

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Spokane 11922 East 1st Ave Spokane, WA 99206 Tel: (509)924-9200

TestAmerica Job ID: 590-10645-1 Client Project/Site: IAQ sampling

For: Eastern Washington University 319 Showalter Hall Cheney, Washington 99004-2445

Attn: Chad Johnson

tandre trington

Authorized for release by: 3/28/2019 3:09:29 PM

Randee Arrington, Project Manager II (509)924-9200 randee.arrington@testamericainc.com

LINKS Review your project results through TOTOLACCESS Have a Question? Ask The Expert

Visit us at: www.testamericainc.com 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.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	4
Definitions	5
Client Sample Results	6
QC Sample Results	7
Chronicle	8
Certification Summary	9
Method Summary	10
Chain of Custody	11
Receipt Checklists	12

Job ID: 590-10645-1

Laboratory: TestAmerica Spokane

Narrative

Receipt

The sample was received on 3/25/2019 2:20 PM; the sample arrived in good condition. The temperature of the cooler at receipt was 20.4° C.

Metals

Method 6010C: The following sample was diluted due to the abundance of non-target analytes: JFK032519Mt01 (590-10645-1). Elevated reporting limits (RLs) are provided.

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

Sample Summary

Т -1

Client: Eastern Washington University Project/Site: IAQ sampling

	FestAmerica	Job	ID:	590-	10645-
--	--------------------	-----	-----	------	--------

ab Sample ID	Client Sample ID	Matrix	Collected	Received
590-10645-1	JFK032519Mt01	Waste	03/25/19 08:03	03/25/19 14:20

Definitions/Glossary

Client: Eastern Washington University Project/Site: IAQ sampling

Glossary

Clossury		~
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	5
CFL	Contains Free Liquid	J
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)	8
EDL	Estimated Detection Limit (Dioxin)	
LOD	Limit of Detection (DoD/DOE)	9
LOQ	Limit of Quantitation (DoD/DOE)	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
NC	Not Calculated	
ND	Not Detected at the reporting limit (or MDL or EDL if shown)	
PQL	Practical Quantitation Limit	
QC	Quality Control	
RER	Relative Error Ratio (Radiochemistry)	
RL	Reporting Limit or Requested Limit (Radiochemistry)	

RPD Relative Percent Difference, a measure of the relative difference between two points

- TEF Toxicity Equivalent Factor (Dioxin)
- TEQ Toxicity Equivalent Quotient (Dioxin)

Lab Sample ID: 590-10645-1

03/26/19 15:30 03/28/19 13:35

Matrix: Waste

6

2

Client Sample ID: JFK032519Mt01 Date Collected: 03/25/19 08:03 Date Received: 03/25/19 14:20

Tin

Zinc

Method: 6010C - Metals (ICP) Analyte Result Qualifier RL MDL Unit D Prepared Dil Fac Analyzed 7.1 Chromium 8.1 mg/Kg 03/26/19 15:30 03/28/19 13:35 2 2 Cobalt ND 7.1 mg/Kg 03/26/19 15:30 03/28/19 13:35 2 ND 23 mg/Kg Copper 03/26/19 15:30 03/28/19 13:35 ND 7.1 2 Nickel mg/Kg 03/26/19 15:30 03/28/19 13:35 2 ND 26 mg/Kg 03/26/19 15:30 03/28/19 13:35

29

mg/Kg

ND

TestAmerica Spokane

RL

1.3

1.3

4.0

1.3

4.5

5.0

MDL Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

D

Prepared

MB MB

ND

ND

ND

ND

ND

ND

Result Qualifier

Client Sample ID: Method Blank

Analyzed

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 21479

Dil Fac

1

1

1

1

5

03/26/19 15:30 03/27/19 12:44 1 03/26/19 15:30 03/27/19 12:44 1

Client Sample ID: Lab Control Sample

03/26/19 15:30 03/27/19 12:44

03/26/19 15:30 03/27/19 12:44

03/26/19 15:30 03/27/19 12:44

03/26/19 15:30 03/27/19 12:44

Lab Sample ID: LCS 590-21479/1-A

Matrix: Waste Analysis Batch: 21488

Analysis Batch: 21488

Analyte

Cobalt

Copper

Nickel

Tin

Zinc

Chromium

Analysis Batch: 21488							Prep B	atch: 21479
-	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chromium	50.0	51.1		mg/Kg		102	80 - 120	
Cobalt	50.0	52.2		mg/Kg		104	80 - 120	
Copper	50.0	48.5		mg/Kg		97	80 - 120	
Nickel	50.0	52.4		mg/Kg		105	80 - 120	
Tin	100	103		mg/Kg		103	80 - 120	
Zinc	50.0	53.2		mg/Kg		106	80 - 120	

Lab Sample ID: 590-10645-1

Matrix: Waste

5 6

8 9

Client Sample ID: JFK032519Mt01 Date Collected: 03/25/19 08:03 Date Received: 03/25/19 14:20

	Batch	Batch	B	Dil	Initial	Final	Batch	Prepared	A	
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			0.35 g	50 mL	21479	03/26/19 15:30	JSP	TAL SPK
Total/NA	Analysis	6010C		2			21529	03/28/19 13:35	JSP	TAL SPK

Laboratory References:

TAL SPK = TestAmerica Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

TestAmerica Spokane

Client: Eastern Washington University Project/Site: IAQ sampling

TestAmerica Job ID: 590-10645-1

Laboratory: TestAmerica Spokane

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

Authority Alaska (UST)	Program State Program	EPA Region	Identification Number	Expiration Date
Nevada	State Program	9	WA012202019-1	07-31-19
Oregon	NELAP	10	4137	12-07-19
Washington	State Program	10	C569	01-06-20

TestAmerica Spokane

<u> </u>			Laboratory	
C	Metals (ICP)	SW846	TAL SPK	-
В	Preparation, Metals	SW846	TAL SPK	
				5
rotocol Re	eferences:			

Laboratory References:

Protocol References:

Method

6010C

3050B

TAL SPK = TestAmerica Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

>>> Select a Laboratory <<< restAmerica Spokane 1922 E 1st Avenue spokane, WA 99206-5302 09.924.9200	Regul	atory Pro	aram.		NPDES			dy Recor		645 Chain of Custody		
Client Contact					_NPUES	horest			Date: 0	2/25/40	COC No:	aboratories, i
astern Washington University		anager: Ch 509)359-64		on	-	Lab Co		rry Page X6697	Carrier		1 of	1 COCs
02 Martin Hall c/o: Environmental Health & Safety		Analysis Ti		Time			macı.		Carrier		Sampler:	
Cheney, WA 99004		DAR DAYS	Laboratory of Concession, Name	KING DAYS	5						For Lab Use Only	:
509) 359-6455 Phone	TA	T if different fr	om Below			î					Walk-in Client:	1
509) 359-4690 FAX		2	weeks			2 x					Lab Sampling:	
Project Name: IAQ sampling	1	1	week			20	s					
Site: JFK Library		2	days			MS	Meta		11		Job / SDG No .:	
PO # K0003935; WO# 18-152076-016		1 day		Sample () MS / MSD	0							
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered S Perform 1	EPA 6010-C Metals				Sample Sp	ecific Notes:
JFK032519Mt01	3/25/19	08:03	G	N	1	NN	x				Net sample wt: 36	4.3g
											Test for metals:	
	-										Chromium (Cr)	- Participantes
			-								Cobalt (Co)	
		-	-								Copper (Cu) Nickel (Ni) Tin (Sn)	
		-				+++	++		-+			
				-		$\left \right $						
	-			-		$\left \right \right $					Zinc (Zn)	
						$\left \right $						
				-		$\left \right $						
						$\left \right $						
						$\left \right $						
	C.N.O.L.C	044				Щ						
Preservation Used: 1= Ice, 2= HCI; 3= H2SO4; 4=HNO3; Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Plea Comments Section if the lab is to dispose of the sample. Non-Hazard Flammable Skin Irritant		A Waste Co	odes for the		in the	Sar	Return to		be asses	sed if samples are reta		onth)
Special Instructions/QC Requirements & Comments:									<u>Enternal</u>			
Custody Seals Intact: Yes No	Custody 8	Seal No.:						oler Temp. (°C):	Obs'd: 1		Therm ID No.:_//	4000
Relinquished by: Sure Rom	Company	EWU 2	341945	Date/T	ime:	Red	eived by:-	Welth Su	la	Company: TH SPI	Date/Time: 3.25.19 14.	0
Relinquished by:	Company			Date/T	ime:	Red	eived by:	pitan Of		Company:	Date/Time:	
	Company: Date/Time:			Received in Laboratory by:			Company. Date/Time					

2

Form No. CA-C-WI-002, Rev. 4.11, dated 1/24/2017

Client: Eastern Washington University

Login Number: 10645 List Number: 1

Creator: Kratz, Sheila J

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
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	Thermal preservation not required.
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.	N/A	
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	No analysis requiring residual chlorine check assigned.

List Source: TestAmerica Spokane