

IOWA DEPARTMENT OF NATURAL RESOURCES

BENEFICIAL USE DETERMINATION
APPLICATION FORM

Send completed applications with attached information to:

Iowa Department of Natural Resources
Land Quality Bureau
Solid Waste and Contaminated Sites Section
6200 Park Ave Ste 200
Des Moines IA 50321

For questions concerning this application please contact the Department at (515) 201-8272.

SECTION 1. CONTACT INFORMATION [IAC 567-108.5] Provide the name, address and telephone number for the following

Address of the site where the project will be located

Site Owner Name: Iowa National Guard - Camp Dodge Phone Number: _____
 Site Address: 7105 NW 70th Ave. County: Polk
 City: Johnston State: Iowa Zip Code: 50131
1/4 of SW 1/4 of SW 1/4 Section 14 Township 80 N Range 25 ☐ East ☒ West
 (you may attach a legal description from your county assessor)

Beneficial Use Determination Applicant

Name: Iowa State University Phone Number: 515-294-2140
 Site Address: 394 Town Engineering Building
 City: Ames State: Iowa Zip Code: 50011

Individual responsible for operation of the project

Name: Lee Bjerke Phone Number: 563-419-1332
 Site Address: 800 Lincoln Way
 City: Ames State: Iowa Zip Code: 50010

Professional engineer (P.E.) licensed in the state of Iowa and retained for the design of the facility, if any

Name: _____ License #: _____
 Site Address: _____ Phone Number: _____
 City: _____ State: _____ Zip Code: _____

Agency to be served by the project, if any

Name of Agency: Iowa National Guard - Camp Dodge Joint Maneuver Training Center
 Responsible Official: Major Andrew L. Ogie Phone Number: 515-252-4959
 Site Address: 7105 NW 70th Ave.
 City: Johnston State: Iowa Zip Code: 50131

SECTION 2. FACILITY OPERATIONAL INFORMATION

A description of the solid by-product under review and its proposed use:

The project is to create a test section to study the effectiveness of woven and non-woven geotextiles, with and without beneficiated fly ash (BFA), on granular-surfaced ("gravel") roads. The objective is to quantify potential improvements in strength, durability, and resistance to moisture-related damage. The granular surface course will use a sustainable blend of 30% fresh Class A roadstone and 70% recycled asphalt pavement (RAP). Field test sections (300 ft each) will be constructed and monitored over two winter–spring freeze–thaw cycles using in situ tests. Funding for the project is through the Iowa Highway Research Board.

The chemical and physical characteristics of the solid by-product:

See attached lab report

A demonstration that there is a known or reasonably probable market for the intended use of the solid by-product:

Material is being used for base stabilization research on an unpaved road. The intent is that the material will remain in the road bed for the life of the roadway. In the event the roadway is disturbed, for whatever reason, Camp Dodge will have documentation of the location of this material so that appropriate decisions on prudent handling of the material can be made. It is not anticipated that the road bed would ever be disturbed as it has not been disturbed for over 50 years. Maintenance is anticipated to be routine surface adjustments that include blading the granular surfacing and addition of new surfacing, as warranted by the roadway conditions.

This project is not intended to promote this material in this, or any, capacity. The intent is only to research its viability compared to other stabilization project that have also been done in Camp Dodge. It is understood that this project and its approvals related to environmental issues is not an encompassing approval for any future projects using this material in a similar fashion.

A demonstration that the proposed use of the solid by-product will not adversely affect human health and environment:

The material will be mixed into the current roadway subbase and treated with water to create a cementitious stabilized base. Once the material has "set" a roadway surface will be placed on top of the base comprised of a mixture of limestone and recycled asphalt approximately two inches thick.

It is anticipated the chances of the material being disturbed are rare due to historic data of road maintenance in Camp Dodge.

SECTION 3. PERMIT APPLICATION CHECKLIST

Checking the appropriate boxes below certifies that the documents submitted in conjunction with this application form are complete and in compliance with the applicable chapters of the Iowa Administrative Code. If an application is found by the department to be incomplete, it may be denied and returned to the applicant.

Required Documents

- ☐ Solid By-product Management Plan [IAC 567 Chapter 108.5(6)]
- ☒ Site Map
- ☒ Solid By-product Analytical Results [IAC 567 Chapter 108.5]

SECTION 4. APPLICANT CERTIFICATION

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.

I further certify that the construction and operation of the above described project will be in accordance with the plans, specifications, reports and related communications accepted by the Iowa Department of Natural Resources and on file in its office; and in accordance with conditions imposed in the determination issued by the Iowa Department of Natural Resources.

Signature: _____ Date: _____

Printed Name: Lee Bjerke Title: Secondary Roads Research Engineer



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

Beneficial Use ID#: _____ -BUD- _____ - _____
DNR Certified Lab: Eurofins Cedar Falls
Lab Report Date: 10-29-25
By-Product Generator: Alliant Energy
City: Johnston State: Iowa Zip: 52501
By-Product Name: Pozzostone (Sampled 10-14-25)

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	
☒	Antimony	0.006 mg/L	0.06 mg/L	<0.02 mg/L	31 mg/kg	1.18	mg/kg
☒	Arsenic	0.010 mg/L	0.10 mg/L	<0.011 mg/L	17 mg/kg	21.6	mg/kg
☒	Barium	2.0 mg/L	20.0 mg/L	0.0566 mg/L	15,000 mg/kg	4110	mg/kg
☒	Beryllium	0.004 mg/L	0.04 mg/L	<0.0066 mg/L	110 mg/kg	2.67	mg/kg
☒	Boron				16,000 mg/kg	447	mg/kg
☒	Cadmium	0.005 mg/L	0.05 mg/L	<0.002 mg/L	70 mg/kg	0.965	mg/kg
☒	Chromium	0.1 mg/L	1.0 mg/L	<0.036 mg/L	** (Total)	45.9	mg/kg
					(Hexavalent - VI) 210 mg/kg		mg/kg
					(Trivalent - III) 97,000 mg/kg		mg/kg
☒	Cobalt				23 mg/kg	13.6	mg/kg
☒	Copper	1.3 mg/L	13.0 mg/L	<0.064 mg/L	15,000 mg/kg	110	mg/kg
☒	Fluoride	4.0 mg/L	40.0 mg/L	1.11 mg/L	4,700 mg/kg	3.39	mg/kg
☒	Lead	0.015 mg/L	0.15 mg/L	<0.0066 mg/L	400 mg/kg	19.7	mg/kg
☒	Lithium				160 mg/kg	26.9	mg/kg
☒	Manganese				10,000 mg/kg	321	mg/kg
☒	Mercury	0.002 mg/L	0.02 mg/L	<0.0012 mg/L	23 mg/kg	0.0168	mg/kg
☒	Molybdenum				390 mg/kg	4.36	mg/kg
☒	Nickel				1,500 mg/kg	40.5	mg/kg
☒	Selenium	0.05 mg/L	0.5 mg/L	<0.028 mg/L	390 mg/kg	8.93	mg/kg
☒	Silver				370 mg/kg	0.25	mg/kg
☒	Thallium	0.002 mg/L	0.02 mg/L	<0.011 mg/L	0.78 mg/kg	1.22	mg/kg
☒	Vanadium				350 mg/kg	142	mg/kg
☒	Zinc				23,000 mg/kg	86.6	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	
☒	Arsenic	5.0 mg/L	<0.03	mg/L	☐	Benzene	0.5 mg/L		mg/L
☒	Barium	100.0 mg/L	0.255	mg/L	☐	Carbon tetrachloride	0.5 mg/L		mg/L
☒	Cadmium	1.0 mg/L	<0.0039	mg/L	☐	Chlorobenzene	100.0 mg/L		mg/L
☒	Chromium	5.0 mg/L	0.00987	mg/L	☐	Chloroform	6.0 mg/L		mg/L
☒	Lead	5.0 mg/L	<0.037	mg/L	☐	1,2-Dichloroethane	0.5 mg/L		mg/L
☒	Mercury	0.2 mg/L	<0.0012	mg/L	☐	1,1-Dichloroethylene	0.7 mg/L		mg/L
☒	Selenium	1.0 mg/L	<0.029	mg/L	☐	Methyl ethyl ketone	200.0 mg/L		mg/L
☒	Silver	5.0 mg/L	<0.016	mg/L	☐	Tetrachloroethylene	0.7 mg/L		mg/L
					☐	Trichloroethylene	0.5 mg/L		mg/L
					☐	Vinyl chloride	0.2 mg/L		mg/L
Pesticides					Semi-Volatile Organic Compounds				
*	Contaminant	Regulatory Limit	Test Result		*	Contaminant	Regulatory Limit	Test Result	
☐	Chlordane	0.03 mg/L		mg/L	☐	o-Cresol	200.0 mg/L		mg/L
☐	Endrin	0.02 mg/L		mg/L	☐	m-Cresol	200.0 mg/L		mg/L
☐	Heptachlor (and its epoxide)	0.008 mg/L		mg/L	☐	p-Cresol	200.0 mg/L		mg/L
☐	Lindane	0.4 mg/L		mg/L	☐	Cresol	200.0 mg/L		mg/L
☐	Methoxychlor	10.0 mg/L		mg/L	☐	1,4-Dichlorobenzene	7.5 mg/L		mg/L
☐	Toxaphene	0.5 mg/L		mg/L	☐	2,4-Dinitrotoluene	0.13 mg/L		mg/L
					☐	Hexachlorobenzene	0.13 mg/L		mg/L
					☐	Hexachlorobutadiene	0.5 mg/L		mg/L
					☐	Hexachloroethane	3.0 mg/L		mg/L
Herbicides					☐	Nitrobenzene	2.0 mg/L		mg/L
*	Contaminant	Regulatory Limit	Test Result		☐	Pentachlorophenol	100.0 mg/L		mg/L
☐	2,4-D	10.0 mg/L		mg/L	☐	Pyridine	5.0 mg/L		mg/L
☐	2,4,5-TP (Silvex)	1.0 mg/L		mg/L	☐	2,4,5-Trichlorophenol	400.0 mg/L		mg/L
					☐	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: Lee Bjerke **Title:** Secondary Roads Research Engineer

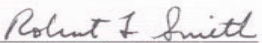
REPORT OF FLY ASH ANALYSIS

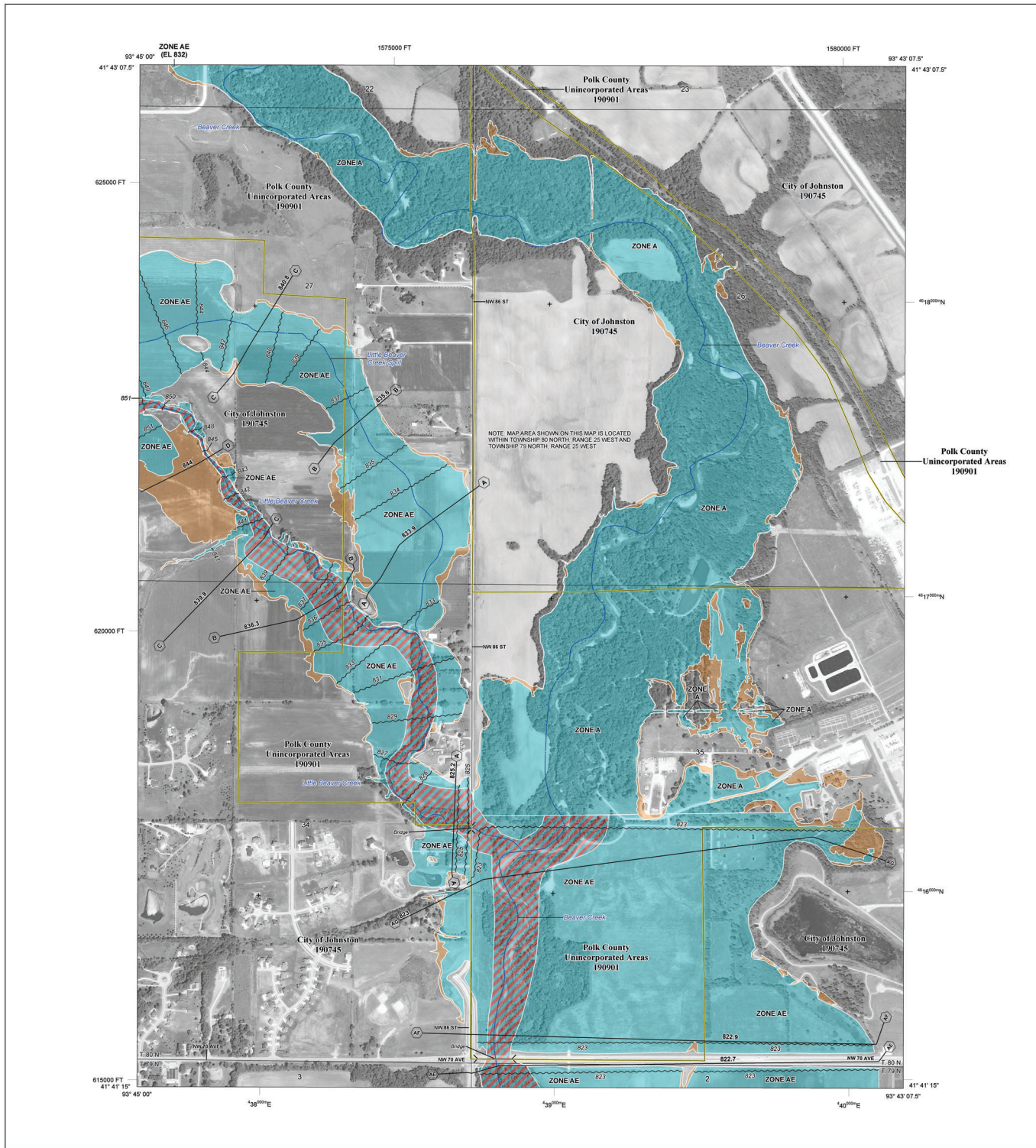
PROJECT NO. RMT-522
SAMPLE NO. 29051
DATE REC.: 05-18-26
DATE REP.: 06-19-26

PROJECT NAME: Ottumwa Fly Ash Quality Assurance Program
SAMPLE ID: Class C Fly Ash May 2026 Composite

CHEMICAL ANALYSIS:	RESULTS:	ASTM C 618 Spec F/C
Silicon Dioxide, SiO ₂ , %	38.01	----
Aluminum Oxide, Al ₂ O ₃ , %	18.42	----
Iron Oxide, Fe ₂ O ₃ , %	5.28	----
Sum of SiO ₂ , Al ₂ O ₃ & Fe ₂ O ₃ , %	61.71	50.0 Min./50.0 Min.
Calcium Oxide, CaO, %	25.74	18.0 Max/>18.0
Magnesium Oxide, MgO, %	4.39	----
Sodium Oxide, Na ₂ O, %	1.34	----
Potassium Oxide, K ₂ O, %	0.51	----
Sulfur Trioxide, SO ₃ , %	2.87	5.0 Max
Moisture Content, %	0.12	3.0 Max
Loss on Ignition, %	0.28	6.0 Max
Total Alkalis, % as Na ₂ O Equivalent	1.68	
Available Alkalis, % as Na ₂ O Equivalent	0.52	----
PHYSICAL ANALYSIS:	RESULTS:	ASTM C 618 Spec F/C
Amount Retained on No. 325 Sieve, %	14.9	34 Max
Strength Activity Index		
Portland Cement @ 7 days, % of Control	98	75 Min
Portland Cement @ 28 days, % of Control	103	75 Min
Water Requirement, % of Control	93	105 Max
Autoclave Expansion, %	+0.04	0.8 Max
Density	2.64	----

This material meets the requirements for ASTM C 618 for the parameters tested. **National Minerals Corporation has generated the test data listed herein by test methods similar to applicable CSA methods and meets the requirements of current CSA-A3001 fly ash.**

By 
Robert L. Smith, Ph.D.



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING
DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT
[HTTPS://MSC.FEMA.GOV](https://MSC.FEMA.GOV)

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone AE, AH, AO, AV, VE, VE, AR
		With BFE or Depth Zone AE, AO, AH, VE, AR
OTHER AREAS OF FLOOD HAZARD		Regulatory Floodway
		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
OTHER AREAS		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee See Notes, Zone X
GENERAL STRUCTURES		Areas Determined to be Outside the 0.2% Annual Chance Floodplain Zone X
		Area of Undetermined Flood Hazard Zone D
OTHER FEATURES		Channel, Culvert, or Storm Sewer Accredited or Provisionally Accredited Levee, Dike, or Floodwall
		Non-accredited Levee, Dike, or Floodwall
OTHER FEATURES		Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
		Coastal Transect
OTHER FEATURES		Coastal Transect Baseline
		Profile Baseline
OTHER FEATURES		Hydrographic Feature
		Base Flood Elevation Line (BFE)
OTHER FEATURES		Limit of Study
		Jurisdiction Boundary

NOTES TO USERS

For information and questions about this map, available products associated with this FIS including historic versions of the FIS, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-366-2627) or visit the FEMA Map Service Center website at <http://msc.fema.gov>. Available products may include geospatial data, Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIS panel by visiting the FEMA Map Service Center website or by calling the FEMA Map Information eXchange.

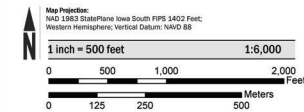
Communities receiving flood insurance must obtain a current copy of the adjacent panel as well as the current FIS panel. These may be obtained directly from the Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study report for this jurisdiction.

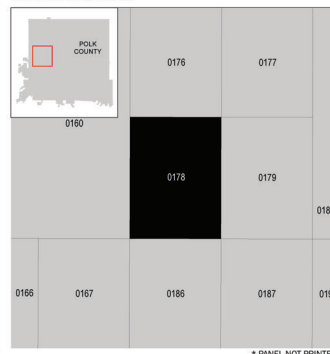
To determine if flood insurance is available in the community, contact your insurance agent or call the National Flood Insurance Program at 1-800-438-6623.

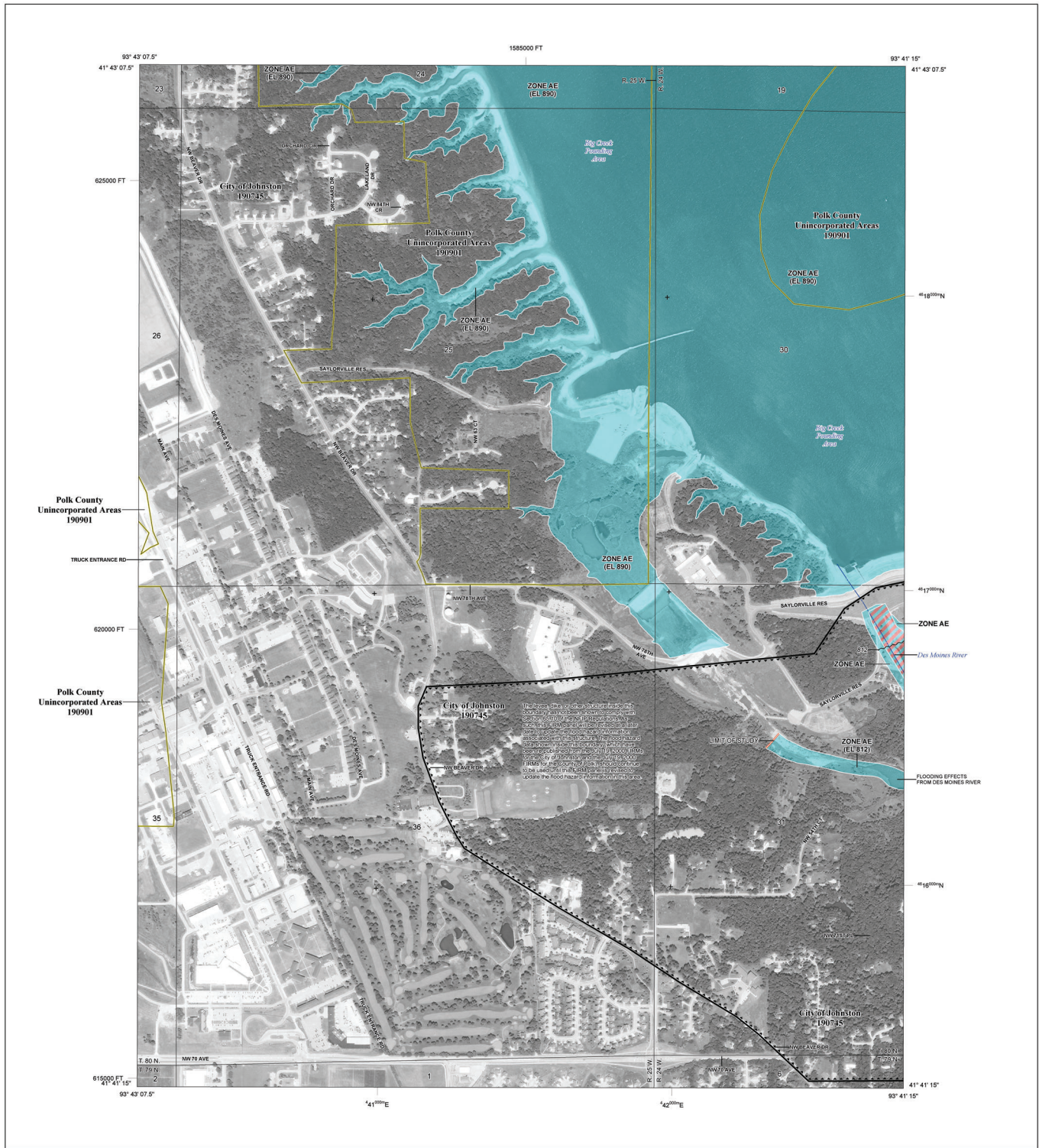
Base map information shown on this FIS was provided in digital format by the United States Department of Agriculture (USDA). This information was derived from digital orthophotography at a 1-meter resolution from photography dated 2013.

SCALE



PANEL LOCATOR





FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING
DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT
[HTTPS://MSC.FEMA.GOV](https://MSC.FEMA.GOV)

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
OTHER AREAS OF FLOOD HAZARD		Regulatory Floodway
		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
OTHER AREAS		Future Conditions 1% Annual Chance Flood Hazard Zone X
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		Profile Baseline
OTHER FEATURES		Hydrographic Feature
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OTHER FEATURES		Limit of Study
		Jurisdiction Boundary

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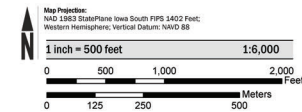
Communities requesting land on adjacent FIRI panels must obtain a current copy of the adjacent panel as well as the current FIRI index. These may be obtained directly from the Map Service Center at the number listed above.

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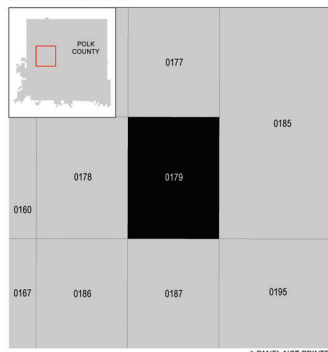
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SCALE



PANEL LOCATOR



National Flood Insurance Program

POLK COUNTY, IOWA
AND INCORPORATED AREAS

PANEL 179 of 555

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
JOHNSTON, CITY OF	190745	0179	F
POLK COUNTY	190901	0279	F

VERSION NUMBER
2.2.2.1

MAP NUMBER
1915300179F

EFFECTIVE DATE
FEBRUARY 1, 2019

ANALYTICAL REPORT

PREPARED FOR

Attn: Matt Loehr
Alliant Energy Corporation
20775 Power Plant Road
Ottumwa, Iowa 52501

Generated 10/29/2025 12:46:52 PM

JOB DESCRIPTION

Ottumwa Beneficial Use

JOB NUMBER

310-318186-4

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



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

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Case Narrative

Client: Alliant Energy Corporation
Project: Ottumwa Beneficial Use

Job ID: 310-318186-4

Job ID: 310-318186-4

Eurofins Cedar Falls

Job Narrative 310-318186-4

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 10/16/2025 8:25 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 5.1°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: Alliant Energy Corporation
Project/Site: Ottumwa Beneficial Use

Job ID: 310-318186-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-318186-4	Prozzostone	Solid	10/14/25 00:00	10/16/25 08:25	Iowa

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

Detection Summary

Client: Alliant Energy Corporation
Project/Site: Ottumwa Beneficial Use

Job ID: 310-318186-4

Client Sample ID: Prozzostone

Lab Sample ID: 310-318186-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.255		0.200	0.0400	mg/L	1		6010D	TCLP
Chromium	0.00987	J	0.0200	0.00600	mg/L	1		6010D	TCLP
Antimony	1.18		1.03	0.464	mg/Kg	5	✱	6020B	Total/NA
Arsenic	21.6		1.03	0.433	mg/Kg	5	✱	6020B	Total/NA
Barium	4110		8.24	3.79	mg/Kg	40	✱	6020B	Total/NA
Beryllium	2.67		0.515	0.206	mg/Kg	5	✱	6020B	Total/NA
Boron	447		51.5	44.3	mg/Kg	5	✱	6020B	Total/NA
Cadmium	0.965		0.515	0.196	mg/Kg	5	✱	6020B	Total/NA
Chromium	45.9		1.55	0.536	mg/Kg	5	✱	6020B	Total/NA
Cobalt	13.6		0.515	0.185	mg/Kg	5	✱	6020B	Total/NA
Copper	110		1.55	0.824	mg/Kg	5	✱	6020B	Total/NA
Lead	19.7		2.58	0.804	mg/Kg	5	✱	6020B	Total/NA
Lithium	26.9		2.58	1.02	mg/Kg	5	✱	6020B	Total/NA
Manganese	321		2.58	1.24	mg/Kg	5	✱	6020B	Total/NA
Molybdenum	4.36		1.03	0.422	mg/Kg	5	✱	6020B	Total/NA
Nickel	40.5		1.55	0.618	mg/Kg	5	✱	6020B	Total/NA
Selenium	8.93		1.55	0.773	mg/Kg	5	✱	6020B	Total/NA
Silver	0.250	J	0.515	0.196	mg/Kg	5	✱	6020B	Total/NA
Thallium	1.22		0.515	0.196	mg/Kg	5	✱	6020B	Total/NA
Vanadium	142		1.55	0.546	mg/Kg	5	✱	6020B	Total/NA
Zinc	86.6		5.15	3.40	mg/Kg	5	✱	6020B	Total/NA
Barium	0.0566	J	0.200	0.0280	mg/L	4		6020B	SPLP West
Mercury	0.0168	J	0.0193	0.00790	mg/Kg	1	✱	7471B	Total/NA
Fluoride	3.39		1.19	0.585	mg/Kg	1	✱	4500 F C-2011	Soluble
Fluoride	1.11		0.200	0.0790	mg/L	1		4500 F C-2011	SPLP

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: Alliant Energy Corporation
Project/Site: Ottumwa Beneficial Use

Job ID: 310-318186-4

Client Sample ID: Prozzostone

Lab Sample ID: 310-318186-4

Date Collected: 10/14/25 00:00

Matrix: Solid

Date Received: 10/16/25 08:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0300		0.100	0.0300	mg/L		10/21/25 10:00	10/22/25 13:05	1
Barium	0.255		0.200	0.0400	mg/L		10/21/25 10:00	10/22/25 13:05	1
Cadmium	<0.00390		0.0200	0.00390	mg/L		10/21/25 10:00	10/22/25 13:05	1
Chromium	0.00987	J	0.0200	0.00600	mg/L		10/21/25 10:00	10/22/25 13:05	1
Lead	<0.0370		0.100	0.0370	mg/L		10/21/25 10:00	10/22/25 13:05	1
Selenium	<0.0290		0.100	0.0290	mg/L		10/21/25 10:00	10/22/25 13:05	1
Silver	<0.0160	^+	0.0500	0.0160	mg/L		10/21/25 10:00	10/22/25 13:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0200		0.0400	0.0200	mg/L		10/24/25 10:45	10/25/25 21:17	4
Arsenic	<0.0110		0.0400	0.0110	mg/L		10/24/25 10:45	10/25/25 21:17	4
Barium	0.0566	J	0.200	0.0280	mg/L		10/24/25 10:45	10/25/25 21:17	4
Beryllium	<0.00660		0.0200	0.00660	mg/L		10/24/25 10:45	10/25/25 21:17	4
Cadmium	<0.00200		0.0100	0.00200	mg/L		10/24/25 10:45	10/25/25 21:17	4
Chromium	<0.0360		0.100	0.0360	mg/L		10/24/25 10:45	10/25/25 21:17	4
Copper	<0.0640		0.200	0.0640	mg/L		10/24/25 10:45	10/25/25 21:17	4
Lead	<0.00660		0.0200	0.00660	mg/L		10/24/25 10:45	10/25/25 21:17	4
Selenium	<0.0280		0.100	0.0280	mg/L		10/24/25 10:45	10/25/25 21:17	4
Thallium	<0.0110		0.0200	0.0110	mg/L		10/24/25 10:45	10/25/25 21:17	4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00120	^+	0.00200	0.00120	mg/L		10/22/25 13:50	10/23/25 14:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00120		0.00200	0.00120	mg/L		10/27/25 11:57	10/28/25 13:05	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	21.0		0.1	0.1	%			10/16/25 12:49	1
Percent Solids (EPA Moisture)	79.0		0.1	0.1	%			10/16/25 12:49	1

General Chemistry - SPLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	1.11		0.200	0.0790	mg/L			10/25/25 19:40	1

Client Sample Results

Client: Alliant Energy Corporation
Project/Site: Ottumwa Beneficial Use

Job ID: 310-318186-4

Client Sample ID: Prozzostone

Lab Sample ID: 310-318186-4

Date Collected: 10/14/25 00:00

Matrix: Solid

Date Received: 10/16/25 08:25

Percent Solids: 79.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.18		1.03	0.464	mg/Kg	✱	10/20/25 09:45	10/22/25 14:30	5
Arsenic	21.6		1.03	0.433	mg/Kg	✱	10/20/25 09:45	10/22/25 14:30	5
Barium	4110		8.24	3.79	mg/Kg	✱	10/20/25 09:45	10/23/25 14:22	40
Beryllium	2.67		0.515	0.206	mg/Kg	✱	10/20/25 09:45	10/22/25 14:30	5
Boron	447		51.5	44.3	mg/Kg	✱	10/20/25 09:45	10/22/25 14:30	5
Cadmium	0.965		0.515	0.196	mg/Kg	✱	10/20/25 09:45	10/22/25 14:30	5
Chromium	45.9		1.55	0.536	mg/Kg	✱	10/20/25 09:45	10/22/25 14:30	5
Cobalt	13.6		0.515	0.185	mg/Kg	✱	10/20/25 09:45	10/22/25 14:30	5
Copper	110		1.55	0.824	mg/Kg	✱	10/20/25 09:45	10/22/25 14:30	5
Lead	19.7		2.58	0.804	mg/Kg	✱	10/20/25 09:45	10/22/25 14:30	5
Lithium	26.9		2.58	1.02	mg/Kg	✱	10/20/25 09:45	10/22/25 14:30	5
Manganese	321		2.58	1.24	mg/Kg	✱	10/20/25 09:45	10/22/25 14:30	5
Molybdenum	4.36		1.03	0.422	mg/Kg	✱	10/20/25 09:45	10/22/25 14:30	5
Nickel	40.5		1.55	0.618	mg/Kg	✱	10/20/25 09:45	10/23/25 14:19	5
Selenium	8.93		1.55	0.773	mg/Kg	✱	10/20/25 09:45	10/22/25 14:30	5
Silver	0.250	J	0.515	0.196	mg/Kg	✱	10/20/25 09:45	10/22/25 14:30	5
Thallium	1.22		0.515	0.196	mg/Kg	✱	10/20/25 09:45	10/22/25 14:30	5
Vanadium	142		1.55	0.546	mg/Kg	✱	10/20/25 09:45	10/22/25 14:30	5
Zinc	86.6		5.15	3.40	mg/Kg	✱	10/20/25 09:45	10/22/25 14:30	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0168	J	0.0193	0.00790	mg/Kg	✱	10/24/25 12:15	10/27/25 11:23	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (SM 4500 F C-2011)	3.39		1.19	0.585	mg/Kg	✱		10/25/25 19:07	1

Action Limit Summary

Client: Alliant Energy Corporation
Project/Site: Ottumwa Beneficial Use

Job ID: 310-318186-4

Client Sample ID: Prozzostone

Lab Sample ID: 310-318186-4

POTENTIAL STLC / TCLP / TTLC LIMITS EXCEEDANCE

STLC limits in boxes signify the result exceeds 10x STLC limit. TCLP limits in boxes signify the result exceeds 20x TCLP limit

Analyte	Result	Qualifier	Unit	Total Limit	RL	Method	Prep Type
Arsenic	<0.0300		mg/L		0.100	6010D	TCLP
Barium	0.255		mg/L		0.200	6010D	TCLP
Cadmium	<0.00390		mg/L		0.0200	6010D	TCLP
Chromium	0.00987	J	mg/L		0.0200	6010D	TCLP
Lead	<0.0370		mg/L		0.100	6010D	TCLP
Selenium	<0.0290		mg/L		0.100	6010D	TCLP
Silver	<0.0160	^+	mg/L		0.0500	6010D	TCLP
Antimony	1.18		mg/Kg	31	1.03	6020B	Total/NA
Arsenic	21.6		mg/Kg	17	1.03	6020B	Total/NA
Barium	4110		mg/Kg	15000	8.24	6020B	Total/NA
Beryllium	2.67		mg/Kg	110	0.515	6020B	Total/NA
Boron	447		mg/Kg	16000	51.5	6020B	Total/NA
Cadmium	0.965		mg/Kg	70	0.515	6020B	Total/NA
Chromium	45.9		mg/Kg	210	1.55	6020B	Total/NA
Cobalt	13.6		mg/Kg	23	0.515	6020B	Total/NA
Copper	110		mg/Kg	15000	1.55	6020B	Total/NA
Lead	19.7		mg/Kg	400	2.58	6020B	Total/NA
Lithium	26.9		mg/Kg	160	2.58	6020B	Total/NA
Manganese	321		mg/Kg	10000	2.58	6020B	Total/NA
Molybdenum	4.36		mg/Kg	390	1.03	6020B	Total/NA
Nickel	40.5		mg/Kg	1500	1.55	6020B	Total/NA
Selenium	8.93		mg/Kg	390	1.55	6020B	Total/NA
Silver	0.250	J	mg/Kg	370	0.515	6020B	Total/NA
Thallium	1.22		mg/Kg	0.78	0.515	6020B	Total/NA
Vanadium	142		mg/Kg	350	1.55	6020B	Total/NA
Zinc	86.6		mg/Kg	23000	5.15	6020B	Total/NA
Mercury	<0.00120	^+	mg/L		0.00200	7470A	TCLP
Mercury	0.0168	J	mg/Kg	23	0.0193	7471B	Total/NA
Fluoride	1.11		mg/L		0.200	4500 F C-2011	SPLP

Definitions/Glossary

Client: Alliant Energy Corporation
Project/Site: Ottumwa Beneficial Use

Job ID: 310-318186-4

Qualifiers

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.

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: Alliant Energy Corporation
Project/Site: Ottumwa Beneficial Use

Job ID: 310-318186-4

Method: 6010D - Metals (ICP)

Lab Sample ID: 310-318186-4 MS

Matrix: Solid

Analysis Batch: 470995

Client Sample ID: Prozzostone

Prep Type: TCLP

Prep Batch: 470779

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	<0.0300		4.00	3.887		mg/L		97	75 - 125
Barium	0.255		2.00	2.161		mg/L		95	75 - 125
Cadmium	<0.00390		2.00	1.799		mg/L		90	75 - 125
Chromium	0.00987	J	2.00	1.911		mg/L		95	75 - 125
Lead	<0.0370		4.00	3.652		mg/L		91	75 - 125
Selenium	<0.0290		8.00	7.926		mg/L		99	75 - 125
Silver	<0.0160	^+	2.00	1.993	^+	mg/L		100	75 - 125

Method: 6020B - Metals (ICP/MS)

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 Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0200		0.0400	0.0200	mg/L		10/24/25 10:45	10/25/25 21:11	4
Arsenic	<0.0110		0.0400	0.0110	mg/L		10/24/25 10:45	10/25/25 21:11	4
Barium	<0.0280		0.200	0.0280	mg/L		10/24/25 10:45	10/25/25 21:11	4
Beryllium	<0.00660		0.0200	0.00660	mg/L		10/24/25 10:45	10/25/25 21:11	4
Cadmium	<0.00200		0.0100	0.00200	mg/L		10/24/25 10:45	10/25/25 21:11	4
Chromium	<0.0360		0.100	0.0360	mg/L		10/24/25 10:45	10/25/25 21:11	4
Copper	<0.0640		0.200	0.0640	mg/L		10/24/25 10:45	10/25/25 21:11	4
Lead	<0.00660		0.0200	0.00660	mg/L		10/24/25 10:45	10/25/25 21:11	4
Selenium	<0.0280		0.100	0.0280	mg/L		10/24/25 10:45	10/25/25 21:11	4
Thallium	<0.0110		0.0200	0.0110	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 Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
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
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

Lab Sample ID: 310-318186-4 MS

Matrix: Solid

Analysis Batch: 471368

Client Sample ID: Prozzostone

Prep Type: SPLP West

Prep Batch: 471223

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.0200		1.00	1.136		mg/L		114	75 - 125
Arsenic	<0.0110		1.00	1.094		mg/L		109	75 - 125

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QC Sample Results

Client: Alliant Energy Corporation
Project/Site: Ottumwa Beneficial Use

Job ID: 310-318186-4

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

Lab Sample ID: 310-318186-4 MS

Matrix: Solid

Analysis Batch: 471368

Client Sample ID: Prozzostone

Prep Type: SPLP West

Prep Batch: 471223

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.0566	J	0.500	0.5783		mg/L		104	75 - 125
Beryllium	<0.00660		0.500	0.5373		mg/L		107	75 - 125
Cadmium	<0.00200		0.500	0.5276		mg/L		106	75 - 125
Chromium	<0.0360		0.500	0.5496		mg/L		110	75 - 125
Copper	<0.0640		1.00	1.094		mg/L		109	75 - 125
Lead	<0.00660		1.00	1.011		mg/L		101	75 - 125
Selenium	<0.0280		2.00	2.118		mg/L		106	75 - 125
Thallium	<0.0110		0.500	0.4889		mg/L		98	75 - 125

Method: 7470A - Mercury (CVAA)

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	<0.00120		0.00200	0.00120	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

Lab Sample ID: 310-318186-4 MS

Matrix: Solid

Analysis Batch: 471599

Client Sample ID: Prozzostone

Prep Type: SPLP West

Prep Batch: 471424

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.00120		0.0167	0.01784		mg/L		107	80 - 120

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

Lab Sample ID: LB 310-471118/1-A

Matrix: Solid

Analysis Batch: 471362

Client Sample ID: Method Blank

Prep Type: SPLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.0790		0.200	0.0790	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

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QC Sample Results

Client: Alliant Energy Corporation
Project/Site: Ottumwa Beneficial Use

Job ID: 310-318186-4

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

Lab Sample ID: 310-318186-4 MS

Matrix: Solid

Analysis Batch: 471362

Client Sample ID: Prozzostone

Prep Type: SPLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	1.11		1.00	1.922		mg/L		82	75 - 125

Lab Sample ID: 310-318186-4 MSD

Matrix: Solid

Analysis Batch: 471362

Client Sample ID: Prozzostone

Prep Type: SPLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	1.11		1.00	1.928		mg/L		82	75 - 125	0	20

QC Association Summary

Client: Alliant Energy Corporation
Project/Site: Ottumwa Beneficial Use

Job ID: 310-318186-4

Metals

Prep Batch: 470457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318186-4	Prozzostone	Total/NA	Solid	3050B	

Leach Batch: 470716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318186-4	Prozzostone	TCLP	Solid	1311	
310-318186-4 MS	Prozzostone	TCLP	Solid	1311	

Prep Batch: 470779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318186-4	Prozzostone	TCLP	Solid	3010A	470716
310-318186-4 MS	Prozzostone	TCLP	Solid	3010A	470716

Prep Batch: 470845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318186-4	Prozzostone	Total/NA	Solid	7471B	

Prep Batch: 470968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318186-4	Prozzostone	TCLP	Solid	7470A	470716

Analysis Batch: 470995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318186-4	Prozzostone	TCLP	Solid	6010D	470779
310-318186-4 MS	Prozzostone	TCLP	Solid	6010D	470779

Analysis Batch: 471013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318186-4	Prozzostone	Total/NA	Solid	6020B	470457

Leach Batch: 471119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318186-4	Prozzostone	SPLP West	Solid	1312	
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	
310-318186-4 MS	Prozzostone	SPLP West	Solid	1312	

Analysis Batch: 471141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318186-4	Prozzostone	Total/NA	Solid	6020B	470457
310-318186-4	Prozzostone	Total/NA	Solid	6020B	470457

Analysis Batch: 471150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318186-4	Prozzostone	TCLP	Solid	7470A	470968

Prep Batch: 471223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318186-4	Prozzostone	SPLP West	Solid	3010A	471119
LB 310-471119/1-B	Method Blank	SPLP West	Solid	3010A	471119

Eurofins Cedar Falls

QC Association Summary

Client: Alliant Energy Corporation
Project/Site: Ottumwa Beneficial Use

Job ID: 310-318186-4

Metals (Continued)

Prep Batch: 471223 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-471119/2-B	Lab Control Sample	SPLP West	Solid	3010A	471119
310-318186-4 MS	Prozzostone	SPLP West	Solid	3010A	471119

Analysis Batch: 471368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318186-4	Prozzostone	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
310-318186-4 MS	Prozzostone	SPLP West	Solid	6020B	471223

Prep Batch: 471424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318186-4	Prozzostone	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
310-318186-4 MS	Prozzostone	SPLP West	Solid	7470A	471119

Analysis Batch: 471463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318186-4	Prozzostone	Total/NA	Solid	7471B	470845

Analysis Batch: 471599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318186-4	Prozzostone	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
310-318186-4 MS	Prozzostone	SPLP West	Solid	7470A	471424

General Chemistry

Analysis Batch: 470377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318186-4	Prozzostone	Total/NA	Solid	Moisture	

Leach Batch: 471118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318186-4	Prozzostone	SPLP	Solid	1312	
LB 310-471118/1-A	Method Blank	SPLP	Solid	1312	
LCS 310-471118/2-A	Lab Control Sample	SPLP	Solid	1312	
310-318186-4 MS	Prozzostone	SPLP	Solid	1312	
310-318186-4 MSD	Prozzostone	SPLP	Solid	1312	

Leach Batch: 471346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318186-4	Prozzostone	Soluble	Solid	DI Leach	

Analysis Batch: 471362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318186-4	Prozzostone	Soluble	Solid	4500 F C-2011	471346
310-318186-4	Prozzostone	SPLP	Solid	4500 F C-2011	471118
LB 310-471118/1-A	Method Blank	SPLP	Solid	4500 F C-2011	471118

Eurofins Cedar Falls

QC Association Summary

Client: Alliant Energy Corporation
Project/Site: Ottumwa Beneficial Use

Job ID: 310-318186-4

General Chemistry (Continued)

Analysis Batch: 471362 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-471118/2-A	Lab Control Sample	SPLP	Solid	4500 F C-2011	471118
310-318186-4 MS	Prozzostone	SPLP	Solid	4500 F C-2011	471118
310-318186-4 MSD	Prozzostone	SPLP	Solid	4500 F C-2011	471118

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

Lab Chronicle

Client: Alliant Energy Corporation
Project/Site: Ottumwa Beneficial Use

Job ID: 310-318186-4

Client Sample ID: Prozzostone

Lab Sample ID: 310-318186-4

Date Collected: 10/14/25 00:00

Matrix: Solid

Date Received: 10/16/25 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			470716	U8FK	EET CF	10/20/25 15:00 - 10/21/25 07:00 ¹
TCLP	Prep	3010A			470779	RLT9	EET CF	10/21/25 10:00
TCLP	Analysis	6010D		1	470995	ZRI4	EET CF	10/22/25 13:05
SPLP West	Leach	1312			471119	U8FK	EET CF	10/23/25 15:00 - 10/24/25 07:00 ¹
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 21:17
SPLP West	Leach	1312			471119	U8FK	EET CF	10/23/25 15:00 - 10/24/25 07:00 ¹
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 13:05
TCLP	Leach	1311			470716	U8FK	EET CF	10/20/25 15:00 - 10/21/25 07:00 ¹
TCLP	Prep	7470A			470968	RLT9	EET CF	10/22/25 13:50
TCLP	Analysis	7470A		1	471150	RLT9	EET CF	10/23/25 14:38
SPLP	Leach	1312			471118	U8FK	EET CF	10/23/25 15:00 - 10/24/25 07:00 ¹
SPLP	Analysis	4500 F C-2011		1	471362	T5AC	EET CF	10/25/25 19:40
Total/NA	Analysis	Moisture		1	470377	W9YR	EET CF	10/16/25 12:49

Client Sample ID: Prozzostone

Lab Sample ID: 310-318186-4

Date Collected: 10/14/25 00:00

Matrix: Solid

Date Received: 10/16/25 08:25

Percent Solids: 79.0

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 14:30
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 14:19
Total/NA	Prep	3050B			470457	RLT9	EET CF	10/20/25 09:45
Total/NA	Analysis	6020B		40	471141	NFT2	EET CF	10/23/25 14:22
Total/NA	Prep	7471B			470845	RLT9	EET CF	10/24/25 12:15
Total/NA	Analysis	7471B		1	471463	RLT9	EET CF	10/27/25 11:23
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 19:07

¹ This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

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

Eurofins Cedar Falls

Accreditation/Certification Summary

Client: Alliant Energy Corporation
Project/Site: Ottumwa Beneficial Use

Job ID: 310-318186-4

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
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Alliant Energy Corporation
Project/Site: Ottumwa Beneficial Use

Job ID: 310-318186-4

Method	Method Description	Protocol	Laboratory
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
Moisture	Percent Moisture	EPA	EET CF
1311	TCLP Extraction	SW846	EET CF
1312	SPLP Extraction	SW846	EET CF
3010A	Preparation, Total Metals	SW846	EET CF
3050B	Preparation, Metals	SW846	EET CF
7470A	Preparation, Mercury	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



310-318186 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>Alvise Faccini</u>			
City/State:	<u>Illinois</u>	STATE: <u>IL</u>	Project:
Receipt Information			
Date/Time Received:	DATE: <u>6/16/25</u>	TIME: <u>0825</u>	Received By: <u>[Signature]</u>
Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?		☒ Yes ☐ No	If yes: Cooler ID: _____
Multiple Coolers?		☐ Yes ☒ No	If yes: Cooler # _____ of _____
Cooler Custody Seals Present?		☒ Yes ☐ No	If yes: Cooler custody seals intact? ☒ Yes ☐ No
Sample Custody Seals Present?		☐ Yes ☒ No	If yes: Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?		☐ Yes ☒ No	If yes: Which VOA samples are in cooler? ↓
Temperature Record			
Coolant ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other _____ ☐ NONE			
Thermometer ID: <u>133</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>5.1</u>		Corrected Temp (°C): <u>5.1</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1		CONTAINER 2
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No a) If yes: Is there evidence that the chilling process began? ☐ Yes ☐ 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?) ☐ Yes ☐ No			
NOTE If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

Chain of Custody Record

4 of 15

Client Information		Sampler: <u>Brian Vance</u>		Lab PM: <u>Samuel Miller</u>		Carrier Tracking No(s):		COC No: 310-111266-13683 1	
Client Contact: <u>Matt Loehr</u>		Phone: <u>641-328-3283</u>		E-Mail: <u>Samuel.Miller@eurofins.com</u>		State of Origin:		Page: Page 1 of 1	
Company: <u>Alliant Energy Corporation</u>		PWSID:		Analysis Requested:		Job #:		Preservation Codes: N - None	
Address: <u>20775 Power Plant Road</u>		Due Date Requested:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		TCLP Metals (6010) + TCLP Mercury (7470)	
City: <u>Ottumwa</u>		TAT Requested (days): <u>Standard</u>		Sample Type (C=Comp, G=grab)		Moisture		SPLP Metals (6020) + SPLP Mercury (7470)	
State, Zip: <u>IA 52501</u>		Compliance Project: <u>Yes</u> ☐ <u>No</u> ☐		Sample Time		Flouride (9056A)		SPLP Flouride (9056A)	
Phone: <u>GENCO0000278961</u>		PO #: <u>GENCO0000278961</u>		Sample Date		Preservation Code		Total Number of containers	
Email: <u>MattLoehr@alliantenergy.com</u>		WO #: <u>31004047</u>		Sample Date		Matrix (W=Water, S=solid, O=soil, BT=Tissue, AA=Air, DW=Drinking Water)		Special Instructions/Note.	
Project Name: <u>Ottumwa Beneficial Use</u>		Site: <u>SSOW#</u>		Sample Date		Sample Type		Total Number of containers	
Sample Identification		Sample Date		Sample Time		Sample Type		Total Number of containers	
Fly Ash		10/14/25		G		Solid		2	
Bottom Ash		10/14/25		G		Solid		2	
FGD Product		10/14/25		G		Solid		2	
Prozzostone		10/14/25		G		Solid		2	
Possible Hazard Identification		Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological ☐		Sample Date		Sample Time		Sample Type	
Deliverable Requested I II III IV Other (specify)		Sample Date		Sample Time		Sample Type		Sample Type	
Empty Kit Relinquished by		Date		Time		Method of Shipment:		Special Instructions/QC Requirements	
Relinquished by <u>[Signature]</u>		Date/Time: <u>10/15/25 8:00am</u>		Company: <u>Alliant</u>		Received by <u>[Signature]</u>		Date/Time: <u>10-16-25 8:00am</u>	
Relinquished by		Date/Time:		Company:		Received by		Date/Time	
Relinquished by		Date/Time:		Company:		Received by		Date/Time	
Custody Seals Intact: <u>Yes</u> ☐ <u>No</u> ☐		Custody Seal No		Cooler Temperature(s) °C and Other Remarks		Date/Time		Company	

Login Sample Receipt Checklist

Client: Alliant Energy Corporation

Job Number: 310-318186-4

Login Number: 318186

List Source: Eurofins Cedar Falls

List Number: 1

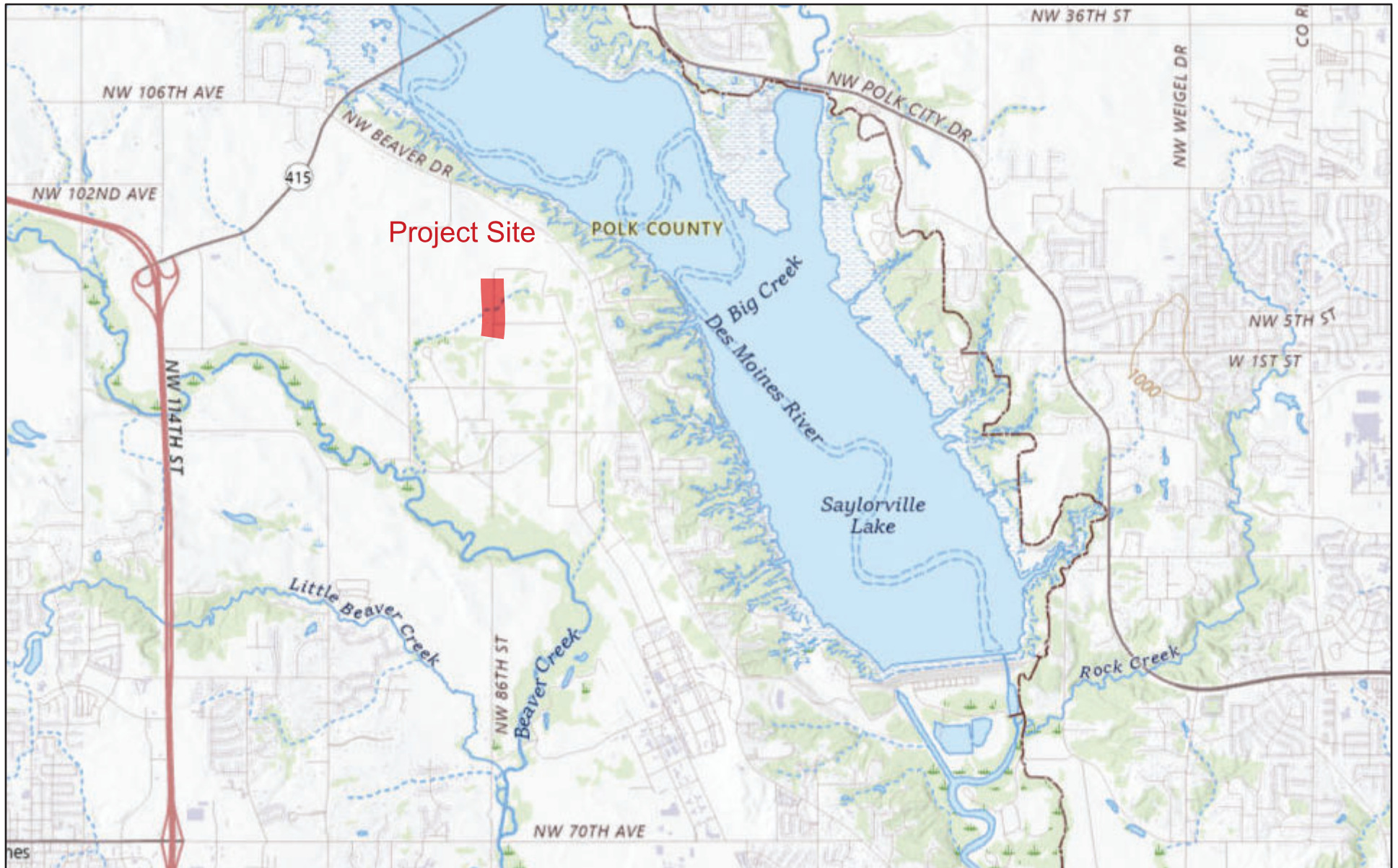
Creator: Hirsch, Preston

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	

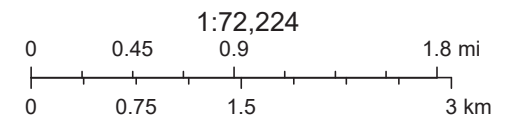
This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Cedar Falls

ArcGIS Web Map



7/16/2026, 6:27:45 AM



USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography

Polk County, Iowa

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