



Arconic US LLC  
4879 State St.  
Bettendorf IA, 52722

March 24, 2026

Mr. Chad Stobbe  
Iowa DNR  
Land Quality Bureau  
6200 Park Ave  
Suite 200  
Des Moines, IA 50321-1371  
FedEx: 8899 4295 9438

Mr. Ryan Stouder  
Iowa DNR  
Field Office 6  
1023 W Madison St  
Washington, IA 52353-1623  
FedEx: 8899 4299 7299

**RE: Resubmittal of 2025 Solid By-Product Management Plan  
Beneficial Use Determination ID#82-SDP-22-11X  
Annual Report IAC (567-108.7) and Filter Cake Volumes**

Dear Mr. Stobbe:

Thank you for your review of our initial submission of the 2025 Solid By-Product Management Plan (SBMP), dated February 27, 2026, and for the feedback. The plan was updated based on your comments.

Per your instruction we are including two separate Analytical Testing Report Forms, one for each sampling event.

We are providing the updated Solid By-Product Management Plan for the referenced Beneficial Use Determination (BUD). During calendar year 2025, our facility generated a total of 5,085.66 tons of filter cake. Of this amount: 4,095.30 tons were sent to Green America Recycling in Buffalo, Iowa, under the BUD program. The remaining 990.36 tons were sent to the Quad Cities Landfill in Milan, Illinois, for use as Alternate Daily Cover (ADC).

Included are all associated analytical reports, presented separately for each event as required:

1. **Analytical Report 310-318280-1** (sample collected October 16, 2025), analyzed for the full list of parameters required under the Process for Testing.
2. **Analytical Report 310-318280-2**, a rerun of the October 16, 2025, sample to confirm results for Thallium at a reporting limit lower than the default screening threshold.
3. **Analytical Report 310-322624-1** (sample collected December 17, 2025), analyzed for total metals only.

All analytical parameters were found to be below the default screening threshold for the BUD program except for Cobalt. Cobalt was found at 26.7 mg/kg on October 16, 2025, with a default screening threshold of 23 mg/kg. Arconic conducted a second round of sampling on December 17, 2025, to confirm cobalt concentrations with a result of 12.5 mg/kg.



**ARCONIC**

Innovation, engineered.

Arconic US LLC  
4879 State St.  
Bettendorf IA, 52722

Although cobalt was found above the default screening threshold for soils, as outlined in the statewide standards, this should not preclude its beneficial reuse. The default statewide standards are based on unrestricted residential exposure scenarios. This would be appropriate for applications where current or future land-use may allow for long-term unrestricted access. The use of this material, as alternative landfill cover or alternative feedstock for concrete, represents a significantly different exposure risk where the appropriate exposure screening threshold would be that of a Site Worker scenario. The Site Worker scenario applies to Arconic and landfill staff handling this material. The soil screening threshold for cobalt exposure of a Site Worker is approximately 115 mg/kg, over four times higher than the concentration found, as determined by the IDNR Cumulative Risk Calculator. Future exposure scenarios for soils at landfills are limited to Site Worker or Construction Worker due to post closure care requirements for permitted landfills. These requirements place lasting restrictions on future land use which eliminates unrestricted exposure scenario.

Please contact me at (563) 459-2728 with any questions or concerns regarding this submittal.

Sincerely,

Jeremy Niemeier  
Environmental Manager  
Arconic US LLC.

cc: Mr. Ryan Stouder, Field Office 6

Arconic US LLC, 4879 State St Bettendorf, IA 52722  
RE: Lime based Wastewater Treatment Sludge By-Product Management Plan  
**Beneficial Use Determination ID#82-SDP-22-11X**  
*[IAC 567 Chapter 108.6(2)]*

**Source of the solid by-product:**

- Arconic Davenport Works Facility (DPW), Bettendorf Iowa

**Submittal of the Annual Report:**

- Submittal of the project or activity for beneficial use material must be reported within 60 Days of the end of a calendar year or within 60 Days of revision of the Solid By-Product Management Plan. [567-108.7(3)].

**Process for Testing:**

- Full TCLP (metals, VOCs, and semi-VOCs), SPLP, and total metals (TM) testing shall be conducted on an annual basis, with sampling performed at least once each calendar year. The testing frequency was originally established as once every three years and was revised to a biennial (every other year) schedule at the request of Chad Stobbe, as documented in an email dated January 18, 2018. The testing frequency was revised from biennial to annual sampling in the facility's February 24, 2025 report submittal.
- Testing limits and reported results need to be coordinated with the analytical laboratory to ensure consistency with the required limits presented in the Analytical Testing Report.
- Testing needs to include Mercury and Thallium, to be requested specifically on the chain of custody. Pesticides and Herbicides may be excluded unless there is a process change per email with Chad Stobbe on 1/18/2018.
- Any Process change will trigger testing and submittal within 60 Days of the change.

**Storage Location:**

- This material is stored in a roll-off container inside the Blow Down Treatment Bldg. 887 until full or in roll off containers outside bldg. 887 prior to shipment off site. (see attached drawing)

**Maximum anticipated inventory:**

- 4 roll off containers containing 10 tons each.

**Run-on and Run-off Controls:**

- This material is stored in a roll off container inside building 887 the majority of the time and is physically solid at the time of generation. Full containers are only stored outside during hours that the treatment facility is closed. All employees are responsible to report any leaks or releases of any material to Plant Security immediately which then dispatches the Facility Emergency Response Team (ERT). The ERT is staffed 24 hours a day, 365 days a year.

Arconic US LLC, 4879 State St Bettendorf, IA 52722

RE: Lime based Wastewater Treatment Sludge By-Product Management Plan

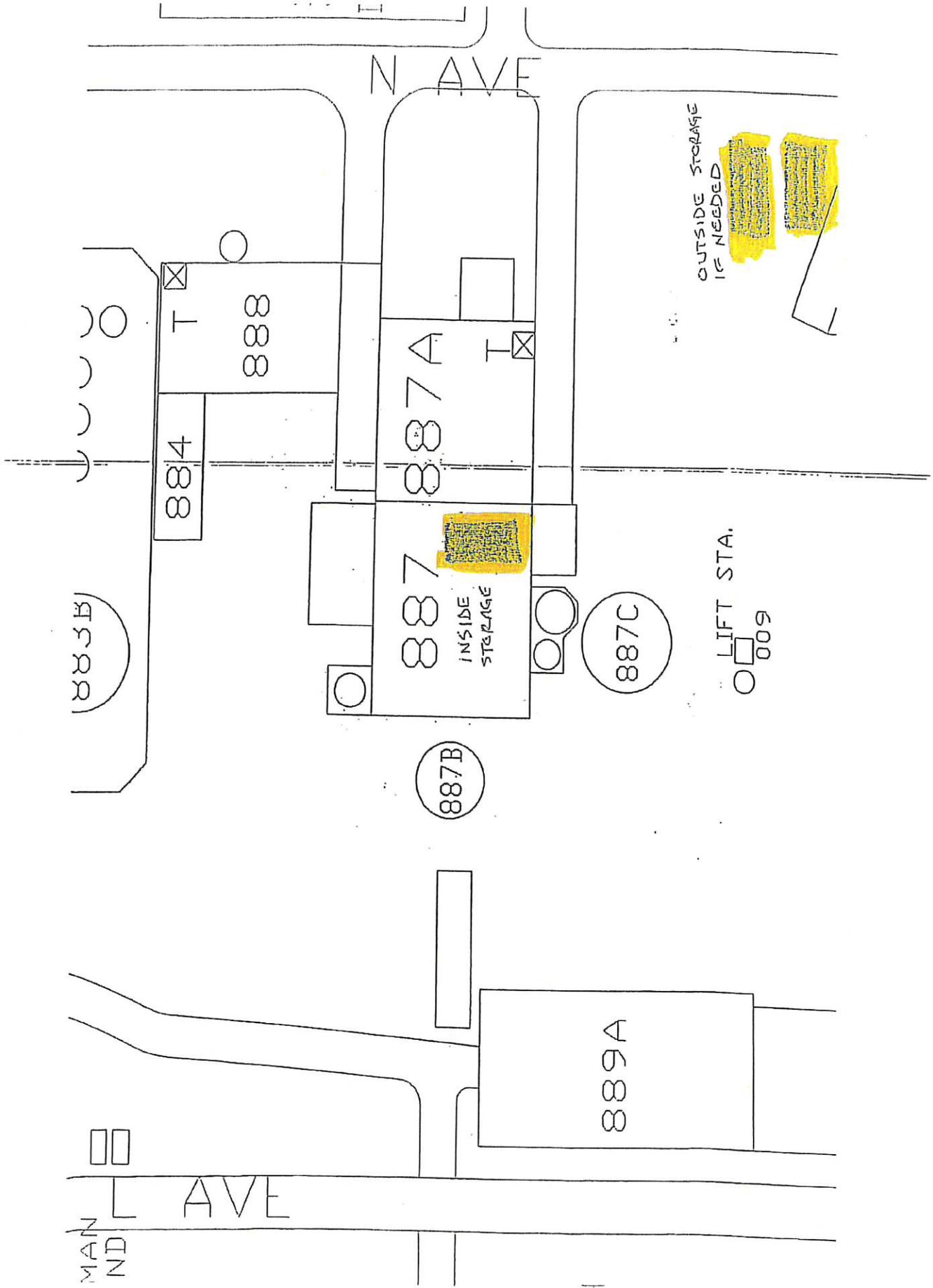
**Beneficial Use Determination ID#82-SDP-22-11X**

*[IAC 567 Chapter 108.6(2)]*

**Management practices to minimize uncontrolled dispersion:**

- All employees are responsible to report any leaks or releases of any material to Plant Security immediately which then dispatches the Facility Emergency Response Team (ERT). The ERT is staffed 24 hours a day, 365 days a year.
- The material is only stored inside bldg. 887 or outside of that building in a specified place, in roll-off containers.





2025	Green America Filter Cake		Alternate Daily Cover (ADC)
Jan	427.47	Jan	0.00
Feb	396.43	Feb	0.00
Mar	464.76	Mar	0.00
Apr	460.31	Apr	0.00
May	444.66	May	0.00
Jun	404.00	Jun	0.00
Jul	499.62	Jul	0.00
Aug	377.01	Aug	0.00
Sep	483.02	Sep	0.00
Oct	111.71	Oct	396.39
Nov	0.00	Nov	318.29
Dec	26.31	Dec	275.68
<b>SUM</b>	<b>4095.30</b>		<b>990.36</b>

<b>2025 Total Tons of Filter Cake</b>	<b>5085.66</b>
Filter Cake for Beneficial Use	4095.30
Filter Cake to Landfill for ADC	990.36



# Beneficial Use Determination: Solid By-Product Management Plan Analytical Testing Report

Beneficial Use ID#: 82 -BUD- 22 - 11  
 DNR Certified Lab: Eurofins Cedar Falls  
 Lab Report Date: 11/03/2025, 12/26/2025  
 By-Product Generator: Arconic US LLC  
 City: Bettendorf State: IA Zip: 52722  
 By-Product Name: Filter Cake

Send completed report form(s), laboratory analytics, and supplemental Solid By-Product Management Plan (SBMP) documentation to:  
**Iowa Department of Natural Resources**  
**Land Quality Bureau**  
**Solid Waste & Contaminated Sites Section**  
**6200 Park Ave Ste 200**  
**Des Moines, IA 50321**  
 For questions concerning this report form please contact the DNR at (515) 201-8272.

### ANALYTICAL TESTING RESULTS

Test Methods for Evaluating Solid Waste: Physical/Chemical Methods ([SW-846](#)).

Required		Synthetic Precipitation Leaching Procedure (EPA Test Method 1312)			Total Metals		
*	Contaminant	MCL	10 X MCL	Test Result	Regulatory Limit	Test Result	
<input type="checkbox"/>	Antimony	0.006 mg/L	0.06 mg/L	<0.0400 mg/L	31 mg/kg	<3.10	mg/kg
<input type="checkbox"/>	Arsenic	0.010 mg/L	0.10 mg/L	<0.0400 mg/L	17 mg/kg	<3.10	mg/kg
<input type="checkbox"/>	Barium	2.0 mg/L	20.0 mg/L	<0.200 mg/L	15,000 mg/kg	113.0	mg/kg
<input type="checkbox"/>	Beryllium	0.004 mg/L	0.04 mg/L	<0.0200 mg/L	110 mg/kg	<1.55	mg/kg
<input type="checkbox"/>	Boron				16,000 mg/kg	<155.0	mg/kg
<input type="checkbox"/>	Cadmium	0.005 mg/L	0.05 mg/L	<0.0100 mg/L	70 mg/kg	<1.55	mg/kg
<input type="checkbox"/>	Chromium	0.1 mg/L	1.0 mg/L	<0.100 mg/L	** (Total)	50.7	mg/kg
(Hexavalent - VI)					210 mg/kg	NA	mg/kg
(Trivalent - III)					97,000 mg/kg	NA	mg/kg
<input type="checkbox"/>	Cobalt				23 mg/kg	26.7	mg/kg
<input type="checkbox"/>	Copper	1.3 mg/L	13.0 mg/L	<0.200 mg/L	15,000 mg/kg	614.0	mg/kg
<input type="checkbox"/>	Fluoride	4.0 mg/L	40.0 mg/L	<0.200 mg/L	4,700 mg/kg	<3.13	mg/kg
<input type="checkbox"/>	Lead	0.015 mg/L	0.15 mg/L	<0.0200 mg/L	400 mg/kg	10.2	mg/kg
<input type="checkbox"/>	Lithium				160 mg/kg	84.4	mg/kg
<input type="checkbox"/>	Manganese				10,000 mg/kg	349.0	mg/kg
<input type="checkbox"/>	Mercury	0.002 mg/L	0.02 mg/L	<0.00200 mg/L	23 mg/kg	<0.0594	mg/kg
<input type="checkbox"/>	Molybdenum				390 mg/kg	3.35	mg/kg
<input type="checkbox"/>	Nickel				1,500 mg/kg	26.7	mg/kg
<input type="checkbox"/>	Selenium	0.05 mg/L	0.5 mg/L	<0.100 mg/L	390 mg/kg	<4.64	mg/kg
<input type="checkbox"/>	Silver				370 mg/kg	54.2	mg/kg
<input type="checkbox"/>	Thallium	0.002 mg/L	0.02 mg/L	<0.0200 mg/L	0.78 mg/kg	<0.247	mg/kg
<input type="checkbox"/>	Vanadium				350 mg/kg	10.6	mg/kg
<input type="checkbox"/>	Zinc				23,000 mg/kg	951.0	mg/kg

\*Required contaminant

\*\*If Total Chromium ≥210 mg/kg, further analysis shall be conducted to determine hexavalent and trivalent results.

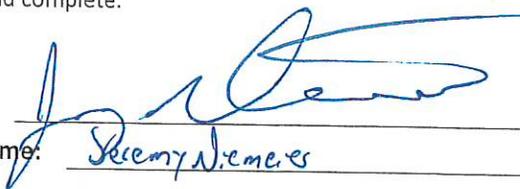
Toxicity Characteristic Leaching Procedure (EPA Test Method 1311) - Regulatory Limits

Metals				Volatile Organic Compounds			
*	Contaminant	Regulatory Limit	Test Result	*	Contaminant	Regulatory Limit	Test Result
<input type="checkbox"/>	Arsenic	5.0 mg/L	<0.100 mg/L	<input type="checkbox"/>	Benzene	0.5 mg/L	<0.100 mg/L
<input type="checkbox"/>	Barium	100.0 mg/L	<0.200 mg/L	<input type="checkbox"/>	Carbon tetrachloride	0.5 mg/L	<0.100 mg/L
<input type="checkbox"/>	Cadmium	1.0 mg/L	<0.0200 mg/L	<input type="checkbox"/>	Chlorobenzene	100.0 mg/L	<0.100 mg/L
<input type="checkbox"/>	Chromium	5.0 mg/L	<0.0200 mg/L	<input type="checkbox"/>	Chloroform	6.0 mg/L	<0.100 mg/L
<input type="checkbox"/>	Lead	5.0 mg/L	<0.100 mg/L	<input type="checkbox"/>	1,2-Dichloroethane	0.5 mg/L	<0.100 mg/L
<input type="checkbox"/>	Mercury	0.2 mg/L	<0.00200 mg/L	<input type="checkbox"/>	1,1-Dichloroethylene	0.7 mg/L	<0.100 mg/L
<input type="checkbox"/>	Selenium	1.0 mg/L	<0.100 mg/L	<input type="checkbox"/>	Methyl ethyl ketone	200.0 mg/L	<2.00 mg/L
<input type="checkbox"/>	Silver	5.0 mg/L	<0.0500 mg/L	<input type="checkbox"/>	Tetrachloroethylene	0.7 mg/L	<0.200 mg/L
				<input type="checkbox"/>	Trichloroethylene	0.5 mg/L	<0.200 mg/L
				<input type="checkbox"/>	Vinyl chloride	0.2 mg/L	<0.100 mg/L
Pesticides				Semi-Volatile Organic Compounds			
*	Contaminant	Regulatory Limit	Test Result	*	Contaminant	Regulatory Limit	Test Result
<input type="checkbox"/>	Chlordane	0.03 mg/L	<0.00188 mg/L	<input type="checkbox"/>	o-Cresol	200.0 mg/L	<0.0500 mg/L
<input type="checkbox"/>	Endrin	0.02 mg/L	<0.00009 mg/L	<input type="checkbox"/>	m-Cresol	200.0 mg/L	<0.0500 mg/L
<input type="checkbox"/>	Heptachlor (and its epoxide)	0.008 mg/L	<0.00009 mg/L	<input type="checkbox"/>	p-Cresol	200.0 mg/L	<0.0500 mg/L
<input type="checkbox"/>	Lindane	0.4 mg/L	<0.00009 mg/L	<input type="checkbox"/>	Cresol	200.0 mg/L	<0.0500 mg/L
<input type="checkbox"/>	Methoxychlor	10.0 mg/L	<0.00009 mg/L	<input type="checkbox"/>	1,4-Dichlorobenzene	7.5 mg/L	<0.0500 mg/L
<input type="checkbox"/>	Toxaphene	0.5 mg/L	<0.00188 mg/L	<input type="checkbox"/>	2,4-Dinitrotoluene	0.13 mg/L	<0.0500 mg/L
				<input type="checkbox"/>	Hexachlorobenzene	0.13 mg/L	<0.0500 mg/L
				<input type="checkbox"/>	Hexachlorobutadiene	0.5 mg/L	<0.0500 mg/L
				<input type="checkbox"/>	Hexachloroethane	3.0 mg/L	<0.0500 mg/L
Herbicides				<input type="checkbox"/>	Nitrobenzene	2.0 mg/L	<0.0500 mg/L
*	Contaminant	Regulatory Limit	Test Result	<input type="checkbox"/>	Pentachlorophenol	100.0 mg/L	<0.0500 mg/L
<input type="checkbox"/>	2,4-D	10.0 mg/L	<.025 mg/L	<input type="checkbox"/>	Pyridine	5.0 mg/L	<0.0500 mg/L
<input type="checkbox"/>	2,4,5-TP (Silvex)	1.0 mg/L	<.025 mg/L	<input type="checkbox"/>	2,4,5-Trichlorophenol	400.0 mg/L	<0.0500 mg/L
				<input type="checkbox"/>	2,4,6-Trichlorophenol	2.0 mg/L	<0.0500 mg/L

\*Required contaminant

**BY-PRODUCT GENERATOR CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Signature:  Date: 3/25/26  
 Printed Name: Jeremy Niemeyer Title: Environmental Manager



# Beneficial Use Determination: Solid By-Product Management Plan Analytical Testing Report

Beneficial Use ID#: 82 -BUD- 22 - 11  
 DNR Certified Lab: Eurofins Cedar Falls  
 Lab Report Date: 01/09/2026  
 By-Product Generator: Arconic US LLC  
 City: Bettendorf State: IA Zip: 52722  
 By-Product Name: Filter Cake

Send completed report form(s), laboratory analytics, and supplemental Solid By-Product Management Plan (SBMP) documentation to:  
 Iowa Department of Natural Resources  
 Land Quality Bureau  
 Solid Waste & Contaminated Sites Section  
 6200 Park Ave Ste 200  
 Des Moines, IA 50321  
 For questions concerning this report form please contact the DNR at (515) 201-8272.

## ANALYTICAL TESTING RESULTS

Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846).

Required		Synthetic Precipitation Leaching Procedure (EPA Test Method 1312)			Total Metals			
*	Contaminant	MCL	10 X MCL	Test Result	Regulatory Limit	Test Result		
<input type="checkbox"/>	Antimony	0.006 mg/L	0.06 mg/L	mg/L	31 mg/kg	<0.975	mg/kg	
<input type="checkbox"/>	Arsenic	0.010 mg/L	0.10 mg/L	mg/L	17 mg/kg	1.17	mg/kg	
<input type="checkbox"/>	Barium	2.0 mg/L	20.0 mg/L	mg/L	15,000 mg/kg	108.0	mg/kg	
<input type="checkbox"/>	Beryllium	0.004 mg/L	0.04 mg/L	mg/L	110 mg/kg	<0.433	mg/kg	
<input type="checkbox"/>	Boron				16,000 mg/kg	<93.1	mg/kg	
<input type="checkbox"/>	Cadmium	0.005 mg/L	0.05 mg/L	mg/L	70 mg/kg	<0.411	mg/kg	
<input type="checkbox"/>	Chromium	0.1 mg/L	1.0 mg/L	mg/L	** (Total)	18.3	mg/kg	
					(Hexavalent - VI)	210 mg/kg	NA	mg/kg
					(Trivalent - III)	97,000 mg/kg	NA	mg/kg
<input type="checkbox"/>	Cobalt				23 mg/kg	12.5	mg/kg	
<input type="checkbox"/>	Copper	1.3 mg/L	13.0 mg/L	mg/L	15,000 mg/kg	96.3	mg/kg	
<input type="checkbox"/>	Fluoride	4.0 mg/L	40.0 mg/L	mg/L	4,700 mg/kg	<2.87	mg/kg	
<input type="checkbox"/>	Lead	0.015 mg/L	0.15 mg/L	mg/L	400 mg/kg	5.7	mg/kg	
<input type="checkbox"/>	Lithium				160 mg/kg	10.5	mg/kg	
<input type="checkbox"/>	Manganese				10,000 mg/kg	154.0	mg/kg	
<input type="checkbox"/>	Mercury	0.002 mg/L	0.02 mg/L	mg/L	23 mg/kg	<0.0567	mg/kg	
<input type="checkbox"/>	Molybdenum				390 mg/kg	1.41	mg/kg	
<input type="checkbox"/>	Nickel				1,500 mg/kg	6.68	mg/kg	
<input type="checkbox"/>	Selenium	0.05 mg/L	0.5 mg/L	mg/L	390 mg/kg	<1.62	mg/kg	
<input type="checkbox"/>	Silver				370 mg/kg	2.53	mg/kg	
<input type="checkbox"/>	Thallium	0.002 mg/L	0.02 mg/L	mg/L	0.78 mg/kg	<0.411	mg/kg	
<input type="checkbox"/>	Vanadium				350 mg/kg	11.4	mg/kg	
<input type="checkbox"/>	Zinc				23,000 mg/kg	215.0	mg/kg	

\*Required contaminant

\*\*If Total Chromium ≥210 mg/kg, further analysis shall be conducted to determine hexavalent and trivalent results.

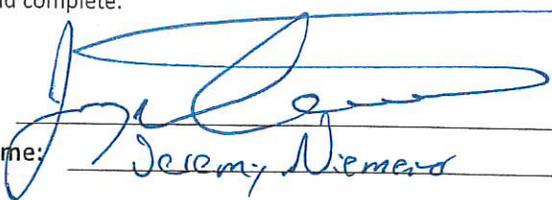
Toxicity Characteristic Leaching Procedure (EPA Test Method 1311) - Regulatory Limits

Metals				Volatile Organic Compounds			
*	Contaminant	Regulatory Limit	Test Result	*	Contaminant	Regulatory Limit	Test Result
<input type="checkbox"/>	Arsenic	5.0 mg/L	mg/L	<input type="checkbox"/>	Benzene	0.5 mg/L	mg/L
<input type="checkbox"/>	Barium	100.0 mg/L	mg/L	<input type="checkbox"/>	Carbon tetrachloride	0.5 mg/L	mg/L
<input type="checkbox"/>	Cadmium	1.0 mg/L	mg/L	<input type="checkbox"/>	Chlorobenzene	100.0 mg/L	mg/L
<input type="checkbox"/>	Chromium	5.0 mg/L	mg/L	<input type="checkbox"/>	Chloroform	6.0 mg/L	mg/L
<input type="checkbox"/>	Lead	5.0 mg/L	mg/L	<input type="checkbox"/>	1,2-Dichloroethane	0.5 mg/L	mg/L
<input type="checkbox"/>	Mercury	0.2 mg/L	mg/L	<input type="checkbox"/>	1,1-Dichloroethylene	0.7 mg/L	mg/L
<input type="checkbox"/>	Selenium	1.0 mg/L	mg/L	<input type="checkbox"/>	Methyl ethyl ketone	200.0 mg/L	mg/L
<input type="checkbox"/>	Silver	5.0 mg/L	mg/L	<input type="checkbox"/>	Tetrachloroethylene	0.7 mg/L	mg/L
				<input type="checkbox"/>	Trichloroethylene	0.5 mg/L	mg/L
				<input type="checkbox"/>	Vinyl chloride	0.2 mg/L	mg/L
Pesticides				Semi-Volatile Organic Compounds			
*	Contaminant	Regulatory Limit	Test Result	*	Contaminant	Regulatory Limit	Test Result
<input type="checkbox"/>	Chlordane	0.03 mg/L	mg/L	<input type="checkbox"/>	o-Cresol	200.0 mg/L	mg/L
<input type="checkbox"/>	Endrin	0.02 mg/L	mg/L	<input type="checkbox"/>	m-Cresol	200.0 mg/L	mg/L
<input type="checkbox"/>	Heptachlor (and its epoxide)	0.008 mg/L	mg/L	<input type="checkbox"/>	p-Cresol	200.0 mg/L	mg/L
<input type="checkbox"/>	Lindane	0.4 mg/L	mg/L	<input type="checkbox"/>	Cresol	200.0 mg/L	mg/L
<input type="checkbox"/>	Methoxychlor	10.0 mg/L	mg/L	<input type="checkbox"/>	1,4-Dichlorobenzene	7.5 mg/L	mg/L
<input type="checkbox"/>	Toxaphene	0.5 mg/L	mg/L	<input type="checkbox"/>	2,4-Dinitrotoluene	0.13 mg/L	mg/L
				<input type="checkbox"/>	Hexachlorobenzene	0.13 mg/L	mg/L
				<input type="checkbox"/>	Hexachlorobutadiene	0.5 mg/L	mg/L
				<input type="checkbox"/>	Hexachloroethane	3.0 mg/L	mg/L
Herbicides				<input type="checkbox"/>	Nitrobenzene	2.0 mg/L	mg/L
*	Contaminant	Regulatory Limit	Test Result	<input type="checkbox"/>	Pentachlorophenol	100.0 mg/L	mg/L
<input type="checkbox"/>	2,4-D	10.0 mg/L	mg/L	<input type="checkbox"/>	Pyridine	5.0 mg/L	mg/L
<input type="checkbox"/>	2,4,5-TP (Silvex)	1.0 mg/L	mg/L	<input type="checkbox"/>	2,4,5-Trichlorophenol	400.0 mg/L	mg/L
				<input type="checkbox"/>	2,4,6-Trichlorophenol	2.0 mg/L	mg/L

\*Required contaminant

**BY-PRODUCT GENERATOR CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Signature:  Date: 3/25/26  
 Printed Name: Jeremy Niemero Title: Environmental Manager



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Paul Ragona  
Arconic Mill Products  
4879 State Street  
Bettendorf, Iowa 52722  
Generated 11/3/2025 4:43:20 PM

## JOB DESCRIPTION

Trial BTF Filter Cake

## JOB NUMBER

310-318280-1

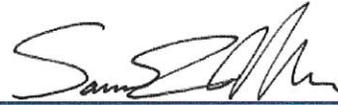
# Eurofins Cedar Falls

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

## Authorization



Generated  
11/3/2025 4:43:20 PM

Authorized for release by  
Samuel Miller, Project Management Assistant I  
[Samuel.Miller@et.eurofinsus.com](mailto:Samuel.Miller@et.eurofinsus.com)  
(319)595-2008



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	3
Case Narrative . . . . .	4
Sample Summary . . . . .	6
Detection Summary . . . . .	7
Client Sample Results . . . . .	8
Definitions . . . . .	12
Surrogate Summary . . . . .	13
QC Sample Results . . . . .	15
QC Association . . . . .	23
Chronicle . . . . .	27
Certification Summary . . . . .	29
Method Summary . . . . .	30
Chain of Custody . . . . .	31
Receipt Checklists . . . . .	35

# Case Narrative

Client: Arconic Mill Products  
Project: Trial BTF Filter Cake

Job ID: 310-318280-1

**Job ID: 310-318280-1**

**Eurofins Cedar Falls**

## Job Narrative 310-318280-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

### Receipt

The sample was received on 10/17/2025 8:35 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.5°C.

### GC/MS VOA

Method 8260D - TCLP: The laboratory control sample (LCS) for preparation batch 310-471121 and analytical batch 310-471331 recovered outside control limits for the following analyte: Carbon tetrachloride. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

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

### GC/MS Semi VOA

Method 8270E - TCLP: The continuing calibration verification (CCV) associated with batch 310-471042 recovered above the upper control limit for 2,4-Dinitrotoluene(26%D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is:(CCV 310-471042/3).

Method 8270E - TCLP: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 310-470956 and analytical batch 310-471042 recovered outside control limits for the following analytes: Pentachlorophenol.

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

### Herbicides

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

### Pesticides

Method 8081B - TCLP: Surrogate recovery for the following sample was outside the upper control limit: BTF Filter Cake (310-318280-1). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8081B - TCLP: The surrogate recovery for the blank associated with preparation batch 310-470851 and 310-471080 and analytical batch 310-471501 was outside the upper control limits.

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

### Metals

Method 6010D - TCLP: The continuing calibration verification (CCV) associated with batch 310-471156 recovered above the upper control limit for Silver. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 7470A - TCLP: The continuing calibration verification (CCV) associated with batch 310-471150 recovered above the upper control limit for mercury. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

Eurofins Cedar Falls

# Case Narrative

Client: Arconic Mill Products  
Project: Trial BTF Filter Cake

Job ID: 310-318280-1

**Job ID: 310-318280-1 (Continued)**

**Eurofins Cedar Falls**

## General Chemistry

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



# Sample Summary

Client: Arconic Mill Products  
Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-318280-1	BTF Filter Cake	Solid	10/16/25 12:10	10/17/25 08:35	Iowa

---



# Detection Summary

Client: Arconic Mill Products  
 Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

**Client Sample ID: BTF Filter Cake**

**Lab Sample ID: 310-318280-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	113		3.10		mg/Kg	5	✳	6020B	Total/NA
Chromium	50.7		4.64		mg/Kg	5	✳	6020B	Total/NA
Cobalt	26.7		1.55		mg/Kg	5	✳	6020B	Total/NA
Copper	614		4.64		mg/Kg	5	✳	6020B	Total/NA
Lead	10.2		7.74		mg/Kg	5	✳	6020B	Total/NA
Lithium	84.4		7.74		mg/Kg	5	✳	6020B	Total/NA
Manganese	349		7.74		mg/Kg	5	✳	6020B	Total/NA
Molybdenum	3.35		3.10		mg/Kg	5	✳	6020B	Total/NA
Nickel	26.7		4.64		mg/Kg	5	✳	6020B	Total/NA
Silver	54.2		1.55		mg/Kg	5	✳	6020B	Total/NA
Vanadium	10.6		4.64		mg/Kg	5	✳	6020B	Total/NA
Zinc	951		15.5		mg/Kg	5	✳	6020B	Total/NA
pH	11.5	HF	1.0		SU	1		9045D	Soluble



This Detection Summary does not include radiochemical test results.

Euofins Cedar Falls

# Client Sample Results

Client: Arconic Mill Products  
Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

**Client Sample ID: BTF Filter Cake**

**Lab Sample ID: 310-318280-1**

Date Collected: 10/16/25 12:10

Matrix: Solid

Date Received: 10/17/25 08:35

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<0.100		0.100		mg/L			10/25/25 20:37	20
1,2-Dichloroethane	<0.100		0.100		mg/L			10/25/25 20:37	20
2-Butanone (MEK)	<2.00		2.00		mg/L			10/25/25 20:37	20
Benzene	<0.100		0.100		mg/L			10/25/25 20:37	20
Carbon tetrachloride	<0.100	*+	0.100		mg/L			10/25/25 20:37	20
Chlorobenzene	<0.100		0.100		mg/L			10/25/25 20:37	20
Chloroform	<0.100		0.100		mg/L			10/25/25 20:37	20
Tetrachloroethene	<0.200		0.200		mg/L			10/25/25 20:37	20
Trichloroethene	<0.200		0.200		mg/L			10/25/25 20:37	20
Vinyl chloride	<0.100		0.100		mg/L			10/25/25 20:37	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	108		80 - 126		10/25/25 20:37	20
Toluene-d8 (Surr)	91		80 - 120		10/25/25 20:37	20
4-Bromofluorobenzene (Surr)	103		80 - 120		10/25/25 20:37	20

### Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 14:03	1
2,4,5-Trichlorophenol	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 14:03	1
2,4,6-Trichlorophenol	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 14:03	1
2,4-Dinitrotoluene	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 14:03	1
2-Methylphenol	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 14:03	1
4-Methylphenol (and/or 3-Methylphenol)	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 14:03	1
Hexachlorobenzene	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 14:03	1
Hexachlorobutadiene	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 14:03	1
Hexachloroethane	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 14:03	1
Nitrobenzene	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 14:03	1
Pentachlorophenol	<0.0500	*1	0.0500		mg/L		10/22/25 10:45	10/23/25 14:03	1
Pyridine	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 14:03	1
Total Cresols	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 14:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	74		21 - 110	10/22/25 10:45	10/23/25 14:03	1
Phenol-d5 (Surr)	62		21 - 110	10/22/25 10:45	10/23/25 14:03	1
Nitrobenzene-d5 (Surr)	93		39 - 140	10/22/25 10:45	10/23/25 14:03	1
2-Fluorobiphenyl (Surr)	77		33 - 126	10/22/25 10:45	10/23/25 14:03	1
2,4,6-Tribromophenol (Surr)	119		20 - 144	10/22/25 10:45	10/23/25 14:03	1
Terphenyl-d14 (Surr)	98		13 - 150	10/22/25 10:45	10/23/25 14:03	1

### Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	<0.00188		0.00188		mg/L		10/23/25 09:48	10/28/25 13:04	1
Endrin	<0.0000938		0.0000938		mg/L		10/23/25 09:48	10/28/25 13:04	1
gamma-BHC (Lindane)	<0.0000938		0.0000938		mg/L		10/23/25 09:48	10/28/25 13:04	1
Heptachlor	<0.0000938		0.0000938		mg/L		10/23/25 09:48	10/28/25 13:04	1
Heptachlor epoxide	<0.0000938		0.0000938		mg/L		10/23/25 09:48	10/28/25 13:04	1
Methoxychlor	<0.0000938		0.0000938		mg/L		10/23/25 09:48	10/28/25 13:04	1
Toxaphene	<0.00188		0.00188		mg/L		10/23/25 09:48	10/28/25 13:04	1

Eurofins Cedar Falls

# Client Sample Results

Client: Arconic Mill Products  
 Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

**Client Sample ID: BTF Filter Cake**

**Lab Sample ID: 310-318280-1**

Date Collected: 10/16/25 12:10

Matrix: Solid

Date Received: 10/17/25 08:35

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	101		10 - 150	10/23/25 09:48	10/28/25 13:04	1
Tetrachloro-m-xylene (Surr)	183	S1+	17 - 150	10/23/25 09:48	10/28/25 13:04	1

**Method: SW846 8151A - Herbicides (GC) - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<25.0		25.0		ug/L		10/31/25 07:47	11/03/25 14:58	1
Silvex (2,4,5-TP)	<25.0		25.0		ug/L		10/31/25 07:47	11/03/25 14:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCAA	110		25 - 130	10/31/25 07:47	11/03/25 14:58	1

**Method: SW846 6010D - Metals (ICP) - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.100		0.100		mg/L		10/22/25 10:00	10/23/25 17:20	1
Barium	<0.200		0.200		mg/L		10/22/25 10:00	10/23/25 17:20	1
Cadmium	<0.0200		0.0200		mg/L		10/22/25 10:00	10/23/25 17:20	1
Chromium	<0.0200		0.0200		mg/L		10/22/25 10:00	10/23/25 17:20	1
Lead	<0.100		0.100		mg/L		10/22/25 10:00	10/23/25 17:20	1
Selenium	<0.100		0.100		mg/L		10/22/25 10:00	10/23/25 17:20	1
Silver	<0.0500	^+	0.0500		mg/L		10/22/25 10:00	10/23/25 17:20	1

**Method: SW846 6020B - Metals (ICP/MS) - SPLP West**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0400		0.0400		mg/L		10/24/25 10:45	10/25/25 21:23	4
Arsenic	<0.0400		0.0400		mg/L		10/24/25 10:45	10/25/25 21:23	4
Barium	<0.200		0.200		mg/L		10/24/25 10:45	10/25/25 21:23	4
Beryllium	<0.0200		0.0200		mg/L		10/24/25 10:45	10/25/25 21:23	4
Cadmium	<0.0100		0.0100		mg/L		10/24/25 10:45	10/25/25 21:23	4
Chromium	<0.100		0.100		mg/L		10/24/25 10:45	10/25/25 21:23	4
Copper	<0.200		0.200		mg/L		10/24/25 10:45	10/25/25 21:23	4
Lead	<0.0200		0.0200		mg/L		10/24/25 10:45	10/25/25 21:23	4
Selenium	<0.100		0.100		mg/L		10/24/25 10:45	10/25/25 21:23	4
Thallium	<0.0200		0.0200		mg/L		10/24/25 10:45	10/25/25 21:23	4

**Method: SW846 7470A - Mercury (CVAA) - TCLP**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00200	^+	0.00200		mg/L		10/22/25 13:50	10/23/25 15:09	1

**Method: SW846 7470A - Mercury (CVAA) - SPLP West**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00200		0.00200		mg/L		10/27/25 11:57	10/28/25 13:09	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	68.5		0.1		%			10/21/25 07:07	1
Percent Solids (EPA Moisture)	31.5		0.1		%			10/21/25 07:07	1

**General Chemistry - Soluble**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9045D)	11.5	HF	1.0		SU			10/17/25 19:13	1

Eurofins Cedar Falls

# Client Sample Results

Client: Arconic Mill Products  
Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

**Client Sample ID: BTF Filter Cake**

**Lab Sample ID: 310-318280-1**

Date Collected: 10/16/25 12:10

Matrix: Solid

Date Received: 10/17/25 08:35

## General Chemistry - SPLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	<0.200		0.200		mg/L			10/25/25 19:54	1



# Client Sample Results

Client: Arconic Mill Products  
 Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

**Client Sample ID: BTF Filter Cake**

**Lab Sample ID: 310-318280-1**

Date Collected: 10/16/25 12:10

Matrix: Solid

Date Received: 10/17/25 08:35

Percent Solids: 31.5

**Method: SW846 6020B - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<3.10		3.10		mg/Kg	⊛	10/20/25 09:45	10/22/25 14:33	5
Arsenic	<3.10		3.10		mg/Kg	⊛	10/20/25 09:45	10/22/25 14:33	5
Barium	113		3.10		mg/Kg	⊛	10/20/25 09:45	10/22/25 14:33	5
Beryllium	<1.55		1.55		mg/Kg	⊛	10/20/25 09:45	10/22/25 14:33	5
Boron	<155		155		mg/Kg	⊛	10/20/25 09:45	10/22/25 14:33	5
Cadmium	<1.55		1.55		mg/Kg	⊛	10/20/25 09:45	10/22/25 14:33	5
Chromium	50.7		4.64		mg/Kg	⊛	10/20/25 09:45	10/22/25 14:33	5
Cobalt	26.7		1.55		mg/Kg	⊛	10/20/25 09:45	10/22/25 14:33	5
Copper	614		4.64		mg/Kg	⊛	10/20/25 09:45	10/22/25 14:33	5
Lead	10.2		7.74		mg/Kg	⊛	10/20/25 09:45	10/22/25 14:33	5
Lithium	84.4		7.74		mg/Kg	⊛	10/20/25 09:45	10/22/25 14:33	5
Manganese	349		7.74		mg/Kg	⊛	10/20/25 09:45	10/22/25 14:33	5
Molybdenum	3.35		3.10		mg/Kg	⊛	10/20/25 09:45	10/22/25 14:33	5
Nickel	26.7		4.64		mg/Kg	⊛	10/20/25 09:45	10/23/25 14:25	5
Selenium	<4.64		4.64		mg/Kg	⊛	10/20/25 09:45	10/22/25 14:33	5
Silver	54.2		1.55		mg/Kg	⊛	10/20/25 09:45	10/22/25 14:33	5
Thallium	<1.55		1.55		mg/Kg	⊛	10/20/25 09:45	10/22/25 14:33	5
Vanadium	10.6		4.64		mg/Kg	⊛	10/20/25 09:45	10/22/25 14:33	5
Zinc	951		15.5		mg/Kg	⊛	10/20/25 09:45	10/22/25 14:33	5

**Method: SW846 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0594		0.0594		mg/Kg	⊛	10/24/25 12:15	10/27/25 10:20	1

**General Chemistry - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	<3.13		3.13		mg/Kg	⊛		10/25/25 19:02	1



## Definitions/Glossary

Client: Arconic Mill Products  
Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

#### GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.

#### GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

#### Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

### 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: Arconic Mill Products  
 Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DBFM (80-126)	TOL (80-120)	BFB (80-120)
310-318280-1	BTF Filter Cake	108	91	103
LB 310-471121/1-A	Method Blank	112	87	109
LCS 310-471121/2-A	Lab Control Sample	107	111	98

**Surrogate Legend**

DBFM = Dibromofluoromethane (Surr)  
 TOL = Toluene-d8 (Surr)  
 BFB = 4-Bromofluorobenzene (Surr)

## Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (21-110)	PHL (21-110)	NBZ (39-140)	FBP (33-126)	TBP (20-144)	TPHL (13-150)
LCS 310-470956/2-A	Lab Control Sample	74	63	94	83	121	103
LCSD 310-470956/3-A	Lab Control Sample Dup	73	62	93	80	117	99

**Surrogate Legend**

2FP = 2-Fluorophenol (Surr)  
 PHL = Phenol-d5 (Surr)  
 NBZ = Nitrobenzene-d5 (Surr)  
 FBP = 2-Fluorobiphenyl (Surr)  
 TBP = 2,4,6-Tribromophenol (Surr)  
 TPHL = Terphenyl-d14 (Surr)

## Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (21-110)	PHL (21-110)	NBZ (39-140)	FBP (33-126)	TBP (20-144)	TPHL (13-150)
310-318280-1	BTF Filter Cake	74	62	93	77	119	98
LB 310-470851/1-C	Method Blank	83	68	111	91	78	114

**Surrogate Legend**

2FP = 2-Fluorophenol (Surr)  
 PHL = Phenol-d5 (Surr)  
 NBZ = Nitrobenzene-d5 (Surr)  
 FBP = 2-Fluorobiphenyl (Surr)  
 TBP = 2,4,6-Tribromophenol (Surr)  
 TPHL = Terphenyl-d14 (Surr)

## Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB2 (10-150)	TCX2 (17-150)
310-318280-1	BTF Filter Cake	101	183 S1+
LB 310-470851/1-E	Method Blank	133	243 S1+

**Surrogate Legend**

Euofins Cedar Falls



# Surrogate Summary

Job ID: 310-318280-1

Client: Arconic Mill Products

Project/Site: Trial BTF Filter Cake

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

## Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (25-130)	
LCS 500-841028/2-A	Lab Control Sample	105	
MB 500-841028/1-A	Method Blank	97	

**Surrogate Legend**  
DCPAA = DCAA

## Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: TCLP

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (25-130)	
310-318280-1	BTF Filter Cake	110	
LB2 500-840287/1-C	Method Blank	100	

**Surrogate Legend**  
DCPAA = DCAA



# QC Sample Results

Client: Arconic Mill Products  
Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: LB 310-471121/1-A

Matrix: Solid

Analysis Batch: 471331

Client Sample ID: Method Blank

Prep Type: TCLP

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1-Dichloroethene	<0.100		0.100		mg/L			10/25/25 18:45	20
1,2-Dichloroethane	<0.100		0.100		mg/L			10/25/25 18:45	20
2-Butanone (MEK)	<2.00		2.00		mg/L			10/25/25 18:45	20
Benzene	<0.100		0.100		mg/L			10/25/25 18:45	20
Carbon tetrachloride	<0.100		0.100		mg/L			10/25/25 18:45	20
Chlorobenzene	<0.100		0.100		mg/L			10/25/25 18:45	20
Chloroform	<0.100		0.100		mg/L			10/25/25 18:45	20
Tetrachloroethene	<0.200		0.200		mg/L			10/25/25 18:45	20
Trichloroethene	<0.200		0.200		mg/L			10/25/25 18:45	20
Vinyl chloride	<0.100		0.100		mg/L			10/25/25 18:45	20

Surrogate	LB LB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Dibromofluoromethane (Surr)	112		80 - 126		10/25/25 18:45	20
Toluene-d8 (Surr)	87		80 - 120		10/25/25 18:45	20
4-Bromofluorobenzene (Surr)	109		80 - 120		10/25/25 18:45	20

Lab Sample ID: LCS 310-471121/2-A

Matrix: Solid

Analysis Batch: 471331

Client Sample ID: Lab Control Sample

Prep Type: TCLP

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
1,1-Dichloroethene	2.00	2.006		mg/L		100	59 - 120
1,2-Dichloroethane	2.00	2.232		mg/L		112	70 - 120
2-Butanone (MEK)	4.00	3.878		mg/L		97	61 - 140
Benzene	2.00	2.213		mg/L		111	70 - 120
Carbon tetrachloride	2.00	2.423	*+	mg/L		121	65 - 120
Chlorobenzene	2.00	1.884		mg/L		94	73 - 120
Chloroform	2.00	2.174		mg/L		109	69 - 120
Tetrachloroethene	2.00	1.924		mg/L		96	64 - 120
Trichloroethene	2.00	1.948		mg/L		97	70 - 120
Vinyl chloride	2.00	1.344		mg/L		67	37 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Dibromofluoromethane (Surr)	107		80 - 126
Toluene-d8 (Surr)	111		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120

## Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: LCS 310-470956/2-A

Matrix: Solid

Analysis Batch: 471042

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 470956

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
1,4-Dichlorobenzene	0.125	0.05435		mg/L		43	29 - 110
2,4,5-Trichlorophenol	0.125	0.09633		mg/L		77	39 - 136
2,4,6-Trichlorophenol	0.125	0.1002		mg/L		80	35 - 141
2,4-Dinitrotoluene	0.125	0.1191		mg/L		95	48 - 136

Eurolins Cedar Falls

## QC Sample Results

Client: Arconic Mill Products  
Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

### Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 310-470956/2-A

Matrix: Solid

Analysis Batch: 471042

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 470956

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec	
		Result	Qualifier				Limits	
2-Methylphenol	0.125	0.08005		mg/L		64	47 - 114	
4-Methylphenol (and/or 3-Methylphenol)	0.125	0.08326		mg/L		67	45 - 114	
Hexachlorobenzene	0.125	0.09381		mg/L		75	42 - 134	
Hexachlorobutadiene	0.125	0.06635		mg/L		53	29 - 110	
Hexachloroethane	0.125	0.05231		mg/L		42	25 - 110	
Nitrobenzene	0.125	0.08519		mg/L		68	42 - 123	
Pentachlorophenol	0.250	0.09337		mg/L		37	28 - 142	
Pyridine	0.250	0.05277		mg/L		21	10 - 110	

Surrogate	LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol (Surr)	74		21 - 110
Phenol-d5 (Surr)	63		21 - 110
Nitrobenzene-d5 (Surr)	94		39 - 140
2-Fluorobiphenyl (Surr)	83		33 - 126
2,4,6-Tribromophenol (Surr)	121		20 - 144
Terphenyl-d14 (Surr)	103		13 - 150

Lab Sample ID: LCSD 310-470956/3-A

Matrix: Solid

Analysis Batch: 471042

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 470956

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec		RPD	
		Result	Qualifier				Limits		RPD	Limit
1,4-Dichlorobenzene	0.125	0.05511		mg/L		44	29 - 110		1	35
2,4,5-Trichlorophenol	0.125	0.09537		mg/L		76	39 - 136		1	35
2,4,6-Trichlorophenol	0.125	0.1011		mg/L		81	35 - 141		1	35
2,4-Dinitrotoluene	0.125	0.1183		mg/L		95	48 - 136		1	35
2-Methylphenol	0.125	0.07733		mg/L		62	47 - 114		3	35
4-Methylphenol (and/or 3-Methylphenol)	0.125	0.08083		mg/L		65	45 - 114		3	35
Hexachlorobenzene	0.125	0.09222		mg/L		74	42 - 134		2	35
Hexachlorobutadiene	0.125	0.07196		mg/L		58	29 - 110		8	35
Hexachloroethane	0.125	0.05562		mg/L		44	25 - 110		6	35
Nitrobenzene	0.125	0.08399		mg/L		67	42 - 123		1	35
Pentachlorophenol	0.250	0.1412	*1	mg/L		56	28 - 142		41	35
Pyridine	0.250	0.06484		mg/L		26	10 - 110		21	35

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2-Fluorophenol (Surr)	73		21 - 110
Phenol-d5 (Surr)	62		21 - 110
Nitrobenzene-d5 (Surr)	93		39 - 140
2-Fluorobiphenyl (Surr)	80		33 - 126
2,4,6-Tribromophenol (Surr)	117		20 - 144
Terphenyl-d14 (Surr)	99		13 - 150

Eurofins Cedar Falls

# QC Sample Results

Client: Arconic Mill Products  
Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

## Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB 310-470851/1-C  
Matrix: Solid  
Analysis Batch: 471042

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 470956

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,4-Dichlorobenzene	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 11:57	1
2,4,5-Trichlorophenol	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 11:57	1
2,4,6-Trichlorophenol	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 11:57	1
2,4-Dinitrotoluene	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 11:57	1
2-Methylphenol	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 11:57	1
4-Methylphenol (and/or 3-Methylphenol)	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 11:57	1
Hexachlorobenzene	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 11:57	1
Hexachlorobutadiene	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 11:57	1
Hexachloroethane	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 11:57	1
Nitrobenzene	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 11:57	1
Pentachlorophenol	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 11:57	1
Pyridine	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 11:57	1
Total Cresols	<0.0500		0.0500		mg/L		10/22/25 10:45	10/23/25 11:57	1
Surrogate	LB LB		Limits				Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
2-Fluorophenol (Surr)	83		21 - 110				10/22/25 10:45	10/23/25 11:57	1
Phenol-d5 (Surr)	68		21 - 110				10/22/25 10:45	10/23/25 11:57	1
Nitrobenzene-d5 (Surr)	111		39 - 140				10/22/25 10:45	10/23/25 11:57	1
2-Fluorobiphenyl (Surr)	91		33 - 126				10/22/25 10:45	10/23/25 11:57	1
2,4,6-Tribromophenol (Surr)	78		20 - 144				10/22/25 10:45	10/23/25 11:57	1
Terphenyl-d14 (Surr)	114		13 - 150				10/22/25 10:45	10/23/25 11:57	1

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: LB 310-470851/1-E  
Matrix: Solid  
Analysis Batch: 471501

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 471080

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chlordane (technical)	<0.00193		0.00193		mg/L		10/23/25 09:48	10/28/25 14:00	1
Endrin	<0.0000964		0.0000964		mg/L		10/23/25 09:48	10/28/25 14:00	1
gamma-BHC (Lindane)	<0.0000964		0.0000964		mg/L		10/23/25 09:48	10/28/25 14:00	1
Heptachlor	<0.0000964		0.0000964		mg/L		10/23/25 09:48	10/28/25 14:00	1
Heptachlor epoxide	<0.0000964		0.0000964		mg/L		10/23/25 09:48	10/28/25 14:00	1
Methoxychlor	<0.0000964		0.0000964		mg/L		10/23/25 09:48	10/28/25 14:00	1
Toxaphene	<0.00193		0.00193		mg/L		10/23/25 09:48	10/28/25 14:00	1
Surrogate	LB LB		Limits				Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
DCB Decachlorobiphenyl (Surr)	133		10 - 150				10/23/25 09:48	10/28/25 14:00	1
Tetrachloro-m-xylene (Surr)	243	S1+	17 - 150				10/23/25 09:48	10/28/25 14:00	1

Euofins Cedar Falls

# QC Sample Results

Client: Arconic Mill Products  
 Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1



## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 500-841028/1-A  
 Matrix: Solid  
 Analysis Batch: 841276

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 841028

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2,4-D	<1.00		1.00		ug/L		10/31/25 07:47	11/03/25 13:46	1
Silvex (2,4,5-TP)	<1.00		1.00		ug/L		10/31/25 07:47	11/03/25 13:46	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac	
	%Recovery	Qualifier							
DCAA	97		25 - 130			10/31/25 07:47	11/03/25 13:46	1	

Lab Sample ID: LCS 500-841028/2-A  
 Matrix: Solid  
 Analysis Batch: 841276

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 841028

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec	
		Result	Qualifier				Limits	
2,4-D	10.0	9.055		ug/L		91	30 - 115	
Silvex (2,4,5-TP)	2.50	2.463		ug/L		99	32 - 115	
Surrogate	LCS LCS		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
DCAA	105		25 - 130			10/31/25 07:47	11/03/25 13:46	1

Lab Sample ID: LB2 500-840287/1-C  
 Matrix: Solid  
 Analysis Batch: 841276

Client Sample ID: Method Blank  
 Prep Type: TCLP  
 Prep Batch: 841028

Analyte	LB2 LB2		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2,4-D	<25.0		25.0		ug/L		10/31/25 07:47	11/03/25 14:22	1
Silvex (2,4,5-TP)	<25.0		25.0		ug/L		10/31/25 07:47	11/03/25 14:22	1
Surrogate	LB2 LB2		Limits			Prepared	Analyzed	Dil Fac	
	%Recovery	Qualifier							
DCAA	100		25 - 130			10/31/25 07:47	11/03/25 14:22	1	

## Method: 6010D - Metals (ICP)

Lab Sample ID: LB 310-470851/1-G  
 Matrix: Solid  
 Analysis Batch: 471156

Client Sample ID: Method Blank  
 Prep Type: TCLP  
 Prep Batch: 471135

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.100		0.100		mg/L		10/22/25 10:00	10/23/25 16:57	1
Barium	<0.200		0.200		mg/L		10/22/25 10:00	10/23/25 16:57	1
Cadmium	<0.0200		0.0200		mg/L		10/22/25 10:00	10/23/25 16:57	1
Chromium	<0.0200		0.0200		mg/L		10/22/25 10:00	10/23/25 16:57	1
Lead	<0.100		0.100		mg/L		10/22/25 10:00	10/23/25 16:57	1
Selenium	<0.100		0.100		mg/L		10/22/25 10:00	10/23/25 16:57	1
Silver	<0.0500	^+	0.0500		mg/L		10/22/25 10:00	10/23/25 16:57	1

# QC Sample Results

Client: Arconic Mill Products  
 Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

## Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 310-470851/2-E  
 Matrix: Solid  
 Analysis Batch: 471156

Client Sample ID: Lab Control Sample  
 Prep Type: TCLP  
 Prep Batch: 471135

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Arsenic	4.00	4.226		mg/L		106	80 - 120	
Barium	2.00	2.139		mg/L		107	80 - 120	
Cadmium	2.00	2.036		mg/L		102	80 - 120	
Chromium	2.00	2.047		mg/L		102	80 - 120	
Lead	4.00	3.989		mg/L		100	80 - 120	
Selenium	8.00	8.410		mg/L		105	80 - 120	
Silver	2.00	2.123	^+	mg/L		106	80 - 120	

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-470457/1-A  
 Matrix: Solid  
 Analysis Batch: 471013

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 470457

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.943		0.943		mg/Kg		10/20/25 09:45	10/22/25 13:26	5
Arsenic	<0.943		0.943		mg/Kg		10/20/25 09:45	10/22/25 13:26	5
Barium	<0.943		0.943		mg/Kg		10/20/25 09:45	10/22/25 13:26	5
Beryllium	<0.472		0.472		mg/Kg		10/20/25 09:45	10/22/25 13:26	5
Boron	<47.2		47.2		mg/Kg		10/20/25 09:45	10/22/25 13:26	5
Cadmium	<0.472		0.472		mg/Kg		10/20/25 09:45	10/22/25 13:26	5
Chromium	<1.42		1.42		mg/Kg		10/20/25 09:45	10/22/25 13:26	5
Cobalt	<0.472		0.472		mg/Kg		10/20/25 09:45	10/22/25 13:26	5
Copper	<1.42		1.42		mg/Kg		10/20/25 09:45	10/22/25 13:26	5
Lead	<2.36		2.36		mg/Kg		10/20/25 09:45	10/22/25 13:26	5
Lithium	<2.36		2.36		mg/Kg		10/20/25 09:45	10/22/25 13:26	5
Manganese	<2.36		2.36		mg/Kg		10/20/25 09:45	10/22/25 13:26	5
Molybdenum	<0.943		0.943		mg/Kg		10/20/25 09:45	10/22/25 13:26	5
Selenium	<1.42		1.42		mg/Kg		10/20/25 09:45	10/22/25 13:26	5
Silver	<0.472		0.472		mg/Kg		10/20/25 09:45	10/22/25 13:26	5
Thallium	<0.472		0.472		mg/Kg		10/20/25 09:45	10/22/25 13:26	5
Vanadium	<1.42		1.42		mg/Kg		10/20/25 09:45	10/22/25 13:26	5
Zinc	<4.72		4.72		mg/Kg		10/20/25 09:45	10/22/25 13:26	5

Lab Sample ID: MB 310-470457/1-A  
 Matrix: Solid  
 Analysis Batch: 471141

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 470457

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Nickel	<1.42		1.42		mg/Kg		10/20/25 09:45	10/23/25 13:46	5

Lab Sample ID: LCS 310-470457/2-A  
 Matrix: Solid  
 Analysis Batch: 471013

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 470457

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Antimony	182	218.6		mg/Kg		120	80 - 120	
Arsenic	182	192.7		mg/Kg		106	80 - 120	
Barium	90.8	92.16		mg/Kg		101	80 - 120	

Eurofins Cedar Falls

## QC Sample Results

Client: Arconic Mill Products  
 Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

### Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 310-470457/2-A  
 Matrix: Solid  
 Analysis Batch: 471013

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 470457

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				
Beryllium	90.8	90.93		mg/Kg		100	80 - 120
Boron	182	175.7	J	mg/Kg		97	80 - 120
Cadmium	90.8	92.66		mg/Kg		102	80 - 120
Chromium	90.8	92.75		mg/Kg		102	80 - 120
Cobalt	90.8	92.04		mg/Kg		101	80 - 120
Copper	182	185.1		mg/Kg		102	80 - 120
Lead	182	185.7		mg/Kg		102	80 - 120
Lithium	182	176.9		mg/Kg		97	80 - 120
Manganese	90.8	93.03		mg/Kg		102	80 - 120
Molybdenum	182	183.5		mg/Kg		101	80 - 120
Selenium	363	376.2		mg/Kg		104	80 - 120
Silver	90.8	102.2		mg/Kg		113	80 - 120
Thallium	90.8	84.00		mg/Kg		92	80 - 120
Vanadium	90.8	93.33		mg/Kg		103	80 - 120
Zinc	182	184.5		mg/Kg		102	80 - 120

Lab Sample ID: LCS 310-470457/2-A  
 Matrix: Solid  
 Analysis Batch: 471141

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 470457

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				
Nickel	182	177.2		mg/Kg		98	80 - 120

Lab Sample ID: LB 310-471119/1-B  
 Matrix: Solid  
 Analysis Batch: 471368

Client Sample ID: Method Blank  
 Prep Type: SPLP West  
 Prep Batch: 471223

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0400		0.0400		mg/L		10/24/25 10:45	10/25/25 21:11	4
Arsenic	<0.0400		0.0400		mg/L		10/24/25 10:45	10/25/25 21:11	4
Barium	<0.200		0.200		mg/L		10/24/25 10:45	10/25/25 21:11	4
Beryllium	<0.0200		0.0200		mg/L		10/24/25 10:45	10/25/25 21:11	4
Cadmium	<0.0100		0.0100		mg/L		10/24/25 10:45	10/25/25 21:11	4
Chromium	<0.100		0.100		mg/L		10/24/25 10:45	10/25/25 21:11	4
Copper	<0.200		0.200		mg/L		10/24/25 10:45	10/25/25 21:11	4
Lead	<0.0200		0.0200		mg/L		10/24/25 10:45	10/25/25 21:11	4
Selenium	<0.100		0.100		mg/L		10/24/25 10:45	10/25/25 21:11	4
Thallium	<0.0200		0.0200		mg/L		10/24/25 10:45	10/25/25 21:11	4

Lab Sample ID: LCS 310-471119/2-B  
 Matrix: Solid  
 Analysis Batch: 471368

Client Sample ID: Lab Control Sample  
 Prep Type: SPLP West  
 Prep Batch: 471223

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				
Antimony	1.00	1.022		mg/L		102	80 - 120
Arsenic	1.00	0.9919		mg/L		99	80 - 120
Barium	0.500	0.4662		mg/L		93	80 - 120
Beryllium	0.500	0.4845		mg/L		97	80 - 120
Cadmium	0.500	0.4723		mg/L		94	80 - 120

Eurofins Cedar Falls

# QC Sample Results

Client: Arconic Mill Products  
Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 310-471119/2-B  
Matrix: Solid  
Analysis Batch: 471368

Client Sample ID: Lab Control Sample  
Prep Type: SPLP West  
Prep Batch: 471223

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	0.500	0.5006		mg/L		100	80 - 120
Copper	1.00	0.9921		mg/L		99	80 - 120
Lead	1.00	0.9273		mg/L		93	80 - 120
Selenium	2.00	1.980		mg/L		99	80 - 120
Thallium	0.500	0.4549		mg/L		91	80 - 120

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: LB 310-470851/1-D  
Matrix: Solid  
Analysis Batch: 471150

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 470969

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00200	^+	0.00200		mg/L		10/22/25 13:50	10/23/25 14:43	1

Lab Sample ID: LCS 310-470851/2-C  
Matrix: Solid  
Analysis Batch: 471150

Client Sample ID: Lab Control Sample  
Prep Type: TCLP  
Prep Batch: 470969

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.0167	0.01989	^+	mg/L		119	80 - 120

Lab Sample ID: 310-318280-1 MS  
Matrix: Solid  
Analysis Batch: 471150

Client Sample ID: BTF Filter Cake  
Prep Type: TCLP  
Prep Batch: 470969

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.00200	^+	0.0167	0.01949	^+	mg/L		117	80 - 120

Lab Sample ID: LB 310-471119/1-C  
Matrix: Solid  
Analysis Batch: 471599

Client Sample ID: Method Blank  
Prep Type: SPLP West  
Prep Batch: 471424

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00200		0.00200		mg/L		10/27/25 11:57	10/28/25 13:01	1

Lab Sample ID: LCS 310-471119/2-C  
Matrix: Solid  
Analysis Batch: 471599

Client Sample ID: Lab Control Sample  
Prep Type: SPLP West  
Prep Batch: 471424

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.0167	0.01778		mg/L		107	80 - 120

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 310-470842/1-A  
Matrix: Solid  
Analysis Batch: 471463

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 470842

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0163		0.0163		mg/Kg		10/24/25 12:15	10/27/25 09:33	1

Eurofins Cedar Falls

## QC Sample Results

Client: Arconic Mill Products  
 Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

### Method: 7471B - Mercury (CVAA)

Lab Sample ID: LCS 310-470842/2-A  
 Matrix: Solid  
 Analysis Batch: 471463

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 470842

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Mercury	0.149	0.1397		mg/Kg		93	80 - 120	

### Method: 4500 F C-2011 - Fluoride (Ion-selective Electrode)

Lab Sample ID: MB 310-471346/1-A  
 Matrix: Solid  
 Analysis Batch: 471362

Client Sample ID: Method Blank  
 Prep Type: Soluble

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Fluoride	<0.997		0.997		mg/Kg			10/25/25 17:57	1

Lab Sample ID: LCS 310-471346/2-A  
 Matrix: Solid  
 Analysis Batch: 471362

Client Sample ID: Lab Control Sample  
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Fluoride	19.9	19.22		mg/Kg		96	90 - 110	

Lab Sample ID: LB 310-471118/1-A  
 Matrix: Solid  
 Analysis Batch: 471362

Client Sample ID: Method Blank  
 Prep Type: SPLP

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Fluoride	<0.200		0.200		mg/L			10/25/25 19:34	1

Lab Sample ID: LCS 310-471118/2-A  
 Matrix: Solid  
 Analysis Batch: 471362

Client Sample ID: Lab Control Sample  
 Prep Type: SPLP

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Fluoride	2.00	1.945		mg/L		97	90 - 110	

# QC Association Summary

Client: Arconic Mill Products  
 Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1



## GC/MS VOA

### Leach Batch: 471121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	TCLP	Solid	1311	
LB 310-471121/1-A	Method Blank	TCLP	Solid	1311	
LCS 310-471121/2-A	Lab Control Sample	TCLP	Solid	1311	

### Analysis Batch: 471331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	TCLP	Solid	8260D	471121
LB 310-471121/1-A	Method Blank	TCLP	Solid	8260D	471121
LCS 310-471121/2-A	Lab Control Sample	TCLP	Solid	8260D	471121

## GC/MS Semi VOA

### Leach Batch: 470851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	TCLP	Solid	1311	
LB 310-470851/1-C	Method Blank	TCLP	Solid	1311	

### Prep Batch: 470956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	TCLP	Solid	3510C	470851
LB 310-470851/1-C	Method Blank	TCLP	Solid	3510C	470851
LCS 310-470956/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 310-470956/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	

### Analysis Batch: 471042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	TCLP	Solid	8270E	470956
LB 310-470851/1-C	Method Blank	TCLP	Solid	8270E	470956
LCS 310-470956/2-A	Lab Control Sample	Total/NA	Solid	8270E	470956
LCSD 310-470956/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	470956

## GC Semi VOA

### Leach Batch: 470851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	TCLP	Solid	1311	
LB 310-470851/1-E	Method Blank	TCLP	Solid	1311	

### Prep Batch: 471080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	TCLP	Solid	3511	470851
LB 310-470851/1-E	Method Blank	TCLP	Solid	3511	470851

### Analysis Batch: 471501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	TCLP	Solid	8081B	471080
LB 310-470851/1-E	Method Blank	TCLP	Solid	8081B	471080

### Leach Batch: 840287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	TCLP	Solid	1311	
LB2 500-840287/1-C	Method Blank	TCLP	Solid	1311	

Eurofins Cedar Falls

# QC Association Summary

Client: Arconic Mill Products  
 Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

## GC Semi VOA

### Prep Batch: 841028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	TCLP	Solid	8151A	840287
LB2 500-840287/1-C	Method Blank	TCLP	Solid	8151A	840287
MB 500-841028/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 500-841028/2-A	Lab Control Sample	Total/NA	Solid	8151A	

### Analysis Batch: 841276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	TCLP	Solid	8151A	841028
LB2 500-840287/1-C	Method Blank	TCLP	Solid	8151A	841028
MB 500-841028/1-A	Method Blank	Total/NA	Solid	8151A	841028
LCS 500-841028/2-A	Lab Control Sample	Total/NA	Solid	8151A	841028

## Metals

### Prep Batch: 470457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	Total/NA	Solid	3050B	
MB 310-470457/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 310-470457/2-A	Lab Control Sample	Total/NA	Solid	3050B	

### Prep Batch: 470842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	Total/NA	Solid	7471B	
MB 310-470842/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 310-470842/2-A	Lab Control Sample	Total/NA	Solid	7471B	

### Leach Batch: 470851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	TCLP	Solid	1311	
LB 310-470851/1-D	Method Blank	TCLP	Solid	1311	
LB 310-470851/1-G	Method Blank	TCLP	Solid	1311	
LCS 310-470851/2-C	Lab Control Sample	TCLP	Solid	1311	
LCS 310-470851/2-E	Lab Control Sample	TCLP	Solid	1311	
310-318280-1 MS	BTF Filter Cake	TCLP	Solid	1311	

### Prep Batch: 470969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	TCLP	Solid	7470A	470851
LB 310-470851/1-D	Method Blank	TCLP	Solid	7470A	470851
LCS 310-470851/2-C	Lab Control Sample	TCLP	Solid	7470A	470851
310-318280-1 MS	BTF Filter Cake	TCLP	Solid	7470A	470851

### Analysis Batch: 471013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	Total/NA	Solid	6020B	470457
MB 310-470457/1-A	Method Blank	Total/NA	Solid	6020B	470457
LCS 310-470457/2-A	Lab Control Sample	Total/NA	Solid	6020B	470457

### Leach Batch: 471119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	SPLP West	Solid	1312	

Eurofins Cedar Falls



## QC Association Summary

Client: Arconic Mill Products  
Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

### Metals (Continued)

#### Leach Batch: 471119 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 310-471119/1-B	Method Blank	SPLP West	Solid	1312	
LB 310-471119/1-C	Method Blank	SPLP West	Solid	1312	
LCS 310-471119/2-B	Lab Control Sample	SPLP West	Solid	1312	
LCS 310-471119/2-C	Lab Control Sample	SPLP West	Solid	1312	

#### Prep Batch: 471135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	TCLP	Solid	3010A	470851
LB 310-470851/1-G	Method Blank	TCLP	Solid	3010A	470851
LCS 310-470851/2-E	Lab Control Sample	TCLP	Solid	3010A	470851

#### Analysis Batch: 471141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	Total/NA	Solid	6020B	470457
MB 310-470457/1-A	Method Blank	Total/NA	Solid	6020B	470457
LCS 310-470457/2-A	Lab Control Sample	Total/NA	Solid	6020B	470457

#### Analysis Batch: 471150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	TCLP	Solid	7470A	470969
LB 310-470851/1-D	Method Blank	TCLP	Solid	7470A	470969
LCS 310-470851/2-C	Lab Control Sample	TCLP	Solid	7470A	470969
310-318280-1 MS	BTF Filter Cake	TCLP	Solid	7470A	470969

#### Analysis Batch: 471156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	TCLP	Solid	6010D	471135
LB 310-470851/1-G	Method Blank	TCLP	Solid	6010D	471135
LCS 310-470851/2-E	Lab Control Sample	TCLP	Solid	6010D	471135

#### Prep Batch: 471223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	SPLP West	Solid	3010A	471119
LB 310-471119/1-B	Method Blank	SPLP West	Solid	3010A	471119
LCS 310-471119/2-B	Lab Control Sample	SPLP West	Solid	3010A	471119

#### Analysis Batch: 471368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	SPLP West	Solid	6020B	471223
LB 310-471119/1-B	Method Blank	SPLP West	Solid	6020B	471223
LCS 310-471119/2-B	Lab Control Sample	SPLP West	Solid	6020B	471223

#### Prep Batch: 471424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	SPLP West	Solid	7470A	471119
LB 310-471119/1-C	Method Blank	SPLP West	Solid	7470A	471119
LCS 310-471119/2-C	Lab Control Sample	SPLP West	Solid	7470A	471119

#### Analysis Batch: 471463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	Total/NA	Solid	7471B	470842

Eurofins Cedar Falls



# QC Association Summary

Client: Arconic Mill Products  
 Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1



## Metals (Continued)

### Analysis Batch: 471463 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-470842/1-A	Method Blank	Total/NA	Solid	7471B	470842
LCS 310-470842/2-A	Lab Control Sample	Total/NA	Solid	7471B	470842

### Analysis Batch: 471599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	SPLP West	Solid	7470A	471424
LB 310-471119/1-C	Method Blank	SPLP West	Solid	7470A	471424
LCS 310-471119/2-C	Lab Control Sample	SPLP West	Solid	7470A	471424

## General Chemistry

### Leach Batch: 470481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	Soluble	Solid	DI Leach	

### Analysis Batch: 470483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	Soluble	Solid	9045D	470481
LCS 310-470483/1	Lab Control Sample	Total/NA	Solid	9045D	

### Analysis Batch: 470749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	Total/NA	Solid	Moisture	

### Leach Batch: 471118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	SPLP	Solid	1312	
LB 310-471118/1-A	Method Blank	SPLP	Solid	1312	
LCS 310-471118/2-A	Lab Control Sample	SPLP	Solid	1312	

### Leach Batch: 471346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	Soluble	Solid	DI Leach	
MB 310-471346/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 310-471346/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

### Analysis Batch: 471362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-1	BTF Filter Cake	Soluble	Solid	4500 F C-2011	471346
310-318280-1	BTF Filter Cake	SPLP	Solid	4500 F C-2011	471118
LB 310-471118/1-A	Method Blank	SPLP	Solid	4500 F C-2011	471118
MB 310-471346/1-A	Method Blank	Soluble	Solid	4500 F C-2011	471346
LCS 310-471118/2-A	Lab Control Sample	SPLP	Solid	4500 F C-2011	471118
LCS 310-471346/2-A	Lab Control Sample	Soluble	Solid	4500 F C-2011	471346

# Lab Chronicle

Client: Arconic Mill Products  
 Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

**Client Sample ID: BTF Filter Cake**

**Lab Sample ID: 310-318280-1**

Date Collected: 10/16/25 12:10

Matrix: Solid

Date Received: 10/17/25 08:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			471121	U8FK	EET CF	10/23/25 15:00 - 10/24/25 07:00 †
TCLP	Analysis	8260D		20	471331	WSE8	EET CF	10/25/25 20:37
TCLP	Leach	1311			470851	U8FK	EET CF	10/21/25 15:00 - 10/22/25 07:00 †
TCLP	Prep	3510C			470956	J5BR	EET CF	10/22/25 10:45
TCLP	Analysis	8270E		1	471042	V7YZ	EET CF	10/23/25 14:03
TCLP	Leach	1311			470851	U8FK	EET CF	10/21/25 15:00 - 10/22/25 07:00 †
TCLP	Prep	3511			471080	BW2O	EET CF	10/23/25 09:48
TCLP	Analysis	8081B		1	471501	BW2O	EET CF	10/28/25 13:04
TCLP	Leach	1311			840287	AC	EET CHI	10/27/25 17:23 - 10/28/25 11:23 †
TCLP	Prep	8151A			841028	CI	EET CHI	10/31/25 07:47
TCLP	Analysis	8151A		1	841276	BC	EET CHI	11/03/25 14:58
TCLP	Leach	1311			470851	U8FK	EET CF	10/21/25 15:00 - 10/22/25 07:00 †
TCLP	Prep	3010A			471135	RLT9	EET CF	10/22/25 10:00
TCLP	Analysis	6010D		1	471156	ZRI4	EET CF	10/23/25 17:20
SPLP West	Leach	1312			471119	U8FK	EET CF	10/23/25 15:00 - 10/24/25 07:00 †
SPLP West	Prep	3010A			471223	RLT9	EET CF	10/24/25 10:45
SPLP West	Analysis	6020B		4	471368	NFT2	EET CF	10/25/25 21:23
SPLP West	Leach	1312			471119	U8FK	EET CF	10/23/25 15:00 - 10/24/25 07:00 †
SPLP West	Prep	7470A			471424	RLT9	EET CF	10/27/25 11:57
SPLP West	Analysis	7470A		1	471599	RLT9	EET CF	10/28/25 13:09
TCLP	Leach	1311			470851	U8FK	EET CF	10/21/25 15:00 - 10/22/25 07:00 †
TCLP	Prep	7470A			470969	RLT9	EET CF	10/22/25 13:50
TCLP	Analysis	7470A		1	471150	RLT9	EET CF	10/23/25 15:09
SPLP	Leach	1312			471118	U8FK	EET CF	10/23/25 15:00 - 10/24/25 07:00 †
SPLP	Analysis	4500 F C-2011		1	471362	T5AC	EET CF	10/25/25 19:54
Soluble	Leach	DI Leach			470481	T5AC	EET CF	10/17/25 16:31
Soluble	Analysis	9045D		1	470483	T5AC	EET CF	10/17/25 19:13
Total/NA	Analysis	Moisture		1	470749	W9YR	EET CF	10/21/25 07:07

**Client Sample ID: BTF Filter Cake**

**Lab Sample ID: 310-318280-1**

Date Collected: 10/16/25 12:10

Matrix: Solid

Date Received: 10/17/25 08:35

Percent Solids: 31.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			470457	RLT9	EET CF	10/20/25 09:45
Total/NA	Analysis	6020B		5	471013	NFT2	EET CF	10/22/25 14:33
Total/NA	Prep	3050B			470457	RLT9	EET CF	10/20/25 09:45
Total/NA	Analysis	6020B		5	471141	NFT2	EET CF	10/23/25 14:25
Total/NA	Prep	7471B			470842	RLT9	EET CF	10/24/25 12:15
Total/NA	Analysis	7471B		1	471463	RLT9	EET CF	10/27/25 10:20
Soluble	Leach	DI Leach			471346	T5AC	EET CF	10/25/25 12:54
Soluble	Analysis	4500 F C-2011		1	471362	T5AC	EET CF	10/25/25 19:02

† This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

## Lab Chronicle

Client: Arconic Mill Products  
Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

### Laboratory References:

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

EET CHI = Eurofins Chicago, 18410 Crossing Drive, Suite E, Tinley Park, IL 60487, TEL (708)534-5200



## Accreditation/Certification Summary

Client: Arconic Mill Products  
 Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

### Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
4500 F C-2011		Solid	Fluoride
6020B	3050B	Solid	Lithium
8270E	3510C	Solid	Pyridine
8270E	3510C	Solid	Total Cresols
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

### Laboratory: Eurofins Chicago

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

Authority	Program	Identification Number	Expiration Date
Georgia	State	N/A	05-31-26
Georgia (DW)	State	939	05-31-26
Illinois	NELAP	100201	05-31-26
Indiana	State	C-IL-02	05-31-26
Iowa	State	082	05-01-26
Kentucky (UST)	State	AI # 108083	05-31-26
Kentucky (WW)	State	KY90023	12-31-25
Louisiana (All)	NELAP	02046	06-30-26
Mississippi	State	NA	05-31-26
North Carolina (WW/SW)	State	291	12-31-25
North Dakota	State	R-194	04-29-24 *
Oklahoma	State	8908	12-31-25
South Carolina	State	77001003	05-31-26
USDA	US Federal Programs	P330-18-00018	03-30-26
Wisconsin	State	399172840	08-31-26
Wyoming	State	8TMS-Q	05-31-26

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

## Method Summary

Client: Arconic Mill Products  
 Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET CF
8081B	Organochlorine Pesticides (GC)	SW846	EET CF
8151A	Herbicides (GC)	SW846	EET CHI
6010D	Metals (ICP)	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
7471B	Mercury (CVAA)	SW846	EET CF
4500 F C-2011	Fluoride (Ion-selective Electrode)	SM	EET CF
9045D	pH	SW846	EET CF
Moisture	Percent Moisture	EPA	EET CF
1311	TCLP Extraction	SW846	EET CF
1311	TCLP Zero Headspace Extraction	SW846	EET CF
1311	TCLP Extraction	SW846	EET CHI
1312	SPLP Extraction	SW846	EET CF
3010A	Preparation, Total Metals	SW846	EET CF
3050B	Preparation, Metals	SW846	EET CF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CF
3511	Microextraction of Organic Compounds	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF
7471B	Preparation, Mercury	SW846	EET CF
8151A	Extraction (Herbicides)	SW846	EET CHI
DI Leach	Deionized Water Leaching Procedure	ASTM	EET CF

**Protocol References:**

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SM = "Standard Methods For The Examination Of Water And Wastewater"
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

- EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401
- EET CHI = Eurofins Chicago, 18410 Crossing Drive, Suite E, Tinley Park, IL 60487, TEL (708)534-5200





Environment Testing  
America



310-318280 Chain of Custody

### Cooler/Sample Receipt and Temperature Log Form

<b>Client Information</b>			
Client <u>Arcenic</u>			
City/State	CITY <u>Davenport</u>	STATE <u>IA</u>	Project:
<b>Receipt Information</b>			
Date/Time Received.	DATE <u>10-17-25</u>	TIME <u>0835</u>	Received By <u>BP</u>
Delivery Type. <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes Cooler custody seals intact? <input checked="" 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>AA</u>		Correction Factor (°C). <u>± 0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>0.5</u>		Corrected Temp (°C). <u>0.5</u>	
• Sample Container Temperature			
Container(s) used.	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C).			
Corrected Temp (°C):			
<b>Exceptions Noted</b>			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No a) If yes: Is there evidence that the chilling process began? <input 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>			
<u>318280</u>			
<u>Ready to print</u>			



Cedar Falls, IA 50613-6907  
phone 319.277.2401 fax 319.277.2425

TestAmerica Laboratories, Inc. db/a Eurofins TestAmerica

Regulatory Program:  DW  NPDES  RCRA  Other

<b>Client Contact</b> Arconic Davenport Works John Hylton PO BOX 3567 Davenport, IA 52722 Project Number Site Arconic Tnal BTF Filter Cake P O #		<b>Project Manager: Emily Mathews</b> Email emily.mathews@st.eurofins.com Cell (319) 277-2401 <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS Other: <input checked="" type="checkbox"/> Standard TAT 1 week <input type="checkbox"/> 3 Days <input type="checkbox"/> 1 day		<b>Site Contact: Joshua Metcalf</b> Lab Contact: Full TCLP SPLP Total metals (including thallium) Mercury PH		<b>Date: 10/16/2025</b> Carrier: COC No 1 of 1 COCs Sampler For Lab Use Only: Walk-in Client: Lab Sampling Job / SDG No	
<b>Sample Identification</b> BTF Filter Cake		<b>Sample Date</b> 10/16/2025	<b>Sample Time</b> 12.10	<b>Sample Type (C=Comp, G=Grab)</b> G	<b>Matrix</b> WST	<b># of Cont.</b> 1	<b>Filtered Sample (Y/N)</b> N

**Sampled by (Print Name): Joshua Metcalf**  
Signature: *Joshua Metcalf*

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: Full TCLP includes pesticides & herbicides. Total metals includes thallium. If total chromium ≥ 210 mg/kg conduct further analysis to determine hexavalent and trivalent results.

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return to Client  Disposal by Lab  Archive for Months

<b>Custody Seal No</b> Company Envita Solutions	<b>Received by</b> Date/Time 10/16/25 12:45 Michael Spiegic	<b>Company</b> Envita Solutions	<b>Received by</b> Date/Time 10-16-25 15:00 Eurofins	<b>Company</b> Eurofins
<b>Relinquished by</b> Joshua Metcalf	<b>Relinquished by</b> Date/Time 10-17-25 08:35 Eurofins	<b>Company</b> Eurofins	<b>Received in Laboratory by</b> Date/Time 10-17-25 08:35 Eurofins	<b>Company</b> Eurofins





**Eurofins Cedar Falls**

3019 Venture Way  
Cedar Falls IA 50613  
Phone 319-277-2401 Fax 319-277-2425

**Chain-of-Custody Record**



11/13/2025

<b>Client Information (Sub Contract Lab)</b>		Sampler N/A	Lab PM Miller Samuel	Carrier Tracking Note(s) N/A	COC No 310-88200 1	
Client Contact: Shipping/Receiving		Phone N/A	E-Mail Samuel.Miller@eurofins.com	State of Origin Iowa	Page Page 1 of 1	
Company Eurofins Environment Testing North Central		Accreditations Required (See note) Slate Program - Iowa		Job # 310-318280-1		
Address 18410 Crossing Drive Suite E		Due Date Requested 10/28/2025		Preservation Codes		
City Tinley Park	State IL	Zip 60487	TAT Requested (days) N/A	Analysis Requested		
Phone 708-534-5200(Tel) 708-534-5211(Fax)	PO # N/A	WO # N/A	Sample Type (C=comp, G=grab)	Sample Matrix (H=water, S=solid, O=particulate)	Other 310-318280 COC	
Email N/A	Project # 31002129	SSOW# N/A	Sample Date 10/16/25	Sample Time 12 10 Central	Preservation Code G Solid	
Project Name Trial BTF Filter Cake		Sample Date Requested (Yes or No)		Field Filtered Sample (Yes or No)		
Site N/A	Perform MS/MSD (Yes or No)		8151A/8151A_AP_LVITCLP		8151A/311_TTCLP	
<b>Sample Identification - Client ID (Lab ID)</b>		Total Number of Containers		Special Instructions/Note		
BTF Filter Cake (310-318280-1)		1		Cedar Falls to Leach - ship leachate to Chicago		

Note: Since laboratory accreditations are subject to change Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our 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/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

**Possible Hazard Identification**  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months  
 Special Instructions/QC Requirements

**Unconfirmed Deliverable Requested** I II III IV Other (specify) Primary Deliverable Rank 2

Relinquished by	Date	Company	Received by	Date/Time	Company
<i>[Signature]</i>	10/22/25 1520	Company	<i>[Signature]</i>	10/23/25 0905	BETA Company
Relinquished by	Date	Company	Received by	Date/Time	Company
Relinquished by	Date	Company	Received by	Date/Time	Company

Cooler Temperature(s) °C and Other Remarks: -01 → -01 Box

## Login Sample Receipt Checklist

Client: Arconic Mill Products

Job Number: 310-318280-1

Login Number: 318280

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Homolar, Dana J

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
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	
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 $<6\text{mm}$ (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: Arconic Mill Products

Job Number: 310-318280-1

Login Number: 318280

List Number: 2

Creator: Knox, Angel

List Source: Eurofins Chicago

List Creation: 10/21/25 02:35 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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	4.8
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Paul Ragona  
Arconic Mill Products  
4879 State Street  
Bettendorf, Iowa 52722

Generated 12/26/2025 10:33:14 AM

**JOB DESCRIPTION**

Trial BTF Filter Cake

**JOB NUMBER**

310-318280-2

# Eurofins Cedar Falls

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

## Authorization



Generated  
12/26/2025 10:33:14 AM

Authorized for release by  
Samuel Miller, Project Management Assistant I  
[Samuel.Miller@et.eurofinsus.com](mailto:Samuel.Miller@et.eurofinsus.com)  
(319)595-2008

# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	3
Case Narrative . . . . .	4
Sample Summary . . . . .	5
Detection Summary . . . . .	6
Client Sample Results . . . . .	7
Definitions . . . . .	9
QC Sample Results . . . . .	10
QC Association . . . . .	11
Chronicle . . . . .	12
Certification Summary . . . . .	13
Method Summary . . . . .	14
Receipt Checklists . . . . .	15



# Case Narrative

Client: Arconic Mill Products  
Project: Trial BTF Filter Cake

Job ID: 310-318280-2

**Job ID: 310-318280-2**

**Eurofins Cedar Falls**

## Job Narrative 310-318280-2

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

### Receipt

The samples were received on 10/17/2025 8:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.5°C.

### Metals

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

### General Chemistry

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

Eurofins Cedar Falls



# Sample Summary

Client: Arconic Mill Products  
Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-2

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-318280-2	BTF Filter Cake (rerun)	Solid	10/16/25 12:10	10/17/25 08:35	Iowa

---



# Detection Summary

Client: Arconic Mill Products  
Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-2

**Client Sample ID: BTF Filter Cake (rerun)**

**Lab Sample ID: 310-318280-2**

No Detections.



This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

# Client Sample Results

Client: Arconic Mill Products  
Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-2

Client Sample ID: BTF Filter Cake (rerun)

Lab Sample ID: 310-318280-2

Date Collected: 10/16/25 12:10

Matrix: Solid

Date Received: 10/17/25 08:35

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	68.5		0.1		%			12/22/25 13:13	1
Percent Solids (EPA Moisture)	31.5		0.1		%			12/22/25 13:13	1



# Client Sample Results

Client: Arconic Mill Products  
Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-2

**Client Sample ID: BTF Filter Cake (rerun)**

**Lab Sample ID: 310-318280-2**

Date Collected: 10/16/25 12:10

Matrix: Solid

Date Received: 10/17/25 08:35

Percent Solids: 31.5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.247		0.247		mg/Kg	*	12/19/25 08:31	12/23/25 17:03	1



## Definitions/Glossary

Client: Arconic Mill Products  
Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-2

### 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



# QC Sample Results

Client: Arconic Mill Products  
 Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-2

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-476839/1-A				Client Sample ID: Method Blank					
Matrix: Solid				Prep Type: Total/NA					
Analysis Batch: 477044				Prep Batch: 476839					
Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.414		0.414		mg/Kg		12/19/25 08:31	12/19/25 17:26	5

Lab Sample ID: LCS 310-476839/2-A				Client Sample ID: Lab Control Sample					
Matrix: Solid				Prep Type: Total/NA					
Analysis Batch: 477044				Prep Batch: 476839					
Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec	Limits	
Thallium	85.7	82.00		mg/Kg		96		80 - 120	



## QC Association Summary

Client: Arconic Mill Products  
 Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-2



### Metals

#### Prep Batch: 476839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-2	BTF Filter Cake (rerun)	Total/NA	Solid	3050B	
MB 310-476839/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 310-476839/2-A	Lab Control Sample	Total/NA	Solid	3050B	

#### Analysis Batch: 477044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-476839/1-A	Method Blank	Total/NA	Solid	6020B	476839
LCS 310-476839/2-A	Lab Control Sample	Total/NA	Solid	6020B	476839

#### Analysis Batch: 477297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-2	BTF Filter Cake (rerun)	Total/NA	Solid	6020B	476839

### General Chemistry

#### Analysis Batch: 470749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318280-2	BTF Filter Cake (rerun)	Total/NA	Solid	Moisture	

# Lab Chronicle

Client: Arconic Mill Products  
Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-2

**Client Sample ID: BTF Filter Cake (rerun)**

**Lab Sample ID: 310-318280-2**

Date Collected: 10/16/25 12:10

Matrix: Solid

Date Received: 10/17/25 08:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	470749	W9YR	EET CF	12/22/25 13:13

**Client Sample ID: BTF Filter Cake (rerun)**

**Lab Sample ID: 310-318280-2**

Date Collected: 10/16/25 12:10

Matrix: Solid

Date Received: 10/17/25 08:35

Percent Solids: 31.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			476839	RLT9	EET CF	12/19/25 08:31
Total/NA	Analysis	6020B		1	477297	ZRI4	EET CF	12/23/25 17:03

**Laboratory References:**

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



# Accreditation/Certification Summary

Client: Arconic Mill Products  
Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-2

## Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25 *

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



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

# Method Summary

Client: Arconic Mill Products  
Project/Site: Trial BTF Filter Cake

Job ID: 310-318280-2

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CF
Moisture	Percent Moisture	EPA	EET CF
3050B	Preparation, Metals	SW846	EET 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.

**Laboratory References:**

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



## Login Sample Receipt Checklist

Client: Arconic Mill Products

Job Number: 310-318280-2

Login Number: 318280

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Homolar, Dana J

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



This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Paul Ragona  
Arconic Mill Products  
4879 State Street  
Bettendorf, Iowa 52722

Generated 1/9/2026 11:02:09 AM Revision 1

**JOB DESCRIPTION**

BTF Filter Cake

**JOB NUMBER**

310-322624-1

# Eurofins Cedar Falls

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

## Authorization



Generated  
1/9/2026 11:02:09 AM  
Revision 1

Authorized for release by  
Zach Bindert, Senior Project Manager  
[Zach.Bindert@et.eurofinsus.com](mailto:Zach.Bindert@et.eurofinsus.com)  
Designee for  
Samuel Miller, Project Management Assistant I  
[Samuel.Miller@et.eurofinsus.com](mailto:Samuel.Miller@et.eurofinsus.com)  
(319)595-2008



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	3
Case Narrative . . . . .	4
Sample Summary . . . . .	5
Detection Summary . . . . .	6
Client Sample Results . . . . .	7
Definitions . . . . .	8
QC Sample Results . . . . .	9
QC Association . . . . .	12
Chronicle . . . . .	13
Certification Summary . . . . .	14
Method Summary . . . . .	15
Chain of Custody . . . . .	16
Receipt Checklists . . . . .	20

# Case Narrative

Client: Arconic Mill Products  
Project: BTF Filter Cake

Job ID: 310-322624-1

**Job ID: 310-322624-1**

**Eurofins Cedar Falls**

**Job Narrative  
310-322624-1**

## REVISION

The report being provided is a revision of the original report sent on 12/23/2025. The report (revision 1) is being revised due to This report was revised 1/09/2026. Client requesting 6020B metals data reported to method detection limit..

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

## **Receipt**

The sample was received on 12/18/2025 8:20 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.6°C.

## **Metals**

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

## **General Chemistry**

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



# Sample Summary

Client: Arconic Mill Products  
Project/Site: BTF Filter Cake

Job ID: 310-322624-1

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-322624-1	BTF Filter Cake	Waste	12/17/25 12:30	12/18/25 08:20	Iowa

---



# Detection Summary

Client: Arconic Mill Products  
 Project/Site: BTF Filter Cake

Job ID: 310-322624-1

**Client Sample ID: BTF Filter Cake**

**Lab Sample ID: 310-322624-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Arsenic	1.17	J	2.17	0.910	mg/Kg	5	✳		6020B	Total/NA
Barium	108		2.17	0.996	mg/Kg	5	✳		6020B	Total/NA
Chromium	18.3		3.25	1.13	mg/Kg	5	✳		6020B	Total/NA
Cobalt	12.5		1.08	0.390	mg/Kg	5	✳		6020B	Total/NA
Copper	96.3	B	3.25	1.73	mg/Kg	5	✳		6020B	Total/NA
Lead	5.70		5.41	1.69	mg/Kg	5	✳		6020B	Total/NA
Lithium	10.5		5.41	2.14	mg/Kg	5	✳		6020B	Total/NA
Manganese	154		5.41	2.60	mg/Kg	5	✳		6020B	Total/NA
Molybdenum	1.41	J	2.17	0.888	mg/Kg	5	✳		6020B	Total/NA
Nickel	6.68		3.25	1.30	mg/Kg	5	✳		6020B	Total/NA
Silver	2.53		1.08	0.411	mg/Kg	5	✳		6020B	Total/NA
Vanadium	11.4		3.25	1.15	mg/Kg	5	✳		6020B	Total/NA
Zinc	215		10.8	7.15	mg/Kg	5	✳		6020B	Total/NA



This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

# Client Sample Results

Client: Arconic Mill Products  
Project/Site: BTF Filter Cake

Job ID: 310-322624-1

**Client Sample ID: BTF Filter Cake**

**Lab Sample ID: 310-322624-1**

Date Collected: 12/17/25 12:30

Matrix: Waste

Date Received: 12/18/25 08:20

Percent Solids: 34.0

**Method: SW846 6020B - Metals (ICP/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.975		2.17	0.975	mg/Kg	☼	12/19/25 08:31	12/19/25 18:22	5
<b>Arsenic</b>	<b>1.17</b>	<b>J</b>	2.17	0.910	mg/Kg	☼	12/19/25 08:31	12/19/25 18:22	5
<b>Barium</b>	<b>108</b>		2.17	0.996	mg/Kg	☼	12/19/25 08:31	12/19/25 18:22	5
Beryllium	<0.433		1.08	0.433	mg/Kg	☼	12/19/25 08:31	12/19/25 18:22	5
Boron	<93.1		108	93.1	mg/Kg	☼	12/19/25 08:31	12/19/25 18:22	5
Cadmium	<0.411		1.08	0.411	mg/Kg	☼	12/19/25 08:31	12/19/25 18:22	5
<b>Chromium</b>	<b>18.3</b>		3.25	1.13	mg/Kg	☼	12/19/25 08:31	12/19/25 18:22	5
<b>Cobalt</b>	<b>12.5</b>		1.08	0.390	mg/Kg	☼	12/19/25 08:31	12/19/25 18:22	5
<b>Copper</b>	<b>96.3</b>	<b>B</b>	3.25	1.73	mg/Kg	☼	12/19/25 08:31	12/19/25 18:22	5
<b>Lead</b>	<b>5.70</b>		5.41	1.69	mg/Kg	☼	12/19/25 08:31	12/19/25 18:22	5
<b>Lithium</b>	<b>10.5</b>		5.41	2.14	mg/Kg	☼	12/19/25 08:31	12/19/25 18:22	5
<b>Manganese</b>	<b>154</b>		5.41	2.60	mg/Kg	☼	12/19/25 08:31	12/19/25 18:22	5
<b>Molybdenum</b>	<b>1.41</b>	<b>J</b>	2.17	0.888	mg/Kg	☼	12/19/25 08:31	12/19/25 18:22	5
<b>Nickel</b>	<b>6.68</b>		3.25	1.30	mg/Kg	☼	12/19/25 08:31	12/19/25 18:22	5
Selenium	<1.62		3.25	1.62	mg/Kg	☼	12/19/25 08:31	12/19/25 18:22	5
<b>Silver</b>	<b>2.53</b>		1.08	0.411	mg/Kg	☼	12/19/25 08:31	12/19/25 18:22	5
Thallium	<0.411		1.08	0.411	mg/Kg	☼	12/19/25 08:31	12/19/25 18:22	5
<b>Vanadium</b>	<b>11.4</b>		3.25	1.15	mg/Kg	☼	12/19/25 08:31	12/19/25 18:22	5
<b>Zinc</b>	<b>215</b>		10.8	7.15	mg/Kg	☼	12/19/25 08:31	12/19/25 18:22	5

**Method: SW846 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0567		0.0567		mg/Kg	☼	12/19/25 13:08	12/22/25 13:47	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	66.0		0.1		%			12/18/25 14:24	1
Percent Solids (EPA Moisture)	34.0		0.1		%			12/18/25 14:24	1

**General Chemistry - Soluble**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	<2.87		2.87		mg/Kg	☼		12/23/25 11:05	1



# Definitions/Glossary

Client: Arconic Mill Products  
Project/Site: BTF Filter Cake

Job ID: 310-322624-1

## Qualifiers

### Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
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

# QC Sample Results

Client: Arconic Mill Products  
Project/Site: BTF Filter Cake

Job ID: 310-322624-1

## Method: 6020B - Metals (ICP/MS)

**Lab Sample ID: MB 310-476839/1-A**  
**Matrix: Waste**  
**Analysis Batch: 477044**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 476839**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.373		0.828	0.373	mg/Kg		12/19/25 08:31	12/19/25 17:26	5
Arsenic	<0.348		0.828	0.348	mg/Kg		12/19/25 08:31	12/19/25 17:26	5
Barium	<0.381		0.828	0.381	mg/Kg		12/19/25 08:31	12/19/25 17:26	5
Beryllium	<0.166		0.414	0.166	mg/Kg		12/19/25 08:31	12/19/25 17:26	5
Boron	<35.6		41.4	35.6	mg/Kg		12/19/25 08:31	12/19/25 17:26	5
Cadmium	<0.157		0.414	0.157	mg/Kg		12/19/25 08:31	12/19/25 17:26	5
Chromium	<0.430		1.24	0.430	mg/Kg		12/19/25 08:31	12/19/25 17:26	5
Cobalt	<0.149		0.414	0.149	mg/Kg		12/19/25 08:31	12/19/25 17:26	5
Copper	1.033	J	1.24	0.662	mg/Kg		12/19/25 08:31	12/19/25 17:26	5
Lead	<0.646		2.07	0.646	mg/Kg		12/19/25 08:31	12/19/25 17:26	5
Lithium	<0.820		2.07	0.820	mg/Kg		12/19/25 08:31	12/19/25 17:26	5
Manganese	<0.993		2.07	0.993	mg/Kg		12/19/25 08:31	12/19/25 17:26	5
Molybdenum	<0.339		0.828	0.339	mg/Kg		12/19/25 08:31	12/19/25 17:26	5
Nickel	<0.497		1.24	0.497	mg/Kg		12/19/25 08:31	12/19/25 17:26	5
Selenium	<0.621		1.24	0.621	mg/Kg		12/19/25 08:31	12/19/25 17:26	5
Silver	<0.157		0.414	0.157	mg/Kg		12/19/25 08:31	12/19/25 17:26	5
Thallium	<0.157		0.414	0.157	mg/Kg		12/19/25 08:31	12/19/25 17:26	5
Vanadium	<0.439		1.24	0.439	mg/Kg		12/19/25 08:31	12/19/25 17:26	5
Zinc	<2.73		4.14	2.73	mg/Kg		12/19/25 08:31	12/19/25 17:26	5

**Lab Sample ID: LCS 310-476839/2-A**  
**Matrix: Waste**  
**Analysis Batch: 477044**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 476839**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Antimony	171	198.5		mg/Kg		116	80 - 120
Arsenic	171	180.2		mg/Kg		105	80 - 120
Barium	85.7	84.75		mg/Kg		99	80 - 120
Beryllium	85.7	84.63		mg/Kg		99	80 - 120
Boron	171	182.2		mg/Kg		106	80 - 120
Cadmium	85.7	88.47		mg/Kg		103	80 - 120
Chromium	85.7	87.72		mg/Kg		102	80 - 120
Cobalt	85.7	93.44		mg/Kg		109	80 - 120
Copper	171	180.6		mg/Kg		105	80 - 120
Lead	171	188.1		mg/Kg		110	80 - 120
Lithium	171	170.0		mg/Kg		99	80 - 120
Manganese	85.7	86.68		mg/Kg		101	80 - 120
Molybdenum	171	172.0		mg/Kg		100	80 - 120
Nickel	171	180.8		mg/Kg		106	80 - 120
Selenium	343	354.1		mg/Kg		103	80 - 120
Silver	85.7	102.8		mg/Kg		120	80 - 120
Thallium	85.7	82.00		mg/Kg		96	80 - 120
Vanadium	85.7	87.52		mg/Kg		102	80 - 120
Zinc	171	183.8		mg/Kg		107	80 - 120

# QC Sample Results

Client: Arconic Mill Products  
Project/Site: BTF Filter Cake

Job ID: 310-322624-1

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 310-322624-1 DU  
Matrix: Waste  
Analysis Batch: 477044

Client Sample ID: BTF Filter Cake  
Prep Type: Total/NA  
Prep Batch: 476839

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Antimony	<0.975		<0.983		mg/Kg	✳	NC	20
Arsenic	1.17	J	1.149	J	mg/Kg	✳	2	20
Barium	108		107.5		mg/Kg	✳	0.1	20
Beryllium	<0.433		<0.437		mg/Kg	✳	NC	20
Boron	<93.1		<93.9		mg/Kg	✳	NC	20
Cadmium	<0.411		<0.415		mg/Kg	✳	NC	20
Chromium	18.3		19.13		mg/Kg	✳	5	20
Cobalt	12.5		13.18		mg/Kg	✳	5	20
Copper	96.3	B	93.43		mg/Kg	✳	3	20
Lead	5.70		5.927		mg/Kg	✳	4	20
Lithium	10.5		10.10		mg/Kg	✳	4	20
Manganese	154		152.8		mg/Kg	✳	0.7	20
Molybdenum	1.41	J	1.292	J	mg/Kg	✳	9	20
Nickel	6.68		7.228		mg/Kg	✳	8	20
Selenium	<1.62		<1.64		mg/Kg	✳	NC	20
Silver	2.53		2.448		mg/Kg	✳	3	20
Thallium	<0.411		<0.415		mg/Kg	✳	NC	20
Vanadium	11.4		11.38		mg/Kg	✳	0.4	20
Zinc	215		224.8		mg/Kg	✳	4	20

## Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 310-476868/1-A  
Matrix: Waste  
Analysis Batch: 477119

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 476868

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.0196		0.0196		mg/Kg		12/19/25 13:08	12/22/25 12:49	1

Lab Sample ID: LCS 310-476868/2-A  
Matrix: Waste  
Analysis Batch: 477119

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 476868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits

## Method: 4500 F C-2011 - Fluoride (Ion-selective Electrode)

Lab Sample ID: MB 310-477140/1-A  
Matrix: Waste  
Analysis Batch: 477216

Client Sample ID: Method Blank  
Prep Type: Soluble

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Fluoride	<0.996		0.996		mg/Kg			12/23/25 10:52	1

Eurofins Cedar Falls

# QC Sample Results

Client: Arconic Mill Products  
Project/Site: BTF Filter Cake

Job ID: 310-322624-1

## Method: 4500 F C-2011 - Fluoride (Ion-selective Electrode) (Continued)

Lab Sample ID: LCS 310-477140/2-A  
Matrix: Waste  
Analysis Batch: 477216

Client Sample ID: Lab Control Sample  
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	19.9	20.11		mg/Kg		101	90 - 110

Lab Sample ID: 310-322624-1 MS  
Matrix: Waste  
Analysis Batch: 477216

Client Sample ID: BTF Filter Cake  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	<2.87		28.7	23.80		mg/Kg	✱	76	75 - 125

Lab Sample ID: 310-322624-1 MSD  
Matrix: Waste  
Analysis Batch: 477216

Client Sample ID: BTF Filter Cake  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	<2.87		28.7	25.66		mg/Kg	✱	82	75 - 125	8	20

## Method: Moisture - Percent Moisture

Lab Sample ID: 310-322624-1 DU  
Matrix: Waste  
Analysis Batch: 476862

Client Sample ID: BTF Filter Cake  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	66.0		66.5		%		0.7	40
Percent Solids	34.0		33.5		%		1	19

# QC Association Summary

Client: Arconic Mill Products  
Project/Site: BTF Filter Cake

Job ID: 310-322624-1



## Metals

### Prep Batch: 476839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322624-1	BTF Filter Cake	Total/NA	Waste	3050B	
MB 310-476839/1-A	Method Blank	Total/NA	Waste	3050B	
LCS 310-476839/2-A	Lab Control Sample	Total/NA	Waste	3050B	
310-322624-1 DU	BTF Filter Cake	Total/NA	Waste	3050B	

### Prep Batch: 476868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322624-1	BTF Filter Cake	Total/NA	Waste	7471B	
MB 310-476868/1-A	Method Blank	Total/NA	Waste	7471B	
LCS 310-476868/2-A	Lab Control Sample	Total/NA	Waste	7471B	

### Analysis Batch: 477044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322624-1	BTF Filter Cake	Total/NA	Waste	6020B	476839
MB 310-476839/1-A	Method Blank	Total/NA	Waste	6020B	476839
LCS 310-476839/2-A	Lab Control Sample	Total/NA	Waste	6020B	476839
310-322624-1 DU	BTF Filter Cake	Total/NA	Waste	6020B	476839

### Analysis Batch: 477119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322624-1	BTF Filter Cake	Total/NA	Waste	7471B	476868
MB 310-476868/1-A	Method Blank	Total/NA	Waste	7471B	476868
LCS 310-476868/2-A	Lab Control Sample	Total/NA	Waste	7471B	476868

## General Chemistry

### Analysis Batch: 476862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322624-1	BTF Filter Cake	Total/NA	Waste	Moisture	
310-322624-1 DU	BTF Filter Cake	Total/NA	Waste	Moisture	

### Leach Batch: 477140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322624-1	BTF Filter Cake	Soluble	Waste	DI Leach	
MB 310-477140/1-A	Method Blank	Soluble	Waste	DI Leach	
LCS 310-477140/2-A	Lab Control Sample	Soluble	Waste	DI Leach	
310-322624-1 MS	BTF Filter Cake	Soluble	Waste	DI Leach	
310-322624-1 MSD	BTF Filter Cake	Soluble	Waste	DI Leach	

### Analysis Batch: 477216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-322624-1	BTF Filter Cake	Soluble	Waste	4500 F C-2011	477140
MB 310-477140/1-A	Method Blank	Soluble	Waste	4500 F C-2011	477140
LCS 310-477140/2-A	Lab Control Sample	Soluble	Waste	4500 F C-2011	477140
310-322624-1 MS	BTF Filter Cake	Soluble	Waste	4500 F C-2011	477140
310-322624-1 MSD	BTF Filter Cake	Soluble	Waste	4500 F C-2011	477140

Eurofins Cedar Falls

# Lab Chronicle

Client: Arconic Mill Products  
 Project/Site: BTF Filter Cake

Job ID: 310-322624-1

**Client Sample ID: BTF Filter Cake**

**Lab Sample ID: 310-322624-1**

Date Collected: 12/17/25 12:30

Matrix: Waste

Date Received: 12/18/25 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	476862	W9YR	EET CF	12/18/25 14:24

**Client Sample ID: BTF Filter Cake**

**Lab Sample ID: 310-322624-1**

Date Collected: 12/17/25 12:30

Matrix: Waste

Date Received: 12/18/25 08:20

Percent Solids: 34.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			476839	RLT9	EET CF	12/19/25 08:31
Total/NA	Analysis	6020B		5	477044	NFT2	EET CF	12/19/25 18:22
Total/NA	Prep	7471B			476868	RLT9	EET CF	12/19/25 13:08
Total/NA	Analysis	7471B		1	477119	NLZB	EET CF	12/22/25 13:47
Soluble	Leach	DI Leach			477140	T5AC	EET CF	12/22/25 16:47
Soluble	Analysis	4500 F C-2011		1	477216	HE7K	EET CF	12/23/25 11:05

**Laboratory References:**

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



# Accreditation/Certification Summary

Client: Arconic Mill Products  
Project/Site: BTF Filter Cake

Job ID: 310-322624-1

## Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25 *

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
4500 F C-2011		Waste	Fluoride
6020B	3050B	Waste	Lithium
Moisture		Waste	Percent Moisture
Moisture		Waste	Percent Solids



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

# Method Summary

Client: Arconic Mill Products  
Project/Site: BTF Filter Cake

Job ID: 310-322624-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CF
7471B	Mercury (CVAA)	SW846	EET CF
4500 F C-2011	Fluoride (Ion-selective Electrode)	SM	EET CF
Moisture	Percent Moisture	EPA	EET CF
3050B	Preparation, Metals	SW846	EET CF
7471B	Preparation, Mercury	SW846	EET CF
DI Leach	Deionized Water Leaching Procedure	ASTM	EET CF

#### Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

#### Laboratory References:

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





Environment Testing  
America

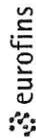


310-322624 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

<b>Client Information</b>			
Client: <u>Arconic</u>			
City/State:	CITY	STATE	Project:
		<u>IA</u>	
<b>Receipt Information</b>			
Date/Time Received:	DATE	TIME	Received By
	<u>12/18/25</u>	<u>0820</u>	<u>[Signature]</u>
Delivery Type: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <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 checked="" type="checkbox"/> Yes <input 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>CC</u>	Correction Factor (°C)	<u>to 0</u>
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C):	<u>0.6</u>	Corrected Temp (°C)	<u>0.6</u>
• Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
<b>Exceptions Noted</b>			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No			
a) If yes: Is there evidence that the chilling process began? <input 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>			





Cedar Falls, IA 50613-6907  
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> Arconic Davenport Works John Hylton PO BOX 3567 Davenport, IA 52722 Project Number: Project Name BTF Filter Cake Site Arconic Davenport Works P O #		<b>Project Manager: Emily Mathews</b> Email: emily.mathews@eurofins.com Cell (319) 277-2401 <input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS Other: <input type="checkbox"/> Standard TAT 1 week <input type="checkbox"/> 3 Days <input checked="" type="checkbox"/> 1 day		<b>Site Contact: Joshua Metcalf</b> Lab Contact: Carrier: Date: 12/17/2025 COC No: 1 of 1 COCs	
<b>Sample Identification</b> BTF Filter Cake		Sample Date: 12/17/2025 Sample Time: 12.30 Sample Type (C-Comp, G-Grab): C Matrix: WST # of Cont.: 1		Total metals (including thallium): Perform MS/MSD (Y/N): Filtered Sample (Y/N): Sample Specific Notes:	
Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other		Signature: <i>[Signature]</i>			
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		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months			
Special Instructions/QC Requirements & Comments: Please see enclosed Analytical Testing Report, Iowa DNR Form 542-0652 for RL thresholds required under the BUD program.		Special Instructions/QC Requirements & Comments: Requesting Rush 3 DAY TAT			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Therm ID No	
Relinquished by: Joshua Metcalf		Company: Envita Solutions		Received by: <i>[Signature]</i> Company: <i>[Signature]</i>	
Relinquished by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Received by: <i>[Signature]</i> Company: <i>[Signature]</i>	
Relinquished by:		Company:		Received in Laboratory by: <i>[Signature]</i> Company: <i>[Signature]</i>	
		Date/Time: 12/17/2025 14:35		Date/Time: 12/17/25 14:35	
		Date/Time: 12/17/2020		Date/Time: 12/18/25 08:00	





# Beneficial Use Determination: Solid By-Product Management Plan Analytical Testing Report



Beneficial Use ID#: \_\_\_\_\_ -BUD- \_\_\_\_\_ - \_\_\_\_\_  
 DNR Certified Lab: \_\_\_\_\_  
 Lab Report Date: \_\_\_\_\_  
 By-Product Generator: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 By-Product Name: \_\_\_\_\_

Send completed report form(s), laboratory analytics, and supplemental Solid By-Product Management Plan (SBMP) documentation to:  
 Iowa Department of Natural Resources  
 Land Quality Bureau  
 Solid Waste & Contaminated Sites Section  
 6200 Park Ave Ste 200  
 Des Moines, IA 50321  
 For questions concerning this report form please contact the DNR at (515) 201-8272.

## ANALYTICAL TESTING RESULTS

Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846).

Required		Synthetic Precipitation Leaching Procedure (EPA Test Method 1312)			Total Metals		
*	Contaminant	MCL	10 X MCL	Test Result	Regulatory Limit	Test Result	
<input type="checkbox"/>	Antimony	0.006 mg/L	0.06 mg/L	mg/L	31 mg/kg	mg/kg	
<input type="checkbox"/>	Arsenic	0.010 mg/L	0.10 mg/L	mg/L	17 mg/kg	mg/kg	
<input type="checkbox"/>	Barium	2.0 mg/L	20.0 mg/L	mg/L	15,000 mg/kg	mg/kg	
<input type="checkbox"/>	Beryllium	0.004 mg/L	0.04 mg/L	mg/L	110 mg/kg	mg/kg	
<input type="checkbox"/>	Boron				16,000 mg/kg	mg/kg	
<input type="checkbox"/>	Cadmium	0.005 mg/L	0.05 mg/L	mg/L	70 mg/kg	mg/kg	
<input type="checkbox"/>	Chromium	0.1 mg/L	1.0 mg/L	mg/L	** (Total)	mg/kg	
					(Hexavalent - VI)	210 mg/kg	mg/kg
					(Trivalent - III)	97,000 mg/kg	mg/kg
<input type="checkbox"/>	Cobalt				23 mg/kg	mg/kg	
<input type="checkbox"/>	Copper	1.3 mg/L	13.0 mg/L	mg/L	15,000 mg/kg	mg/kg	
<input type="checkbox"/>	Fluoride	4.0 mg/L	40.0 mg/L	mg/L	4,700 mg/kg	mg/kg	
<input type="checkbox"/>	Lead	0.015 mg/L	0.15 mg/L	mg/L	400 mg/kg	mg/kg	
<input type="checkbox"/>	Lithium				160 mg/kg	mg/kg	
<input type="checkbox"/>	Manganese				10,000 mg/kg	mg/kg	
<input type="checkbox"/>	Mercury	0.002 mg/L	0.02 mg/L	mg/L	23 mg/kg	mg/kg	
<input type="checkbox"/>	Molybdenum				390 mg/kg	mg/kg	
<input type="checkbox"/>	Nickel				1,500 mg/kg	mg/kg	
<input type="checkbox"/>	Selenium	0.05 mg/L	0.5 mg/L	mg/L	390 mg/kg	mg/kg	
<input type="checkbox"/>	Silver				370 mg/kg	mg/kg	
<input type="checkbox"/>	Thallium	0.002 mg/L	0.02 mg/L	mg/L	0.78 mg/kg	mg/kg	
<input type="checkbox"/>	Vanadium				350 mg/kg	mg/kg	
<input type="checkbox"/>	Zinc				23,000 mg/kg	mg/kg	

\*Required contaminant

\*\*If Total Chromium ≥210 mg/kg, further analysis shall be conducted to determine hexavalent and trivalent results



Toxicity Characteristic Leaching Procedure (EPA Test Method 1311) - Regulatory Limits

Metals				Volatile Organic Compounds			
*	Contaminant	Regulatory Limit	Test Result	*	Contaminant	Regulatory Limit	Test Result
<input type="checkbox"/>	Arsenic	5.0 mg/L	mg/L	<input type="checkbox"/>	Benzene	0.5 mg/L	mg/L
<input type="checkbox"/>	Barium	100.0 mg/L	mg/L	<input type="checkbox"/>	Carbon tetrachloride	0.5 mg/L	mg/L
<input type="checkbox"/>	Cadmium	1.0 mg/L	mg/L	<input type="checkbox"/>	Chlorobenzene	100.0 mg/L	mg/L
<input type="checkbox"/>	Chromium	5.0 mg/L	mg/L	<input type="checkbox"/>	Chloroform	6.0 mg/L	mg/L
<input type="checkbox"/>	Lead	5.0 mg/L	mg/L	<input type="checkbox"/>	1,2-Dichloroethane	0.5 mg/L	mg/L
<input type="checkbox"/>	Mercury	0.2 mg/L	mg/L	<input type="checkbox"/>	1,1-Dichloroethylene	0.7 mg/L	mg/L
<input type="checkbox"/>	Selenium	1.0 mg/L	mg/L	<input type="checkbox"/>	Methyl ethyl ketone	200.0 mg/L	mg/L
<input type="checkbox"/>	Silver	5.0 mg/L	mg/L	<input type="checkbox"/>	Tetrachloroethylene	0.7 mg/L	mg/L
				<input type="checkbox"/>	Trichloroethylene	0.5 mg/L	mg/L
				<input type="checkbox"/>	Vinyl chloride	0.2 mg/L	mg/L
Pesticides				Semi-Volatile Organic Compounds			
*	Contaminant	Regulatory Limit	Test Result	*	Contaminant	Regulatory Limit	Test Result
<input type="checkbox"/>	Chlordane	0.03 mg/L	mg/L	<input type="checkbox"/>	o-Cresol	200.0 mg/L	mg/L
<input type="checkbox"/>	Endrin	0.02 mg/L	mg/L	<input type="checkbox"/>	m-Cresol	200.0 mg/L	mg/L
<input type="checkbox"/>	Heptachlor (and its epoxide)	0.008 mg/L	mg/L	<input type="checkbox"/>	p-Cresol	200.0 mg/L	mg/L
<input type="checkbox"/>	Lindane	0.4 mg/L	mg/L	<input type="checkbox"/>	Cresol	200.0 mg/L	mg/L
<input type="checkbox"/>	Methoxychlor	10.0 mg/L	mg/L	<input type="checkbox"/>	1,4-Dichlorobenzene	7.5 mg/L	mg/L
<input type="checkbox"/>	Toxaphene	0.5 mg/L	mg/L	<input type="checkbox"/>	2,4-Dinitrotoluene	0.13 mg/L	mg/L
				<input type="checkbox"/>	Hexachlorobenzene	0.13 mg/L	mg/L
				<input type="checkbox"/>	Hexachlorobutadiene	0.5 mg/L	mg/L
				<input type="checkbox"/>	Hexachloroethane	3.0 mg/L	mg/L
				<input type="checkbox"/>	Nitrobenzene	2.0 mg/L	mg/L
Herbicides				<input type="checkbox"/>	Pentachlorophenol	100.0 mg/L	mg/L
*	Contaminant	Regulatory Limit	Test Result	<input type="checkbox"/>	Pyridine	5.0 mg/L	mg/L
<input type="checkbox"/>	2,4-D	10.0 mg/L	mg/L	<input type="checkbox"/>	2,4,5-Trichlorophenol	400.0 mg/L	mg/L
<input type="checkbox"/>	2,4,5-TP (Silvex)	1.0 mg/L	mg/L	<input type="checkbox"/>	2,4,6-Trichlorophenol	2.0 mg/L	mg/L

\*Required contaminant

**BY-PRODUCT GENERATOR CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_



# Login Sample Receipt Checklist

Client: Arconic Mill Products

Job Number: 310-322624-1

**Login Number: 322624**  
**List Number: 1**  
**Creator: Hirsch, Preston**

**List Source: Eurofins Cedar Falls**

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

