eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 180-86185-2
Client Project/Site: JOF_SED_20190122_1B
Revision: 2

For:
Environmental Standards Inc.
1140 Valley Forge Road
PO BOX 810
Valley Forge, Pennsylvania 19482-0810

Attn: Amanda Cover

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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: 180-86185-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-86185-2

Revised Report
This report was revised to change the sample ID for sample 180-86185-20 based on a revised chain of custody. This replaces the previous final report.

Receipt
The samples were received on 1/29/2019 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.0º C, 2.5º C, 3.7º C and 4.9º C.

RAD
Method(s) 901.1: Gamma Prep Batch 160-429032
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

Many isotopes requested for analysis do not have any gamma emissions, or the gamma emissions they do have are very poor. Often, such analytes are reported by gamma spectrometry assuming secular equilibrium with a longer-lived parent. The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

Inferred from	Reported to Analyte
Ac-228	Ra-228
Bi-214	Ra-226

JOF-SED-CV01-CORRB-0.0/0.5-20190122 (180-86185-3), JOF-SED-CV01-CORCC-0.0/0.5-20190122 (180-86185-4), JOF-SED-CV01-CORLB-0.0/0.5-20190122 (180-86185-5), JOF-SED-CV01-CORLB-0.5/2.0-20190122 (180-86185-6), JOF-SED-CV01-CORLB-2.0/3.8-20190122 (180-86185-7), JOF-SED-IC01-CORRB-0.0/0.5-20190122 (180-86185-8), JOF-SED-IC01-CORRB-0.5/1.5-20190122 (180-86185-9), JOF-SED-IC01-CORCC-0.0/0.5-20190122 (180-86185-10), JOF-SED-IC01-CORCC-0.5/1.6-20190122 (180-86185-11), JOF-SED-IC01-CORLB-0.0/0.5-20190122 (180-86185-12), JOF-SED-IC01-CORLB-0.0/0.5-20190122 (180-86185-12[DU]), JOF-SED-IC02-CORLB-0.0/0.5-20190122 (180-86185-13), JOF-SED-IC02-CORLB-0.5/2.0-20190122 (180-86185-14), JOF-SED-IC02-CORLB-2.0/3.0-20190122 (180-86185-15), JOF-SED-IC02-CORLB-3.0/3.7-20190122 (180-86185-16), JOF-SED-IC02-CORCC-0.0/0.5-20190122 (180-86185-17), JOF-SED-IC02-CORCC-0.5/3.0-20190122 (180-86185-18), JOF-SED-IC02-CORCC-3.0/5.4-20190122 (180-86185-19), JOF-SED-IC02-CORRB-0.0/0.7-20190122 (180-86185-20), JOF-SED-BH01-CORLB-0.0/0.5-20190122 (180-86185-21), (LCS 160-429032/2-A) and (MB 160-429032/1-A)

Method(s) 901.1: Gamma Prep Batch 160-429541
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

Many isotopes requested for analysis do not have any gamma emissions, or the gamma emissions they do have are very poor. Often, such analytes are reported by gamma spectrometry assuming secular equilibrium with a longer-lived parent. The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

Inferred from	Reported to Analyte
Ac-228	Ra-228
Bi-214	Ra-226

JOF-SED-BH01-CORLB-0.5/1.5-20190122 (180-86185-22), JOF-SED-BH01-CORCC-0.0/0.5-20190122 (180-86185-23), JOF-SED-BH01-CORCC-0.5/1.6-20190122 (180-86185-24), JOF-SED-BH01-CORRB-0.0/0.5-20190122 (180-86185-25), JOF-SED-BH03-CORRB-0.0/0.5-20190122 (180-86185-26), JOF-SED-BH03-CORRB-0.5/3.0-20190122 (180-86185-27), JOF-SED-BH03-CORRB-3.0/5.5-20190122 (180-86185-28), JOF-SED-BH03-CORCC-0.0/0.5-20190122 (180-86185-29), JOF-SED-BH03-CORCC-0.5/2.5-20190122 (180-86185-30), JOF-SED-BH03-CORLB-0.0/0.5-20190122 (180-86185-31),

Job ID: 180-86185-2 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

JOF-SED-BH03-CORLB-0.5/2.5-20190122 (180-86185-32), JOF-SED-BH03-CORLB-2.5/4.1-20190122 (180-86185-33), JOF-SED-IC01-DUP01-20190122 (180-86185-34), JOF-SED-CV03-CORLB-0.0/0.5-20190123 (180-86185-37), JOF-SED-CV03-CORLB-0.5/2.5-20190123 (180-86185-38), JOF-SED-CV03-CORLB-2.5/5.3-20190123 (180-86185-39), JOF-SED-CV03-CORCC-0.0/0.5-20190123 (180-86185-40), JOF-SED-CV03-CORRB-0.0/0.5-20190123 (180-86185-41), JOF-SED-CV03-CORRB-0.5/1.5-20190123 (180-86185-42), JOF-SED-CV03-CORRB-1.5/2.7-20190123 (180-86185-43), (LCS 160-429541/2-A), (MB 160-429541/1-A) and (180-86185-A-22-C DU)

Method(s) 901.1: Gamma Prep Batch 160-429544
Insufficient samples were provided for the following samples to fill a geometry (e.g. tuna can) calibrated for Ra-226 analysis by gamma spectroscopy: JOF-SED-CV02-CORLB-0.0/0.5-20190123 (180-86185-44), JOF-SED-CV02-CORCC-0.0/0.5-20190123 (180-86185-46), JOF-SED-BH02-CORLB-0.0/0.5-20190124 (180-86185-51), JOF-SED-BH02-CORCC-0.0/0.5-20190124 (180-86185-56), JOF-SED-BH02-CORRB-0.0/0.5-20190124 (180-86185-60), JOF-SED-IC01-CORRB-0.0/0.5-20190124 (180-86185-61) and JOF-SED-BH02-DUP01-20190124 (180-86185-64). The use of a different geometry could potentially bias the results low due to the loss of radon into the headspace of the container.

Method(s) 901.1: Gamma Prep Batch 160-429544
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

Many isotopes requested for analysis do not have any gamma emissions, or the gamma emissions they do have are very poor. Often, such analytes are reported by gamma spectrometry assuming secular equilibrium with a longer-lived parent. The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

Inferred from	Reported to Analyte
Ac-228	Ra-228
Bi-214	Ra-226

JOF-SED-CV02-CORLB-0.0/0.5-20190123 (180-86185-44), JOF-SED-CV02-CORLB-0.5/2.5-20190123 (180-86185-45), JOF-SED-CV02-CORCC-0.0/0.5-20190123 (180-86185-46), JOF-SED-CV02-CORCC-0.5/1.6-20190123 (180-86185-47), JOF-SED-CV02-CORRB-0.0/0.5-20190123 (180-86185-48), JOF-SED-CV02-CORRB-0.0/0.5-20190123 (180-86185-48[DU]), JOF-SED-CV02-DUP01-20190123 (180-86185-49), JOF-SED-BH02-CORLB-0.0/0.5-20190124 (180-86185-51), JOF-SED-BH02-CORLB-0.5/3.0-20190124 (180-86185-52), JOF-SED-BH02-CORLB-3.0/4.7-20190124 (180-86185-53), JOF-SED-BH02-CORLB-4.7/5.7-20190124 (180-86185-54), JOF-SED-BH02-CORCC-0.0/0.5-20190124 (180-86185-56), JOF-SED-BH02-CORCC-0.5/1.7-20190124 (180-86185-57), JOF-SED-BH02-CORCC-1.7/3.0-20190124 (180-86185-58), JOF-SED-BH02-CORCC-3.0/3.7-20190124 (180-86185-59), JOF-SED-BH02-CORRB-0.0/0.5-20190124 (180-86185-60), JOF-SED-IC01-CORRB-0.0/0.5-20190124 (180-86185-61), JOF-SED-IC01-CORCC-0.0/0.5-20190124 (180-86185-62), JOF-SED-IC01-CORLB-0.0/0.5-20190124 (180-86185-63), JOF-SED-BH02-DUP01-20190124 (180-86185-64), (LCS 160-429544/2-A) and (MB 160-429544/1-A)

Method(s) Fill_Geo-21: Insufficient sample was provided for the following samples to fit the preferred geometry (i.e. tuna can):
Samples 37 and 40 were reduced to 100mL d = 1 geometry.
Sample 41 was reduced to 100mL Solid geometry.JOF-SED-CV03-CORLB-0.0/0.5-20190123 (180-86185-37), JOF-SED-CV03-CORCC-0.0/0.5-20190123 (180-86185-40) and JOF-SED-CV03-CORRB-0.0/0.5-20190123 (180-86185-41).

Method(s) Fill_Geo-21: Gamma Prep Batch 429544
Insufficient sample was provided for the following samples to fit the preferred geometry (i.e. tuna can).
Samples 44, 49, 56, 60, 64 were reduced to 100mL d = 1 geometry
Sample 61 was reduced to 100mL Solid geometry
Sample46 was reduced to 25mL Solid geometry

JOF-SED-CV02-CORLB-0.0/0.5-20190123 (180-86185-44), JOF-SED-CV02-CORCC-0.0/0.5-20190123 (180-86185-46),

Job ID: 180-86185-2 (Continued)

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

JOF-SED-BH02-CORLB-0.0/0.5-20190124 (180-86185-51), JOF-SED-BH02-CORCC-0.0/0.5-20190124 (180-86185-56), JOF-SED-BH02-CORRB-0.0/0.5-20190124 (180-86185-60), JOF-SED-IC01-CORRB-0.0/0.5-20190124 (180-86185-61) and JOF-SED-BH02-DUP01-20190124 (180-86185-64).

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

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

Definitions/Glossary

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Laboratory: Eurofins TestAmerica, St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska	State Program	MO00054	06-30-19
ANAB	Dept. of Defense ELAP	L2305	05-14-20
ANAB	Dept. of Energy	L2305.01	05-14-20
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-19
California	State	2886	06-30-19
Kentucky (DW)	State	KY90125	12-31-19
Louisiana (DW)	State	LA011	12-31-19
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-19
Pennsylvania	NELAP	68-00540	11-03-19
Texas	NELAP	T104704193-19-13	07-31-19
USDA	US Federal Programs	P330-17-00028	02-02-20
Virginia	NELAP	10310	06-14-20
West Virginia DEP	State	381	10-31-19

Sample Summary

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-86185-3	JOF-SED-CV01-CORRB-0.0/0.5-20190122	Solid	01/22/19 08:30	01/29/19 09:30	
180-86185-4	JOF-SED-CV01-CORCC-0.0/0.5-20190122	Solid	01/22/19 09:00	01/29/19 09:30	
180-86185-5	JOF-SED-CV01-CORLB-0.0/0.5-20190122	Solid	01/22/19 09:20	01/29/19 09:30	
180-86185-8	JOF-SED-IC01-CORRB-0.0/0.5-20190122	Solid	01/22/19 10:15	01/29/19 09:30	
180-86185-10	JOF-SED-IC01-CORCC-0.0/0.5-20190122	Solid	01/22/19 10:35	01/29/19 09:30	
180-86185-12	JOF-SED-IC01-CORLB-0.0/0.5-20190122	Solid	01/22/19 11:00	01/29/19 09:30	
180-86185-13	JOF-SED-IC02-CORLB-0.0/0.5-20190122	Solid	01/22/19 11:40	01/29/19 09:30	
180-86185-17	JOF-SED-IC02-CORCC-0.0/0.5-20190122	Solid	01/22/19 12:20	01/29/19 09:30	
180-86185-20	JOF-SED-IC02-CORRB-0.0/0.7-20190122	Solid	01/22/19 12:50	01/29/19 09:30	
180-86185-21	JOF-SED-BH01-CORLB-0.0/0.5-20190122	Solid	01/22/19 13:35	01/29/19 09:30	
180-86185-23	JOF-SED-BH01-CORCC-0.0/0.5-20190122	Solid	01/22/19 14:00	01/29/19 09:30	
180-86185-25	JOF-SED-BH01-CORRB-0.0/0.5-20190122	Solid	01/22/19 14:25	01/29/19 09:30	
180-86185-26	JOF-SED-BH03-CORRB-0.0/0.5-20190122	Solid	01/22/19 14:45	01/29/19 09:30	
180-86185-29	JOF-SED-BH03-CORCC-0.0/0.5-20190122	Solid	01/22/19 15:20	01/29/19 09:30	
180-86185-31	JOF-SED-BH03-CORLB-0.0/0.5-20190122	Solid	01/22/19 15:45	01/29/19 09:30	
180-86185-34	JOF-SED-IC01-DUP01-20190122	Solid	01/22/19 00:00	01/29/19 09:30	
180-86185-37	JOF-SED-CV03-CORLB-0.0/0.5-20190123	Solid	01/23/19 10:00	01/29/19 09:30	
180-86185-40	JOF-SED-CV03-CORCC-0.0/0.5-20190123	Solid	01/23/19 10:53	01/29/19 09:30	
180-86185-41	JOF-SED-CV03-CORRB-0.0/0.5-20190123	Solid	01/23/19 11:10	01/29/19 09:30	
180-86185-44	JOF-SED-CV02-CORLB-0.0/0.5-20190123	Solid	01/23/19 12:25	01/29/19 09:30	
180-86185-46	JOF-SED-CV02-CORCC-0.0/0.5-20190123	Solid	01/23/19 12:45	01/29/19 09:30	
180-86185-48	JOF-SED-CV02-CORRB-0.0/0.5-20190123	Solid	01/23/19 13:05	01/29/19 09:30	
180-86185-49	JOF-SED-CV02-DUP01-20190123	Solid	01/23/19 00:00	01/29/19 09:30	
180-86185-51	JOF-SED-BH02-CORLB-0.0/0.5-20190124	Solid	01/24/19 08:55	01/29/19 09:30	
180-86185-56	JOF-SED-BH02-CORCC-0.0/0.5-20190124	Solid	01/24/19 09:45	01/29/19 09:30	
180-86185-60	JOF-SED-BH02-CORRB-0.0/0.5-20190124	Solid	01/24/19 11:00	01/29/19 09:30	
180-86185-61	JOF-SED-IC01-CORRB-0.0/0.5-20190124	Solid	01/24/19 12:05	01/29/19 09:30	
180-86185-62	JOF-SED-IC01-CORCC-0.0/0.5-20190124	Solid	01/24/19 12:25	01/29/19 09:30	
180-86185-63	JOF-SED-IC01-CORLB-0.0/0.5-20190124	Solid	01/24/19 12:35	01/29/19 09:30	
180-86185-64	JOF-SED-BH02-DUP01-20190124	Solid	01/24/19 00:00	01/29/19 09:30	

Method Summary

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Method	Method Description	Protocol	Laboratory
901.1	Radium-226 & Other Gamma Emitters (GS)	EPA	TAL SL
Dry and Grind	Preparation, Dry and Grind	None	TAL SL
Fill_Geo-21	Fill Geometry, 21-Day In-Growth	None	TAL SL

Protocol References:

EPA = US Environmental Protection Agency
None = None

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Lab Chronicle

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-CV01-CORRB-0.0/0.5-20190122 — Lab Sample ID: 180-86185-3

Date Collected: 01/22/19 08:30 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			247.4 g	1.0 g	429032	05/18/19 23:03	MPT	TAL SL
Total/NA	Analysis	901.1		1			431215	06/10/19 10:53	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-CV01-CORCC-0.0/0.5-20190122 — Lab Sample ID: 180-86185-4

Date Collected: 01/22/19 09:00 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			206.6 g	1.0 g	429032	05/18/19 23:03	MPT	TAL SL
Total/NA	Analysis	901.1		1			431214	06/10/19 10:51	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-CV01-CORLB-0.0/0.5-20190122 — Lab Sample ID: 180-86185-5

Date Collected: 01/22/19 09:20 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			237.9 g	1.0 g	429032	05/18/19 23:03	MPT	TAL SL
Total/NA	Analysis	901.1		1			431279	06/10/19 10:55	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-IC01-CORRB-0.0/0.5-20190122 — Lab Sample ID: 180-86185-8

Date Collected: 01/22/19 10:15 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			228.8 g	1.0 g	429032	05/18/19 23:03	MPT	TAL SL
Total/NA	Analysis	901.1		1			431279	06/10/19 11:47	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-IC01-CORCC-0.0/0.5-20190122 — Lab Sample ID: 180-86185-10

Date Collected: 01/22/19 10:35 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			222.2 g	1.0 g	429032	05/18/19 23:03	MPT	TAL SL
Total/NA	Analysis	901.1		1			431214	06/10/19 12:23	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Lab Chronicle

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-IC01-CORLB-0.0/0.5-20190122 — Lab Sample ID: 180-86185-12

Date Collected: 01/22/19 11:00 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			197.2 g	1.0 g	429032	05/18/19 23:03	MPT	TAL SL
Total/NA	Analysis	901.1		1			431215	06/10/19 13:05	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-IC02-CORLB-0.0/0.5-20190122 — Lab Sample ID: 180-86185-13

Date Collected: 01/22/19 11:40 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			245.3 g	1.0 g	429032	05/18/19 23:03	MPT	TAL SL
Total/NA	Analysis	901.1		1			431214	06/10/19 13:04	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-IC02-CORCC-0.0/0.5-20190122 — Lab Sample ID: 180-86185-17

Date Collected: 01/22/19 12:20 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			214.9 g	1.0 g	429032	05/18/19 23:03	MPT	TAL SL
Total/NA	Analysis	901.1		1			431214	06/10/19 15:04	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-IC02-CORRB-0.0/0.7-20190122 — Lab Sample ID: 180-86185-20

Date Collected: 01/22/19 12:50 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			219.7 g	1.0 g	429032	05/18/19 23:03	MPT	TAL SL
Total/NA	Analysis	901.1		1			431214	06/10/19 15:40	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-BH01-CORLB-0.0/0.5-20190122 — Lab Sample ID: 180-86185-21

Date Collected: 01/22/19 13:35 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			207.6 g	1.0 g	429032	05/18/19 23:03	MPT	TAL SL
Total/NA	Analysis	901.1		1			431279	06/10/19 15:47	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Lab Chronicle

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-BH01-CORCC-0.0/0.5-20190122 — Lab Sample ID: 180-86185-23

Date Collected: 01/22/19 14:00 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			203 g	1.0 g	429541	05/22/19 22:55	SJS	TAL SL
Total/NA	Analysis	901.1		1			431404	06/12/19 06:44	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-BH01-CORRB-0.0/0.5-20190122 — Lab Sample ID: 180-86185-25

Date Collected: 01/22/19 14:25 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			204.7 g	1.0 g	429541	05/22/19 22:55	SJS	TAL SL
Total/NA	Analysis	901.1		1			431400	06/12/19 07:18	CDR	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-BH03-CORRB-0.0/0.5-20190122 — Lab Sample ID: 180-86185-26

Date Collected: 01/22/19 14:45 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			193 g	1.0 g	429541	05/22/19 22:55	SJS	TAL SL
Total/NA	Analysis	901.1		1			431404	06/12/19 07:17	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-BH03-CORCC-0.0/0.5-20190122 — Lab Sample ID: 180-86185-29

Date Collected: 01/22/19 15:20 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			187.6 g	1.0 g	429541	05/22/19 22:55	SJS	TAL SL
Total/NA	Analysis	901.1		1			431401	06/12/19 10:03	CDR	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-BH03-CORLB-0.0/0.5-20190122 — Lab Sample ID: 180-86185-31

Date Collected: 01/22/19 15:45 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			218.4 g	1.0 g	429541	05/22/19 22:55	SJS	TAL SL
Total/NA	Analysis	901.1		1			431402	06/12/19 10:05	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Lab Chronicle

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-IC01-DUP01-20190122 — Lab Sample ID: 180-86185-34

Date Collected: 01/22/19 00:00 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			192.4 g	1.0 g	429541	05/22/19 22:55	SJS	TAL SL
Total/NA	Analysis	901.1		1			431400	06/12/19 10:53	CDR	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-CV03-CORLB-0.0/0.5-20190123 — Lab Sample ID: 180-86185-37

Date Collected: 01/23/19 10:00 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			118.6 g	1.0 g	429541	05/22/19 22:55	SJS	TAL SL
Total/NA	Analysis	901.1		1			431403	06/12/19 10:57	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-CV03-CORCC-0.0/0.5-20190123 — Lab Sample ID: 180-86185-40

Date Collected: 01/23/19 10:53 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			109 g	1.0 g	429541	05/22/19 22:55	SJS	TAL SL
Total/NA	Analysis	901.1		1			431404	06/12/19 11:01	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-CV03-CORRB-0.0/0.5-20190123 — Lab Sample ID: 180-86185-41

Date Collected: 01/23/19 11:10 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			130.2 g	1.0 g	429541	05/22/19 22:55	SJS	TAL SL
Total/NA	Analysis	901.1		1			431398	06/12/19 11:14	CDR	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-CV02-CORLB-0.0/0.5-20190123 — Lab Sample ID: 180-86185-44

Date Collected: 01/23/19 12:25 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			112.3 g	1.0 g	429544	05/23/19 01:22	SJS	TAL SL
Total/NA	Analysis	901.1		1			431523	06/13/19 10:42	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Lab Chronicle

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-CV02-CORCC-0.0/0.5-20190123 — Lab Sample ID: 180-86185-46

Date Collected: 01/23/19 12:45 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			60.3 g	1.0 g	429544	05/23/19 01:22	SJS	TAL SL
Total/NA	Analysis	901.1		1			431526	06/13/19 10:35	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-CV02-CORRB-0.0/0.5-20190123 — Lab Sample ID: 180-86185-48

Date Collected: 01/23/19 13:05 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			231.8 g	1.0 g	429544	05/23/19 01:22	SJS	TAL SL
Total/NA	Analysis	901.1		1			431524	06/13/19 10:40	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-CV02-DUP01-20190123 — Lab Sample ID: 180-86185-49

Date Collected: 01/23/19 00:00 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			209 g	1.0 g	429544	05/23/19 01:22	SJS	TAL SL
Total/NA	Analysis	901.1		1			431525	06/13/19 10:32	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-BH02-CORLB-0.0/0.5-20190124 — Lab Sample ID: 180-86185-51

Date Collected: 01/24/19 08:55 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			89.7 g	1.0 g	429544	05/23/19 01:22	SJS	TAL SL
Total/NA	Analysis	901.1		1			431520	06/13/19 11:04	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-BH02-CORCC-0.0/0.5-20190124 — Lab Sample ID: 180-86185-56

Date Collected: 01/24/19 09:45 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			103 g	1.0 g	429544	05/23/19 01:22	SJS	TAL SL
Total/NA	Analysis	901.1		1			431523	06/13/19 11:47	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Lab Chronicle

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-BH02-CORRB-0.0/0.5-20190124 — Lab Sample ID: 180-86185-60

Date Collected: 01/24/19 11:00 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			65.8 g	1.0 g	429544	05/23/19 01:22	SJS	TAL SL
Total/NA	Analysis	901.1		1			431523	06/13/19 12:51	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-IC01-CORRB-0.0/0.5-20190124 — Lab Sample ID: 180-86185-61

Date Collected: 01/24/19 12:05 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			127.2 g	1.0 g	429544	05/23/19 01:22	SJS	TAL SL
Total/NA	Analysis	901.1		1			431521	06/13/19 11:55	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-IC01-CORCC-0.0/0.5-20190124 — Lab Sample ID: 180-86185-62

Date Collected: 01/24/19 12:25 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			202.9 g	1.0 g	429544	05/23/19 01:22	SJS	TAL SL
Total/NA	Analysis	901.1		1			431524	06/13/19 12:27	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-IC01-CORLB-0.0/0.5-20190124 — Lab Sample ID: 180-86185-63

Date Collected: 01/24/19 12:35 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			193.5 g	1.0 g	429544	05/23/19 01:22	SJS	TAL SL
Total/NA	Analysis	901.1		1			431522	06/13/19 12:58	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Client Sample ID: JOF-SED-BH02-DUP01-20190124 — Lab Sample ID: 180-86185-64

Date Collected: 01/24/19 00:00 — **Matrix: Solid**
Date Received: 01/29/19 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	427477	05/07/19 15:25	DRO	TAL SL
Total/NA	Prep	Fill_Geo-21			65.6 g	1.0 g	429544	05/23/19 01:22	SJS	TAL SL
Total/NA	Analysis	901.1		1			431521	06/13/19 15:27	KLS	TAL SL
	Instrument ID:	GAMMAVISION								

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Analyst References:

Lab: TAL SL

- Batch Type: Leach
  - DRO = David Oetter
- Batch Type: Prep
  - MPT = Michael Tucker
  - SJS = Sean Small
- Batch Type: Analysis
  - CDR = Conrad Reuscher
  - KLS = Kody Saulters

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-CV01-CORRB-0.0/0.5-20190122

Lab Sample ID: 180-86185-3

Date Collected: 01/22/19 08:30
Date Received: 01/29/19 09:30

Matrix: Solid

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	2.62		0.354	0.403			pCi/g	05/18/19 23:03	06/10/19 10:53	1
Radium-226	1.17		0.210	0.243	1.00	0.160	pCi/g	05/18/19 23:03	06/10/19 10:53	1
Radium-228	1.45		0.285	0.321		0.109	pCi/g	05/18/19 23:03	06/10/19 10:53	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-CV01-CORCC-0.0/0.5-20190122

Lab Sample ID: 180-86185-4

Date Collected: 01/22/19 09:00
Date Received: 01/29/19 09:30

Matrix: Solid

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	5.81		0.647	0.784			pCi/g	05/18/19 23:03	06/10/19 10:51	1
Radium-226	3.91		0.481	0.624	1.00	0.277	pCi/g	05/18/19 23:03	06/10/19 10:51	1
Radium-228	1.90		0.433	0.474		0.182	pCi/g	05/18/19 23:03	06/10/19 10:51	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-CV01-CORLB-0.0/0.5-20190122

Lab Sample ID: 180-86185-5

Date Collected: 01/22/19 09:20

Matrix: Solid

Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	3.01		0.432	0.484			pCi/g	05/18/19 23:03	06/10/19 10:55	1
Radium-226	1.53		0.323	0.359	1.00	0.227	pCi/g	05/18/19 23:03	06/10/19 10:55	1
Radium-228	1.48		0.287	0.324		0.276	pCi/g	05/18/19 23:03	06/10/19 10:55	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-IC01-CORRB-0.0/0.5-20190122

Lab Sample ID: 180-86185-8

Date Collected: 01/22/19 10:15

Matrix: Solid

Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	2.33		0.441	0.473			pCi/g	05/18/19 23:03	06/10/19 11:47	1
Radium-226	0.942		0.239	0.258	1.00	0.179	pCi/g	05/18/19 23:03	06/10/19 11:47	1
Radium-228	1.39		0.371	0.397		0.197	pCi/g	05/18/19 23:03	06/10/19 11:47	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-IC01-CORCC-0.0/0.5-20190122

Lab Sample ID: 180-86185-10

Date Collected: 01/22/19 10:35

Matrix: Solid

Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	2.96		0.476	0.521			pCi/g	05/18/19 23:03	06/10/19 12:23	1
Radium-226	1.40		0.290	0.323	1.00	0.224	pCi/g	05/18/19 23:03	06/10/19 12:23	1
Radium-228	1.56		0.377	0.409		0.169	pCi/g	05/18/19 23:03	06/10/19 12:23	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-IC01-CORLB-0.0/0.5-20190122

Lab Sample ID: 180-86185-12

Date Collected: 01/22/19 11:00

Matrix: Solid

Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	2.79		0.432	0.477			pCi/g	05/18/19 23:03	06/10/19 13:05	1
Radium-226	1.47		0.264	0.305	1.00	0.178	pCi/g	05/18/19 23:03	06/10/19 13:05	1
Radium-228	1.32		0.342	0.367		0.482	pCi/g	05/18/19 23:03	06/10/19 13:05	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-IC02-CORLB-0.0/0.5-20190122

Lab Sample ID: 180-86185-13

Date Collected: 01/22/19 11:40

Matrix: Solid

Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	2.21		0.408	0.437			pCi/g	05/18/19 23:03	06/10/19 13:04	1
Radium-226	1.11		0.278	0.300	1.00	0.251	pCi/g	05/18/19 23:03	06/10/19 13:04	1
Radium-228	1.10		0.298	0.318		0.273	pCi/g	05/18/19 23:03	06/10/19 13:04	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-IC02-CORCC-0.0/0.5-20190122

Lab Sample ID: 180-86185-17

Date Collected: 01/22/19 12:20

Matrix: Solid

Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	3.31		0.491	0.548			pCi/g	05/18/19 23:03	06/10/19 15:04	1
Radium-226	1.28		0.291	0.319	1.00	0.297	pCi/g	05/18/19 23:03	06/10/19 15:04	1
Radium-228	2.03		0.396	0.446		0.239	pCi/g	05/18/19 23:03	06/10/19 15:04	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-IC02-CORRB-0.0/0.7-20190122

Lab Sample ID: 180-86185-20

Date Collected: 01/22/19 12:50
Date Received: 01/29/19 09:30

Matrix: Solid

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	3.20		0.542	0.588			pCi/g	05/18/19 23:03	06/10/19 15:40	1
Radium-226	1.46		0.281	0.318	1.00	0.199	pCi/g	05/18/19 23:03	06/10/19 15:40	1
Radium-228	1.74		0.463	0.495		0.305	pCi/g	05/18/19 23:03	06/10/19 15:40	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-BH01-CORLB-0.0/0.5-20190122

Lab Sample ID: 180-86185-21

Date Collected: 01/22/19 13:35

Matrix: Solid

Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	**1.78**		0.363	0.391			pCi/g	05/18/19 23:03	06/10/19 15:47	1
Radium-226	**1.39**		0.300	0.331	1.00	0.201	pCi/g	05/18/19 23:03	06/10/19 15:47	1
Radium-228	0.391	U	0.205	0.208		0.679	pCi/g	05/18/19 23:03	06/10/19 15:47	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-BH01-CORCC-0.0/0.5-20190122

Lab Sample ID: 180-86185-23

Date Collected: 01/22/19 14:00

Matrix: Solid

Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	2.40		0.598	0.627			pCi/g	05/22/19 22:55	06/12/19 06:44	1
Radium-226	1.63		0.313	0.356	1.00	0.195	pCi/g	05/22/19 22:55	06/12/19 06:44	1
Radium-228	0.765		0.510	0.516		0.630	pCi/g	05/22/19 22:55	06/12/19 06:44	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-BH01-CORRB-0.0/0.5-20190122

Lab Sample ID: 180-86185-25

Date Collected: 01/22/19 14:25

Matrix: Solid

Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	3.45		0.551	0.604			pCi/g	05/22/19 22:55	06/12/19 07:18	1
Radium-226	1.70		0.363	0.403	1.00	0.293	pCi/g	05/22/19 22:55	06/12/19 07:18	1
Radium-228	1.75		0.414	0.450		0.184	pCi/g	05/22/19 22:55	06/12/19 07:18	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-BH03-CORRB-0.0/0.5-20190122

Lab Sample ID: 180-86185-26

Date Collected: 01/22/19 14:45

Matrix: Solid

Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	2.65		0.448	0.487			pCi/g	05/22/19 22:55	06/12/19 07:17	1
Radium-226	1.28		0.317	0.344	1.00	0.232	pCi/g	05/22/19 22:55	06/12/19 07:17	1
Radium-228	1.37		0.316	0.345		0.214	pCi/g	05/22/19 22:55	06/12/19 07:17	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-BH03-CORCC-0.0/0.5-20190122

Lab Sample ID: 180-86185-29

Date Collected: 01/22/19 15:20

Matrix: Solid

Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	3.03		0.408	0.464			pCi/g	05/22/19 22:55	06/12/19 10:03	1
Radium-226	1.49		0.291	0.330	1.00	0.209	pCi/g	05/22/19 22:55	06/12/19 10:03	1
Radium-228	1.54		0.286	0.326		0.143	pCi/g	05/22/19 22:55	06/12/19 10:03	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-BH03-CORLB-0.0/0.5-20190122

Lab Sample ID: 180-86185-31

Date Collected: 01/22/19 15:45
Matrix: Solid
Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	3.23		0.519	0.569			pCi/g	05/22/19 22:55	06/12/19 10:05	1
Radium-226	1.57		0.311	0.351	1.00	0.184	pCi/g	05/22/19 22:55	06/12/19 10:05	1
Radium-228	1.66		0.415	0.448		0.230	pCi/g	05/22/19 22:55	06/12/19 10:05	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-IC01-DUP01-20190122

Lab Sample ID: 180-86185-34

Date Collected: 01/22/19 00:00

Matrix: Solid

Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	2.97		0.548	0.589			pCi/g	05/22/19 22:55	06/12/19 10:53	1
Radium-226	1.41		0.416	0.440	1.00	0.376	pCi/g	05/22/19 22:55	06/12/19 10:53	1
Radium-228	1.56		0.357	0.391		0.195	pCi/g	05/22/19 22:55	06/12/19 10:53	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-CV03-CORLB-0.0/0.5-20190123

Lab Sample ID: 180-86185-37

Date Collected: 01/23/19 10:00

Matrix: Solid

Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	3.12		0.366	0.424			pCi/g	05/22/19 22:55	06/12/19 10:57	1
Radium-226	1.64		0.262	0.307	1.00	0.187	pCi/g	05/22/19 22:55	06/12/19 10:57	1
Radium-228	1.48		0.256	0.293		0.203	pCi/g	05/22/19 22:55	06/12/19 10:57	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-CV03-CORCC-0.0/0.5-20190123

Lab Sample ID: 180-86185-40

Date Collected: 01/23/19 10:53

Matrix: Solid

Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	3.04		0.498	0.541			pCi/g	05/22/19 22:55	06/12/19 11:01	1
Radium-226	1.85		0.311	0.359	1.00	0.209	pCi/g	05/22/19 22:55	06/12/19 11:01	1
Radium-228	1.19		0.389	0.405		0.322	pCi/g	05/22/19 22:55	06/12/19 11:01	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-CV03-CORRB-0.0/0.5-20190123

Lab Sample ID: 180-86185-41

Date Collected: 01/23/19 11:10

Matrix: Solid

Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	2.84		0.361	0.415			pCi/g	05/22/19 22:55	06/12/19 11:14	1
Radium-226	1.53		0.232	0.279	1.00	0.199	pCi/g	05/22/19 22:55	06/12/19 11:14	1
Radium-228	1.31		0.277	0.307		0.274	pCi/g	05/22/19 22:55	06/12/19 11:14	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-CV02-CORLB-0.0/0.5-20190123

Lab Sample ID: 180-86185-44

Date Collected: 01/23/19 12:25
Date Received: 01/29/19 09:30

Matrix: Solid

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	3.18		0.421	0.474			pCi/g	05/23/19 01:22	06/13/19 10:42	1
Radium-226	1.51		0.265	0.303	1.00	0.227	pCi/g	05/23/19 01:22	06/13/19 10:42	1
Radium-228	1.67		0.327	0.365		0.350	pCi/g	05/23/19 01:22	06/13/19 10:42	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-CV02-CORCC-0.0/0.5-20190123

Lab Sample ID: 180-86185-46

Date Collected: 01/23/19 12:45
Matrix: Solid
Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	2.39		0.303	0.348			pCi/g	05/23/19 01:22	06/13/19 10:35	1
Radium-226	1.34		0.221	0.259	1.00	0.172	pCi/g	05/23/19 01:22	06/13/19 10:35	1
Radium-228	1.05		0.208	0.233		0.153	pCi/g	05/23/19 01:22	06/13/19 10:35	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-CV02-CORRB-0.0/0.5-20190123

Lab Sample ID: 180-86185-48

Date Collected: 01/23/19 13:05

Matrix: Solid

Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	2.28		0.366	0.403			pCi/g	05/23/19 01:22	06/13/19 10:40	1
Radium-226	0.989		0.226	0.249	1.00	0.164	pCi/g	05/23/19 01:22	06/13/19 10:40	1
Radium-228	1.29		0.288	0.317		0.162	pCi/g	05/23/19 01:22	06/13/19 10:40	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-CV02-DUP01-20190123

Lab Sample ID: 180-86185-49

Date Collected: 01/23/19 00:00
Matrix: Solid
Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	2.97		0.488	0.533			pCi/g	05/23/19 01:22	06/13/19 10:32	1
Radium-226	1.33		0.280	0.311	1.00	0.211	pCi/g	05/23/19 01:22	06/13/19 10:32	1
Radium-228	1.64		0.400	0.433		0.180	pCi/g	05/23/19 01:22	06/13/19 10:32	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-BH02-CORLB-0.0/0.5-20190124

Lab Sample ID: 180-86185-51

Date Collected: 01/24/19 08:55
Matrix: Solid
Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	2.34		0.413	0.444			pCi/g	05/23/19 01:22	06/13/19 11:04	1
Radium-226	1.23		0.267	0.293	1.00	0.219	pCi/g	05/23/19 01:22	06/13/19 11:04	1
Radium-228	1.11		0.315	0.333		0.361	pCi/g	05/23/19 01:22	06/13/19 11:04	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-BH02-CORCC-0.0/0.5-20190124

Lab Sample ID: 180-86185-56

Date Collected: 01/24/19 09:45

Matrix: Solid

Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	2.75		0.478	0.516			pCi/g	05/23/19 01:22	06/13/19 11:47	1
Radium-226	1.61		0.323	0.359	1.00	0.283	pCi/g	05/23/19 01:22	06/13/19 11:47	1
Radium-228	1.14		0.353	0.370		0.634	pCi/g	05/23/19 01:22	06/13/19 11:47	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-BH02-CORRB-0.0/0.5-20190124

Lab Sample ID: 180-86185-60

Date Collected: 01/24/19 11:00
Matrix: Solid
Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	3.32		0.571	0.615			pCi/g	05/23/19 01:22	06/13/19 12:51	1
Radium-226	1.82		0.418	0.454	1.00	0.388	pCi/g	05/23/19 01:22	06/13/19 12:51	1
Radium-228	1.50		0.389	0.415		0.537	pCi/g	05/23/19 01:22	06/13/19 12:51	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-IC01-CORRB-0.0/0.5-20190124

Lab Sample ID: 180-86185-61

Date Collected: 01/24/19 12:05

Matrix: Solid

Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	2.32		0.378	0.414			pCi/g	05/23/19 01:22	06/13/19 11:55	1
Radium-226	0.965		0.235	0.255	1.00	0.191	pCi/g	05/23/19 01:22	06/13/19 11:55	1
Radium-228	1.35		0.296	0.326		0.218	pCi/g	05/23/19 01:22	06/13/19 11:55	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-IC01-CORCC-0.0/0.5-20190124

Lab Sample ID: 180-86185-62

Date Collected: 01/24/19 12:25
Matrix: Solid
Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	2.32		0.385	0.420			pCi/g	05/23/19 01:22	06/13/19 12:27	1
Radium-226	1.02		0.261	0.281	1.00	0.217	pCi/g	05/23/19 01:22	06/13/19 12:27	1
Radium-228	1.30		0.283	0.312		0.185	pCi/g	05/23/19 01:22	06/13/19 12:27	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-IC01-CORLB-0.0/0.5-20190124

Lab Sample ID: 180-86185-63

Date Collected: 01/24/19 12:35

Matrix: Solid

Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	3.36		0.604	0.651			pCi/g	05/23/19 01:22	06/13/19 12:58	1
Radium-226	1.60		0.321	0.360	1.00	0.210	pCi/g	05/23/19 01:22	06/13/19 12:58	1
Radium-228	1.76		0.512	0.542		0.360	pCi/g	05/23/19 01:22	06/13/19 12:58	1

Client Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Client Sample ID: JOF-SED-BH02-DUP01-20190124

Lab Sample ID: 180-86185-64

Date Collected: 01/24/19 00:00
Matrix: Solid
Date Received: 01/29/19 09:30

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	3.57		0.596	0.644			pCi/g	05/23/19 01:22	06/13/19 15:27	1
Radium-226	1.69		0.389	0.422	1.00	0.320	pCi/g	05/23/19 01:22	06/13/19 15:27	1
Radium-228	1.88		0.452	0.487		0.233	pCi/g	05/23/19 01:22	06/13/19 15:27	1

QC Sample Results

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-429032/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 431214 — **Prep Batch: 429032**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	0.0000	U	0.00000	0.00000			pCi/g	05/18/19 23:03	06/10/19 09:44	1
Radium-226	-0.1767	U	0.144	0.146	1.00	0.565	pCi/g	05/18/19 23:03	06/10/19 09:44	1
Radium-228	-0.01476	U	0.0312	0.0312		0.413	pCi/g	05/18/19 23:03	06/10/19 09:44	1

Lab Sample ID: LCS 160-429032/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 431279 — **Prep Batch: 429032**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Americium-241	96.7	93.86		11.0		1.03	pCi/g	97	87 - 116
Cesium-137	27.7	28.01		2.95		0.206	pCi/g	101	87 - 120
Cobalt-60	11.5	11.70		1.24		0.0533	pCi/g	101	87 - 115

Lab Sample ID: 180-86185-12 DU — **Client Sample ID: JOF-SED-IC01-CORLB-0.0/0.5-20190122**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 431214 — **Prep Batch: 429032**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium 226 and 228 (positive only)	2.79		3.533		0.566			pCi/g	0.71	
Radium-226	1.47		1.752		0.383	1.00	0.237	pCi/g	0.40	1
Radium-228	1.32		1.781		0.417		0.537	pCi/g	0.58	1

Lab Sample ID: MB 160-429541/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 431401 — **Prep Batch: 429541**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	0.08500	U	0.139	0.139			pCi/g	05/22/19 22:55	06/12/19 06:33	1
Radium-226	-0.01363	U	0.106	0.106	1.00	0.192	pCi/g	05/22/19 22:55	06/12/19 06:33	1
Radium-228	0.08500	U	0.139	0.139		0.165	pCi/g	05/22/19 22:55	06/12/19 06:33	1

Lab Sample ID: LCS 160-429541/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 431400 — **Prep Batch: 429541**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Americium-241	96.7	97.84		11.5		1.18	pCi/g	101	87 - 116
Cesium-137	27.7	30.20		3.18		0.296	pCi/g	109	87 - 120
Cobalt-60	11.5	12.12		1.27		0.172	pCi/g	105	87 - 115

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS) (Continued)

Lab Sample ID: 180-86185-A-22-C DU — **Client Sample ID: 180-86185-A-22-C DU**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 431401 — **Prep Batch: 429541**

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium 226 and 228 (positive only)	2.86			2.820		0.536			pCi/g			0.04	
Radium-226	1.43			1.594		0.364	1.00	0.247	pCi/g			0.22	1
Radium-228	1.43			1.226		0.393		0.254	pCi/g			0.26	1

Lab Sample ID: MB 160-429544/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 431520 — **Prep Batch: 429544**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228 (positive only)	0.1108	U	0.08370	0.08450			pCi/g	05/23/19 01:22	06/13/19 10:19	1
Radium-226	-0.02477	U	0.0961	0.0961	1.00	0.252	pCi/g	05/23/19 01:22	06/13/19 10:19	1
Radium-228	0.1108	U	0.0837	0.0845		0.117	pCi/g	05/23/19 01:22	06/13/19 10:19	1

Lab Sample ID: LCS 160-429544/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 431521 — **Prep Batch: 429544**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Americium-241			96.7	104.5		11.0		1.11	pCi/g	108	87 - 116		
Cesium-137			27.7	27.69		2.97		0.243	pCi/g	100	87 - 120		
Cobalt-60			11.5	11.23		1.19		0.138	pCi/g	97	87 - 115		

Lab Sample ID: 180-86185-48 DU — **Client Sample ID: JOF-SED-CV02-CORRB-0.0/0.5-20190123**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 431828 — **Prep Batch: 429544**

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium 226 and 228 (positive only)	2.28			2.958		0.412			pCi/g			0.83	
Radium-226	0.989			1.114		0.233	1.00	0.137	pCi/g			0.26	1
Radium-228	1.29			1.844		0.340		0.116	pCi/g			0.84	1

QC Association Summary

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Rad

Leach Batch: 427477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86185-3	JOF-SED-CV01-CORRB-0.0/0.5-20190122	Total/NA	Solid	Dry and Grind	
180-86185-4	JOF-SED-CV01-CORCC-0.0/0.5-20190122	Total/NA	Solid	Dry and Grind	
180-86185-5	JOF-SED-CV01-CORLB-0.0/0.5-20190122	Total/NA	Solid	Dry and Grind	
180-86185-8	JOF-SED-IC01-CORRB-0.0/0.5-20190122	Total/NA	Solid	Dry and Grind	
180-86185-10	JOF-SED-IC01-CORCC-0.0/0.5-20190122	Total/NA	Solid	Dry and Grind	
180-86185-12	JOF-SED-IC01-CORLB-0.0/0.5-20190122	Total/NA	Solid	Dry and Grind	
180-86185-13	JOF-SED-IC02-CORLB-0.0/0.5-20190122	Total/NA	Solid	Dry and Grind	
180-86185-17	JOF-SED-IC02-CORCC-0.0/0.5-20190122	Total/NA	Solid	Dry and Grind	
180-86185-20	JOF-SED-IC02-CORRB-0.0/0.7-20190122	Total/NA	Solid	Dry and Grind	
180-86185-21	JOF-SED-BH01-CORLB-0.0/0.5-20190122	Total/NA	Solid	Dry and Grind	
180-86185-23	JOF-SED-BH01-CORCC-0.0/0.5-20190122	Total/NA	Solid	Dry and Grind	
180-86185-25	JOF-SED-BH01-CORRB-0.0/0.5-20190122	Total/NA	Solid	Dry and Grind	
180-86185-26	JOF-SED-BH03-CORRB-0.0/0.5-20190122	Total/NA	Solid	Dry and Grind	
180-86185-29	JOF-SED-BH03-CORCC-0.0/0.5-20190122	Total/NA	Solid	Dry and Grind	
180-86185-31	JOF-SED-BH03-CORLB-0.0/0.5-20190122	Total/NA	Solid	Dry and Grind	
180-86185-34	JOF-SED-IC01-DUP01-20190122	Total/NA	Solid	Dry and Grind	
180-86185-37	JOF-SED-CV03-CORLB-0.0/0.5-20190123	Total/NA	Solid	Dry and Grind	
180-86185-40	JOF-SED-CV03-CORCC-0.0/0.5-20190123	Total/NA	Solid	Dry and Grind	
180-86185-41	JOF-SED-CV03-CORRB-0.0/0.5-20190123	Total/NA	Solid	Dry and Grind	
180-86185-44	JOF-SED-CV02-CORLB-0.0/0.5-20190123	Total/NA	Solid	Dry and Grind	
180-86185-46	JOF-SED-CV02-CORCC-0.0/0.5-20190123	Total/NA	Solid	Dry and Grind	
180-86185-48	JOF-SED-CV02-CORRB-0.0/0.5-20190123	Total/NA	Solid	Dry and Grind	
180-86185-49	JOF-SED-CV02-DUP01-20190123	Total/NA	Solid	Dry and Grind	
180-86185-51	JOF-SED-BH02-CORLB-0.0/0.5-20190124	Total/NA	Solid	Dry and Grind	
180-86185-56	JOF-SED-BH02-CORCC-0.0/0.5-20190124	Total/NA	Solid	Dry and Grind	
180-86185-60	JOF-SED-BH02-CORRB-0.0/0.5-20190124	Total/NA	Solid	Dry and Grind	
180-86185-61	JOF-SED-IC01-CORRB-0.0/0.5-20190124	Total/NA	Solid	Dry and Grind	
180-86185-62	JOF-SED-IC01-CORCC-0.0/0.5-20190124	Total/NA	Solid	Dry and Grind	
180-86185-63	JOF-SED-IC01-CORLB-0.0/0.5-20190124	Total/NA	Solid	Dry and Grind	
180-86185-64	JOF-SED-BH02-DUP01-20190124	Total/NA	Solid	Dry and Grind	
180-86185-12 DU	JOF-SED-IC01-CORLB-0.0/0.5-20190122	Total/NA	Solid	Dry and Grind	
180-86185-48 DU	JOF-SED-CV02-CORRB-0.0/0.5-20190123	Total/NA	Solid	Dry and Grind	
180-86185-A-22-C DU	180-86185-A-22-C DU	Total/NA	Solid	Dry and Grind	

Prep Batch: 429032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86185-3	JOF-SED-CV01-CORRB-0.0/0.5-20190122	Total/NA	Solid	Fill_Geo-21	427477
180-86185-4	JOF-SED-CV01-CORCC-0.0/0.5-20190122	Total/NA	Solid	Fill_Geo-21	427477
180-86185-5	JOF-SED-CV01-CORLB-0.0/0.5-20190122	Total/NA	Solid	Fill_Geo-21	427477
180-86185-8	JOF-SED-IC01-CORRB-0.0/0.5-20190122	Total/NA	Solid	Fill_Geo-21	427477
180-86185-10	JOF-SED-IC01-CORCC-0.0/0.5-20190122	Total/NA	Solid	Fill_Geo-21	427477
180-86185-12	JOF-SED-IC01-CORLB-0.0/0.5-20190122	Total/NA	Solid	Fill_Geo-21	427477
180-86185-13	JOF-SED-IC02-CORLB-0.0/0.5-20190122	Total/NA	Solid	Fill_Geo-21	427477
180-86185-17	JOF-SED-IC02-CORCC-0.0/0.5-20190122	Total/NA	Solid	Fill_Geo-21	427477
180-86185-20	JOF-SED-IC02-CORRB-0.0/0.7-20190122	Total/NA	Solid	Fill_Geo-21	427477
180-86185-21	JOF-SED-BH01-CORLB-0.0/0.5-20190122	Total/NA	Solid	Fill_Geo-21	427477
MB 160-429032/1-A	Method Blank	Total/NA	Solid	Fill_Geo-21	
LCS 160-429032/2-A	Lab Control Sample	Total/NA	Solid	Fill_Geo-21	
180-86185-12 DU	JOF-SED-IC01-CORLB-0.0/0.5-20190122	Total/NA	Solid	Fill_Geo-21	427477

QC Association Summary

Client: Environmental Standards Inc.
Project/Site: JOF_SED_20190122_1B

Job ID: 180-86185-2

Rad

Prep Batch: 429541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86185-23	JOF-SED-BH01-CORCC-0.0/0.5-20190122	Total/NA	Solid	Fill_Geo-21	427477
180-86185-25	JOF-SED-BH01-CORRB-0.0/0.5-20190122	Total/NA	Solid	Fill_Geo-21	427477
180-86185-26	JOF-SED-BH03-CORRB-0.0/0.5-20190122	Total/NA	Solid	Fill_Geo-21	427477
180-86185-29	JOF-SED-BH03-CORCC-0.0/0.5-20190122	Total/NA	Solid	Fill_Geo-21	427477
180-86185-31	JOF-SED-BH03-CORLB-0.0/0.5-20190122	Total/NA	Solid	Fill_Geo-21	427477
180-86185-34	JOF-SED-IC01-DUP01-20190122	Total/NA	Solid	Fill_Geo-21	427477
180-86185-37	JOF-SED-CV03-CORLB-0.0/0.5-20190123	Total/NA	Solid	Fill_Geo-21	427477
180-86185-40	JOF-SED-CV03-CORCC-0.0/0.5-20190123	Total/NA	Solid	Fill_Geo-21	427477
180-86185-41	JOF-SED-CV03-CORRB-0.0/0.5-20190123	Total/NA	Solid	Fill_Geo-21	427477
MB 160-429541/1-A	Method Blank	Total/NA	Solid	Fill_Geo-21	
LCS 160-429541/2-A	Lab Control Sample	Total/NA	Solid	Fill_Geo-21	
180-86185-A-22-C DU	180-86185-A-22-C DU	Total/NA	Solid	Fill_Geo-21	427477

Prep Batch: 429544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86185-44	JOF-SED-CV02-CORLB-0.0/0.5-20190123	Total/NA	Solid	Fill_Geo-21	427477
180-86185-46	JOF-SED-CV02-CORCC-0.0/0.5-20190123	Total/NA	Solid	Fill_Geo-21	427477
180-86185-48	JOF-SED-CV02-CORRB-0.0/0.5-20190123	Total/NA	Solid	Fill_Geo-21	427477
180-86185-49	JOF-SED-CV02-DUP01-20190123	Total/NA	Solid	Fill_Geo-21	427477
180-86185-51	JOF-SED-BH02-CORLB-0.0/0.5-20190124	Total/NA	Solid	Fill_Geo-21	427477
180-86185-56	JOF-SED-BH02-CORCC-0.0/0.5-20190124	Total/NA	Solid	Fill_Geo-21	427477
180-86185-60	JOF-SED-BH02-CORRB-0.0/0.5-20190124	Total/NA	Solid	Fill_Geo-21	427477
180-86185-61	JOF-SED-IC01-CORRB-0.0/0.5-20190124	Total/NA	Solid	Fill_Geo-21	427477
180-86185-62	JOF-SED-IC01-CORCC-0.0/0.5-20190124	Total/NA	Solid	Fill_Geo-21	427477
180-86185-63	JOF-SED-IC01-CORLB-0.0/0.5-20190124	Total/NA	Solid	Fill_Geo-21	427477
180-86185-64	JOF-SED-BH02-DUP01-20190124	Total/NA	Solid	Fill_Geo-21	427477
MB 160-429544/1-A	Method Blank	Total/NA	Solid	Fill_Geo-21	
LCS 160-429544/2-A	Lab Control Sample	Total/NA	Solid	Fill_Geo-21	
180-86185-48 DU	JOF-SED-CV02-CORRB-0.0/0.5-20190123	Total/NA	Solid	Fill_Geo-21	427477

TVA Environmental Investigations

Tennessee Valley Authority

COOLER No.:	1	of	4
COC No:	JOF_SED_20190122_1B		
1 of 5 Pages			
Task Desc:	JOF_SED		

Chain-of-Custody / Analytical Request Document

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

180-86185 Chain of Custody

Required Ship to Lab:	
Lab Name:	TestAmerica Pittsburgh
Lab Address:	301 Alpha Drive RIDC Park 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 #:	JOHNSONVILLE FOSSIL PLANT		
Project #:	077977		
Site Address	535 Steam Plant Road		
City	New Johnsonville	State, Zip:	37134
Site PM Name:	Roy Quinn		
Phone/Fax:	423-751-3753		
Site PM Email:	jrquinn@tva.gov		

Required Sampler Information			
Sampler:	Tyler Baker		
Sampling Company:	TVA		
Address:	TVA Chickamauga Power Service Center, 4601 N. Access Road		
City/State:	Chattanooga, TN	Phone:	423-876-6733
Sampling Team Number:	1		
Send EDD/Hard Copy to:	tva-ei@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 (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth: Depth Unit: Start Depth	Sample Depth: Feet: End Depth	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis: JOF_SEDIMENT_RAD	Preserve (see comments): JOF_SEDIMENT_BLANKS_RAD
1	JOF-SED-CV01-EB01-20190122	CV01	NA	NA	AQ	G	EB	1/22/2019	0700	3		☐		X
2	JOF-SED-CV01-FB01-20190122	CV01	NA	NA	AQ	G	FB	1/22/2019	0710	3		☐		X
3	JOF-SED-CV01-CORRB-0.0/0.5-20190122	CV01	0.0	0.5	SED	G	N	1/22/2019	0830	1		☐	X	
4	JOF-SED-CV01-CORCC-0.0/0.5-20190122	CV01	0.0	0.5	SED	G	N	1/22/2019	0900	1		☐	X	
5	JOF-SED-CV01-CORLB-0.0/0.5-20190122	CV01	0.0	0.5	SED	G	N	1/22/2019	0920	1		☐	X	
6	JOF-SED-CV01-CORLB-0.5/2.0-20190122	CV01	0.5	2.0	SED	G	N	1/22/2019	0920	1	Hold	☐	X	
7	JOF-SED-CV01-CORLB-2.0/3.8-20190122	CV01	2.0	3.8	SED	G	N	1/22/2019	0920	1	Hold	☐	X	
8	JOF-SED-IC01-CORRB-0.0/0.5-20190122	IC01	0.0	0.5	SED	G	N	1/22/2019	1015	1		☐	X	
9	JOF-SED-IC01-CORRB-0.5/1.5-20190122	IC01	0.5	1.5	SED	G	N	1/22/2019	1015	1	Hold	☐	X	
10	JOF-SED-IC01-CORCC-0.0/0.5-20190122	IC01	0.0	0.5	SED	G	N	1/22/2019	1035	1		☐	X	
11	JOF-SED-IC01-CORCC-0.5/1.6-20190122	IC01	0.5	1.6	SED	G	N	1/22/2019	1035	1	Hold	☐	X	
12	JOF-SED-IC01-CORLB-0.0/0.5-20190122	IC01	0.0	0.5	SED	G	N	1/22/2019	1100	2	Lab Dup	☐	X	
13	JOF-SED-IC02-CORLB-0.0/0.5-20190122	IC02	0.0	0.5	SED	G	N	1/22/2019	1140	1		☐	X	

Additional Comments/Special Instructions:

Additional volume can be used for Laboratory Duplicate.

Samples designated "Hold" should not be analyzed until directed otherwise.

RELINQISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-28-19	1600	[illegible]	1/29/19	1400

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
FedEx	Tyler Baker Tyler Baker

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

Chain-of-Custody / Analytical Request Document

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

COOLER No.:	1 of 4
COC No:	JOF_SED_20190122_1B
2 of 5 Pages	
Task Desc:	JOF_SED

Required Ship to Lab:		Required Project Information:		Required Sampler Information	
Lab Name:	TestAmerica Pittsburgh	Site ID #:	JOHNSONVILLE FOSSIL PLANT	Sampler: Tyler Baker	
Lab Address:	301 Alpha Drive	Project #:	0779777	Sampling Company: TVA	
	RIDC Park	Site Address	535 Steam Plant Road	Address: TVA Chickamauga Power Service Center, 4601 N. Access Road	
	Pittsburgh, PA 15238	City	New Johnsonville State, Zip: 37134	City/State: Chattanooga, TN	Phone: 423-876-6733
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-ei@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 (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth Start Depth (Depth Unit: Feet)	Sample Depth End Depth (Depth Unit: Feet)	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis JOF_SEDIMENT_RAD	Analysis JOF_SEDIMENT_BLANKS_RAD	Filtered N	Filtered N	Preserve see comments	Preserve see comments
1	JOF-SED-IC02-CORLB-0.5/2.0-20190122	IC02	0.5	2.0	SED	G	N	1/22/2019	1140	1	Hold	☐	X					
2	JOF-SED-IC02-CORLB-2.0/3.0-20190122	IC02	2.0	3.0	SED	G	N	1/22/2019	1140	1	Hold	☐	X					
3	JOF-SED-IC02-CORLB-3.0/3.7-20190122	IC02	3.0	3.7	SED	G	N	1/22/2019	1140	1	Hold	☐	X					
4	JOF-SED-IC02-CORCC-0.0/0.5-20190122	IC02	0.0	0.5	SED	G	N	1/22/2019	1220	1		☐	X					
5	JOF-SED-IC02-CORCC-0.5/3.0-20190122	IC02	0.5	3.0	SED	G	N	1/22/2019	1220	1	Hold	☐	X					
6	JOF-SED-IC02-CORCC-3.0/5.4-20190122	IC02	3.0	5.4	SED	G	N	1/22/2019	1220	1	Hold	☐	X					
7	JOF-SED-IC02-CORRB-0.0/0.5-20190122	ICO2	0.0	0.5	SED	G	N	1/22/2019	1250	1		☐	X					
8	JOF-SED-BH01-CORLB-0.0/0.5-20190122	BH01	0.0	0.5	SED	G	N	1/22/2019	1335	1		☐	X					
9	JOF-SED-BH01-CORLB-0.5/1.5-20190122	BH01	0.5	1.5	SED	G	N	1/22/2019	1335	1	Hold	☐	X					
10	JOF-SED-BH01-CORCC-0.0/0.5-20190122	BH01	0.0	0.5	SED	G	N	1/22/2019	1400	1		☐	X					
11	JOF-SED-BH01-CORCC-0.5/1.6-20190122	BH01	0.5	1.6	SED	G	N	1/22/2019	1400	1	Hold	☐	X					
12	JOF-SED-BH01-CORRB-0.0/0.5-20190122	BH01	0.0	0.5	SED	G	N	1/22/2019	1425	1		☐	X					
13	JOF-SED-BH03-CORRB-0.0/0.5-20190122	BH03	0.0	0.5	SED	G	N	1/22/2019	1445	1		☐	X					

Additional Comments/Special Instructions:

Additional volume can be used for Laboratory Duplicate.

Samples designated "Hold" should not be analyzed until directed otherwise.

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-25-19	1600	[illegible]	1/24/19	930

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
FedEx	Tyler Baker Tyler Baker

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.:	1	of	4
COC No:	JOF_SED_20190122_1B		
3 of 5 Pages			
Task Desc:	JOF_SED		

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 #:	JOHNSONVILLE FOSSIL PLANT	Sampler: Tyler Baker	
Lab Address:	301 Alpha Drive	Project #:	0779777	Sampling Company: TVA	
	RIDC Park	Site Address	535 Steam Plant Road	Address: TVA Chickamauga Power Service Center, 4601 N. Access Road	
	Pittsburgh, PA 15238	City	New Johnsonville State, Zip: 37134	City/State: Chattanooga, TN	Phone: 423-876-6733
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-eii@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 (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth: Depth Unit	Sample Depth: Feet Start Depth	Sample Depth: Feet End Depth	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis: JOF_SEDIMENT_RAD (Filtered N, Preserve see comments)	Analysis: JOF_SEDIMENT_BLANKS_RAD (Filtered N, Preserve see comments)
1	JOF-SED-BH03-CORRB-0.5/3.0-20190122	BH03		0.5	3.0	SED	G	N	1/22/2019	1445	1	Hold	☐	X	
2	JOF-SED-BH03-CORRB-3.0/5.5-20190122	BH03		3.0	5.5	SED	G	N	1/22/2019	1445	1	Hold	☐	X	
3	JOF-SED-BH03-CORCC-0.0/0.5-20190122	BH03		0.0	0.5	SED	G	N	1/22/2019	1520	1		☐	X	
4	JOF-SED-BH03-CORCC-0.5/2.5-20190122	BH03		0.5	2.5	SED	G	N	1/22/2019	1520	1	Hold	☐	X	
5	JOF-SED-BH03-CORLB-0.0/0.5-20190122	BH03		0.0	0.5	SED	G	N	1/22/2019	1545	1		☐	X	
6	JOF-SED-BH03-CORLB-0.5/2.5-20190122	BH03		0.5	2.5	SED	G	N	1/22/2019	1545	1	Hold	☐	X	
7	JOF-SED-BH03-CORLB-2.5/4.1-20190122	BH03		2.5	4.1	SED	G	N	1/22/2019	1545	1	Hold	☐	X	
8	JOF-SED-IC01-DUP01-20190122	IC01		NA	NA	SED	G	FD	1/22/2019	NA	1	Duplicate	☐	X	
9	JOF-SED-CV03-EB01-20190123	CV03		NA	NA	AQ	G	EB	1/23/2019	0945	3		☐		X
10	JOF-SED-CV03-FB01-20190123	CV03		NA	NA	AQ	G	FB	1/23/2019	0955	3		☐		X
11	JOF-SED-CV03-CORLB-0.0/0.5-20190123	CV03		0.0	0.5	SED	G	N	1/23/2019	1000	1		☐	X	
12	JOF-SED-CV03-CORLB-0.5/2.5-20190123	CV03		0.5	2.5	SED	G	N	1/23/2019	1000	1	Hold	☐	X	
13	JOF-SED-CV03-CORLB-2.5/5.3-20190123	CV03		2.5	5.3	SED	G	N	1/23/2019	1000	1	Hold	☐	X	

Tyler Baker 1-30-19

Additional Comments/Special Instructions:

Additional volume can be used for Laboratory Duplicate.

Samples designated "Hold" should not be analyzed until directed otherwise.

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-25-19	1600	[illegible]	1/25/19	1700

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

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
FedEX	Tyler Baker Tyler Baker

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.:	1 of 4
COC No:	JOF_SED_20190122_1B
4 of 5 Pages	
Task Desc:	JOF_SED

Required Ship to Lab:		Required Project Information:		Required Sampler Information	
Lab Name:	TestAmerica Pittsburgh	Site ID #:	JOHNSONVILLE FOSSIL PLANT	Sampler: Tyler Baker	
Lab Address:	301 Alpha Drive	Project #:	0779777	Sampling Company: TVA	
	RIDC Park	Site Address	535 Steam Plant Road	Address: TVA Chickamauga Power Service Center, 4601 N. Access Road	
	Pittsburgh, PA 15238	City	New Johnsonville State, Zip: 37134	City/State: Chattanooga, TN	Phone: 423-876-6733
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-ei@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 (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth Depth Unit Start Depth	Sample Depth Feet End Depth	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Filtered	Preserve	Analysis JOF_SEDIMENT_RAD	Analysis JOF_SEDIMENT_BLANKS_RAD
1	JOF-SED-CV03-CORCC-0.0/0.5-20190123	CV03	0.0	0.5	SED	G	N	1/23/2019	1053	1		☐	N	see comments	X	
2	JOF-SED-CV03-CORRB-0.0/0.5-20190123	CV03	0.0	0.5	SED	G	N	1/23/2019	1110	1		☐	N	see comments	X	
3	JOF-SED-CV03-CORRB-0.5/1.5-20190123	CV03	0.5	1.5	SED	G	N	1/23/2019	1110	1	Hold	☐			X	
4	JOF-SED-CV03-CORRB-1.5/2.7-20190123	CV03	1.5	2.7	SED	G	N	1/23/2019	1110	1	Hold	☐			X	
5	JOF-SED-CV02-CORLB-0.0/0.5-20190123	CV02	0.0	0.5	SED	G	N	1/23/2019	1225	1		☐			X	
6	JOF-SED-CV02-CORLB-0.5/2.5-20190123	CV02	0.5	2.5	SED	G	N	1/23/2019	1225	1	Hold	☐			X	
7	JOF-SED-CV02-CORCC-0.0/0.5-20190123	CV02	0.0	0.5	SED	G	N	1/23/2019	1245	1		☐			X	
8	JOF-SED-CV02-CORCC-0.5/1.6-20190123	CV02	0.5	1.6	SED	G	N	1/23/2019	1245	1	Hold	☐			X	
9	JOF-SED-CV02-CORRB-0.0/0.5-20190123	CV02	0.0	0.5	SED	G	N	1/23/2019	1305	2	Lab Dup	☐			X	
10	JOF-SED-CV02-DUP01-20190123	CV02	NA	NA	SED	G	FD	1/23/2019	NA	1	Duplicate	☐			X	
11	JOF-SED-BH02-FB01-20190124	BH02	NA	NA	AQ	G	FB	1/24/2019	0735	3		☐				X
12	JOF-SED-BH02-CORLB-0.0/0.5-20190124	BH02	0.0	0.5	SED	G	N	1/24/2019	0855	1		☐			X	
13	JOF-SED-BH02-CORLB-0.5/3.0-20190124	BH02	0.5	3.0	SED	G	N	1/24/2019	0855	1	Hold	☐			X	

Additional Comments/Special Instructions:

Additional volume can be used for Laboratory Duplicate.

Samples designated "Hold" should not be analyzed until directed otherwise.

RELINQISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-25-19	1600	[illegible]	1/25/19	[illegible]

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

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
FedEx	Tyler Baker Tyler Baker

Form TVA 30067A

TVA Environmental Investigations

Tennessee Valley Authority

COOLER No.:	1	of	4
COC No:	JOF_SED_20190122_1B		
5 of 5 Pages			
Task Desc:	JOF_SED		

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 #:	JOHNSONVILLE FOSSIL PLANT	Sampler: Tyler Baker	
Lab Address:	301 Alpha Drive	Project #:	0779777	Sampling Company: TVA	
	RIDC Park	Site Address	535 Steam Plant Road	Address: TVA Chickamauga Power Service Center, 4601 N. Access Road	
	Pittsburgh, PA 15238	City	New Johnsonville State, Zip: 37134	City/State: Chattanooga, TN	Phone: 423-876-6733
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-ei@envsld.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 (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth: Depth Unit: Start Depth	Sample Depth: Feet: End Depth	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis: JOF_SEDIMENT_RAD	Analysis: JOF_SEDIMENT_BLANKS_RAD	Filtered	Preserve
1	JOF-SED-BH02-CORLB-3.0/4.7-20190124	BH02	3.0	4.7	SED	G	N	1/24/2019	0855	1	Hold	☐	X		N	see comments
2	JOF-SED-BH02-CORLB-4.7/5.7-20190124	BH02	4.7	5.7	SED	G	N	1/24/2019	0855	1	Hold	☐	X		N	see comments
3	JOF-SED-BH02-EB01-20190124	BH02	NA	NA	AQ	G	EB	1/24/2019	0935	3		☐		X		
4	JOF-SED-BH02-CORCC-0.0/0.5-20190124	BH02	0.0	0.5	SED	G	N	1/24/2019	0945	1		☐	X			
5	JOF-SED-BH02-CORCC-0.5/1.7-20190124	BH02	0.5	1.7	SED	G	N	1/24/2019	0945	1	Hold	☐	X			
6	JOF-SED-BH02-CORCC-1.7/3.0-20190124	BH02	1.7	3.0	SED	G	N	1/24/2019	0945	1	Hold	☐	X			
7	JOF-SED-BH02-CORCC-3.0/3.7-20190124	BH02	3.0	3.7	SED	G	N	1/24/2019	0945	1	Hold	☐	X			
8	JOF-SED-BH02-CORRB-0.0/0.5-20190124	BH02	0.0	0.5	SED	G	N	1/24/2019	1100	1		☐	X			
9	JOF-SED-IC01-CORRB-0.0/0.5-20190124	IC02	0.0	0.5	SED	G	N	1/24/2019	1205	1		☐	X			
10	JOF-SED-IC01-CORCC-0.0/0.5-20190124	IC02	0.0	0.5	SED	G	N	1/24/2019	1225	1		☐	X			
11	JOF-SED-IC01-CORLB-0.0/0.5-20190124	IC02	0.0	0.5	SED	G	N	1/24/2019	1235	1		☐	X			
12	JOF-SED-BH02-DUP01-20190124	BH02	NA	NA	SED	G	FD	1/24/2019	NA	1	Duplicate	☐	X			
13												☐				

Additional Comments/Special Instructions:

Additional volume can be used for Laboratory Duplicate.

Samples designated "Hold" should not be analyzed until directed otherwise.

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-28-19	1600	[illegible] TAPitt	1/28/19	1600

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?

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
FedEx	Tyler Baker Tyler Baker

Form TVA 30067A

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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 4
COC No:	JOF_SED_20190122_1B
1 of 5 Pages	
Task Desc:	JOF_SED

Required Ship to Lab:		Required Project Information:		Required Sampler Information	
Lab Name:	TestAmerica Pittsburgh	Site ID #:	JOHNSONVILLE FOSSIL PLANT	Sampler: Tyler Baker	
Lab Address:	301 Alpha Drive	Project #:	0779777	Sampling Company: TVA	
	RIDC Park	Site Address	535 Steam Plant Road	Address: TVA Chickamauga Power Service Center, 4601 N. Access Road	
	Pittsburgh, PA 15238	City	New Johnsonville State, Zip: 37134	City/State: Chattanooga, TN	Phone: 423-876-6733
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-ei@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 (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth: Depth Unit	Sample Depth: Feet Start Depth	Sample Depth: Feet End Depth	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Filtered	Preserve (see comments)	Analysis: JOF_SEDIMENT_RAD	Analysis: JOF_SEDIMENT_BLANKS_RAD
1	JOF-SED-CV01-EB01-20190122	CV01		NA	NA	AQ	G	EB	1/22/2019	0700	3		☐				X
2	JOF-SED-CV01-FB01-20190122	CV01		NA	NA	AQ	G	FB	1/22/2019	0710	3		☐				X
3	JOF-SED-CV01-CORRB-0.0/0.5-20190122	CV01		0.0	0.5	SED	G	N	1/22/2019	0830	1		☐	N		X	
4	JOF-SED-CV01-CORCC-0.0/0.5-20190122	CV01		0.0	0.5	SED	G	N	1/22/2019	0900	1		☐	N		X	
5	JOF-SED-CV01-CORLB-0.0/0.5-20190122	CV01		0.0	0.5	SED	G	N	1/22/2019	0920	1		☐	N		X	
6	JOF-SED-CV01-CORLB-0.5/2.0-20190122	CV01		0.5	2.0	SED	G	N	1/22/2019	0920	1	Hold	☐	N		X	
7	JOF-SED-CV01-CORLB-2.0/3.8-20190122	CV01		2.0	3.8	SED	G	N	1/22/2019	0920	1	Hold	☐	N		X	
8	JOF-SED-IC01-CORRB-0.0/0.5-20190122	IC01		0.0	0.5	SED	G	N	1/22/2019	1015	1		☐	N		X	
9	JOF-SED-IC01-CORRB-0.5/1.5-20190122	IC01		0.5	1.5	SED	G	N	1/22/2019	1015	1	Hold	☐	N		X	
10	JOF-SED-IC01-CORCC-0.0/0.5-20190122	IC01		0.0	0.5	SED	G	N	1/22/2019	1035	1		☐	N		X	
11	JOF-SED-IC01-CORCC-0.5/1.6-20190122	IC01		0.5	1.6	SED	G	N	1/22/2019	1035	1	Hold	☐	N		X	
12	JOF-SED-IC01-CORLB-0.0/0.5-20190122	IC01		0.0	0.5	SED	G	N	1/22/2019	1100	2	Lab Dup	☐	N		X	
13	JOF-SED-IC02-CORLB-0.0/0.5-20190122	IC02		0.0	0.5	SED	G	N	1/22/2019	1140	1		☐	N		X	

Additional Comments/Special Instructions:

Additional volume can be used for Laboratory Duplicate.

Samples designated "Hold" should not be analyzed until directed otherwise.

RELINQISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-23-19	1600	[illegible]	1/23/19	930

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

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
FedEx	Tyler Baker Tyler Baker

Form TVA 30067A

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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 4
COC No:	JOF_SED_20190122_1B
2 of 5 Pages	
Task Desc:	JOF_SED

Required Ship to Lab:	
Lab Name:	TestAmerica Pittsburgh
Lab Address:	301 Alpha Drive RIDC Park 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 #:	JOHNSONVILLE FOSSIL PLANT		
Project #:	0779777		
Site Address	535 Steam Plant Road		
City	New Johnsonville	State, Zip:	37134
Site PM Name:	Roy Quinn		
Phone/Fax:	423-751-3753		
Site PM Email:	jrquinn@tva.gov		

Required Sampler Information			
Sampler: Tyler Baker			
Sampling Company: TVA			
Address: TVA Chickamauga Power Service Center, 4601 N. Access Road			
City/State: Chattanooga, TN		Phone:	423-876-6733
Sampling Team Number:	1		
Send EDD/Hard Copy to:	tva-ei@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 (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth: Depth Unit: Start Depth	Sample Depth: Feet: End Depth	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis: JOF_SEDIMENT_RAD	Analysis: JOF_SEDIMENT_BLANKS_RAD	Filtered: N	Filtered: N	Preserve: see comments	Preserve: see comments
1	JOF-SED-IC02-CORLB-0.5/2.0-20190122	IC02	0.5	2.0	SED	G	N	1/22/2019	1140	1	Hold	☐	X					
2	JOF-SED-IC02-CORLB-2.0/3.0-20190122	IC02	2.0	3.0	SED	G	N	1/22/2019	1140	1	Hold	☐	X					
3	JOF-SED-IC02-CORLB-3.0/3.7-20190122	IC02	3.0	3.7	SED	G	N	1/22/2019	1140	1	Hold	☐	X					
4	JOF-SED-IC02-CORCC-0.0/0.5-20190122	IC02	0.0	0.5	SED	G	N	1/22/2019	1220	1		☐	X					
5	JOF-SED-IC02-CORCC-0.5/3.0-20190122	IC02	0.5	3.0	SED	G	N	1/22/2019	1220	1	Hold	☐	X					
6	JOF-SED-IC02-CORCC-3.0/5.4-20190122	IC02	3.0	5.4	SED	G	N	1/22/2019	1220	1	Hold	☐	X					
7	JOF-SED-IC02-CORRB-0.0/0.5-20190122	ICO2	0.0	0.5	SED	G	N	1/22/2019	1250	1		☐	X					
8	JOF-SED-BH01-CORLB-0.0/0.5-20190122	BH01	0.0	0.5	SED	G	N	1/22/2019	1335	1		☐	X					
9	JOF-SED-BH01-CORLB-0.5/1.5-20190122	BH01	0.5	1.5	SED	G	N	1/22/2019	1335	1	Hold	☐	X					
10	JOF-SED-BH01-CORCC-0.0/0.5-20190122	BH01	0.0	0.5	SED	G	N	1/22/2019	1400	1		☐	X					
11	JOF-SED-BH01-CORCC-0.5/1.6-20190122	BH01	0.5	1.6	SED	G	N	1/22/2019	1400	1	Hold	☐	X					
12	JOF-SED-BH01-CORRB-0.0/0.5-20190122	BH01	0.0	0.5	SED	G	N	1/22/2019	1425	1		☐	X					
13	JOF-SED-BH03-CORRB-0.0/0.5-20190122	BH03	0.0	0.5	SED	G	N	1/22/2019	1445	1		☐	X					

Tyler Baker 1-28-19

Tyler Baker 1-28-19

Additional Comments/Special Instructions:

Additional volume can be used for Laboratory Duplicate.

Samples designated "Hold" should not be analyzed until directed otherwise.

RELINQISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-28-19	1600	[illegible] TAMPIOS	1/29/19	0930

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
FedEx	Tyler Baker Tyler Baker

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

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TVA Environmental Investigations

Tennessee Valley Authority

COOLER No.:	2	of	4
COC No:	JOF_SED_20190122_1B		
3 of 5 Pages			
Task Desc:	JOF_SED		

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, RIDC Park, 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 #: JOHNSONVILLE FOSSIL PLANT
Project #: 0779777
Site Address: 535 Steam Plant Road
City: New Johnsonville State, Zip: 37134
Site PM Name: Roy Quinn
Phone/Fax: 423-751-3753
Site PM Email: jrquinn@tva.gov

Required Sampler Information

Sampler: Tyler Baker
Sampling Company: TVA
Address: TVA Chickamauga Power Service Center, 4601 N. Access Road
City/State: Chattanooga, TN Phone: 423-876-6733
Sampling Team Number: 1
Send EDD/Hard Copy to: tva-ei@envsld.com

Analysis Turnaround Time

☐ CALENDAR DAYS ☑ WORKING DAYS

TAT if different from Below _____

☐ 24 Hours
☐ 3 Business Days
☐ 5 Business Days
☑ 10 Business Days (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth Depth Unit Start Depth	Sample Depth Depth Unit End Depth (Feet)	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis: JOF_SEDIMENT_RAD	Analysis: JOF_SEDIMENT_BLANKS_RAD
1	JOF-SED-BH03-CORRB-0.5/3.0-20190122	BH03	0.5	3.0	SED	G	N	1/22/2019	1445	1	Hold	☐	X	
2	JOF-SED-BH03-CORRB-3.0/5.5-20190122	BH03	3.0	5.5	SED	G	N	1/22/2019	1445	1	Hold	☐	X	
3	JOF-SED-BH03-CORCC-0.0/0.5-20190122	BH03	0.0	0.5	SED	G	N	1/22/2019	1520	1		☐	X	
4	JOF-SED-BH03-CORCC-0.5/2.5-20190122	BH03	0.5	2.5	SED	G	N	1/22/2019	1520	1	Hold	☐	X	
5	JOF-SED-BH03-CORLB-0.0/0.5-20190122	BH03	0.0	0.5	SED	G	N	1/22/2019	1545	1		☐	X	
6	JOF-SED-BH03-CORLB-0.5/2.5-20190122	BH03	0.5	2.5	SED	G	N	1/22/2019	1545	1	Hold	☐	X	
7	JOF-SED-BH03-CORLB-2.5/4.1-20190122	BH03	2.5	4.1	SED	G	N	1/22/2019	1545	1	Hold	☐	X	
8	JOF-SED-IC01-DUP01-20190122	IC01	NA	NA	SED	G	FD	1/22/2019	NA	1	Duplicate	☐	X	
9	JOF-SED-CV03-EB01-20190123	CV03	NA	NA	AQ	G	EB	1/23/2019	0945	3		☐		X
10	JOF-SED-CV03-FB01-20190123	CV03	NA	NA	AQ	G	FB	1/23/2019	0955	3		☐		X
11	JOF-SED-CV03-CORLB-0.0/0.5-20190123	CV03	0.0	0.5	SED	G	N	1/23/2019	1000	1		☐	X	
12	JOF-SED-CV03-CORLB-0.5/2.5-20190123	CV03	0.5	2.5	SED	G	N	1/23/2019	1000	1	Hold	☐	X	
13	JOF-SED-CV03-CORLB-2.5/5.3-20190123	CV03	2.5	5.3	SED	G	N	1/23/2019	1000	1	Hold	☐	X	

Filtered: N N

Preserve: see comments; see comments

Additional Comments/Special Instructions:

Additional volume can be used for Laboratory Duplicate.

Samples designated "Hold" should not be analyzed until directed otherwise.

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-25-19	1600	TM Bill	1/25/19	930

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?

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
FedEX	Tyler Baker Tyler Baker

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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 4
COC No:	JOF_SED_20190122_1B
4 of 5 Pages	
Task Desc:	JOF_SED

Required Ship to Lab:

Lab Name: TestAmerica Pittsburgh
Lab Address: 301 Alpha Drive, RIDC Park, 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 #: JOHNSONVILLE FOSSIL PLANT
Project #: 0779777
Site Address: 535 Steam Plant Road
City: New Johnsonville State, Zip: 37134
Site PM Name: Roy Quinn
Phone/Fax: 423-751-3753
Site PM Email: jrquinn@tva.gov

Required Sampler Information

Sampler: Tyler Baker
Sampling Company: TVA
Address: TVA Chickamauga Power Service Center, 4601 N. Access Road
City/State: Chattanooga, TN Phone: 423-876-6733
Sampling Team Number: 1
Send EDD/Hard Copy to: tva-ei@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 (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth: Start Depth (Depth Unit: Feet)	Sample Depth: End Depth (Depth Unit: Feet)	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis: JOF_SEDIMENT_RAD (Filtered: N, Preserve: see comments)	Analysis: JOF_SEDIMENT_BLANKS_RAD (Filtered: N, Preserve: see comments)
1	JOF-SED-CV03-CORCC-0.0/0.5-20190123	CV03	0.0	0.5	SED	G	N	1/23/2019	1053	1		☐	X	
2	JOF-SED-CV03-CORRB-0.0/0.5-20190123	CV03	0.0	0.5	SED	G	N	1/23/2019	1110	1		☐	X	
3	JOF-SED-CV03-CORRB-0.5/1.5-20190123	CV03	0.5	1.5	SED	G	N	1/23/2019	1110	1	Hold	☐	X	
4	JOF-SED-CV03-CORRB-1.5/2.7-20190123	CV03	1.5	2.7	SED	G	N	1/23/2019	1110	1	Hold	☐	X	
5	JOF-SED-CV02-CORLB-0.0/0.5-20190123	CV02	0.0	0.5	SED	G	N	1/23/2019	1225	1		☐	X	
6	JOF-SED-CV02-CORLB-0.5/2.5-20190123	CV02	0.5	2.5	SED	G	N	1/23/2019	1225	1	Hold	☐	X	
7	JOF-SED-CV02-CORCC-0.0/0.5-20190123	CV02	0.0	0.5	SED	G	N	1/23/2019	1245	1		☐	X	
8	JOF-SED-CV02-CORCC-0.5/1.6-20190123	CV02	0.5	1.6	SED	G	N	1/23/2019	1245	1	Hold	☐	X	
9	JOF-SED-CV02-CORRB-0.0/0.5-20190123	CV02	0.0	0.5	SED	G	N	1/23/2019	1305	2	Lab Dup	☐	X	
10	JOF-SED-CV02-DUP01-20190123	CV02	NA	NA	SED	G	FD	1/23/2019	NA	1	Duplicate	☐	X	
11	JOF-SED-BH02-FB01-20190124	BH02	NA	NA	AQ	G	FB	1/24/2019	0735	3		☐		X
12	JOF-SED-BH02-CORLB-0.0/0.5-20190124	BH02	0.0	0.5	SED	G	N	1/24/2019	0855	1		☐	X	
13	JOF-SED-BH02-CORLB-0.5/3.0-20190124	BH02	0.5	3.0	SED	G	N	1/24/2019	0855	1	Hold	☐	X	

Additional Comments/Special Instructions:

Additional volume can be used for Laboratory Duplicate.

Samples designated "Hold" should not be analyzed until directed otherwise.

RELINQISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-25-19	1600	[illegible]	1/25/19	1600

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
FedEx	Tyler Baker Tyler Baker

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

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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 4
COC No:	JOF_SED_20190122_1B
5 of 5 Pages	
Task Desc:	JOF_SED

Required Ship to Lab:		Required Project Information:		Required Sampler Information	
Lab Name:	TestAmerica Pittsburgh	Site ID #:	JOHNSONVILLE FOSSIL PLANT	Sampler: Tyler Baker	
Lab Address:	301 Alpha Drive	Project #:	0779777	Sampling Company: TVA	
	RIDC Park	Site Address	535 Steam Plant Road	Address: TVA Chickamauga Power Service Center, 4601 N. Access Road	
	Pittsburgh, PA 15238	City	New Johnsonville State, Zip: 37134	City/State: Chattanooga, TN	Phone: 423-876-6733
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-ei@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 (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth: Depth Unit	Sample Depth: Start Depth	Sample Depth: End Depth (Feet)	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis: JOF_SEDIMENT_RAD	Analysis: JOF_SEDIMENT_BLANKS_RAD	Filtered	Preserve
1	JOF-SED-BH02-CORLB-3.0/4.7-20190124	BH02		3.0	4.7	SED	G	N	1/24/2019	0855	1	Hold	☐	X		N	see comments
2	JOF-SED-BH02-CORLB-4.7/5.7-20190124	BH02		4.7	5.7	SED	G	N	1/24/2019	0855	1	Hold	☐	X		N	see comments
3	JOF-SED-BH02-EB01-20190124	BH02		NA	NA	AQ	G	EB	1/24/2019	0935	3		☐		X		
4	JOF-SED-BH02-CORCC-0.0/0.5-20190124	BH02		0.0	0.5	SED	G	N	1/24/2019	0945	1		☐	X			
5	JOF-SED-BH02-CORCC-0.5/1.7-20190124	BH02		0.5	1.7	SED	G	N	1/24/2019	0945	1	Hold	☐	X			
6	JOF-SED-BH02-CORCC-1.7/3.0-20190124	BH02		1.7	3.0	SED	G	N	1/24/2019	0945	1	Hold	☐	X			
7	JOF-SED-BH02-CORCC-3.0/3.7-20190124	BH02		3.0	3.7	SED	G	N	1/24/2019	0945	1	Hold	☐	X			
8	JOF-SED-BH02-CORRB-0.0/0.5-20190124	BH02		0.0	0.5	SED	G	N	1/24/2019	1100	1		☐	X			
9	JOF-SED-IC01-CORRB-0.0/0.5-20190124	IC02		0.0	0.5	SED	G	N	1/24/2019	1205	1		☐	X			
10	JOF-SED-IC01-CORCC-0.0/0.5-20190124	IC02		0.0	0.5	SED	G	N	1/24/2019	1225	1		☐	X			
11	JOF-SED-IC01-CORLB-0.0/0.5-20190124	IC02		0.0	0.5	SED	G	N	1/24/2019	1235	1		☐	X			
12	JOF-SED-BH02-DUP01-20190124	BH02		NA	NA	SED	G	FD	1/24/2019	NA	1	Duplicate	☐	X			
13													☐				

Additional Comments/Special Instructions:

Additional volume can be used for Laboratory Duplicate.

Samples designated "Hold" should not be analyzed until directed otherwise.

RELINQISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-28-19	1600	[illegible] / TMSA	1/28/19	0930

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
FedEx	Tyler Baker Tyler Baker

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	4
COC No:	JOF_SED_20190122_1B		
1 of 5 Pages			
Task Desc:	JOF_SED		

Chain-of-Custody / Analytical Request Document

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

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Lab Name: TestAmerica Pittsburgh
Lab Address: 301 Alpha Drive, RIDC Park, 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 #: JOHNSONVILLE FOSSIL PLANT
Project #: 0779777
Site Address: 535 Steam Plant Road
City: New Johnsonville State, Zip: 37134
Site PM Name: Roy Quinn
Phone/Fax: 423-751-3753
Site PM Email: jrquinn@tva.gov

Required Sampler Information

Sampler: Tyler Baker
Sampling Company: TVA
Address: TVA Chickamauga Power Service Center, 4601 N. Access Road
City/State: Chattanooga, TN Phone: 423-876-6733
Sampling Team Number: 1
Send EDD/Hard Copy to: tva-ei@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 (Standard)

ITEMS #	SAMPLE ID (Samples IDs MUST BE UNIQUE)	SAMPLE LOCATION	Sample Depth: Depth Unit	Sample Depth: Feet Start Depth	Sample Depth: Feet End Depth	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Filtered	Preserve (see comments)	Analysis: JOF_SEDIMENT_RAD	Analysis: JOF_SEDIMENT_BLANKS_RAD
1	JOF-SED-CV01-EB01-20190122	CV01		NA	NA	AQ	G	EB	1/22/2019	0700	3		☐	N			X
2	JOF-SED-CV01-FB01-20190122	CV01		NA	NA	AQ	G	FB	1/22/2019	0710	3		☐	N			X
3	JOF-SED-CV01-CORRB-0.0/0.5-20190122	CV01		0.0	0.5	SED	G	N	1/22/2019	0830	1		☐			X	
4	JOF-SED-CV01-CORCC-0.0/0.5-20190122	CV01		0.0	0.5	SED	G	N	1/22/2019	0900	1		☐			X	
5	JOF-SED-CV01-CORLB-0.0/0.5-20190122	CV01		0.0	0.5	SED	G	N	1/22/2019	0920	1		☐			X	
6	JOF-SED-CV01-CORLB-0.5/2.0-20190122	CV01		0.5	2.0	SED	G	N	1/22/2019	0920	1	Hold	☐			X	
7	JOF-SED-CV01-CORLB-2.0/3.8-20190122	CV01		2.0	3.8	SED	G	N	1/22/2019	0920	1	Hold	☐			X	
8	JOF-SED-IC01-CORRB-0.0/0.5-20190122	IC01		0.0	0.5	SED	G	N	1/22/2019	1015	1		☐			X	
9	JOF-SED-IC01-CORRB-0.5/1.5-20190122	IC01		0.5	1.5	SED	G	N	1/22/2019	1015	1	Hold	☐			X	
10	JOF-SED-IC01-CORCC-0.0/0.5-20190122	IC01		0.0	0.5	SED	G	N	1/22/2019	1035	1		☐			X	
11	JOF-SED-IC01-CORCC-0.5/1.6-20190122	IC01		0.5	1.6	SED	G	N	1/22/2019	1035	1	Hold	☐			X	
12	JOF-SED-IC01-CORLB-0.0/0.5-20190122	IC01		0.0	0.5	SED	G	N	1/22/2019	1100	2	Lab Dup	☐			X	
13	JOF-SED-IC02-CORLB-0.0/0.5-20190122	IC02		0.0	0.5	SED	G	N	1/22/2019	1140	1		☐			X	

Additional Comments/Special Instructions:

Additional volume can be used for Laboratory Duplicate.

Samples designated "Hold" should not be analyzed until directed otherwise.

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-25-19	1600	[illegible]	1/29/19	930

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
FedEx	Tyler Baker Tyler Baker

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

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TVA Environmental Investigations

Tennessee Valley Authority

COOLER No.:	4	of	4
COC No:	JOF_SED_20190122_1B		
1 of 5 Pages			
Task Desc:	JOF_SED		

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, RIDC Park, 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 #: JOHNSONVILLE FOSSIL PLANT
Project #: 0779777
Site Address: 535 Steam Plant Road
City: New Johnsonville State, Zip: 37134
Site PM Name: Roy Quinn
Phone/Fax: 423-751-3753
Site PM Email: jrquinn@tva.gov

Required Sampler Information

Sampler: Tyler Baker
Sampling Company: TVA
Address: TVA Chickamauga Power Service Center, 4601 N. Access Road
City/State: Chattanooga, TN Phone: 423-876-6733
Sampling Team Number: 1
Send EDD/Hard Copy to: tva-ei@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 (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth: Depth Unit: Start Depth	Sample Depth: Depth Unit: End Depth (Feet)	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis: JOF_SEDIMENT_RAD	Analysis: JOF_SEDIMENT_BLANKS_RAD	Filtered	Preserve (see comments)
1	JOF-SED-CV01-EB01-20190122	CV01	NA	NA	AQ	G	EB	1/22/2019	0700	3		☐		X	N	
2	JOF-SED-CV01-FB01-20190122	CV01	NA	NA	AQ	G	FB	1/22/2019	0710	3		☐		X	N	
3	JOF-SED-CV01-CORRB-0.0/0.5-20190122	CV01	0.0	0.5	SED	G	N	1/22/2019	0830	1		☐	X			
4	JOF-SED-CV01-CORCC-0.0/0.5-20190122	CV01	0.0	0.5	SED	G	N	1/22/2019	0900	1		☐	X			
5	JOF-SED-CV01-CORLB-0.0/0.5-20190122	CV01	0.0	0.5	SED	G	N	1/22/2019	0920	1		☐	X			
6	JOF-SED-CV01-CORLB-0.5/2.0-20190122	CV01	0.5	2.0	SED	G	N	1/22/2019	0920	1	Hold	☐	X			
7	JOF-SED-CV01-CORLB-2.0/3.8-20190122	CV01	2.0	3.8	SED	G	N	1/22/2019	0920	1	Hold	☐	X			
8	JOF-SED-IC01-CORRB-0.0/0.5-20190122	IC01	0.0	0.5	SED	G	N	1/22/2019	1015	1		☐	X			
9	JOF-SED-IC01-CORRB-0.5/1.5-20190122	IC01	0.5	1.5	SED	G	N	1/22/2019	1015	1	Hold	☐	X			
10	JOF-SED-IC01-CORCC-0.0/0.5-20190122	IC01	0.0	0.5	SED	G	N	1/22/2019	1035	1		☐	X			
11	JOF-SED-IC01-CORCC-0.5/1.6-20190122	IC01	0.5	1.6	SED	G	N	1/22/2019	1035	1	Hold	☐	X			
12	JOF-SED-IC01-CORLB-0.0/0.5-20190122	IC01	0.0	0.5	SED	G	N	1/22/2019	1100	2	Lab Dup	☐	X			
13	JOF-SED-IC02-CORLB-0.0/0.5-20190122	IC02	0.0	0.5	SED	G	N	1/22/2019	1140	1		☐	X			

Tyler Baker 1-23-19

Tyler Baker 1-23-19

Additional Comments/Special Instructions:

Additional volume can be used for Laboratory Duplicate.

Samples designated "Hold" should not be analyzed until directed otherwise.

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-23-19	1600	[illegible]	1/23/19	930

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
FedEx	Tyler Baker Tyler Baker

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

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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.:	4	of	4
COC No:	JOF_SED_20190122_1B		
2 of 5 Pages			
Task Desc:	JOF_SED		

Required Ship to Lab:

Lab Name: TestAmerica Pittsburgh
Lab Address: 301 Alpha Drive, RIDC Park, 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 #: JOHNSONVILLE FOSSIL PLANT
Project #: 0779777
Site Address: 535 Steam Plant Road
City: New Johnsonville State, Zip: 37134
Site PM Name: Roy Quinn
Phone/Fax: 423-751-3753
Site PM Email: jrquinn@tva.gov

Required Sampler Information

Sampler: Tyler Baker
Sampling Company: TVA
Address: TVA Chickamauga Power Service Center, 4601 N. Access Road
City/State: Chattanooga, TN Phone: 423-876-6733
Sampling Team Number: 1
Send EDD/Hard Copy to: tva-ei@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 (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth Depth Unit Start Depth	Sample Depth Depth Unit End Depth (Feet)	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Filtered	Preserve (see comments)	Analysis JOF_SEDIMENT_RAD	Analysis JOF_SEDIMENT_BLANKS_RAD
1	JOF-SED-IC02-CORLB-0.5/2.0-20190122	IC02	0.5	2.0	SED	G	N	1/22/2019	1140	1	Hold	☐	N		X	
2	JOF-SED-IC02-CORLB-2.0/3.0-20190122	IC02	2.0	3.0	SED	G	N	1/22/2019	1140	1	Hold	☐	N		X	
3	JOF-SED-IC02-CORLB-3.0/3.7-20190122	IC02	3.0	3.7	SED	G	N	1/22/2019	1140	1	Hold	☐			X	
4	JOF-SED-IC02-CORCC-0.0/0.5-20190122	IC02	0.0	0.5	SED	G	N	1/22/2019	1220	1		☐			X	
5	JOF-SED-IC02-CORCC-0.5/3.0-20190122	IC02	0.5	3.0	SED	G	N	1/22/2019	1220	1	Hold	☐			X	
6	JOF-SED-IC02-CORCC-3.0/5.4-20190122	IC02	3.0	5.4	SED	G	N	1/22/2019	1220	1	Hold	☐			X	
7	JOF-SED-IC02-CORRB-0.0/0.5-20190122	ICO2	0.0	0.5	SED	G	N	1/22/2019	1250	1		☐			X	
8	JOF-SED-BH01-CORLB-0.0/0.5-20190122	BH01	0.0	0.5	SED	G	N	1/22/2019	1335	1		☐			X	
9	JOF-SED-BH01-CORLB-0.5/1.5-20190122	BH01	0.5	1.5	SED	G	N	1/22/2019	1335	1	Hold	☐			X	
10	JOF-SED-BH01-CORCC-0.0/0.5-20190122	BH01	0.0	0.5	SED	G	N	1/22/2019	1400	1		☐			X	
11	JOF-SED-BH01-CORCC-0.5/1.6-20190122	BH01	0.5	1.6	SED	G	N	1/22/2019	1400	1	Hold	☐			X	
12	JOF-SED-BH01-CORRB-0.0/0.5-20190122	BH01	0.0	0.5	SED	G	N	1/22/2019	1425	1		☐			X	
13	JOF-SED-BH03-CORRB-0.0/0.5-20190122	BH03	0.0	0.5	SED	G	N	1/22/2019	1445	1		☐			X	

Tyler Baker 1-25-19

Tyler Baker 1-25-19

Additional Comments/Special Instructions:

Additional volume can be used for Laboratory Duplicate.

Samples designated "Hold" should not be analyzed until directed otherwise.

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-25-19	1600	[illegible]	1/25/19	1600

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
FedEx	Tyler Baker Tyler Baker

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

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TVA Environmental Investigations

Tennessee Valley Authority

COOLER No.:	4	of	4
COC No:	JOF_SED_20190122_1B		
3 of 5 Pages			
Task Desc:	JOF_SED		

Chain-of-Custody / Analytical Request Document

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

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Required Project Information:

Site ID #: JOHNSONVILLE FOSSIL PLANT
Project #: 0779777
Site Address: 535 Steam Plant Road
City: New Johnsonville State, Zip: 37134
Site PM Name: Roy Quinn
Phone/Fax: 423-751-3753
Site PM Email: jrquinn@tva.gov

Required Sampler Information

Sampler: Tyler Baker
Sampling Company: TVA
Address: TVA Chickamauga Power Service Center, 4601 N. Access Road
City/State: Chattanooga, TN Phone: 423-876-6733
Sampling Team Number: 1
Send EDD/Hard Copy to: tva-ej@envsld.com

Analysis Turnaround Time

☐ CALENDAR DAYS ☑ WORKING DAYS

TAT if different from Below _____

☐ 24 Hours
☐ 3 Business Days
☐ 5 Business Days
☑ 10 Business Days (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth Depth Unit	Start Depth (Feet)	End Depth (Feet)	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Filtered	Preserve	Analysis JOF_SEDIMENT_RAD	JOF_SEDIMENT_BLANKS_RAD
1	JOF-SED-BH03-CORRB-0.5/3.0-20190122	BH03		0.5	3.0	SED	G	N	1/22/2019	1445	1	Hold	☐	N	see comments	X	
2	JOF-SED-BH03-CORRB-3.0/5.5-20190122	BH03		3.0	5.5	SED	G	N	1/22/2019	1445	1	Hold	☐	N	see comments	X	
3	JOF-SED-BH03-CORCC-0.0/0.5-20190122	BH03		0.0	0.5	SED	G	N	1/22/2019	1520	1		☐			X	
4	JOF-SED-BH03-CORCC-0.5/2.5-20190122	BH03		0.5	2.5	SED	G	N	1/22/2019	1520	1	Hold	☐			X	
5	JOF-SED-BH03-CORLB-0.0/0.5-20190122	BH03		0.0	0.5	SED	G	N	1/22/2019	1545	1		☐			X	
6	JOF-SED-BH03-CORLB-0.5/2.5-20190122	BH03		0.5	2.5	SED	G	N	1/22/2019	1545	1	Hold	☐			X	
7	JOF-SED-BH03-CORLB-2.5/4.1-20190122	BH03		2.5	4.1	SED	G	N	1/22/2019	1545	1	Hold	☐			X	
8	JOF-SED-IC01-DUP01-20190122	IC01		NA	NA	SED	G	FD	1/22/2019	NA	1	Duplicate	☐			X	
9	JOF-SED-CV03-EB01-20190123	CV03		NA	NA	AQ	G	EB	1/23/2019	0945	3		☐				X
10	JOF-SED-CV03-FB01-20190123	CV03		NA	NA	AQ	G	FB	1/23/2019	0955	3		☐				X
11	JOF-SED-CV03-CORLB-0.0/0.5-20190123	CV03		0.0	0.5	SED	G	N	1/23/2019	1000	1		☐			X	
12	JOF-SED-CV03-CORLB-0.5/2.5-20190123	CV03		0.5	2.5	SED	G	N	1/23/2019	1000	1	Hold	☐			X	
13	JOF-SED-CV03-CORLB-2.5/5.3-20190123	CV03		2.5	5.3	SED	G	N	1/23/2019	1000	1	Hold	☐			X	

Additional Comments/Special Instructions:

Additional volume can be used for Laboratory Duplicate.

Samples designated "Hold" should not be analyzed until directed otherwise.

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-23-19	1600	[illegible]	1/24/19	930

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
FedEX	Tyler Baker, Tyler Baker

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

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TVA Environmental Investigations

Tennessee Valley Authority

COOLER No.:	4	of	4
COC No:	JOF_SED_20190122_1B		
4 of 5 Pages			
Task Desc:	JOF_SED		

Chain-of-Custody / Analytical Request Document

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

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Lab Name: TestAmerica Pittsburgh
Lab Address: 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238

Lab Manager Contact Information

Lab PM: Gail Lage
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Lab Email: Gail.Lage@testamericainc.com

Required Project Information:

Site ID #: JOHNSONVILLE FOSSIL PLANT
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Site Address: 535 Steam Plant Road
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Site PM Email: jrquinn@tva.gov

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Sampler: Tyler Baker
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City/State: Chattanooga, TN Phone: 423-876-6733
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Analysis Turnaround Time

☐ CALENDAR DAYS ☑ WORKING DAYS

TAT if different from Below _____

☐ 24 Hours
☐ 3 Business Days
☐ 5 Business Days
☑ 10 Business Days (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth: Depth Unit	Sample Depth: Feet Start Depth	Sample Depth: Feet End Depth	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis: JOF_SEDIMENT_RAD (Filtered N)	Analysis: JOF_SEDIMENT_BLANKS_RAD (Filtered N)
1	JOF-SED-CV03-CORCC-0.0/0.5-20190123	CV03		0.0	0.5	SED	G	N	1/23/2019	1053	1		☐	X	
2	JOF-SED-CV03-CORRB-0.0/0.5-20190123	CV03		0.0	0.5	SED	G	N	1/23/2019	1110	1		☐	X	
3	JOF-SED-CV03-CORRB-0.5/1.5-20190123	CV03		0.5	1.5	SED	G	N	1/23/2019	1110	1	Hold	☐	X	
4	JOF-SED-CV03-CORRB-1.5/2.7-20190123	CV03		1.5	2.7	SED	G	N	1/23/2019	1110	1	Hold	☐	X	
5	JOF-SED-CV02-CORLB-0.0/0.5-20190123	CV02		0.0	0.5	SED	G	N	1/23/2019	1225	1		☐	X	
6	JOF-SED-CV02-CORLB-0.5/2.5-20190123	CV02		0.5	2.5	SED	G	N	1/23/2019	1225	1	Hold	☐	X	
7	JOF-SED-CV02-CORCC-0.0/0.5-20190123	CV02		0.0	0.5	SED	G	N	1/23/2019	1245	1		☐	X	
8	JOF-SED-CV02-CORCC-0.5/1.6-20190123	CV02		0.5	1.6	SED	G	N	1/23/2019	1245	1	Hold	☐	X	
9	JOF-SED-CV02-CORRB-0.0/0.5-20190123	CV02		0.0	0.5	SED	G	N	1/23/2019	1305	2	Lab Dup	☐	X	
10	JOF-SED-CV02-DUP01-20190123	CV02		NA	NA	SED	G	FD	1/23/2019	NA	1	Duplicate	☐	X	
11	JOF-SED-BH02-FB01-20190124	BH02		NA	NA	AQ	G	FB	1/24/2019	0735	3		☐		X
12	JOF-SED-BH02-CORLB-0.0/0.5-20190124	BH02		0.0	0.5	SED	G	N	1/24/2019	0855	1		☐	X	
13	JOF-SED-BH02-CORLB-0.5/3.0-20190124	BH02		0.5	3.0	SED	G	N	1/24/2019	0855	1	Hold	☐	X	

Preserve: see comments

Additional Comments/Special Instructions:

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RELINQISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-25-19	1600	[illegible]	1/25/19	630

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
FedEx	Tyler Baker Tyler Baker

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

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TVA Environmental Investigations

Tennessee Valley Authority

COOLER No.:	4	of	4
COC No:	JOF_SED_20190122_1B		
5 of 5 Pages			
Task Desc:	JOF_SED		

Chain-of-Custody / Analytical Request Document

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Required Ship to Lab:		Required Project Information:		Required Sampler Information	
Lab Name:	TestAmerica Pittsburgh	Site ID #:	JOHNSONVILLE FOSSIL PLANT	Sampler: Tyler Baker	
Lab Address:	301 Alpha Drive	Project #:	0779777	Sampling Company: TVA	
	RIDC Park	Site Address	535 Steam Plant Road	Address: TVA Chickamauga Power Service Center, 4601 N. Access Road	
	Pittsburgh, PA 15238	City	New Johnsonville State, Zip: 37134	City/State: Chattanooga, TN	Phone: 423-876-6733
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-ei@envstd.com
Lab Email:	Gail.Lage@testamericainc.com				

Analysis Turnaround Time

☐ CALENDAR DAYS ☑ WORKING DAYS

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☐ 5 Business Days
☑ 10 Business Days (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth Depth Unit	Sample Depth Feet Start Depth	Sample Depth Feet End Depth	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis JOF_SEDIMENT_RAD (Filtered N)	Analysis JOF_SEDIMENT_BLANKS_RAD (Filtered N; Preserve see comments)
1	JOF-SED-BH02-CORLB-3.0/4.7-20190124	BH02		3.0	4.7	SED	G	N	1/24/2019	0855	1	Hold	☐	X	
2	JOF-SED-BH02-CORLB-4.7/5.7-20190124	BH02		4.7	5.7	SED	G	N	1/24/2019	0855	1	Hold	☐	X	
3	JOF-SED-BH02-EB01-20190124	BH02		NA	NA	AQ	G	EB	1/24/2019	0935	3		☐		X
4	JOF-SED-BH02-CORCC-0.0/0.5-20190124	BH02		0.0	0.5	SED	G	N	1/24/2019	0945	1		☐	X	
5	JOF-SED-BH02-CORCC-0.5/1.7-20190124	BH02		0.5	1.7	SED	G	N	1/24/2019	0945	1	Hold	☐	X	
6	JOF-SED-BH02-CORCC-1.7/3.0-20190124	BH02		1.7	3.0	SED	G	N	1/24/2019	0945	1	Hold	☐	X	
7	JOF-SED-BH02-CORCC-3.0/3.7-20190124	BH02		3.0	3.7	SED	G	N	1/24/2019	0945	1	Hold	☐	X	
8	JOF-SED-BH02-CORRB-0.0/0.5-20190124	BH02		0.0	0.5	SED	G	N	1/24/2019	1100	1		☐	X	
9	JOF-SED-IC01-CORRB-0.0/0.5-20190124	IC02		0.0	0.5	SED	G	N	1/24/2019	1205	1		☐	X	
10	JOF-SED-IC01-CORCC-0.0/0.5-20190124	IC02		0.0	0.5	SED	G	N	1/24/2019	1225	1		☐	X	
11	JOF-SED-IC01-CORLB-0.0/0.5-20190124	IC02		0.0	0.5	SED	G	N	1/24/2019	1235	1		☐	X	
12	JOF-SED-BH02-DUP01-20190124	BH02		NA	NA	SED	G	FD	1/24/2019	NA	1	Duplicate	☐	X	
13													☐		

Additional Comments/Special Instructions:

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RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-28-19	1000	[illegible] JAMES	1/29/19	1550

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

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
FedEx	Tyler Baker Tyler Baker

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.:	1 of 4
COC No:	JOF_SED_20190122_1B
1 of 5 Pages	[redacted]
Task Desc:	JOF_SED

Rev-1 DG 2/8/19
Rev-2 TFB 4-7-21

180-86185 Chain of Custody

Required Ship to Lab:		Required Project Information:		Required Sampler Information	
Lab Name:	TestAmerica Pittsburgh	Site ID #:	JOHNSONVILLE FOSSIL PLANT	Sampler: Tyler Baker	
Lab Address:	301 Alpha Drive	Project #:	0779777	Sampling Company: TVA	
	RIDC Park	Site Address	535 Steam Plant Road	Address: TVA Chickamauga Power Service Center, 4601 N Access Road	
	Pittsburgh, PA 15238	City	New Johnsonville State, Zip: 37134	City/State: Chattanooga, TN	Phone: 423-876-6733
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-ei@envsld.com
Lab Email:	Gail.Lage@testamericainc.com				

Analysis Turnaround Time

- [ ] CALENDAR DAYS
- [x] WORKING DAYS

TAT if different from Below _____

- [ ] 24 Hours
- [ ] 4 Business Days
- [ ] 5 Business Days
- [x] 10 Business Days (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth Start Depth	Sample 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 JOF_SEDIMENT_RAD	Analysis JOF_SEDIMENT_BLANKS_RAD	Preserve see comments	see comments
1	JOF-SED-CV01-EB01-20190122	CV01	NA	NA	AQ	G	EB	1/22/2019	0700	3		☐		X		
2	JOF-SED-CV01-FB01-20190122	CV01	NA	NA	AQ	G	FB	1/22/2019	0710	3		☐		X		
3	JOF-SED-CV01-CORRB-0 0/0.5-20190122	CV01	0.0	0.5	SED	G	N	1/22/2019	0830	1		☐	X			
4	JOF-SED-CV01-CORCC-0 0/0.5-20190122	CV01	0.0	0.5	SED	G	N	1/22/2019	0900	1		☐	X			
5	JOF-SED-CV01-CORLB-0 0/0.5-20190122	CV01	0.0	0.5	SED	G	N	1/22/2019	0920	1		☐	X			
6	JOF-SED-CV01-CORLB-0 5/2.0-20190122	CV01	0.5	2.0	SED	G	N	1/22/2019	0920	1	Hold	☐	X			
7	JOF-SED-CV01-CORLB-2.0/3.8-20190122	CV01	2.0	3.8	SED	G	N	1/22/2019	0920	1	Hold	☐	X			
8	JOF-SED-IC01-CORRB-0 0/0.5-20190122	IC01	0.0	0.5	SED	G	N	1/22/2019	1015	1		☐	X			
9	JOF-SED-IC01-CORRB-0 5/1.5-20190122	IC01	0.5	1.5	SED	G	N	1/22/2019	1015	1	Hold	☐	X			
10	JOF-SED-IC01-CORCC-0 0/0.5-20190122	IC01	0.0	0.5	SED	G	N	1/22/2019	1035	1		☐	X			
11	JOF-SED-IC01-CORCC-0 5/1.6-20190122	IC01	0.5	1.6	SED	G	N	1/22/2019	1035	1	Hold	☐	X			
12	JOF-SED-IC01-CORLB-0 0/0.5-20190122	IC01	0.0	0.5	SED	G	N	1/22/2019	1100	2	Lab Dup	☐	X			
13	JOF-SED-IC02-CORLB-0.0/0.5-20190122	IC02	0.0	0.5	SED	G	N	1/22/2019	1140	1		☐	X			

Additional Comments/Special Instructions:

Additional volume can be used for Laboratory Duplicate.

Samples designated "Hold" should not be analyzed until directed otherwise.

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-23-19	1600	[illegible] TVA	1/23/19	[illegible]

SHIPPING METHOD	SAMPLER NAME AND SIGNATURE
FedEx	Tyler Baker Tyler Baker

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

Chain-of-Custody / Analytical Request Document

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

COOLER No.:	1 of 4
COC No:	JOF_SED_20190122_1B
2 of 5 Pages	[redacted]
Task Desc:	JOF_SED

Rev 1 DG 2/8/19 Rev 2 TFB 4-7-21

Required Ship to Lab:

Lab Name:	TestAmerica Pittsburgh
Lab Address	301 Alpha Drive RIDC Park 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 #:	JOHNSONVILLE FOSSIL PLANT		
Project #:	0779777		
Site Address	535 Steam Plant Road		
City	New Johnsonville	State, Zip:	37134
Site PM Name:	Roy Quinn		
Phone/Fax:	423-751-3753		
Site PM Email:	rquinn@tva.gov		

Required Sampler Information

Sampler:	Tyler Baker		
Sampling Company:	TVA		
Address:	TVA Chickamauga Power Service Center, 4601 N Access Road		
City/State:	Chattanooga, TN	Phone:	423-876-6733
Sampling Team Number:	1		
Send EDD/Hard Copy to:	tva-ei@envsta.com		

Analysis Turnaround Time

☐ CALENDAR DAYS ☑ WORKING DAYS

TAT if different from Below _____

☐ 24 Hours
☐ 3 Business Days
☐ 5 Business Days
☑ 10 Business Days (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth: Depth Unit: Feet: Start Depth	Sample Depth: Depth Unit: Feet: End Depth	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis: JOF_SEDIMENT_RAD	Analysis: JOF_SEDIMENT_BLANKS_RAD	Filtered: N	Filtered: N	Preserve: see comments	Preserve: see comments
1	JOF-SED-IC02-CORLB-0 5/2.0-20190122	IC02	0.5	2.0	SED	G	N	1/22/2019	1140	1	Hold	☐	X					
2	JOF-SED-IC02-CORLB-2 0/3 0-20190122	IC02	2.0	3.0	SED	G	N	1/22/2019	1140	1	Hold	☐	X					
3	JOF-SED-IC02-CORLB-3.0/3 7-20190122	IC02	3.0	3.7	SED	G	N	1/22/2019	1140	1	Hold	☐	X					
4	JOF-SED-IC02-CORCC-0.0/0.5-20190122	IC02	0.0	0.5	SED	G	N	1/22/2019	1220	1		☐	X					
5	JOF-SED-IC02-CORCC-0 5/3 0-20190122	IC02	0.5	3.0	SED	G	N	1/22/2019	1220	1	Hold	☐	X					
6	JOF-SED-IC02-CORCC-3 0/5 4-20190122	IC02	3.0	5.4	SED	G	N	1/22/2019	1220	1	Hold	☐	X					
7	JOF-SED-IC02-CORRB-0 0/0.5-20190122	ICO2	0.0	0.5	SED	G	N	1/22/2019	1250	1		☐	X					
8	JOF-SED-BH01-CORLB-0 0/0 5-20190122	BH01	0.0	0.5	SED	G	N	1/22/2019	1335	1		☐	X					
9	JOF-SED-BH01-CORLB-0 5/1 5-20190122	BH01	0.5	1.5	SED	G	N	1/22/2019	1335	1	Hold	☐	X					
10	JOF-SED-BH01-CORCC-0.0/0.5-20190122	BH01	0.0	0.5	SED	G	N	1/22/2019	1400	1		☐	X					
11	JOF-SED-BH01-CORCC-0.5/1 6-20190122	BH01	0.5	1.6	SED	G	N	1/22/2019	1400	1	Hold	☐	X					
12	JOF-SED-BH01-CORRB-0 0/0.5-20190122	BH01	0.0	0.5	SED	G	N	1/22/2019	1425	1		☐	X					
13	JOF-SED-BH03-CORRB-0 0/0 5-20190122	BH03	0.0	0.5	SED	G	N	1/22/2019	1445	1		☐	X					

0.0/0.7 TFB 4-7-21

Additional Comments/Special Instructions:

Additional volume can be used for Laboratory Duplicate.

Samples designated "Hold" should not be analyzed until directed otherwise.

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-25-19	1600	[illegible]	[illegible]	[illegible]

SHIPPING METHOD	SAMPLER NAME AND SIGNATURE
FedEx	Tyler Baker Tyler Baker

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

Chain-of-Custody / Analytical Request Document

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

COOLER No.:	1 of 1
COC No:	JOF_SED_20190122_1B
3 of 5 Pages	[redacted]
Task Desc:	JOF_SED

Rev-1
2/8/19
Rev-2
TFB 4-7-21

Required Ship to Lab:	
Lab Name	TestAmerica Pittsburgh
Lab Address:	301 Alpha Drive RIDC Park 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 #:	JOHNSONVILLE FOSSIL PLANT		
Project #:	0779777		
Site Address	535 Steam Plant Road		
City	New Johnsonville	State, Zip:	37134
Site PM Name:	Roy Quinn		
Phone/Fax:	423-751-3753		
Site PM Email:	rjquinn@tva.gov		

Required Sampler Information	
Sampler: Tyler Baker	
Sampling Company: TVA	
Address: TVA Chickamauga Power Service Center, 4601 N. Access Road	
City/State: Chattanooga, TN	Phone: 423-878-6733
Sampling Team Number:	1
Send EDD/Hard Copy to:	tva-ei@envield.com

Analysis Turnaround Time

☐ CALENDAR DAYS ☑ WORKING DAYS

TAT if different from Below _____

☐ 24 Hours
☐ 3 Business Days
☐ 5 Business Days
☑ 10 Business Days (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth Depth Unit Start Depth	Sample Depth Depth Unit End Depth (Feet)	MATRIX CODE	G= GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/ Lab Sample I.D.	MS/MSD	Analysis JOF_SEDIMENT_RAD	Analysis JOF_SEDIMENT_BLANKS_RAD	Filtered N	Filtered N	Preserve see comments	Preserve see comments
1	JOF-SED-BH03-CORRB-0.5/3.0-20190122	BH03	0.5	3.0	SED	G	N	1/22/2019	1445	1	Hold	☐	X					
2	JOF-SED-BH03-CORRB-3.0/5.5-20190122	BH03	3.0	5.5	SED	G	N	1/22/2019	1445	1	Hold	☐	X					
3	JOF-SED-BH03-CORCC-0.0/0.5-20190122	BH03	0.0	0.5	SED	G	N	1/22/2019	1520	1		☐	X					
4	JOF-SED-BH03-CORCC-0 5/2.5-20190122	BH03	0.5	2.5	SED	G	N	1/22/2019	1520	1	Hold	☐	X					
5	JOF-SED-BH03-CORLB-0 0/0.5-20190122	BH03	0.0	0.5	SED	G	N	1/22/2019	1545	1		☐	X					
6	JOF-SED-BH03-CORLB-0.5/2 5-20190122	BH03	0.5	2.5	SED	G	N	1/22/2019	1545	1	Hold	☐	X					
7	JOF-SED-BH03-CORLB-2.5/4.1-20190122	BH03	2.5	4.1	SED	G	N	1/22/2019	1545	1	Hold	☐	X					
8	JOF-SED-IC01-DUP01-20190122	IC01	NA	NA	SED	G	FD	1/22/2019	NA	1	Duplicate	☐	X					
9	JOF-SED-CV03-EB01-20190123	CV03	NA	NA	AQ	G	EB	1/23/2019	0945	3		☐		X				
10	JOF-SED-CV03-FB01-20190123	CV03	NA	NA	AQ	G	FB	1/23/2019	0955	3		☐		X				
11	JOF-SED-CV03-CORLB-0 0/0.5-20190123	CV03	0.0	0.5	SED	G	N	1/23/2019	1000	1		☐	X					
12	JOF-SED-CV03-CORLB-0 5/2 5-20190123	CV03	0.5	2.5	SED	G	N	1/23/2019	1000	1	Hold	☐	X					
13	JOF-SED-CV03-CORLB-2 5/5 3-20190123	CV03	2.5	5.3	SED	G	N	1/23/2019	1000	1	Hold	☐	X					

Additional Comments/Special Instructions:

Additional volume can be used for Laboratory Duplicate.

Samples designated "Hold" should not be analyzed until directed otherwise.

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-25-19	1600	[illegible]	1/25/19	1700

SHIPPING METHOD	SAMPLER NAME AND SIGNATURE
FedEX	Tyler Baker, Tyler Baker

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

Chain-of-Custody / Analytical Request Document

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

COOLER No.:	1 of 4
COC No:	JOF_SED_20190122_1B
4 of 5 Pages	[redacted]
Task Desc:	JOF_SED

Rev-1
02/8/19
Rev-2
TFB 4-7-21

Required Ship to Lab:

Lab Name	TestAmerica Pittsburgh
Lab Address	301 Alpha Drive RIDC Park 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 #:	JOHNSONVILLE FOSSIL PLANT		
Project #:	0779777		
Site Address	535 Steam Plant Road		
City	New Johnsonville	State, Zip:	37134
Site PM Name:	Roy Quinn		
Phone/Fax:	423-751-3753		
Site PM Email:	jrquinn@tva.gov		

Required Sampler Information

Sampler:	Tyler Baker		
Sampling Company:	TVA		
Address:	TVA Chickamauga Power Service Center, 4601 N. Access Road		
City/State:	Chattanooga, TN	Phone:	423-876-6733
Sampling Team Number:	1		
Send EDD/Hard Copy to:	tva-ei@envsid.com		

Analysis Turnaround Time

☐ CALENDAR DAYS ☑ WORKING DAYS

TAT if different from Below _____

☐ 24 Hours
☐ 3 Business Days
☐ 5 Business Days
☑ 10 Business Days (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth (Depth Unit: Feet) 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: JOF_SEDIMENT_RAD	JOF_SEDIMENT_BLANKS_RAD	Filtered N	Filtered N	Preserve (see comments)	Preserve (see comments)
1	JOF-SED-CV03-CORCC-0 0/0 5-20190123	CV03	0.0	0.5	SED	G	N	1/23/2019	1053	1		☐	X					
2	JOF-SED-CV03-CORRB-0.0/0 5-20190123	CV03	0.0	0.5	SED	G	N	1/23/2019	1110	1		☐	X					
3	JOF-SED-CV03-CORRB-0 5/1.5-20190123	CV03	0.5	1.5	SED	G	N	1/23/2019	1110	1	Hold	☐	X					
4	JOF-SED-CV03-CORRB-1.5/2 7-20190123	CV03	1.5	2.7	SED	G	N	1/23/2019	1110	1	Hold	☐	X					
5	JOF-SED-CV02-CORLB-0 0/0.5-20190123	CV02	0.0	0.5	SED	G	N	1/23/2019	1225	1		☐	X					
6	JOF-SED-CV02-CORLB-0 5/2 5-20190123	CV02	0.5	2.5	SED	G	N	1/23/2019	1225	1	Hold	☐	X					
7	JOF-SED-CV02-CORCC-0 0/0.5-20190123	CV02	0.0	0.5	SED	G	N	1/23/2019	1245	1		☐	X					
8	JOF-SED-CV02-CORCC-0.5/1 6-20190123	CV02	0.5	1.6	SED	G	N	1/23/2019	1245	1	Hold	☐	X					
9	JOF-SED-CV02-CORRB-0 0/0 5-20190123	CV02	0.0	0.5	SED	G	N	1/23/2019	1305	2	Lab Dup	☐	X					
10	JOF-SED-CV02-DUP01-20190123	CV02	NA	NA	SED	G	FD	1/23/2019	NA	1	Duplicate	☐	X					
11	JOF-SED-BH02-FB01-20190124	BH02	NA	NA	AQ	G	FB	1/24/2019	0735	3		☐		X				
12	JOF-SED-BH02-CORLB-0 0/0 5-20190124	BH02	0.0	0.5	SED	G	N	1/24/2019	0855	1		☐	X					
13	JOF-SED-BH02-CORLB-0 5/3 0-20190124	BH02	0.5	3.0	SED	G	N	1/24/2019	0855	1	Hold	☐	X					

Additional Comments/Special Instructions:

Additional volume can be used for Laboratory Duplicate.

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RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-25-19	1600	[illegible]	[illegible]	[illegible]

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

SHIPPING METHOD:	SAMPLER NAME AND SIGNATURE
FedEx	Tyler Baker Tyler Baker

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:	1 of 4
COC No:	JOF_SED_20190122_1B
5 of 5 Pages	[redacted]
Task Desc:	JOF_SED

Rev-1 DC 2/8/19
Rev-2 TFB 4-7-21

Required Ship to Lab:

Lab Name	TestAmerica Pittsburgh
Lab Address	301 Alpha Drive RIDC Park Pittsburgh, PA 15238
Lab Manager Contact Information	
Lab PM	Gail Lape
Phone/Fax	615-301-5741/615-726-3404
Lab Email	Gail.Lape@testamericainc.com

Required Project Information:

Site ID #:	JOHNSONVILLE FOSSIL PLANT
Project #:	0779777
Site Address	535 Steam Plant Road
City	New Johnsonville; State, Zip: 37134
Site PM Name:	Roy Quinn
Phone/Fax:	423-751-3753
Site PM Email:	[illegible]

Required Sampler Information

Sampler:	Tyler Baker
Sampling Company:	TVA
Address:	TVA Chickamauga Power Service Center 4601 N Access Road
City/State:	Chattanooga TN; Phone: 423-875-6733
Sampling Team Number:	1
Send EDD/Hard Copy to:	[illegible]

Analysis Turnaround Time

☐ CALENDAR DAYS ☒ WORKING DAYS

TAT if different from Below _____

☐ 24 Hours
☐ 3 Business Days
☐ 5 Business Days
☒ 10 Business Days (Standard)

ITEMS #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth Start Depth (Depth Unit: Feet)	Sample 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: JOF_SEDIMENT_RAD	Analysis: JOF_SEDIMENT_BLANKS_RAD	Filtered: N	Filtered: Y	Preserve: see Comments	Preserve: see Comments
1	JOF-SED-BH02-CORLB-3 0/4 7-20190124	BH02	3 0	4.7	SED	G	N	1/24/2019	0855	1	Hold	☐	X					
2	JOF-SED-BH02-CORLB-4 7/5 7-20190124	BH02	4.7	5.7	SED	G	N	1/24/2019	0855	1	Hold	☐	X					
3	JOF-SED-BH02-EB01-20190124	BH02	NA	NA	AQ	G	EB	1/24/2019	0935	3		☐		X				
4	JOF-SED-BH02-CORCC-0 0/0 5-20190124	BH02	0 0	0.5	SED	G	N	1/24/2019	0945	1		☐	X					
5	JOF-SED-BH02-CORCC 0 5/1 7-20190124	BH02	0.5	1.7	SED	G	N	1/24/2019	0945	1	Hold	☐	X					
6	JOF-SED-BH02-CORCC-1 7/3 0-20190124	BH02	1 7	3.0	SED	G	N	1/24/2019	0945	1	Hold	☐	X					
7	JOF-SED-BH02-CORCC-3 0/3 7-20190124	BH02	3.0	3.7	SED	G	N	1/24/2019	0945	1	Hold	☐	X					
8	JOF-SED-BH02-CORRB-0 0/0 5-20190124	BH02	0 0	0.5	SED	G	N	1/24/2019	1100	1		☐	X					
9	JOF-SED-IC01-CORRB-0 0/0 5-20190124	~~IC02~~ IC01	0.0	0.5	SED	G	N	1/24/2019	1205	1		☐	X					
10	JOF-SED-IC01-CORCC-0 0/0 5-20190124	~~IC02~~ IC01	0.0	0.5	SED	G	N	1/24/2019	1225	1		☐	X					
11	JOF-SED-IC01-CORLB-0 0/0 5-20190124	~~IC02~~ IC01	0.0	0 5	SED	G	N	1/24/2019	1235	1		☐	X					
12	JOF-SED-BH02-DUP01-20190124	BH02	NA	NA	SED	G	FD	1/24/2019	NA	1	Duplicate	☐	X					
13												☐						

Additional Comments/Special Instructions:

Additional volume can be used for Laboratory Duplicate.

Samples designated "Hold" should not be analyzed until directed otherwise.

DC 2/8/19

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Tyler Baker / TVA	1-28-19	1400	[illegible]	[illegible]	[illegible]

SHIPPING METHOD	SAMPLER NAME AND SIGNATURE
FedEx	Tyler Baker Tyler Baker

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 36067A

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lage, Gail	Carrier Tracking No(s):	COC No: 180-360542.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: gail.lage@testamericainc.com	State of Origin: Tennessee	Page: Page 1 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 180-86185-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/16/2019			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: JOF_SED_20190122_1B	Project #: 18020000			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	901.1_Ra/Dry_Grind Positive Combined Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X		X	
JOF-SED-CV01-CORRB-0.0/0.5-20190122 (180-86185-3)	1/22/19	08:30 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-CV01-CORCC-0.0/0.5-20190122 (180-86185-4)	1/22/19	09:00 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-CV01-CORLB-0.0/0.5-20190122 (180-86185-5)	1/22/19	09:20 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-CV01-CORLB-0.5/2.0-20190122 (180-86185-6)	1/22/19	09:20 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-CV01-CORLB-2.0/3.8-20190122 (180-86185-7)	1/22/19	09:20 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-IC01-CORRB-0.0/0.5-20190122 (180-86185-8)	1/22/19	10:15 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-IC01-CORRB-0.5/1.5-20190122 (180-86185-9)	1/22/19	10:15 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-IC01-CORCC-0.0/0.5-20190122 (180-86185-10)	1/22/19	10:35 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-IC01-CORCC-0.5/1.6-20190122 (180-86185-11)	1/22/19	10:35 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by:	Date/Time: 4/18/19 1700	Company TAPgh	Received by: Michael Keen	Date/Time: 4-19-19 08:45	Company TA STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lage, Gail	Carrier Tracking No(s):	COC No: 180-360542.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: gail.lage@testamericainc.com	State of Origin: Tennessee	Page: Page 2 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 180-86185-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/16/2019			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: JOF_SED_20190122_1B	Project #: 18020000			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	901.1_Ra/Dry_Grind Positive Combined Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
JOF-SED-IC01-CORLB-0.0/0.5-20190122 (180-86185-12)	1/22/19	11:00 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-IC01-CORLB-0.0/0.5-20190122 (180-86185-12DU)	1/22/19	11:00 Central	DU	Solid			X	4	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-IC02-CORLB-0.0/0.5-20190122 (180-86185-13)	1/22/19	11:40 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-IC02-CORLB-0.5/2.0-20190122 (180-86185-14)	1/22/19	11:40 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-IC02-CORLB-2.0/3.0-20190122 (180-86185-15)	1/22/19	11:40 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-IC02-CORLB-3.0/3.7-20190122 (180-86185-16)	1/22/19	11:40 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-IC02-CORCC-0.0/0.5-20190122 (180-86185-17)	1/22/19	12:20 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-IC02-CORCC-0.5/3.0-20190122 (180-86185-18)	1/22/19	12:20 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-IC02-CORCC-3.0/5.4-20190122 (180-86185-19)	1/22/19	12:20 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna

180-86185-01 Chain of Custody

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:		Time:	Method of Shipment:	
Relinquished by:	Date/Time: 4/18/19 1700	Company: Aerotell	Received by:	Date/Time: 4-19-19 MH 08:45 0830	Company: TA STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

eurofins Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lage, Gail	Carrier Tracking No(s):	COC No: 180-360542.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: gail.lage@testamericainc.com	State of Origin: Tennessee	Page: Page 3 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 180-86185-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/16/2019			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: JOF_SED_20190122_1B	Project #: 18020000			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	901.1_Ra/Dry_Grind Positive Combined Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
JOF-SED-IC02-CORRB-0.0/0.5-20190122 (180-86185-20)	1/22/19	12:50 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH01-CORLB-0.0/0.5-20190122 (180-86185-21)	1/22/19	13:35 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH01-CORLB-0.5/1.5-20190122 (180-86185-22)	1/22/19	13:35 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH01-CORCC-0.0/0.5-20190122 (180-86185-23)	1/22/19	14:00 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH01-CORCC-0.5/1.6-20190122 (180-86185-24)	1/22/19	14:00 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH01-CORRB-0.0/0.5-20190122 (180-86185-25)	1/22/19	14:25 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH03-CORRB-0.0/0.5-20190122 (180-86185-26)	1/22/19	14:45 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH03-CORRB-0.5/3.0-20190122 (180-86185-27)	1/22/19	14:45 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH03-CORRB-3.0/5.5-20190122 (180-86185-28)	1/22/19	14:45 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna

180-86185-02 Chain of Custody

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by:	Date/Time: 4/18/19 1700	Company: TAL	Received by:	Date/Time: 4-19-19 08:45	Company: TA SR
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lage, Gail	Carrier Tracking No(s):	COC No: 180-360542.4
Client Contact: Shipping/Receiving	Phone:	E-Mail: gail.lage@testamericainc.com	State of Origin: Tennessee	Page: Page 4 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 180-86185-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/16/2019			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: JOF_SED_20190122_1B	Project #: 18020000			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	901.1_Ra/Dry_Grind Positive Combined Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
JOF-SED-BH03-CORCC-0.0/0.5-20190122 (180-86185-29)	1/22/19	15:20 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH03-CORCC-0.5/2.5-20190122 (180-86185-30)	1/22/19	15:20 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH03-CORLB-0.0/0.5-20190122 (180-86185-31)	1/22/19	15:45 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH03-CORLB-0.5/2.5-20190122 (180-86185-32)	1/22/19	15:45 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH03-CORLB-2.5/4.1-20190122 (180-86185-33)	1/22/19	15:45 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-IC01-DUP01-20190122 (180-86185-34)	1/22/19	Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-CV03-CORLB-0.0/0.5-20190123 (180-86185-37)	1/23/19	10:00 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-CV03-CORLB-0.5/2.5-20190123 (180-86185-38)	1/23/19	10:00 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-CV03-CORLB-2.5/5.3-20190123 (180-86185-39)	1/23/19	10:00 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna

180-86185-03 Chain of Custody

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:		Time:	Method of Shipment:	
Relinquished by:	Date/Time: 4/18/19 1700	Company	Received by:	Date/Time: 4-19-19 08:45	Company TASJ
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:	

Ver: 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

eurofins Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lage, Gail	Carrier Tracking No(s):	COC No: 180-360542.5
Client Contact: Shipping/Receiving	Phone:	E-Mail: gail.lage@testamericainc.com	State of Origin: Tennessee	Page: Page 5 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 180-86185-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/16/2019			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: JOF_SED_20190122_1B	Project #: 18020000			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	901.1_Ra/Dry_Grind Positive Combined Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
JOF-SED-CV03-CORCC-0.0/0.5-20190123 (180-86185-40)	1/23/19	10:53 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-CV03-CORRB-0.0/0.5-20190123 (180-86185-41)	1/23/19	11:10 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-CV03-CORRB-0.5/1.5-20190123 (180-86185-42)	1/23/19	11:10 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-CV03-CORRB-1.5/2.7-20190123 (180-86185-43)	1/23/19	11:10 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-CV02-CORLB-0.0/0.5-20190123 (180-86185-44)	1/23/19	12:25 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-CV02-CORLB-0.5/2.5-20190123 (180-86185-45)	1/23/19	12:25 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-CV02-CORCC-0.0/0.5-20190123 (180-86185-46)	1/23/19	12:45 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-CV02-CORCC-0.5/1.6-20190123 (180-86185-47)	1/23/19	12:45 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-CV02-CORRB-0.0/0.5-20190123 (180-86185-48)	1/23/19	13:05 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna

180-86185-04 Chain of Custody

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by:	Date/Time: 4/11/19 17:00	Company: TAS	Received by:	Date/Time: 4-19-19 08:45	Company: TASL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

eurofins Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lage, Gail	Carrier Tracking No(s):	COC No: 180-360542.6
Client Contact: Shipping/Receiving	Phone:	E-Mail: gail.lage@testamericainc.com	State of Origin: Tennessee	Page: Page 6 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 180-86185-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/16/2019			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: JOF_SED_20190122_1B	Project #: 18020000			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	901.1_Ra/Dry_Grind Positive Combined Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
JOF-SED-CV02-CORRB-0.0/0.5-20190123 (180-86185-48DU)	1/23/19	13:05 Central	DU	Solid			X	4	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-CV02-DUP01-20190123 (180-86185-49)	1/23/19	Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH02-CORLB-0.0/0.5-20190124 (180-86185-51)	1/24/19	08:55 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH02-CORLB-0.5/3.0-20190124 (180-86185-52)	1/24/19	08:55 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH02-CORLB-3.0/4.7-20190124 (180-86185-53)	1/24/19	08:55 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH02-CORLB-4.7/5.7-20190124 (180-86185-54)	1/24/19	08:55 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH02-CORCC-0.0/0.5-20190124 (180-86185-56)	1/24/19	09:45 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH02-CORCC-0.5/1.7-20190124 (180-86185-57)	1/24/19	09:45 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH02-CORCC-1.7/3.0-20190124 (180-86185-58)	1/24/19	09:45 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna

180-86185-05 Chain of Custody

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:		Time:	Method of Shipment:	
Relinquished by:	Date/Time: 4/18/18 1700	Company TAL	Received by:	Date/Time: 4-19-19 08:45	Company TA STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

eurofins Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lage, Gail	Carrier Tracking No(s):	COC No: 180-360542.7
Client Contact: Shipping/Receiving	Phone:	E-Mail: gail.lage@testamericainc.com	State of Origin: Tennessee	Page: Page 7 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 180-86185-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/16/2019			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: JOF_SED_20190122_1B	Project #: 18020000			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	901.1_Ra/Dry_Grind Positive Combined Radium-226/228	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
JOF-SED-BH02-CORCC-3.0/3.7-20190124 (180-86185-59)	1/24/19	09:45 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH02-CORRB-0.0/0.5-20190124 (180-86185-60)	1/24/19	11:00 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-IC01-CORRB-0.0/0.5-20190124 (180-86185-61)	1/24/19	12:05 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-IC01-CORCC-0.0/0.5-20190124 (180-86185-62)	1/24/19	12:25 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-IC01-CORLB-0.0/0.5-20190124 (180-86185-63)	1/24/19	12:35 Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna
JOF-SED-BH02-DUP01-20190124 (180-86185-64)	1/24/19	Central		Solid			X	2	TVA - Batch alone. Quarantine zone soil. Contact PM if insufficient volume for Tuna

180-86185-06 Chain of Custody

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 4/18/19 1700	Company: TAS	Received by:	Date/Time: 4-19-19 08:45	Company: TA SR
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Environmental Standards Inc.

Job Number: 180-86185-2

Login Number: 86185
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	

Login Sample Receipt Checklist

Client: Environmental Standards Inc.

Job Number: 180-86185-2

Login Number: 86185
List Number: 2
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 01/31/19 12:03 PM

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.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
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?	N/A	
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").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Environmental Standards Inc.

Job Number: 180-86185-2

Login Number: 86185
List Number: 3
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 01/31/19 12:20 PM

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.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	19.0
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?	N/A	
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").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Environmental Standards Inc.

Job Number: 180-86185-2

Login Number: 86185
List Number: 4
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 04/22/19 01:36 PM

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.	N/A	
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	0.1
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?	N/A	
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").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	