eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
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RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-94541-1
Client Project/Site: ALF_BS_20190821_1A

For:
Stantec Consulting Services Inc
27280 Haggerty Road
Suite C-11
Farmington Hills, Michigan 48331

Attn: Bradly Toth

Authorized for release by:
9/11/2019 5:25:44 PM

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LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

PA Lab ID: 02-00416

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Job ID: 180-94541-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-94541-1

Comments
No additional comments.

Receipt
The samples were received on 8/22/2019 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 1.7º C, 1.8º C and 2.0º C.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method(s) 7471B: The following samples were diluted to bring the concentration of mercury to within the instrument's calibration range: (460-187594-A-24-A ^25), (460-187594-A-24-B MS ^25) and (460-187594-A-24-C MSD ^25). Elevated reporting limits (RLs) are provided.

NOTE: sample were previously analyzed on another mercury instrument but the data was unusable and samples were reanalyzed on this run.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method(s) D2974: The sample duplicate precision for the following sample associated with analytical batch 180-289612 was outside control limits, however, the final results between the sample and its duplicate only differ by 0.1%.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Geotechnical

Qualifier	Qualifier Description
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-20
Arkansas DEQ	State Program	88-0690	06-27-20
California	State	2891	04-30-20
California	State Program	2891	04-30-20
Connecticut	State	PH-0688	09-30-20
Connecticut	State Program	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-20
Florida	NELAP	E871008	06-30-20
Illinois	NELAP	200005	06-30-20
Illinois	NELAP	004375	06-30-20
Kansas	NELAP	E-10350	01-31-20
Kansas	NELAP	E-10350	03-31-20
Kentucky (UST)	State Program	162013	04-30-20
Kentucky (WW)	State	KY98043	12-31-19
Kentucky (WW)	State Program	KY98043	12-31-19
Louisiana	NELAP	04041	06-30-20
Minnesota	NELAP	042-999-482	12-31-19
Minnesota	NELAP	042-999-482	12-31-19
Nevada	State	PA00164	07-31-20
Nevada	State Program	PA00164	07-31-20
New Hampshire	NELAP	2030	04-04-20
New Jersey	NELAP	PA005	06-30-20
New Jersey	NELAP	PA005	06-30-20
New York	NELAP	11182	03-31-20
New York	NELAP	11182	04-01-20
North Carolina (WW/SW)	State Program	434	12-31-19
North Dakota	State	R-227	04-30-20
North Dakota	State Program	R-227	04-30-20
Oregon	NELAP	PA-2151	02-06-20
Oregon	NELAP	PA-2151	02-06-20
Pennsylvania	NELAP	02-00416	04-30-20
Pennsylvania	NELAP	02-00416	04-30-20
Rhode Island	State	LAO00362	12-30-19
Rhode Island	State Program	LAO00362	12-30-19
South Carolina	State Program	89014	04-30-20
Texas	NELAP	T104704528-15-2	03-31-20
Texas	NELAP	T104704528	03-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462015-4	05-31-20
Utah	NELAP	PA001462019-8	05-31-20
Virginia	NELAP	460189	09-14-19
Virginia	NELAP	10043	09-14-19
West Virginia DEP	State	142	01-31-20
West Virginia DEP	State Program	142	01-31-20
Wisconsin	State	998027800	08-31-20
Wisconsin	State Program	998027800	08-31-20

Sample Summary

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-94541-1	ALF-BS-BG13-1.5/3.5-20190821 ~ ALF-BG13	Solid	08/21/19 12:42	08/22/19 09:00	
180-94541-2	ALF-BS-BG13-6.5/8.5-20190821 ~ ALF-BG13	Solid	08/21/19 12:53	08/22/19 09:00	
180-94541-3	ALF-BS-BG13-11.5/13.5-20190821 ~ ALF-BG13	Solid	08/21/19 13:06	08/22/19 09:00	
180-94541-4	ALF-BS-BG13-16.5/18.5-20190821 ~ ALF-BG13	Solid	08/21/19 13:17	08/22/19 09:00	
180-94541-5	ALF-BS-BG13-21.5/23.5-20190821 ~ ALF-BG13	Solid	08/21/19 13:29	08/22/19 09:00	
180-94541-6	ALF-BS-BG13-26.5/28.5-20190821 ~ ALF-BG13	Solid	08/21/19 13:36	08/22/19 09:00	
180-94541-7	ALF-BS-BG13-0.0/0.5-20190821 ~ ALF-BG13	Solid	08/21/19 13:42	08/22/19 09:00	
180-94541-8	ALF-BS-FB11-20190821 ~ NA	Water	08/21/19 14:29	08/22/19 09:00	
180-94541-9	ALF-BS-LB05-20190821 ~ NA	Water	08/21/19 14:51	08/22/19 09:00	
180-94541-10	ALF-BS-EB05-20190821 ~ NA	Water	08/21/19 15:11	08/22/19 09:00	

Method Summary

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Method	Method Description	Protocol	Laboratory
EPA 9056A	Anions, Ion Chromatography	SW846	TAL PIT
EPA 6020A	Metals (ICP/MS)	SW846	TAL PIT
EPA 7470A	Mercury (CVAA)	SW846	TAL PIT
EPA 7471B	Mercury (CVAA)	SW846	TAL PIT
2540G	SM 2540G	SM22	TAL PIT
EPA 9045D	pH	SW846	TAL PIT
ASTM D2974	Moisture, Ash and Organic Matter	ASTM	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT
3050B	Preparation, Metals	SW846	TAL PIT
7470A	Preparation, Mercury	SW846	TAL PIT
7471B	Preparation, Mercury	SW846	TAL PIT
DI Leach	Deionized Water Leaching Procedure	ASTM	TAL PIT

Protocol References:

ASTM = ASTM International

SM22 = Standard Methods For The Examination Of Water And Wastewater, 22nd Edition

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Client Sample ID: ALF-BS-BG13-1.5/3.5-20190821 ~ ALF-BG13 — Lab Sample ID: 180-94541-1

Date Collected: 08/21/19 12:42 — **Matrix: Solid**
Date Received: 08/22/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			289325	08/26/19 14:09	PM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	EPA 9045D		1	20.02 g	20 mL	290325	09/05/19 13:11	MRD	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	ASTM D2974		1			289612	08/28/19 16:00	PM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ALF-BS-BG13-1.5/3.5-20190821 ~ ALF-BG13 — Lab Sample ID: 180-94541-1

Date Collected: 08/21/19 12:42 — **Matrix: Solid**
Date Received: 08/22/19 09:00 — **Percent Solids: 79.3**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			10.27 g	100 mL	290194	09/04/19 13:21	CMR	TAL PIT
Soluble	Analysis	EPA 9056A		1			290138	09/05/19 02:02	CMR	TAL PIT
	Instrument ID: CHICS2000									
Total/NA	Prep	3050B			1.05 g	100 mL	289131	08/23/19 12:09	NAM	TAL PIT
Total/NA	Analysis	EPA 6020A		1			289673	08/28/19 23:28	WTR	TAL PIT
	Instrument ID: M									
Total/NA	Prep	7471B			0.66 g	100 mL	289383	08/27/19 09:00	MM1	TAL PIT
Total/NA	Analysis	EPA 7471B		1			289474	08/27/19 15:26	RJR	TAL PIT
	Instrument ID: HGZ									

Client Sample ID: ALF-BS-BG13-6.5/8.5-20190821 ~ ALF-BG13 — Lab Sample ID: 180-94541-2

Date Collected: 08/21/19 12:53 — **Matrix: Solid**
Date Received: 08/22/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			289424	08/27/19 11:16	PM	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	EPA 9045D		1	20.05 g	20 mL	290325	09/05/19 13:11	MRD	TAL PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	ASTM D2974		1			289612	08/28/19 16:00	PM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: ALF-BS-BG13-6.5/8.5-20190821 ~ ALF-BG13 — Lab Sample ID: 180-94541-2

Date Collected: 08/21/19 12:53 — **Matrix: Solid**
Date Received: 08/22/19 09:00 — **Percent Solids: 78.1**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			10.20 g	100 mL	290194	09/04/19 13:21	CMR	TAL PIT
Soluble	Analysis	EPA 9056A		1			290138	09/05/19 02:17	CMR	TAL PIT
	Instrument ID: CHICS2000									
Total/NA	Prep	3050B			0.98 g	100 mL	289131	08/23/19 12:09	NAM	TAL PIT
Total/NA	Analysis	EPA 6020A		1			289673	08/28/19 23:33	WTR	TAL PIT
	Instrument ID: M									

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Client Sample ID: ALF-BS-BG13-6.5/8.5-20190821 ~ ALF-BG13

Lab Sample ID: 180-94541-2
Date Collected: 08/21/19 12:53
Matrix: Solid
Date Received: 08/22/19 09:00
Percent Solids: 78.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471B			0.68 g	100 mL	289383	08/27/19 09:00	MM1	TAL PIT
Total/NA	Analysis	EPA 7471B		1			289474	08/27/19 15:27	RJR	TAL PIT
	Instrument ID:	HGZ								

Client Sample ID: ALF-BS-BG13-11.5/13.5-20190821 ~ ALF-BG13

Lab Sample ID: 180-94541-3
Date Collected: 08/21/19 13:06
Matrix: Solid
Date Received: 08/22/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			289424	08/27/19 11:16	PM	TAL PIT
	Instrument ID:	NOEQUIP								
Total/NA	Analysis	EPA 9045D		1	19.97 g	20 mL	290325	09/05/19 13:11	MRD	TAL PIT
	Instrument ID:	NOEQUIP								
Total/NA	Analysis	ASTM D2974		1			289612	08/28/19 16:00	PM	TAL PIT
	Instrument ID:	NOEQUIP								

Client Sample ID: ALF-BS-BG13-11.5/13.5-20190821 ~ ALF-BG13

Lab Sample ID: 180-94541-3
Date Collected: 08/21/19 13:06
Matrix: Solid
Date Received: 08/22/19 09:00
Percent Solids: 79.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			10.04 g	100 mL	290194	09/04/19 13:21	CMR	TAL PIT
Soluble	Analysis	EPA 9056A		1			290138	09/05/19 02:32	CMR	TAL PIT
	Instrument ID:	CHICS2000								
Total/NA	Prep	3050B			1.03 g	100 mL	289131	08/23/19 12:09	NAM	TAL PIT
Total/NA	Analysis	EPA 6020A		1			289673	08/28/19 23:37	WTR	TAL PIT
	Instrument ID:	M								
Total/NA	Prep	7471B			0.64 g	100 mL	289383	08/27/19 09:00	MM1	TAL PIT
Total/NA	Analysis	EPA 7471B		1			289474	08/27/19 15:28	RJR	TAL PIT
	Instrument ID:	HGZ								

Client Sample ID: ALF-BS-BG13-16.5/18.5-20190821 ~ ALF-BG13

Lab Sample ID: 180-94541-4
Date Collected: 08/21/19 13:17
Matrix: Solid
Date Received: 08/22/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			289424	08/27/19 11:16	PM	TAL PIT
	Instrument ID:	NOEQUIP								
Total/NA	Analysis	EPA 9045D		1	20.04 g	20 mL	290325	09/05/19 13:11	MRD	TAL PIT
	Instrument ID:	NOEQUIP								
Total/NA	Analysis	ASTM D2974		1			289612	08/28/19 16:00	PM	TAL PIT
	Instrument ID:	NOEQUIP								

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Client Sample ID: ALF-BS-BG13-16.5/18.5-20190821 ~ ALF-BG13

Lab Sample ID: 180-94541-4

Date Collected: 08/21/19 13:17
Date Received: 08/22/19 09:00

Matrix: Solid
Percent Solids: 84.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			10.05 g	100 mL	290194	09/04/19 13:21	CMR	TAL PIT
Soluble	Analysis	EPA 9056A		1			290138	09/05/19 02:47	CMR	TAL PIT
	Instrument ID:	CHICS2000								
Total/NA	Prep	3050B			0.95 g	100 mL	289131	08/23/19 12:09	NAM	TAL PIT
Total/NA	Analysis	EPA 6020A		1			289673	08/28/19 23:42	WTR	TAL PIT
	Instrument ID:	M								
Total/NA	Prep	7471B			0.63 g	100 mL	289383	08/27/19 09:00	MM1	TAL PIT
Total/NA	Analysis	EPA 7471B		1			289474	08/27/19 15:29	RJR	TAL PIT
	Instrument ID:	HGZ								

Client Sample ID: ALF-BS-BG13-21.5/23.5-20190821 ~ ALF-BG13

Lab Sample ID: 180-94541-5

Date Collected: 08/21/19 13:29
Date Received: 08/22/19 09:00

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			289424	08/27/19 11:16	PM	TAL PIT
	Instrument ID:	NOEQUIP								
Total/NA	Analysis	EPA 9045D		1	20.02 g	20 mL	290325	09/05/19 13:11	MRD	TAL PIT
	Instrument ID:	NOEQUIP								
Total/NA	Analysis	ASTM D2974		1			289612	08/28/19 16:00	PM	TAL PIT
	Instrument ID:	NOEQUIP								

Client Sample ID: ALF-BS-BG13-21.5/23.5-20190821 ~ ALF-BG13

Lab Sample ID: 180-94541-5

Date Collected: 08/21/19 13:29
Date Received: 08/22/19 09:00

Matrix: Solid
Percent Solids: 84.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			10.15 g	100 mL	290194	09/04/19 13:21	CMR	TAL PIT
Soluble	Analysis	EPA 9056A		1			290138	09/05/19 03:02	CMR	TAL PIT
	Instrument ID:	CHICS2000								
Total/NA	Prep	3050B			0.97 g	100 mL	289131	08/23/19 12:09	NAM	TAL PIT
Total/NA	Analysis	EPA 6020A		1			289673	08/29/19 00:00	WTR	TAL PIT
	Instrument ID:	M								
Total/NA	Prep	7471B			0.69 g	100 mL	289383	08/27/19 09:00	MM1	TAL PIT
Total/NA	Analysis	EPA 7471B		1			289474	08/27/19 15:30	RJR	TAL PIT
	Instrument ID:	HGZ								

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Client Sample ID: ALF-BS-BG13-26.5/28.5-20190821 ~ ALF-BG13

Lab Sample ID: 180-94541-6

Date Collected: 08/21/19 13:36
Date Received: 08/22/19 09:00

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			289424	08/27/19 11:16	PM	TAL PIT
	Instrument ID:	NOEQUIP								
Total/NA	Analysis	EPA 9045D		1	20.03 g	20 mL	290325	09/05/19 13:11	MRD	TAL PIT
	Instrument ID:	NOEQUIP								
Total/NA	Analysis	ASTM D2974		1			289612	08/28/19 16:00	PM	TAL PIT
	Instrument ID:	NOEQUIP								

Client Sample ID: ALF-BS-BG13-26.5/28.5-20190821 ~ ALF-BG13

Lab Sample ID: 180-94541-6

Date Collected: 08/21/19 13:36
Date Received: 08/22/19 09:00

Matrix: Solid
Percent Solids: 88.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			10.24 g	100 mL	290194	09/04/19 13:21	CMR	TAL PIT
Soluble	Analysis	EPA 9056A		1			290138	09/05/19 03:17	CMR	TAL PIT
	Instrument ID:	CHICS2000								
Total/NA	Prep	3050B			0.97 g	100 mL	289131	08/23/19 12:09	NAM	TAL PIT
Total/NA	Analysis	EPA 6020A		1			289673	08/29/19 00:05	WTR	TAL PIT
	Instrument ID:	M								
Total/NA	Prep	7471B			0.64 g	100 mL	289383	08/27/19 09:00	MM1	TAL PIT
Total/NA	Analysis	EPA 7471B		1			289474	08/27/19 15:33	RJR	TAL PIT
	Instrument ID:	HGZ								

Client Sample ID: ALF-BS-BG13-0.0/0.5-20190821 ~ ALF-BG13

Lab Sample ID: 180-94541-7

Date Collected: 08/21/19 13:42
Date Received: 08/22/19 09:00

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G		1			289424	08/27/19 11:16	PM	TAL PIT
	Instrument ID:	NOEQUIP								
Total/NA	Analysis	EPA 9045D		1	19.99 g	20 mL	290325	09/05/19 13:11	MRD	TAL PIT
	Instrument ID:	NOEQUIP								
Total/NA	Analysis	ASTM D2974		1			289612	08/28/19 16:00	PM	TAL PIT
	Instrument ID:	NOEQUIP								

Client Sample ID: ALF-BS-BG13-0.0/0.5-20190821 ~ ALF-BG13

Lab Sample ID: 180-94541-7

Date Collected: 08/21/19 13:42
Date Received: 08/22/19 09:00

Matrix: Solid
Percent Solids: 76.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			10.11 g	100 mL	290194	09/04/19 13:21	CMR	TAL PIT
Soluble	Analysis	EPA 9056A		1			290138	09/05/19 03:32	CMR	TAL PIT
	Instrument ID:	CHICS2000								

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Client Sample ID: ALF-BS-BG13-0.0/0.5-20190821 ~ ALF-BG13

Lab Sample ID: 180-94541-7
Date Collected: 08/21/19 13:42
Matrix: Solid
Date Received: 08/22/19 09:00
Percent Solids: 76.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			0.97 g	100 mL	289131	08/23/19 12:09	NAM	TAL PIT
Total/NA	Analysis	EPA 6020A		1			289673	08/29/19 00:10	WTR	TAL PIT
	Instrument ID: M									
Total/NA	Prep	7471B			0.62 g	100 mL	289383	08/27/19 09:00	MM1	TAL PIT
Total/NA	Analysis	EPA 7471B		1			289474	08/27/19 15:34	RJR	TAL PIT
	Instrument ID: HGZ									

Client Sample ID: ALF-BS-FB11-20190821 ~ NA

Lab Sample ID: 180-94541-8
Date Collected: 08/21/19 14:29
Matrix: Water
Date Received: 08/22/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			289657	08/29/19 21:51	CMR	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	289283	08/26/19 10:16	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020A		1			290398	09/05/19 16:50	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	289592	08/28/19 13:21	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			289762	08/29/19 16:49	KAK	TAL PIT
	Instrument ID: HGZ									

Client Sample ID: ALF-BS-LB05-20190821 ~ NA

Lab Sample ID: 180-94541-9
Date Collected: 08/21/19 14:51
Matrix: Water
Date Received: 08/22/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			289657	08/29/19 22:06	CMR	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	289283	08/26/19 10:16	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020A		1			290398	09/05/19 16:54	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Prep	7470A			50 mL	50 mL	289592	08/28/19 13:21	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			289762	08/29/19 16:50	KAK	TAL PIT
	Instrument ID: HGZ									

Client Sample ID: ALF-BS-EB05-20190821 ~ NA

Lab Sample ID: 180-94541-10
Date Collected: 08/21/19 15:11
Matrix: Water
Date Received: 08/22/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			290013	09/03/19 12:45	CMR	TAL PIT
	Instrument ID: CHICS2000									
Total Recoverable	Prep	3005A			50 mL	50 mL	289283	08/26/19 10:16	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020A		1			290398	09/05/19 16:57	RSK	TAL PIT
	Instrument ID: A									

Lab Chronicle

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Client Sample ID: ALF-BS-EB05-20190821 ~ NA

Lab Sample ID: 180-94541-10

Date Collected: 08/21/19 15:11
Matrix: Water
Date Received: 08/22/19 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			50 mL	50 mL	289592	08/28/19 13:21	MM1	TAL PIT
Total/NA	Analysis	EPA 7470A		1			289762	08/29/19 16:54	KAK	TAL PIT
	Instrument ID:	HGZ								

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Leach

CMR = Carl Reagle

Batch Type: Prep

KEM = Kimberly Mahoney
MM1 = Mary Beth Miller
NAM = Nicole Marfisi

Batch Type: Analysis

CMR = Carl Reagle
KAK = Kayla Kalamasz
MRD = Madeline Daugherty
PM = Paloma Hoelzle
RJR = Ron Rosenbaum
RSK = Robert Kurtz
WTR = Bill Reinheimer

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Client Sample ID: ALF-BS-BG13-1.5/3.5-20190821 ~ ALF-BG13

Lab Sample ID: 180-94541-1

Date Collected: 08/21/19 12:42
Date Received: 08/22/19 09:00

Matrix: Solid
Percent Solids: 79.3

Method: EPA 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		12.3	4.76	mg/Kg	☼		09/05/19 02:02	1
Fluoride	3.17		1.23	0.835	mg/Kg	☼		09/05/19 02:02	1
Sulfate	35.2		12.3	8.34	mg/Kg	☼		09/05/19 02:02	1

Method: EPA 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.605		0.240	0.0745	mg/Kg	☼	08/23/19 12:09	08/28/19 23:28	1
Arsenic	6.47		0.120	0.0312	mg/Kg	☼	08/23/19 12:09	08/28/19 23:28	1
Barium	157		1.20	0.154	mg/Kg	☼	08/23/19 12:09	08/28/19 23:28	1
Beryllium	1.00		0.120	0.00901	mg/Kg	☼	08/23/19 12:09	08/28/19 23:28	1
Boron	8.21	J	9.61	1.62	mg/Kg	☼	08/23/19 12:09	08/28/19 23:28	1
Cadmium	0.365		0.120	0.0204	mg/Kg	☼	08/23/19 12:09	08/28/19 23:28	1
Calcium	6720		60.1	10.8	mg/Kg	☼	08/23/19 12:09	08/28/19 23:28	1
Chromium	14.9		0.240	0.0997	mg/Kg	☼	08/23/19 12:09	08/28/19 23:28	1
Cobalt	8.12		0.0601	0.00997	mg/Kg	☼	08/23/19 12:09	08/28/19 23:28	1
Copper	16.3		0.240	0.136	mg/Kg	☼	08/23/19 12:09	08/28/19 23:28	1
Lead	17.0		0.120	0.0420	mg/Kg	☼	08/23/19 12:09	08/28/19 23:28	1
Lithium	13.9		0.601	0.332	mg/Kg	☼	08/23/19 12:09	08/28/19 23:28	1
Molybdenum	1.74		0.601	0.196	mg/Kg	☼	08/23/19 12:09	08/28/19 23:28	1
Nickel	18.8		0.120	0.0733	mg/Kg	☼	08/23/19 12:09	08/28/19 23:28	1
Selenium	1.19		0.601	0.147	mg/Kg	☼	08/23/19 12:09	08/28/19 23:28	1
Silver	0.109	J	0.120	0.0324	mg/Kg	☼	08/23/19 12:09	08/28/19 23:28	1
Thallium	0.545		0.120	0.0300	mg/Kg	☼	08/23/19 12:09	08/28/19 23:28	1
Vanadium	24.5		0.120	0.0769	mg/Kg	☼	08/23/19 12:09	08/28/19 23:28	1
Zinc	55.9		0.601	0.401	mg/Kg	☼	08/23/19 12:09	08/28/19 23:28	1

Method: EPA 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0646	B	0.0378	0.0164	mg/Kg	☼	08/27/19 09:00	08/27/19 15:26	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.7		0.1	0.1	%			08/26/19 14:09	1
Percent Solids	79.3		0.1	0.1	%			08/26/19 14:09	1
pH	8.0		0.1	0.1	SU			09/05/19 13:11	1

Method: ASTM D2974 - Moisture, Ash and Organic Matter

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fractional Organic Carbon	2.5		0.5	0.5	%			08/28/19 16:00	1

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Client Sample ID: ALF-BS-BG13-6.5/8.5-20190821 ~ ALF-BG13

Lab Sample ID: 180-94541-2
Date Collected: 08/21/19 12:53
Matrix: Solid
Date Received: 08/22/19 09:00
Percent Solids: 78.1

Method: EPA 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		12.5	4.87	mg/Kg	☼		09/05/19 02:17	1
Fluoride	5.21		1.25	0.853	mg/Kg	☼		09/05/19 02:17	1
Sulfate	36.7		12.5	8.52	mg/Kg	☼		09/05/19 02:17	1

Method: EPA 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.338		0.261	0.0810	mg/Kg	☼	08/23/19 12:09	08/28/19 23:33	1
Arsenic	6.11		0.131	0.0339	mg/Kg	☼	08/23/19 12:09	08/28/19 23:33	1
Barium	136		1.31	0.167	mg/Kg	☼	08/23/19 12:09	08/28/19 23:33	1
Beryllium	0.883		0.131	0.00979	mg/Kg	☼	08/23/19 12:09	08/28/19 23:33	1
Boron	8.05	J	10.4	1.76	mg/Kg	☼	08/23/19 12:09	08/28/19 23:33	1
Cadmium	0.306		0.131	0.0222	mg/Kg	☼	08/23/19 12:09	08/28/19 23:33	1
Calcium	4460		65.3	11.7	mg/Kg	☼	08/23/19 12:09	08/28/19 23:33	1
Chromium	15.9		0.261	0.108	mg/Kg	☼	08/23/19 12:09	08/28/19 23:33	1
Cobalt	7.30		0.0653	0.0108	mg/Kg	☼	08/23/19 12:09	08/28/19 23:33	1
Copper	15.0		0.261	0.148	mg/Kg	☼	08/23/19 12:09	08/28/19 23:33	1
Lead	12.8		0.131	0.0457	mg/Kg	☼	08/23/19 12:09	08/28/19 23:33	1
Lithium	13.5		0.653	0.360	mg/Kg	☼	08/23/19 12:09	08/28/19 23:33	1
Molybdenum	0.726		0.653	0.213	mg/Kg	☼	08/23/19 12:09	08/28/19 23:33	1
Nickel	20.2		0.131	0.0796	mg/Kg	☼	08/23/19 12:09	08/28/19 23:33	1
Selenium	0.769		0.653	0.159	mg/Kg	☼	08/23/19 12:09	08/28/19 23:33	1
Silver	0.0691	J	0.131	0.0353	mg/Kg	☼	08/23/19 12:09	08/28/19 23:33	1
Thallium	0.397		0.131	0.0326	mg/Kg	☼	08/23/19 12:09	08/28/19 23:33	1
Vanadium	26.2		0.131	0.0836	mg/Kg	☼	08/23/19 12:09	08/28/19 23:33	1
Zinc	50.4		0.653	0.436	mg/Kg	☼	08/23/19 12:09	08/28/19 23:33	1

Method: EPA 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0346	J B	0.0373	0.0161	mg/Kg	☼	08/27/19 09:00	08/27/19 15:27	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	21.9		0.1	0.1	%			08/27/19 11:16	1
Percent Solids	78.1		0.1	0.1	%			08/27/19 11:16	1
pH	7.9		0.1	0.1	SU			09/05/19 13:11	1

Method: ASTM D2974 - Moisture, Ash and Organic Matter

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fractional Organic Carbon	2.2		0.5	0.5	%			08/28/19 16:00	1

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Client Sample ID: ALF-BS-BG13-11.5/13.5-20190821 ~ ALF-BG13

Lab Sample ID: 180-94541-3

Date Collected: 08/21/19 13:06
Date Received: 08/22/19 09:00

Matrix: Solid
Percent Solids: 79.8

Method: EPA 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		12.5	4.84	mg/Kg	☼		09/05/19 02:32	1
Fluoride	1.83		1.25	0.849	mg/Kg	☼		09/05/19 02:32	1
Sulfate	21.3		12.5	8.48	mg/Kg	☼		09/05/19 02:32	1

Method: EPA 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.132	J	0.243	0.0754	mg/Kg	☼	08/23/19 12:09	08/28/19 23:37	1
Arsenic	2.52		0.122	0.0316	mg/Kg	☼	08/23/19 12:09	08/28/19 23:37	1
Barium	80.9		1.22	0.156	mg/Kg	☼	08/23/19 12:09	08/28/19 23:37	1
Beryllium	0.412		0.122	0.00913	mg/Kg	☼	08/23/19 12:09	08/28/19 23:37	1
Boron	3.65	J	9.73	1.64	mg/Kg	☼	08/23/19 12:09	08/28/19 23:37	1
Cadmium	0.0983	J	0.122	0.0207	mg/Kg	☼	08/23/19 12:09	08/28/19 23:37	1
Calcium	3720		60.8	10.9	mg/Kg	☼	08/23/19 12:09	08/28/19 23:37	1
Chromium	7.62		0.243	0.101	mg/Kg	☼	08/23/19 12:09	08/28/19 23:37	1
Cobalt	4.40		0.0608	0.0101	mg/Kg	☼	08/23/19 12:09	08/28/19 23:37	1
Copper	5.32		0.243	0.138	mg/Kg	☼	08/23/19 12:09	08/28/19 23:37	1
Lead	6.13		0.122	0.0426	mg/Kg	☼	08/23/19 12:09	08/28/19 23:37	1
Lithium	6.11		0.608	0.336	mg/Kg	☼	08/23/19 12:09	08/28/19 23:37	1
Molybdenum	0.301	J	0.608	0.198	mg/Kg	☼	08/23/19 12:09	08/28/19 23:37	1
Nickel	11.8		0.122	0.0742	mg/Kg	☼	08/23/19 12:09	08/28/19 23:37	1
Selenium	0.937		0.608	0.148	mg/Kg	☼	08/23/19 12:09	08/28/19 23:37	1
Silver	ND		0.122	0.0329	mg/Kg	☼	08/23/19 12:09	08/28/19 23:37	1
Thallium	0.182		0.122	0.0304	mg/Kg	☼	08/23/19 12:09	08/28/19 23:37	1
Vanadium	11.0		0.122	0.0779	mg/Kg	☼	08/23/19 12:09	08/28/19 23:37	1
Zinc	24.2		0.608	0.406	mg/Kg	☼	08/23/19 12:09	08/28/19 23:37	1

Method: EPA 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0190	J B	0.0388	0.0168	mg/Kg	☼	08/27/19 09:00	08/27/19 15:28	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.2		0.1	0.1	%			08/27/19 11:16	1
Percent Solids	79.8		0.1	0.1	%			08/27/19 11:16	1
pH	8.1		0.1	0.1	SU			09/05/19 13:11	1

Method: ASTM D2974 - Moisture, Ash and Organic Matter

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fractional Organic Carbon	0.7		0.5	0.5	%			08/28/19 16:00	1

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Client Sample ID: ALF-BS-BG13-16.5/18.5-20190821 ~ ALF-BG13

Lab Sample ID: 180-94541-4

Date Collected: 08/21/19 13:17
Date Received: 08/22/19 09:00

Matrix: Solid
Percent Solids: 84.0

Method: EPA 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		11.8	4.59	mg/Kg	☼		09/05/19 02:47	1
Fluoride	ND		1.18	0.805	mg/Kg	☼		09/05/19 02:47	1
Sulfate	**12.4**		11.8	8.04	mg/Kg	☼		09/05/19 02:47	1

Method: EPA 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.251	0.0777	mg/Kg	☼	08/23/19 12:09	08/28/19 23:42	1
Arsenic	**1.37**		0.125	0.0326	mg/Kg	☼	08/23/19 12:09	08/28/19 23:42	1
Barium	**28.1**		1.25	0.160	mg/Kg	☼	08/23/19 12:09	08/28/19 23:42	1
Beryllium	**0.162**		0.125	0.00940	mg/Kg	☼	08/23/19 12:09	08/28/19 23:42	1
Boron	ND		10.0	1.69	mg/Kg	☼	08/23/19 12:09	08/28/19 23:42	1
Cadmium	**0.0502**	**J**	0.125	0.0213	mg/Kg	☼	08/23/19 12:09	08/28/19 23:42	1
Calcium	**2210**		62.6	11.2	mg/Kg	☼	08/23/19 12:09	08/28/19 23:42	1
Chromium	**3.41**		0.251	0.104	mg/Kg	☼	08/23/19 12:09	08/28/19 23:42	1
Cobalt	**3.03**		0.0626	0.0104	mg/Kg	☼	08/23/19 12:09	08/28/19 23:42	1
Copper	**1.24**		0.251	0.142	mg/Kg	☼	08/23/19 12:09	08/28/19 23:42	1
Lead	**2.63**		0.125	0.0438	mg/Kg	☼	08/23/19 12:09	08/28/19 23:42	1
Lithium	**2.73**		0.626	0.346	mg/Kg	☼	08/23/19 12:09	08/28/19 23:42	1
Molybdenum	ND		0.626	0.204	mg/Kg	☼	08/23/19 12:09	08/28/19 23:42	1
Nickel	**7.09**		0.125	0.0764	mg/Kg	☼	08/23/19 12:09	08/28/19 23:42	1
Selenium	**0.261**	**J**	0.626	0.153	mg/Kg	☼	08/23/19 12:09	08/28/19 23:42	1
Silver	ND		0.125	0.0338	mg/Kg	☼	08/23/19 12:09	08/28/19 23:42	1
Thallium	**0.0879**	**J**	0.125	0.0313	mg/Kg	☼	08/23/19 12:09	08/28/19 23:42	1
Vanadium	**5.25**		0.125	0.0802	mg/Kg	☼	08/23/19 12:09	08/28/19 23:42	1
Zinc	**11.8**		0.626	0.418	mg/Kg	☼	08/23/19 12:09	08/28/19 23:42	1

Method: EPA 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0212**	**J B**	0.0374	0.0162	mg/Kg	☼	08/27/19 09:00	08/27/19 15:29	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**16.0**		0.1	0.1	%			08/27/19 11:16	1
Percent Solids	**84.0**		0.1	0.1	%			08/27/19 11:16	1
pH	**8.3**		0.1	0.1	SU			09/05/19 13:11	1

Method: ASTM D2974 - Moisture, Ash and Organic Matter

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fractional Organic Carbon	ND		0.5	0.5	%			08/28/19 16:00	1

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Client Sample ID: ALF-BS-BG13-21.5/23.5-20190821 ~ ALF-BG13

Lab Sample ID: 180-94541-5

Date Collected: 08/21/19 13:29
Date Received: 08/22/19 09:00

Matrix: Solid
Percent Solids: 84.4

Method: EPA 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		11.7	4.53	mg/Kg	☼		09/05/19 03:02	1
Fluoride	ND		1.17	0.794	mg/Kg	☼		09/05/19 03:02	1
Sulfate	**12.5**		11.7	7.93	mg/Kg	☼		09/05/19 03:02	1

Method: EPA 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.0805**	**J**	0.244	0.0758	mg/Kg	☼	08/23/19 12:09	08/29/19 00:00	1
Arsenic	**1.91**		0.122	0.0318	mg/Kg	☼	08/23/19 12:09	08/29/19 00:00	1
Barium	**28.4**		1.22	0.156	mg/Kg	☼	08/23/19 12:09	08/29/19 00:00	1
Beryllium	**0.129**		0.122	0.00917	mg/Kg	☼	08/23/19 12:09	08/29/19 00:00	1
Boron	ND		9.78	1.65	mg/Kg	☼	08/23/19 12:09	08/29/19 00:00	1
Cadmium	**0.0415**	**J**	0.122	0.0208	mg/Kg	☼	08/23/19 12:09	08/29/19 00:00	1
Calcium	**1890**		61.1	10.9	mg/Kg	☼	08/23/19 12:09	08/29/19 00:00	1
Chromium	**3.27**		0.244	0.101	mg/Kg	☼	08/23/19 12:09	08/29/19 00:00	1
Cobalt	**2.76**		0.0611	0.0101	mg/Kg	☼	08/23/19 12:09	08/29/19 00:00	1
Copper	**1.36**		0.244	0.138	mg/Kg	☼	08/23/19 12:09	08/29/19 00:00	1
Lead	**2.79**		0.122	0.0428	mg/Kg	☼	08/23/19 12:09	08/29/19 00:00	1
Lithium	**2.08**		0.611	0.337	mg/Kg	☼	08/23/19 12:09	08/29/19 00:00	1
Molybdenum	**0.268**	**J**	0.611	0.199	mg/Kg	☼	08/23/19 12:09	08/29/19 00:00	1
Nickel	**6.52**		0.122	0.0745	mg/Kg	☼	08/23/19 12:09	08/29/19 00:00	1
Selenium	**0.358**	**J**	0.611	0.149	mg/Kg	☼	08/23/19 12:09	08/29/19 00:00	1
Silver	ND		0.122	0.0330	mg/Kg	☼	08/23/19 12:09	08/29/19 00:00	1
Thallium	**0.0583**	**J**	0.122	0.0306	mg/Kg	☼	08/23/19 12:09	08/29/19 00:00	1
Vanadium	**4.42**		0.122	0.0782	mg/Kg	☼	08/23/19 12:09	08/29/19 00:00	1
Zinc	**13.2**		0.611	0.408	mg/Kg	☼	08/23/19 12:09	08/29/19 00:00	1

Method: EPA 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0340	0.0147	mg/Kg	☼	08/27/19 09:00	08/27/19 15:30	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**15.6**		0.1	0.1	%			08/27/19 11:16	1
Percent Solids	**84.4**		0.1	0.1	%			08/27/19 11:16	1
pH	**8.3**		0.1	0.1	SU			09/05/19 13:11	1

Method: ASTM D2974 - Moisture, Ash and Organic Matter

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fractional Organic Carbon	ND		0.5	0.5	%			08/28/19 16:00	1

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Client Sample ID: ALF-BS-BG13-26.5/28.5-20190821 ~ ALF-BG13

Lab Sample ID: 180-94541-6

Date Collected: 08/21/19 13:36
Date Received: 08/22/19 09:00

Matrix: Solid
Percent Solids: 88.8

Method: EPA 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		11.0	4.26	mg/Kg	☼		09/05/19 03:17	1
Fluoride	ND		1.10	0.747	mg/Kg	☼		09/05/19 03:17	1
Sulfate	**10.8**	**J**	11.0	7.46	mg/Kg	☼		09/05/19 03:17	1

Method: EPA 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.232	0.0719	mg/Kg	☼	08/23/19 12:09	08/29/19 00:05	1
Arsenic	**1.30**		0.116	0.0302	mg/Kg	☼	08/23/19 12:09	08/29/19 00:05	1
Barium	**28.4**		1.16	0.149	mg/Kg	☼	08/23/19 12:09	08/29/19 00:05	1
Beryllium	**0.153**		0.116	0.00870	mg/Kg	☼	08/23/19 12:09	08/29/19 00:05	1
Boron	ND		9.28	1.57	mg/Kg	☼	08/23/19 12:09	08/29/19 00:05	1
Cadmium	**0.0938**	**J**	0.116	0.0197	mg/Kg	☼	08/23/19 12:09	08/29/19 00:05	1
Calcium	**2670**		58.0	10.4	mg/Kg	☼	08/23/19 12:09	08/29/19 00:05	1
Chromium	**4.76**		0.232	0.0963	mg/Kg	☼	08/23/19 12:09	08/29/19 00:05	1
Cobalt	**2.78**		0.0580	0.00963	mg/Kg	☼	08/23/19 12:09	08/29/19 00:05	1
Copper	**2.17**		0.232	0.131	mg/Kg	☼	08/23/19 12:09	08/29/19 00:05	1
Lead	**3.42**		0.116	0.0406	mg/Kg	☼	08/23/19 12:09	08/29/19 00:05	1
Lithium	**2.27**		0.580	0.320	mg/Kg	☼	08/23/19 12:09	08/29/19 00:05	1
Molybdenum	**0.592**		0.580	0.189	mg/Kg	☼	08/23/19 12:09	08/29/19 00:05	1
Nickel	**7.61**		0.116	0.0708	mg/Kg	☼	08/23/19 12:09	08/29/19 00:05	1
Selenium	**0.304**	**J**	0.580	0.142	mg/Kg	☼	08/23/19 12:09	08/29/19 00:05	1
Silver	ND		0.116	0.0313	mg/Kg	☼	08/23/19 12:09	08/29/19 00:05	1
Thallium	**0.0506**	**J**	0.116	0.0290	mg/Kg	☼	08/23/19 12:09	08/29/19 00:05	1
Vanadium	**4.68**		0.116	0.0743	mg/Kg	☼	08/23/19 12:09	08/29/19 00:05	1
Zinc	**12.3**		0.580	0.388	mg/Kg	☼	08/23/19 12:09	08/29/19 00:05	1

Method: EPA 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0348	0.0151	mg/Kg	☼	08/27/19 09:00	08/27/19 15:33	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**11.2**		0.1	0.1	%			08/27/19 11:16	1
Percent Solids	**88.8**		0.1	0.1	%			08/27/19 11:16	1
pH	**8.6**		0.1	0.1	SU			09/05/19 13:11	1

Method: ASTM D2974 - Moisture, Ash and Organic Matter

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fractional Organic Carbon	ND		0.5	0.5	%			08/28/19 16:00	1

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Client Sample ID: ALF-BS-BG13-0.0/0.5-20190821 ~ ALF-BG13

Lab Sample ID: 180-94541-7

Date Collected: 08/21/19 13:42
Date Received: 08/22/19 09:00

Matrix: Solid
Percent Solids: 76.1

Method: EPA 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		13.0	5.04	mg/Kg	☼		09/05/19 03:32	1
Fluoride	1.78		1.30	0.883	mg/Kg	☼		09/05/19 03:32	1
Sulfate	21.4		13.0	8.82	mg/Kg	☼		09/05/19 03:32	1

Method: EPA 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.449		0.271	0.0840	mg/Kg	☼	08/23/19 12:09	08/29/19 00:10	1
Arsenic	6.45		0.135	0.0352	mg/Kg	☼	08/23/19 12:09	08/29/19 00:10	1
Barium	142		1.35	0.173	mg/Kg	☼	08/23/19 12:09	08/29/19 00:10	1
Beryllium	0.905		0.135	0.0102	mg/Kg	☼	08/23/19 12:09	08/29/19 00:10	1
Boron	7.56	J	10.8	1.83	mg/Kg	☼	08/23/19 12:09	08/29/19 00:10	1
Cadmium	0.800		0.135	0.0230	mg/Kg	☼	08/23/19 12:09	08/29/19 00:10	1
Calcium	4310		67.7	12.1	mg/Kg	☼	08/23/19 12:09	08/29/19 00:10	1
Chromium	16.8		0.271	0.112	mg/Kg	☼	08/23/19 12:09	08/29/19 00:10	1
Cobalt	8.52		0.0677	0.0112	mg/Kg	☼	08/23/19 12:09	08/29/19 00:10	1
Copper	23.8		0.271	0.153	mg/Kg	☼	08/23/19 12:09	08/29/19 00:10	1
Lead	26.4		0.135	0.0474	mg/Kg	☼	08/23/19 12:09	08/29/19 00:10	1
Lithium	11.7		0.677	0.374	mg/Kg	☼	08/23/19 12:09	08/29/19 00:10	1
Molybdenum	1.16		0.677	0.221	mg/Kg	☼	08/23/19 12:09	08/29/19 00:10	1
Nickel	18.4		0.135	0.0826	mg/Kg	☼	08/23/19 12:09	08/29/19 00:10	1
Selenium	1.06		0.677	0.165	mg/Kg	☼	08/23/19 12:09	08/29/19 00:10	1
Silver	0.560		0.135	0.0366	mg/Kg	☼	08/23/19 12:09	08/29/19 00:10	1
Thallium	0.288		0.135	0.0339	mg/Kg	☼	08/23/19 12:09	08/29/19 00:10	1
Vanadium	23.0		0.135	0.0867	mg/Kg	☼	08/23/19 12:09	08/29/19 00:10	1
Zinc	91.1		0.677	0.452	mg/Kg	☼	08/23/19 12:09	08/29/19 00:10	1

Method: EPA 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0881	B	0.0419	0.0182	mg/Kg	☼	08/27/19 09:00	08/27/19 15:34	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	23.9		0.1	0.1	%			08/27/19 11:16	1
Percent Solids	76.1		0.1	0.1	%			08/27/19 11:16	1
pH	6.8		0.1	0.1	SU			09/05/19 13:11	1

Method: ASTM D2974 - Moisture, Ash and Organic Matter

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fractional Organic Carbon	3.0		0.5	0.5	%			08/28/19 16:00	1

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Client Sample ID: ALF-BS-FB11-20190821 ~ NA

Lab Sample ID: 180-94541-8
Date Collected: 08/21/19 14:29
Matrix: Water
Date Received: 08/22/19 09:00

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.00	0.715	mg/L			08/29/19 21:51	1
Fluoride	ND		0.100	0.0263	mg/L			08/29/19 21:51	1
Sulfate	ND		1.00	0.380	mg/L			08/29/19 21:51	1

Method: EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00200	0.000378	mg/L		08/26/19 10:16	09/05/19 16:50	1
Arsenic	**0.000672**	**J**	0.00100	0.000323	mg/L		08/26/19 10:16	09/05/19 16:50	1
Barium	ND		0.0100	0.00160	mg/L		08/26/19 10:16	09/05/19 16:50	1
Beryllium	ND		0.00100	0.000182	mg/L		08/26/19 10:16	09/05/19 16:50	1
Boron	ND		0.0800	0.0386	mg/L		08/26/19 10:16	09/05/19 16:50	1
Cadmium	**0.000159**	**J**	0.00100	0.000125	mg/L		08/26/19 10:16	09/05/19 16:50	1
Calcium	ND		0.500	0.127	mg/L		08/26/19 10:16	09/05/19 16:50	1
Chromium	**0.00423**		0.00200	0.00153	mg/L		08/26/19 10:16	09/05/19 16:50	1
Cobalt	**0.000129**	**J**	0.000500	0.0000750	mg/L		08/26/19 10:16	09/05/19 16:50	1
Copper	ND		0.00200	0.000627	mg/L		08/26/19 10:16	09/05/19 16:50	1
Lead	**0.000135**	**J**	0.00100	0.000128	mg/L		08/26/19 10:16	09/05/19 16:50	1
Lithium	ND		0.00500	0.00339	mg/L		08/26/19 10:16	09/05/19 16:50	1
Molybdenum	ND		0.00500	0.000610	mg/L		08/26/19 10:16	09/05/19 16:50	1
Nickel	ND		0.00100	0.000336	mg/L		08/26/19 10:16	09/05/19 16:50	1
Selenium	ND		0.00500	0.00151	mg/L		08/26/19 10:16	09/05/19 16:50	1
Silver	ND		0.00100	0.000177	mg/L		08/26/19 10:16	09/05/19 16:50	1
Thallium	**0.000243**	**J**	0.00100	0.000148	mg/L		08/26/19 10:16	09/05/19 16:50	1
Vanadium	**0.00272**		0.00100	0.000991	mg/L		08/26/19 10:16	09/05/19 16:50	1
Zinc	**0.00370**	**J**	0.00500	0.00322	mg/L		08/26/19 10:16	09/05/19 16:50	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000200	0.000101	mg/L		08/28/19 13:21	08/29/19 16:49	1

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Client Sample ID: ALF-BS-LB05-20190821 ~ NA

Lab Sample ID: 180-94541-9

Date Collected: 08/21/19 14:51
Matrix: Water
Date Received: 08/22/19 09:00

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.00	0.715	mg/L			08/29/19 22:06	1
Fluoride	ND		0.100	0.0263	mg/L			08/29/19 22:06	1
Sulfate	ND		1.00	0.380	mg/L			08/29/19 22:06	1

Method: EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00200	0.000378	mg/L		08/26/19 10:16	09/05/19 16:54	1
Arsenic	**0.000622**	**J**	0.00100	0.000323	mg/L		08/26/19 10:16	09/05/19 16:54	1
Barium	ND		0.0100	0.00160	mg/L		08/26/19 10:16	09/05/19 16:54	1
Beryllium	ND		0.00100	0.000182	mg/L		08/26/19 10:16	09/05/19 16:54	1
Boron	ND		0.0800	0.0386	mg/L		08/26/19 10:16	09/05/19 16:54	1
Cadmium	ND		0.00100	0.000125	mg/L		08/26/19 10:16	09/05/19 16:54	1
Calcium	ND		0.500	0.127	mg/L		08/26/19 10:16	09/05/19 16:54	1
Chromium	**0.00391**		0.00200	0.00153	mg/L		08/26/19 10:16	09/05/19 16:54	1
Cobalt	**0.0000900**	**J**	0.000500	0.0000750	mg/L		08/26/19 10:16	09/05/19 16:54	1
Copper	ND		0.00200	0.000627	mg/L		08/26/19 10:16	09/05/19 16:54	1
Lead	ND		0.00100	0.000128	mg/L		08/26/19 10:16	09/05/19 16:54	1
Lithium	ND		0.00500	0.00339	mg/L		08/26/19 10:16	09/05/19 16:54	1
Molybdenum	ND		0.00500	0.000610	mg/L		08/26/19 10:16	09/05/19 16:54	1
Nickel	ND		0.00100	0.000336	mg/L		08/26/19 10:16	09/05/19 16:54	1
Selenium	ND		0.00500	0.00151	mg/L		08/26/19 10:16	09/05/19 16:54	1
Silver	ND		0.00100	0.000177	mg/L		08/26/19 10:16	09/05/19 16:54	1
Thallium	**0.000148**	**J**	0.00100	0.000148	mg/L		08/26/19 10:16	09/05/19 16:54	1
Vanadium	**0.00256**		0.00100	0.000991	mg/L		08/26/19 10:16	09/05/19 16:54	1
Zinc	ND		0.00500	0.00322	mg/L		08/26/19 10:16	09/05/19 16:54	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000200	0.000101	mg/L		08/28/19 13:21	08/29/19 16:50	1

Client Sample Results

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Client Sample ID: ALF-BS-EB05-20190821 ~ NA

Lab Sample ID: 180-94541-10

Date Collected: 08/21/19 15:11
Matrix: Water
Date Received: 08/22/19 09:00

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.00	0.715	mg/L			09/03/19 12:45	1
Fluoride	ND		0.100	0.0263	mg/L			09/03/19 12:45	1
Sulfate	ND		1.00	0.380	mg/L			09/03/19 12:45	1

Method: EPA 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00200	0.000378	mg/L		08/26/19 10:16	09/05/19 16:57	1
Arsenic	**0.000648**	**J**	0.00100	0.000323	mg/L		08/26/19 10:16	09/05/19 16:57	1
Barium	ND		0.0100	0.00160	mg/L		08/26/19 10:16	09/05/19 16:57	1
Beryllium	ND		0.00100	0.000182	mg/L		08/26/19 10:16	09/05/19 16:57	1
Boron	ND		0.0800	0.0386	mg/L		08/26/19 10:16	09/05/19 16:57	1
Cadmium	ND		0.00100	0.000125	mg/L		08/26/19 10:16	09/05/19 16:57	1
Calcium	ND		0.500	0.127	mg/L		08/26/19 10:16	09/05/19 16:57	1
Chromium	**0.00433**		0.00200	0.00153	mg/L		08/26/19 10:16	09/05/19 16:57	1
Cobalt	ND		0.000500	0.0000750	mg/L		08/26/19 10:16	09/05/19 16:57	1
Copper	ND		0.00200	0.000627	mg/L		08/26/19 10:16	09/05/19 16:57	1
Lead	ND		0.00100	0.000128	mg/L		08/26/19 10:16	09/05/19 16:57	1
Lithium	ND		0.00500	0.00339	mg/L		08/26/19 10:16	09/05/19 16:57	1
Molybdenum	ND		0.00500	0.000610	mg/L		08/26/19 10:16	09/05/19 16:57	1
Nickel	ND		0.00100	0.000336	mg/L		08/26/19 10:16	09/05/19 16:57	1
Selenium	ND		0.00500	0.00151	mg/L		08/26/19 10:16	09/05/19 16:57	1
Silver	ND		0.00100	0.000177	mg/L		08/26/19 10:16	09/05/19 16:57	1
Thallium	ND		0.00100	0.000148	mg/L		08/26/19 10:16	09/05/19 16:57	1
Vanadium	**0.00279**		0.00100	0.000991	mg/L		08/26/19 10:16	09/05/19 16:57	1
Zinc	ND		0.00500	0.00322	mg/L		08/26/19 10:16	09/05/19 16:57	1

Method: EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000200	0.000101	mg/L		08/28/19 13:21	08/29/19 16:54	1

QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Method: EPA 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 180-289657/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 289657

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.00	0.715	mg/L			08/29/19 09:44	1
Fluoride	ND		0.100	0.0263	mg/L			08/29/19 09:44	1
Sulfate	ND		1.00	0.380	mg/L			08/29/19 09:44	1

Lab Sample ID: LCS 180-289657/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 289657

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	24.04		mg/L		96	80 - 120
Fluoride	1.25	1.215		mg/L		97	80 - 120
Sulfate	25.0	23.46		mg/L		94	80 - 120

Lab Sample ID: 180-94867-C-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 289657

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	36.8		25.0	59.20		mg/L		90	80 - 120
Fluoride	0.0548	J	1.25	1.294		mg/L		99	80 - 120
Sulfate	11.4		25.0	34.09		mg/L		91	80 - 120

Lab Sample ID: 180-94867-C-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 289657

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	36.8		25.0	59.57		mg/L		91	80 - 120	1	15
Fluoride	0.0548	J	1.25	1.268		mg/L		97	80 - 120	2	15
Sulfate	11.4		25.0	34.32		mg/L		92	80 - 120	1	15

Lab Sample ID: MB 180-290013/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 290013

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.00	0.715	mg/L			09/03/19 11:15	1
Fluoride	ND		0.100	0.0263	mg/L			09/03/19 11:15	1
Sulfate	ND		1.00	0.380	mg/L			09/03/19 11:15	1

Lab Sample ID: LCS 180-290013/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 290013

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	26.47		mg/L		106	80 - 120
Fluoride	1.25	1.190		mg/L		95	80 - 120
Sulfate	25.0	24.60		mg/L		98	80 - 120

Method: EPA 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 180-94600-D-9 MS
Matrix: Water
Analysis Batch: 290013

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	101		625	830.4		mg/L		117	80 - 120
Fluoride	ND		31.3	30.96		mg/L		99	80 - 120
Sulfate	829		625	1570		mg/L		119	80 - 120

Lab Sample ID: 180-94600-D-9 MSD
Matrix: Water
Analysis Batch: 290013

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	101		625	827.3		mg/L		116	80 - 120	0	15
Fluoride	ND		31.3	30.86		mg/L		99	80 - 120	0	15
Sulfate	829		625	1555		mg/L		116	80 - 120	1	15

Lab Sample ID: MB 180-290194/1-A
Matrix: Solid
Analysis Batch: 290138

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		10.0	3.88	mg/Kg			09/04/19 23:18	1
Fluoride	ND		1.00	0.680	mg/Kg			09/04/19 23:18	1
Sulfate	ND		10.0	6.79	mg/Kg			09/04/19 23:18	1

Lab Sample ID: LCS 180-290194/2-A
Matrix: Solid
Analysis Batch: 290138

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	280.1		mg/Kg		112	80 - 120
Fluoride	12.5	13.31		mg/Kg		106	80 - 120
Sulfate	250	254.6		mg/Kg		102	80 - 120

Lab Sample ID: 180-94298-A-1-F MS
Matrix: Solid
Analysis Batch: 290138

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	ND		412	411.5	J	mg/Kg	☼	100	80 - 120
Fluoride	ND		20.6	30.86	J	mg/Kg	☼	NC	80 - 120
Sulfate	28300		412	28740	4	mg/Kg	☼	111	80 - 120

Lab Sample ID: 180-94298-A-1-G MSD
Matrix: Solid
Analysis Batch: 290138

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	ND		416	411.1	J	mg/Kg	☼	99	80 - 120	0	15
Fluoride	ND		20.8	31.40	J	mg/Kg	☼	NC	80 - 120	2	15
Sulfate	28300		416	28960	4	mg/Kg	☼	163	80 - 120	1	15

QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Method: EPA 6020A - Metals (ICP/MS)

Lab Sample ID: MB 180-289131/1-A
Matrix: Solid
Analysis Batch: 289673

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 289131

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.200	0.0620	mg/Kg		08/23/19 12:09	08/28/19 22:40	1
Arsenic	ND		0.100	0.0260	mg/Kg		08/23/19 12:09	08/28/19 22:40	1
Barium	ND		1.00	0.128	mg/Kg		08/23/19 12:09	08/28/19 22:40	1
Beryllium	ND		0.100	0.00750	mg/Kg		08/23/19 12:09	08/28/19 22:40	1
Boron	ND		8.00	1.35	mg/Kg		08/23/19 12:09	08/28/19 22:40	1
Cadmium	ND		0.100	0.0170	mg/Kg		08/23/19 12:09	08/28/19 22:40	1
Calcium	ND		50.0	8.95	mg/Kg		08/23/19 12:09	08/28/19 22:40	1
Chromium	ND		0.200	0.0830	mg/Kg		08/23/19 12:09	08/28/19 22:40	1
Cobalt	ND		0.0500	0.00830	mg/Kg		08/23/19 12:09	08/28/19 22:40	1
Copper	ND		0.200	0.113	mg/Kg		08/23/19 12:09	08/28/19 22:40	1
Lead	ND		0.100	0.0350	mg/Kg		08/23/19 12:09	08/28/19 22:40	1
Lithium	ND		0.500	0.276	mg/Kg		08/23/19 12:09	08/28/19 22:40	1
Molybdenum	ND		0.500	0.163	mg/Kg		08/23/19 12:09	08/28/19 22:40	1
Nickel	ND		0.100	0.0610	mg/Kg		08/23/19 12:09	08/28/19 22:40	1
Selenium	ND		0.500	0.122	mg/Kg		08/23/19 12:09	08/28/19 22:40	1
Silver	ND		0.100	0.0270	mg/Kg		08/23/19 12:09	08/28/19 22:40	1
Thallium	ND		0.100	0.0250	mg/Kg		08/23/19 12:09	08/28/19 22:40	1
Vanadium	ND		0.100	0.0640	mg/Kg		08/23/19 12:09	08/28/19 22:40	1
Zinc	ND		0.500	0.334	mg/Kg		08/23/19 12:09	08/28/19 22:40	1

Lab Sample ID: LCS 180-289131/2-A
Matrix: Solid
Analysis Batch: 289673

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 289131

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	25.0	22.81		mg/Kg		91	80 - 120
Arsenic	100	90.61		mg/Kg		91	80 - 120
Barium	100	89.35		mg/Kg		89	80 - 120
Beryllium	50.0	48.02		mg/Kg		96	80 - 120
Boron	125	119.6		mg/Kg		96	80 - 120
Cadmium	50.0	50.13		mg/Kg		100	80 - 120
Calcium	2500	2433		mg/Kg		97	80 - 120
Chromium	50.0	47.12		mg/Kg		94	80 - 120
Cobalt	50.0	42.36		mg/Kg		85	80 - 120
Copper	50.0	45.53		mg/Kg		91	80 - 120
Lead	50.0	50.59		mg/Kg		101	80 - 120
Lithium	50.0	43.79		mg/Kg		88	80 - 120
Molybdenum	50.0	50.89		mg/Kg		102	80 - 120
Nickel	50.0	43.58		mg/Kg		87	80 - 120
Selenium	100	86.59		mg/Kg		87	80 - 120
Silver	25.0	24.52		mg/Kg		98	80 - 120
Thallium	100	98.80		mg/Kg		99	80 - 120
Vanadium	50.0	43.58		mg/Kg		87	80 - 120
Zinc	25.0	21.88		mg/Kg		88	80 - 120

Method: EPA 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 180-94434-A-4-E MS
Matrix: Solid
Analysis Batch: 289673

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 289131

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.332	F1	30.9	18.08	F1	mg/Kg	☼	57	75 - 125
Arsenic	7.08		123	103.5		mg/Kg	☼	78	75 - 125
Barium	150		123	258.7		mg/Kg	☼	88	75 - 125
Beryllium	0.681		61.7	61.43		mg/Kg	☼	98	75 - 125
Boron	7.13	J	154	148.2		mg/Kg	☼	91	75 - 125
Cadmium	0.432		61.7	61.71		mg/Kg	☼	99	75 - 125
Calcium	5630		3090	7996		mg/Kg	☼	77	75 - 125
Chromium	11.7		61.7	65.52		mg/Kg	☼	87	75 - 125
Cobalt	6.33		61.7	58.06		mg/Kg	☼	84	75 - 125
Copper	15.9		61.7	64.75		mg/Kg	☼	79	75 - 125
Lead	16.2		61.7	76.42		mg/Kg	☼	98	75 - 125
Lithium	9.12		61.7	65.81		mg/Kg	☼	92	75 - 125
Molybdenum	0.915		61.7	58.91		mg/Kg	☼	94	75 - 125
Nickel	16.0		61.7	70.96		mg/Kg	☼	89	75 - 125
Selenium	1.10		123	98.79		mg/Kg	☼	79	75 - 125
Silver	0.200		30.9	30.37		mg/Kg	☼	98	75 - 125
Thallium	0.256		123	118.3		mg/Kg	☼	96	75 - 125
Vanadium	17.7		61.7	69.87		mg/Kg	☼	84	75 - 125
Zinc	68.0		30.9	93.06		mg/Kg	☼	81	75 - 125

Lab Sample ID: 180-94434-A-4-F MSD
Matrix: Solid
Analysis Batch: 289673

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 289131

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.332	F1	29.9	16.79	F1	mg/Kg	☼	55	75 - 125	7	20
Arsenic	7.08		120	103.7		mg/Kg	☼	81	75 - 125	0	20
Barium	150		120	259.8		mg/Kg	☼	92	75 - 125	0	20
Beryllium	0.681		59.9	60.05		mg/Kg	☼	99	75 - 125	2	20
Boron	7.13	J	150	144.3		mg/Kg	☼	92	75 - 125	3	20
Cadmium	0.432		59.9	59.27		mg/Kg	☼	98	75 - 125	4	20
Calcium	5630		2990	8229		mg/Kg	☼	87	75 - 125	3	20
Chromium	11.7		59.9	70.81		mg/Kg	☼	99	75 - 125	8	20
Cobalt	6.33		59.9	61.92		mg/Kg	☼	93	75 - 125	6	20
Copper	15.9		59.9	63.72		mg/Kg	☼	80	75 - 125	2	20
Lead	16.2		59.9	76.89		mg/Kg	☼	101	75 - 125	1	20
Lithium	9.12		59.9	63.86		mg/Kg	☼	91	75 - 125	3	20
Molybdenum	0.915		59.9	57.01		mg/Kg	☼	94	75 - 125	3	20
Nickel	16.0		59.9	75.14		mg/Kg	☼	99	75 - 125	6	20
Selenium	1.10		120	103.9		mg/Kg	☼	86	75 - 125	5	20
Silver	0.200		29.9	28.96		mg/Kg	☼	96	75 - 125	5	20
Thallium	0.256		120	115.7		mg/Kg	☼	96	75 - 125	2	20
Vanadium	17.7		59.9	76.43		mg/Kg	☼	98	75 - 125	9	20
Zinc	68.0		29.9	103.4		mg/Kg	☼	118	75 - 125	11	20

Method: EPA 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 180-289283/1-A
Matrix: Water
Analysis Batch: 290398

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 289283

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00200	0.000378	mg/L		08/26/19 10:16	09/05/19 15:42	1
Arsenic	ND		0.00100	0.000323	mg/L		08/26/19 10:16	09/05/19 15:42	1
Barium	ND		0.0100	0.00160	mg/L		08/26/19 10:16	09/05/19 15:42	1
Beryllium	ND		0.00100	0.000182	mg/L		08/26/19 10:16	09/05/19 15:42	1
Boron	ND		0.0800	0.0386	mg/L		08/26/19 10:16	09/05/19 15:42	1
Cadmium	ND		0.00100	0.000125	mg/L		08/26/19 10:16	09/05/19 15:42	1
Calcium	ND		0.500	0.127	mg/L		08/26/19 10:16	09/05/19 15:42	1
Chromium	ND		0.00200	0.00153	mg/L		08/26/19 10:16	09/05/19 15:42	1
Cobalt	ND		0.000500	0.0000750	mg/L		08/26/19 10:16	09/05/19 15:42	1
Copper	ND		0.00200	0.000627	mg/L		08/26/19 10:16	09/05/19 15:42	1
Lead	ND		0.00100	0.000128	mg/L		08/26/19 10:16	09/05/19 15:42	1
Lithium	ND		0.00500	0.00339	mg/L		08/26/19 10:16	09/05/19 15:42	1
Molybdenum	ND		0.00500	0.000610	mg/L		08/26/19 10:16	09/05/19 15:42	1
Nickel	ND		0.00100	0.000336	mg/L		08/26/19 10:16	09/05/19 15:42	1
Selenium	ND		0.00500	0.00151	mg/L		08/26/19 10:16	09/05/19 15:42	1
Silver	ND		0.00100	0.000177	mg/L		08/26/19 10:16	09/05/19 15:42	1
Thallium	ND		0.00100	0.000148	mg/L		08/26/19 10:16	09/05/19 15:42	1
Vanadium	ND		0.00100	0.000991	mg/L		08/26/19 10:16	09/05/19 15:42	1
Zinc	ND		0.00500	0.00322	mg/L		08/26/19 10:16	09/05/19 15:42	1

Lab Sample ID: LCS 180-289283/2-A
Matrix: Water
Analysis Batch: 290398

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 289283

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.250	0.2398		mg/L		96	80 - 120
Arsenic	1.00	0.8995		mg/L		90	80 - 120
Barium	1.00	1.044		mg/L		104	80 - 120
Beryllium	0.500	0.5108		mg/L		102	80 - 120
Boron	1.25	1.157		mg/L		93	80 - 120
Cadmium	0.500	0.5295		mg/L		106	80 - 120
Calcium	25.0	25.74		mg/L		103	80 - 120
Chromium	0.500	0.5698		mg/L		114	80 - 120
Cobalt	0.500	0.4608		mg/L		92	80 - 120
Copper	0.500	0.4670		mg/L		93	80 - 120
Lead	0.500	0.5288		mg/L		106	80 - 120
Lithium	0.500	0.4691		mg/L		94	80 - 120
Molybdenum	0.500	0.5220		mg/L		104	80 - 120
Nickel	0.500	0.4720		mg/L		94	80 - 120
Selenium	1.00	1.066		mg/L		107	80 - 120
Silver	0.250	0.2558		mg/L		102	80 - 120
Thallium	1.00	1.090		mg/L		109	80 - 120
Vanadium	0.500	0.4461		mg/L		89	80 - 120
Zinc	0.250	0.2079		mg/L		83	80 - 120

Method: EPA 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 180-94532-B-14-A MS
Matrix: Water
Analysis Batch: 290398

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 289283

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		0.250	0.2605		mg/L		104	75 - 125
Arsenic	0.00717		1.00	0.8557		mg/L		85	75 - 125
Barium	0.243		1.00	1.270		mg/L		103	75 - 125
Beryllium	ND		0.500	0.4103		mg/L		82	75 - 125
Boron	0.140		1.25	1.165		mg/L		82	75 - 125
Cadmium	ND		0.500	0.5044		mg/L		101	75 - 125
Calcium	38.7		25.0	64.22		mg/L		102	75 - 125
Chromium	0.00381		0.500	0.5388		mg/L		107	75 - 125
Cobalt	0.0000790	J	0.500	0.4313		mg/L		86	75 - 125
Copper	ND		0.500	0.4431		mg/L		89	75 - 125
Lead	ND		0.500	0.5043		mg/L		101	75 - 125
Lithium	0.00628		0.500	0.3895		mg/L		77	75 - 125
Molybdenum	0.00215	J	0.500	0.5019		mg/L		100	75 - 125
Nickel	ND		0.500	0.4393		mg/L		88	75 - 125
Selenium	ND		1.00	1.010		mg/L		101	75 - 125
Silver	ND		0.250	0.2778		mg/L		111	75 - 125
Thallium	ND		1.00	1.028		mg/L		103	75 - 125
Vanadium	0.00270		0.500	0.4167		mg/L		83	75 - 125
Zinc	0.00354	J	0.250	0.2207		mg/L		87	75 - 125

Lab Sample ID: 180-94532-B-14-B MSD
Matrix: Water
Analysis Batch: 290398

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 289283

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		0.250	0.2591		mg/L		104	75 - 125	1	20
Arsenic	0.00717		1.00	0.8931		mg/L		89	75 - 125	4	20
Barium	0.243		1.00	1.285		mg/L		104	75 - 125	1	20
Beryllium	ND		0.500	0.4902		mg/L		98	75 - 125	18	20
Boron	0.140		1.25	1.345		mg/L		96	75 - 125	14	20
Cadmium	ND		0.500	0.5270		mg/L		105	75 - 125	4	20
Calcium	38.7		25.0	60.91		mg/L		89	75 - 125	5	20
Chromium	0.00381		0.500	0.5545		mg/L		110	75 - 125	3	20
Cobalt	0.0000790	J	0.500	0.4486		mg/L		90	75 - 125	4	20
Copper	ND		0.500	0.4560		mg/L		91	75 - 125	3	20
Lead	ND		0.500	0.5181		mg/L		104	75 - 125	3	20
Lithium	0.00628		0.500	0.4873		mg/L		96	75 - 125	22	20
Molybdenum	0.00215	J	0.500	0.5153		mg/L		103	75 - 125	3	20
Nickel	ND		0.500	0.4559		mg/L		91	75 - 125	4	20
Selenium	ND		1.00	1.052		mg/L		105	75 - 125	4	20
Silver	ND		0.250	0.2754		mg/L		110	75 - 125	1	20
Thallium	ND		1.00	1.051		mg/L		105	75 - 125	2	20
Vanadium	0.00270		0.500	0.4308		mg/L		86	75 - 125	3	20
Zinc	0.00354	J	0.250	0.2205		mg/L		87	75 - 125	0	20

QC Sample Results

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 180-289592/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 289762 — **Prep Batch: 289592**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.000200	0.000101	mg/L		08/28/19 13:21	08/29/19 16:23	1

Lab Sample ID: LCS 180-289592/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 289762 — **Prep Batch: 289592**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00250	0.002353		mg/L		94	80 - 120

Lab Sample ID: 180-94547-B-2-C MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 289762 — **Prep Batch: 289592**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND	F1 F2	0.00100	0.0009350		mg/L		94	75 - 125

Lab Sample ID: 180-94547-B-2-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 289762 — **Prep Batch: 289592**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND	F1 F2	0.00100	0.001266	F1 F2	mg/L		127	75 - 125	30	20

Method: EPA 7471B - Mercury (CVAA)

Lab Sample ID: MB 180-289383/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 289474 — **Prep Batch: 289383**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.02050	J	0.0330	0.0143	mg/Kg		08/27/19 09:00	08/27/19 15:07	1

Lab Sample ID: LCS 180-289383/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 289474 — **Prep Batch: 289383**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.417	0.4352		mg/Kg		104	80 - 120

Lab Sample ID: 460-187594-A-24-B MS ^25 — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 289474 — **Prep Batch: 289383**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	28.6	B F2	0.164	35.90	4	mg/Kg	☼	4451	80 - 120

Method: EPA 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 460-187594-A-24-C MSD ^25 — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 289474 — **Prep Batch: 289383**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	28.6	B F2	0.159	26.49	4 F2	mg/Kg	☼	-1328	80 - 120	30	20

Method: 2540G - SM 2540G

Lab Sample ID: 460-187594-A-2 DU — **Client Sample ID: Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 289325

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	5.9			5.7		%				4	10
Percent Solids	94.1			94.3		%				0.3	10

Lab Sample ID: 180-94541-4 DU — **Client Sample ID: ALF-BS-BG13-16.5/18.5-20190821 ~ ALF-BG13**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 289424

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	16.0			16.7		%				5	10
Percent Solids	84.0			83.3		%				0.9	10

Method: EPA 9045D - pH

Lab Sample ID: LCS 180-290325/1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 290325

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	7.1		SU		101	99 - 101		

Lab Sample ID: 180-94541-1 DU — **Client Sample ID: ALF-BS-BG13-1.5/3.5-20190821 ~ ALF-BG13**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 290325

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	8.0			8.0		SU				0.1	2

Method: ASTM D2974 - Moisture, Ash and Organic Matter

Lab Sample ID: 180-94391-A-6 DU — **Client Sample ID: Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 289612

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Fractional Organic Carbon	0.9			0.8	F5	%				11	10

Lab Sample ID: 180-94541-7 DU — **Client Sample ID: ALF-BS-BG13-0.0/0.5-20190821 ~ ALF-BG13**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 289612

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Fractional Organic Carbon	3.0			3.1		%				3	10

QC Association Summary

Client: Stantec Consulting Services Inc
Project/Site: ALF_BS_20190821_1A

Job ID: 180-94541-1

HPLC/IC

Analysis Batch: 289657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-94541-8	ALF-BS-FB11-20190821 ~ NA	Total/NA	Water	EPA 9056A	
180-94541-9	ALF-BS-LB05-20190821 ~ NA	Total/NA	Water	EPA 9056A	
MB 180-289657/6	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-289657/5	Lab Control Sample	Total/NA	Water	EPA 9056A	
180-94867-C-1 MS	Matrix Spike	Total/NA	Water	EPA 9056A	
180-94867-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	EPA 9056A	

Analysis Batch: 290013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-94541-10	ALF-BS-EB05-20190821 ~ NA	Total/NA	Water	EPA 9056A	
MB 180-290013/6	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-290013/5	Lab Control Sample	Total/NA	Water	EPA 9056A	
180-94600-D-9 MS	Matrix Spike	Total/NA	Water	EPA 9056A	
180-94600-D-9 MSD	Matrix Spike Duplicate	Total/NA	Water	EPA 9056A	

Analysis Batch: 290138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-94541-1	ALF-BS-BG13-1.5/3.5-20190821 ~ ALF-BG13	Soluble	Solid	EPA 9056A	290194
180-94541-2	ALF-BS-BG13-6.5/8.5-20190821 ~ ALF-BG13	Soluble	Solid	EPA 9056A	290194
180-94541-3	ALF-BS-BG13-11.5/13.5-20190821 ~ ALF-BG13	Soluble	Solid	EPA 9056A	290194
180-94541-4	ALF-BS-BG13-16.5/18.5-20190821 ~ ALF-BG13	Soluble	Solid	EPA 9056A	290194
180-94541-5	ALF-BS-BG13-21.5/23.5-20190821 ~ ALF-BG13	Soluble	Solid	EPA 9056A	290194
180-94541-6	ALF-BS-BG13-26.5/28.5-20190821 ~ ALF-BG13	Soluble	Solid	EPA 9056A	290194
180-94541-7	ALF-BS-BG13-0.0/0.5-20190821 ~ ALF-BG13	Soluble	Solid	EPA 9056A	290194
MB 180-290194/1-A	Method Blank	Soluble	Solid	EPA 9056A	290194
LCS 180-290194/2-A	Lab Control Sample	Soluble	Solid	EPA 9056A	290194
180-94298-A-1-F MS	Matrix Spike	Soluble	Solid	EPA 9056A	290194
180-94298-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	EPA 9056A	290194

Leach Batch: 290194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-94541-1	ALF-BS-BG13-1.5/3.5-20190821 ~ ALF-BG13	Soluble	Solid	DI Leach	
180-94541-2	ALF-BS-BG13-6.5/8.5-20190821 ~ ALF-BG13	Soluble	Solid	DI Leach	
180-94541-3	ALF-BS-BG13-11.5/13.5-20190821 ~ ALF-BG13	Soluble	Solid	DI Leach	
180-94541-4	ALF-BS-BG13-16.5/18.5-20190821 ~ ALF-BG13	Soluble	Solid	DI Leach	
180-94541-5	ALF-BS-BG13-21.5/23.5-20190821 ~ ALF-BG13	Soluble	Solid	DI Leach	
180-94541-6	ALF-BS-BG13-26.5/28.5-20190821 ~ ALF-BG13	Soluble	Solid	DI Leach	
180-94541-7	ALF-BS-BG13-0.0/0.5-20190821 ~ ALF-BG13	Soluble	Solid	DI Leach	
MB 180-290194/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 180-290194/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
180-94298-A-1-F MS	Matrix Spike	Soluble	Solid	DI Leach	
180-94298-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Metals

Prep Batch: 289131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-94541-1	ALF-BS-BG13-1.5/3.5-20190821 ~ ALF-BG13	Total/NA	Solid	3050B	
180-94541-2	ALF-BS-BG13-6.5/8.5-20190821 ~ ALF-BG13	Total/NA	Solid	3050B	
180-94541-3	ALF-BS-BG13-11.5/13.5-20190821 ~ ALF-BG13	Total/NA	Solid	3050B	
180-94541-4	ALF-BS-BG13-16.5/18.5-20190821 ~ ALF-BG13	Total/NA	Solid	3050B	

Metals (Continued)

Prep Batch: 289131 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-94541-5	ALF-BS-BG13-21.5/23.5-20190821 ~ ALF-BG13	Total/NA	Solid	3050B	
180-94541-6	ALF-BS-BG13-26.5/28.5-20190821 ~ ALF-BG13	Total/NA	Solid	3050B	
180-94541-7	ALF-BS-BG13-0.0/0.5-20190821 ~ ALF-BG13	Total/NA	Solid	3050B	
MB 180-289131/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 180-289131/2-A	Lab Control Sample	Total/NA	Solid	3050B	
180-94434-A-4-E MS	Matrix Spike	Total/NA	Solid	3050B	
180-94434-A-4-F MSD	Matrix Spike Duplicate	Total/NA	Solid	3050B	

Prep Batch: 289283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-94541-8	ALF-BS-FB11-20190821 ~ NA	Total Recoverable	Water	3005A	
180-94541-9	ALF-BS-LB05-20190821 ~ NA	Total Recoverable	Water	3005A	
180-94541-10	ALF-BS-EB05-20190821 ~ NA	Total Recoverable	Water	3005A	
MB 180-289283/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-289283/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-94532-B-14-A MS	Matrix Spike	Total Recoverable	Water	3005A	
180-94532-B-14-B MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 289383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-94541-1	ALF-BS-BG13-1.5/3.5-20190821 ~ ALF-BG13	Total/NA	Solid	7471B	
180-94541-2	ALF-BS-BG13-6.5/8.5-20190821 ~ ALF-BG13	Total/NA	Solid	7471B	
180-94541-3	ALF-BS-BG13-11.5/13.5-20190821 ~ ALF-BG13	Total/NA	Solid	7471B	
180-94541-4	ALF-BS-BG13-16.5/18.5-20190821 ~ ALF-BG13	Total/NA	Solid	7471B	
180-94541-5	ALF-BS-BG13-21.5/23.5-20190821 ~ ALF-BG13	Total/NA	Solid	7471B	
180-94541-6	ALF-BS-BG13-26.5/28.5-20190821 ~ ALF-BG13	Total/NA	Solid	7471B	
180-94541-7	ALF-BS-BG13-0.0/0.5-20190821 ~ ALF-BG13	Total/NA	Solid	7471B	
MB 180-289383/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 180-289383/2-A	Lab Control Sample	Total/NA	Solid	7471B	
460-187594-A-24-B MS ^25	Matrix Spike	Total/NA	Solid	7471B	
460-187594-A-24-C MSD ^2!	Matrix Spike Duplicate	Total/NA	Solid	7471B	

Analysis Batch: 289474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-94541-1	ALF-BS-BG13-1.5/3.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 7471B	289383
180-94541-2	ALF-BS-BG13-6.5/8.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 7471B	289383
180-94541-3	ALF-BS-BG13-11.5/13.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 7471B	289383
180-94541-4	ALF-BS-BG13-16.5/18.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 7471B	289383
180-94541-5	ALF-BS-BG13-21.5/23.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 7471B	289383
180-94541-6	ALF-BS-BG13-26.5/28.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 7471B	289383
180-94541-7	ALF-BS-BG13-0.0/0.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 7471B	289383
MB 180-289383/1-A	Method Blank	Total/NA	Solid	EPA 7471B	289383
LCS 180-289383/2-A	Lab Control Sample	Total/NA	Solid	EPA 7471B	289383
460-187594-A-24-B MS ^25	Matrix Spike	Total/NA	Solid	EPA 7471B	289383
460-187594-A-24-C MSD ^2!	Matrix Spike Duplicate	Total/NA	Solid	EPA 7471B	289383

Prep Batch: 289592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-94541-8	ALF-BS-FB11-20190821 ~ NA	Total/NA	Water	7470A	
180-94541-9	ALF-BS-LB05-20190821 ~ NA	Total/NA	Water	7470A	
180-94541-10	ALF-BS-EB05-20190821 ~ NA	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 289592 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-289592/1-A	Method Blank	Total/NA	Water	7470A	
LCS 180-289592/2-A	Lab Control Sample	Total/NA	Water	7470A	
180-94547-B-2-C MS	Matrix Spike	Total/NA	Water	7470A	
180-94547-B-2-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 289673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-94541-1	ALF-BS-BG13-1.5/3.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 6020A	289131
180-94541-2	ALF-BS-BG13-6.5/8.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 6020A	289131
180-94541-3	ALF-BS-BG13-11.5/13.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 6020A	289131
180-94541-4	ALF-BS-BG13-16.5/18.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 6020A	289131
180-94541-5	ALF-BS-BG13-21.5/23.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 6020A	289131
180-94541-6	ALF-BS-BG13-26.5/28.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 6020A	289131
180-94541-7	ALF-BS-BG13-0.0/0.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 6020A	289131
MB 180-289131/1-A	Method Blank	Total/NA	Solid	EPA 6020A	289131
LCS 180-289131/2-A	Lab Control Sample	Total/NA	Solid	EPA 6020A	289131
180-94434-A-4-E MS	Matrix Spike	Total/NA	Solid	EPA 6020A	289131
180-94434-A-4-F MSD	Matrix Spike Duplicate	Total/NA	Solid	EPA 6020A	289131

Analysis Batch: 289762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-94541-8	ALF-BS-FB11-20190821 ~ NA	Total/NA	Water	EPA 7470A	289592
180-94541-9	ALF-BS-LB05-20190821 ~ NA	Total/NA	Water	EPA 7470A	289592
180-94541-10	ALF-BS-EB05-20190821 ~ NA	Total/NA	Water	EPA 7470A	289592
MB 180-289592/1-A	Method Blank	Total/NA	Water	EPA 7470A	289592
LCS 180-289592/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	289592
180-94547-B-2-C MS	Matrix Spike	Total/NA	Water	EPA 7470A	289592
180-94547-B-2-D MSD	Matrix Spike Duplicate	Total/NA	Water	EPA 7470A	289592

Analysis Batch: 290398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-94541-8	ALF-BS-FB11-20190821 ~ NA	Total Recoverable	Water	EPA 6020A	289283
180-94541-9	ALF-BS-LB05-20190821 ~ NA	Total Recoverable	Water	EPA 6020A	289283
180-94541-10	ALF-BS-EB05-20190821 ~ NA	Total Recoverable	Water	EPA 6020A	289283
MB 180-289283/1-A	Method Blank	Total Recoverable	Water	EPA 6020A	289283
LCS 180-289283/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020A	289283
180-94532-B-14-A MS	Matrix Spike	Total Recoverable	Water	EPA 6020A	289283
180-94532-B-14-B MSD	Matrix Spike Duplicate	Total Recoverable	Water	EPA 6020A	289283

General Chemistry

Analysis Batch: 289325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-94541-1	ALF-BS-BG13-1.5/3.5-20190821 ~ ALF-BG13	Total/NA	Solid	2540G	
460-187594-A-2 DU	Duplicate	Total/NA	Solid	2540G	

Analysis Batch: 289424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-94541-2	ALF-BS-BG13-6.5/8.5-20190821 ~ ALF-BG13	Total/NA	Solid	2540G	
180-94541-3	ALF-BS-BG13-11.5/13.5-20190821 ~ ALF-BG13	Total/NA	Solid	2540G	
180-94541-4	ALF-BS-BG13-16.5/18.5-20190821 ~ ALF-BG13	Total/NA	Solid	2540G	

General Chemistry (Continued)

Analysis Batch: 289424 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-94541-5	ALF-BS-BG13-21.5/23.5-20190821 ~ ALF-BG13	Total/NA	Solid	2540G	
180-94541-6	ALF-BS-BG13-26.5/28.5-20190821 ~ ALF-BG13	Total/NA	Solid	2540G	
180-94541-7	ALF-BS-BG13-0.0/0.5-20190821 ~ ALF-BG13	Total/NA	Solid	2540G	
180-94541-4 DU	ALF-BS-BG13-16.5/18.5-20190821 ~ ALF-BG13	Total/NA	Solid	2540G	

Analysis Batch: 290325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-94541-1	ALF-BS-BG13-1.5/3.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 9045D	
180-94541-2	ALF-BS-BG13-6.5/8.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 9045D	
180-94541-3	ALF-BS-BG13-11.5/13.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 9045D	
180-94541-4	ALF-BS-BG13-16.5/18.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 9045D	
180-94541-5	ALF-BS-BG13-21.5/23.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 9045D	
180-94541-6	ALF-BS-BG13-26.5/28.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 9045D	
180-94541-7	ALF-BS-BG13-0.0/0.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 9045D	
LCS 180-290325/1	Lab Control Sample	Total/NA	Solid	EPA 9045D	
180-94541-1 DU	ALF-BS-BG13-1.5/3.5-20190821 ~ ALF-BG13	Total/NA	Solid	EPA 9045D	

Geotechnical

Analysis Batch: 289612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-94541-1	ALF-BS-BG13-1.5/3.5-20190821 ~ ALF-BG13	Total/NA	Solid	ASTM D2974	
180-94541-2	ALF-BS-BG13-6.5/8.5-20190821 ~ ALF-BG13	Total/NA	Solid	ASTM D2974	
180-94541-3	ALF-BS-BG13-11.5/13.5-20190821 ~ ALF-BG13	Total/NA	Solid	ASTM D2974	
180-94541-4	ALF-BS-BG13-16.5/18.5-20190821 ~ ALF-BG13	Total/NA	Solid	ASTM D2974	
180-94541-5	ALF-BS-BG13-21.5/23.5-20190821 ~ ALF-BG13	Total/NA	Solid	ASTM D2974	
180-94541-6	ALF-BS-BG13-26.5/28.5-20190821 ~ ALF-BG13	Total/NA	Solid	ASTM D2974	
180-94541-7	ALF-BS-BG13-0.0/0.5-20190821 ~ ALF-BG13	Total/NA	Solid	ASTM D2974	
180-94391-A-6 DU	Duplicate	Total/NA	Solid	ASTM D2974	
180-94541-7 DU	ALF-BS-BG13-0.0/0.5-20190821 ~ ALF-BG13	Total/NA	Solid	ASTM D2974	

TVA Environmental Investigations

Tennessee Valley Authority

COOLER No.:	1	of	3
COC No:	ALF_BS_20190821_1A		
1 of 1 Pages			
Task Desc:	ALF_BS		

Rev 1 BS 8/27/19

Chain-of-Custody / Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate

Required Ship to Lab:	
Lab Name:	TestAmerica Pittsburgh
Lab Address:	301 Alpha Drive Pittsburgh, PA 15238
Lab Manager Contact Information	
Lab PM:	Gail Lage
Phone/Fax:	615-301-5741/615-726-3404
Lab Email:	Gail.Lage@testamericainc.com

Required Project Information:	
Site ID #:	Allen Fossil Plant
Project #:	175568282
Site Address	2574 Plant Road
City	Memphis State, Zip: TN, 38109
Site PM Name:	Roy Quinn
Phone/Fax:	423-751-3753
Site PM Email:	jrquinn@tva.gov

Required Sampler Information			
Sampler:	Kevin Nguyen		
Sampling Company:	Stantec		
Address	601 Grassmere Park Dr, Suite 22		
City/State	Nashville, TN	Phone:	6158851144
Sampling Team Number:	1		
Send EDD/Hard Copy to:	tva_deliverables@envstd.com		

Analysis Turnaround Time

CALENDAR DAYS WORKING DAYS

TAT if different from Below _____

- 24 Hours
- 3 Business Days
- 5 Business Days
- 10 Business Days

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth: Depth Unit / Select Unit: Start Depth	End Depth	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis: BACKGROUNDSOIL	BACKGROUNDSOIL_BLANKS	BACKGROUNDSOIL_pH	ALF_FOC	Filtered	Preserve
1	ALF-BS-BG13-1.5/3.5-20190821	ALF-BG13	1.5	3.5	BS	G	N	8/21/2019	1242	3	N/A		X		X	X	N	None
2	ALF-BS-BG13-6.5/8.5-20190821	ALF-BG13	6.5	8.5	BS	G	N	8/21/2019	1253	3	N/A		X		X	X	N	
3	ALF-BS-BG13-11.5/13.5-20190821	ALF-BG13	11.5	13.5	BS	G	N	8/21/2019	1306	3	N/A		X		X	X	N	
4	ALF-BS-BG13-16.5/18.5-20190821	ALF-BG13	16.5	18.5	BS	G	N	8/21/2019	1317	3	N/A		X		X	X	N	
5	ALF-BS-BG13-21.5/23.5-20190821	ALF-BG13	21.5	23.5	BS	G	N	8/21/2019	1329	3	N/A		X		X	X	N	
6	ALF-BS-BG13-26.5/28.5-20190821	ALF-BG13	26.5	28.5	BS	G	N	8/21/2019	1336	3	N/A		X		X	X	N	
7	ALF-BS-BG13-0.0/0.5-20190821	ALF-BG13	0.0	0.5	BS	G	N	8/21/2019	1342	3	N/A		X		X	X	N	
8	ALF-BS-FB11-20190821	-	NA	NA	AQ	G	FB	8/21/2019	1429	2	N/A			X				see comments
9	ALF-BS-LB05-20190821	-	NA	NA	AQ	G	~~FLB~~ EB	8/21/2019	1451	2	N/A			X				
10	ALF-BS-EB05-20190821	-	NA	NA	AQ	G	EB	8/21/2019	1511	2	N/A			X				
11																		
12																		
13																		

JL 8/21/19

BS 8/27/19

Additional Comments/Special Instructions:

Additional volume collected should be used for MS/MSDs.

BACKGROUNDSOIL_BLANKS: Anions unpreserved; Metals preserved w/ HNO3 to pH<2

JL 8/21/19

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Kevin Nguyen/Stantec	8/21/19	1800	TASHIA	8/21/19	900
JL 8/21/19					

SHIPPING METHOD	SAMPLER NAME AND SIGNATURE
Fedex	Kevin Nguyen
JL 8/21/19	

Sample Receipt Conditions: Temperature in °C; Sample on Ice?; Sample Intact?; Trip Blank?

180-94541 Chain of Custody

Form TVA 30067A

TVA Tennessee Valley Authority

Chain-of-Custody / Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate

COOLER No.:	2 of 3
COC No:	ALF_BS_20190821_1A
1 of 1 Pages	
Task Desc:	ALF_BS

Rev 1 8/27/19

Required Ship to Lab:		Required Project Information:		Required Sampler Information	
Lab Name:	TestAmerica Pittsburgh	Site ID #:	Allen Fossil Plant	Sampler:	Kevin Nguyen
Lab Address:	301 Alpha Drive	Project #:	175568282	Sampling Company:	Stantec
	Pittsburgh, PA 15238	Site Address	2574 Plant Road	Address	601 Grassmere Park Dr, Suite 22
		City	Memphis State, Zip: TN, 38109	City/State	Nashville, TN Phone: 6158851144
Lab Manager Contact Information		Site PM Name:	Roy Quinn		
Lab PM:	Gail Lage	Phone/Fax:	423-751-3753	Sampling Team Number:	1
Phone/Fax:	615-301-5741/615-726-3404	Site PM Email:	rquinn@tva.gov	Send EDD/Hard Copy to:	tva_deliverables@envstd.com
Lab Email:	Gail.Lage@testamericainc.com				

Analysis Turnaround Time

☐ CALENDAR DAYS ☐ WORKING DAYS

TAT if different from Below _____

☐ 24 Hours

☐ 3 Business Days

☐ 5 Business Days

☑ 10 Business Days

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth: Start Depth (Depth Unit)	Sample Depth: End Depth (Select Unit)	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	BACKGROUNDSOIL	BACKGROUNDSOIL_BLANKS	BACKGROUNDSOIL_pH	ALF_FOC
												Filtered	N	N	N	N
												Preserve	None	see comments	None	None
1	ALF-BS-BG13-1.5/3.5-20190821	ALF-BG13	1.5	3.5	BS	G	N	8/21/2019	1242	3	N/A	☐	X		X	X
2	ALF-BS-BG13-6.5/8.5-20190821	ALF-BG13	6.5	8.5	BS	G	N	8/21/2019	1253	3	N/A	☐	X		X	X
3	ALF-BS-BG13-11.5/13.5-20190821	ALF-BG13	11.5	13.5	BS	G	N	8/21/2019	1306	3	N/A	☐	X		X	X
4	ALF-BS-BG13-16.5/18.5-20190821	ALF-BG13	16.5	18.5	BS	G	N	8/21/2019	1317	3	N/A	☐	X		X	X
5	ALF-BS-BG13-21.5/23.5-20190821	ALF-BG13	21.5	23.5	BS	G	N	8/21/2019	1329	3	N/A	☐	X		X	X
6	ALF-BS-BG13-26.5/28.5-20190821	ALF-BG13	26.5	28.5	BS	G	N	8/21/2019	1336	3	N/A	☐	X		X	X
7	ALF-BS-BG13-0.0/0.5-20190821	ALF-BG13	0.0	0.5	BS	G	N	8/21/2019	1342	3	N/A	☐	X		X	X
8	ALF-BS-FB11-20190821	-	NA	NA	AQ	G	FB	8/21/2019	1429	2	N/A	☐		X		
9	ALF-BS-LB05-20190821	-	NA	NA	AQ	G	~~FLB~~ EB	8/21/2019	1451	2	N/A	☐		X		
10	ALF-BS-EB05-20190821	-	NA	NA	AQ	G	EB	8/21/2019	1511	2	N/A	☐		X		
11												☐				
12												☐				
13												☐				

Additional Comments/Special Instructions:

Additional volume collected should be used for MS/MSDs.

BACKGROUNDSOIL_BLANKS: Anions unpreserved; Metals preserved w/ HNO3 to pH<2

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Kevin Nguyen/Stantec	8/21/19			8/22/19	9:00

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
Fedex	Kevin Nguyen

Sample Receipt Conditions

Temperature in °C	Sample on Ice?	Sample Intact?	Trip Blank?
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

Form TVA 30087A

TVA Environmental Investigations

Tennessee Valley Authority

COOLER No.:	3	of	3
COC No:	ALF_BS_20190821_1A		
1 of 1 Pages			
Task Desc:	ALF_BS		

Rev 1 BJ 8/27/19

Chain-of-Custody / Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate

Required Ship to Lab:		Required Project Information:		Required Sampler Information	
Lab Name:	TestAmerica Pittsburgh	Site ID #:	Allen Fossil Plant	Sampler:	Kevin Nguyen
Lab Address:	301 Alpha Drive	Project #:	175568282	Sampling Company:	Stantec
	Pittsburgh, PA 15238	Site Address	2574 Plant Road	Address	601 Grassmere Park Dr, Suite 22
		City	Memphis State, Zip: TN, 38109	City/State	Nashville, TN Phone: 6158851144
Lab Manager Contact Information		Site PM Name:	Roy Quinn		
Lab PM:	Gail Lage	Phone/Fax:	423-751-3753	Sampling Team Number:	1
Phone/Fax:	615-301-5741/615-726-3404	Site PM Email:	rquinn@tva.gov	Send EDD/Hard Copy to:	tva_deliverables@envsfd.com
Lab Email:	Gail.Lage@testamericainc.com				

Analysis Turnaround Time
☐ CALENDAR DAYS ☐ WORKING DAYS
TAT if different from Below _____
☐ 24 Hours
☐ 3 Business Days
☐ 5 Business Days
☑ 10 Business Days

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth: Start Depth (Depth Unit)	Sample Depth: End Depth (Select Unit)	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis: BACKGROUNDSOIL	BACKGROUNDSOIL_BLANKS	BACKGROUNDSOIL_pH	ALF_FOC
1	ALF-BS-BG13-1.5/3.5-20190821	ALF-BG13	1.5	3.5	BS	G	N	8/21/2019	1242	3	N/A	☐	X	X	X	
2	ALF-BS-BG13-6.5/8.5-20190821	ALF-BG13	6.5	8.5	BS	G	N	8/21/2019	1253	3	N/A	☐	X	X	X	
3	ALF-BS-BG13-11.5/13.5-20190821	ALF-BG13	11.5	13.5	BS	G	N	8/21/2019	1306	3	N/A	☐	X	X	X	
4	ALF-BS-BG13-16.5/18.5-20190821	ALF-BG13	16.5	18.5	BS	G	N	8/21/2019	1317	3	N/A	☐	X	X	X	
5	ALF-BS-BG13-21.5/23.5-20190821	ALF-BG13	21.5	23.5	BS	G	N	8/21/2019	1329	3	N/A	☐	X	X	X	
6	ALF-BS-BG13-26.5/28.5-20190821	ALF-BG13	26.5	28.5	BS	G	N	8/21/2019	1336	3	N/A	☐	X	X	X	
7	ALF-BS-BG13-0.0/0.5-20190821	ALF-BG13	0.0	0.5	BS	G	N	8/21/2019	1342	3	N/A	☐	X	X	X	
8	ALF-BS-FB11-20190821	-	NA	NA	AQ	G	FB	8/21/2019	1429	2	N/A	☐	X			
9	ALF-BS-LB05-20190821	-	NA	NA	AQ	G	~~FLB~~ EB	8/21/2019	1451	2	N/A	☐	X			
10	ALF-BS-EB05-20190821	-	NA	NA	AQ	G	EB	8/21/2019	1511	2	N/A	☐	X			
11												☐				
12												☐				
13												☐				

BJ 8/27/19

Filtered: N N N N

Preserve: None; see comments; None; None

Additional Comments/Special Instructions:

Additional volume collected should be used for MS/MSDs.

BACKGROUNDSOIL_BLANKS: Anions unpreserved; Metals preserved w/ HNO3 to pH<2

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Kevin Nguyen/Stantec	8/21/19		[signature]	8/21/19	900

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
Fedex	Kevin Nguyen [signature]

Sample Receipt Conditions			
☐ ~~Yes~~ ☐ No	☐ ~~Yes~~ ☐ No	☐ ~~Yes~~ ☐ No	☐ Yes ☐ No
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Temperature in °C	Sample on Ice?	Sample Intact?	Trip Blank?

Form TVA 30067A

TVA Environmental Investigations

Tennessee Valley Authority

COOLER No.:	1	of	3
COC No:	ALF_BS_20190821_1A		
1 of 1 Pages			
Task Desc:	ALF_BS		

Chain-of-Custody / Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate

Required Ship to Lab:		Required Project Information:		Required Sampler Information	
Lab Name:	TestAmerica Pittsburgh	Site ID #:	Allen Fossil Plant	Sampler:	Kevin Nguyen
Lab Address:	301 Alpha Drive	Project #:	175568282	Sampling Company:	Stantec
	Pittsburgh, PA 15238	Site Address	2574 Plant Road	Address	601 Grassmere Park Dr, Suite 22
		City	Memphis State, Zip: TN, 38109	City/State	Nashville, TN Phone: 6158851144
Lab Manager Contact Information		Site PM Name:	Roy Quinn		
Lab PM:	Gail Lage	Phone/Fax:	423-751-3753	Sampling Team Number:	1
Phone/Fax:	615-301-5741/615-726-3404	Site PM Email:	jrquinn@tva.gov	Send EDD/Hard Copy to:	tva_deliverables@envstd.com
Lab Email:	Gail.Lage@testamericainc.com				

Analysis Turnaround Time

☐ CALENDAR DAYS ☐ WORKING DAYS

TAT if different from Below _____

☐ 24 Hours
☐ 3 Business Days
☐ 5 Business Days
☑ **10 Business Days**

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth: Depth Unit / Select Unit: Start Depth	End Depth	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis: BACKGROUNDSOIL	BACKGROUNDSOIL_BLANKS	BACKGROUNDSOIL_pH	ALF_FOC	Filtered	Preserve
																	N	None
																	N	see comments
																	N	None
																	N	None
1	ALF-BS-BG13-1.5/3.5-20190821	ALF-BG13	1.5	3.5	BS	G	N	8/21/2019	1242	3	N/A	☐	X		X	X		
2	ALF-BS-BG13-6.5/8.5-20190821	ALF-BG13	6.5	8.5	BS	G	N	8/21/2019	1253	3	N/A	☐	X		X	X		
3	ALF-BS-BG13-11.5/13.5-20190821	ALF-BG13	11.5	13.5	BS	G	N	8/21/2019	1306	3	N/A	☐	X		X	X		
4	ALF-BS-BG13-16.5/18.5-20190821	ALF-BG13	16.5	18.5	BS	G	N	8/21/2019	1317	3	N/A	☐	X		X	X		
5	ALF-BS-BG13-21.5/23.5-20190821	ALF-BG13	21.5	23.5	BS	G	N	8/21/2019	1329	3	N/A	☐	X		X	X		
6	ALF-BS-BG13-26.5/28.5-20190821	ALF-BG13	26.5	28.5	BS	G	N	8/21/2019	1336	3	N/A	☐	X		X	X		
7	ALF-BS-BG13-0.0/0.5-20190821	ALF-BG13	0.0	0.5	BS	G	N	8/21/2019	1342	3	N/A	☐	X		X	X		
8	ALF-BS-FB11-20190821	-	NA	NA	AQ	G	FB	8/21/2019	1429	2	N/A	☐		X				
9	ALF-BS-LB05-20190821	-	NA	NA	AQ	G	FLB	8/21/2019	1451	2	N/A	☐		X				
10	ALF-BS-EB05-20190821	-	NA	NA	AQ	G	EB	8/21/2019	1511	2	N/A	☐		X				
11												☐						
12												☐						
13												☐						

Additional Comments/Special Instructions:

Additional volume collected should be used for MS/MSDs.

BACKGROUNDSOIL_BLANKS: Anions unpreserved; Metals preserved w/ HNO3 to pH<2

RELINQISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Kevin Nguyen/Stantec	8/21/19	1800	TASIR	8/21/19	900

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
Fedex	Kevin Nguyen

Sample Receipt Conditions

Temperature in °C	ample on Ice?	mple Intact?	Trip Blank?
☑ Yes ☐ No	☐ Yes ☐ No	☑ Yes ☐ No	☐ Yes ☑ No
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

180-94541 Chain of Custody

Form TVA 30067A

TVA Environmental Investigations

Tennessee Valley Authority

Chain-of-Custody / Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate

COOLER No.:	2 of 3
COC No:	ALF_BS_20190821_1A
1 of 1 Pages	
Task Desc:	ALF_BS

Required Ship to Lab:		Required Project Information:		Required Sampler Information	
Lab Name:	TestAmerica Pittsburgh	Site ID #:	Allen Fossil Plant	Sampler:	Kevin Nguyen
Lab Address:	301 Alpha Drive Pittsburgh, PA 15238	Project #:	175568282	Sampling Company:	Stantec
		Site Address	2574 Plant Road	Address	601 Grassmere Park Dr, Suite 22
		City	Memphis State, Zip: TN, 38109	City/State	Nashville, TN Phone: 6158851144
Lab Manager Contact Information		Site PM Name:	Roy Quinn		
Lab PM:	Gail Lage	Phone/Fax:	423-751-3753	Sampling Team Number:	1
Phone/Fax:	615-301-5741/615-726-3404	Site PM Email:	jrquinn@tva.gov	Send EDD/Hard Copy to:	tva_deliverables@envstd.com
Lab Email:	Gail.Lage@testamericainc.com				

Analysis Turnaround Time

☐ CALENDAR DAYS ☑ WORKING DAYS

TAT if different from Below _____

☐ 24 Hours
☐ 3 Business Days
☐ 5 Business Days
☑ **10 Business Days**

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth: Depth Unit / Select Unit: Start Depth	End Depth	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis: BACKGROUNDSOIL	BACKGROUNDSOIL_BLANKS	BACKGROUNDSOIL_pH	ALF_FOC	Filtered	Preserve
1	ALF-BS-BG13-1.5/3.5-20190821	ALF-BG13	1.5	3.5	BS	G	N	8/21/2019	1242	3	N/A	☐	X		X	X	N	None
2	ALF-BS-BG13-6.5/8.5-20190821	ALF-BG13	6.5	8.5	BS	G	N	8/21/2019	1253	3	N/A	☐	X		X	X	N	
3	ALF-BS-BG13-11.5/13.5-20190821	ALF-BG13	11.5	13.5	BS	G	N	8/21/2019	1306	3	N/A	☐	X		X	X	N	
4	ALF-BS-BG13-16.5/18.5-20190821	ALF-BG13	16.5	18.5	BS	G	N	8/21/2019	1317	3	N/A	☐	X		X	X	N	
5	ALF-BS-BG13-21.5/23.5-20190821	ALF-BG13	21.5	23.5	BS	G	N	8/21/2019	1329	3	N/A	☐	X		X	X	N	
6	ALF-BS-BG13-26.5/28.5-20190821	ALF-BG13	26.5	28.5	BS	G	N	8/21/2019	1336	3	N/A	☐	X		X	X	N	
7	ALF-BS-BG13-0.0/0.5-20190821	ALF-BG13	0.0	0.5	BS	G	N	8/21/2019	1342	3	N/A	☐	X		X	X	N	
8	ALF-BS-FB11-20190821	-	NA	NA	AQ	G	FB	8/21/2019	1429	2	N/A	☐		X			N	see comments
9	ALF-BS-LB05-20190821	-	NA	NA	AQ	G	FLB	8/21/2019	1451	2	N/A	☐		X			N	
10	ALF-BS-EB05-20190821	-	NA	NA	AQ	G	EB	8/21/2019	1511	2	N/A	☐		X			N	
11												☐						
12												☐						
13												☐						

Additional Comments/Special Instructions:

Additional volume collected should be used for MS/MSDs.

BACKGROUNDSOIL_BLANKS: Anions unpreserved; Metals preserved w/ HNO3 to pH<2

RELINQISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Kevin Nguyen/Stantec	8/21/19			8/21/19	900

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
Fedex	Kevin Nguyen

Sample Receipt Conditions

Temperature in °C	Sample on Ice?	Sample Intact?	Trip Blank?
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

Form TVA 30067A

TVA Environmental Investigations

Tennessee Valley Authority

COOLER No.:	3	of	3
COC No:	ALF_BS_20190821_1A		
1 of 1 Pages			
Task Desc:	ALF_BS		

Chain-of-Custody / Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate

Required Ship to Lab:	
Lab Name:	TestAmerica Pittsburgh
Lab Address:	301 Alpha Drive Pittsburgh, PA 15238
Lab Manager Contact Information	
Lab PM:	Gail Lage
Phone/Fax:	615-301-5741/615-726-3404
Lab Email:	Gail.Lage@testamericainc.com

Required Project Information:			
Site ID #:	Allen Fossil Plant		
Project #:	175568282		
Site Address	2574 Plant Road		
City	Memphis	State, Zip:	TN, 38109
Site PM Name:	Roy Quinn		
Phone/Fax:	423-751-3753		
Site PM Email:	jrquinn@tva.gov		

Required Sampler Information			
Sampler:	Kevin Nguyen		
Sampling Company:	Stantec		
Address	601 Grassmere Park Dr, Suite 22		
City/State	Nashville, TN	Phone:	6158851144
Sampling Team Number:	1		
Send EDD/Hard Copy to:	tva_deliverables@envstd.com		

Analysis Turnaround Time

☐ CALENDAR DAYS ☑ WORKING DAYS

TAT if different from Below _____

☐ 24 Hours
☐ 3 Business Days
☐ 5 Business Days
☑ **10 Business Days**

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth: Depth Unit (Start Depth)	Sample Depth: Select Unit (End Depth)	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis: BACKGROUNDSOIL	Analysis: BACKGROUNDSOIL_BLANKS	Analysis: BACKGROUNDSOIL_pH	Analysis: ALF_FOC
													Filtered: N	N	N	N
													Preserve: None	see comments	None	None
1	ALF-BS-BG13-1.5/3.5-20190821	ALF-BG13	1.5	3.5	BS	G	N	8/21/2019	1242	3	N/A	☐	X		X	X
2	ALF-BS-BG13-6.5/8.5-20190821	ALF-BG13	6.5	8.5	BS	G	N	8/21/2019	1253	3	N/A	☐	X		X	X
3	ALF-BS-BG13-11.5/13.5-20190821	ALF-BG13	11.5	13.5	BS	G	N	8/21/2019	1306	3	N/A	☐	X		X	X
4	ALF-BS-BG13-16.5/18.5-20190821	ALF-BG13	16.5	18.5	BS	G	N	8/21/2019	1317	3	N/A	☐	X		X	X
5	ALF-BS-BG13-21.5/23.5-20190821	ALF-BG13	21.5	23.5	BS	G	N	8/21/2019	1329	3	N/A	☐	X		X	X
6	ALF-BS-BG13-26.5/28.5-20190821	ALF-BG13	26.5	28.5	BS	G	N	8/21/2019	1336	3	N/A	☐	X		X	X
7	ALF-BS-BG13-0.0/0.5-20190821	ALF-BG13	0.0	0.5	BS	G	N	8/21/2019	1342	3	N/A	☐	X		X	X
8	ALF-BS-FB11-20190821	-	NA	NA	AQ	G	FB	8/21/2019	1429	2	N/A	☐		X		
9	ALF-BS-LB05-20190821	-	NA	NA	AQ	G	FLB	8/21/2019	1451	2	N/A	☐		X		
10	ALF-BS-EB05-20190821	-	NA	NA	AQ	G	EB	8/21/2019	1511	2	N/A	☐		X		
11												☐				
12												☐				
13												☐				

Additional Comments/Special Instructions:

Additional volume collected should be used for MS/MSDs.

BACKGROUNDSOIL_BLANKS: Anions unpreserved; Metals preserved w/ HNO3 to pH<2

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Kevin Nguyen/Stantec	8/21/19		[signature]	8/21/19	900

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
Fedex	Kevin Nguyen [signature]

Sample Receipt Conditions

Temperature in °C	Sample on Ice?	Sample Intact?	Trip Blank?
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

Form TVA 30067A

Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc

Job Number: 180-94541-1

Login Number: 94541
List Number: 1
Creator: Say, Thomas C

List Source: Eurofins TestAmerica, Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	