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December 28, 2021

Ms. Becky Jolly  
Iowa Department of Natural Resources  
Land Quality Bureau  
502 E. 9<sup>th</sup> Street  
Des Moines, Iowa 50319

Dear Ms. Jolly:

Re: Fluff Quarterly Sampling Results  
Alter Metal Recycling - Council Bluffs, Iowa  
4th Quarter 2021 – December 2021

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CJF Associates, LLC (CJF) is pleased to submit this report on behalf of Alter Trading Corporation, Council Bluffs, Iowa (Alter). This report presents the quarterly fluff sampling results as identified above.

### **Summary**

- PCBs concentration this quarter: 12 mg/kg;
- Ten-Sample Rolling PCBs Average: 15.11 mg/kg;
- PCBs TCLP result this quarter is non-detect; and
- All TCLP metal results are below regulatory criteria.

Based on the analytical results; the fluff may be landfilled in Iowa per IAC 567, Chapter 118.

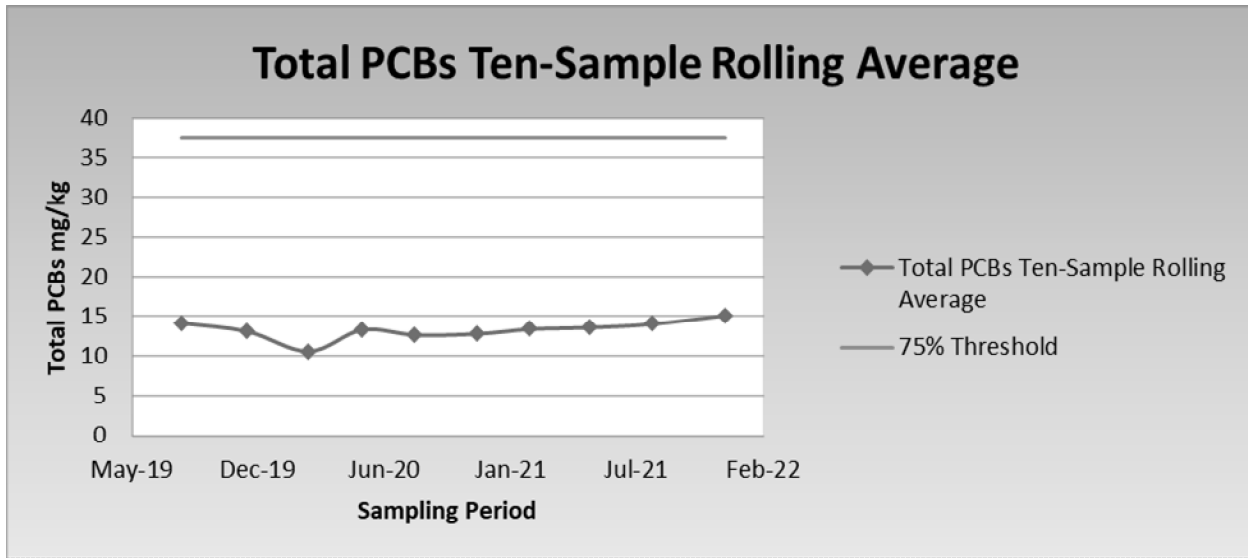
### **Details**

In order to characterize the fluff, samples were collected and analyzed from the bulk seven-day composite sample. The composite sample was collected from October 25, 2021 through November 19, 2021 in accordance with IAC 567, Chapter 118. Samples were analyzed for total Polychlorinated Biphenyls (PCBs), Toxic Characteristic Leaching Procedure (TCLP) PCBs, and TCLP Resource Conservation and Recovery Act (RCRA) metals.

Total PCBs results for the sampling period totaled 12 mg/kg. TCLP PCBs were not detected above the laboratory reporting limit. Barium, cadmium, and lead were the only RCRA metals identified above the laboratory reporting limits but below regulatory TCLP concentrations. The reported concentration for lead was identified at 0.084 mg/L which does not exceed the regulatory TCLP concentration of 5.0 mg/L. The present ten-sample rolling average for PCBs is 15.11 mg/kg. Rolling averages of the ten-sampling period results for total PCBs are presented below:



December 28, 2021



Fourth quarter analytical results are summarized as follows:

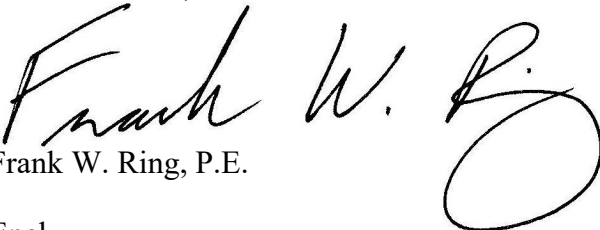
Sample ID	Analyte										
	Total PCBs <sup>1</sup>	TCLP PCBs	TCLP Arsenic	TCLP Barium	TCLP Cad	TCLP Chrom	TCLP Lead	TCLP Sel	TCLP Silver	TCLP Mercury	Ignitability <sup>2</sup>
ZCSF-1210-21-001	12	ND	ND	0.66	0.17	ND	0.084	ND	ND	ND	NA

**Notes:** All TCLP results are reported in mg/L      ND = Not Detected Above Laboratory Detection Limits  
 (1) Results reported in mg/kg                      NA = Not Analyzed  
 (2) Results reported in degrees Fahrenheit

Laboratory analytical results and chain of custody forms are presented in Attachment A.

If you have any questions, please contact Frank W. Ring at (313) 999-4071.

Sincerely,  
CJF Associates, LLC



Frank W. Ring, P.E.

Encl.  
 CC: Ryan Carpenter, Alter  
 Herb Handel, Iowa Waste Systems Inc.

**ATTACHMENT A**

**LABORATORY ANALYTICAL RESULTS**

## ANALYTICAL REPORT

Eurofins TestAmerica, Cedar Falls  
3019 Venture Way  
Cedar Falls, IA 50613  
Tel: (319)277-2401

Laboratory Job ID: 310-221597-1  
Client Project/Site: Council Bluffs, 1216-01

**For:**

CJF Associates, LLC  
PO BOX 80815  
St. Claire Shores, Michigan 48080

Attn: Charles Ring



*Authorized for release by:  
12/27/2021 11:07:38 AM*

Denise Heckler, Project Manager II  
(330)966-9477  
[Denise.Heckler@Eurofinset.com](mailto:Denise.Heckler@Eurofinset.com)

### LINKS

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

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

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# Case Narrative

Client: CJF Associates, LLC  
Project/Site: Council Bluffs, 1216-01

Job ID: 310-221597-1

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## Job ID: 310-221597-1

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### Laboratory: Eurofins TestAmerica, Cedar Falls

#### Narrative

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#### Job Narrative 310-221597-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 12/11/2021 11:15 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice.

#### GC Semi VOA

Method 8082A: The surrogate recovery for the blank associated with preparation batch 310-338760 and 310-339054 and analytical batch 310-339132 was outside the upper control limits.

Method 8082A: The following sample was diluted due to the nature of the sample matrix: ZCSF-1210-21-001 (310-221597-1). Elevated reporting limits (RLs) are provided.

Method 8082A: Surrogate recovery for the following sample was outside control limits: ZCSF-1210-21-001 (310-221597-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

#### Metals

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

#### General Chemistry

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

#### Organic Prep

Method 1311: The following sample was tumbled in plastic due to matrix: ZCSF-1210-21-001 (310-221597-1).

Method 3550B: The following sample was diluted due to the nature of the sample matrix: ZCSF-1210-21-001 (310-221597-1). 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

Client: CJF Associates, LLC  
Project/Site: Council Bluffs, 1216-01

Job ID: 310-221597-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-221597-1	ZCSF-1210-21-001	Solid	12/10/21 15:00	12/11/21 11:15

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

# Detection Summary

Client: CJF Associates, LLC  
Project/Site: Council Bluffs, 1216-01

Job ID: 310-221597-1

**Client Sample ID: ZCSF-1210-21-001**

**Lab Sample ID: 310-221597-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	12		3.8	0.41	mg/Kg	50	✱	8082A	Total/NA
Total PCBs	12		3.8	0.41	mg/Kg	1		PCB	Total/NA
Barium	0.66	J	1.0	0.22	mg/L	2		6010C	TCLP
Cadmium	0.17		0.040	0.0088	mg/L	2		6010C	TCLP
Lead	0.084	J	0.20	0.064	mg/L	2		6010C	TCLP

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Cedar Falls





# Client Sample Results

Client: CJF Associates, LLC  
 Project/Site: Council Bluffs, 1216-01

Job ID: 310-221597-1

**Client Sample ID: ZCSF-1210-21-001**

**Lab Sample ID: 310-221597-1**

Date Collected: 12/10/21 15:00

Matrix: Solid

Date Received: 12/11/21 11:15

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1.3	F1	4.0	1.3	ug/L		12/17/21 08:51	12/17/21 15:15	1
PCB-1221	<1.3		4.0	1.3	ug/L		12/17/21 08:51	12/17/21 15:15	1
PCB-1232	<1.3		4.0	1.3	ug/L		12/17/21 08:51	12/17/21 15:15	1
PCB-1242	<1.3		4.0	1.3	ug/L		12/17/21 08:51	12/17/21 15:15	1
PCB-1248	<1.1		4.0	1.1	ug/L		12/17/21 08:51	12/17/21 15:15	1
PCB-1254	<1.1		4.0	1.1	ug/L		12/17/21 08:51	12/17/21 15:15	1
PCB-1260	<1.1	F1	4.0	1.1	ug/L		12/17/21 08:51	12/17/21 15:15	1
PCB-1268	<1.1		4.0	1.1	ug/L		12/17/21 08:51	12/17/21 15:15	1
Polychlorinated biphenyls, Total	<1.3		4.0	1.3	ug/L		12/17/21 08:51	12/17/21 15:15	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
DCB Decachlorobiphenyl (Surr)	86		10 - 119				12/17/21 08:51	12/17/21 15:15	1
Tetrachloro-m-xylene	63		14 - 110				12/17/21 08:51	12/17/21 15:15	1

## Method: PCB - Total PCB Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total PCBs</b>	<b>12</b>		3.8	0.41	mg/Kg			12/27/21 09:34	1

## Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.10		0.20	0.10	mg/L		12/15/21 09:00	12/16/21 10:24	2
<b>Barium</b>	<b>0.66</b>	<b>J</b>	1.0	0.22	mg/L		12/15/21 09:00	12/16/21 10:24	2
<b>Cadmium</b>	<b>0.17</b>		0.040	0.0088	mg/L		12/15/21 09:00	12/16/21 10:24	2
Chromium	<0.017		0.040	0.017	mg/L		12/15/21 09:00	12/16/21 10:24	2
<b>Lead</b>	<b>0.084</b>	<b>J</b>	0.20	0.064	mg/L		12/15/21 09:00	12/16/21 10:24	2
Selenium	<0.13		0.20	0.13	mg/L		12/15/21 09:00	12/16/21 10:24	2
Silver	<0.017		0.040	0.017	mg/L		12/15/21 09:00	12/16/21 10:24	2

## Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0015		0.0020	0.0015	mg/L		12/15/21 10:54	12/15/21 15:51	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Percent Moisture</b>	<b>12.5</b>		0.1	0.1	%			12/13/21 09:45	1
<b>Percent Solids</b>	<b>87.5</b>		0.1	0.1	%			12/13/21 09:45	1

# Client Sample Results

Client: CJF Associates, LLC  
 Project/Site: Council Bluffs, 1216-01

Job ID: 310-221597-1

**Client Sample ID: ZCSF-1210-21-001**

**Lab Sample ID: 310-221597-1**

Date Collected: 12/10/21 15:00

Matrix: Solid

Date Received: 12/11/21 11:15

Percent Solids: 87.5

**Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.020		0.76	0.020	mg/Kg	☼	12/23/21 07:48	12/23/21 14:56	10
PCB-1221	<0.20		0.76	0.20	mg/Kg	☼	12/23/21 07:48	12/23/21 14:56	10
PCB-1232	<0.076		0.76	0.076	mg/Kg	☼	12/23/21 07:48	12/23/21 14:56	10
<b>PCB-1242</b>	<b>12</b>		3.8	0.41	mg/Kg	☼	12/23/21 07:48	12/23/21 15:40	50
PCB-1248	<0.052		0.76	0.052	mg/Kg	☼	12/23/21 07:48	12/23/21 14:56	10
PCB-1254	<0.049		0.76	0.049	mg/Kg	☼	12/23/21 07:48	12/23/21 14:56	10
PCB-1260	<0.026		0.76	0.026	mg/Kg	☼	12/23/21 07:48	12/23/21 14:56	10
PCB-1268	<0.011		0.76	0.011	mg/Kg	☼	12/23/21 07:48	12/23/21 14:56	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>DCB Decachlorobiphenyl (Surr)</i>	1081	S1+	10 - 136				12/23/21 07:48	12/23/21 14:56	10
<i>Tetrachloro-m-xylene</i>	111	S1+	21 - 110				12/23/21 07:48	12/23/21 14:56	10

# Definitions/Glossary

Client: CJF Associates, LLC  
Project/Site: Council Bluffs, 1216-01

Job ID: 310-221597-1

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.

### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## 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

# Surrogate Summary

Client: CJF Associates, LLC  
Project/Site: Council Bluffs, 1216-01

Job ID: 310-221597-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1 (10-136)	TCX1 (21-110)
310-221597-1	ZCSF-1210-21-001	1081 S1+	111 S1+
LCS 310-339726/2-A	Lab Control Sample	79	74
LCSD 310-339726/3-A	Lab Control Sample Dup	75	61
MB 310-339726/1-A	Method Blank	79	64

#### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1 (10-119)	TCX1 (14-110)
LCS 310-339054/2-A	Lab Control Sample	105	82

#### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: TCLP

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1 (10-119)	TCX1 (14-110)
310-221597-1	ZCSF-1210-21-001	86	63
310-221597-1 MS	ZCSF-1210-21-001	92	72
310-221597-1 MSD	ZCSF-1210-21-001	86	68
LB 310-338760/1-C	Method Blank	179 S1+	129 S1+

#### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

# QC Sample Results

Client: CJF Associates, LLC  
 Project/Site: Council Bluffs, 1216-01

Job ID: 310-221597-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Lab Sample ID: LCS 310-339054/2-A**  
**Matrix: Solid**  
**Analysis Batch: 339132**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 339054**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	6.25	6.78		ug/L		108	21 - 119
PCB-1260	6.25	6.70		ug/L		107	18 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	105		10 - 119
Tetrachloro-m-xylene	82		14 - 110

**Lab Sample ID: MB 310-339726/1-A**  
**Matrix: Solid**  
**Analysis Batch: 339732**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 339726**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00064		0.025	0.00064	mg/Kg		12/23/21 07:48	12/23/21 13:57	1
PCB-1221	<0.0066		0.025	0.0066	mg/Kg		12/23/21 07:48	12/23/21 13:57	1
PCB-1232	<0.0025		0.025	0.0025	mg/Kg		12/23/21 07:48	12/23/21 13:57	1
PCB-1242	<0.0027		0.025	0.0027	mg/Kg		12/23/21 07:48	12/23/21 13:57	1
PCB-1248	<0.0017		0.025	0.0017	mg/Kg		12/23/21 07:48	12/23/21 13:57	1
PCB-1254	<0.0016		0.025	0.0016	mg/Kg		12/23/21 07:48	12/23/21 13:57	1
PCB-1260	<0.00084		0.025	0.00084	mg/Kg		12/23/21 07:48	12/23/21 13:57	1
PCB-1268	<0.00035		0.025	0.00035	mg/Kg		12/23/21 07:48	12/23/21 13:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	79		10 - 136	12/23/21 07:48	12/23/21 13:57	1
Tetrachloro-m-xylene	64		21 - 110	12/23/21 07:48	12/23/21 13:57	1

**Lab Sample ID: LCS 310-339726/2-A**  
**Matrix: Solid**  
**Analysis Batch: 339732**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 339726**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	0.198	0.147		mg/Kg		74	33 - 113
PCB-1260	0.198	0.137		mg/Kg		69	30 - 111

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	79		10 - 136
Tetrachloro-m-xylene	74		21 - 110

**Lab Sample ID: LCSD 310-339726/3-A**  
**Matrix: Solid**  
**Analysis Batch: 339732**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 339726**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
PCB-1016	0.195	0.140		mg/Kg		72	33 - 113	5	34
PCB-1260	0.195	0.134		mg/Kg		69	30 - 111	2	29

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	75		10 - 136

Eurofins TestAmerica, Cedar Falls

# QC Sample Results

Client: CJF Associates, LLC  
Project/Site: Council Bluffs, 1216-01

Job ID: 310-221597-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

**Lab Sample ID: LCSD 310-339726/3-A**  
**Matrix: Solid**  
**Analysis Batch: 339732**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 339726**

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	61		21 - 110

**Lab Sample ID: LB 310-338760/1-C**  
**Matrix: Solid**  
**Analysis Batch: 339132**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 339054**

Analyte	LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<1.3		4.0	1.3	ug/L		12/17/21 08:51	12/17/21 14:33	1
PCB-1221	<1.3		4.0	1.3	ug/L		12/17/21 08:51	12/17/21 14:33	1
PCB-1232	<1.3		4.0	1.3	ug/L		12/17/21 08:51	12/17/21 14:33	1
PCB-1242	<1.3		4.0	1.3	ug/L		12/17/21 08:51	12/17/21 14:33	1
PCB-1248	<1.1		4.0	1.1	ug/L		12/17/21 08:51	12/17/21 14:33	1
PCB-1254	<1.1		4.0	1.1	ug/L		12/17/21 08:51	12/17/21 14:33	1
PCB-1260	<1.1		4.0	1.1	ug/L		12/17/21 08:51	12/17/21 14:33	1
PCB-1268	<1.1		4.0	1.1	ug/L		12/17/21 08:51	12/17/21 14:33	1
Polychlorinated biphenyls, Total	<1.3		4.0	1.3	ug/L		12/17/21 08:51	12/17/21 14:33	1

Surrogate	LB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr)	179	S1+	10 - 119	12/17/21 08:51	12/17/21 14:33	1
Tetrachloro-m-xylene	129	S1+	14 - 110	12/17/21 08:51	12/17/21 14:33	1

**Lab Sample ID: 310-221597-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 339132**

**Client Sample ID: ZCSF-1210-21-001**  
**Prep Type: TCLP**  
**Prep Batch: 339054**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	Limits
				Result	Qualifier				
PCB-1016	<1.3	F1	6.25	13.6	F1	ug/L		217	21 - 119
PCB-1260	<1.1	F1	6.25	8.21	F1	ug/L		131	18 - 122

Surrogate	MS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr)	92		10 - 119
Tetrachloro-m-xylene	72		14 - 110

**Lab Sample ID: 310-221597-1 MSD**  
**Matrix: Solid**  
**Analysis Batch: 339132**

**Client Sample ID: ZCSF-1210-21-001**  
**Prep Type: TCLP**  
**Prep Batch: 339054**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	Limits	RPD	Limit
				Result	Qualifier						
PCB-1016	<1.3	F1	6.25	10.3	F1	ug/L		164	21 - 119	28	35
PCB-1260	<1.1	F1	6.25	6.88		ug/L		110	18 - 122	18	30

Surrogate	MSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr)	86		10 - 119
Tetrachloro-m-xylene	68		14 - 110

# QC Sample Results

Client: CJF Associates, LLC  
 Project/Site: Council Bluffs, 1216-01

Job ID: 310-221597-1

## Method: 6010C - Metals (ICP)

**Lab Sample ID: LB 310-338759/1-B**  
**Matrix: Solid**  
**Analysis Batch: 338963**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 338796**

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.050		0.10	0.050	mg/L		12/15/21 09:00	12/16/21 01:38	1
Barium	<0.11		0.50	0.11	mg/L		12/15/21 09:00	12/16/21 01:38	1
Cadmium	<0.0044		0.020	0.0044	mg/L		12/15/21 09:00	12/16/21 01:38	1
Chromium	<0.0087		0.020	0.0087	mg/L		12/15/21 09:00	12/16/21 01:38	1
Lead	<0.032		0.10	0.032	mg/L		12/15/21 09:00	12/16/21 01:38	1
Selenium	<0.063		0.10	0.063	mg/L		12/15/21 09:00	12/16/21 01:38	1
Silver	<0.0087		0.020	0.0087	mg/L		12/15/21 09:00	12/16/21 01:38	1

**Lab Sample ID: LCS 310-338759/2-B**  
**Matrix: Solid**  
**Analysis Batch: 338963**

**Client Sample ID: Lab Control Sample**  
**Prep Type: TCLP**  
**Prep Batch: 338796**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Arsenic	4.00	4.26		mg/L		106	80 - 120
Barium	2.00	2.09		mg/L		104	80 - 120
Cadmium	2.00	1.90		mg/L		95	80 - 120
Chromium	2.00	1.87		mg/L		93	80 - 120
Lead	4.00	3.74		mg/L		94	80 - 120
Selenium	8.00	8.55		mg/L		107	80 - 120
Silver	2.00	2.33		mg/L		116	80 - 120

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: LB 310-338759/1-C**  
**Matrix: Solid**  
**Analysis Batch: 338892**

**Client Sample ID: Method Blank**  
**Prep Type: TCLP**  
**Prep Batch: 338828**

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.0015		0.0020	0.0015	mg/L		12/15/21 10:54	12/15/21 15:31	1

**Lab Sample ID: LCS 310-338759/2-C**  
**Matrix: Solid**  
**Analysis Batch: 338892**

**Client Sample ID: Lab Control Sample**  
**Prep Type: TCLP**  
**Prep Batch: 338828**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Mercury	0.0167	0.0174		mg/L		104	80 - 120

## Method: Moisture - Percent Moisture

**Lab Sample ID: 310-221597-1 DU**  
**Matrix: Solid**  
**Analysis Batch: 338475**

**Client Sample ID: ZCSF-1210-21-001**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU DU		Unit	D	RPD	RPD Limit
			Result	Qualifier				
Percent Moisture	12.5		14.3		%		13	39
Percent Solids	87.5		85.7		%		2	10

Eurofins TestAmerica, Cedar Falls

# QC Association Summary

Client: CJF Associates, LLC  
 Project/Site: Council Bluffs, 1216-01

Job ID: 310-221597-1

## GC Semi VOA

### Leach Batch: 338760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-221597-1	ZCSF-1210-21-001	TCLP	Solid	1311	
LB 310-338760/1-C	Method Blank	TCLP	Solid	1311	
310-221597-1 MS	ZCSF-1210-21-001	TCLP	Solid	1311	
310-221597-1 MSD	ZCSF-1210-21-001	TCLP	Solid	1311	

### Prep Batch: 339054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-221597-1	ZCSF-1210-21-001	TCLP	Solid	3510C	338760
LB 310-338760/1-C	Method Blank	TCLP	Solid	3510C	338760
LCS 310-339054/2-A	Lab Control Sample	Total/NA	Solid	3510C	
310-221597-1 MS	ZCSF-1210-21-001	TCLP	Solid	3510C	338760
310-221597-1 MSD	ZCSF-1210-21-001	TCLP	Solid	3510C	338760

### Analysis Batch: 339132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-221597-1	ZCSF-1210-21-001	TCLP	Solid	8082A	339054
LB 310-338760/1-C	Method Blank	TCLP	Solid	8082A	339054
LCS 310-339054/2-A	Lab Control Sample	Total/NA	Solid	8082A	339054
310-221597-1 MS	ZCSF-1210-21-001	TCLP	Solid	8082A	339054
310-221597-1 MSD	ZCSF-1210-21-001	TCLP	Solid	8082A	339054

### Prep Batch: 339726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-221597-1	ZCSF-1210-21-001	Total/NA	Solid	3550B	
MB 310-339726/1-A	Method Blank	Total/NA	Solid	3550B	
LCS 310-339726/2-A	Lab Control Sample	Total/NA	Solid	3550B	
LCSD 310-339726/3-A	Lab Control Sample Dup	Total/NA	Solid	3550B	

### Analysis Batch: 339732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-221597-1	ZCSF-1210-21-001	Total/NA	Solid	8082A	339726
310-221597-1	ZCSF-1210-21-001	Total/NA	Solid	8082A	339726
MB 310-339726/1-A	Method Blank	Total/NA	Solid	8082A	339726
LCS 310-339726/2-A	Lab Control Sample	Total/NA	Solid	8082A	339726
LCSD 310-339726/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	339726

### Analysis Batch: 339901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-221597-1	ZCSF-1210-21-001	Total/NA	Solid	PCB	

## Metals

### Leach Batch: 338759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-221597-1	ZCSF-1210-21-001	TCLP	Solid	1311	
LB 310-338759/1-B	Method Blank	TCLP	Solid	1311	
LB 310-338759/1-C	Method Blank	TCLP	Solid	1311	
LCS 310-338759/2-B	Lab Control Sample	TCLP	Solid	1311	
LCS 310-338759/2-C	Lab Control Sample	TCLP	Solid	1311	



# QC Association Summary

Client: CJF Associates, LLC  
Project/Site: Council Bluffs, 1216-01

Job ID: 310-221597-1

## Metals

### Prep Batch: 338796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-221597-1	ZCSF-1210-21-001	TCLP	Solid	3010A	338759
LB 310-338759/1-B	Method Blank	TCLP	Solid	3010A	338759
LCS 310-338759/2-B	Lab Control Sample	TCLP	Solid	3010A	338759

### Prep Batch: 338828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-221597-1	ZCSF-1210-21-001	TCLP	Solid	7470A	338759
LB 310-338759/1-C	Method Blank	TCLP	Solid	7470A	338759
LCS 310-338759/2-C	Lab Control Sample	TCLP	Solid	7470A	338759

### Analysis Batch: 338892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-221597-1	ZCSF-1210-21-001	TCLP	Solid	7470A	338828
LB 310-338759/1-C	Method Blank	TCLP	Solid	7470A	338828
LCS 310-338759/2-C	Lab Control Sample	TCLP	Solid	7470A	338828

### Analysis Batch: 338963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 310-338759/1-B	Method Blank	TCLP	Solid	6010C	338796
LCS 310-338759/2-B	Lab Control Sample	TCLP	Solid	6010C	338796

### Analysis Batch: 338975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-221597-1	ZCSF-1210-21-001	TCLP	Solid	6010C	338796

## General Chemistry

### Analysis Batch: 338475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-221597-1	ZCSF-1210-21-001	Total/NA	Solid	Moisture	
310-221597-1 DU	ZCSF-1210-21-001	Total/NA	Solid	Moisture	

# Lab Chronicle

Client: CJF Associates, LLC  
 Project/Site: Council Bluffs, 1216-01

Job ID: 310-221597-1

**Client Sample ID: ZCSF-1210-21-001**

**Lab Sample ID: 310-221597-1**

**Date Collected: 12/10/21 15:00**

**Matrix: Solid**

**Date Received: 12/11/21 11:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			338760	12/14/21 14:30	JTA	TAL CF
TCLP	Prep	3510C			339054	12/17/21 08:51	JCM	TAL CF
TCLP	Analysis	8082A		1	339132	12/17/21 15:15	BBW	TAL CF
Total/NA	Analysis	PCB		1	339901	12/27/21 09:34	BBW	TAL CF
TCLP	Leach	1311			338759	12/14/21 14:30	JTA	TAL CF
TCLP	Prep	3010A			338796	12/15/21 09:00	ACM2	TAL CF
TCLP	Analysis	6010C		2	338975	12/16/21 10:24	CTB	TAL CF
TCLP	Leach	1311			338759	12/14/21 14:30	JTA	TAL CF
TCLP	Prep	7470A			338828	12/15/21 10:54	EAM	TAL CF
TCLP	Analysis	7470A		1	338892	12/15/21 15:51	EAM	TAL CF
Total/NA	Analysis	Moisture		1	338475	12/13/21 09:45	SAS	TAL CF

**Client Sample ID: ZCSF-1210-21-001**

**Lab Sample ID: 310-221597-1**

**Date Collected: 12/10/21 15:00**

**Matrix: Solid**

**Date Received: 12/11/21 11:15**

**Percent Solids: 87.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			339726	12/23/21 07:48	KMH	TAL CF
Total/NA	Analysis	8082A		10	339732	12/23/21 14:56	BBW	TAL CF
Total/NA	Prep	3550B			339726	12/23/21 07:48	KMH	TAL CF
Total/NA	Analysis	8082A		50	339732	12/23/21 15:40	BBW	TAL CF

**Laboratory References:**

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

# Accreditation/Certification Summary

Client: CJF Associates, LLC  
Project/Site: Council Bluffs, 1216-01

Job ID: 310-221597-1

## Laboratory: Eurofins TestAmerica, Cedar Falls

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-21 *

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: CJF Associates, LLC  
Project/Site: Council Bluffs, 1216-01

Job ID: 310-221597-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CF
PCB	Total PCB Calculation	TAL SOP	TAL CF
6010C	Metals (ICP)	SW846	TAL CF
7470A	Mercury (CVAA)	SW846	TAL CF
Moisture	Percent Moisture	EPA	TAL CF
1311	TCLP Extraction	SW846	TAL CF
3010A	Preparation, Total Metals	SW846	TAL CF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CF
3550B	Ultrasonic Extraction	SW846	TAL CF
7470A	Preparation, Mercury	SW846	TAL CF

#### Protocol References:

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

#### Laboratory References:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401



Environment Testing  
TestAmerica



310-221597 Chain of Custody

**Cooler/Sample Receipt and Temperature Log Form**

<b>Client Information</b>			
Client: <u>CJF Associates</u>			
City/State:	CITY <u>St Clair Shores</u>	STATE <u>MI</u>	Project:
<b>Receipt Information</b>			
Date/Time Received:	DATE <u>12/11/21</u>	TIME <u>1115</u>	Received By: <u>LR</u>
Delivery Type: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <u>SAT</u> <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee <input type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
<b>Condition of Cooler/Containers</b>			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____	
Multiple Coolers?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler # _____ of _____	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
<b>Temperature Record</b>			
Coolant:	<input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE		
Thermometer ID: <u>N</u>	Correction Factor (°C): <u>0</u>		
• <b>Temp. Blank Temperature</b> – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): _____	Corrected Temp (°C): _____		
• <b>Sample Container Temperature</b>			
Container(s) used:	<u>CONTAINER 1</u> <u>8 oz soil jar</u>	<u>CONTAINER 2</u> <u>4 oz soil jar</u>	
Uncorrected Temp (°C):	<u>8.3</u>	<u>7.7</u>	
Corrected Temp (°C):	<u>8.3</u>	<u>7.7</u>	
<b>Exceptions Noted</b>			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
<b>Additional Comments</b>			

Document: CF-LG-WI-002  
Revision: 25  
Date: 06/17/2019

Eurofins TestAmerica, Cedar Falls

General temperature criteria is 0 to 6°C  
Bacteria temperature criteria is 0 to 10°C

Cedar Falls, IA 50613  
phone 319.277.2401 fax 319.277.2425

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Regulatory Program:  DW  NPDES  RCRA  Other:

<b>Client Contact</b>		<b>Project Manager:</b>		<b>Site Contact:</b>		<b>Date:</b>		<b>COC No:</b>	
CJF Associates		<b>Email:</b>		Lab Contact:		<b>Carrier:</b>		1 of 1 COCs	
22324 Harper Avenue		<b>Tel/Fax:</b>		Analysis Turnaround Time		<b>Sampler:</b> Charles Ring			
St Clair Shores, Michigan 48080				<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		<b>For Lab Use Only:</b>			
(248) 227-5171				TAT if different from Below		Walk-in Client:			
(xxx) xxx-xxxx FAX				2 weeks <input type="checkbox"/>		Lab Sampling:			
Project Name: Alter				1 week <input checked="" type="checkbox"/>		Job / SDG No.:			
Site: Council Bluffs, Iowa				2 days <input type="checkbox"/>					
P O # 1216-01				1 day <input type="checkbox"/>					

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	# of Cont.		Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Total PCBs	TCLP PCBs	TCLP RCRA Metals	Sample Specific Notes:
				Matrix	Cont.						
ZCSF-1210-21-001	12-10-21	3:00 PM			3			X	X	X	Hold
ZCSF-1210-21-001 DUP	12-10-21	3:00 PM			3						

**Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other**

**Possible Hazard Identification:** Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

**Special Instructions/QC Requirements & Comments:** Sample is ASR from Iowa, needs Iowa Certifications.

<b>Custody Seals Intact:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>Cooler Temp. (°C):</b> Obs'd: <u>CR</u> Corrd: _____		<b>Therm ID No.:</b> _____	
Relinquished by: <i>Charles R. S.</i>		Received by: <i>CR</i>		Date/Time: <i>12/15/21</i>	
Relinquished by:		Received by:		Date/Time: <i>11/5</i>	
Relinquished by:		Received in Laboratory by:		Date/Time:	

# Login Sample Receipt Checklist

Client: CJF Associates, LLC

Job Number: 310-221597-1

**Login Number: 221597**

**List Source: Eurofins TestAmerica, Cedar Falls**

**List Number: 1**

**Creator: Homolar, Dana J**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
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.	True	
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

