SPP2
SAMPLE ID	182858005	USER ID	alpha
WEIGHT (mg)	12.160	MODE	CHN

				SIGNALS	
				ZR	13969
CARBON	0.173%			NR	14028
HYDROGEN	0.150%			CR	14429
NITROGEN	-.153%			HR	16337
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 12:05:23 PM	P_ID	080718SPP2
SAMPLE ID	182858005	USER ID	alpha
WEIGHT (mg)	13.110	MODE	CHN

				SIGNALS	
				ZR	13972
CARBON	-.011%			NR	13996
HYDROGEN	-.250%			CR	13994
NITROGEN	-.189%			HR	14493
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 12:10:04 PM	P_ID	080718SPP2
SAMPLE ID	182858006	USER ID	alpha
WEIGHT (mg)	8.520	MODE	CHN

				SIGNALS	
				ZR	13973
CARBON	0.295%			NR	14022
HYDROGEN	0.211%			CR	14496
NITROGEN	-.239%			HR	16398
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 12:14:45 PM			P_ID	080718SPP2
SAMPLE ID	182858006			USER ID	alpha
WEIGHT (mg)	9.570			MODE	CHN

SIGNALS	
ZR	13970
NR	14006
CR	14154
HR	15134

CARBON	0.072%		
HYDROGEN	-.160%		
NITROGEN	-.237%		
BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 12:19:26 PM			P_ID	080718SPP2
SAMPLE ID	182858007			USER ID	alpha
WEIGHT (mg)	10.790			MODE	CHN

SIGNALS	
ZR	13972
NR	14005
CR	14164
HR	15195

CARBON	0.070%		
HYDROGEN	-.125%		
NITROGEN	-.215%		
BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 12:24:07 PM			P_ID	080718SPP2
SAMPLE ID	182858007			USER ID	alpha
WEIGHT (mg)	10.310			MODE	CHN

SIGNALS	
ZR	13972
NR	14005
CR	14155
HR	15370

CARBON	0.068%		
HYDROGEN	-.066%		
NITROGEN	-.225%		
BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 12:28:49 PM			P_ID	080718SPP2
SAMPLE ID	182858008			USER ID	alpha
WEIGHT (mg)	10.620			MODE	CHN

SIGNALS	
ZR	13970
NR	14001
CR	14143
HR	15184

CARBON	0.062%
HYDROGEN	-.124%
NITROGEN	-.222%

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 12:33:30 PM	P_ID	080718SPP2
SAMPLE ID	182858008	USER ID	alpha
WEIGHT (mg)	7.670	MODE	CHN

		SIGNALS	
		ZR	13969
CARBON	0.227%	NR	14001
HYDROGEN	0.135%	CR	14336
NITROGEN	-.305%	HR	16027

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 12:38:11 PM	P_ID	080718SPP2
SAMPLE ID	182858009	USER ID	alpha
WEIGHT (mg)	14.820	MODE	CHN

		SIGNALS	
		ZR	13971
CARBON	0.052%	NR	14001
HYDROGEN	-.005%	CR	14162
NITROGEN	-.160%	HR	15544

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 12:42:53 PM	P_ID	080718SPP2
SAMPLE ID	182858009	USER ID	alpha
WEIGHT (mg)	10.700	MODE	CHN

		SIGNALS	
		ZR	13971
CARBON	0.060%	NR	14008
HYDROGEN	-.001%	CR	14146
NITROGEN	-.210%	HR	15547

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 1:04:09 PM	P_ID	080718SPP2
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.590	MODE	CHN

				SIGNALS	
				ZR	13958
CARBON	1.085%			NR	14001
HYDROGEN	5.242%			CR	16081
NITROGEN	-.202%			HR	32834
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 1:08:50 PM	P_ID	080718SPP2
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	75.980	MODE	CHN

				SIGNALS	
				ZR	13977
CARBON	0.0%			NR	14004
HYDROGEN	-.002%			CR	14030
NITROGEN	-.032%			HR	15394
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 1:19:42 PM	P_ID	080718SPP2
SAMPLE ID	182858010	USER ID	alpha
WEIGHT (mg)	10.640	MODE	CHN

				SIGNALS	
				ZR	13958
CARBON	0.026%			NR	13989
HYDROGEN	0.156%			CR	14063
NITROGEN	-.221%			HR	15925
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 1:24:23 PM	P_ID	080718SPP2
SAMPLE ID	182858010	USER ID	alpha
WEIGHT (mg)	10.130	MODE	CHN

				SIGNALS	
				ZR	13965
CARBON	0.021%			NR	14015
HYDROGEN	0.059%			CR	14077
NITROGEN	-.199%			HR	15645
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 1:29:05 PM	P_ID	080718SPP2
SAMPLE ID	182858021	USER ID	alpha
WEIGHT (mg)	7.320	MODE	CHN

		SIGNALS	
		ZR	13966
CARBON	0.120%	NR	14071
HYDROGEN	0.054%	CR	14252
NITROGEN	-.141%	HR	15766

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 1:33:46 PM	P_ID	080718SPP2
SAMPLE ID	182858021	USER ID	alpha
WEIGHT (mg)	6.050	MODE	CHN

		SIGNALS	
		ZR	13962
CARBON	0.124%	NR	14178
HYDROGEN	-.027%	CR	14336
NITROGEN	0.156%	HR	15694

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 1:38:28 PM	P_ID	080718SPP2
SAMPLE ID	182858022	USER ID	alpha
WEIGHT (mg)	5.820	MODE	CHN

		SIGNALS	
		ZR	13966
CARBON	0.010%	NR	14417
HYDROGEN	-.284%	CR	14451
NITROGEN	0.883%	HR	15398

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 1:43:09 PM	P_ID	080718SPP2
SAMPLE ID	182858022	USER ID	alpha
WEIGHT (mg)	5.370	MODE	CHN

		SIGNALS	
		ZR	13968
CARBON	0.010%	NR	14896
HYDROGEN	-.288%	CR	14930
NITROGEN	2.542%	HR	15906

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 1:47:51 PM	P_ID	080718SPP2
SAMPLE ID	182858023	USER ID	alpha
WEIGHT (mg)	7.950	MODE	CHN

		SIGNALS	
		ZR	13964
CARBON	0.007%	NR	16202
HYDROGEN	-.201%	CR	16236
NITROGEN	4.657%	HR	17199

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 1:52:33 PM	P_ID	080718SPP2
SAMPLE ID	182858023	USER ID	alpha
WEIGHT (mg)	7.750	MODE	CHN

		SIGNALS	
		ZR	13961
CARBON	-.004%	NR	17655
HYDROGEN	-.186%	CR	17674
NITROGEN	8.129%	HR	18679

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 1:57:15 PM	P_ID	080718SPP2
SAMPLE ID	182858024	USER ID	alpha
WEIGHT (mg)	9.080	MODE	CHN

		SIGNALS	
		ZR	13965
CARBON	0.025%	NR	20712
HYDROGEN	-.107%	CR	20776
NITROGEN	12.937%	HR	21912

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 2:01:56 PM	P_ID	080718SPP2
SAMPLE ID	182858024	USER ID	alpha
WEIGHT (mg)	7.480	MODE	CHN

				SIGNALS	
				ZR	13964
CARBON	0.074%			NR	23262
HYDROGEN	-.209%			CR	23385
NITROGEN	21.789%			HR	24357
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 2:07:42 PM	P_ID	080718SPP2
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	9.960	MODE	CHN

				SIGNALS	
				ZR	13968
CARBON	0.939%			NR	27197
HYDROGEN	5.828%			CR	28893
NITROGEN	23.405%			HR	46348
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 2:12:24 PM	P_ID	080718SPP2
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	112.650	MODE	CHN

				SIGNALS	
				ZR	13978
CARBON	0.012%			NR	32446
HYDROGEN	0.005%			CR	32702
NITROGEN	2.899%			HR	34259
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 2:20:18 PM	P_ID	080718SPP2
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	53.540	MODE	CHN

				SIGNALS	
				ZR	13963
CARBON	0.007%			NR	23397
HYDROGEN	-.045%			CR	23489
NITROGEN	3.089%			HR	24222
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

Date of report	8/7/2018 3:11:09PM
User ID	alpha

DATE & TIME	8/7/2018 8:20:50 AM			P_ID	080718SPP2
RUN TYPE	K1			USER ID	alpha
WEIGHT (mg)	10.170			MODE	CHN

SIGNALS

						AVERAGE RESULTS	
				ZR	14053		
KC	17.699			NR	14863	KC	17.992
KH	28.556			CR	16717	KH	28.157
KN	0.567			HR	32729	KN	5.605
BLANKS	54	1404	137				
K FACTORS	1.0%	5.03%	11.67%				
FILL TIME	21 Seconds						

DATE & TIME	8/7/2018 8:25:30 AM			P_ID	080718SPP2
RUN TYPE	BLANK			USER ID	alpha
				MODE	CHN

SIGNALS

						AVERAGE RESULTS	
				ZR	14064		
CARBON	47			NR	14253	CARBON	50
HYDROGEN	1729			CR	14300	HYDROGEN	1404
NITROGEN	189			HR	16029	NITROGEN	163
FILL TIME	21 Seconds						

DATE & TIME	8/7/2018 8:30:10 AM			P_ID	080718SPP2
RUN TYPE	K1			USER ID	alpha
WEIGHT (mg)	10.470			MODE	CHN

SIGNALS

						AVERAGE RESULTS	
				ZR	14058		
KC	18.300			NR	14100	KC	18.146
KH	27.263			CR	16066	KH	27.710
KN	-.099			HR	31828	KN	5.605
BLANKS	50	1404	163				
K FACTORS	1.0%	5.03%	11.67%				
FILL TIME	22 Seconds						

NUMBER	MESSAGE
8	CHECK FOR SAMPLE DROP

DATE & TIME	8/7/2018 8:36:10 AM			P_ID	080718SPP2
RUN TYPE	K1			USER ID	alpha
WEIGHT (mg)	10.330			MODE	CHN

SIGNALS

						AVERAGE RESULTS	
				ZR	14063		
KC	17.628			NR	14064	KC	17.887
KH	27.594			CR	15935	KH	27.652
KN	-.134			HR	31677	KN	5.605
BLANKS	50	1404	163				
K FACTORS	1.0%	5.03%	11.67%				
FILL TIME	22 Seconds						

NUMBER	MESSAGE
8	CHECK FOR SAMPLE DROP

DATE & TIME	8/7/2018 8:42:44 AM			P_ID	080718SPP2
SAMPLE ID	ICV			USER ID	alpha
WEIGHT (mg)	10.410			MODE	CHN

SIGNALS

ZR	14064		
NR	14079		
CR	15986		
HR	32241		

CARBON	0.997%		
HYDROGEN	5.159%		
NITROGEN	-.254%		
BLANKS	50	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 8:47:24 AM			P_ID	080718SPP2
SAMPLE ID	ICB			USER ID	alpha
WEIGHT (mg)	51.680			MODE	CHN

SIGNALS

ZR	14066		
NR	14052		
CR	14079		
HR	15698		

CARBON	-.002%		
HYDROGEN	0.015%		
NITROGEN	-.061%		
BLANKS	50	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 21 Seconds

DATE & TIME	8/7/2018 8:59:08 AM			P_ID	080718SPP2
SAMPLE ID	HICV			USER ID	alpha
WEIGHT (mg)	51.220			MODE	CHN

SIGNALS

ZR	14036		
NR	14057		
CR	14059		
HR	14926		

CARBON	-.005%		
HYDROGEN	-.038%		
NITROGEN	-.049%		
BLANKS	50	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 25 Seconds

DATE & TIME	8/7/2018 9:04:14 AM			P_ID	080718SPP2
RUN TYPE	BLANK			USER ID	alpha
				MODE	CHN

SIGNALS

ZR	14045		
NR	14041		
CR	14040		
HR	14667		

CARBON	-1
HYDROGEN	627
NITROGEN	-4

AVERAGE RESULTS

CARBON	24
HYDROGEN	1404
NITROGEN	163

FILL TIME	23 Seconds

NUMBER	MESSAGE
16	HYDROGEN BLANK OUT OF TOLERANCE

DATE & TIME	8/7/2018 9:28:52 AM	P_ID	080718SPP2
SAMPLE ID	HICV	USER ID	alpha
WEIGHT (mg)	52.130	MODE	CHN

		SIGNALS	
		ZR	14135
CARBON	2.984%	NR	13767
HYDROGEN	1.374%	CR	41615
NITROGEN	-.182%	HR	62822

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME	9 Seconds

DATE & TIME	8/7/2018 9:35:43 AM	P_ID	080718SPP2
SAMPLE ID	HICV	USER ID	alpha
WEIGHT (mg)	51.360	MODE	CHN

		SIGNALS	
		ZR	14129
CARBON	3.586%	NR	14080
HYDROGEN	1.051%	CR	47051
NITROGEN	-.074%	HR	63377

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME	8 Seconds

DATE & TIME	8/7/2018 9:42:23 AM	P_ID	080718SPP2
SAMPLE ID	SRM1650	USER ID	alpha
WEIGHT (mg)	.300	MODE	CHN

		SIGNALS	
		ZR	13261
CARBON	114.795%	NR	13752
HYDROGEN	20.999%	CR	19936
NITROGEN	19.506%	HR	23082

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME	8 Seconds

DATE & TIME	8/7/2018 9:47:59 AM	P_ID	080718SPP2
SAMPLE ID	MB	USER ID	alpha
WEIGHT (mg)	68.280	MODE	CHN

				SIGNALS	
				ZR	13050
CARBON	0.042%			NR	14116
HYDROGEN	0.023%			CR	14651
NITROGEN	0.236%			HR	16490
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	14 Seconds				

DATE & TIME	8/7/2018 9:53:21 AM	P_ID	080718SPP2
SAMPLE ID	SRM1650	USER ID	alpha
WEIGHT (mg)	.480	MODE	CHN

				SIGNALS	
				ZR	13994
CARBON	84.652%			NR	13978
HYDROGEN	-.768%			CR	21270
NITROGEN	-6.653%			HR	22572
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	21 Seconds				

DATE & TIME	8/7/2018 9:58:12 AM	P_ID	080718SPP2
SAMPLE ID	MB	USER ID	alpha
WEIGHT (mg)	59.500	MODE	CHN

				SIGNALS	
				ZR	13991
CARBON	0.0%			NR	13992
HYDROGEN	-.037%			CR	14015
NITROGEN	-.049%			HR	14804
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	21 Seconds				

DATE & TIME	8/7/2018 10:04:31 AM	P_ID	080718SPP2
SAMPLE ID	SRM1650	USER ID	alpha
WEIGHT (mg)	.390	MODE	CHN

				SIGNALS	
				ZR	13986
CARBON	76.133%			NR	14024
HYDROGEN	-4.692%			CR	19359
NITROGEN	-5.718%			HR	20257
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	21 Seconds				

DATE & TIME	8/7/2018 10:11:52 AM	P_ID	080718SPP2
SAMPLE ID	MB	USER ID	alpha
WEIGHT (mg)	50.530	MODE	CHN

		SIGNALS	
		ZR	13983
CARBON	0.0%	NR	14002
HYDROGEN	-.056%	CR	14024
NITROGEN	-.051%	HR	14642

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 21 Seconds

DATE & TIME	8/7/2018 10:19:19 AM	P_ID	080718SPP2
SAMPLE ID	182858001	USER ID	alpha
WEIGHT (mg)	9.410	MODE	CHN

		SIGNALS	
		ZR	13982
CARBON	0.188%	NR	14022
HYDROGEN	-.061%	CR	14362
NITROGEN	-.233%	HR	15608

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 21 Seconds

DATE & TIME	8/7/2018 10:23:59 AM	P_ID	080718SPP2
SAMPLE ID	182858001	USER ID	alpha
WEIGHT (mg)	9.130	MODE	CHN

		SIGNALS	
		ZR	13988
CARBON	0.163%	NR	14022
HYDROGEN	-.100%	CR	14313
NITROGEN	-.252%	HR	15464

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 21 Seconds

DATE & TIME	8/7/2018 10:28:40 AM	P_ID	080718SPP2
SAMPLE ID	182858001D	USER ID	alpha
WEIGHT (mg)	8.850	MODE	CHN

		SIGNALS	
		ZR	13988
CARBON	0.162%	NR	14022
HYDROGEN	-.127%	CR	14302
NITROGEN	-.260%	HR	15396

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 21 Seconds

DATE & TIME	8/7/2018 10:33:20 AM	P_ID	080718SPP2
SAMPLE ID	182858001D	USER ID	alpha
WEIGHT (mg)	9.530	MODE	CHN

		SIGNALS	
		ZR	13988
CARBON	0.175%	NR	14024
HYDROGEN	-.152%	CR	14346
NITROGEN	-.238%	HR	15349

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 21 Seconds

DATE & TIME	8/7/2018 10:38:00 AM	P_ID	080718SPP2
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	9.550	MODE	CHN

		SIGNALS	
		ZR	13989
CARBON	1.006%	NR	14011
HYDROGEN	5.967%	CR	15754
NITROGEN	-.263%	HR	32916

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 10:42:40 AM	P_ID	080718SPP2
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	45.270	MODE	CHN

		SIGNALS	
		ZR	14001
CARBON	0.001%	NR	14040
HYDROGEN	-.022%	CR	14072
NITROGEN	-.049%	HR	15203

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 10:48:59 AM	P_ID	080718SPP2
SAMPLE ID	182858001MS	USER ID	alpha
WEIGHT (mg)	11.890	MODE	CHN

				SIGNALS	
				ZR	13985
CARBON	1.039%			NR	14029
HYDROGEN	4.853%			CR	16262
NITROGEN	-.179%			HR	33622
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	22 Seconds				

DATE & TIME	8/7/2018 10:53:39 AM	P_ID	080718SPP2
SAMPLE ID	182858001MS	USER ID	alpha
WEIGHT (mg)	12.760	MODE	CHN

				SIGNALS	
				ZR	14002
CARBON	0.946%			NR	14045
HYDROGEN	4.602%			CR	16227
NITROGEN	-.168%			HR	33870
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	22 Seconds				

DATE & TIME	8/7/2018 10:58:20 AM	P_ID	080718SPP2
SAMPLE ID	182858001MSD	USER ID	alpha
WEIGHT (mg)	14.530	MODE	CHN

				SIGNALS	
				ZR	14007
CARBON	1.678%			NR	14055
HYDROGEN	3.925%			CR	18441
NITROGEN	-.141%			HR	35613
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	22 Seconds				

DATE & TIME	8/7/2018 11:03:00 AM	P_ID	080718SPP2
SAMPLE ID	182858001MS	USER ID	alpha
WEIGHT (mg)	8.240	MODE	CHN

				SIGNALS	
				ZR	14007
CARBON	2.285%			NR	14044
HYDROGEN	7.246%			CR	17436
NITROGEN	-.273%			HR	35350
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	22 Seconds				

DATE & TIME	8/7/2018 11:07:41 AM	P_ID	080718SPP2
SAMPLE ID	182858002	USER ID	alpha
WEIGHT (mg)	10.670	MODE	CHN

		SIGNALS	
		ZR	14008
CARBON	0.173%	NR	14049
HYDROGEN	0.310%	CR	14404
NITROGEN	-.204%	HR	16722

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 11:12:22 AM	P_ID	080718SPP2
SAMPLE ID	182858002	USER ID	alpha
WEIGHT (mg)	8.090	MODE	CHN

		SIGNALS	
		ZR	13991
CARBON	0.162%	NR	14029
HYDROGEN	0.045%	CR	14288
NITROGEN	-.276%	HR	15793

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 11:17:02 AM	P_ID	080718SPP2
SAMPLE ID	182858003	USER ID	alpha
WEIGHT (mg)	9.440	MODE	CHN

		SIGNALS	
		ZR	13987
CARBON	0.302%	NR	14032
HYDROGEN	0.098%	CR	14566
NITROGEN	-.223%	HR	16225

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 11:21:43 AM	P_ID	080718SPP2
SAMPLE ID	182858003	USER ID	alpha
WEIGHT (mg)	9.870	MODE	CHN

		SIGNALS	
		ZR	13984
CARBON	0.259%	NR	14031
HYDROGEN	0.121%	CR	14513
NITROGEN	-.210%	HR	16248

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 11:26:24 AM	P_ID	080718SPP2
SAMPLE ID	182858004	USER ID	alpha
WEIGHT (mg)	8.550	MODE	CHN

		SIGNALS	
		ZR	13982
CARBON	0.056%	NR	14012
HYDROGEN	-.188%	CR	14121
NITROGEN	-.278%	HR	15081

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 11:31:05 AM	P_ID	080718SPP2
SAMPLE ID	182858004	USER ID	alpha
WEIGHT (mg)	9.520	MODE	CHN

		SIGNALS	
		ZR	13981
CARBON	0.089%	NR	14015
HYDROGEN	-.168%	CR	14191
NITROGEN	-.242%	HR	15153

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 11:47:47 AM	P_ID	080718SPP2
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	9.980	MODE	CHN

		SIGNALS	
		ZR	13971
CARBON	1.005%	NR	13998
HYDROGEN	5.719%	CR	15816
NITROGEN	-.243%	HR	33002

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 11:52:28 AM	P_ID	080718SPP2
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	77.410	MODE	CHN

				SIGNALS	
				ZR	13986
CARBON	0.0%			NR	14011
HYDROGEN	-.006%			CR	14035
NITROGEN	-.032%			HR	15303
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 12:00:42 PM	P_ID	080718SPP2
SAMPLE ID	182858005	USER ID	alpha
WEIGHT (mg)	12.160	MODE	CHN

				SIGNALS	
				ZR	13969
CARBON	0.173%			NR	14028
HYDROGEN	0.150%			CR	14429
NITROGEN	-.153%			HR	16337
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 12:05:23 PM	P_ID	080718SPP2
SAMPLE ID	182858005	USER ID	alpha
WEIGHT (mg)	13.110	MODE	CHN

				SIGNALS	
				ZR	13972
CARBON	-.011%			NR	13996
HYDROGEN	-.250%			CR	13994
NITROGEN	-.189%			HR	14493
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 12:10:04 PM	P_ID	080718SPP2
SAMPLE ID	182858006	USER ID	alpha
WEIGHT (mg)	8.520	MODE	CHN

				SIGNALS	
				ZR	13973
CARBON	0.295%			NR	14022
HYDROGEN	0.211%			CR	14496
NITROGEN	-.239%			HR	16398
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 12:14:45 PM	P_ID	080718SPP2
SAMPLE ID	182858006	USER ID	alpha
WEIGHT (mg)	9.570	MODE	CHN

		SIGNALS	
		ZR	13970
CARBON	0.072%	NR	14006
HYDROGEN	-.160%	CR	14154
NITROGEN	-.237%	HR	15134

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 12:19:26 PM	P_ID	080718SPP2
SAMPLE ID	182858007	USER ID	alpha
WEIGHT (mg)	10.790	MODE	CHN

		SIGNALS	
		ZR	13972
CARBON	0.070%	NR	14005
HYDROGEN	-.125%	CR	14164
NITROGEN	-.215%	HR	15195

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 12:24:07 PM	P_ID	080718SPP2
SAMPLE ID	182858007	USER ID	alpha
WEIGHT (mg)	10.310	MODE	CHN

		SIGNALS	
		ZR	13972
CARBON	0.068%	NR	14005
HYDROGEN	-.066%	CR	14155
NITROGEN	-.225%	HR	15370

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/7/2018 12:28:49 PM	P_ID	080718SPP2
SAMPLE ID	182858008	USER ID	alpha
WEIGHT (mg)	10.620	MODE	CHN

		SIGNALS	
		ZR	13970
CARBON	0.062%	NR	14001
HYDROGEN	-.124%	CR	14143
NITROGEN	-.222%	HR	15184

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 12:33:30 PM	P_ID	080718SPP2
SAMPLE ID	182858008	USER ID	alpha
WEIGHT (mg)	7.670	MODE	CHN

		SIGNALS	
		ZR	13969
CARBON	0.227%	NR	14001
HYDROGEN	0.135%	CR	14336
NITROGEN	-.305%	HR	16027

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 12:38:11 PM	P_ID	080718SPP2
SAMPLE ID	182858009	USER ID	alpha
WEIGHT (mg)	14.820	MODE	CHN

		SIGNALS	
		ZR	13971
CARBON	0.052%	NR	14001
HYDROGEN	-.005%	CR	14162
NITROGEN	-.160%	HR	15544

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 12:42:53 PM	P_ID	080718SPP2
SAMPLE ID	182858009	USER ID	alpha
WEIGHT (mg)	10.700	MODE	CHN

		SIGNALS	
		ZR	13971
CARBON	0.060%	NR	14008
HYDROGEN	-.001%	CR	14146
NITROGEN	-.210%	HR	15547

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 1:04:09 PM	P_ID	080718SPP2
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.590	MODE	CHN

				SIGNALS	
				ZR	13958
CARBON	1.085%			NR	14001
HYDROGEN	5.242%			CR	16081
NITROGEN	-.202%			HR	32834
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	22 Seconds				

DATE & TIME	8/7/2018 1:08:50 PM	P_ID	080718SPP2
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	75.980	MODE	CHN

				SIGNALS	
				ZR	13977
CARBON	0.0%			NR	14004
HYDROGEN	-.002%			CR	14030
NITROGEN	-.032%			HR	15394
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	22 Seconds				

DATE & TIME	8/7/2018 1:19:42 PM	P_ID	080718SPP2
SAMPLE ID	182858010	USER ID	alpha
WEIGHT (mg)	10.640	MODE	CHN

				SIGNALS	
				ZR	13958
CARBON	0.026%			NR	13989
HYDROGEN	0.156%			CR	14063
NITROGEN	-.221%			HR	15925
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	23 Seconds				

DATE & TIME	8/7/2018 1:24:23 PM	P_ID	080718SPP2
SAMPLE ID	182858010	USER ID	alpha
WEIGHT (mg)	10.130	MODE	CHN

				SIGNALS	
				ZR	13965
CARBON	0.021%			NR	14015
HYDROGEN	0.059%			CR	14077
NITROGEN	-.199%			HR	15645
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	23 Seconds				

DATE & TIME	8/7/2018 1:29:05 PM	P_ID	080718SPP2
SAMPLE ID	182858021	USER ID	alpha
WEIGHT (mg)	7.320	MODE	CHN

		SIGNALS	
		ZR	13966
CARBON	0.120%	NR	14071
HYDROGEN	0.054%	CR	14252
NITROGEN	-.141%	HR	15766
BLANKS	24 1404 163		
K FACTORS	17.887 27.652 5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 1:33:46 PM	P_ID	080718SPP2
SAMPLE ID	182858021	USER ID	alpha
WEIGHT (mg)	6.050	MODE	CHN

		SIGNALS	
		ZR	13962
CARBON	0.124%	NR	14178
HYDROGEN	-.027%	CR	14336
NITROGEN	0.156%	HR	15694
BLANKS	24 1404 163		
K FACTORS	17.887 27.652 5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 1:38:28 PM	P_ID	080718SPP2
SAMPLE ID	182858022	USER ID	alpha
WEIGHT (mg)	5.820	MODE	CHN

		SIGNALS	
		ZR	13966
CARBON	0.010%	NR	14417
HYDROGEN	-.284%	CR	14451
NITROGEN	0.883%	HR	15398
BLANKS	24 1404 163		
K FACTORS	17.887 27.652 5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 1:43:09 PM	P_ID	080718SPP2
SAMPLE ID	182858022	USER ID	alpha
WEIGHT (mg)	5.370	MODE	CHN

		SIGNALS	
		ZR	13968
CARBON	0.010%	NR	14896
HYDROGEN	-.288%	CR	14930
NITROGEN	2.542%	HR	15906

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 1:47:51 PM	P_ID	080718SPP2
SAMPLE ID	182858023	USER ID	alpha
WEIGHT (mg)	7.950	MODE	CHN

		SIGNALS	
		ZR	13964
CARBON	0.007%	NR	16202
HYDROGEN	-.201%	CR	16236
NITROGEN	4.657%	HR	17199

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 1:52:33 PM	P_ID	080718SPP2
SAMPLE ID	182858023	USER ID	alpha
WEIGHT (mg)	7.750	MODE	CHN

		SIGNALS	
		ZR	13961
CARBON	-.004%	NR	17655
HYDROGEN	-.186%	CR	17674
NITROGEN	8.129%	HR	18679

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 1:57:15 PM	P_ID	080718SPP2
SAMPLE ID	182858024	USER ID	alpha
WEIGHT (mg)	9.080	MODE	CHN

		SIGNALS	
		ZR	13965
CARBON	0.025%	NR	20712
HYDROGEN	-.107%	CR	20776
NITROGEN	12.937%	HR	21912

BLANKS	24	1404	163
K FACTORS	17.887	27.652	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/7/2018 2:01:56 PM	P_ID	080718SPP2
SAMPLE ID	182858024	USER ID	alpha
WEIGHT (mg)	7.480	MODE	CHN

				SIGNALS	
				ZR	13964
CARBON	0.074%			NR	23262
HYDROGEN	-.209%			CR	23385
NITROGEN	21.789%			HR	24357
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	23 Seconds				

DATE & TIME	8/7/2018 2:07:42 PM	P_ID	080718SPP2
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	9.960	MODE	CHN

				SIGNALS	
				ZR	13968
CARBON	0.939%			NR	27197
HYDROGEN	5.828%			CR	28893
NITROGEN	23.405%			HR	46348
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	23 Seconds				

DATE & TIME	8/7/2018 2:12:24 PM	P_ID	080718SPP2
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	112.650	MODE	CHN

				SIGNALS	
				ZR	13978
CARBON	0.012%			NR	32446
HYDROGEN	0.005%			CR	32702
NITROGEN	2.899%			HR	34259
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	23 Seconds				

DATE & TIME	8/7/2018 2:20:18 PM	P_ID	080718SPP2
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	53.540	MODE	CHN

				SIGNALS	
				ZR	13963
CARBON	0.007%			NR	23397
HYDROGEN	-.045%			CR	23489
NITROGEN	3.089%			HR	24222
BLANKS	24	1404	163		
K FACTORS	17.887	27.652	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	23 Seconds				

Date of report	8/8/2018 5:57:29AM
User ID	Alpha Analytical

DATE & TIME	8/7/2018 8:33:41 AM		P_ID	080718SPP	
RUN TYPE	BLANK		USER ID	alpha	
			MODE	CHN	
		SIGNALS			
		ZR	60947	AVERAGE RESULTS	
CARBON	-42	NR	60897	CARBON	-3
HYDROGEN	-68	CR	60855	HYDROGEN	-84
NITROGEN	-50	HR	60787	NITROGEN	138566
FILL TIME	50 Seconds				

NUMBER	MESSAGE
17	NITROGEN BLANK OUT OF TOLERANCE

DATE & TIME	8/7/2018 8:42:35 AM		P_ID	080718SPP	
RUN TYPE	BLANK		USER ID	alpha	
			MODE	CHN	
		SIGNALS			
		ZR	61010	AVERAGE RESULTS	
CARBON	-49	NR	60935	CARBON	-49
HYDROGEN	-133	CR	60886	HYDROGEN	-133
NITROGEN	-75	HR	60753	NITROGEN	-75
FILL TIME	50 Seconds				

DATE & TIME	8/7/2018 8:47:49 AM		P_ID	080718SPP	
RUN TYPE	BLANK		USER ID	alpha	
			MODE	CHN	
		SIGNALS			
		ZR	60931	AVERAGE RESULTS	
CARBON	-48	NR	60879	CARBON	-48
HYDROGEN	-39	CR	60831	HYDROGEN	-39
NITROGEN	-52	HR	60792	NITROGEN	-52
FILL TIME	50 Seconds				

DATE & TIME	8/7/2018 8:56:22 AM		P_ID	080718SPP	
RUN TYPE	K1		USER ID	alpha	
WEIGHT (mg)	9.790		MODE	CHN	
		SIGNALS			
		ZR	60994	AVERAGE RESULTS	
KC	20.174	NR	60917	KC	18.715
KH	-.282	CR	62844	KH	0.073
KN	-.022	HR	62666	KN	64.794
BLANKS	-48 -39 -52				
K FACTORS	1.0% 5.03% 11.67%				
FILL TIME	50 Seconds				

NUMBER	MESSAGE
8	CHECK FOR SAMPLE DROP

DATE & TIME	8/7/2018 9:04:15 AM	P_ID	080718SPP
RUN TYPE	BLANK	USER ID	alpha
		MODE	CHN

SIGNALS

ZR	60983
NR	60909
CR	60887
HR	60730

CARBON	-22
HYDROGEN	-157
NITROGEN	-74
FILL TIME	50 Seconds

AVERAGE RESULTS

CARBON	-35
HYDROGEN	-39
NITROGEN	-63

DATE & TIME	8/7/2018 9:09:29 AM	P_ID	080718SPP
RUN TYPE	K1	USER ID	alpha
WEIGHT (mg)	10.200	MODE	CHN

SIGNALS

ZR	61037
NR	60914
CR	62936
HR	62811

KC	20.167
KH	-.168
KN	-.050
BLANKS	-35 -39 -63
K FACTORS	1.0% 5.03% 11.67%
FILL TIME	50 Seconds

AVERAGE RESULTS

KC	19.441
KH	0.073
KN	64.794

NUMBER	MESSAGE
8	CHECK FOR SAMPLE DROP

DATE & TIME	8/7/2018 9:31:24 AM	P_ID	080718SPP
RUN TYPE	K1	USER ID	alpha
WEIGHT (mg)	9.550	MODE	CHN

SIGNALS

ZR	60970
NR	60915
CR	62897
HR	62834

KC	21.120
KH	-.050
KN	0.007
BLANKS	-35 -39 -63
K FACTORS	1.0% 5.03% 11.67%
FILL TIME	50 Seconds

AVERAGE RESULTS

KC	20.280
KH	0.073
KN	64.794

NUMBER	MESSAGE
8	CHECK FOR SAMPLE DROP

DATE & TIME	8/7/2018 9:38:42 AM	P_ID	080718SPP
SAMPLE ID	ICV	USER ID	alpha
WEIGHT (mg)	10.380	MODE	CHN

SIGNALS

ZR	61084
NR	60966
CR	62917
HR	62786

CARBON	0.943%
HYDROGEN	-12.141%
NITROGEN	-.008%
BLANKS	-35 -39 -63
K FACTORS	20.280 0.073 64.794
FILL	COMB BOOST1 BOOST2
1	2 1 1
FILL TIME	50 Seconds

DATE & TIME	8/7/2018 9:44:27 AM			P_ID	080718SPP
SAMPLE ID	ICB			USER ID	alpha
WEIGHT (mg)	49.500			MODE	CHN

				SIGNALS	
				ZR	61101
CARBON	-.001%			NR	60957
HYDROGEN	-2.297%			CR	60913
NITROGEN	-.003%			HR	60791
BLANKS	-35	-39	-63		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	51 Seconds				

DATE & TIME	8/7/2018 9:53:40 AM			P_ID	080718SPP
SAMPLE ID	HICV			USER ID	alpha
WEIGHT (mg)	48.390			MODE	CHN

				SIGNALS	
				ZR	61107
CARBON	3.702%			NR	61047
HYDROGEN	-1.670%			CR	97346
NITROGEN	0.0%			HR	97248
BLANKS	-35	-39	-63		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	51 Seconds				

DATE & TIME	8/7/2018 9:59:41 AM			P_ID	080718SPP
SAMPLE ID	SRM1650			USER ID	alpha
WEIGHT (mg)	.300			MODE	CHN

				SIGNALS	
				ZR	61028
CARBON	81.903%			NR	61007
HYDROGEN	232.877%			CR	65955
NITROGEN	0.216%			HR	65967
BLANKS	-35	-39	-63		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	50 Seconds				

DATE & TIME	8/7/2018 10:04:56 AM			P_ID	080718SPP
SAMPLE ID	MB			USER ID	alpha
WEIGHT (mg)	51.870			MODE	CHN

				SIGNALS	
				ZR	61194
CARBON	-.004%			NR	61100
HYDROGEN	-1.453%			CR	61019
NITROGEN	-.001%			HR	60925

BLANKS	-35	-39	-63
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 51 Seconds

DATE & TIME	8/7/2018 10:10:10 AM	P_ID	080718SPP
SAMPLE ID	SRM1650	USER ID	alpha
WEIGHT (mg)	.550	MODE	CHN

		SIGNALS	
		ZR	61121
CARBON	61.063%	NR	61102
HYDROGEN	-127.024%	CR	67878
NITROGEN	0.123%	HR	67788
BLANKS	-35	-39	-63
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 51 Seconds

DATE & TIME	8/7/2018 10:15:25 AM	P_ID	080718SPP
SAMPLE ID	MB	USER ID	alpha
WEIGHT (mg)	46.400	MODE	CHN

		SIGNALS	
		ZR	60997
CARBON	0.007%	NR	60910
HYDROGEN	-1.033%	CR	60937
NITROGEN	-.001%	HR	60863
BLANKS	-35	-39	-63
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/7/2018 10:22:32 AM	P_ID	080718SPP
SAMPLE ID	SRM1650	USER ID	alpha
WEIGHT (mg)	.560	MODE	CHN

		SIGNALS	
		ZR	61008
CARBON	80.806%	NR	61000
HYDROGEN	-247.065%	CR	70142
NITROGEN	0.152%	HR	70002
BLANKS	-35	-39	-63
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/7/2018 10:30:11 AM	P_ID	080718SPP
SAMPLE ID	182858011	USER ID	alpha
WEIGHT (mg)	8.970	MODE	CHN

				SIGNALS	
				ZR	61018
	CARBON	0.080%		NR	60950
	HYDROGEN	-12.523%		CR	61061
	NITROGEN	-.001%		HR	60940
	BLANKS	-35	-39	-63	
	K FACTORS	20.280	0.073	64.794	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	52 Seconds			

DATE & TIME	8/7/2018 10:35:26 AM	P_ID	080718SPP
SAMPLE ID	182858011	USER ID	alpha
WEIGHT (mg)	10.750	MODE	CHN

				SIGNALS	
				ZR	61045
	CARBON	0.117%		NR	60887
	HYDROGEN	-6.371%		CR	61108
	NITROGEN	-.014%		HR	61019
	BLANKS	-35	-39	-63	
	K FACTORS	20.280	0.073	64.794	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	52 Seconds			

DATE & TIME	8/7/2018 10:40:41 AM	P_ID	080718SPP
SAMPLE ID	182858011D	USER ID	alpha
WEIGHT (mg)	9.200	MODE	CHN

				SIGNALS	
				ZR	60957
	CARBON	0.099%		NR	60929
	HYDROGEN	-8.934%		CR	61078
	NITROGEN	0.006%		HR	60979
	BLANKS	-35	-39	-63	
	K FACTORS	20.280	0.073	64.794	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	52 Seconds			

DATE & TIME	8/7/2018 10:45:56 AM	P_ID	080718SPP
SAMPLE ID	182858011D	USER ID	alpha
WEIGHT (mg)	7.200	MODE	CHN

				SIGNALS	
				ZR	60995
	CARBON	0.215%		NR	60952
	HYDROGEN	-23.973%		CR	61231
	NITROGEN	0.004%		HR	61066
	BLANKS	-35	-39	-63	
	K FACTORS	20.280	0.073	64.794	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	52 Seconds			

DATE & TIME	8/7/2018 10:51:11 AM	P_ID	080718SPP
SAMPLE ID	182858011MS	USER ID	alpha
WEIGHT (mg)	10.920	MODE	CHN

				SIGNALS	
				ZR	61105
CARBON	0.987%			NR	61097
HYDROGEN	-11.416%			CR	63247
NITROGEN	0.008%			HR	63117
BLANKS	-35	-39	-63		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	51 Seconds				

DATE & TIME	8/7/2018 11:01:51 AM	P_ID	080718SPP
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.130	MODE	CHN

				SIGNALS	
				ZR	61031
CARBON	1.032%			NR	60954
HYDROGEN	-1.352%			CR	63039
NITROGEN	-.002%			HR	62990
BLANKS	-35	-39	-63		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	52 Seconds				

DATE & TIME	8/7/2018 11:07:07 AM	P_ID	080718SPP
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	74.240	MODE	CHN

				SIGNALS	
				ZR	61144
CARBON	-.001%			NR	61139
HYDROGEN	-2.233%			CR	61089
NITROGEN	0.001%			HR	60929
BLANKS	-35	-39	-63		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	52 Seconds				

DATE & TIME	8/7/2018 11:14:01 AM	P_ID	080718SPP
SAMPLE ID	182858011MS	USER ID	alpha
WEIGHT (mg)	9.320	MODE	CHN

		SIGNALS	
		ZR	61117
CARBON	1.199%	NR	61059
HYDROGEN	-2.205%	CR	63290
NITROGEN	0.001%	HR	63236

BLANKS	-35	-39	-63
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/7/2018 11:19:16 AM	P_ID	080718SPP
SAMPLE ID	182858011	USER ID	alpha
WEIGHT (mg)	9.250	MODE	CHN

		SIGNALS	
		ZR	61124
CARBON	0.135%	NR	61091
HYDROGEN	-17.031%	CR	61309
NITROGEN	0.005%	HR	61155
BLANKS	-35	-39	-63
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/7/2018 11:24:31 AM	P_ID	080718SPP
SAMPLE ID	182858011	USER ID	alpha
WEIGHT (mg)	10.220	MODE	CHN

		SIGNALS	
		ZR	61078
CARBON	0.179%	NR	60984
HYDROGEN	-12.197%	CR	61319
NITROGEN	-.005%	HR	61189
BLANKS	-35	-39	-63
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/7/2018 11:29:47 AM	P_ID	080718SPP
SAMPLE ID	182858011D	USER ID	alpha
WEIGHT (mg)	11.240	MODE	CHN

		SIGNALS	
		ZR	61090
CARBON	0.153%	NR	61000
HYDROGEN	-20.962%	CR	61313
NITROGEN	-.004%	HR	61102
BLANKS	-35	-39	-63
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/7/2018 11:35:02 AM	P_ID	080718SPP
SAMPLE ID	182858011D	USER ID	alpha
WEIGHT (mg)	11.980	MODE	CHN

				SIGNALS	
				ZR	61013
CARBON	0.143%			NR	60948
HYDROGEN	-10.177%			CR	61260
NITROGEN	0.0%			HR	61132
BLANKS	-35	-39	-63		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	52 Seconds				

DATE & TIME	8/7/2018 11:40:18 AM	P_ID	080718SPP
SAMPLE ID	182858012	USER ID	alpha
WEIGHT (mg)	13.240	MODE	CHN

				SIGNALS	
				ZR	61070
CARBON	0.080%			NR	60975
HYDROGEN	-12.726%			CR	61154
NITROGEN	-.004%			HR	60992
BLANKS	-35	-39	-63		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	52 Seconds				

DATE & TIME	8/7/2018 11:45:34 AM	P_ID	080718SPP
SAMPLE ID	182858012	USER ID	alpha
WEIGHT (mg)	12.480	MODE	CHN

				SIGNALS	
				ZR	60938
CARBON	0.078%			NR	60888
HYDROGEN	-5.818%			CR	61051
NITROGEN	0.002%			HR	60959
BLANKS	-35	-39	-63		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	8/7/2018 11:50:50 AM	P_ID	080718SPP
SAMPLE ID	182858013	USER ID	alpha
WEIGHT (mg)	14.820	MODE	CHN

				SIGNALS	
				ZR	60858
CARBON	0.136%			NR	60843
HYDROGEN	-6.378%			CR	61218
NITROGEN	0.005%			HR	61110
BLANKS	-35	-39	-63		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	8/7/2018 11:56:06 AM	P_ID	080718SPP
SAMPLE ID	182858013	USER ID	alpha
WEIGHT (mg)	10.360	MODE	CHN

		SIGNALS	
		ZR	60845
CARBON	0.144%	NR	60784
HYDROGEN	-10.843%	CR	61052
NITROGEN	0.0%	HR	60931

BLANKS	-35	-39	-63
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 53 Seconds

DATE & TIME	8/7/2018 12:01:21 PM	P_ID	080718SPP
SAMPLE ID	182858014	USER ID	alpha
WEIGHT (mg)	8.990	MODE	CHN

		SIGNALS	
		ZR	60987
CARBON	0.279%	NR	60923
HYDROGEN	-10.819%	CR	61397
NITROGEN	0.0%	HR	61287

BLANKS	-35	-39	-63
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/7/2018 12:06:37 PM	P_ID	080718SPP
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	9.460	MODE	CHN

		SIGNALS	
		ZR	60992
CARBON	1.046%	NR	60921
HYDROGEN	-23.314%	CR	62893
NITROGEN	-.001%	HR	62693

BLANKS	-35	-39	-63
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/7/2018 12:11:53 PM	P_ID	080718SPP
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	82.070	MODE	CHN

		SIGNALS	
		ZR	61036
CARBON	0.006%	NR	60988
HYDROGEN	-1.786%	CR	61059
NITROGEN	0.0%	HR	60913

BLANKS	-35	-39	-63
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 53 Seconds

DATE & TIME	8/7/2018 12:17:45 PM	P_ID	080718SPP
SAMPLE ID	182858014	USER ID	alpha
WEIGHT (mg)	12.220	MODE	CHN

		SIGNALS	
		ZR	60982
CARBON	0.258%	NR	60945
HYDROGEN	-10.986%	CR	61550
NITROGEN	0.003%	HR	61413
BLANKS	-35	-39	-63
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/7/2018 12:23:01 PM	P_ID	080718SPP
SAMPLE ID	182858015	USER ID	alpha
WEIGHT (mg)	9.850	MODE	CHN

		SIGNALS	
		ZR	61088
CARBON	0.192%	NR	61050
HYDROGEN	-10.570%	CR	61399
NITROGEN	0.004%	HR	61284
BLANKS	-35	-39	-63
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/7/2018 12:28:17 PM	P_ID	080718SPP
SAMPLE ID	182858015	USER ID	alpha
WEIGHT (mg)	7.340	MODE	CHN

		SIGNALS	
		ZR	60922
CARBON	0.268%	NR	60932
HYDROGEN	-11.944%	CR	61296
NITROGEN	0.015%	HR	61193
BLANKS	-35	-39	-63
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 53 Seconds

DATE & TIME	8/7/2018 12:33:32 PM	P_ID	080718SPP
SAMPLE ID	182858016	USER ID	alpha
WEIGHT (mg)	7.500	MODE	CHN

				SIGNALS	
				ZR	60923
CARBON	0.177%			NR	60882
HYDROGEN	-10.228%			CR	61116
NITROGEN	0.005%			HR	61021
BLANKS	-35	-39	-63		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	8/7/2018 12:38:48 PM			P_ID	080718SPP
SAMPLE ID	182858016			USER ID	alpha
WEIGHT (mg)	10.470			MODE	CHN
				SIGNALS	
				ZR	60890
CARBON	0.143%			NR	60808
HYDROGEN	-2.224%			CR	61077
NITROGEN	-.003%			HR	61021
BLANKS	-35	-39	-63		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	8/7/2018 12:44:04 PM			P_ID	080718SPP
SAMPLE ID	182858017			USER ID	alpha
WEIGHT (mg)	9.660			MODE	CHN
				SIGNALS	
				ZR	60887
CARBON	0.157%			NR	60815
HYDROGEN	0.851%			CR	61088
NITROGEN	-.001%			HR	61055
BLANKS	-35	-39	-63		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	8/7/2018 12:49:20 PM			P_ID	080718SPP		
RUN TYPE	BLANK			USER ID	alpha		
				MODE	CHN		
				SIGNALS			
				ZR	60970	AVERAGE RESULTS	
CARBON	-22			NR	60903	CARBON	-29
HYDROGEN	-117			CR	60881	HYDROGEN	-78
NITROGEN	-67			HR	60764	NITROGEN	-65
FILL TIME	53 Seconds						

DATE & TIME	8/7/2018 12:54:36 PM	P_ID	080718SPP
SAMPLE ID	182858017	USER ID	alpha
WEIGHT (mg)	11.480	MODE	CHN

				SIGNALS	
				ZR	60983
CARBON	0.158%			NR	60906
HYDROGEN	4.176%			CR	61246
NITROGEN	-.002%			HR	61203
BLANKS	-29	-78	-65		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	8/7/2018 12:59:53 PM	P_ID	080718SPP
SAMPLE ID	182858018	USER ID	alpha
WEIGHT (mg)	9.910	MODE	CHN

				SIGNALS	
				ZR	60796
CARBON	0.409%			NR	60846
HYDROGEN	-11.611%			CR	61639
NITROGEN	0.018%			HR	61477
BLANKS	-29	-78	-65		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	8/7/2018 1:05:09 PM	P_ID	080718SPP
SAMPLE ID	182858018	USER ID	alpha
WEIGHT (mg)	10.280	MODE	CHN

				SIGNALS	
				ZR	60862
CARBON	0.617%			NR	60803
HYDROGEN	7.329%			CR	62061
NITROGEN	0.001%			HR	62038
BLANKS	-29	-78	-65		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	8/7/2018 1:17:54 PM	P_ID	080718SPP
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.400	MODE	CHN

				SIGNALS	
				ZR	60925
CARBON	1.016%			NR	60878
HYDROGEN	-6.322%			CR	62991
NITROGEN	0.003%			HR	62865
BLANKS	-29	-78	-65		

K FACTORS	20.280	0.073	64.794
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	53 Seconds		

DATE & TIME	8/7/2018 1:23:10 PM	P_ID	080718SPP
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	45.650	MODE	CHN

		SIGNALS	
		ZR	60914
CARBON	0.006%	NR	60842
HYDROGEN	-2.461%	CR	60864
NITROGEN	0.0%	HR	60704
BLANKS	-29	-78	-65
K FACTORS	20.280	0.073	64.794
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	53 Seconds		

DATE & TIME	8/7/2018 1:36:20 PM	P_ID	080718SPP
SAMPLE ID	182858019	USER ID	alpha
WEIGHT (mg)	8.920	MODE	CHN

		SIGNALS	
		ZR	60950
CARBON	0.174%	NR	60908
HYDROGEN	-8.446%	CR	61193
NITROGEN	0.004%	HR	61060
BLANKS	-29	-78	-65
K FACTORS	20.280	0.073	64.794
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	53 Seconds		

DATE & TIME	8/7/2018 1:41:37 PM	P_ID	080718SPP
SAMPLE ID	182858019	USER ID	alpha
WEIGHT (mg)	11.500	MODE	CHN

		SIGNALS	
		ZR	60863
CARBON	0.235%	NR	60841
HYDROGEN	7.385%	CR	61361
NITROGEN	0.006%	HR	61345
BLANKS	-29	-78	-65
K FACTORS	20.280	0.073	64.794
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	53 Seconds		

DATE & TIME	8/7/2018 1:46:53 PM	P_ID	080718SPP
SAMPLE ID	182858020	USER ID	alpha
WEIGHT (mg)	8.800	MODE	CHN

				SIGNALS	
				ZR	60948
CARBON	0.059%			NR	60915
HYDROGEN	-2.646%			CR	60991
NITROGEN	0.006%			HR	60896
BLANKS	-29	-78	-65		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	8/7/2018 1:52:09 PM	P_ID	080718SPP
SAMPLE ID	182858020	USER ID	alpha
WEIGHT (mg)	8.430	MODE	CHN

				SIGNALS	
				ZR	60904
CARBON	0.139%			NR	60844
HYDROGEN	-5.362%			CR	61053
NITROGEN	0.001%			HR	60942
BLANKS	-29	-78	-65		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	8/7/2018 1:57:26 PM	P_ID	080718SPP
SAMPLE ID	182858015	USER ID	alpha
WEIGHT (mg)	9.280	MODE	CHN

				SIGNALS	
				ZR	60899
CARBON	0.190%			NR	60862
HYDROGEN	-8.709%			CR	61191
NITROGEN	0.005%			HR	61054
BLANKS	-29	-78	-65		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	8/7/2018 2:02:43 PM	P_ID	080718SPP
SAMPLE ID	182858015	USER ID	alpha
WEIGHT (mg)	7.640	MODE	CHN

				SIGNALS	
				ZR	60845
CARBON	0.281%			NR	60772
HYDROGEN	-29.585%			CR	61179
NITROGEN	-.002%			HR	60936
BLANKS	-29	-78	-65		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	8/7/2018 2:07:59 PM	P_ID	080718SPP
SAMPLE ID	182858018	USER ID	alpha
WEIGHT (mg)	10.430	MODE	CHN

				SIGNALS	
				ZR	60816
CARBON	0.403%			NR	60703
HYDROGEN	-8.012%			CR	61526
NITROGEN	-.007%			HR	61387
BLANKS	-29	-78	-65		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	8/7/2018 2:13:16 PM	P_ID	080718SPP
SAMPLE ID	182858018	USER ID	alpha
WEIGHT (mg)	9.030	MODE	CHN

				SIGNALS	
				ZR	60815
CARBON	0.154%			NR	60735
HYDROGEN	-11.074%			CR	60988
NITROGEN	-.003%			HR	60837
BLANKS	-29	-78	-65		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	8/7/2018 2:18:33 PM	P_ID	080718SPP
SAMPLE ID	182858020	USER ID	alpha
WEIGHT (mg)	9.070	MODE	CHN

				SIGNALS	
				ZR	60768
CARBON	0.048%			NR	60720
HYDROGEN	-8.760%			CR	60779
NITROGEN	0.003%			HR	60643
BLANKS	-29	-78	-65		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	54 Seconds				

DATE & TIME	8/7/2018 2:23:50 PM	P_ID	080718SPP
SAMPLE ID	182858020	USER ID	alpha
WEIGHT (mg)	5.650	MODE	CHN

		SIGNALS	
		ZR	60824
CARBON	0.099%	NR	60772
HYDROGEN	-24.973%	CR	60857
NITROGEN	0.004%	HR	60676

BLANKS	-29	-78	-65
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/7/2018 2:29:06 PM	P_ID	080718SPP
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.030	MODE	CHN

		SIGNALS	
		ZR	60807
CARBON	1.021%	NR	60733
HYDROGEN	-5.600%	CR	62780
NITROGEN	-.001%	HR	62661
BLANKS	-29	-78	-65
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 53 Seconds

DATE & TIME	8/7/2018 2:34:23 PM	P_ID	080718SPP
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	71.400	MODE	CHN

		SIGNALS	
		ZR	60881
CARBON	-.007%	NR	60795
HYDROGEN	2.494%	CR	60662
NITROGEN	0.0%	HR	60714
BLANKS	-29	-78	-65
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/7/2018 2:41:25 PM	P_ID	080718SPP
SAMPLE ID	182858008	USER ID	alpha
WEIGHT (mg)	9.270	MODE	CHN

		SIGNALS	
		ZR	60790
CARBON	0.249%	NR	60765
HYDROGEN	1.773%	CR	61204
NITROGEN	0.007%	HR	61138
BLANKS	-29	-78	-65
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/7/2018 2:46:42 PM	P_ID	080718SPP
SAMPLE ID	182858008	USER ID	alpha
WEIGHT (mg)	10.260	MODE	CHN

				SIGNALS	
				ZR	60755
	CARBON	0.214%		NR	60659
	HYDROGEN	-18.692%		CR	61075
	NITROGEN	-.005%		HR	60857
	BLANKS	-29	-78	-65	
	K FACTORS	20.280	0.073	64.794	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	54 Seconds			

DATE & TIME	8/7/2018 2:51:59 PM	P_ID	080718SPP
SAMPLE ID	182858011MSD	USER ID	alpha
WEIGHT (mg)	7.080	MODE	CHN

				SIGNALS	
				ZR	60709
	CARBON	1.525%		NR	60702
	HYDROGEN	-12.576%		CR	62862
	NITROGEN	0.013%		HR	62719
	BLANKS	-29	-78	-65	
	K FACTORS	20.280	0.073	64.794	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	53 Seconds			

DATE & TIME	8/7/2018 2:57:16 PM	P_ID	080718SPP
SAMPLE ID	182858011MSD	USER ID	alpha
WEIGHT (mg)	5.760	MODE	CHN

				SIGNALS	
				ZR	60742
	CARBON	1.970%		NR	60644
	HYDROGEN	-36.625%		CR	62916
	NITROGEN	-.009%		HR	62684
	BLANKS	-29	-78	-65	
	K FACTORS	20.280	0.073	64.794	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	53 Seconds			

DATE & TIME	8/7/2018 3:02:33 PM	P_ID	080718SPP
SAMPLE ID	182858004	USER ID	alpha
WEIGHT (mg)	10.360	MODE	CHN

				SIGNALS	
				ZR	60731
	CARBON	0.038%		NR	60700
	HYDROGEN	-7.934%		CR	60751
	NITROGEN	0.005%		HR	60613
	BLANKS	-29	-78	-65	
	K FACTORS	20.280	0.073	64.794	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	54 Seconds			

DATE & TIME	8/7/2018 3:07:50 PM			P_ID	080718SPP
SAMPLE ID	182858004			USER ID	alpha
WEIGHT (mg)	8.610			MODE	CHN

				SIGNALS	
				ZR	60696
CARBON	0.026%			NR	60696
HYDROGEN	-6.523%			CR	60712
NITROGEN	0.012%			HR	60593
BLANKS	-29	-78	-65		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	54 Seconds				

DATE & TIME	8/7/2018 3:13:07 PM			P_ID	080718SPP
SAMPLE ID	182858005			USER ID	alpha
WEIGHT (mg)	7.400			MODE	CHN

				SIGNALS	
				ZR	60739
CARBON	0.139%			NR	60696
HYDROGEN	1.111%			CR	60875
NITROGEN	0.005%			HR	60803
BLANKS	-29	-78	-65		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	54 Seconds				

DATE & TIME	8/7/2018 3:18:24 PM			P_ID	080718SPP
SAMPLE ID	182858005			USER ID	alpha
WEIGHT (mg)	8.450			MODE	CHN

				SIGNALS	
				ZR	60740
CARBON	0.193%			NR	60668
HYDROGEN	-19.129%			CR	60970
NITROGEN	-.001%			HR	60774
BLANKS	-29	-78	-65		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	54 Seconds				

DATE & TIME	8/7/2018 3:23:41 PM			P_ID	080718SPP
SAMPLE ID	182858006			USER ID	alpha
WEIGHT (mg)	7.730			MODE	CHN

				SIGNALS	
				ZR	60752
CARBON	0.059%			NR	60695
HYDROGEN	-8.152%			CR	60759
NITROGEN	0.002%			HR	60635

BLANKS	-29	-78	-65
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/7/2018 3:28:58 PM	P_ID	080718SPP
SAMPLE ID	182858006	USER ID	alpha
WEIGHT (mg)	14.560	MODE	CHN

		SIGNALS	
		ZR	60874
CARBON	0.061%	NR	60791
HYDROGEN	-2.917%	CR	60941
NITROGEN	-.002%	HR	60832
BLANKS	-29	-78	-65
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/7/2018 3:35:01 PM	P_ID	080718SPP
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.290	MODE	CHN

		SIGNALS	
		ZR	60894
CARBON	0.984%	NR	60825
HYDROGEN	-1.065%	CR	62849
NITROGEN	-.001%	HR	62763
BLANKS	-29	-78	-65
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 53 Seconds

DATE & TIME	8/7/2018 3:40:18 PM	P_ID	080718SPP
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	72.480	MODE	CHN

		SIGNALS	
		ZR	60807
CARBON	-.001%	NR	60713
HYDROGEN	-.491%	CR	60667
NITROGEN	-.001%	HR	60563
BLANKS	-29	-78	-65
K FACTORS	20.280	0.073	64.794

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/7/2018 3:49:21 PM	P_ID	080718SPP
SAMPLE ID	182858023	USER ID	alpha
WEIGHT (mg)	6.460	MODE	CHN

				SIGNALS	
				ZR	60925
CARBON	-.010%			NR	60901
HYDROGEN	-16.752%			CR	60859
NITROGEN	0.010%			HR	60702
BLANKS	-29	-78	-65		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	54 Seconds				

DATE & TIME	8/7/2018 3:54:38 PM	P_ID	080718SPP
SAMPLE ID	182858023	USER ID	alpha
WEIGHT (mg)	8.180	MODE	CHN

				SIGNALS	
				ZR	60896
CARBON	0.002%			NR	60853
HYDROGEN	-4.354%			CR	60828
NITROGEN	0.004%			HR	60724
BLANKS	-29	-78	-65		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	54 Seconds				

DATE & TIME	8/7/2018 3:59:55 PM	P_ID	080718SPP
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.130	MODE	CHN

				SIGNALS	
				ZR	60868
CARBON	1.028%			NR	60784
HYDROGEN	-8.925%			CR	62866
NITROGEN	-.003%			HR	62722
BLANKS	-29	-78	-65		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	54 Seconds				

DATE & TIME	8/7/2018 4:05:12 PM	P_ID	080718SPP
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	77.150	MODE	CHN

				SIGNALS	
				ZR	60998
CARBON	0.003%			NR	60919
HYDROGEN	-1.065%			CR	60932
NITROGEN	0.0%			HR	60794
BLANKS	-29	-78	-65		
K FACTORS	20.280	0.073	64.794		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	54 Seconds				

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Sep 07 2018, 10:47 am

Work Group: WG1144091 for Department: 7 Wet Chemistry

Created: 08-AUG-18 Due: Operator: SP

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1828580-01	LDW18-SSCL-A01	S	A2-SOOT	SOIL	DONE	U	0613	0808	S0	Glass-A.120
L1828580-02	LDW18-SSCL-A02	S	A2-SOOT	SOIL	DONE	U	0613	0808	S0	Glass-A.120
L1828580-03	LDW18-SSCL-A03	S	A2-SOOT	SOIL	DONE	U	0613	0808	S0	Glass-A.120
L1828580-04	LDW18-SSCL-A04	S	A2-SOOT	SOIL	DONE	U	0613	0808	S0	Glass-A.120
L1828580-07	LDW18-SSCL-A07	S	A2-SOOT	SOIL	DONE	U	0616	0808	S0	Glass-A.120
L1828580-09	LDW18-SSCL-A09	S	A2-SOOT	SOIL	DONE	U	0615	0808	S0	Glass-A.120
L1828580-10	LDW18-SSCL-A10	S	A2-SOOT	SOIL	DONE	U	0615	0808	S0	Glass-A.120
L1828580-21	LDW18-SS-COMP04	S	A2-SOOT	SOIL	DONE	U	0403	0808	S0	Glass-A.120
L1828580-22	LDW18-SS-COMP05	S	A2-SOOT	SOIL	DONE	U	0326	0808	S0	Glass-A.120
L1828580-23	LDW18-SS-COMP06	S	A2-SOOT	SOIL	DONE	U	0402	0808	S0	Glass-A.120
L1828580-24	LDW18-SS-COMP07	S	A2-SOOT	SOIL	DONE	U	0402	0808	S0	Glass-A.120
WG1144091-1	Laboratory Method Bl	S	A2-SOOT	SOIL	DONE	U				
WG1144091-2	Laboratory Control S	S	A2-SOOT	SOIL	DONE	U				
WG1144091-3	Duplicate Sample	S	A2-SOOT	SOIL	DONE	U				
WG1144091-4	Matrix Spike	S	A2-SOOT	SOIL	DONE	U				
WG1144091-5	Matrix Spike Duplica	S	A2-SOOT	SOIL	DONE	U				

Comments:

WG1144091-3	L1828580-01
WG1144091-4	L1828580-01
WG1144091-5	L1828580-01

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Sep 07 2018, 10:47 am

Work Group: WG1144092 for Department: 7 Wet Chemistry

Created: 08-AUG-18 Due: Operator: SP

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1828580-05	LDW18-SSCL-A05	S	A2-SOOT	SOIL	DONE	U	0613	0808	S0	Glass-A.120
L1828580-06	LDW18-SSCL-A06	S	A2-SOOT	SOIL	DONE	U	0613	0808	S0	Glass-A.120
L1828580-08	LDW18-SSCL-A08	S	A2-SOOT	SOIL	DONE	U	0616	0808	S0	Glass-A.120
L1828580-11	LDW18-SSCL-A11	S	A2-SOOT	SOIL	DONE	U	0612	0808	S0	Glass-A.120
L1828580-12	LDW18-SSCL-A12	S	A2-SOOT	SOIL	DONE	U	0615	0808	S0	Glass-A.120
L1828580-13	LDW18-SSCL-A13	S	A2-SOOT	SOIL	DONE	U	0614	0808	S0	Glass-A.120
L1828580-14	LDW18-SSCL-A17	S	A2-SOOT	SOIL	DONE	U	0615	0808	S0	Glass-A.120
L1828580-15	LDW18-SSCL-A18	S	A2-SOOT	SOIL	DONE	U	0615	0808	S0	Glass-A.120
L1828580-16	LDW18-SSCL-A19	S	A2-SOOT	SOIL	DONE	U	0614	0808	S0	Glass-A.120
L1828580-17	LDW18-SSCL-A11-FD	S	A2-SOOT	SOIL	DONE	U	0612	0808	S0	Glass-A.120
L1828580-18	LDW18-SS-COMP01	S	A2-SOOT	SOIL	DONE	U	0326	0808	S0	Glass-A.120
L1828580-19	LDW18-SS-COMP02	S	A2-SOOT	SOIL	DONE	U	0328	0808	S0	Glass-A.120
L1828580-20	LDW18-SS-COMP03	S	A2-SOOT	SOIL	DONE	U	0403	0808	S0	Glass-A.120
WG1144092-1	Laboratory Method Bl	S	A2-SOOT	SOIL	DONE	U				
WG1144092-2	Laboratory Control S	S	A2-SOOT	SOIL	DONE	U				
WG1144092-3	Duplicate Sample	S	A2-SOOT	SOIL	DONE	U				
WG1144092-4	Matrix Spike	S	A2-SOOT	SOIL	DONE	U				
WG1144092-5	Matrix Spike Duplica	S	A2-SOOT	SOIL	DONE	U				

Comments:

WG1144092-3	L1828580-11
WG1144092-4	L1828580-11
WG1144092-5	L1828580-11

Sample Preparation

TOC Instrument: (Circle one) TOC #1 TOC #2 TOC #3 (circled)

Date: 8/7/18
Analyst:
2° Review:

CCV ID: WW032318A->E
SRM 1944 ID: ~~N/A~~ WS081814B
Filter Aid ID: WS120415A
ICV ID: WW032318F
Balance ID: 002288
Other SRM ID: WS111016A

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
Conditioning Std					
K				1	10.17
Blank				2	49.75
K				3	10.47
K				4	10.33
0					
1000					
5000					
10000					
20000					
40000					
ICV				5	10.41
ICB				6	51.68
HICV out of qc std did not dil				7	51.22
HICV				9	52.13
HICV				10	51.36
SRM	1650			11	0.30
MB				12	68.28
SRM	1650			13	0.48
MB				14	59.56
SRM	1650			15	0.39
MB				16	50.53

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
L1828580	01			17	9.41
↓	01			18	9.13
~~CCV~~	01D			19	8.85
~~CCB~~	01D			20	9.53
CCV				21	9.55
CCB				22	45.27
L1828580	01MS	10.48		23	~~10~~ 11.89
↓	01MS	10.18		24	12.76
	01MSD	9.93		25	14.53
	01MSD	9.95		26	8.24
	02			27	10.67
	02			28	8.09
	03			29	9.44
	03			30	9.87
~~CCV~~	04			31	~~9.52~~ 8.55
~~CCB~~	04			32	~~12~~ 9.52
CCV				33	9.98
CCB				34	77.41
L1828580	05			35	12.16
↓	05			36	13.11
	06			37	8.52
	06			38	9.57

* Auto slot 8 Accidental Blank

TOC Instrument: (Circle one) TOC #1 TOC #2 TOC #3

Date: 8/7/18
Analyst: SP
2° Review: _____

CCV ID: ~~WS~~ WWC32318A → E
SRM 1944 ID: WS08154A
Filter Aid ID: WS120415A

ICV ID: WWC32318F
Balance ID: 002288
Other SRM ID: WS111016A

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
Conditioning Std					
K					
Blank					
K					
K					
0					
1000					
5000					
10000					
20000					
40000					
ICV					
ICB					
HICV					
L1825580	07			39	10.79
	07			40	10.31
	08			41	10.62
	08			42	7.67
	09			43	14.82
	09			44	10.70
CCV				45	10.59
CCB				46	75.98

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
L1825580	10			47	10.64
	10			48	10.13
~~CCV~~	21			49	7.32
~~CCB~~	21			50	6.05
	22			51	5.82
	22			52	5.37
	23			53	7.95
	23			54	7.75
	24			55	9.08
	24			56	7.48
CCV				57	9.96
CCB				58	112.65
CCB	~~04~~			59	~~10.36~~ 53.54
	04			2	8.61
CCV	05			3	7.40
~~CCB~~	05			4	8.45
	06			5	
	06			6	
	08			7	
	08			8	
	23			9	
	23			10	

Document Type: Form

Pre-Qualtrax Document ID: 107-02

TOC Instrument: TOC #1 (TOC #2) TOC #3 (Circle one)

Date: 8/7/18
Analyst: SD
2° Review: _____

CCV ID: WW032318A->E
SRM 1944 ID: WS081814A
Filter Aid ID: WS120415A

ICV ID: WW032318F
Balance ID: SB02288
Other SRM ID: WS111016A

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
~~Conditioning Std~~ BLK				1	70.16
~~K~~ BLK				2	63.09
Blank				3	60.80
K				4	9.79
~~K~~ BLANK				5	76.78
~~0~~ K				6	10.20
~~1000~~ K				7	9.55
5000					
10000					
20000					
40000					
ICV				8	10.38
ICB				9	49.50
HICV				10	48.39
SRM	1650			11	0.30
MB				12	51.87
SRM	1650			13	0.55
MB				14	46.40
SRM	1650			15	0.56
L1828580	11			16	8.97
	11			17	10.75
	11D			18	9.20

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
L1828580	11D			19	7.20
↓	11MS	10.00		20	10.92
CCV				21	10.13
CCB				22	74.24
L1828580	11MS	10.01		23	9.32
	12 11RR			24	9.25
	12 11RR			25	10.22
	13 11DRR			26	11.24
	13 11D RR			27	11.98
	14 12			28	13.24
	14 12			29	12.48
	15 13			30	14.82
	15 13			31	10.36
↓	16 14			32	8.99
CCV				33	9.46
CCB				34	82.07
L1828580	14			35	12.22
|	15			36	9.85
|	15			37	7.34
|	16			38	7.50
|	16			39	10.47
↓	17			40	9.66

Document Type: Form

Pre-Qualtrax Document ID: 107-02

TOC Instrument: (Circle one) TOC #1 / TOC #2 / TOC #3

Date: 8/7/18 cont'd
Analyst: SP
2° Review: _____

CCV ID: WWC323185A7E
SRM 1944 ID: WS081814A
Filter Aid ID: WS120415A

ICV ID: WWC323185F
Balance ID: 002288
Other SRM ID: WS111016A

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
Conditioning Std					
K					
Blank					
K					
K					
0					
1000					
5000					
10000					
20000					
40000					
ICV					
ICB					
HICV					
L1828550	17			42	11.48
↓	18			43 42	9.91
	18			44 43	10.28
↓	~~19~~			45 44	~~8.92~~
CCV				45 46	10.40
CCB				46 47	47.65
L1828550	19			47 48	8.92
↓	19			48 49	11.50

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
L1828580	20			~~50~~ 49	8.80
↓	20			~~51~~ 50	8.43
~~CCV~~	15RR			~~52~~ 51	9.~~28~~
~~CCB~~	15RR			~~53~~ 52	7.64
	15RR			~~54~~ 53	10.41
	15RR			~~55~~ 54	9.03
	~~14RR~~	20RR		55	9.07
↓	~~14RR~~	20RR		56	5.65
CCV				57	10.03
CCB				58	11.40
L1828580	~~20RR~~	08RR		59	9.27
	~~20RR~~	08RR		60	10.26
	11MSD	1004		61	7.08
	11MSD	9.99		62	5.76
~~CCV~~	04RR			63	~~8.55~~ 10.36
~~CCB~~	04RR			64	~~9.528~~ 9.61
	05RR			65	7.40
	05RR			66	8.45
	06RR			67	7.73
↓	06RR			68	14.56
CCV				69	10.29
CCB				70	72.48

Pre-Qualtrax Document ID: 107-02

Document Type: Form

TOC Instrument: (Circle one) TOC #1 (TOC #2 circled) TOC #3

Date: 8/7/18
Analyst: SP
2° Review: ______

CCV ID: WW032318A-JE
SRM 1944 ID: WS0818714A
Filter Aid ID: WS120415A

ICV ID: WW032315R
Balance ID: 0702288
Other SRM ID: WS111016A

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
Conditioning Std					
K					
Blank					
K					
K					
0					
1000					
5000					
10000					
20000					
40000					
ICV					
ICB					
HICV					
U828550	23RR			71	6.46
↓	23RR			72	8.18
CCV				73	10.13
CCB				74	77.15

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

Alpha Report

ANALYTICAL REPORT

Lab Number:	L1828580
Client:	Analytical Resources, Inc. 4611 S. 134th Place Suite 100 Tukwila, WA 98168-3240
ATTN:	Susan Dunnihoo
Phone:	(206) 695-6207
Project Name:	AOC3 BLACK CARBON
Project Number:	TASK 4
Report Date:	08/09/18

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

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

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1828580-01	LDW18-SSCL-A01	SEDIMENT	Not Specified	05/16/18 14:00	07/25/18
L1828580-02	LDW18-SSCL-A02	SEDIMENT	Not Specified	05/16/18 14:00	07/25/18
L1828580-03	LDW18-SSCL-A03	SEDIMENT	Not Specified	05/16/18 13:20	07/25/18
L1828580-04	LDW18-SSCL-A04	SEDIMENT	Not Specified	05/16/18 12:32	07/25/18
L1828580-05	LDW18-SSCL-A05	SEDIMENT	Not Specified	05/16/18 13:00	07/25/18
L1828580-06	LDW18-SSCL-A06	SEDIMENT	Not Specified	05/16/18 12:07	07/25/18
L1828580-07	LDW18-SSCL-A07	SEDIMENT	Not Specified	05/19/18 14:35	07/25/18
L1828580-08	LDW18-SSCL-A08	SEDIMENT	Not Specified	05/19/18 15:00	07/25/18
L1828580-09	LDW18-SSCL-A09	SEDIMENT	Not Specified	05/18/18 15:28	07/25/18
L1828580-10	LDW18-SSCL-A10	SEDIMENT	Not Specified	05/18/18 15:05	07/25/18
L1828580-11	LDW18-SSCL-A11	SEDIMENT	Not Specified	05/15/18 12:01	07/25/18
L1828580-12	LDW18-SSCL-A12	SEDIMENT	Not Specified	05/18/18 13:30	07/25/18
L1828580-13	LDW18-SSCL-A13	SEDIMENT	Not Specified	05/17/18 13:20	07/25/18
L1828580-14	LDW18-SSCL-A17	SEDIMENT	Not Specified	05/18/18 13:36	07/25/18
L1828580-15	LDW18-SSCL-A18	SEDIMENT	Not Specified	05/18/18 13:57	07/25/18
L1828580-16	LDW18-SSCL-A19	SEDIMENT	Not Specified	05/17/18 14:04	07/25/18
L1828580-17	LDW18-SSCL-A11-FD	SEDIMENT	Not Specified	05/15/18 12:01	07/25/18
L1828580-18	LDW18-SS-COMP01	SEDIMENT	Not Specified	02/26/18 13:49	07/25/18
L1828580-19	LDW18-SS-COMP02	SEDIMENT	Not Specified	02/28/18 13:02	07/25/18
L1828580-20	LDW18-SS-COMP03	SEDIMENT	Not Specified	03/06/18 12:49	07/25/18
L1828580-21	LDW18-SS-COMP04	SEDIMENT	Not Specified	03/06/18 11:46	07/25/18
L1828580-22	LDW18-SS-COMP05	SEDIMENT	Not Specified	02/26/18 14:20	07/25/18
L1828580-23	LDW18-SS-COMP06	SEDIMENT	Not Specified	03/05/18 13:45	07/25/18
L1828580-24	LDW18-SS-COMP07	SEDIMENT	Not Specified	03/05/18 14:02	07/25/18

Project Name: AOC3 BLACK CARBON **Lab Number:** L1828580
Project Number: TASK 4 **Report Date:** 08/09/18

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:	AOC3 BLACK CARBON	**Lab Number:**	L1828580
Project Number:	TASK 4	**Report Date:**	08/09/18

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

% SOOT

L1828580: Samples were frozen upon receipt to arrest the the holding time.

L1828580-04, -15, -20, -23, and -24: The Sample Replicate RPD is outside the acceptance criteria of 30%. A double-burn re-analysis was performed with a confirming result. The results of the original analysis are reported. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

The WG1144091-5 MSD recoveries for % soot (rep 1) (218%) and % soot (rep 2) (175%), performed on L1828580-01, are outside the 75-125% acceptance criteria, possibly due to sample matrix. The associated SRM recoveries are within criteria indicating the sample batch was in control, and all sample results were accepted.

The WG1144091-4/-5 MS/MSD RPDs for % soot (rep 1) (47%) and % soot (rep 2) (83%), performed on L1828580-01, are outside the acceptance criteria of 25%. The elevated RPDs have been attributed to the non-homogeneous nature of the native sample.

The WG1144092-4/-5 MS/MSD RPDs for % soot (rep 1) (43%) and % soot (rep 2) (49%), performed on L1828580-11, are outside the acceptance criteria of 25%. The elevated RPDs have been attributed to the non-homogeneous nature of the native sample.

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: 08/09/18

INORGANICS
&
MISCELLANEOUS

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-01
Client ID: LDW18-SSCL-A01
Sample Location: Not Specified

Date Collected: 05/16/18 14:00
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.188		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.163		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-02
Client ID: LDW18-SSCL-A02
Sample Location: Not Specified

Date Collected: 05/16/18 14:00
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.173		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.162		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-03
Client ID: LDW18-SSCL-A03
Sample Location: Not Specified

Date Collected: 05/16/18 13:20
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.302		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.259		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-04
Client ID: LDW18-SSCL-A04
Sample Location: Not Specified

Date Collected: 05/16/18 12:32
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.056		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.089		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-05
Client ID: LDW18-SSCL-A05
Sample Location: Not Specified

Date Collected: 05/16/18 13:00
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.139		%	0.010	NA	1	-	08/07/18 15:13	91,-	SP
% Soot (Rep 2)	0.193		%	0.010	NA	1	-	08/07/18 15:13	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-06
Client ID: LDW18-SSCL-A06
Sample Location: Not Specified

Date Collected: 05/16/18 12:07
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.059		%	0.010	NA	1	-	08/07/18 15:23	91,-	SP
% Soot (Rep 2)	0.061		%	0.010	NA	1	-	08/07/18 15:23	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-07
Client ID: LDW18-SSCL-A07
Sample Location: Not Specified

Date Collected: 05/19/18 14:35
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.070		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.068		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-08
Client ID: LDW18-SSCL-A08
Sample Location: Not Specified

Date Collected: 05/19/18 15:00
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.249		%	0.010	NA	1	-	08/07/18 14:41	91,-	SP
% Soot (Rep 2)	0.214		%	0.010	NA	1	-	08/07/18 14:41	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-09
Client ID: LDW18-SSCL-A09
Sample Location: Not Specified

Date Collected: 05/18/18 15:28
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.052		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.060		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-10
Client ID: LDW18-SSCL-A10
Sample Location: Not Specified

Date Collected: 05/18/18 15:05
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.026		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.021		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-11
Client ID: LDW18-SSCL-A11
Sample Location: Not Specified

Date Collected: 05/15/18 12:01
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.135		%	0.010	NA	1	-	08/07/18 11:19	91,-	SP
% Soot (Rep 2)	0.179		%	0.010	NA	1	-	08/07/18 11:19	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-12
Client ID: LDW18-SSCL-A12
Sample Location: Not Specified

Date Collected: 05/18/18 13:30
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.080		%	0.010	NA	1	-	08/07/18 11:40	91,-	SP
% Soot (Rep 2)	0.078		%	0.010	NA	1	-	08/07/18 11:40	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-13
Client ID: LDW18-SSCL-A13
Sample Location: Not Specified

Date Collected: 05/17/18 13:20
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.136		%	0.010	NA	1	-	08/07/18 11:50	91,-	SP
% Soot (Rep 2)	0.144		%	0.010	NA	1	-	08/07/18 11:50	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-14
Client ID: LDW18-SSCL-A17
Sample Location: Not Specified

Date Collected: 05/18/18 13:36
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.279		%	0.010	NA	1	-	08/07/18 12:01	91,-	SP
% Soot (Rep 2)	0.258		%	0.010	NA	1	-	08/07/18 12:01	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-15
Client ID: LDW18-SSCL-A18
Sample Location: Not Specified

Date Collected: 05/18/18 13:57
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.192		%	0.010	NA	1	-	08/07/18 12:23	91,-	SP
% Soot (Rep 2)	0.268		%	0.010	NA	1	-	08/07/18 12:23	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-16
Client ID: LDW18-SSCL-A19
Sample Location: Not Specified

Date Collected: 05/17/18 14:04
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.177		%	0.010	NA	1	-	08/07/18 12:33	91,-	SP
% Soot (Rep 2)	0.143		%	0.010	NA	1	-	08/07/18 12:33	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4
Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-17
Client ID: LDW18-SSCL-A11-FD
Sample Location: Not Specified
Sample Depth:
Matrix: Sediment

Date Collected: 05/15/18 12:01
Date Received: 07/25/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.157		%	0.010	NA	1	-	08/07/18 12:44	91,-	SP
% Soot (Rep 2)	0.158		%	0.010	NA	1	-	08/07/18 12:44	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-18
Client ID: LDW18-SS-COMP01
Sample Location: Not Specified

Date Collected: 02/26/18 13:49
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.409		%	0.010	NA	1	-	08/07/18 12:59	91,-	SP
% Soot (Rep 2)	0.617		%	0.010	NA	1	-	08/07/18 12:59	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-19
Client ID: LDW18-SS-COMP02
Sample Location: Not Specified

Date Collected: 02/28/18 13:02
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.174		%	0.010	NA	1	-	08/07/18 13:36	91,-	SP
% Soot (Rep 2)	0.235		%	0.010	NA	1	-	08/07/18 13:36	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-20
Client ID: LDW18-SS-COMP03
Sample Location: Not Specified

Date Collected: 03/06/18 12:49
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.059		%	0.010	NA	1	-	08/07/18 13:46	91,-	SP
% Soot (Rep 2)	0.139		%	0.010	NA	1	-	08/07/18 13:46	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-21
Client ID: LDW18-SS-COMP04
Sample Location: Not Specified

Date Collected: 03/06/18 11:46
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.120		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.124		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-22
Client ID: LDW18-SS-COMP05
Sample Location: Not Specified

Date Collected: 02/26/18 14:20
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.010		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.010		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-23
Client ID: LDW18-SS-COMP06
Sample Location: Not Specified

Date Collected: 03/05/18 13:45
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	ND		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828580-24
Client ID: LDW18-SS-COMP07
Sample Location: Not Specified

Date Collected: 03/05/18 14:02
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.025		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.074		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4
Lab Number: L1828580
Report Date: 08/09/18

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab for sample(s): 01-04,07,09-10,21-24 Batch: WG1144091-1										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	ND		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
General Chemistry - Mansfield Lab for sample(s): 05-06,08,11-20 Batch: WG1144092-1										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	08/07/18 10:04	91,-	SP
% Soot (Rep 2)	ND		%	0.010	NA	1	-	08/07/18 10:04	91,-	SP

Lab Control Sample Analysis

Batch Quality Control

Project Name: AOC3 BLACK CARBON

Project Number: TASK 4

Lab Number: L1828580

Report Date: 08/09/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-04,07,09-10,21-24 Batch: WG1144091-2								
% Soot (Rep 1)	108		-		75-125	-		25
% Soot (Rep 2)	98		-		75-125	-		25
General Chemistry - Mansfield Lab Associated sample(s): 05-06,08,11-20 Batch: WG1144092-2								
% Soot (Rep 1)	105		-		75-125	-		25
% Soot (Rep 2)	104		-		75-125	-		25

Matrix Spike Analysis
Batch Quality Control

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-04,07,09-10,21-24 QC Batch ID: WG1144091-4 WG1144091-5 QC Sample: L1828580-01 Client ID: LDW18-SSCL-A01												
% Soot (Rep 1)	0.188	0.881	1.04	97		1.68	**218**	Q	75-125	**47**	Q	25
% Soot (Rep 2)	0.163	0.798	0.946	98		2.28	**175**	Q	75-125	**83**	Q	25
General Chemistry - Mansfield Lab Associated sample(s): 05-06,08,11-20 QC Batch ID: WG1144092-4 WG1144092-5 QC Sample: L1828580-11 Client ID: LDW18-SSCL-A11												
% Soot (Rep 1)	0.135	0.916	0.987	93		1.52	98		75-125	**43**	Q	25
% Soot (Rep 2)	0.179	1.07	1.20	95		1.97	103		75-125	**49**	Q	25

Lab Duplicate Analysis

Batch Quality Control

Project Name: AOC3 BLACK CARBON

Project Number: TASK 4

Lab Number: L1828580

Report Date: 08/09/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-04,07,09-10,21-24 QC Batch ID: WG1144091-3 QC Sample: L1828580-01 Client ID: LDW18-SSCL-A01						
% Soot (Rep 1)	0.188	0.162	%	15		25
% Soot (Rep 2)	0.163	0.175	%	7		25
General Chemistry - Mansfield Lab Associated sample(s): 05-06,08,11-20 QC Batch ID: WG1144092-3 QC Sample: L1828580-11 Client ID: LDW18-SSCL-A11						
% Soot (Rep 1)	0.135	0.153	%	13		25
% Soot (Rep 2)	0.179	0.143	%	22		25

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Present/Intact
B	Present/Intact

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1828580-01A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-02A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-03A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-04A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-05A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-06A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-07A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-08A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-09A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-10A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-11A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-12A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-13A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-14A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-15A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-16A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-17A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-18A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-19A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-20A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-21A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-22A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)

*Values in parentheses indicate holding time in days

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828580
Report Date: 08/09/18

Container Information

Container ID	*Container Type*	*Cooler*	*Initial pH*	*Final pH*	*Temp deg C*	*Pres*	*Seal*	*Frozen Date/Time*	*Analysis(*)*
L1828580-23A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828580-24A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)

*Values in parentheses indicate holding time in days

Project Name:	AOC3 BLACK CARBON	**Lab Number:**	L1828580
Project Number:	TASK 4	**Report Date:**	08/09/18

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).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
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.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample¿s toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
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

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.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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.

Report Format: DU Report with 'J' Qualifiers

Project Name:	AOC3 BLACK CARBON	**Lab Number:**	L1828580
Project Number:	TASK 4	**Report Date:**	08/09/18

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 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. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

REFERENCES

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

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: SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
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: Chloride, 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: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, 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, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

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.

1 of 6

CHAIN-OF-CUSTODY/TEST REQUEST FORM

Project/Client Name:	AOC3 Black Carbon	Ship to:	Alpha Analytical	No. AOC3 2018-0092	
Project Number:	Task 4	Attn:	Susan O'Neil	Shipping Date:	
Contact Name:	Amara Vandervort	Shipper:	FedEx	Airbill Number:	
Sampled By:	Windward	Form filled out by:	A. Vandervort	Turnaround requested:	Standard

	Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Black Carbon							Comments / Instructions [Composite/Bag ID]
-01	5/16/2018	1400	LDW18-SSCL-A01	1	sediment	X							
-02	5/16/2018	1400	LDW18-SSCL-A02	1	sediment	X							
-03	5/16/2018	1320	LDW18-SSCL-A03	1	sediment	X							
-04	5/16/2018	1232	LDW18-SSCL-A04	1	sediment	X							
-05	5/16/2018	1300	LDW18-SSCL-A05	1	sediment	X							
-06	5/16/2018	1207	LDW18-SSCL-A06	1	sediment	X							
-07	5/19/2018	1435	LDW18-SSCL-A07	1	sediment	X							
-08	5/19/2018	1500	LDW18-SSCL-A08	1	sediment	X							
-09	5/18/2018	1528	LDW18-SSCL-A09	1	sediment	X							
-10	5/18/2018	1505	LDW18-SSCL-A10	1	sediment	X							
-11	5/15/2018	1201	LDW18-SSCL-A11	1	sediment	X							
-12	5/18/2018	1330	LDW18-SSCL-A12	1	sediment	X							
	Total Number of Containers			12	Purchase Order / Statement of Work # PO 2018-0092								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Jacob Walter		Print name:	
Signature:		Signature:	
Company: ARI	Company: FedEx	Company: FedEx	Company: ARI
Date/Time: 07/24/18 0900	Date/Time:	Date/Time:	Date/Time: 7/25/18 10:03

* Distribution: White copies accompany shipment; yellow retained by consignor.

To be completed by Laboratory upon sample receipt:

Date of receipt:: 7/25/18	Laboratory W.O. #:
Condition upon receipt: Good	Time of receipt: 10:03
Cooler temperature: 3.5°C, 3.2°C	Received by:

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

L1828580

2 of 6

CHAIN-OF-CUSTODY/TEST REQUEST FORM

Project/Client Name: AOC3 Black Carbon
Project Number: Task 4
Contact Name: Amara Vandervort
Sampled By: Windward

Ship to: Alpha Analytical
Attn: Susan O'Neil
Shipper: FedEx
Form filled out by: B. Vandervort

No. AOC3 2018-0092
Shipping Date:
Airbill Number:
Turnaround requested: Standard

	Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Black Carbon							Comments / Instructions [Composite/Bag ID]
-13	5/17/2018	1320	LDW18-SSCL-A13	1	sediment	X							
-14	5/18/2018	1336	LDW18-SSCL-A17	1	sediment	X							
-15	5/18/2018	1357	LDW18-SSCL-A18	1	sediment	X							
-16	5/17/2018	1404	LDW18-SSCL-A19	1	sediment	X							
-17	05/15/2018	12:01	LDW18-SSCL-A11-FD	1	sediment	X							
-18	2/26/18	13:49	LDW18-SS-Comp01	1	sediment	X							
-19	2/28/18	13:02	LDW18-SS-Comp02	1	sediment	X							
-20	3/6/18	12:49	LDW18-SS-Comp03	1	sediment	X							
-21	3/6/18	11:46	LDW18-SS-Comp04	1	sediment	X							
-22	2/26/18	14:20	LDW18-SS-Comp05	1	sediment	X							
-23	3/5/18	13:45	LDW18-SS-Comp06	1	sediment	X							
-24	3/5/18	14:02	LDW18-SS-Comp07	1	sediment	X							
	Total Number of Containers			12	Purchase Order / Statement of Work # PO 2018-0092								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Jacob Walter	Company: Fedex	Print name:	Company: AAL
Signature:	Date/Time:	Signature:	Date/Time: 7/25/18 10:03
Company: ARI		Company: Fedex	
Date/Time: 07/24/18 0900		Date/Time:	

* Distribution: White copies accompany shipment; yellow retained by consignor.

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

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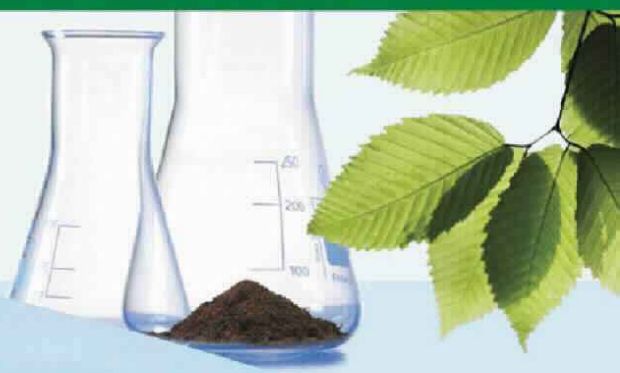

Lab Number: L1828594

Client: Analytical Resources, Inc.

ATTN: Susan Dunnihoo

Project Name: AOC3 BLACK CARBON

Project Number: TASK 4

Table of Contents

Sample Delivery Group Information

Sample Delivery Group Summary

Alpha Job Number : L1828594

Received : 25-JUL-2018
Reviewer : Bethany Bedard

Account Name : Analytical Resources, Inc.
Project Number : TASK 4
Project Name : AOC3 BLACK CARBON

Delivery Information

Samples Delivered By : Express Ship
FedEx (772803068440, 772803068521)

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Present/Intact/N/A	Ice	3.5	
B	Present/Intact/N/A	Ice	3.2	

Condition Information

1) All samples on COC received?	**YES**
2) Extra samples received?	**NO**
3) Are there any sample container discrepancies?	**NO**
4) Are there any discrepancies between sample labels & COC?	**NO**
5) Are samples in appropriate containers for requested analysis?	**YES**
6) Are samples properly preserved for requested analysis?	**YES**
7) Are samples within holding time for requested analysis?	**YES**
8) All sampling equipment returned?	**NA**

Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client?	**NA**

LIMS Chain of Custody

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 07 2018, 01:31 pm

Login Number: L1828594
Account: ARILAB Analytical Resources, Inc.Project: TASK 4
Received: 25JUL18 Due Date: 08AUG18

Sample #	Client ID	Mat	PR	Collected
L1828594-01	LDW18-SS-COMP08	3	S0	06MAR18 12:28
2 reps for soot L1828594-01 DUP A2-DPKG-FULL Package Due Date: 09/07/18				
A2-DPKG-FULL,A2-SOOT				
L1828594-02	LDW18-SS-COMP09	3	S0	06MAR18 14:36
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828594-03	LDW18-SS-COMP10	3	S0	05MAR18 14:19
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828594-04	LDW18-SS-COMP11	3	S0	06MAR18 14:57
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828594-05	LDW18-SS-COMP12	3	S0	06MAR18 15:19
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828594-06	LDW18-SS-COMP13	3	S0	05MAR18 15:22
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828594-07	LDW18-SS-COMP14	3	S0	06MAR18 10:40
2 reps for soot Package Due Date: 09/07/18				

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 07 2018, 01:31 pm

Login Number: L1828594
Account: ARILAB Analytical Resources, Inc.Project: TASK 4
Received: 25JUL18 Due Date: 08AUG18

Sample #	Client ID		Mat	PR	Collected
A2-SOOT					
L1828594-08	LDW18-SS-COMP15		3	S0	06MAR18 11:03
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					
L1828594-09	LDW18-SS-COMP16		3	S0	26FEB18 14:45
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					
L1828594-10	LDW18-SS-COMP17		3	S0	05MAR18 14:35
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					
L1828594-11	LDW18-SS-COMP18		3	S0	28FEB18 13:30
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					
L1828594-12	LDW18-SS-COMP19		3	S0	05MAR18 14:52
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					
L1828594-13	LDW18-SS-COMP20		3	S0	09MAR18 12:12
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 07 2018, 01:31 pm

Login Number: L1828594
Account: ARILAB Analytical Resources, Inc.Project: TASK 4
Received: 25JUL18 Due Date: 08AUG18

Sample #	Client ID	Mat	PR	Collected
L1828594-14	LDW18-SS-COMP21	3	S0	06MAR18 11:28
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828594-15	LDW18-SS-COMP22	3	S0	28FEB18 13:55
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828594-16	LDW18-SS-COMP23	3	S0	28FEB18 14:16
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828594-17	LDW18-SS-COMP24	3	S0	05MAR18 15:37
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828594-18	LDW18-SS-169	3	S0	23FEB18 15:15
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828594-19	LDW18-SS-170	3	S0	01MAR18 13:10
2 reps for soot Package Due Date: 09/07/18				
A2-SOOT				
L1828594-20	LDW18-SS-171	3	S0	01MAR18 10:48
2 reps for soot Package Due Date: 09/07/18				

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 07 2018, 01:31 pm

Login Number: L1828594
Account: ARILAB Analytical Resources, Inc.Project: TASK 4
Received: 25JUL18 Due Date: 08AUG18

Sample #	Client ID		Mat	PR	Collected
A2-SOOT					
L1828594-21	LDW18-SS-172		3	S0	01MAR18 12:22
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					
L1828594-22	LDW18-SS-173		3	S0	01MAR18 10:28
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					
L1828594-23	LDW18-SS-174		3	S0	01MAR18 13:34
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					
L1828594-24	LDW18-SS-175		3	S0	01MAR18 09:51
2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					
L1828594-25	LDW18-SS-176		3	S0	01MAR18 09:25
2 reps for soot Re-log of L1828603-01 L1828594-25 DUP Package Due Date: 09/07/18					
A2-SOOT					
L1828594-26	LDW18-SS-177		3	S0	02MAR18 07:49
2 reps for soot Re-log of L1828603-02 Package Due Date: 09/07/18					
A2-SOOT					

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 07 2018, 01:31 pm

Login Number: L1828594
Account: ARILAB Analytical Resources, Inc.Project: TASK 4
Received: 25JUL18 Due Date: 08AUG18

Sample #	Client ID		Mat	PR	Collected
L1828594-27	LDW18-SS-178		3	S0	01MAR18 08:39
Re-log of L1828603-03 2 reps for soot Package Due Date: 09/07/18					
A2-SOOT					
L1828594-28	LDW18-SS-178-FD		3	S0	01MAR18 08:39
2 reps for soot Re-log of L1828603-04 Package Due Date: 09/07/18					
A2-SOOT					
L1828594-29	LDW18-SS-179		3	S0	23FEB18 11:48
2 reps for soot Re-log of L1828603-05 Package Due Date: 09/07/18					
A2-SOOT					
L1828594-30	LDW18-SS-180		3	S0	28FEB18 14:10
2 reps for soot Re-log of L1828603-06 Package Due Date: 09/07/18					
A2-SOOT					
L1828594-31	LDW18-SS-181		3	S0	28FEB18 14:32
2 reps for soot Re-log of L1828603-07 Package Due Date: 09/07/18					
A2-SOOT					
L1828594-32	LDW18-SS-182		3	S0	01MAR18 08:03
2 reps for soot Re-log of L1828603-08 Package Due Date: 09/07/18					
A2-SOOT					
L1828594-33	LDW18-SS-183		3	S0	02MAR18 12:24
2 reps for soot Re-log of L1828603-09 Package Due Date: 09/07/18					

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 07 2018, 01:31 pm

Login Number: L1828594
Account: ARILAB Analytical Resources, Inc.Project: TASK 4
Received: 25JUL18 Due Date: 08AUG18

Sample #	Client ID		Mat	PR	Collected
A2-SOOT					
L1828594-34	LDW18-SS-184		3	S0	23FEB18 13:26
2 reps for soot Re-log of L1828603-10 Package Due Date: 09/07/18					
A2-SOOT					
L1828594-35	LDW18-SS-185		3	S0	28FEB18 12:27
2 reps for soot Re-log of L1828603-11 Package Due Date: 09/07/18					
A2-SOOT					
L1828594-36	LDW18-SS-186		3	S0	28FEB18 12:09
2 reps for soot Re-log of L1828603-12 Package Due Date: 09/07/18					
A2-SOOT					
L1828594-37	LDW18-SS-187		3	S0	02MAR18 11:31
2 reps for soot Re-log of L1828603-13 Package Due Date: 09/07/18					
A2-SOOT					
L1828594-38	LDW18-SS-188		3	S0	28FEB18 09:15
2 reps for soot Re-log of L1828603-14 Package Due Date: 09/07/18					
A2-SOOT					

Logged By: Sue ONeil

Container Tracking

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1828594-01A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-01A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-01A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-01A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-02A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-02A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-02A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-02A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-03A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-03A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-03A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-03A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-04A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-04A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-04A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-04A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-05A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-05A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-05A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-05A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-06A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-06A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-06A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-06A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-07A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1828594-07A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-07A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-07A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-08A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-08A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-08A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-08A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-09A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-09A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-09A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-09A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-10A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-10A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-10A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-10A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-11A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-11A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-11A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-11A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-12A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-12A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-12A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-12A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-13A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-13A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1828594-13A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-13A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-14A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-14A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-14A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-14A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-15A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-15A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-15A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-15A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-16A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-16A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-16A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-16A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-17A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-17A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-17A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-17A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-18A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-18A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-18A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-18A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-19A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-19A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-19A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1828594-19A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-20A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-20A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-20A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-20A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-21A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-21A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-21A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-21A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-22A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-22A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-22A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-22A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-23A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-23A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-23A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-23A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-24A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-24A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-24A	Glass-A.25	INTACT	25-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Bethany Bedard	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Bethany Bedard
L1828594-24A	Glass-A.25	INTACT	25-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-25A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-25A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-25A	Glass-A.25	INTACT	27-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Kim L. Bailey
L1828594-25A	Glass-A.25	INTACT	26-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1828594-26A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-26A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-26A	Glass-A.25	INTACT	27-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Kim L. Bailey
L1828594-26A	Glass-A.25	INTACT	26-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-27A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-27A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-27A	Glass-A.25	INTACT	27-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Kim L. Bailey
L1828594-27A	Glass-A.25	INTACT	26-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-28A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-28A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-28A	Glass-A.25	INTACT	27-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Kim L. Bailey
L1828594-28A	Glass-A.25	INTACT	26-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-29A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-29A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-29A	Glass-A.25	INTACT	27-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Kim L. Bailey
L1828594-29A	Glass-A.25	INTACT	26-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-30A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-30A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-30A	Glass-A.25	INTACT	27-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Kim L. Bailey
L1828594-30A	Glass-A.25	INTACT	26-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-31A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-31A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-31A	Glass-A.25	INTACT	27-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Kim L. Bailey
L1828594-31A	Glass-A.25	INTACT	26-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-32A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1828594-32A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-32A	Glass-A.25	INTACT	27-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Kim L. Bailey
L1828594-32A	Glass-A.25	INTACT	26-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-33A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-33A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-33A	Glass-A.25	INTACT	27-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Kim L. Bailey
L1828594-33A	Glass-A.25	INTACT	26-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-34A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-34A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-34A	Glass-A.25	INTACT	27-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Kim L. Bailey
L1828594-34A	Glass-A.25	INTACT	26-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-35A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-35A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-35A	Glass-A.25	INTACT	27-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Kim L. Bailey
L1828594-35A	Glass-A.25	INTACT	26-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-36A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-36A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-36A	Glass-A.25	INTACT	27-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Kim L. Bailey
L1828594-36A	Glass-A.25	INTACT	26-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-37A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-37A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery
L1828594-37A	Glass-A.25	INTACT	27-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Kim L. Bailey
L1828594-37A	Glass-A.25	INTACT	26-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil
L1828594-38A	Glass-A.25	INTACT	31-JUL-18	A2-CUSTODY-REFRIDGE	A2-WET CHEMISTRY	Grace Deloughery	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Grace Deloughery
L1828594-38A	Glass-A.25	INTACT	30-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X4	Grace Deloughery	A2-WET CHEMISTRY	A2-WET CHEMISTRY	Grace Deloughery

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1828594-38A	Glass-A.25	INTACT	27-JUL-18	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-FRZ1-X4	A2-CUSTODY-FRZ1-X4	Kim L. Bailey
L1828594-38A	Glass-A.25	INTACT	26-JUL-18	A2-LOGIN	A2-LOGIN	Sue ONeil	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sue ONeil

Chain of Custody

3 of 6

CHAIN-OF-CUSTODY/TEST REQUEST FORM

L1828594

Project/Client Name:	AOC3 Black Carbon	Ship to:	Alpha Analytical	No. AOC3 2018-0092	
Project Number:	Task 4	Attn:	Susan O'Neil	Shipping Date:	
Contact Name:	Amara Vandervort	Shipper:	FedEx	Airbill Number:	
Sampled By:	Windward	Form filled out by:	A. Vandervort	Turnaround requested:	Standard

	Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Black Carbon							Comments / Instructions [Composite/Bag ID]
-01	3/6/18	12:28	LDW18-SS-Comp08	1	sediment	X							
-02	3/6/18	1436	LDW18-SS-Comp09	1	sediment	X							
-03	3/5/18	14:19	LDW18-SS-Comp10	1	sediment	X							
-04	3/6/18	14:57	LDW18-SS-Comp11	1	sediment	X							
-05	3/6/18	15:19	LDW18-SS-Comp12	1	sediment	X							
-06	3/5/18	15:22	LDW18-SS-Comp13	1	sediment	X							
-07	3/6/18	10:40	LDW18-SS-Comp14	1	sediment	X							
-08	3/6/18	11:03	LDW18-SS-Comp15	1	sediment	X							
-09	2/26/18	14:45	LDW18-SS-Comp16	1	sediment	X							
-10	3/5/18	14:35	LDW18-SS-Comp17	1	sediment	X							
-11	2/28/18	13:30	LDW18-SS-Comp18	1	sediment	X							
-12	3/5/18	14:52	LDW18-SS-Comp19	1	sediment	X							
			Total Number of Containers	12	Purchase Order / Statement of Work # PO 2018-0092								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Jacob Walter		Print name:	
Signature:		Signature:	
Company: ARC	Company: Fed Ex	Company: Fedex	Company: AAL
Date/Time: 07/24/18 0900	Date/Time:	Date/Time:	Date/Time: 7/25/18 1003

* Distribution: White copies accompany shipment; yellow retained by consignor.

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

4 of 6

CHAIN-OF-CUSTODY/TEST REQUEST FORM

L1828594

Project/Client Name:	AOC3 Black Carbon	Ship to:	Alpha Analytical — No. AOC3 2018-0092
Project Number:	Task 4	Attn:	Susan O'Neil — Shipping Date:
Contact Name:	Amara Vandervort	Shipper:	FedEx — Airbill Number:
Sampled By:	Windward	Form filled out by:	A. Vandervort — Turnaround requested: Standard

	Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Black Carbon							Comments / Instructions [Composite/Bag ID]
-13	3/9/18	12:12	LDW18-SS-Comp20	1	sediment	X							
-14	3/6/18	11:28	LDW18-SS-Comp21	1	sediment	X							
-15	2/28/18	13:55	LDW18-SS-Comp22	1	sediment	X							
-16	2/28/18	14:16	LDW18-SS-Comp23	1	sediment	X							
-17	3/5/18	15:37	LDW18-SS-Comp24	1	sediment	X							
-18	2/23/18	15:15	LDW18-SS-169	1	sediment	X							
-19	3/1/18	13:10	LDW18-SS-170	1	sediment	X							
-20	3/1/18	10:48	LDW18-SS-171	1	sediment	X							
-21	3/1/18	12:22	LDW18-SS-172	1	sediment	X							
-22	3/1/18	10:28	LDW18-SS-173	1	sediment	X							
-23	3/1/18	13:34	LDW18-SS-174	1	sediment	X							
-24	3/1/18	9:51	LDW18-SS-175	1	sediment	X							
			Total Number of Containers	12	Purchase Order / Statement of Work # PO 2018-0092								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Jacob Walter		Print name:	
Signature:		Signature:	
Company: ARI	Company: fedex	Company: Fedex	Company: AAL
Date/Time: 07/24/18 0900	Date/Time:	Date/Time:	Date/Time: 7/25/18 10:03

* Distribution: White copies accompany shipment; yellow retained by consignor.

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

CHAIN-OF-CUSTODY/TEST REQUEST FORM

L1828594

Project/Client Name:	AOC3 Black Carbon	Ship to:	Alpha Analytical — No. AOC3 2018-0092
Project Number:	Task 4	Attn:	Susan O'Neil — Shipping Date:
Contact Name:	Amara Vandervort	Shipper:	FedEx — Airbill Number:
Sampled By:	Windward	Form filled out by:	A. Vandervort — Turnaround requested: Standard

	Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Black Carbon							Comments / Instructions [Composite/Bag ID]
.25 -01	3/1/18	9:25	LDW18-SS-176	1	sediment	X							
.26 -02	3/2/18	7:49	LDW18-SS-177	1	sediment	X							
.27 -03	3/1/18	8:39	LDW18-SS-178	1	sediment	X							
28 -04	3/1/18	8:39	LDW18-SS-178-FD	1	sediment	X							
29 -05	2/23/18	11:48	LDW18-SS-179	1	sediment	X							
30 -06	2/28/18	14:10	LDW18-SS-180	1	sediment	X							
31 -07	2/28/18	14:32	LDW18-SS-181	1	sediment	X							
32 -08	3/1/18	8:03	LDW18-SS-182	1	sediment	X							
33 -09	3/2/18	12:24	LDW18-SS-183	1	sediment	X							
34 -10	2/23/18	13:26	LDW18-SS-184	1	sediment	X							
35 -11	2/28/18	12:27	LDW18-SS-185	1	sediment	X							
36 -12	2/28/18	12:09	LDW18-SS-186	1	sediment	X							
			Total Number of Containers	12	Purchase Order / Statement of Work # PO 2018-0092								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Jacob Walter		Print name:	
Signature:		Signature:	
Company: ARI	Company: Fed Ex	Company: Fed Ex	Company: ARI
Date/Time: 07/24/18 0900	Date/Time:	Date/Time:	Date/Time: 7/25/18 10:03

* Distribution: White copies accompany shipment; yellow retained by consignor.

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

CHAIN-OF-CUSTODY/TEST REQUEST FORM

4828594

Project/Client Name:	AOC3 Black Carbon	Ship to:	Alpha Analytical
Project Number:	Task 4	Attn:	Susan O'Neil
Contact Name:	Amara Vandervort	Shipper:	FedEx
Sampled By:	Windward	Form filled out by:	A. Vandervort

No. AOC3 2018-0092
Shipping Date:
Airbill Number:
Turnaround requested: Standard

	Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Black Carbon							Comments / Instructions [Composite/Bag ID]
37	3/2/18	11:31	LDW18-SS-187	1	sediment	X							
38	2/28/18	9:15	LDW18-SS-188	1	sediment	X							
	Total Number of Containers			2	Purchase Order / Statement of Work # PO 2018-0092								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Jacob Walter	Company: FedEx	Print name:	Company: AAL
Signature:	Date/Time:	Signature:	Date/Time: 7/25/18 10:03
Company: ARI		Company: FedEx	
Date/Time: 07/24/18 0900		Date/Time:	

* Distribution: White copies accompany shipment; yellow retained by consignor.

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

Wet Chemistry

Organic Carbon Analysis

Sequence Logs

Date of report: 8/8/2018 2:23 PM
User ID: Alpha Analytical

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydrogen	Nitrogen	ZR	CR	HR	NR
K1	1	10.030	8/8/2018 6:10:52 AM	20.927	-.065	0.617	61183	63910	63799	61840
BLANK	2		8/8/2018 6:16:17 AM	-32	-133	52	61254	61274	61141	61306
K1	3	9.860	8/8/2018 6:21:31 AM	20.355	0.018	0.014	61174	63101	63004	61125
K1	4	9.580	8/8/2018 6:26:46 AM	20.950	-.044	0.007	61173	63092	62965	61116
ICV	5	9.980	8/8/2018 6:32:15 AM	0.933%	-2.333%	-.193%	61214	63041	62918	61143
ICB	6	61.600	8/8/2018 6:37:30 AM	0.009%	2.379%	-.021%	61147	61168	61169	61078
HICV	7	51.600	8/8/2018 6:44:50 AM	3.630%	1.407%	0.087%	61226	99938	99885	61175
SRM1650	8	.450	8/8/2018 6:50:42 AM	70.709%	-3.044%	11.396%	61185	67696	67589	61136
MB	9	35.020	8/8/2018 6:55:57 AM	0.005%	-1.330%	-.540%	61186	61064	60924	61062
SRM1650	10	.350	8/8/2018 7:01:12 AM	89.463%	43.053%	28.388%	61194	67615	67520	61160
MB	11	49.490	8/8/2018 7:06:27 AM	0.001%	-1.744%	-.136%	61181	61072	60903	61095
182859401	12	9.470	8/8/2018 7:13:49 AM	0.002%	-1.013%	0.372%	61129	61047	60934	61075
182859401	13	9.140	8/8/2018 7:19:04 AM	0.029%	-7.943%	-.386%	61144	61092	60933	61068
182859401D	14	9.030	8/8/2018 7:24:19 AM	0.221%	4.551%	0.0%	61089	61406	61330	61024
182859401D	15	8.980	8/8/2018 7:29:34 AM	0.033%	9.610%	-.464%	61101	61054	61011	61023
182859401MS	16	7.790	8/8/2018 7:34:49 AM	1.175%	-14.595%	-1.399%	61148	62914	62725	61049
182859401MS	17	8.340	8/8/2018 7:40:04 AM	1.088%	20.039%	4.996%	60990	62904	62920	61055
CCV	18	10.050	8/8/2018 7:47:03 AM	0.961%	8.860%	-.542%	61154	63041	63000	61072
CCB	19	55.710	8/8/2018 7:52:18 AM	-.002%	0.566%	-.081%	61170	61040	60957	61091
182859401D	20	9.720	8/8/2018 7:58:13 AM	0.036%	1.832%	1.418%	61041	61061	60968	61019
182859401D	21	10.550	8/8/2018 8:03:28 AM	0.051%	-28.955%	0.122%	61112	61131	60802	61051
182859402	22	6.330	8/8/2018 8:08:43 AM	-.085%	33.327%	-.253%	61144	60931	60979	61074
182859402	23	6.090	8/8/2018 8:13:59 AM	-.016%	8.997%	-.105%	61158	61040	60974	61091
182859403	24	8.040	8/8/2018 8:19:14 AM	-.015%	-33.565%	-1.076%	61170	61022	60719	61078
182859403	25	8.440	8/8/2018 8:24:29 AM	0.051%	0.0%	-.646%	60975	60951	60845	60893
182859404	26	8.590	8/8/2018 8:29:45 AM	0.103%	-18.977%	-.448%	61012	61087	60862	60935

Reported on 8/8/2018 2:23 PM by Alpha Analytical

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydrogen	Nitrogen	ZR	CR	HR	NR
CCB	19	55.710	8/8/2018 7:52:18 AM	-.002%	0.566%	-.081%	61170	61040	60957	61091
182859401D	20	9.720	8/8/2018 7:58:13 AM	0.036%	1.832%	1.418%	61041	61061	60968	61019
182859401D	21	10.550	8/8/2018 8:03:28 AM	0.051%	-28.955%	0.122%	61112	61131	60802	61051
182859402	22	6.330	8/8/2018 8:08:43 AM	-.085%	33.327%	-.253%	61144	60931	60979	61074
182859402	23	6.090	8/8/2018 8:13:59 AM	-.016%	8.997%	-.105%	61158	61040	60974	61091
182859403	24	8.040	8/8/2018 8:19:14 AM	-.015%	-33.565%	-1.076%	61170	61022	60719	61078
182859403	25	8.440	8/8/2018 8:24:29 AM	0.051%	0.0%	-.646%	60975	60951	60845	60893
182859404	26	8.590	8/8/2018 8:29:45 AM	0.103%	-18.977%	-.448%	61012	61087	60862	60935
182859404	27	8.690	8/8/2018 8:35:00 AM	0.042%	-.788%	-1.955%	61192	61118	61007	61074
182859401MS	28	5.140	8/8/2018 8:40:15 AM	1.907%	7.196%	0.561%	61187	63130	63051	61131
182859401MS	29	7.120	8/8/2018 8:45:30 AM	1.353%	-22.126%	0.540%	61276	63187	62966	61223
CCV	30	10.320	8/8/2018 8:50:45 AM	0.992%	-31.990%	16.616%	61169	63728	63381	61639
CCB	31	54.080	8/8/2018 8:56:01 AM	-.008%	-.861%	15.024%	61245	63596	63456	63715
182859402	32	6.650	8/8/2018 9:01:56 AM	0.030%	-10.712%	454.935%	61187	70572	70414	70561
182859402	33	7.770	8/8/2018 9:07:12 AM	0.077%	-12.694%	1472.544%	61272	96998	96820	96905
182859403	34	10.650	8/8/2018 9:12:27 AM	0.111%	4.888%	1662.453%	61172	116560	116492	116347
182859403	35	12.070	8/8/2018 9:17:42 AM	0.118%	-13.960%	1907.357%	61259	133285	133056	133022
182859404	36	13.230	8/8/2018 9:22:57 AM	0.136%	6.937%	2041.664%	61344	145896	145857	145554
182859404	37	10.940	8/8/2018 9:28:12 AM	0.203%	6.010%	2776.039%	61400	156519	156461	156089
182859405	38	6.540	8/8/2018 9:33:27 AM	0.263%	3.770%	5140.359%	61431	166579	166491	166254
182859405	39	7.330	8/8/2018 9:38:42 AM	0.253%	54.383%	5167.384%	61254	179718	179903	179365
182859406	40	6.410	8/8/2018 9:43:56 AM	0.307%	5.129%	6425.457%	61477	190293	190211	189916
182859406	41	7.470	8/8/2018 9:49:11 AM	0.420%	8.436%	5850.882%	61455	198372	198312	197753
CCV	42	10.350	8/8/2018 9:54:26 AM	1.127%	13.103%	4522.111%	61570	209919	209912	207533
CCB	43	45.300	8/8/2018 9:59:41 AM	0.042%	3.992%	1048.473%	61610	210098	210124	209732
CCB	44	51.230	8/8/2018 10:06:20 A	0.032%	0.455%	775.118%	61638	185776	185687	185466

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Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydrogen	Nitrogen	ZR	CR	HR	NR
K1	1	9.850	8/8/2018 11:12:28 A	20.518	0.115	0.765	61267	64071	64022	62081
BLANK	2		8/8/2018 11:17:44 A	-48	-112	116	61276	61344	61232	61392
K1	3	10.190	8/8/2018 11:23:01 A	20.373	0.029	-.066	61193	63234	63140	61198
K1	4	10.350	8/8/2018 11:28:24 A	19.836	0.065	-.102	61320	63294	63219	61281
ICV	5	10.190	8/8/2018 11:33:45 A	0.960%	-9.441%	-1.733%	61251	63173	62988	61240
ICB	6	65.630	8/8/2018 11:39:01 A	0.001%	-.984%	-.430%	61266	61171	61011	61198
HICV	7	51.460	8/8/2018 11:44:31 A	3.724%	1.033%	-.527%	61243	99786	99719	61181
SRM1650	8	.400	8/8/2018 11:50:01 A	86.263%	284.810%	-57.156%	61275	68154	68135	61236
MB	9	59.370	8/8/2018 11:55:18 A	-.002%	-.043%	-.510%	61365	61220	61109	61286
SRM1650	10	.400	8/8/2018 12:00:35 PM	70.097%	56.962%	-58.086%	61296	66869	66778	61255
MB	11	45.500	8/8/2018 12:05:53 PM	-.005%	-4.034%	-.527%	61250	61123	60869	61205
182859402	12	5.240	8/8/2018 12:11:10 PM	0.014%	16.427%	-5.250%	61157	61068	61027	61093
182859402	13	6.0	8/8/2018 12:16:27 PM	0.008%	13.713%	-6.846%	61186	61019	60975	61049
182859402D	14	5.550	8/8/2018 12:21:45 PM	0.022%	-7.983%	-5.158%	61169	61084	60940	61099
182859402D	15	6.840	8/8/2018 12:27:02 PM	0.066%	2.221%	-3.832%	61161	61155	61058	61104
182859402MS	16	6.100	8/8/2018 12:32:19 PM	1.674%	-1.038%	-4.053%	61063	63033	62919	61014
182859402MS	17	5.070	8/8/2018 12:37:36 PM	2.130%	-15.230%	-5.829%	61160	63223	63053	61085
CCV	18	10.350	8/8/2018 12:44:01 PM	1.011%	-2.446%	-2.802%	61151	63150	63021	61079
CCB	19	56.330	8/8/2018 12:49:19 PM	0.002%	1.393%	-.944%	61178	60956	60909	60976
182859403	20	5.430	8/8/2018 12:54:57 PM	0.005%	-4.662%	-5.135%	61243	61143	61014	61177
182859403	21	6.620	8/8/2018 1:00:14 PM	0.018%	0.956%	-4.717%	61170	61070	60966	61086
182859404	22	9.210	8/8/2018 1:05:32 PM	0.034%	1.100%	-2.825%	61219	61186	61085	61163
182859404	23	8.570	8/8/2018 1:10:52 PM	0.053%	2.068%	-4.511%	61222	61150	61055	61098
182859405	24	7.150	8/8/2018 1:16:09 PM	0.017%	12.747%	-3.613%	61107	61036	60999	61052
182859405	25	9.350	8/8/2018 1:21:27 PM	0.094%	9.206%	-4.811%	61144	61124	61083	60986
182859406	26	9.660	8/8/2018 1:26:45 PM	0.101%	-2.883%	-3.463%	61169	61230	61099	61073

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Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydrogen	Nitrogen	ZR	CR	HR	NR
182859406	27	6.320	8/8/2018 1:32:02 PM	0.027%	16.424%	-3.500%	61085	61044	61017	61050
182859407	28	9.070	8/8/2018 1:37:20 PM	0.020%	1.116%	-2.890%	61131	61070	60969	61074
182859407	29	8.220	8/8/2018 1:42:38 PM	0.011%	-2.002%	-2.646%	61120	61066	60944	61087
CCV	30	9.830	8/8/2018 1:47:55 PM	1.008%	0.129%	-2.175%	61138	63065	62957	61107
CCB	31	74.280	8/8/2018 1:53:12 PM	0.002%	-1.602%	-.363%	61188	61112	60909	61127
182859408	32	7.240	8/8/2018 2:03:25 PM	0.003%	-6.469%	-2.311%	61048	61007	60861	61042
182859408	33	9.360	8/8/2018 2:08:42 PM	0.031%	-4.057%	-3.515%	61181	61107	60968	61088
182859409	34	9.130	8/8/2018 2:13:59 PM	0.010%	1.525%	-2.830%	61093	61017	60919	61038
182859409	35	9.390	8/8/2018 2:19:16 PM	0.065%	5.123%	-3.009%	61038	61054	60983	60970
182859410	36	7.800	8/8/2018 2:24:34 PM	0.003%	-1.947%	-3.765%	61046	60937	60816	60972
182859410	37	7.780	8/8/2018 2:29:51 PM	-.010%	-6.183%	-3.345%	60995	60884	60737	60939
182859411	38	10.190	8/8/2018 2:35:08 PM	0.008%	0.248%	-1.459%	61006	60987	60880	61010
182859411	39	8.410	8/8/2018 2:40:25 PM	0.0%	-6.623%	-3.293%	61087	60982	60829	61022
182859412	40	8.100	8/8/2018 2:45:42 PM	0.004%	-3.282%	-2.823%	61033	60960	60830	60994
CCV	42	9.640	8/9/2018 7:48:29 AM	1.036%	3.677%	24.372%	62944	66265	66184	64292
CCB	43	49.690	8/9/2018 7:53:45 AM	-.004%	1.962%	0.692%	63023	63215	63183	63292
182859417	44	14.630	8/9/2018 7:59:16 AM	0.008%	1.384%	-.584%	63029	63052	62959	63067
182859417	45	13.310	8/9/2018 8:04:31 AM	0.004%	3.519%	-1.061%	63081	63060	62988	63089
182859418	46	9.530	8/9/2018 8:09:48 AM	0.020%	-1.195%	-1.677%	63159	63155	63037	63157
182859418	47	7.600	8/9/2018 8:15:05 AM	0.050%	-9.327%	-3.546%	63209	63184	63019	63148
182859402MS	48	8.760	8/9/2018 8:20:21 AM	1.215%	0.434%	-1.973%	63091	65189	65083	63082
182859402MS	49	6.100	8/9/2018 8:25:38 AM	1.697%	-25.109%	-4.205%	63163	65157	64927	63109
182859413	50	8.430	8/9/2018 8:30:54 AM	0.016%	2.102%	-2.447%	63149	63110	63015	63122
182859413	51	8.870	8/9/2018 8:36:11 AM	0.034%	6.279%	-2.389%	63197	63187	63122	63167
182859414	52	6.720	8/9/2018 8:41:27 AM	0.018%	5.463%	-2.379%	63240	63222	63142	63238
182859414	53	8.650	8/9/2018 8:46:43 AM	0.021%	-3.805%	-2.686%	63365	63321	63186	63324
CCV	54	9.920	8/9/2018 8:51:59 AM	1.017%	-4.466%	-1.818%	63309	65290	65146	63296

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Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydrogen	Nitrogen	ZR	CR	HR	NR
CCV	54	9.920	8/9/2018 8:51:59 AM	1.017%	-4.466%	-1.818%	63309	65290	65146	63296
CCB	55	111.980	8/9/2018 8:57:15 AM	0.001%	-.181%	-.295%	63337	63218	63093	63243
182859412	56	7.820	8/9/2018 9:03:05 AM	-.025%	2.104%	-2.329%	63265	63171	63075	63251
182859415	57	13.570	8/9/2018 9:08:21 AM	0.003%	5.317%	-1.712%	63386	63312	63260	63345
182859715	58	11.910	8/9/2018 9:13:37 AM	-.002%	1.275%	-1.842%	63380	63300	63203	63346
182859416	59	9.620	8/9/2018 9:18:53 AM	0.005%	-.132%	-2.589%	63469	63389	63279	63419
182859416	60	9.370	8/9/2018 9:24:10 AM	0.014%	-4.188%	-2.539%	63446	63389	63249	63402
182859419	61	9.050	8/9/2018 9:29:26 AM	0.051%	6.294%	-2.629%	63428	63437	63373	63384
182859419	62	6.930	8/9/2018 9:34:43 AM	0.034%	2.192%	-3.192%	63445	63417	63320	63410
182859420	63	9.640	8/9/2018 9:39:59 AM	0.074%	3.808%	-2.372%	63445	63510	63430	63406
182859420	64	10.590	8/9/2018 9:45:16 AM	0.081%	3.586%	-2.124%	63416	63511	63432	63379
CCV	65	9.820	8/9/2018 9:52:41 AM	0.955%	3.738%	-1.760%	63413	65255	65175	63404
CCB	66	65.730	8/9/2018 9:57:58 AM	-.002%	-.886%	-.345%	63498	63398	63243	63460

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Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydrogen	Nitrogen	ZR	CR	HR	NR
K1	1	10.080	8/8/2018 6:08:45 AM	18.889	27.482	0.937	14000	17193	32531	15265
BLANK	2		8/8/2018 6:14:54 AM	47	2827	320	14008	14375	17202	14328
K1	3	9.350	8/8/2018 6:20:43 AM	18.096	29.272	-.034	14006	15859	31030	14132
K1	4	9.600	8/8/2018 6:25:49 AM	18.813	28.496	-.086	14013	15921	31085	14080
ICV	11	10.110	8/8/2018 7:00:03 AM	0.936%	5.129%	-.228%	14019	15841	32000	14053
ICB	12	50.150	8/8/2018 7:04:44 AM	-.001%	0.011%	-.047%	14017	14079	15645	14049
HICV	13	50.860	8/8/2018 7:10:47 AM	3.480%	1.010%	-.041%	14000	46873	62898	14047
SRM1650	14	.430	8/8/2018 7:18:32 AM	70.544%	177.630%	-4.149%	13994	19712	42851	14057
MB	15	44.240	8/8/2018 7:23:13 AM	0.0%	0.013%	-.051%	14011	14085	15658	14047
SRM1650	16	.460	8/8/2018 7:27:53 AM	54.140%	-1.528%	-4.150%	13996	18701	19905	14052
MB	17	50.020	8/8/2018 7:32:34 AM	0.0%	-.041%	-.045%	13995	14064	14881	14031
SRM1650	18	.370	8/8/2018 7:37:15 AM	72.765%	-4.540%	-5.063%	13995	19076	20002	14053
182740805	19	8.390	8/8/2018 7:42:35 AM	0.587%	0.541%	-.176%	13993	15021	17717	14073
182740805	20	6.330	8/8/2018 7:47:16 AM	0.519%	0.407%	-.271%	13996	14707	16845	14063
182740805D	21	5.160	8/8/2018 7:51:57 AM	0.596%	0.259%	-.356%	13998	14663	16448	14058
182740805D	22	5.760	8/8/2018 7:56:38 AM	0.551%	0.310%	-.307%	13998	14685	16597	14062
182740805MS	23	6.300	8/8/2018 8:01:19 AM	2.053%	7.711%	-.269%	14000	16499	31728	14068
CCV	24	10.080	8/8/2018 8:06:00 AM	0.965%	5.144%	-.234%	14010	15879	32039	14041
CCB	25	60.550	8/8/2018 8:10:41 AM	-.001%	0.002%	-.039%	14015	14073	15510	14047
182740806	26	7.280	8/8/2018 8:20:36 AM	0.514%	0.442%	-.240%	13992	14785	17104	14057
182740806	27	5.930	8/8/2018 8:25:17 AM	0.653%	0.259%	-.307%	13996	14809	16650	14057
182740808	28	9.970	8/8/2018 8:29:58 AM	0.482%	0.340%	-.084%	13998	15040	17410	14114
182740808	29	10.790	8/8/2018 8:34:39 AM	0.481%	0.397%	-.064%	13999	15119	17741	14123
182740805MS	30	6.780	8/8/2018 8:39:21 AM	1.990%	7.509%	-.239%	14000	16607	32498	14072
182859425	31	9.680	8/8/2018 8:44:02 AM	0.066%	0.469%	-.223%	14009	14204	16899	14051
182859425	32	9.690	8/8/2018 8:48:43 AM	0.058%	0.220%	-.225%	14000	14180	16190	14041

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Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydrogen	Nitrogen	ZR	CR	HR	NR
182859425D	33	12.030	8/8/2018 8:53:24 AM	0.050%	0.342%	-.179%	13997	14185	16761	14039
182859425D	34	12.620	8/8/2018 8:58:05 AM	0.041%	0.285%	-.171%	13997	14169	16596	14039
182859425MS	35	11.670	8/8/2018 9:02:46 AM	0.932%	4.473%	-.183%	13998	16090	32350	14041
CCV	36	10.330	8/8/2018 9:07:28 AM	0.756%	5.262%	-.225%	14007	15521	32393	14040
CCB	37	63.040	8/8/2018 9:12:09 AM	0.0%	-.013%	-.037%	14010	14078	15251	14041
CCV	38	10.0	8/8/2018 9:16:50 AM	0.980%	5.243%	-.236%	13997	15879	32204	14028
CCB	39	94.360	8/8/2018 9:21:31 AM	0.0%	0.011%	-.025%	14008	14081	15767	14038
182859425MSD	40	11.950	8/8/2018 9:30:01 AM	0.835%	4.400%	-.181%	13988	15914	32281	14030
182859421	41	9.830	8/8/2018 9:34:43 AM	0.147%	0.563%	-.205%	14004	14357	17335	14054
182859421	42	7.710	8/8/2018 9:39:24 AM	0.119%	0.210%	-.273%	13993	14243	16107	14038
182859422	43	7.620	8/8/2018 9:44:05 AM	0.055%	0.221%	-.290%	13992	14144	16028	14031
182859422	44	11.950	8/8/2018 9:48:47 AM	0.056%	0.308%	-.182%	13992	14191	16641	14033
182859423	45	15.250	8/8/2018 9:53:29 AM	0.046%	0.031%	-.138%	13992	14201	15740	14037
182859423	46	12.890	8/8/2018 9:58:10 AM	0.047%	0.010%	-.165%	13989	14180	15621	14033
182859424	47	9.280	8/8/2018 10:02:52 AM	0.048%	0.121%	-.244%	13989	14143	15867	14025
182859425MS	48	8.880	8/8/2018 10:07:34 AM	1.132%	5.993%	-.263%	13992	15921	32468	14024
182859425MSD	49	8.120	8/8/2018 10:12:15 AM	1.180%	6.716%	-.281%	14002	15847	32769	14037
CCV	50	10.420	8/8/2018 10:16:57 AM	0.971%	5.346%	-.233%	14008	15944	33200	14035
CCB	51	47.0	8/8/2018 10:21:39 AM	-.001%	-.006%	-.052%	14007	14063	15392	14034
182859424	52	8.480	8/8/2018 10:27:45 AM	0.053%	0.199%	-.263%	13987	14143	16028	14025
182858426	53	6.720	8/8/2018 10:32:26 AM	0.053%	0.081%	-.345%	13990	14124	15683	14023
182859426	54	6.880	8/8/2018 10:37:08 AM	0.048%	0.082%	-.327%	13987	14120	15684	14024
182859427	55	7.190	8/8/2018 10:41:51 AM	0.085%	0.144%	-.308%	13988	14175	15873	14027
182859427	56	9.140	8/8/2018 10:46:33 AM	0.082%	0.286%	-.238%	13986	14201	16349	14027
182859428	57	7.400	8/8/2018 10:51:15 AM	0.164%	0.152%	-.282%	13986	14292	16017	14032
182859428	58	8.100	8/8/2018 10:55:57 AM	0.159%	0.206%	-.253%	13984	14306	16185	14032
182859429	59	8.020	8/8/2018 11:00:39 AM	0.069%	0.261%	-.274%	13985	14163	16162	14025

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Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydrogen	Nitrogen	ZR	CR	HR	NR
182859429	59	8.020	8/8/2018 11:00:39 AM	0.069%	0.261%	-.274%	13985	14163	16162	14025
182859429	60	7.900	8/8/2018 11:05:22 AM	0.070%	0.204%	-.285%	13985	14159	16021	14022
182859430	61	6.900	8/8/2018 11:10:04 AM	0.093%	-.094%	-.323%	13984	14176	15395	14022
CCV	62	10.100	8/8/2018 11:14:47 AM	0.981%	5.663%	-.247%	13990	15883	33563	14013
CCB	63	61.470	8/8/2018 11:19:29 AM	0.0%	-.012%	-.040%	14000	14061	15260	14025
182859430	64	8.420	8/8/2018 11:26:15 AM	0.080%	0.149%	-.254%	13981	14184	15945	14024
182859431	65	6.980	8/8/2018 11:30:58 AM	0.909%	0.177%	-.215%	13986	15275	17031	14065
182859431	66	6.420	8/8/2018 11:35:41 AM	0.959%	0.115%	-.247%	13988	15238	16853	14062
182859432	67	10.720	8/8/2018 11:40:23 AM	0.711%	0.361%	-.098%	13985	15536	18041	14089
182859432	68	9.010	8/8/2018 11:45:06 AM	0.673%	0.108%	-.152%	13986	15231	16912	14072
182859433	69	7.630	8/8/2018 11:49:49 AM	1.162%	0.483%	-.159%	13987	15759	18211	14082
182859433	70	7.480	8/8/2018 11:54:32 AM	0.940%	0.304%	-.203%	13989	15405	17456	14067
182859434	71	7.250	8/8/2018 11:59:14 AM	0.009%	-.242%	-.337%	13986	14059	14964	14012
182859434	72	11.140	8/8/2018 12:03:57 PM	0.005%	-.066%	-.218%	13985	14057	15251	14012
182859435	73	8.690	8/8/2018 12:08:40 PM	-.002%	-.149%	-.285%	13984	14040	15076	14008
CCV	74	10.460	8/8/2018 12:13:24 PM	0.971%	5.444%	-.247%	13988	15923	33532	14006
CCB	75	78.020	8/8/2018 12:20:02 PM	0.0%	-.005%	-.032%	13985	14046	15339	14009
182859435	76	6.230	8/8/2018 12:24:48 PM	-.004%	-.211%	-.395%	13985	14040	15070	14010
182859435	77	8.090	8/8/2018 12:29:31 PM	0.005%	-.107%	-.304%	13984	14051	15209	14009
182859436	78	13.790	8/8/2018 12:34:15 PM	0.001%	0.041%	-.177%	13983	14046	15611	14009
182859436	79	10.220	8/8/2018 12:38:58 PM	0.0%	0.115%	-.244%	13984	14042	15780	14007
182859437	80	5.800	8/8/2018 12:43:41 PM	0.038%	-.051%	-.424%	13983	14084	15404	14008
182859437	81	6.630	8/8/2018 12:48:25 PM	0.023%	0.030%	-.369%	13982	14071	15531	14008
182859438	82	11.090	8/8/2018 12:53:09 PM	0.014%	-.091%	-.224%	13983	14070	15186	14007
182859438	83	9.210	8/8/2018 12:57:52 PM	0.026%	-.201%	-.260%	13978	14087	14965	14007
SRM1650	84	.480	8/8/2018 1:02:36 PM	64.253%	-5.256%	-4.274%	13980	19777	20463	14028
MB	85	49.340	8/8/2018 1:07:20 PM	0.0%	-.075%	-.050%	13977	14032	14377	14001

Reported on 8/8/2018 1:40 PM by alpha

Run Details				Results			Signals			
Run	Run #	Weight	Created on	Carbon	Hydrogen	Nitrogen	ZR	CR	HR	NR
MB	85	49.340	8/8/2018 1:07:20 PM	0.0%	-.075%	-.050%	13977	14032	14377	14001
CCV	86	10.400	8/8/2018 1:12:04 PM	0.967%	5.623%	-.256%	13987	15899	33945	14001
CCB	87	78.670	8/8/2018 1:16:48 PM	0.0%	-.009%	-.033%	13999	14047	15251	14016
SRM1650	88	.370	8/8/2018 1:21:32 PM	65.193%	-4.825%	-5.883%	13984	18529	19425	14025
MB	89	57.730	8/8/2018 1:30:27 PM	0.0%	-.052%	-.045%	13977	14025	14576	13994
CCV	90	10.050	8/8/2018 1:35:11 PM	0.973%	5.771%	-.261%	13984	15846	33755	14000
CCB	91	58.780	8/8/2018 1:39:55 PM	-.001%	-.008%	-.044%	13995	14038	15303	14013

Sample Raw Data

Date of report	8/8/2018 2:23:47PM
User ID	Alpha Analytical

DATE & TIME	8/8/2018 6:10:52 AM			P_ID	080818SPP
RUN TYPE	K1			USER ID	alpha
WEIGHT (mg)	10.030			MODE	CHN

				SIGNALS			
				ZR	61183	AVERAGE RESULTS	
	KC	20.927		NR	61840	KC	20.603
	KH	-.065		CR	63910	KH	0.073
	KN	0.617		HR	63799	KN	0.312
	BLANKS	-29	-78	-65			
	K FACTORS	1.0%	5.03%	11.67%			
	FILL TIME	50 Seconds					

NUMBER	MESSAGE
8	CHECK FOR SAMPLE DROP

DATE & TIME	8/8/2018 6:16:17 AM			P_ID	080818SPP
RUN TYPE	BLANK			USER ID	alpha
				MODE	CHN

				SIGNALS			
				ZR	61254	AVERAGE RESULTS	
	CARBON	-32		NR	61306	CARBON	-31
	HYDROGEN	-133		CR	61274	HYDROGEN	-106
	NITROGEN	52		HR	61141	NITROGEN	-65
	FILL TIME	50 Seconds					

DATE & TIME	8/8/2018 6:21:31 AM			P_ID	080818SPP
RUN TYPE	K1			USER ID	alpha
WEIGHT (mg)	9.860			MODE	CHN

				SIGNALS			
				ZR	61174	AVERAGE RESULTS	
	KC	20.355		NR	61125	KC	20.479
	KH	0.018		CR	63101	KH	0.073
	KN	0.014		HR	63004	KN	0.312
	BLANKS	-31	-106	-65			
	K FACTORS	1.0%	5.03%	11.67%			
	FILL TIME	51 Seconds					

DATE & TIME	8/8/2018 6:26:46 AM			P_ID	080818SPP
RUN TYPE	K1			USER ID	alpha
WEIGHT (mg)	9.580			MODE	CHN

				SIGNALS			
				ZR	61173	AVERAGE RESULTS	
	KC	20.950		NR	61116	KC	20.714
	KH	-.044		CR	63092	KH	0.073
	KN	0.007		HR	62965	KN	0.312
	BLANKS	-31	-106	-65			
	K FACTORS	1.0%	5.03%	11.67%			
	FILL TIME	51 Seconds					

NUMBER	MESSAGE
8	CHECK FOR SAMPLE DROP
12	NITROGEN KFACTOR OUT OF TOLERANCE

DATE & TIME	8/8/2018 6:32:15 AM	P_ID	080818SPP
SAMPLE ID	ICV	USER ID	alpha
WEIGHT (mg)	9.980	MODE	CHN

				SIGNALS	
				ZR	61214
CARBON	0.933%			NR	61143
HYDROGEN	-2.333%			CR	63041
NITROGEN	-.193%			HR	62918
BLANKS	-31	-106	-65		
K FACTORS	20.714	0.073	0.312		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	51 Seconds				

DATE & TIME	8/8/2018 6:37:30 AM	P_ID	080818SPP
SAMPLE ID	ICB	USER ID	alpha
WEIGHT (mg)	61.600	MODE	CHN

				SIGNALS	
				ZR	61147
CARBON	0.009%			NR	61078
HYDROGEN	2.379%			CR	61168
NITROGEN	-.021%			HR	61169
BLANKS	-31	-106	-65		
K FACTORS	20.714	0.073	0.312		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	51 Seconds				

DATE & TIME	8/8/2018 6:44:50 AM	P_ID	080818SPP
SAMPLE ID	HICV	USER ID	alpha
WEIGHT (mg)	51.600	MODE	CHN

				SIGNALS	
				ZR	61226
CARBON	3.630%			NR	61175
HYDROGEN	1.407%			CR	99938
NITROGEN	0.087%			HR	99885
BLANKS	-31	-106	-65		
K FACTORS	20.714	0.073	0.312		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	51 Seconds				

DATE & TIME	8/8/2018 6:50:42 AM	P_ID	080818SPP
SAMPLE ID	SRM1650	USER ID	alpha
WEIGHT (mg)	.450	MODE	CHN

				SIGNALS	
				ZR	61185

CARBON	70.709%		NR	61136
HYDROGEN	-3.044%		CR	67696
NITROGEN	11.396%		HR	67589
BLANKS	-31	-106	-65	
K FACTORS	20.714	0.073	0.312	

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 51 Seconds

DATE & TIME	8/8/2018 6:55:57 AM	P_ID	080818SPP
SAMPLE ID	MB	USER ID	alpha
WEIGHT (mg)	35.020	MODE	CHN

SIGNALS

		ZR	61186
CARBON	0.005%	NR	61062
HYDROGEN	-1.330%	CR	61064
NITROGEN	-.540%	HR	60924
BLANKS	-31	-106	-65
K FACTORS	20.714	0.073	0.312

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 51 Seconds

DATE & TIME	8/8/2018 7:01:12 AM	P_ID	080818SPP
SAMPLE ID	SRM1650	USER ID	alpha
WEIGHT (mg)	.350	MODE	CHN

SIGNALS

		ZR	61194
CARBON	89.463%	NR	61160
HYDROGEN	43.053%	CR	67615
NITROGEN	28.388%	HR	67520
BLANKS	-31	-106	-65
K FACTORS	20.714	0.073	0.312

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 51 Seconds

DATE & TIME	8/8/2018 7:06:27 AM	P_ID	080818SPP
SAMPLE ID	MB	USER ID	alpha
WEIGHT (mg)	49.490	MODE	CHN

SIGNALS

		ZR	61181
CARBON	0.001%	NR	61095
HYDROGEN	-1.744%	CR	61072
NITROGEN	-.136%	HR	60903
BLANKS	-31	-106	-65
K FACTORS	20.714	0.073	0.312

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/8/2018 7:13:49 AM	P_ID	080818SPP
SAMPLE ID	182859401	USER ID	alpha
WEIGHT (mg)	9.470	MODE	CHN

				SIGNALS	
				ZR	61129
CARBON	0.002%			NR	61075
HYDROGEN	-1.013%			CR	61047
NITROGEN	0.372%			HR	60934
BLANKS	-31	-106	-65		
K FACTORS	20.714	0.073	0.312		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	52 Seconds				

DATE & TIME	8/8/2018 7:19:04 AM	P_ID	080818SPP
SAMPLE ID	182859401	USER ID	alpha
WEIGHT (mg)	9.140	MODE	CHN

				SIGNALS	
				ZR	61144
CARBON	0.029%			NR	61068
HYDROGEN	-7.943%			CR	61092
NITROGEN	-.386%			HR	60933
BLANKS	-31	-106	-65		
K FACTORS	20.714	0.073	0.312		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	52 Seconds				

DATE & TIME	8/8/2018 7:24:19 AM	P_ID	080818SPP
SAMPLE ID	182859401D	USER ID	alpha
WEIGHT (mg)	9.030	MODE	CHN

				SIGNALS	
				ZR	61089
CARBON	0.221%			NR	61024
HYDROGEN	4.551%			CR	61406
NITROGEN	0.0%			HR	61330
BLANKS	-31	-106	-65		
K FACTORS	20.714	0.073	0.312		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	52 Seconds				

DATE & TIME	8/8/2018 7:29:34 AM	P_ID	080818SPP
SAMPLE ID	182859401D	USER ID	alpha
WEIGHT (mg)	8.980	MODE	CHN

				SIGNALS	
				ZR	61101
CARBON	0.033%			NR	61023
HYDROGEN	9.610%			CR	61054
NITROGEN	-.464%			HR	61011
BLANKS	-31	-106	-65		

K FACTORS	20.714	0.073	0.312	
FILL	COMB	BOOST1	BOOST2	
1	2	1	1	
FILL TIME	52 Seconds			

DATE & TIME	8/8/2018 7:34:49 AM	P_ID	080818SPP
SAMPLE ID	182859401MS	USER ID	alpha
WEIGHT (mg)	7.790	MODE	CHN

		SIGNALS	
		ZR	61148
CARBON	1.175%	NR	61049
HYDROGEN	-14.595%	CR	62914
NITROGEN	-1.399%	HR	62725
BLANKS	-31	-106	-65
K FACTORS	20.714	0.073	0.312
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	52 Seconds		

DATE & TIME	8/8/2018 7:40:04 AM	P_ID	080818SPP
SAMPLE ID	182859401MS	USER ID	alpha
WEIGHT (mg)	8.340	MODE	CHN

		SIGNALS	
		ZR	60990
CARBON	1.088%	NR	61055
HYDROGEN	20.039%	CR	62904
NITROGEN	4.996%	HR	62920
BLANKS	-31	-106	-65
K FACTORS	20.714	0.073	0.312
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	52 Seconds		

DATE & TIME	8/8/2018 7:47:03 AM	P_ID	080818SPP
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.050	MODE	CHN

		SIGNALS	
		ZR	61154
CARBON	0.961%	NR	61072
HYDROGEN	8.860%	CR	63041
NITROGEN	-.542%	HR	63000
BLANKS	-31	-106	-65
K FACTORS	20.714	0.073	0.312
FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	51 Seconds		

DATE & TIME	8/8/2018 7:52:18 AM	P_ID	080818SPP
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	55.710	MODE	CHN

				SIGNALS	
				ZR	61170
	CARBON	-.002%		NR	61091
	HYDROGEN	0.566%		CR	61040
	NITROGEN	-.081%		HR	60957
	BLANKS	-31	-106	-65	
	K FACTORS	20.714	0.073	0.312	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	52 Seconds			

DATE & TIME	8/8/2018 7:58:13 AM	P_ID	080818SPP
SAMPLE ID	182859401D	USER ID	alpha
WEIGHT (mg)	9.720	MODE	CHN

				SIGNALS	
				ZR	61041
	CARBON	0.036%		NR	61019
	HYDROGEN	1.832%		CR	61061
	NITROGEN	1.418%		HR	60968
	BLANKS	-31	-106	-65	
	K FACTORS	20.714	0.073	0.312	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	52 Seconds			

DATE & TIME	8/8/2018 8:03:28 AM	P_ID	080818SPP
SAMPLE ID	182859401D	USER ID	alpha
WEIGHT (mg)	10.550	MODE	CHN

				SIGNALS	
				ZR	61112
	CARBON	0.051%		NR	61051
	HYDROGEN	-28.955%		CR	61131
	NITROGEN	0.122%		HR	60802
	BLANKS	-31	-106	-65	
	K FACTORS	20.714	0.073	0.312	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	52 Seconds			

DATE & TIME	8/8/2018 8:08:43 AM	P_ID	080818SPP
SAMPLE ID	182859402	USER ID	alpha
WEIGHT (mg)	6.330	MODE	CHN

				SIGNALS	
				ZR	61144
	CARBON	-.085%		NR	61074
	HYDROGEN	33.327%		CR	60931
	NITROGEN	-.253%		HR	60979
	BLANKS	-31	-106	-65	
	K FACTORS	20.714	0.073	0.312	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	52 Seconds			

DATE & TIME	8/8/2018 8:13:59 AM	P_ID	080818SPP
SAMPLE ID	182859402	USER ID	alpha
WEIGHT (mg)	6.090	MODE	CHN

		SIGNALS	
		ZR	61158
CARBON	-.016%	NR	61091
HYDROGEN	8.997%	CR	61040
NITROGEN	-.105%	HR	60974

BLANKS	-31	-106	-65
K FACTORS	20.714	0.073	0.312

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/8/2018 8:19:14 AM	P_ID	080818SPP
SAMPLE ID	182859403	USER ID	alpha
WEIGHT (mg)	8.040	MODE	CHN

		SIGNALS	
		ZR	61170
CARBON	-.015%	NR	61078
HYDROGEN	-33.565%	CR	61022
NITROGEN	-1.076%	HR	60719

BLANKS	-31	-106	-65
K FACTORS	20.714	0.073	0.312

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/8/2018 8:24:29 AM	P_ID	080818SPP
SAMPLE ID	182859403	USER ID	alpha
WEIGHT (mg)	8.440	MODE	CHN

		SIGNALS	
		ZR	60975
CARBON	0.051%	NR	60893
HYDROGEN	0.0%	CR	60951
NITROGEN	-.646%	HR	60845

BLANKS	-31	-106	-65
K FACTORS	20.714	0.073	0.312

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/8/2018 8:29:45 AM	P_ID	080818SPP
SAMPLE ID	182859404	USER ID	alpha
WEIGHT (mg)	8.590	MODE	CHN

		SIGNALS	
		ZR	61012
CARBON	0.103%	NR	60935
HYDROGEN	-18.977%	CR	61087
NITROGEN	-.448%	HR	60862

BLANKS	-31	-106	-65
K FACTORS	20.714	0.073	0.312

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/8/2018 8:35:00 AM	P_ID	080818SPP
SAMPLE ID	182859404	USER ID	alpha
WEIGHT (mg)	8.690	MODE	CHN

		SIGNALS	
		ZR	61192
CARBON	0.042%	NR	61074
HYDROGEN	-.788%	CR	61118
NITROGEN	-1.955%	HR	61007
BLANKS	-31	-106	-65
K FACTORS	20.714	0.073	0.312

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/8/2018 8:40:15 AM	P_ID	080818SPP
SAMPLE ID	182859401MSD	USER ID	alpha
WEIGHT (mg)	5.140	MODE	CHN

		SIGNALS	
		ZR	61187
CARBON	1.907%	NR	61131
HYDROGEN	7.196%	CR	63130
NITROGEN	0.561%	HR	63051
BLANKS	-31	-106	-65
K FACTORS	20.714	0.073	0.312

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/8/2018 8:45:30 AM	P_ID	080818SPP
SAMPLE ID	182859401MSD	USER ID	alpha
WEIGHT (mg)	7.120	MODE	CHN

		SIGNALS	
		ZR	61276
CARBON	1.353%	NR	61223
HYDROGEN	-22.126%	CR	63187
NITROGEN	0.540%	HR	62966
BLANKS	-31	-106	-65
K FACTORS	20.714	0.073	0.312

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/8/2018 8:50:45 AM	P_ID	080818SPP
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.320	MODE	CHN

				SIGNALS	
				ZR	61169
CARBON	0.992%			NR	61639
HYDROGEN	-31.990%			CR	63728
NITROGEN	16.616%			HR	63381
BLANKS	-31	-106	-65		
K FACTORS	20.714	0.073	0.312		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	52 Seconds				

DATE & TIME	8/8/2018 8:56:01 AM	P_ID	080818SPP
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	54.080	MODE	CHN

				SIGNALS	
				ZR	61245
CARBON	-.008%			NR	63715
HYDROGEN	-.861%			CR	63596
NITROGEN	15.024%			HR	63456
BLANKS	-31	-106	-65		
K FACTORS	20.714	0.073	0.312		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	52 Seconds				

DATE & TIME	8/8/2018 9:01:56 AM	P_ID	080818SPP
SAMPLE ID	182859402	USER ID	alpha
WEIGHT (mg)	6.650	MODE	CHN

				SIGNALS	
				ZR	61187
CARBON	0.030%			NR	70561
HYDROGEN	-10.712%			CR	70572
NITROGEN	454.935%			HR	70414
BLANKS	-31	-106	-65		
K FACTORS	20.714	0.073	0.312		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	52 Seconds				

DATE & TIME	8/8/2018 9:07:12 AM	P_ID	080818SPP
SAMPLE ID	182859402	USER ID	alpha
WEIGHT (mg)	7.770	MODE	CHN

				SIGNALS	
				ZR	61272
CARBON	0.077%			NR	96905
HYDROGEN	-12.694%			CR	96998
NITROGEN	1472.544%			HR	96820
BLANKS	-31	-106	-65		
K FACTORS	20.714	0.073	0.312		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	52 Seconds				

DATE & TIME	8/8/2018 9:12:27 AM	P_ID	080818SPP
SAMPLE ID	182859403	USER ID	alpha
WEIGHT (mg)	10.650	MODE	CHN

				SIGNALS	
				ZR	61172
CARBON	0.111%			NR	116347
HYDROGEN	4.888%			CR	116560
NITROGEN	1662.453%			HR	116492
BLANKS	-31	-106	-65		
K FACTORS	20.714	0.073	0.312		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	52 Seconds				

DATE & TIME	8/8/2018 9:17:42 AM	P_ID	080818SPP
SAMPLE ID	182859403	USER ID	alpha
WEIGHT (mg)	12.070	MODE	CHN

				SIGNALS	
				ZR	61259
CARBON	0.118%			NR	133022
HYDROGEN	-13.960%			CR	133285
NITROGEN	1907.357%			HR	133056
BLANKS	-31	-106	-65		
K FACTORS	20.714	0.073	0.312		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	52 Seconds				

DATE & TIME	8/8/2018 9:22:57 AM	P_ID	080818SPP
SAMPLE ID	182859404	USER ID	alpha
WEIGHT (mg)	13.230	MODE	CHN

				SIGNALS	
				ZR	61344
CARBON	0.136%			NR	145554
HYDROGEN	6.937%			CR	145896
NITROGEN	2041.664%			HR	145857
BLANKS	-31	-106	-65		
K FACTORS	20.714	0.073	0.312		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	52 Seconds				

DATE & TIME	8/8/2018 9:28:12 AM	P_ID	080818SPP
SAMPLE ID	182859404	USER ID	alpha
WEIGHT (mg)	10.940	MODE	CHN

		SIGNALS	
		ZR	61400
CARBON	0.203%	NR	156089
HYDROGEN	6.010%	CR	156519
NITROGEN	2776.039%	HR	156461

BLANKS	-31	-106	-65
K FACTORS	20.714	0.073	0.312

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/8/2018 9:33:27 AM	P_ID	080818SPP
SAMPLE ID	182859405	USER ID	alpha
WEIGHT (mg)	6.540	MODE	CHN

		SIGNALS	
		ZR	61431
CARBON	0.263%	NR	166254
HYDROGEN	3.770%	CR	166579
NITROGEN	5140.359%	HR	166491
BLANKS	-31	-106	-65
K FACTORS	20.714	0.073	0.312

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/8/2018 9:38:42 AM	P_ID	080818SPP
SAMPLE ID	182859405	USER ID	alpha
WEIGHT (mg)	7.330	MODE	CHN

		SIGNALS	
		ZR	61254
CARBON	0.253%	NR	179365
HYDROGEN	54.383%	CR	179718
NITROGEN	5167.384%	HR	179903
BLANKS	-31	-106	-65
K FACTORS	20.714	0.073	0.312

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/8/2018 9:43:56 AM	P_ID	080818SPP
SAMPLE ID	182859406	USER ID	alpha
WEIGHT (mg)	6.410	MODE	CHN

		SIGNALS	
		ZR	61477
CARBON	0.307%	NR	189916
HYDROGEN	5.129%	CR	190293
NITROGEN	6425.457%	HR	190211
BLANKS	-31	-106	-65
K FACTORS	20.714	0.073	0.312

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/8/2018 9:49:11 AM	P_ID	080818SPP
SAMPLE ID	182859406	USER ID	alpha
WEIGHT (mg)	7.470	MODE	CHN

				SIGNALS	
				ZR	61455
CARBON	0.420%			NR	197753
HYDROGEN	8.436%			CR	198372
NITROGEN	5850.882%			HR	198312
BLANKS	-31	-106	-65		
K FACTORS	20.714	0.073	0.312		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	52 Seconds				

DATE & TIME	8/8/2018 9:54:26 AM	P_ID	080818SPP
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.350	MODE	CHN

				SIGNALS	
				ZR	61570
CARBON	1.127%			NR	207533
HYDROGEN	13.103%			CR	209919
NITROGEN	4522.111%			HR	209912
BLANKS	-31	-106	-65		
K FACTORS	20.714	0.073	0.312		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	51 Seconds				

DATE & TIME	8/8/2018 9:59:41 AM	P_ID	080818SPP
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	45.300	MODE	CHN

				SIGNALS	
				ZR	61610
CARBON	0.042%			NR	209732
HYDROGEN	3.992%			CR	210098
NITROGEN	1048.473%			HR	210124
BLANKS	-31	-106	-65		
K FACTORS	20.714	0.073	0.312		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	52 Seconds				

DATE & TIME	8/8/2018 10:06:20 AM	P_ID	080818SPP
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	51.230	MODE	CHN

				SIGNALS	
				ZR	61638
CARBON	0.032%			NR	185466
HYDROGEN	0.455%			CR	185776
NITROGEN	775.118%			HR	185687
BLANKS	-31	-106	-65		
K FACTORS	20.714	0.073	0.312		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	52 Seconds				

Date of report	8/9/2018 9:58:54AM
User ID	Alpha Analytical

DATE & TIME	8/8/2018 11:12:28 AM			P_ID	080818SPPN
RUN TYPE	K1			USER ID	alpha
WEIGHT (mg)	9.850			MODE	CHN

				SIGNALS			
				ZR	61267	AVERAGE RESULTS	
	KC	20.518		NR	62081	KC	20.616
	KH	0.115		CR	64071	KH	0.094
	KN	0.765		HR	64022	KN	0.538
	BLANKS	-31	-106	-65			
	K FACTORS	1.0%	5.03%	11.67%			
	FILL TIME	52 Seconds					

DATE & TIME	8/8/2018 11:17:44 AM			P_ID	080818SPPN
RUN TYPE	BLANK			USER ID	alpha
				MODE	CHN

				SIGNALS			
				ZR	61276	AVERAGE RESULTS	
	CARBON	-48		NR	61392	CARBON	-40
	HYDROGEN	-112		CR	61344	HYDROGEN	-109
	NITROGEN	116		HR	61232	NITROGEN	84
	FILL TIME	53 Seconds					

DATE & TIME	8/8/2018 11:23:01 AM			P_ID	080818SPPN
RUN TYPE	K1			USER ID	alpha
WEIGHT (mg)	10.190			MODE	CHN

				SIGNALS			
				ZR	61193	AVERAGE RESULTS	
	KC	20.373		NR	61198	KC	20.494
	KH	0.029		CR	63234	KH	0.094
	KN	-.066		HR	63140	KN	0.538
	BLANKS	-40	-109	84			
	K FACTORS	1.0%	5.03%	11.67%			
	FILL TIME	53 Seconds					

NUMBER	MESSAGE
8	CHECK FOR SAMPLE DROP

DATE & TIME	8/8/2018 11:28:24 AM			P_ID	080818SPPN
RUN TYPE	K1			USER ID	alpha
WEIGHT (mg)	10.350			MODE	CHN

				SIGNALS			
				ZR	61320	AVERAGE RESULTS	
	KC	19.836		NR	61281	KC	20.165
	KH	0.065		CR	63294	KH	0.079
	KN	-.102		HR	63219	KN	0.538
	BLANKS	-40	-109	84			
	K FACTORS	1.0%	5.03%	11.67%			
	FILL TIME	53 Seconds					

NUMBER	MESSAGE
8	CHECK FOR SAMPLE DROP

DATE & TIME	8/8/2018 11:33:45 AM	P_ID	080818SPPN
SAMPLE ID	ICV	USER ID	alpha
WEIGHT (mg)	10.190	MODE	CHN

				SIGNALS	
				ZR	61251
CARBON	0.960%			NR	61240
HYDROGEN	-9.441%			CR	63173
NITROGEN	-1.733%			HR	62988
BLANKS	-40	-109	84		
K FACTORS	20.165	0.079	0.538		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	8/8/2018 11:39:01 AM	P_ID	080818SPPN
SAMPLE ID	ICB	USER ID	alpha
WEIGHT (mg)	65.630	MODE	CHN

				SIGNALS	
				ZR	61266
CARBON	0.001%			NR	61198
HYDROGEN	-.984%			CR	61171
NITROGEN	-.430%			HR	61011
BLANKS	-40	-109	84		
K FACTORS	20.165	0.079	0.538		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	54 Seconds				

DATE & TIME	8/8/2018 11:44:31 AM	P_ID	080818SPPN
SAMPLE ID	HICV	USER ID	alpha
WEIGHT (mg)	51.460	MODE	CHN

				SIGNALS	
				ZR	61243
CARBON	3.724%			NR	61181
HYDROGEN	1.033%			CR	99786
NITROGEN	-.527%			HR	99719
BLANKS	-40	-109	84		
K FACTORS	20.165	0.079	0.538		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	54 Seconds				

DATE & TIME	8/8/2018 11:50:01 AM	P_ID	080818SPPN
SAMPLE ID	SRM1650	USER ID	alpha
WEIGHT (mg)	.400	MODE	CHN

		SIGNALS	
		ZR	61275
CARBON	86.263%	NR	61236
HYDROGEN	284.810%	CR	68154
NITROGEN	-57.156%	HR	68135

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 53 Seconds

DATE & TIME	8/8/2018 11:55:18 AM	P_ID	080818SPPN
SAMPLE ID	MB	USER ID	alpha
WEIGHT (mg)	59.370	MODE	CHN

		SIGNALS	
		ZR	61365
CARBON	-.002%	NR	61286
HYDROGEN	-.043%	CR	61220
NITROGEN	-.510%	HR	61109
BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/8/2018 12:00:35 PM	P_ID	080818SPPN
SAMPLE ID	SRM1650	USER ID	alpha
WEIGHT (mg)	.400	MODE	CHN

		SIGNALS	
		ZR	61296
CARBON	70.097%	NR	61255
HYDROGEN	56.962%	CR	66869
NITROGEN	-58.086%	HR	66778
BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/8/2018 12:05:53 PM	P_ID	080818SPPN
SAMPLE ID	MB	USER ID	alpha
WEIGHT (mg)	45.500	MODE	CHN

		SIGNALS	
		ZR	61250
CARBON	-.005%	NR	61205
HYDROGEN	-4.034%	CR	61123
NITROGEN	-.527%	HR	60869
BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/8/2018 12:11:10 PM	P_ID	080818SPPN
SAMPLE ID	182859402	USER ID	alpha
WEIGHT (mg)	5.240	MODE	CHN

				SIGNALS	
				ZR	61157
	CARBON	0.014%		NR	61093
	HYDROGEN	16.427%		CR	61068
	NITROGEN	-5.250%		HR	61027
	BLANKS	-40	-109	84	
	K FACTORS	20.165	0.079	0.538	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	54 Seconds			

DATE & TIME	8/8/2018 12:16:27 PM			P_ID	080818SPPN
SAMPLE ID	182859402			USER ID	alpha
WEIGHT (mg)	6.0			MODE	CHN
				SIGNALS	
				ZR	61186
	CARBON	0.008%		NR	61049
	HYDROGEN	13.713%		CR	61019
	NITROGEN	-6.846%		HR	60975
	BLANKS	-40	-109	84	
	K FACTORS	20.165	0.079	0.538	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	54 Seconds			

DATE & TIME	8/8/2018 12:21:45 PM			P_ID	080818SPPN
SAMPLE ID	182859402D			USER ID	alpha
WEIGHT (mg)	5.550			MODE	CHN
				SIGNALS	
				ZR	61169
	CARBON	0.022%		NR	61099
	HYDROGEN	-7.983%		CR	61084
	NITROGEN	-5.158%		HR	60940
	BLANKS	-40	-109	84	
	K FACTORS	20.165	0.079	0.538	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	54 Seconds			

DATE & TIME	8/8/2018 12:27:02 PM			P_ID	080818SPPN
SAMPLE ID	182859402D			USER ID	alpha
WEIGHT (mg)	6.840			MODE	CHN
				SIGNALS	
				ZR	61161
	CARBON	0.066%		NR	61104
	HYDROGEN	2.221%		CR	61155
	NITROGEN	-3.832%		HR	61058
	BLANKS	-40	-109	84	
	K FACTORS	20.165	0.079	0.538	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	54 Seconds			

DATE & TIME	8/8/2018 12:32:19 PM	P_ID	080818SPPN
SAMPLE ID	182859402MS	USER ID	alpha
WEIGHT (mg)	6.100	MODE	CHN

		SIGNALS	
		ZR	61063
CARBON	1.674%	NR	61014
HYDROGEN	-1.038%	CR	63033
NITROGEN	-4.053%	HR	62919

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/8/2018 12:37:36 PM	P_ID	080818SPPN
SAMPLE ID	182859402MS	USER ID	alpha
WEIGHT (mg)	5.070	MODE	CHN

		SIGNALS	
		ZR	61160
CARBON	2.130%	NR	61085
HYDROGEN	-15.230%	CR	63223
NITROGEN	-5.829%	HR	63053

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/8/2018 12:44:01 PM	P_ID	080818SPPN
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.350	MODE	CHN

		SIGNALS	
		ZR	61151
CARBON	1.011%	NR	61079
HYDROGEN	-2.446%	CR	63150
NITROGEN	-2.802%	HR	63021

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/8/2018 12:49:19 PM	P_ID	080818SPPN
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	56.330	MODE	CHN

		SIGNALS	
		ZR	61178
CARBON	0.002%	NR	60976
HYDROGEN	1.393%	CR	60956
NITROGEN	-.944%	HR	60909

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/8/2018 12:54:57 PM	P_ID	080818SPPN
SAMPLE ID	182859403	USER ID	alpha
WEIGHT (mg)	5.430	MODE	CHN

		SIGNALS	
		ZR	61243
CARBON	0.005%	NR	61177
HYDROGEN	-4.662%	CR	61143
NITROGEN	-5.135%	HR	61014
BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/8/2018 1:00:14 PM	P_ID	080818SPPN
SAMPLE ID	182859403	USER ID	alpha
WEIGHT (mg)	6.620	MODE	CHN

		SIGNALS	
		ZR	61170
CARBON	0.018%	NR	61086
HYDROGEN	0.956%	CR	61070
NITROGEN	-4.717%	HR	60966
BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/8/2018 1:05:32 PM	P_ID	080818SPPN
SAMPLE ID	182859404	USER ID	alpha
WEIGHT (mg)	9.210	MODE	CHN

		SIGNALS	
		ZR	61219
CARBON	0.034%	NR	61163
HYDROGEN	1.100%	CR	61186
NITROGEN	-2.825%	HR	61085
BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/8/2018 1:10:52 PM	P_ID	080818SPPN
SAMPLE ID	182859404	USER ID	alpha
WEIGHT (mg)	8.570	MODE	CHN

				SIGNALS	
				ZR	61222
	CARBON	0.053%		NR	61098
	HYDROGEN	2.068%		CR	61150
	NITROGEN	-4.511%		HR	61055
	BLANKS	-40	-109	84	
	K FACTORS	20.165	0.079	0.538	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	54 Seconds			

DATE & TIME	8/8/2018 1:16:09 PM			P_ID	080818SPPN
SAMPLE ID	182859405			USER ID	alpha
WEIGHT (mg)	7.150			MODE	CHN
				SIGNALS	
				ZR	61107
	CARBON	0.017%		NR	61052
	HYDROGEN	12.747%		CR	61036
	NITROGEN	-3.613%		HR	60999
	BLANKS	-40	-109	84	
	K FACTORS	20.165	0.079	0.538	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	55 Seconds			

DATE & TIME	8/8/2018 1:21:27 PM			P_ID	080818SPPN
SAMPLE ID	182859405			USER ID	alpha
WEIGHT (mg)	9.350			MODE	CHN
				SIGNALS	
				ZR	61144
	CARBON	0.094%		NR	60986
	HYDROGEN	9.206%		CR	61124
	NITROGEN	-4.811%		HR	61083
	BLANKS	-40	-109	84	
	K FACTORS	20.165	0.079	0.538	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	54 Seconds			

DATE & TIME	8/8/2018 1:26:45 PM			P_ID	080818SPPN
SAMPLE ID	182859406			USER ID	alpha
WEIGHT (mg)	9.660			MODE	CHN
				SIGNALS	
				ZR	61169
	CARBON	0.101%		NR	61073
	HYDROGEN	-2.883%		CR	61230
	NITROGEN	-3.463%		HR	61099
	BLANKS	-40	-109	84	
	K FACTORS	20.165	0.079	0.538	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	54 Seconds			

DATE & TIME	8/8/2018 1:32:02 PM			P_ID	080818SPPN
SAMPLE ID	182859406			USER ID	alpha
WEIGHT (mg)	6.320			MODE	CHN

				SIGNALS	
				ZR	61085
CARBON	0.027%			NR	61050
HYDROGEN	16.424%			CR	61044
NITROGEN	-3.500%			HR	61017
BLANKS	-40	-109	84		
K FACTORS	20.165	0.079	0.538		

FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	54 Seconds		

DATE & TIME	8/8/2018 1:37:20 PM			P_ID	080818SPPN
SAMPLE ID	182859407			USER ID	alpha
WEIGHT (mg)	9.070			MODE	CHN

				SIGNALS	
				ZR	61131
CARBON	0.020%			NR	61074
HYDROGEN	1.116%			CR	61070
NITROGEN	-2.890%			HR	60969
BLANKS	-40	-109	84		
K FACTORS	20.165	0.079	0.538		

FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	54 Seconds		

DATE & TIME	8/8/2018 1:42:38 PM			P_ID	080818SPPN
SAMPLE ID	182859407			USER ID	alpha
WEIGHT (mg)	8.220			MODE	CHN

				SIGNALS	
				ZR	61120
CARBON	0.011%			NR	61087
HYDROGEN	-2.002%			CR	61066
NITROGEN	-2.646%			HR	60944
BLANKS	-40	-109	84		
K FACTORS	20.165	0.079	0.538		

FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	54 Seconds		

DATE & TIME	8/8/2018 1:47:55 PM			P_ID	080818SPPN
SAMPLE ID	CCV			USER ID	alpha
WEIGHT (mg)	9.830			MODE	CHN

				SIGNALS	
				ZR	61138
CARBON	1.008%			NR	61107
HYDROGEN	0.129%			CR	63065
NITROGEN	-2.175%			HR	62957

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/8/2018 1:53:12 PM	P_ID	080818SPPN
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	74.280	MODE	CHN

		SIGNALS	
		ZR	61188
CARBON	0.002%	NR	61127
HYDROGEN	-1.602%	CR	61112
NITROGEN	-.363%	HR	60909

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/8/2018 2:03:25 PM	P_ID	080818SPPN
SAMPLE ID	182859408	USER ID	alpha
WEIGHT (mg)	7.240	MODE	CHN

		SIGNALS	
		ZR	61048
CARBON	0.003%	NR	61042
HYDROGEN	-6.469%	CR	61007
NITROGEN	-2.311%	HR	60861

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/8/2018 2:08:42 PM	P_ID	080818SPPN
SAMPLE ID	182859408	USER ID	alpha
WEIGHT (mg)	9.360	MODE	CHN

		SIGNALS	
		ZR	61181
CARBON	0.031%	NR	61088
HYDROGEN	-4.057%	CR	61107
NITROGEN	-3.515%	HR	60968

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/8/2018 2:13:59 PM	P_ID	080818SPPN
SAMPLE ID	182859409	USER ID	alpha
WEIGHT (mg)	9.130	MODE	CHN

				SIGNALS	
				ZR	61093
CARBON	0.010%			NR	61038
HYDROGEN	1.525%			CR	61017
NITROGEN	-2.830%			HR	60919
BLANKS	-40	-109	84		
K FACTORS	20.165	0.079	0.538		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	54 Seconds				

DATE & TIME	8/8/2018 2:19:16 PM	P_ID	080818SPPN
SAMPLE ID	182859409	USER ID	alpha
WEIGHT (mg)	9.390	MODE	CHN

				SIGNALS	
				ZR	61038
CARBON	0.065%			NR	60970
HYDROGEN	5.123%			CR	61054
NITROGEN	-3.009%			HR	60983
BLANKS	-40	-109	84		
K FACTORS	20.165	0.079	0.538		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	54 Seconds				

DATE & TIME	8/8/2018 2:24:34 PM	P_ID	080818SPPN
SAMPLE ID	182859410	USER ID	alpha
WEIGHT (mg)	7.800	MODE	CHN

				SIGNALS	
				ZR	61046
CARBON	0.003%			NR	60972
HYDROGEN	-1.947%			CR	60937
NITROGEN	-3.765%			HR	60816
BLANKS	-40	-109	84		
K FACTORS	20.165	0.079	0.538		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	54 Seconds				

DATE & TIME	8/8/2018 2:29:51 PM	P_ID	080818SPPN
SAMPLE ID	182859410	USER ID	alpha
WEIGHT (mg)	7.780	MODE	CHN

				SIGNALS	
				ZR	60995
CARBON	-.010%			NR	60939
HYDROGEN	-6.183%			CR	60884
NITROGEN	-3.345%			HR	60737
BLANKS	-40	-109	84		
K FACTORS	20.165	0.079	0.538		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	54 Seconds				

DATE & TIME	8/8/2018 2:35:08 PM			P_ID	080818SPPN
SAMPLE ID	182859411			USER ID	alpha
WEIGHT (mg)	10.190			MODE	CHN

				SIGNALS	
				ZR	61006
CARBON	0.008%			NR	61010
HYDROGEN	0.248%			CR	60987
NITROGEN	-1.459%			HR	60880
BLANKS	-40	-109	84		
K FACTORS	20.165	0.079	0.538		

FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	54 Seconds		

DATE & TIME	8/8/2018 2:40:25 PM			P_ID	080818SPPN
SAMPLE ID	182859411			USER ID	alpha
WEIGHT (mg)	8.410			MODE	CHN

				SIGNALS	
				ZR	61087
CARBON	0.0%			NR	61022
HYDROGEN	-6.623%			CR	60982
NITROGEN	-3.293%			HR	60829
BLANKS	-40	-109	84		
K FACTORS	20.165	0.079	0.538		

FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	54 Seconds		

DATE & TIME	8/8/2018 2:45:42 PM			P_ID	080818SPPN
SAMPLE ID	182859412			USER ID	alpha
WEIGHT (mg)	8.100			MODE	CHN

				SIGNALS	
				ZR	61033
CARBON	0.004%			NR	60994
HYDROGEN	-3.282%			CR	60960
NITROGEN	-2.823%			HR	60830
BLANKS	-40	-109	84		
K FACTORS	20.165	0.079	0.538		

FILL	COMB	BOOST1	BOOST2
1	2	1	1
FILL TIME	54 Seconds		

DATE & TIME	8/9/2018 7:48:29 AM			P_ID	080818SPPN
SAMPLE ID	CCV			USER ID	alpha
WEIGHT (mg)	9.640			MODE	CHN

				SIGNALS	
				ZR	62944
CARBON	1.036%			NR	64292
HYDROGEN	3.677%			CR	66265
NITROGEN	24.372%			HR	66184

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/9/2018 7:53:45 AM	P_ID	080818SPPN
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	49.690	MODE	CHN

		SIGNALS	
		ZR	63023
CARBON	-.004%	NR	63292
HYDROGEN	1.962%	CR	63215
NITROGEN	0.692%	HR	63183

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/9/2018 7:59:16 AM	P_ID	080818SPPN
SAMPLE ID	182859417	USER ID	alpha
WEIGHT (mg)	14.630	MODE	CHN

		SIGNALS	
		ZR	63029
CARBON	0.008%	NR	63067
HYDROGEN	1.384%	CR	63052
NITROGEN	-.584%	HR	62959

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/9/2018 8:04:31 AM	P_ID	080818SPPN
SAMPLE ID	182859417	USER ID	alpha
WEIGHT (mg)	13.310	MODE	CHN

		SIGNALS	
		ZR	63081
CARBON	0.004%	NR	63089
HYDROGEN	3.519%	CR	63060
NITROGEN	-1.061%	HR	62988

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 52 Seconds

DATE & TIME	8/9/2018 8:09:48 AM	P_ID	080818SPPN
SAMPLE ID	182859418	USER ID	alpha
WEIGHT (mg)	9.530	MODE	CHN

				SIGNALS	
				ZR	63159
	CARBON	0.020%		NR	63157
	HYDROGEN	-1.195%		CR	63155
	NITROGEN	-1.677%		HR	63037
	BLANKS	-40	-109	84	
	K FACTORS	20.165	0.079	0.538	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	53 Seconds			

DATE & TIME	8/9/2018 8:15:05 AM			P_ID	080818SPPN
SAMPLE ID	182859418			USER ID	alpha
WEIGHT (mg)	7.600			MODE	CHN
				SIGNALS	
				ZR	63209
	CARBON	0.050%		NR	63148
	HYDROGEN	-9.327%		CR	63184
	NITROGEN	-3.546%		HR	63019
	BLANKS	-40	-109	84	
	K FACTORS	20.165	0.079	0.538	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	53 Seconds			

DATE & TIME	8/9/2018 8:20:21 AM			P_ID	080818SPPN
SAMPLE ID	182859402MSD			USER ID	alpha
WEIGHT (mg)	8.760			MODE	CHN
				SIGNALS	
				ZR	63091
	CARBON	1.215%		NR	63082
	HYDROGEN	0.434%		CR	65189
	NITROGEN	-1.973%		HR	65083
	BLANKS	-40	-109	84	
	K FACTORS	20.165	0.079	0.538	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	53 Seconds			

DATE & TIME	8/9/2018 8:25:38 AM			P_ID	080818SPPN
SAMPLE ID	182859402MSD			USER ID	alpha
WEIGHT (mg)	6.100			MODE	CHN
				SIGNALS	
				ZR	63163
	CARBON	1.697%		NR	63109
	HYDROGEN	-25.109%		CR	65157
	NITROGEN	-4.205%		HR	64927
	BLANKS	-40	-109	84	
	K FACTORS	20.165	0.079	0.538	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	53 Seconds			

DATE & TIME	8/9/2018 8:30:54 AM	P_ID	080818SPPN
SAMPLE ID	182859413	USER ID	alpha
WEIGHT (mg)	8.430	MODE	CHN

		SIGNALS	
		ZR	63149
CARBON	0.016%	NR	63122
HYDROGEN	2.102%	CR	63110
NITROGEN	-2.447%	HR	63015

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 53 Seconds

DATE & TIME	8/9/2018 8:36:11 AM	P_ID	080818SPPN
SAMPLE ID	182859413	USER ID	alpha
WEIGHT (mg)	8.870	MODE	CHN

		SIGNALS	
		ZR	63197
CARBON	0.034%	NR	63167
HYDROGEN	6.279%	CR	63187
NITROGEN	-2.389%	HR	63122

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 54 Seconds

DATE & TIME	8/9/2018 8:41:27 AM	P_ID	080818SPPN
SAMPLE ID	182859414	USER ID	alpha
WEIGHT (mg)	6.720	MODE	CHN

		SIGNALS	
		ZR	63240
CARBON	0.018%	NR	63238
HYDROGEN	5.463%	CR	63222
NITROGEN	-2.379%	HR	63142

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 53 Seconds

DATE & TIME	8/9/2018 8:46:43 AM	P_ID	080818SPPN
SAMPLE ID	182859414	USER ID	alpha
WEIGHT (mg)	8.650	MODE	CHN

		SIGNALS	
		ZR	63365
CARBON	0.021%	NR	63324
HYDROGEN	-3.805%	CR	63321
NITROGEN	-2.686%	HR	63186

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 53 Seconds

DATE & TIME	8/9/2018 8:51:59 AM	P_ID	080818SPPN
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	9.920	MODE	CHN

		SIGNALS	
		ZR	63309
CARBON	1.017%	NR	63296
HYDROGEN	-4.466%	CR	65290
NITROGEN	-1.818%	HR	65146

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 53 Seconds

DATE & TIME	8/9/2018 8:57:15 AM	P_ID	080818SPPN
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	111.980	MODE	CHN

		SIGNALS	
		ZR	63337
CARBON	0.001%	NR	63243
HYDROGEN	-.181%	CR	63218
NITROGEN	-.295%	HR	63093

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 53 Seconds

DATE & TIME	8/9/2018 9:03:05 AM	P_ID	080818SPPN
SAMPLE ID	182859412	USER ID	alpha
WEIGHT (mg)	7.820	MODE	CHN

		SIGNALS	
		ZR	63265
CARBON	-.025%	NR	63251
HYDROGEN	2.104%	CR	63171
NITROGEN	-2.329%	HR	63075

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 53 Seconds

DATE & TIME	8/9/2018 9:08:21 AM	P_ID	080818SPPN
SAMPLE ID	182859415	USER ID	alpha
WEIGHT (mg)	13.570	MODE	CHN

				SIGNALS	
				ZR	63386
CARBON	0.003%			NR	63345
HYDROGEN	5.317%			CR	63312
NITROGEN	-1.712%			HR	63260
BLANKS	-40	-109	84		
K FACTORS	20.165	0.079	0.538		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	8/9/2018 9:13:37 AM	P_ID	080818SPPN
SAMPLE ID	182859715	USER ID	alpha
WEIGHT (mg)	11.910	MODE	CHN

				SIGNALS	
				ZR	63380
CARBON	-.002%			NR	63346
HYDROGEN	1.275%			CR	63300
NITROGEN	-1.842%			HR	63203
BLANKS	-40	-109	84		
K FACTORS	20.165	0.079	0.538		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	8/9/2018 9:18:53 AM	P_ID	080818SPPN
SAMPLE ID	182859416	USER ID	alpha
WEIGHT (mg)	9.620	MODE	CHN

				SIGNALS	
				ZR	63469
CARBON	0.005%			NR	63419
HYDROGEN	-.132%			CR	63389
NITROGEN	-2.589%			HR	63279
BLANKS	-40	-109	84		
K FACTORS	20.165	0.079	0.538		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	8/9/2018 9:24:10 AM	P_ID	080818SPPN
SAMPLE ID	182859416	USER ID	alpha
WEIGHT (mg)	9.370	MODE	CHN

				SIGNALS	
				ZR	63446
CARBON	0.014%			NR	63402
HYDROGEN	-4.188%			CR	63389
NITROGEN	-2.539%			HR	63249
BLANKS	-40	-109	84		
K FACTORS	20.165	0.079	0.538		
FILL	COMB	BOOST1	BOOST2		
1	2	1	1		
FILL TIME	53 Seconds				

DATE & TIME	8/9/2018 9:29:26 AM			P_ID	080818SPPN
SAMPLE ID	182859419			USER ID	alpha
WEIGHT (mg)	9.050			MODE	CHN
				SIGNALS	
				ZR	63428
	CARBON	0.051%		NR	63384
	HYDROGEN	6.294%		CR	63437
	NITROGEN	-2.629%		HR	63373
	BLANKS	-40	-109	84	
	K FACTORS	20.165	0.079	0.538	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	53 Seconds			

DATE & TIME	8/9/2018 9:34:43 AM			P_ID	080818SPPN
SAMPLE ID	182859419			USER ID	alpha
WEIGHT (mg)	6.930			MODE	CHN
				SIGNALS	
				ZR	63445
	CARBON	0.034%		NR	63410
	HYDROGEN	2.192%		CR	63417
	NITROGEN	-3.192%		HR	63320
	BLANKS	-40	-109	84	
	K FACTORS	20.165	0.079	0.538	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	53 Seconds			

DATE & TIME	8/9/2018 9:39:59 AM			P_ID	080818SPPN
SAMPLE ID	182859420			USER ID	alpha
WEIGHT (mg)	9.640			MODE	CHN
				SIGNALS	
				ZR	63445
	CARBON	0.074%		NR	63406
	HYDROGEN	3.808%		CR	63510
	NITROGEN	-2.372%		HR	63430
	BLANKS	-40	-109	84	
	K FACTORS	20.165	0.079	0.538	
	FILL	COMB	BOOST1	BOOST2	
	1	2	1	1	
	FILL TIME	53 Seconds			

DATE & TIME	8/9/2018 9:45:16 AM			P_ID	080818SPPN
SAMPLE ID	182859420			USER ID	alpha
WEIGHT (mg)	10.590			MODE	CHN
				SIGNALS	
				ZR	63416
	CARBON	0.081%		NR	63379
	HYDROGEN	3.586%		CR	63511
	NITROGEN	-2.124%		HR	63432

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 53 Seconds

DATE & TIME	8/9/2018 9:52:41 AM	P_ID	080818SPPN
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	9.820	MODE	CHN

		SIGNALS	
		ZR	63413
CARBON	0.955%	NR	63404
HYDROGEN	3.738%	CR	65255
NITROGEN	-1.760%	HR	65175

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 53 Seconds

DATE & TIME	8/9/2018 9:57:58 AM	P_ID	080818SPPN
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	65.730	MODE	CHN

		SIGNALS	
		ZR	63498
CARBON	-.002%	NR	63460
HYDROGEN	-.886%	CR	63398
NITROGEN	-.345%	HR	63243

BLANKS	-40	-109	84
K FACTORS	20.165	0.079	0.538

FILL	COMB	BOOST1	BOOST2
1	2	1	1

FILL TIME 53 Seconds

Date of report	8/8/2018 1:40:53PM
User ID	alpha

DATE & TIME	8/8/2018 6:08:45 AM		P_ID	080818SPP2	
RUN TYPE	K1		USER ID	alpha	
WEIGHT (mg)	10.080		MODE	CHN	
			SIGNALS		
			ZR	14000	AVERAGE RESULTS
KC	18.889		NR	15265	KC 18.388
KH	27.482		CR	17193	KH 27.567
KN	0.937		HR	32531	KN 5.605
BLANKS	24	1404	163		
K FACTORS	1.0%	5.03%	11.67%		
FILL TIME	21 Seconds				

DATE & TIME	8/8/2018 6:14:54 AM		P_ID	080818SPP2	
RUN TYPE	BLANK		USER ID	alpha	
			MODE	CHN	
			SIGNALS		
			ZR	14008	AVERAGE RESULTS
CARBON	47		NR	14328	CARBON 35
HYDROGEN	2827		CR	14375	HYDROGEN 1404
NITROGEN	320		HR	17202	NITROGEN 163
FILL TIME	21 Seconds				

NUMBER	MESSAGE
17	NITROGEN BLANK OUT OF TOLERANCE

DATE & TIME	8/8/2018 6:20:43 AM		P_ID	080818SPP2	
RUN TYPE	K1		USER ID	alpha	
WEIGHT (mg)	9.350		MODE	CHN	
			SIGNALS		
			ZR	14006	AVERAGE RESULTS
KC	18.096		NR	14132	KC 18.242
KH	29.272		CR	15859	KH 28.419
KN	-.034		HR	31030	KN 5.605
BLANKS	35	1404	163		
K FACTORS	1.0%	5.03%	11.67%		
FILL TIME	21 Seconds				

NUMBER	MESSAGE
8	CHECK FOR SAMPLE DROP

DATE & TIME	8/8/2018 6:25:49 AM		P_ID	080818SPP2	
RUN TYPE	K1		USER ID	alpha	
WEIGHT (mg)	9.600		MODE	CHN	
			SIGNALS		
			ZR	14013	AVERAGE RESULTS
KC	18.813		NR	14080	KC 18.527
KH	28.496		CR	15921	KH 28.457
KN	-.086		HR	31085	KN 5.605
BLANKS	35	1404	163		
K FACTORS	1.0%	5.03%	11.67%		
FILL TIME	21 Seconds				

NUMBER	MESSAGE
8	CHECK FOR SAMPLE DROP

DATE & TIME	8/8/2018 7:00:03 AM	P_ID	080818SPP2
SAMPLE ID	ICV	USER ID	alpha
WEIGHT (mg)	10.110	MODE	CHN

		SIGNALS	
		ZR	14019
CARBON	0.936%	NR	14053
HYDROGEN	5.129%	CR	15841
NITROGEN	-.228%	HR	32000

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/8/2018 7:04:44 AM	P_ID	080818SPP2
SAMPLE ID	ICB	USER ID	alpha
WEIGHT (mg)	50.150	MODE	CHN

		SIGNALS	
		ZR	14017
CARBON	-.001%	NR	14049
HYDROGEN	0.011%	CR	14079
NITROGEN	-.047%	HR	15645

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/8/2018 7:10:47 AM	P_ID	080818SPP2
SAMPLE ID	HICV	USER ID	alpha
WEIGHT (mg)	50.860	MODE	CHN

		SIGNALS	
		ZR	14000
CARBON	3.480%	NR	14047
HYDROGEN	1.010%	CR	46873
NITROGEN	-.041%	HR	62898

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/8/2018 7:18:32 AM	P_ID	080818SPP2
SAMPLE ID	SRM1650	USER ID	alpha
WEIGHT (mg)	.430	MODE	CHN

		SIGNALS	
		ZR	13994

CARBON	70.544%		NR	14057	
HYDROGEN	177.630%		CR	19712	
NITROGEN	-4.149%		HR	42851	
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	21 Seconds				

DATE & TIME	8/8/2018 7:23:13 AM	P_ID	080818SPP2
SAMPLE ID	MB	USER ID	alpha
WEIGHT (mg)	44.240	MODE	CHN

			SIGNALS		
			ZR	14011	
CARBON	0.0%		NR	14047	
HYDROGEN	0.013%		CR	14085	
NITROGEN	-.051%		HR	15658	
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	22 Seconds				

DATE & TIME	8/8/2018 7:27:53 AM	P_ID	080818SPP2
SAMPLE ID	SRM1650	USER ID	alpha
WEIGHT (mg)	.460	MODE	CHN

			SIGNALS		
			ZR	13996	
CARBON	54.140%		NR	14052	
HYDROGEN	-1.528%		CR	18701	
NITROGEN	-4.150%		HR	19905	
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	22 Seconds				

DATE & TIME	8/8/2018 7:32:34 AM	P_ID	080818SPP2
SAMPLE ID	MB	USER ID	alpha
WEIGHT (mg)	50.020	MODE	CHN

			SIGNALS		
			ZR	13995	
CARBON	0.0%		NR	14031	
HYDROGEN	-.041%		CR	14064	
NITROGEN	-.045%		HR	14881	
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	22 Seconds				

DATE & TIME	8/8/2018 7:37:15 AM	P_ID	080818SPP2
SAMPLE ID	SRM1650	USER ID	alpha
WEIGHT (mg)	.370	MODE	CHN

		SIGNALS	
		ZR	13995
CARBON	72.765%	NR	14053
HYDROGEN	-4.540%	CR	19076
NITROGEN	-5.063%	HR	20002

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/8/2018 7:42:35 AM	P_ID	080818SPP2
SAMPLE ID	182740805	USER ID	alpha
WEIGHT (mg)	8.390	MODE	CHN

		SIGNALS	
		ZR	13993
CARBON	0.587%	NR	14073
HYDROGEN	0.541%	CR	15021
NITROGEN	-.176%	HR	17717

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/8/2018 7:47:16 AM	P_ID	080818SPP2
SAMPLE ID	182740805	USER ID	alpha
WEIGHT (mg)	6.330	MODE	CHN

		SIGNALS	
		ZR	13996
CARBON	0.519%	NR	14063
HYDROGEN	0.407%	CR	14707
NITROGEN	-.271%	HR	16845

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/8/2018 7:51:57 AM	P_ID	080818SPP2
SAMPLE ID	182740805D	USER ID	alpha
WEIGHT (mg)	5.160	MODE	CHN

		SIGNALS	
		ZR	13998
CARBON	0.596%	NR	14058
HYDROGEN	0.259%	CR	14663
NITROGEN	-.356%	HR	16448

BLANKS	35	1404	163

K FACTORS	18.527	28.457	5.605	
FILL	COMB	BOOST1	BOOST2	
0	0	0	0	
FILL TIME	22 Seconds			

DATE & TIME	8/8/2018 7:56:38 AM	P_ID	080818SPP2
SAMPLE ID	182740805D	USER ID	alpha
WEIGHT (mg)	5.760	MODE	CHN

		SIGNALS	
		ZR	13998
CARBON	0.551%	NR	14062
HYDROGEN	0.310%	CR	14685
NITROGEN	-.307%	HR	16597
BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	22 Seconds		

DATE & TIME	8/8/2018 8:01:19 AM	P_ID	080818SPP2
SAMPLE ID	182740805MS	USER ID	alpha
WEIGHT (mg)	6.300	MODE	CHN

		SIGNALS	
		ZR	14000
CARBON	2.053%	NR	14068
HYDROGEN	7.711%	CR	16499
NITROGEN	-.269%	HR	31728
BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	23 Seconds		

DATE & TIME	8/8/2018 8:06:00 AM	P_ID	080818SPP2
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.080	MODE	CHN

		SIGNALS	
		ZR	14010
CARBON	0.965%	NR	14041
HYDROGEN	5.144%	CR	15879
NITROGEN	-.234%	HR	32039
BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605
FILL	COMB	BOOST1	BOOST2
0	0	0	0
FILL TIME	22 Seconds		

DATE & TIME	8/8/2018 8:10:41 AM	P_ID	080818SPP2
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	60.550	MODE	CHN

				SIGNALS	
				ZR	14015
CARBON	-.001%			NR	14047
HYDROGEN	0.002%			CR	14073
NITROGEN	-.039%			HR	15510
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	22 Seconds				

DATE & TIME	8/8/2018 8:20:36 AM	P_ID	080818SPP2
SAMPLE ID	182740806	USER ID	alpha
WEIGHT (mg)	7.280	MODE	CHN

				SIGNALS	
				ZR	13992
CARBON	0.514%			NR	14057
HYDROGEN	0.442%			CR	14785
NITROGEN	-.240%			HR	17104
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	22 Seconds				

DATE & TIME	8/8/2018 8:25:17 AM	P_ID	080818SPP2
SAMPLE ID	182740806	USER ID	alpha
WEIGHT (mg)	5.930	MODE	CHN

				SIGNALS	
				ZR	13996
CARBON	0.653%			NR	14057
HYDROGEN	0.259%			CR	14809
NITROGEN	-.307%			HR	16650
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	22 Seconds				

DATE & TIME	8/8/2018 8:29:58 AM	P_ID	080818SPP2
SAMPLE ID	182740808	USER ID	alpha
WEIGHT (mg)	9.970	MODE	CHN

				SIGNALS	
				ZR	13998
CARBON	0.482%			NR	14114
HYDROGEN	0.340%			CR	15040
NITROGEN	-.084%			HR	17410
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	22 Seconds				

DATE & TIME	8/8/2018 8:34:39 AM	P_ID	080818SPP2
SAMPLE ID	182740808	USER ID	alpha
WEIGHT (mg)	10.790	MODE	CHN

		SIGNALS	
		ZR	13999
CARBON	0.481%	NR	14123
HYDROGEN	0.397%	CR	15119
NITROGEN	-.064%	HR	17741

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/8/2018 8:39:21 AM	P_ID	080818SPP2
SAMPLE ID	182740805MS	USER ID	alpha
WEIGHT (mg)	6.780	MODE	CHN

		SIGNALS	
		ZR	14000
CARBON	1.990%	NR	14072
HYDROGEN	7.509%	CR	16607
NITROGEN	-.239%	HR	32498

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/8/2018 8:44:02 AM	P_ID	080818SPP2
SAMPLE ID	182859425	USER ID	alpha
WEIGHT (mg)	9.680	MODE	CHN

		SIGNALS	
		ZR	14009
CARBON	0.066%	NR	14051
HYDROGEN	0.469%	CR	14204
NITROGEN	-.223%	HR	16899

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/8/2018 8:48:43 AM	P_ID	080818SPP2
SAMPLE ID	182859425	USER ID	alpha
WEIGHT (mg)	9.690	MODE	CHN

		SIGNALS	
		ZR	14000
CARBON	0.058%	NR	14041
HYDROGEN	0.220%	CR	14180
NITROGEN	-.225%	HR	16190

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 22 Seconds

DATE & TIME	8/8/2018 8:53:24 AM	P_ID	080818SPP2
SAMPLE ID	182859425D	USER ID	alpha
WEIGHT (mg)	12.030	MODE	CHN

		SIGNALS	
		ZR	13997
CARBON	0.050%	NR	14039
HYDROGEN	0.342%	CR	14185
NITROGEN	-.179%	HR	16761
BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/8/2018 8:58:05 AM	P_ID	080818SPP2
SAMPLE ID	182859425D	USER ID	alpha
WEIGHT (mg)	12.620	MODE	CHN

		SIGNALS	
		ZR	13997
CARBON	0.041%	NR	14039
HYDROGEN	0.285%	CR	14169
NITROGEN	-.171%	HR	16596
BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/8/2018 9:02:46 AM	P_ID	080818SPP2
SAMPLE ID	182859425MS	USER ID	alpha
WEIGHT (mg)	11.670	MODE	CHN

		SIGNALS	
		ZR	13998
CARBON	0.932%	NR	14041
HYDROGEN	4.473%	CR	16090
NITROGEN	-.183%	HR	32350
BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/8/2018 9:07:28 AM	P_ID	080818SPP2
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.330	MODE	CHN

				SIGNALS	
				ZR	14007
CARBON	0.756%			NR	14040
HYDROGEN	5.262%			CR	15521
NITROGEN	-.225%			HR	32393
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	23 Seconds				

DATE & TIME	8/8/2018 9:12:09 AM	P_ID	080818SPP2
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	63.040	MODE	CHN

				SIGNALS	
				ZR	14010
CARBON	0.0%			NR	14041
HYDROGEN	-.013%			CR	14078
NITROGEN	-.037%			HR	15251
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	22 Seconds				

DATE & TIME	8/8/2018 9:16:50 AM	P_ID	080818SPP2
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.0	MODE	CHN

				SIGNALS	
				ZR	13997
CARBON	0.980%			NR	14028
HYDROGEN	5.243%			CR	15879
NITROGEN	-.236%			HR	32204
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	23 Seconds				

DATE & TIME	8/8/2018 9:21:31 AM	P_ID	080818SPP2
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	94.360	MODE	CHN

				SIGNALS	
				ZR	14008
CARBON	0.0%			NR	14038
HYDROGEN	0.011%			CR	14081
NITROGEN	-.025%			HR	15767
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	23 Seconds				

DATE & TIME	8/8/2018 9:30:01 AM	P_ID	080818SPP2
SAMPLE ID	182859425MSD	USER ID	alpha
WEIGHT (mg)	11.950	MODE	CHN

		SIGNALS	
		ZR	13988
CARBON	0.835%	NR	14030
HYDROGEN	4.400%	CR	15914
NITROGEN	-.181%	HR	32281

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/8/2018 9:34:43 AM	P_ID	080818SPP2
SAMPLE ID	182859421	USER ID	alpha
WEIGHT (mg)	9.830	MODE	CHN

		SIGNALS	
		ZR	14004
CARBON	0.147%	NR	14054
HYDROGEN	0.563%	CR	14357
NITROGEN	-.205%	HR	17335

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/8/2018 9:39:24 AM	P_ID	080818SPP2
SAMPLE ID	182859421	USER ID	alpha
WEIGHT (mg)	7.710	MODE	CHN

		SIGNALS	
		ZR	13993
CARBON	0.119%	NR	14038
HYDROGEN	0.210%	CR	14243
NITROGEN	-.273%	HR	16107

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/8/2018 9:44:05 AM	P_ID	080818SPP2
SAMPLE ID	182859422	USER ID	alpha
WEIGHT (mg)	7.620	MODE	CHN

		SIGNALS	
		ZR	13992
CARBON	0.055%	NR	14031
HYDROGEN	0.221%	CR	14144
NITROGEN	-.290%	HR	16028

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/8/2018 9:48:47 AM	P_ID	080818SPP2
SAMPLE ID	182859422	USER ID	alpha
WEIGHT (mg)	11.950	MODE	CHN

		SIGNALS	
		ZR	13992
CARBON	0.056%	NR	14033
HYDROGEN	0.308%	CR	14191
NITROGEN	-.182%	HR	16641

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/8/2018 9:53:29 AM	P_ID	080818SPP2
SAMPLE ID	182859423	USER ID	alpha
WEIGHT (mg)	15.250	MODE	CHN

		SIGNALS	
		ZR	13992
CARBON	0.046%	NR	14037
HYDROGEN	0.031%	CR	14201
NITROGEN	-.138%	HR	15740

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/8/2018 9:58:10 AM	P_ID	080818SPP2
SAMPLE ID	182859423	USER ID	alpha
WEIGHT (mg)	12.890	MODE	CHN

		SIGNALS	
		ZR	13989
CARBON	0.047%	NR	14033
HYDROGEN	0.010%	CR	14180
NITROGEN	-.165%	HR	15621

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/8/2018 10:02:52 AM	P_ID	080818SPP2
SAMPLE ID	182859424	USER ID	alpha
WEIGHT (mg)	9.280	MODE	CHN

				SIGNALS	
				ZR	13989
CARBON	0.048%			NR	14025
HYDROGEN	0.121%			CR	14143
NITROGEN	-.244%			HR	15867
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	23 Seconds				

DATE & TIME	8/8/2018 10:07:34 AM	P_ID	080818SPP2
SAMPLE ID	182859425MS	USER ID	alpha
WEIGHT (mg)	8.880	MODE	CHN

				SIGNALS	
				ZR	13992
CARBON	1.132%			NR	14024
HYDROGEN	5.993%			CR	15921
NITROGEN	-.263%			HR	32468
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	23 Seconds				

DATE & TIME	8/8/2018 10:12:15 AM	P_ID	080818SPP2
SAMPLE ID	182859425MSD	USER ID	alpha
WEIGHT (mg)	8.120	MODE	CHN

				SIGNALS	
				ZR	14002
CARBON	1.180%			NR	14037
HYDROGEN	6.716%			CR	15847
NITROGEN	-.281%			HR	32769
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	23 Seconds				

DATE & TIME	8/8/2018 10:16:57 AM	P_ID	080818SPP2
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.420	MODE	CHN

				SIGNALS	
				ZR	14008
CARBON	0.971%			NR	14035
HYDROGEN	5.346%			CR	15944
NITROGEN	-.233%			HR	33200
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	23 Seconds				

DATE & TIME	8/8/2018 10:21:39 AM	P_ID	080818SPP2
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	47.0	MODE	CHN

				SIGNALS	
				ZR	14007
CARBON	-.001%			NR	14034
HYDROGEN	-.006%			CR	14063
NITROGEN	-.052%			HR	15392
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	23 Seconds				

DATE & TIME	8/8/2018 10:27:45 AM	P_ID	080818SPP2
SAMPLE ID	182859424	USER ID	alpha
WEIGHT (mg)	8.480	MODE	CHN

				SIGNALS	
				ZR	13987
CARBON	0.053%			NR	14025
HYDROGEN	0.199%			CR	14143
NITROGEN	-.263%			HR	16028
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	23 Seconds				

DATE & TIME	8/8/2018 10:32:26 AM	P_ID	080818SPP2
SAMPLE ID	182858426	USER ID	alpha
WEIGHT (mg)	6.720	MODE	CHN

				SIGNALS	
				ZR	13990
CARBON	0.053%			NR	14023
HYDROGEN	0.081%			CR	14124
NITROGEN	-.345%			HR	15683
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	23 Seconds				

DATE & TIME	8/8/2018 10:37:08 AM	P_ID	080818SPP2
SAMPLE ID	182859426	USER ID	alpha
WEIGHT (mg)	6.880	MODE	CHN

		SIGNALS	
		ZR	13987
CARBON	0.048%	NR	14024
HYDROGEN	0.082%	CR	14120
NITROGEN	-.327%	HR	15684

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/8/2018 10:41:51 AM	P_ID	080818SPP2
SAMPLE ID	182859427	USER ID	alpha
WEIGHT (mg)	7.190	MODE	CHN

		SIGNALS	
		ZR	13988
CARBON	0.085%	NR	14027
HYDROGEN	0.144%	CR	14175
NITROGEN	-.308%	HR	15873

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/8/2018 10:46:33 AM	P_ID	080818SPP2
SAMPLE ID	182859427	USER ID	alpha
WEIGHT (mg)	9.140	MODE	CHN

		SIGNALS	
		ZR	13986
CARBON	0.082%	NR	14027
HYDROGEN	0.286%	CR	14201
NITROGEN	-.238%	HR	16349

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 23 Seconds

DATE & TIME	8/8/2018 10:51:15 AM	P_ID	080818SPP2
SAMPLE ID	182859428	USER ID	alpha
WEIGHT (mg)	7.400	MODE	CHN

		SIGNALS	
		ZR	13986
CARBON	0.164%	NR	14032
HYDROGEN	0.152%	CR	14292
NITROGEN	-.282%	HR	16017

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 24 Seconds

DATE & TIME	8/8/2018 10:55:57 AM	P_ID	080818SPP2
SAMPLE ID	182859428	USER ID	alpha
WEIGHT (mg)	8.100	MODE	CHN

				SIGNALS	
				ZR	13984
CARBON	0.159%			NR	14032
HYDROGEN	0.206%			CR	14306
NITROGEN	-.253%			HR	16185
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	24 Seconds				

DATE & TIME	8/8/2018 11:00:39 AM	P_ID	080818SPP2
SAMPLE ID	182859429	USER ID	alpha
WEIGHT (mg)	8.020	MODE	CHN

				SIGNALS	
				ZR	13985
CARBON	0.069%			NR	14025
HYDROGEN	0.261%			CR	14163
NITROGEN	-.274%			HR	16162
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	24 Seconds				

DATE & TIME	8/8/2018 11:05:22 AM	P_ID	080818SPP2
SAMPLE ID	182859429	USER ID	alpha
WEIGHT (mg)	7.900	MODE	CHN

				SIGNALS	
				ZR	13985
CARBON	0.070%			NR	14022
HYDROGEN	0.204%			CR	14159
NITROGEN	-.285%			HR	16021
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	24 Seconds				

DATE & TIME	8/8/2018 11:10:04 AM	P_ID	080818SPP2
SAMPLE ID	182859430	USER ID	alpha
WEIGHT (mg)	6.900	MODE	CHN

				SIGNALS	
				ZR	13984
CARBON	0.093%			NR	14022
HYDROGEN	-.094%			CR	14176
NITROGEN	-.323%			HR	15395
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	24 Seconds				

DATE & TIME	8/8/2018 11:14:47 AM	P_ID	080818SPP2
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.100	MODE	CHN

		SIGNALS	
		ZR	13990
CARBON	0.981%	NR	14013
HYDROGEN	5.663%	CR	15883
NITROGEN	-.247%	HR	33563

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 24 Seconds

DATE & TIME	8/8/2018 11:19:29 AM	P_ID	080818SPP2
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	61.470	MODE	CHN

		SIGNALS	
		ZR	14000
CARBON	0.0%	NR	14025
HYDROGEN	-.012%	CR	14061
NITROGEN	-.040%	HR	15260

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 24 Seconds

DATE & TIME	8/8/2018 11:26:15 AM	P_ID	080818SPP2
SAMPLE ID	182859430	USER ID	alpha
WEIGHT (mg)	8.420	MODE	CHN

		SIGNALS	
		ZR	13981
CARBON	0.080%	NR	14024
HYDROGEN	0.149%	CR	14184
NITROGEN	-.254%	HR	15945

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 24 Seconds

DATE & TIME	8/8/2018 11:30:58 AM	P_ID	080818SPP2
SAMPLE ID	182859431	USER ID	alpha
WEIGHT (mg)	6.980	MODE	CHN

		SIGNALS	
		ZR	13986
CARBON	0.909%	NR	14065
HYDROGEN	0.177%	CR	15275
NITROGEN	-.215%	HR	17031

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 24 Seconds

DATE & TIME	8/8/2018 11:35:41 AM	P_ID	080818SPP2
SAMPLE ID	182859431	USER ID	alpha
WEIGHT (mg)	6.420	MODE	CHN

		SIGNALS	
		ZR	13988
CARBON	0.959%	NR	14062
HYDROGEN	0.115%	CR	15238
NITROGEN	-.247%	HR	16853

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 24 Seconds

DATE & TIME	8/8/2018 11:40:23 AM	P_ID	080818SPP2
SAMPLE ID	182859432	USER ID	alpha
WEIGHT (mg)	10.720	MODE	CHN

		SIGNALS	
		ZR	13985
CARBON	0.711%	NR	14089
HYDROGEN	0.361%	CR	15536
NITROGEN	-.098%	HR	18041

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 24 Seconds

DATE & TIME	8/8/2018 11:45:06 AM	P_ID	080818SPP2
SAMPLE ID	182859432	USER ID	alpha
WEIGHT (mg)	9.010	MODE	CHN

		SIGNALS	
		ZR	13986
CARBON	0.673%	NR	14072
HYDROGEN	0.108%	CR	15231
NITROGEN	-.152%	HR	16912

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 24 Seconds

DATE & TIME	8/8/2018 11:49:49 AM	P_ID	080818SPP2
SAMPLE ID	182859433	USER ID	alpha
WEIGHT (mg)	7.630	MODE	CHN

				SIGNALS	
				ZR	13987
CARBON	1.162%			NR	14082
HYDROGEN	0.483%			CR	15759
NITROGEN	-.159%			HR	18211
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	24 Seconds				

DATE & TIME	8/8/2018 11:54:32 AM	P_ID	080818SPP2
SAMPLE ID	182859433	USER ID	alpha
WEIGHT (mg)	7.480	MODE	CHN

				SIGNALS	
				ZR	13989
CARBON	0.940%			NR	14067
HYDROGEN	0.304%			CR	15405
NITROGEN	-.203%			HR	17456
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	24 Seconds				

DATE & TIME	8/8/2018 11:59:14 AM	P_ID	080818SPP2
SAMPLE ID	182859434	USER ID	alpha
WEIGHT (mg)	7.250	MODE	CHN

				SIGNALS	
				ZR	13986
CARBON	0.009%			NR	14012
HYDROGEN	-.242%			CR	14059
NITROGEN	-.337%			HR	14964
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	24 Seconds				

DATE & TIME	8/8/2018 12:03:57 PM	P_ID	080818SPP2
SAMPLE ID	182859434	USER ID	alpha
WEIGHT (mg)	11.140	MODE	CHN

				SIGNALS	
				ZR	13985
CARBON	0.005%			NR	14012
HYDROGEN	-.066%			CR	14057
NITROGEN	-.218%			HR	15251
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	24 Seconds				

DATE & TIME	8/8/2018 12:03:40 PM	P_ID	080818SPP2
SAMPLE ID	182859435	USER ID	alpha
WEIGHT (mg)	8.690	MODE	CHN

		SIGNALS	
		ZR	13984
CARBON	-.002%	NR	14008
HYDROGEN	-.149%	CR	14040
NITROGEN	-.285%	HR	15076

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 24 Seconds

DATE & TIME	8/8/2018 12:13:24 PM	P_ID	080818SPP2
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.460	MODE	CHN

		SIGNALS	
		ZR	13988
CARBON	0.971%	NR	14006
HYDROGEN	5.444%	CR	15923
NITROGEN	-.247%	HR	33532

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 25 Seconds

DATE & TIME	8/8/2018 12:20:02 PM	P_ID	080818SPP2
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	78.020	MODE	CHN

		SIGNALS	
		ZR	13985
CARBON	0.0%	NR	14009
HYDROGEN	-.005%	CR	14046
NITROGEN	-.032%	HR	15339

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 24 Seconds

DATE & TIME	8/8/2018 12:24:48 PM	P_ID	080818SPP2
SAMPLE ID	182859435	USER ID	alpha
WEIGHT (mg)	6.230	MODE	CHN

		SIGNALS	
		ZR	13985
CARBON	-.004%	NR	14010
HYDROGEN	-.211%	CR	14040
NITROGEN	-.395%	HR	15070

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 24 Seconds

DATE & TIME	8/8/2018 12:29:31 PM	P_ID	080818SPP2
SAMPLE ID	182859435	USER ID	alpha
WEIGHT (mg)	8.090	MODE	CHN

		SIGNALS	
		ZR	13984
CARBON	0.005%	NR	14009
HYDROGEN	-.107%	CR	14051
NITROGEN	-.304%	HR	15209

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 25 Seconds

DATE & TIME	8/8/2018 12:34:15 PM	P_ID	080818SPP2
SAMPLE ID	182859436	USER ID	alpha
WEIGHT (mg)	13.790	MODE	CHN

		SIGNALS	
		ZR	13983
CARBON	0.001%	NR	14009
HYDROGEN	0.041%	CR	14046
NITROGEN	-.177%	HR	15611

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 25 Seconds

DATE & TIME	8/8/2018 12:38:58 PM	P_ID	080818SPP2
SAMPLE ID	182859436	USER ID	alpha
WEIGHT (mg)	10.220	MODE	CHN

		SIGNALS	
		ZR	13984
CARBON	0.0%	NR	14007
HYDROGEN	0.115%	CR	14042
NITROGEN	-.244%	HR	15780

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 25 Seconds

DATE & TIME	8/8/2018 12:43:41 PM	P_ID	080818SPP2
SAMPLE ID	182859437	USER ID	alpha
WEIGHT (mg)	5.800	MODE	CHN

				SIGNALS	
				ZR	13983
CARBON	0.038%			NR	14008
HYDROGEN	-.051%			CR	14084
NITROGEN	-.424%			HR	15404
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	25 Seconds				

DATE & TIME	8/8/2018 12:48:25 PM	P_ID	080818SPP2
SAMPLE ID	182859437	USER ID	alpha
WEIGHT (mg)	6.630	MODE	CHN

				SIGNALS	
				ZR	13982
CARBON	0.023%			NR	14008
HYDROGEN	0.030%			CR	14071
NITROGEN	-.369%			HR	15531
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	25 Seconds				

DATE & TIME	8/8/2018 12:53:09 PM	P_ID	080818SPP2
SAMPLE ID	182859438	USER ID	alpha
WEIGHT (mg)	11.090	MODE	CHN

				SIGNALS	
				ZR	13983
CARBON	0.014%			NR	14007
HYDROGEN	-.091%			CR	14070
NITROGEN	-.224%			HR	15186
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	25 Seconds				

DATE & TIME	8/8/2018 12:57:52 PM	P_ID	080818SPP2
SAMPLE ID	182859438	USER ID	alpha
WEIGHT (mg)	9.210	MODE	CHN

				SIGNALS	
				ZR	13978
CARBON	0.026%			NR	14007
HYDROGEN	-.201%			CR	14087
NITROGEN	-.260%			HR	14965
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		
FILL	COMB	BOOST1	BOOST2		
0	0	0	0		
FILL TIME	25 Seconds				

DATE & TIME	8/8/2018 1:02:36 PM	P_ID	080818SPP2
SAMPLE ID	SRM1650	USER ID	alpha
WEIGHT (mg)	.480	MODE	CHN

		SIGNALS	
		ZR	13980
CARBON	64.253%	NR	14028
HYDROGEN	-5.256%	CR	19777
NITROGEN	-4.274%	HR	20463

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 25 Seconds

DATE & TIME	8/8/2018 1:07:20 PM	P_ID	080818SPP2
SAMPLE ID	MB	USER ID	alpha
WEIGHT (mg)	49.340	MODE	CHN

		SIGNALS	
		ZR	13977
CARBON	0.0%	NR	14001
HYDROGEN	-.075%	CR	14032
NITROGEN	-.050%	HR	14377

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 25 Seconds

DATE & TIME	8/8/2018 1:12:04 PM	P_ID	080818SPP2
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.400	MODE	CHN

		SIGNALS	
		ZR	13987
CARBON	0.967%	NR	14001
HYDROGEN	5.623%	CR	15899
NITROGEN	-.256%	HR	33945

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 25 Seconds

DATE & TIME	8/8/2018 1:16:48 PM	P_ID	080818SPP2
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	78.670	MODE	CHN

		SIGNALS	
		ZR	13999
CARBON	0.0%	NR	14016
HYDROGEN	-.009%	CR	14047
NITROGEN	-.033%	HR	15251

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 25 Seconds

DATE & TIME	8/8/2018 1:21:32 PM	P_ID	080818SPP2
SAMPLE ID	SRM1650	USER ID	alpha
WEIGHT (mg)	.370	MODE	CHN

		SIGNALS	
		ZR	13984
CARBON	65.193%	NR	14025
HYDROGEN	-4.825%	CR	18529
NITROGEN	-5.883%	HR	19425

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 25 Seconds

DATE & TIME	8/8/2018 1:30:27 PM	P_ID	080818SPP2
SAMPLE ID	MB	USER ID	alpha
WEIGHT (mg)	57.730	MODE	CHN

		SIGNALS	
		ZR	13977
CARBON	0.0%	NR	13994
HYDROGEN	-.052%	CR	14025
NITROGEN	-.045%	HR	14576

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 25 Seconds

DATE & TIME	8/8/2018 1:35:11 PM	P_ID	080818SPP2
SAMPLE ID	CCV	USER ID	alpha
WEIGHT (mg)	10.050	MODE	CHN

		SIGNALS	
		ZR	13984
CARBON	0.973%	NR	14000
HYDROGEN	5.771%	CR	15846
NITROGEN	-.261%	HR	33755

BLANKS	35	1404	163
K FACTORS	18.527	28.457	5.605

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 26 Seconds

DATE & TIME	8/8/2018 1:39:55 PM	P_ID	080818SPP2
SAMPLE ID	CCB	USER ID	alpha
WEIGHT (mg)	58.780	MODE	CHN

				SIGNALS	
				ZR	13995
CARBON	-.001%			NR	14013
HYDROGEN	-.008%			CR	14038
NITROGEN	-.044%			HR	15303
BLANKS	35	1404	163		
K FACTORS	18.527	28.457	5.605		

FILL	COMB	BOOST1	BOOST2
0	0	0	0

FILL TIME 25 Seconds

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Sep 07 2018, 12:37 pm

Work Group: WG1144214 for Department: 7 Wet Chemistry

Created: 08-AUG-18 Due: Operator: SP

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1828594-21	LDW18-SS-172	S	A2-SOOT	SOIL	DONE	U	0329	0808	S0	Glass-A.120
L1828594-22	LDW18-SS-173	S	A2-SOOT	SOIL	DONE	U	0329	0808	S0	Glass-A.120
L1828594-23	LDW18-SS-174	S	A2-SOOT	SOIL	DONE	U	0329	0808	S0	Glass-A.120
L1828594-24	LDW18-SS-175	S	A2-SOOT	SOIL	DONE	U	0329	0808	S0	Glass-A.120
L1828594-25	LDW18-SS-176	S	A2-SOOT	SOIL	DONE	U	0329	0808	S0	Glass-A.120
L1828594-26	LDW18-SS-177	S	A2-SOOT	SOIL	DONE	U	0330	0808	S0	Glass-A.120
L1828594-27	LDW18-SS-178	S	A2-SOOT	SOIL	DONE	U	0329	0808	S0	Glass-A.120
L1828594-28	LDW18-SS-178-FD	S	A2-SOOT	SOIL	DONE	U	0329	0808	S0	Glass-A.120
L1828594-29	LDW18-SS-179	S	A2-SOOT	SOIL	DONE	U	0323	0808	S0	Glass-A.120
L1828594-30	LDW18-SS-180	S	A2-SOOT	SOIL	DONE	U	0328	0808	S0	Glass-A.120
L1828594-31	LDW18-SS-181	S	A2-SOOT	SOIL	DONE	U	0328	0808	S0	Glass-A.120
L1828594-32	LDW18-SS-182	S	A2-SOOT	SOIL	DONE	U	0329	0808	S0	Glass-A.120
L1828594-33	LDW18-SS-183	S	A2-SOOT	SOIL	DONE	U	0330	0808	S0	Glass-A.120
L1828594-34	LDW18-SS-184	S	A2-SOOT	SOIL	DONE	U	0323	0808	S0	Glass-A.120
L1828594-35	LDW18-SS-185	S	A2-SOOT	SOIL	DONE	U	0328	0808	S0	Glass-A.120
L1828594-36	LDW18-SS-186	S	A2-SOOT	SOIL	DONE	U	0328	0808	S0	Glass-A.120
L1828594-37	LDW18-SS-187	S	A2-SOOT	SOIL	DONE	U	0330	0808	S0	Glass-A.120
L1828594-38	LDW18-SS-188	S	A2-SOOT	SOIL	DONE	U	0328	0808	S0	Glass-A.120
WG1144214-1	Laboratory Method Bl	S	A2-SOOT	SOIL	DONE	U				
WG1144214-2	Laboratory Control S	S	A2-SOOT	SOIL	DONE	U				
WG1144214-3	Duplicate Sample	S	A2-SOOT	SOIL	DONE	U				
WG1144214-4	Matrix Spike	S	A2-SOOT	SOIL	DONE	U				
WG1144214-5	Matrix Spike Duplica	S	A2-SOOT	SOIL	DONE	U				

Comments:

WG1144214-3	L1828594-25
WG1144214-4	L1828594-25
WG1144214-5	L1828594-25

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Sep 07 2018, 12:37 pm

Work Group: WG1144221 for Department: 7 Wet Chemistry

Created: 08-AUG-18 Due: Operator: SP

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1828594-02	LDW18-SS-COMP09	S	A2-SOOT	SOIL	DONE	U	0403	0808	S0	Glass-A.120
L1828594-03	LDW18-SS-COMP10	S	A2-SOOT	SOIL	DONE	U	0402	0808	S0	Glass-A.120
L1828594-04	LDW18-SS-COMP11	S	A2-SOOT	SOIL	DONE	U	0403	0808	S0	Glass-A.120
L1828594-05	LDW18-SS-COMP12	S	A2-SOOT	SOIL	DONE	U	0403	0808	S0	Glass-A.120
L1828594-06	LDW18-SS-COMP13	S	A2-SOOT	SOIL	DONE	U	0402	0808	S0	Glass-A.120
L1828594-07	LDW18-SS-COMP14	S	A2-SOOT	SOIL	DONE	U	0403	0808	S0	Glass-A.120
L1828594-08	LDW18-SS-COMP15	S	A2-SOOT	SOIL	DONE	U	0403	0808	S0	Glass-A.120
L1828594-09	LDW18-SS-COMP16	S	A2-SOOT	SOIL	DONE	U	0326	0808	S0	Glass-A.120
L1828594-10	LDW18-SS-COMP17	S	A2-SOOT	SOIL	DONE	U	0402	0808	S0	Glass-A.120
L1828594-11	LDW18-SS-COMP18	S	A2-SOOT	SOIL	DONE	U	0328	0808	S0	Glass-A.120
L1828594-12	LDW18-SS-COMP19	S	A2-SOOT	SOIL	DONE	U	0402	0808	S0	Glass-A.120
L1828594-13	LDW18-SS-COMP20	S	A2-SOOT	SOIL	DONE	U	0406	0808	S0	Glass-A.120
L1828594-14	LDW18-SS-COMP21	S	A2-SOOT	SOIL	DONE	U	0403	0808	S0	Glass-A.120
L1828594-15	LDW18-SS-COMP22	S	A2-SOOT	SOIL	DONE	U	0328	0808	S0	Glass-A.120
L1828594-16	LDW18-SS-COMP23	S	A2-SOOT	SOIL	DONE	U	0328	0808	S0	Glass-A.120
L1828594-17	LDW18-SS-COMP24	S	A2-SOOT	SOIL	DONE	U	0402	0808	S0	Glass-A.120
L1828594-18	LDW18-SS-169	S	A2-SOOT	SOIL	DONE	U	0323	0808	S0	Glass-A.120
L1828594-19	LDW18-SS-170	S	A2-SOOT	SOIL	DONE	U	0329	0808	S0	Glass-A.120
L1828594-20	LDW18-SS-171	S	A2-SOOT	SOIL	DONE	U	0329	0808	S0	Glass-A.120
WG1144221-1	Laboratory Method Bl	S	A2-SOOT	SOIL	DONE	U				
WG1144221-2	Laboratory Control S	S	A2-SOOT	SOIL	DONE	U				
WG1144221-3	Duplicate Sample	S	A2-SOOT	SOIL	DONE	U				
WG1144221-4	Matrix Spike	S	A2-SOOT	SOIL	DONE	U				
WG1144221-5	Matrix Spike Duplica	S	A2-SOOT	SOIL	DONE	U				

Comments:

WG1144221-3	L1828594-02
WG1144221-4	L1828594-02
WG1144221-5	L1828594-02

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Sep 07 2018, 12:37 pm

Work Group: WG1144249 for Department: 7 Wet Chemistry

Created: 08-AUG-18 Due: Operator: SP

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1828594-01	LDW18-SS-COMP08	S	A2-SOOT	SOIL	DONE	U		0403 0808	S0	Glass-A.120
WG1144249-1	Laboratory Method Bl	S	A2-SOOT	SOIL	DONE	U				
WG1144249-2	Laboratory Control S	S	A2-SOOT	SOIL	DONE	U				
WG1144249-3	Duplicate Sample	S	A2-SOOT	SOIL	DONE	U				
WG1144249-4	Matrix Spike	S	A2-SOOT	SOIL	DONE	U				

Comments:

WG1144249-3 L1828594-01
WG1144249-4 L1828594-01

Sample Preparation

TOC Instrument: TOC #1 TOC #3

(Circle one) TOC #2

Date: 8/8/18

Analyst: SP

2° Review: _____

CCV ID: WW032318A→E

SRM 1944 ID: WS12081814A

Filter Aid ID: WS12041517

ICV ID: WW032318F

Balance ID: 002288

Other SRM ID: WW111016A

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
Conditioning Std					
K				1	10.03
Blank				2	52.99
K				3	9.86
K				4	9.58
0				5	
1000				6	
5000				7	
10000				8	
20000				9	
40000					
ICV				5	9.98
ICB				6	61.60
HICV				7	51.60
SRM	1650			8	0.45
MB				9	35.02
SRM	1650			10	0.35
MB				11	49.49
L1828594	01			12	9.47
↓	01			13	9.14
	01D			14	9.03
↓	01D			15	8.98

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
L1828594	01MS	9.57		16	7.79
↓	01MS	9.78		17	8.34
CCV				18	10.05
CCB				19	55.71
L1828594	01DRR			20	9.72
↓	01DRR			21	10.55
	02			22	6.33
	02			23	6.09
	03			24	8.64
	03			25	8.44
	04			26	8.59
	04			27	8.64
	~~05~~ 01MSD	9.73		28	5.14
↓	~~05~~ 01MSD	10.08		29	7.12
CCV				30	10.32
CCB				31	54.08
L1828594	02RR			32	6.65
↓	02RR			33	7.77
	03RR			34	10.65
	03RR			35	12.07
	04RR			36	13.23
↓	04RR			37	10.94

Document Type: Form

Pre-Qualtrax Document ID: 107-02

TOC Instrument: (Circle one) TOC #1 / TOC #2 TOC #3

Date: 8/8/18
Analyst: SP
2° Review: _____
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					
K					
Blank					
K					
K					
0					
1000					
5000					
10000					
20000					
40000					
ICV					
ICB					
HICV					
L1825594	05			38	6.54
	05			39	7.33
	06			40	6.41
↓	06			41	7.47
CCV				42	10.35
CCB				43	45.30
CCB				44	~~47.00~~ 51.23

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

Document Type: Form

Pre-Qualtrax Document ID: 107-02

TOC Instrument: TOC #1 TOC #3
(Circle one) TOC #2

Date: 8/8/18
Analyst: SD
2° Review: _____

CCV ID: WW032318A→E
SRM 1944 ID: WS081814A
Filter Aid ID: WS120415A

ICV ID: WW032318F
Balance ID: 002288
Other SRM ID: WS110161GA

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
Conditioning Std					
K				1	9.85
Blank				2	45.65
K				3	10.19
K				4	10.35
0					
1000					
5000					
10000					
20000					
40000					
ICV				5	10.19
ICB				6	65.63
HICV				7	51.46
SRM	1650			8	0.40
MB				9	59.37
SRM	1650			10	0.40
MB				11	45.50
L1828594	02			12	5.24
↓	02			13	6.00
	02			14	5.55
↓	02			15	~~7.77~~ 6.84

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
L1828594	~~01~~ 01MS ~~9.99~~	9.99		16	6.10
↓	02MS	10.53		17	5.07
CCV				18	10.35
CCB				19	56.33
L1828594	03			20	5.43
↓	03			21	6.62
	04			22	9.21
	04			23	8.57
	05			24	7.15
	05			25	9.35
	06			26	9.66
	06			27	6.32
	07			28	9.67
↓	07			29	8.22
CCV				30	9.83
CCB				31	74.28
L1828594	08			32	7.24
↓	08			33	9.36
	09			34	9.13
	09			35	9.39
	10			36	7.80
↓	10			37	7.78

Document Type: Form

Pre-Qualtrax Document ID: 107-02

TOC Instrument: TOC #1 TOC #3

(Circle one) TOC #2

Date: 8/8/18
Analyst: SP

2° Review: _____

CCV ID: WW032318A->E
SRM 1944 ID: WS081814A
Filter Aid ID: WS120415A

ICV ID: WW032318F
Balance ID: 5022288
Other SRM ID: WS111016A

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
Conditioning Std					
K					
Blank					
K					
K					
0					
1000					
5000					
10000					
20000					
40000					
ICV					
ICB					
HICV					
L1828594	11			38	10.19
↓	11			39	8.41
	12			40	8.10
↓	12	Powel out		41	9.90
CCV				42	9.64
CCB				43	49.69
L1828594	17			44	14.63
↓	17			45	13.31

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
~~L1828594~~	18			~~46~~	
	18			~~47~~	
	19			48	
CCV				49	
CCB	19			50	
↓	20			~~51~~	
L1828594	~~20~~			52	
~~L1828581~~	02MSD			53	
↓	02MSD				
~~CCV~~					
~~CCB~~					
L1828594	18			46	9.53
	18			47	7.60
	02MSD	9.69		48	8.76
↓	02MSD	9.63		49	6.10
~~CCV~~	13			50	8.43
~~CCB~~	13			51	8.87
	14			52	6.72
↓	14			53	8.65
CCV				54	9.92
CCB				55	11.98
L1828594	12			56	7.82
↓	13 15			57	13.57

Pre-Qualtrax Document ID: 107-02

Document Type: Form

TOC Instrument: TOC #1 TOC #3

(Circle one) TOC #2

Date: 8/8/18
Analyst: SP
2° Review:

CCV ID: WW032318A->E
SRM 1944 ID: WS081814A
Filter Aid ID: WS120415A

ICV ID: WW032318F
Balance ID: 002288
Other SRM ID: WS111016A

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
Conditioning Std					
K					
Blank					
K					
K					
0					
1000					
5000					
10000					
20000					
40000					
ICV					
ICB					
HICV					
L1828594	15			58	11.759
	16			59	9.62
	16			66	9.37
	19			61	9.05
	19			62	6.93
	20			63	9.64
	20			64	10.59
CCV				65	9.82

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
CCB				66	6573
~~CCV~~					
~~CCB~~					
CCV					
CCB					

Pre-Qualtrax Document ID: 107-02

Document Type: Form

TOC Instrument: (Circle one) TOC #1 TOC #2 TOC #3

Date: 8/8/18
Analyst: SP
2° Review: _____

CCV ID: WW032318A→E
SRM 1944 ID: WS081814A
Filter Aid ID: WS120415A

ICV ID: WW032318F
Balance ID: 002288
Other SRM ID: WS111016A

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)	
Conditioning Std						
K				1	10.08	
Blank				2	62.33	
K				3	9.60	9.35
K				4	9.60	
0				5	9.25	
1000				6	9.75	
5000				7	9.84	
10000				8	10.38	
20000				9	10.92	
40000				10	9.80	
ICV				11	10.11	
ICB				12	50.15	
HICV				13	50.86	
SRM	1650			14	0.43	
MB				15	44.24	
SRM	1650			16	0.46	
MB				17	50.02	
SRM	1650			18	0.37	
L1827408	05			19	8.39	
↓	05			20	6.33	
↓	05D			21	5.16	

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)	
L1827408	05D			22	5.76	
↓	05MS	9.66		23	6.30	
CCV				24	10.08	
CCB				25	60.55	
L1827408	06			26	7.28	
	06			27	5.93	
	08			28	9.97	
	08			29	10.79	
↓	05MS	9.86		30	6.78	
L1828594	25			31	9.68	
	25			32	9.69	
	25D			33	12.03	
	25D			34	12.62	
↓	25MS	10.83		35	11.67	
CCV				36	10.33	
CCB				37	63.04	
~~L1828594~~	~~25MS~~	~~9.91~~	CCV	38	~~8.58~~	10
	~~25MSD~~	~~9.60~~	CCB	39	~~8.12~~	94.3
	25MSD	9.85		40	11.95	
	21			41	9.83	
	21			42	7.71	
↓	22			43	7.62	

Document Type: Form

Pre-Qualtrax Document ID: 107-02

Title: Total Organic Carbon – Lloyd Kahn Log

TOC Instrument: (Circle one) TOC #1 TOC #2 TOC #3

Date: 8/8/18
Analyst: SD
2° Review: _____

CCV ID: WW032318A-2E
SRM 1944 ID: WS081814A
Filter Aid ID: WS~~08~~ 120415A

ICV ID: WW032318F
Balance ID: 002288
Other SRM ID: WS111016A

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
Conditioning Std					
K					
Blank					
K					
K					
0					
1000					
5000					
10000					
20000					
40000					
ICV					
ICB					
HICV					
L1828594	22			44	11.95
	23			45	15.25
	23			46	12.89
↓	24			47	9.28
~~CCV~~	25MS	9.91		~~48~~ 48	~~10.42~~ 8.88
~~CCB~~	25MSD	9.60		49	~~47.60~~ 8.12
CCV				50	10.42
CCB				51	47.60

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
L1828594	~~25~~ 24			52	8.48
	~~25~~ 26			53	6.72
~~CCV~~	~~25~~ 27	26		54	6.88
~~CCB~~	~~26~~ 28	27		55	7.19
	~~26~~ 28	27		56	9.14
	~~27~~ 29	28		57	7.40
	~~27~~ 29	28		58	8.10
	~~28~~ 30	29		59	8.02
	~~28~~ 30	29		60	7.90
↓	30			61	6.90
CCV				62	10.10
CCB				63	61.47
L1828594	30			64	8.42
	31			65	6.98
~~CCV~~	31			66	6.42
~~CCB~~	32			67	10.72
	32			68	9.01
	33			69	7.63
	33			70	7.48
	34			71	7.25
	34			72	11.14
↓	35			73	8.69

Document Type: Form

Pre-Qualtrax Document ID: 107-02

Title: Total Organic Carbon

TOC Instrument: (Circle one) TOC #1 TOC #2 TOC #3

Date: 8/8/18
Analyst: SP
2° Review: _____

CCV ID: WW032318A→E
SRM 1944 ID: WS081814A
Filter Aid ID: WS120415A

ICV ID: WW032318F
Balance ID: 002288
Other SRM ID: WS111016A

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
Conditioning Std					
K					
Blank					
K					
K					
0					
1000					
5000					
10000					
20000					
40000					
ICV					
ICB					
HICV					
CCV				74	10.46
CCB				75	78.02
L1828594	35			76	6.23
	35			77	8.09
	36			78	13.79
	36			79	10.22
	37			80	5.80
	37			81	6.63

Login	SAMPLE	QC D/MS	TRAY LOCATION	AUTO SLOT	WEIGHT (mg)
L1828594	38			82	11.09
	38			83	9.21
~~CCV~~ SRM	1650			84	~~0.55~~ oil
~~CCB~~ MB				85	49.34
CCV				86	10.40
CCB				87	78.67
SRM	1650			88	0.37
MB				89	57.73
CCV				90	10.05
CCB				91	58.78
L1828594	13			1 ~~92~~	12.41
	13			2 ~~93~~	10.26
	14			3 ~~94~~	8.60
	14			4 ~~95~~	9.39
~~CCV~~	15			5 ~~96~~	13.59
~~CCB~~	15			6 ~~97~~	12.75
~~CCV~~	16			7 ~~98~~	10.35
~~CCB~~	16			8 ~~99~~	9.54
	16D			9 ~~100~~	11.68
	16D			10	11.99
CCV	~~16MS~~			11	
CCB	~~16MS~~			12	

Document Type: Form

Pre-Qualtrax Document ID: 107-02

Alpha Report

ANALYTICAL REPORT

Lab Number:	L1828594
Client:	Analytical Resources, Inc. 4611 S. 134th Place Suite 100 Tukwila, WA 98168-3240
ATTN:	Susan Dunnihoo
Phone:	(206) 695-6207
Project Name:	AOC3 BLACK CARBON
Project Number:	TASK 4
Report Date:	08/09/18

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

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

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1828594-01	LDW18-SS-COMP08	SEDIMENT	Not Specified	03/06/18 12:28	07/25/18
L1828594-02	LDW18-SS-COMP09	SEDIMENT	Not Specified	03/06/18 14:36	07/25/18
L1828594-03	LDW18-SS-COMP10	SEDIMENT	Not Specified	03/05/18 14:19	07/25/18
L1828594-04	LDW18-SS-COMP11	SEDIMENT	Not Specified	03/06/18 14:57	07/25/18
L1828594-05	LDW18-SS-COMP12	SEDIMENT	Not Specified	03/06/18 15:19	07/25/18
L1828594-06	LDW18-SS-COMP13	SEDIMENT	Not Specified	03/05/18 15:22	07/25/18
L1828594-07	LDW18-SS-COMP14	SEDIMENT	Not Specified	03/06/18 10:40	07/25/18
L1828594-08	LDW18-SS-COMP15	SEDIMENT	Not Specified	03/06/18 11:03	07/25/18
L1828594-09	LDW18-SS-COMP16	SEDIMENT	Not Specified	02/26/18 14:45	07/25/18
L1828594-10	LDW18-SS-COMP17	SEDIMENT	Not Specified	03/05/18 14:35	07/25/18
L1828594-11	LDW18-SS-COMP18	SEDIMENT	Not Specified	02/28/18 13:30	07/25/18
L1828594-12	LDW18-SS-COMP19	SEDIMENT	Not Specified	03/05/18 14:52	07/25/18
L1828594-13	LDW18-SS-COMP20	SEDIMENT	Not Specified	03/09/18 12:12	07/25/18
L1828594-14	LDW18-SS-COMP21	SEDIMENT	Not Specified	03/06/18 11:28	07/25/18
L1828594-15	LDW18-SS-COMP22	SEDIMENT	Not Specified	02/28/18 13:55	07/25/18
L1828594-16	LDW18-SS-COMP23	SEDIMENT	Not Specified	02/28/18 14:16	07/25/18
L1828594-17	LDW18-SS-COMP24	SEDIMENT	Not Specified	03/05/18 15:37	07/25/18
L1828594-18	LDW18-SS-169	SEDIMENT	Not Specified	02/23/18 15:15	07/25/18
L1828594-19	LDW18-SS-170	SEDIMENT	Not Specified	03/01/18 13:10	07/25/18
L1828594-20	LDW18-SS-171	SEDIMENT	Not Specified	03/01/18 10:48	07/25/18
L1828594-21	LDW18-SS-172	SEDIMENT	Not Specified	03/01/18 12:22	07/25/18
L1828594-22	LDW18-SS-173	SEDIMENT	Not Specified	03/01/18 10:28	07/25/18
L1828594-23	LDW18-SS-174	SEDIMENT	Not Specified	03/01/18 13:34	07/25/18
L1828594-24	LDW18-SS-175	SEDIMENT	Not Specified	03/01/18 09:51	07/25/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1828594-25	LDW18-SS-176	SEDIMENT	Not Specified	03/01/18 09:25	07/25/18
L1828594-26	LDW18-SS-177	SEDIMENT	Not Specified	03/02/18 07:49	07/25/18
L1828594-27	LDW18-SS-178	SEDIMENT	Not Specified	03/01/18 08:39	07/25/18
L1828594-28	LDW18-SS-178-FD	SEDIMENT	Not Specified	03/01/18 08:39	07/25/18
L1828594-29	LDW18-SS-179	SEDIMENT	Not Specified	02/23/18 11:48	07/25/18
L1828594-30	LDW18-SS-180	SEDIMENT	Not Specified	02/28/18 14:10	07/25/18
L1828594-31	LDW18-SS-181	SEDIMENT	Not Specified	02/28/18 14:32	07/25/18
L1828594-32	LDW18-SS-182	SEDIMENT	Not Specified	03/01/18 08:03	07/25/18
L1828594-33	LDW18-SS-183	SEDIMENT	Not Specified	03/02/18 12:24	07/25/18
L1828594-34	LDW18-SS-184	SEDIMENT	Not Specified	02/23/18 13:26	07/25/18
L1828594-35	LDW18-SS-185	SEDIMENT	Not Specified	02/28/18 12:27	07/25/18
L1828594-36	LDW18-SS-186	SEDIMENT	Not Specified	02/28/18 12:09	07/25/18
L1828594-37	LDW18-SS-187	SEDIMENT	Not Specified	03/02/18 11:31	07/25/18
L1828594-38	LDW18-SS-188	SEDIMENT	Not Specified	02/28/18 09:15	07/25/18

Project Name: AOC3 BLACK CARBON **Lab Number:** L1828594
Project Number: TASK 4 **Report Date:** 08/09/18

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:	AOC3 BLACK CARBON	**Lab Number:**	L1828594
Project Number:	TASK 4	**Report Date:**	08/09/18

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

% SOOT

L1828594: Sampes were frozen upon receipt in order to arrest the holding time.

L1828594-04, -05, and -06: The Sample Replicate RPD is outside the acceptance criteria of 30%. A double-burn re-analysis was performed with a confirming result. The results of the original analysis are reported. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

The WG1144221-4/-5 MS/MSD RPD for % soot (rep 1) (31%), performed on L1828594-02, is outside the acceptance criteria of 25%. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

The WG1144214-3 Laboratory Duplicate RPDs for % soot (rep 1) (28%) and % soot (rep 2) (34%), performed on L1828594-25, areoutside the acceptance criteria of 25%. The elevated RPDs have been attributed to the non-homogeneous nature of the native sample.

WG1144221-3: The Sample Replicate RPD for % soot (rep 1) (44%) is outside the acceptance criteria of 30%. A double-burn re-analysis was performed with a confirming result. The results of the original analysis are reported. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

The WG1144221-3 Laboratory Duplicate RPD for % soot (rep 1) (44%), performed on L1828594-02, is outside the acceptance criteria of 25%. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

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 O' Neil

Title: Technical Director/Representative Date: 08/09/18

INORGANICS
&
MISCELLANEOUS

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-01
Client ID: LDW18-SS-COMP08
Sample Location: Not Specified

Date Collected: 03/06/18 12:28
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	08/08/18 07:13	91,-	SP
% Soot (Rep 2)	0.029		%	0.010	NA	1	-	08/08/18 07:13	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-02
Client ID: LDW18-SS-COMP09
Sample Location: Not Specified

Date Collected: 03/06/18 14:36
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.014		%	0.010	NA	1	-	08/08/18 12:11	91,-	SP
% Soot (Rep 2)	ND		%	0.010	NA	1	-	08/08/18 12:11	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-03
Client ID: LDW18-SS-COMP10
Sample Location: Not Specified

Date Collected: 03/05/18 14:19
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	08/08/18 12:54	91,-	SP
% Soot (Rep 2)	0.018		%	0.010	NA	1	-	08/08/18 12:54	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-04
Client ID: LDW18-SS-COMP11
Sample Location: Not Specified

Date Collected: 03/06/18 14:57
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.034		%	0.010	NA	1	-	08/08/18 13:05	91,-	SP
% Soot (Rep 2)	0.053		%	0.010	NA	1	-	08/08/18 13:05	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-05
Client ID: LDW18-SS-COMP12
Sample Location: Not Specified

Date Collected: 03/06/18 15:19
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.017		%	0.010	NA	1	-	08/08/18 13:16	91,-	SP
% Soot (Rep 2)	0.094		%	0.010	NA	1	-	08/08/18 13:16	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-06
Client ID: LDW18-SS-COMP13
Sample Location: Not Specified

Date Collected: 03/05/18 15:22
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.101		%	0.010	NA	1	-	08/08/18 13:26	91,-	SP
% Soot (Rep 2)	0.027		%	0.010	NA	1	-	08/08/18 13:26	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-07
Client ID: LDW18-SS-COMP14
Sample Location: Not Specified

Date Collected: 03/06/18 10:40
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.020		%	0.010	NA	1	-	08/08/18 13:37	91,-	SP
% Soot (Rep 2)	0.011		%	0.010	NA	1	-	08/08/18 13:37	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-08
Client ID: LDW18-SS-COMP15
Sample Location: Not Specified

Date Collected: 03/06/18 11:03
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	08/08/18 14:03	91,-	SP
% Soot (Rep 2)	0.031		%	0.010	NA	1	-	08/08/18 14:03	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-09
Client ID: LDW18-SS-COMP16
Sample Location: Not Specified

Date Collected: 02/26/18 14:45
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.010		%	0.010	NA	1	-	08/08/18 14:13	91,-	SP
% Soot (Rep 2)	0.065		%	0.010	NA	1	-	08/08/18 14:13	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-10
Client ID: LDW18-SS-COMP17
Sample Location: Not Specified

Date Collected: 03/05/18 14:35
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	08/08/18 14:24	91,-	SP
% Soot (Rep 2)	ND		%	0.010	NA	1	-	08/08/18 14:24	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4
Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-11
Client ID: LDW18-SS-COMP18
Sample Location: Not Specified
Sample Depth:
Matrix: Sediment

Date Collected: 02/28/18 13:30
Date Received: 07/25/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	08/08/18 14:35	91,-	SP
% Soot (Rep 2)	ND		%	0.010	NA	1	-	08/08/18 14:35	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-12
Client ID: LDW18-SS-COMP19
Sample Location: Not Specified

Date Collected: 03/05/18 14:52
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	08/08/18 14:45	91,-	SP
% Soot (Rep 2)	ND		%	0.010	NA	1	-	08/08/18 14:45	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-13
Client ID: LDW18-SS-COMP20
Sample Location: Not Specified

Date Collected: 03/09/18 12:12
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.016		%	0.010	NA	1	-	08/09/18 08:30	91,-	SP
% Soot (Rep 2)	0.034		%	0.010	NA	1	-	08/09/18 08:30	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-14
Client ID: LDW18-SS-COMP21
Sample Location: Not Specified

Date Collected: 03/06/18 11:28
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.018		%	0.010	NA	1	-	08/09/18 08:41	91,-	SP
% Soot (Rep 2)	0.021		%	0.010	NA	1	-	08/09/18 08:41	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-15
Client ID: LDW18-SS-COMP22
Sample Location: Not Specified

Date Collected: 02/28/18 13:55
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	08/09/18 09:08	91,-	SP
% Soot (Rep 2)	ND		%	0.010	NA	1	-	08/09/18 09:08	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-16
Client ID: LDW18-SS-COMP23
Sample Location: Not Specified

Date Collected: 02/28/18 14:16
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	08/09/18 09:18	91,-	SP
% Soot (Rep 2)	0.014		%	0.010	NA	1	-	08/09/18 09:18	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4
Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-17
Client ID: LDW18-SS-COMP24
Sample Location: Not Specified
Sample Depth:
Matrix: Sediment

Date Collected: 03/05/18 15:37
Date Received: 07/25/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	08/09/18 07:59	91,-	SP
% Soot (Rep 2)	ND		%	0.010	NA	1	-	08/09/18 07:59	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-18
Client ID: LDW18-SS-169
Sample Location: Not Specified

Date Collected: 02/23/18 15:15
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.020		%	0.010	NA	1	-	08/09/18 08:09	91,-	SP
% Soot (Rep 2)	0.050		%	0.010	NA	1	-	08/09/18 08:09	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-19
Client ID: LDW18-SS-170
Sample Location: Not Specified

Date Collected: 03/01/18 13:10
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.051		%	0.010	NA	1	-	08/09/18 09:29	91,-	SP
% Soot (Rep 2)	0.034		%	0.010	NA	1	-	08/09/18 09:29	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4
Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-20
Client ID: LDW18-SS-171
Sample Location: Not Specified
Sample Depth:
Matrix: Sediment

Date Collected: 03/01/18 10:48
Date Received: 07/25/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.074		%	0.010	NA	1	-	08/09/18 09:39	91,-	SP
% Soot (Rep 2)	0.081		%	0.010	NA	1	-	08/09/18 09:39	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4
Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-21
Client ID: LDW18-SS-172
Sample Location: Not Specified
Sample Depth:
Matrix: Sediment

Date Collected: 03/01/18 12:22
Date Received: 07/25/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.147		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.119		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-22
Client ID: LDW18-SS-173
Sample Location: Not Specified

Date Collected: 03/01/18 10:28
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.055		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.056		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-23
Client ID: LDW18-SS-174
Sample Location: Not Specified

Date Collected: 03/01/18 13:34
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.046		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.047		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4
Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-24
Client ID: LDW18-SS-175
Sample Location: Not Specified
Sample Depth:
Matrix: Sediment

Date Collected: 03/01/18 09:51
Date Received: 07/25/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.048		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.053		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4
Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-25
Client ID: LDW18-SS-176
Sample Location: Not Specified
Sample Depth:
Matrix: Sediment

Date Collected: 03/01/18 09:25
Date Received: 07/25/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.066		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.058		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4
Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-26
Client ID: LDW18-SS-177
Sample Location: Not Specified
Sample Depth:
Matrix: Sediment

Date Collected: 03/02/18 07:49
Date Received: 07/25/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.053		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.048		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-27
Client ID: LDW18-SS-178
Sample Location: Not Specified

Date Collected: 03/01/18 08:39
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.085		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.082		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-28
Client ID: LDW18-SS-178-FD
Sample Location: Not Specified

Date Collected: 03/01/18 08:39
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.164		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.159		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-29
Client ID: LDW18-SS-179
Sample Location: Not Specified

Sample Depth:
Matrix: Sediment

Date Collected: 02/23/18 11:48
Date Received: 07/25/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.069		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.070		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-30
Client ID: LDW18-SS-180
Sample Location: Not Specified

Date Collected: 02/28/18 14:10
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.093		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.080		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4
Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-31
Client ID: LDW18-SS-181
Sample Location: Not Specified
Sample Depth:
Matrix: Sediment

Date Collected: 02/28/18 14:32
Date Received: 07/25/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.909		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.959		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-32
Client ID: LDW18-SS-182
Sample Location: Not Specified

Date Collected: 03/01/18 08:03
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.711		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.673		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-33
Client ID: LDW18-SS-183
Sample Location: Not Specified

Date Collected: 03/02/18 12:24
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	1.16		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.940		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-34
Client ID: LDW18-SS-184
Sample Location: Not Specified

Date Collected: 02/23/18 13:26
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	ND		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-35
Client ID: LDW18-SS-185
Sample Location: Not Specified

Date Collected: 02/28/18 12:27
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	ND		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-36
Client ID: LDW18-SS-186
Sample Location: Not Specified

Date Collected: 02/28/18 12:09
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	ND		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-37
Client ID: LDW18-SS-187
Sample Location: Not Specified

Date Collected: 03/02/18 11:31
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.038		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.023		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

SAMPLE RESULTS

Lab ID: L1828594-38
Client ID: LDW18-SS-188
Sample Location: Not Specified

Date Collected: 02/28/18 09:15
Date Received: 07/25/18
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
% Soot (Rep 1)	0.014		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	0.026		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP

Project Name: AOC3 BLACK CARBON **Lab Number:** L1828594

Project Number: TASK 4 **Report Date:** 08/09/18

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab for sample(s): 21-38 Batch: WG1144214-1										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
% Soot (Rep 2)	ND		%	0.010	NA	1	-	08/08/18 00:00	91,-	SP
General Chemistry - Mansfield Lab for sample(s): 02-20 Batch: WG1144221-1										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	08/08/18 11:55	91,-	SP
% Soot (Rep 2)	ND		%	0.010	NA	1	-	08/08/18 11:55	91,-	SP
General Chemistry - Mansfield Lab for sample(s): 01 Batch: WG1144249-1										
% Soot (Rep 1)	ND		%	0.010	NA	1	-	08/08/18 06:55	91,-	SP
% Soot (Rep 2)	ND		%	0.010	NA	1	-	08/08/18 06:55	91,-	SP

Lab Control Sample Analysis

Batch Quality Control

Project Name: AOC3 BLACK CARBON

Project Number: TASK 4

Lab Number: L1828594

Report Date: 08/09/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 21-38 Batch: WG1144214-2								
% Soot (Rep 1)	82		-		75-125	-		25
% Soot (Rep 2)	84		-		75-125	-		25
General Chemistry - Mansfield Lab Associated sample(s): 02-20 Batch: WG1144221-2								
% Soot (Rep 1)	111		-		75-125	-		25
% Soot (Rep 2)	90		-		75-125	-		25
General Chemistry - Mansfield Lab Associated sample(s): 01 Batch: WG1144249-2								
% Soot (Rep 1)	91		-		75-125	-		25
% Soot (Rep 2)	115		-		75-125	-		25

Matrix Spike Analysis
Batch Quality Control

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 21-38 QC Batch ID: WG1144214-4 WG1144214-5 QC Sample: L1828594-25 Client ID: LDW18-SS-176												
% Soot (Rep 1)	0.066	0.877	0.932	99		0.835	93		75-125	11		25
% Soot (Rep 2)	0.058	1.12	1.13	96		1.18	95		75-125	4		25
General Chemistry - Mansfield Lab Associated sample(s): 02-20 QC Batch ID: WG1144221-4 WG1144221-5 QC Sample: L1828594-02 Client ID: LDW18-SS-COMP09												
% Soot (Rep 1)	0.014	1.64	1.67	101		1.22	109		75-125	**31**	Q	25
% Soot (Rep 2)	ND	2.08	2.13	102		1.70	108		75-125	22		25
General Chemistry - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1144249-4 QC Sample: L1828594-01 Client ID: LDW18-SS-COMP08												
% Soot (Rep 1)	ND	1.23	1.18	96		-	-		75-125	-		25
% Soot (Rep 2)	0.029	1.17	1.09	90		-	-		75-125	-		25

Lab Duplicate Analysis

Batch Quality Control

Project Name: AOC3 BLACK CARBON

Project Number: TASK 4

Lab Number: L1828594

Report Date: 08/09/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 21-38 QC Batch ID: WG1144214-3 QC Sample: L1828594-25 Client ID: LDW18-SS-176						
% Soot (Rep 1)	0.066	0.050	%	**28**	Q	25
% Soot (Rep 2)	0.058	0.041	%	**34**	Q	25
General Chemistry - Mansfield Lab Associated sample(s): 02-20 QC Batch ID: WG1144221-3 QC Sample: L1828594-02 Client ID: LDW18-SS-COMP09						
% Soot (Rep 1)	0.014	0.022	%	**44**	Q	25
% Soot (Rep 2)	ND	0.066	%	NC		25
General Chemistry - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1144249-3 QC Sample: L1828594-01 Client ID: LDW18-SS-COMP08						
% Soot (Rep 1)	ND	0.221	%	NC		25
% Soot (Rep 2)	0.029	0.033	%	13		25

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Present/Intact
B	Present/Intact

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1828594-01A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828594-02A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828594-03A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-04A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-05A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-06A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-07A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-08A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-09A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-10A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-11A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-12A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-13A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-14A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-15A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-16A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-17A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-18A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-19A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-20A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-21A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-22A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)

*Values in parentheses indicate holding time in days

Project Name: AOC3 BLACK CARBON
Project Number: TASK 4

Lab Number: L1828594
Report Date: 08/09/18

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1828594-23A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-24A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-25A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-26A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-27A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-28A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-29A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828594-30A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-31A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828594-32A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-33A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828594-34A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-35A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Present/Intact		A2-SOOT(28)
L1828594-36A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-37A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)
L1828594-38A	Glass 250ml/8oz unpreserved	B	NA		3.2	Y	Present/Intact		A2-SOOT(28)

*Values in parentheses indicate holding time in days

Project Name:	AOC3 BLACK CARBON	**Lab Number:**	L1828594
Project Number:	TASK 4	**Report Date:**	08/09/18

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).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
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.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample¿s toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
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

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.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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.

Report Format: DU Report with 'J' Qualifiers

Project Name:	AOC3 BLACK CARBON	**Lab Number:**	L1828594
Project Number:	TASK 4	**Report Date:**	08/09/18

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 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. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

REFERENCES

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

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: SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
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: Chloride, 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, SM4500CI-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: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, 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, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

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.

3 of 6

CHAIN-OF-CUSTODY/TEST REQUEST FORM

L1828594

Project/Client Name: AOC3 Black Carbon
Project Number: Task 4
Contact Name: Amara Vandervort
Sampled By: Windward

Ship to: Alpha Analytical
Attn: Susan O'Neil
Shipper: FedEx
Form filled out by: A. Vandervort

No. AOC3 2018-0092
Shipping Date:
Airbill Number:
Turnaround requested: Standard

	Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Black Carbon							Comments / Instructions [Composite/Bag ID]
-01	3/6/18	12:28	LDW18-SS-Comp08	1	sediment	X							
-02	3/6/18	1436	LDW18-SS-Comp09	1	sediment	X							
-03	3/5/18	14:19	LDW18-SS-Comp10	1	sediment	X							
-04	3/6/18	14:57	LDW18-SS-Comp11	1	sediment	X							
-05	3/6/18	15:19	LDW18-SS-Comp12	1	sediment	X							
-06	3/5/18	15:22	LDW18-SS-Comp13	1	sediment	X							
-07	3/6/18	10:40	LDW18-SS-Comp14	1	sediment	X							
-08	3/6/18	11:03	LDW18-SS-Comp15	1	sediment	X							
-09	2/26/18	14:45	LDW18-SS-Comp16	1	sediment	X							
-10	3/5/18	14:35	LDW18-SS-Comp17	1	sediment	X							
-11	2/28/18	13:30	LDW18-SS-Comp18	1	sediment	X							
-12	3/5/18	14:52	LDW18-SS-Comp19	1	sediment	X							
			Total Number of Containers	12	Purchase Order / Statement of Work # PO 2018-0092								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Jacob Walter		Print name:	
Signature:		Signature:	
Company: ARC	Company: Fed Ex	Company: Fedex	Company: ARC
Date/Time: 07/24/18 0900	Date/Time:	Date/Time:	Date/Time: 7/25/18 1003

* Distribution: White copies accompany shipment; yellow retained by consignor.

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

L1828594

4 of 6

CHAIN-OF-CUSTODY/TEST REQUEST FORM

Project/Client Name: AOC3 Black Carbon
Project Number: Task 4
Contact Name: Amara Vandervort
Sampled By: Windward

Ship to: Alpha Analytical
Attn: Susan O'Neil
Shipper: FedEx
Form filled out by: A. Vandervort

No. AOC3 2018-0092
Shipping Date:
Airbill Number:
Turnaround requested: Standard

	Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Black Carbon							Comments / Instructions [Composite/Bag ID]
-13	3/9/18	12:12	LDW18-SS-Comp20	1	sediment	X							
-14	3/6/18	11:28	LDW18-SS-Comp21	1	sediment	X							
-15	2/28/18	13:55	LDW18-SS-Comp22	1	sediment	X							
-16	2/28/18	14:16	LDW18-SS-Comp23	1	sediment	X							
-17	3/5/18	15:37	LDW18-SS-Comp24	1	sediment	X							
-18	2/23/18	15:15	LDW18-SS-169	1	sediment	X							
-19	3/1/18	13:10	LDW18-SS-170	1	sediment	X							
-20	3/1/18	10:48	LDW18-SS-171	1	sediment	X							
-21	3/1/18	12:22	LDW18-SS-172	1	sediment	X							
-22	3/1/18	10:28	LDW18-SS-173	1	sediment	X							
-23	3/1/18	13:34	LDW18-SS-174	1	sediment	X							
-24	3/1/18	9:51	LDW18-SS-175	1	sediment	X							
	Total Number of Containers			12	Purchase Order / Statement of Work # PO 2018-0092								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Jacob Walter		Print name:	
Signature:		Signature:	
Company: ARI	Company: fedex	Company: Fedex	Company: AAL
Date/Time: 07/24/18 0900	Date/Time:	Date/Time:	Date/Time: 7/25/18 10:03

* Distribution: White copies accompany shipment; yellow retained by consignor.

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

5 of 6

CHAIN-OF-CUSTODY/TEST REQUEST FORM

L1828594

Project/Client Name: AOC3 Black Carbon
Project Number: Task 4
Contact Name: Amara Vandervort
Sampled By: Windward

Ship to: Alpha Analytical
Attn: Susan O'Neil
Shipper: FedEx
Form filled out by: A. Vandervort

No. AOC3 2018-0092
Shipping Date:
Airbill Number:
Turnaround requested: Standard

	Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Black Carbon							Comments / Instructions [Composite/Bag ID]
.25 -01	3/1/18	9:25	LDW18-SS-176	1	sediment	X							
.26 -02	3/2/18	7:49	LDW18-SS-177	1	sediment	X							
.27 -03	3/1/18	8:39	LDW18-SS-178	1	sediment	X							
28 -04	3/1/18	8:39	LDW18-SS-178-FD	1	sediment	X							
29 -05	2/23/18	11:48	LDW18-SS-179	1	sediment	X							
30 -06	2/28/18	14:10	LDW18-SS-180	1	sediment	X							
31 -07	2/28/18	14:32	LDW18-SS-181	1	sediment	X							
32 -08	3/1/18	8:03	LDW18-SS-182	1	sediment	X							
33 -09	3/2/18	12:24	LDW18-SS-183	1	sediment	X							
34 -10	2/23/18	13:26	LDW18-SS-184	1	sediment	X							
35 -11	2/28/18	12:27	LDW18-SS-185	1	sediment	X							
36 -12	2/28/18	12:09	LDW18-SS-186	1	sediment	X							
	Total Number of Containers			12	Purchase Order / Statement of Work # PO 2018-0092								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Jacob Walter		Print name:	
Signature:		Signature:	
Company: ARI	Company: Fed Ex	Company: Fed Ex	Company: ARI
Date/Time: 07/24/18 0900	Date/Time:	Date/Time:	Date/Time: 7/25/18 10:03

* Distribution: White copies accompany shipment; yellow retained by consignor.

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

6 of 6

4828594

CHAIN-OF-CUSTODY/TEST REQUEST FORM

Project/Client Name: AOC3 Black Carbon
Project Number: Task 4
Contact Name: Amara Vandervort
Sampled By: Windward

Ship to: Alpha Analytical — No. AOC3 2018-0092
Attn: Susan O'Neil — Shipping Date:
Shipper: FedEx — Airbill Number:
Form filled out by: A. Vandervort — Turnaround requested: Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required): Black Carbon							Comments / Instructions [Composite/Bag ID]
3/2/18	11:31	LDW18-SS-187	1	sediment	X							
2/28/18	9:15	LDW18-SS-188	1	sediment	X							
Total Number of Containers			2	Purchase Order / Statement of Work # PO 2018-0092								

37 13
38 14

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Jacob Walter		Print name:	
Signature:		Signature:	
Company: ARI	Company: FedEx	Company: FedEx	Company: ARI
Date/Time: 07/24/18 0900	Date/Time:	Date/Time:	Date/Time: 7/25/18 10:03

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Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by: