



Iowa Department of Natural Resources  
**Solid Waste Land Application  
Permit Application Form**



Application for a solid waste land application must be accompanied by the plans, specifications and additional information required by the applicable solid waste rules under Iowa Administrative Code 567 Chapter 121.

Send completed applications with attached information to:

Iowa Department of Natural Resources  
Land Quality Bureau  
Solid Waste Section  
502 E 9<sup>th</sup> St  
Des Moines, IA 50319-0034

For questions concerning this application please contact the Department at (515) 725-8315.

☐ New Permit

☒ Permit Renewal # 17 -SDP- 06 - 95P -LAN

**Section 1. Contact Information**

Solid Waste Generator Name: The Kraft Heinz Company Phone: 641-421-2900  
Address: P.O. Box 1488 City, State, Zip: Mason City, IA 50401-1802  
Email: \_\_\_\_\_ Fax: 641-421-2936

Physical Location of Generating Facility:

Address: 1022 12<sup>th</sup> Street, NW City, State, Zip: Mason City, IA 50401

Responsible Official Name: Dave Haag Phone: 641-494-2620  
Address: 1022 12<sup>th</sup> Street, NW City, State, Zip: Mason City, IA 50401  
Email: kedmh31@kraftheinz.com Fax: 641-421-2936

Certified Professional Agronomist Name: Brian Ritland Phone: 515-290-8626  
Address: 620 Country Club Road City, State, Zip: Iowa Falls, IA  
Email: britland@pinnacleiowa.com License #: 23358 Fax: 641-648-7310

Consultant Name (if any): The Pinnacle Group, LLC Phone: 641-648-7300  
Address: 620 Country Club Road City, State, Zip: Iowa Falls, IA  
Email: britland@pinnacleiowa.com Fax: 641-648-7310

**Section 2. Waste Type**

Does the material to be land applied contain free liquids<sup>1</sup>? ☐ Yes ☒ No

If the material is a sludge, is it generated by a:

- ☐ Commercial or industrial wastewater treatment facility  
☐ Water supply treatment facility  
☐ Air pollution control facility  
☒ Other; Please elaborate: Food Processing Facility

Expected weight (tons) of solid waste to be land applied per year by the facility: 792

<sup>1</sup> The presence of free liquids is determined by the paint filter test. The paint filter test is done by placing a 100-milliliter or 100-gram representative sample of the material into a standard mesh number 60 (fine mesh size) conical paint filter for five minutes. Any free liquid visible below the funnel indicates sample failure.

### Section 3. Permit Application Checklist

The following items must be attached. If the permit is being renewed and there is no change from what was submitted with previous applications, the Doc Id# may be listed in lieu of resubmitting the document. Analytical results and a cost closure estimate (for facilities storing material at the application sites) must be submitted with each renewal. 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 Iowa Administrative Code. If an application is found by the DNR to be incomplete, it may be denied and returned to the applicant.

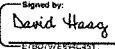
Required Documents		Attached or Doc Id#	
<b>Executive Summary (<i>permit renewals only</i>)</b> <ul style="list-style-type: none"> <li>Summary of each special provision of the current permit to determine if it is to remain the same, be revised or be removed.</li> <li>Summary of each permit amendment, if any, that occurred during the current permit cycle to determine if it shall be included with the renewed permit, be revised or be removed.</li> <li>Provide documentation and certification as required for new permit amendment requests and new variance requests from Iowa Administrative Code, if any.</li> </ul>			NA
Description of the material including source, quantity and method of treatment prior to land application	567 IAC 121.7(1)"a"(11)	<input type="checkbox"/>	79060
Description of the land application process, including method of application, when application will take place, and equipment to be used	567 IAC 121.7(1)"a"(13) 567 IAC 121.7(1)"a"(14)	<input type="checkbox"/>	79060
Analytical results	567 IAC 121.7(1)"a"(12)	<input checked="" type="checkbox"/>	NA
Evidence waste application will not cause adverse effects	567 IAC 121.7(1)"a"(15) through 567 IAC 121.7(1)"a"(17)	<input type="checkbox"/>	79060
Site Operation Plan	567 IAC 121.7(1)"a"(18)	<input type="checkbox"/>	79060
Emergency Response and Remedial Action Plan	IAC 567 102.14	<input type="checkbox"/>	79060
Site Closure Plan	IAC 567 102.12(10)	<input type="checkbox"/>	79060
Proof of financial assurance and closure cost estimate (only if material will be stored at application sites)	567 IAC 121.8	<input checked="" type="checkbox"/>	NA
Table of land application sites. Include the following for each application site: <ul style="list-style-type: none"> <li>Site ID</li> <li>County and township</li> <li>Legal description of site</li> <li>Total acres in site</li> <li>Acres eligible for land application</li> <li>Name of landowner</li> </ul>	567 IAC 121.7(1)"a"(4)	<input type="checkbox"/>	79060
For each <u>new</u> application site, include the following:			
Aerial photograph with the application area(s) designated	567 IAC 121.7(1)"a"(1)	<input type="checkbox"/>	NA
Soil map	567 IAC 121.7(1)"a"(2)	<input type="checkbox"/>	NA
Water table levels	567 IAC 121.7(1)"a"(10)	<input type="checkbox"/>	NA
Location of wells within one mile of the site	567 IAC 121.7(1)"a"(5)	<input type="checkbox"/>	NA
Evidence of Natural Resources Conservation Service (NRCS) review and soil loss information	567 IAC 121.7(1)"a"(3) 567 IAC 121.7(1)"a"(6) through 567 IAC 121.7(1)"a"(8)	<input type="checkbox"/>	NA
Site soil testing	567 IAC 121.7(1)"a"(9)	<input type="checkbox"/>	NA
Proof of ownership or legal entitlement to use the site (agreement with the land owner)	567 IAC 121.7(1)"b"(6)	<input type="checkbox"/>	NA

#### 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 facility 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 permit issued by the Iowa Department of Natural Resources.

Signature:  Date: 2/5/2026

Printed Name: David Haag Title: EHS Coordinator

## **SECTION A. EXECUTIVE SUMMARY**

Project Location – The following portions in Township 96 North, Range 19 West in Cerro Gordo County, Iowa:

West ½ of the Southwest ¼ of Section 4  
Northwest ¼ of Section 9  
Southeast ¼ of Section 5  
Northeast ¼ of Section 8  
West ½ of the Northwest ¼ and North ½ of the SW ¼ of Section 29  
Southeast ¼ of section 30  
Southwest ¼ of Section 34

Responsible Official –

Dave Hagg, Utilities/Environmental/PSM Coordinator  
Kraft Heinz Food Company – Mason City  
1022 12 Street, NW  
Mason City, IA 50401  
(641) 494-2620

### ***Summary of each special provisions of the current permit***

The existing General and Special Provisions can remain the same.

### ***Summary of each permit amendment that occurred during the current permit cycle***

No permit amendments occurred during the current permit cycle.

### ***Documentation as required for new permit amendment requests***

There are no new permit amendment requests.

### ***Documentation as required for new variance request from Iowa Administrative Code***

There are no variance requests.



## **SECTION B: ANALYTICAL RESULTS**

Quarterly sludge sample results follow for Quarters 1 (January-March), 2 (April-June), 3 (July-September), and 4 (October-December) of 2022. All samples were performed by Eurofins TestAmerica, Cedar Falls, Iowa.

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Dave M Haag  
Kraft Heinz Foods Company  
1022 12th Street, NW  
Mason City, Iowa 50401

Generated 2/28/2023 10:29:59 AM

## JOB DESCRIPTION

503 Sludge

## JOB NUMBER

310-249844-1

# Eurofins Cedar Falls

## Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

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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2/28/2023 10:29:59 AM

Authorized for release by  
Hannah Dietz, Project Management Assistant I  
[Hannah.Dietz@et.eurofinsus.com](mailto:Hannah.Dietz@et.eurofinsus.com)  
(319)277-2401

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## Case Narrative

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-249844-1

**Job ID: 310-249844-1**

**Laboratory: Eurofins Cedar Falls**

### Narrative

**Job Narrative**  
**310-249844-1**

### Comments

No additional comments.

### Receipt

The sample was received on 2/16/2023 8:10 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 was 6.4° C.

### Receipt Exceptions

The following sample was received at the laboratory outside the required temperature criteria: Q1 Sludge (310-249844-1). This does not meet regulatory requirements. The client was contacted regarding this issue.

### HPLC/IC

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

### Metals

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

### General Chemistry

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

Sample Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-249844-1

Job Sample ID	Client Sample ID	Matrix	Collected	Received
310-249844-1	Q1 Sludge	Solid	02/14/23 09:00	02/16/23 08:10



# Client Sample Results

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-249844-1

Client Sample ID: Q1 Sludge

Lab Sample ID: 310-249844-1

ate Collected: 02/14/23 09:00

Matrix: Solid

Date Received: 02/16/23 08:10

Percent Solids: 12.6

## Method: SW846 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<73.4		73.4		mg/Kg	*		02/22/23 18:24	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<2.59		2.59		mg/Kg	*	02/22/23 09:00	02/22/23 15:12	1
Cadmium	<0.648		0.648		mg/Kg	*	02/22/23 09:00	02/22/23 15:12	1
<b>Chromium</b>	<b>7.51</b>		0.648		mg/Kg	*	02/22/23 09:00	02/22/23 15:12	1
<b>Copper</b>	<b>11.3</b>		0.648		mg/Kg	*	02/22/23 09:00	02/22/23 15:12	1
Lead	<3.24		3.24		mg/Kg	*	02/22/23 09:00	02/22/23 15:12	1
Molybdenum	<1.62		1.62		mg/Kg	*	02/22/23 09:00	02/22/23 15:12	1
<b>Nickel</b>	<b>3.75</b>		1.62		mg/Kg	*	02/22/23 09:00	02/22/23 15:12	1
<b>Potassium</b>	<b>3660</b>		32.4		mg/Kg	*	02/22/23 09:00	02/22/23 15:12	1
Selenium	<3.24		3.24		mg/Kg	*	02/22/23 09:00	02/22/23 15:12	1
<b>Zinc</b>	<b>17.0</b>		3.24		mg/Kg	*	02/22/23 09:00	02/22/23 15:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.140		0.140		mg/Kg	*	02/21/23 13:56	02/22/23 11:09	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	664		365		mg/Kg	*	02/23/23 12:04	02/23/23 19:58	1
Nitrogen, Kjeldahl (EPA 351.2)	27200	F1	2160		mg/Kg	*	02/17/23 09:05	02/17/23 15:26	1
Total Phosphorus as P (EPA 365.1)	5630		766		mg/Kg	*	02/17/23 14:46	02/18/23 11:14	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	3.09	HF	0.100		SU			02/16/23 15:47	1
Total Solids (SM 2540G)	13.0		0.100		%			02/20/23 11:45	1
Total Volatile Solids (SM 2540G)	94.4		0.0100		%			02/20/23 11:45	1

# Lab Chronicle

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-249844-1

**Client Sample ID: Q1 Sludge**

**Lab Sample ID: 310-249844-1**

**Date Collected: 02/14/23 09:00**

**Matrix: Solid**

**Date Received: 02/16/23 08:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9040C		1	379389	A3GU	EET CF	02/16/23 15:47
Total/NA	Analysis	SM 2540G		1	379574	DGU1	EET CF	02/20/23 11:45

**Client Sample ID: Q1 Sludge**

**Lab Sample ID: 310-249844-1**

**Date Collected: 02/14/23 09:00**

**Matrix: Solid**

**Date Received: 02/16/23 08:10**

**Percent Solids: 12.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			379738	QTZ5	EET CF	02/22/23 09:32
Soluble	Analysis	9056A		10	379867	DHM5	EET CF	02/22/23 18:24
Total/NA	Prep	3050B			379597	DHM5	EET CF	02/22/23 09:00
Total/NA	Analysis	6010D		1	379846	ZRI4	EET CF	02/22/23 15:12
Total/NA	Prep	7471B			379690	XXW3	EET CF	02/21/23 13:56
Total/NA	Analysis	7471B		1	379772	DHM5	EET CF	02/22/23 11:09
Total/NA	Prep	Distill/Ammonia			379843	ENB7	EET CF	02/23/23 12:04
Total/NA	Analysis	350.1		1	379883	ZJX4	EET CF	02/23/23 19:58
Total/NA	Prep	351.2			379427	HE7K	EET CF	02/17/23 09:05
Total/NA	Analysis	351.2		1	379493	WZC8	EET CF	02/17/23 15:26
Total/NA	Prep	365.2/365.3/365			379472	MAQ3	EET CF	02/17/23 14:46
Total/NA	Analysis	365.1		10	379503	WZC8	EET CF	02/18/23 11:14

## Laboratory References:

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



## Definitions/Glossary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-249844-1

### Qualifiers

#### General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

### 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
ML	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Accreditation/Certification Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-249844-1

### 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	12-01-23

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
9040C		Solid	pH

## Method Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-249844-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6010D	Metals (ICP)	SW846	EET CF
7471B	Mercury (CVAA)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.1	Phosphorus, Total	EPA	EET CF
9040C	pH	SW846	EET CF
SM 2540G	Total, Fixed, and Volatile Solids	SM	EET CF
3050B	Preparation, Metals	SW846	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.2/365.3/365	Phosphorus, Total	EPA	EET CF
7471B	Preparation, Mercury	SW846	EET CF
DI Leach	Deionized Water Leaching Procedure	ASTM	EET CF
Distill/Ammonia	Distillation, Ammonia	None	EET CF

### Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

None = None

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



### Cooler/Sample Receipt and Temperature Log Form

<b>Client Information</b>			
Client: <u>Kraft-kinz</u>			
City/State:	CITY	STATE	Project:
		<u>IA</u>	
<b>Receipt Information</b>			
Date/Time Received:	DATE	TIME	Received By:
	<u>4/16/23</u>	<u>0810</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 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>T</u>		Correction Factor (°C): <u>+0.1</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>63</u>		Corrected Temp (°C): <u>64</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1 <u>PL 1L NT</u>		CONTAINER 2
Uncorrected Temp (°C):	<u>6.4</u>		
Corrected Temp (°C):	<u>6.5</u>		
<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>			

Project Name \_\_\_\_\_  
Project # \_\_\_\_\_  
Site/Location ID \_\_\_\_\_ State \_\_\_\_\_  
Report To \_\_\_\_\_  
Invoice To \_\_\_\_\_  
Quote # \_\_\_\_\_ PO# \_\_\_\_\_

[illegible]

## Login Sample Receipt Checklist

Client: Kraft Heinz Foods Company

Job Number: 310-249844-1

Login Number: 249844

List Number: 1

Creator: Homolar, Dana J

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.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Requested analyses are not listed on COC
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	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Dave M Haag  
Kraft Heinz Foods Company  
1022 12th Street, NW  
Mason City, Iowa 50401

Generated 7/7/2023 5:24:55 PM

## JOB DESCRIPTION

503 Sludge

## JOB NUMBER

310-258799-1



# 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



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Authorized for release by  
Hannah Dietz, Project Management Assistant I  
[Hannah.Dietz@et.eurofinsus.com](mailto:Hannah.Dietz@et.eurofinsus.com)  
(319)277-2401



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## Case Narrative

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-258799-1

**Job ID: 310-258799-1**

**Laboratory: Eurofins Cedar Falls**

### Narrative

**Job Narrative**  
**310-258799-1**

### Comments

No additional comments.

### Receipt

The sample was received on 6/23/2023 7:45 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 was 1.2° C.

### HPLC/IC

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

### Metals

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

### General Chemistry

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

# Sample Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-258799-1

ab Sample ID	Client Sample ID	Matrix	Collected	Received
310-258799-1	Sludge	Sludge	06/21/23 15:00	06/23/23 07:45

# Client Sample Results

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-258799-1

## Client Sample ID: Sludge

ate Collected: 06/21/23 15:00

Date Received: 06/23/23 07:45

## Lab Sample ID: 310-258799-1

Matrix: Sludge

Percent Solids: 12.1

### Method: SW846 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<164		164		mg/Kg	✱		07/05/23 13:12	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<9.66		9.66		mg/Kg	✱	06/28/23 11:15	06/30/23 13:12	1
Cadmium	<2.42		2.42		mg/Kg	✱	06/28/23 11:15	06/30/23 13:12	1
<b>Chromium</b>	<b>6.10</b>		2.42		mg/Kg	✱	06/28/23 11:15	06/30/23 13:12	1
<b>Copper</b>	<b>9.30</b>		2.42		mg/Kg	✱	06/28/23 11:15	06/30/23 13:12	1
Lead	<12.1		12.1		mg/Kg	✱	06/28/23 11:15	06/30/23 13:12	1
Molybdenum	<6.04		6.04		mg/Kg	✱	06/28/23 11:15	06/30/23 13:12	1
Nickel	<6.04		6.04		mg/Kg	✱	06/28/23 11:15	06/30/23 13:12	1
<b>Potassium</b>	<b>3220</b>		242		mg/Kg	✱	06/28/23 11:15	06/30/23 13:12	1
Selenium	<12.1		12.1		mg/Kg	✱	06/28/23 11:15	06/30/23 13:12	1
Zinc	<12.1		12.1		mg/Kg	✱	06/28/23 11:15	06/30/23 13:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.142		0.142		mg/Kg	✱	06/30/23 11:12	07/03/23 13:14	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	520		404		mg/Kg	✱	06/27/23 14:10	06/27/23 21:11	1
Nitrogen, Kjeldahl (EPA 351.2)	32100		2110		mg/Kg	✱	06/26/23 06:29	06/26/23 19:47	1
Total Phosphorus as P (EPA 365.1)	4030		81.1		mg/Kg	✱	06/26/23 09:27	06/26/23 22:01	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	3.05	HF	0.100		SU			06/23/23 10:24	1
Total Solids (SM 2540G)	12.6		0.100		%			06/27/23 07:36	1
Total Volatile Solids (SM 2540G)	95.7		0.0100		%			06/27/23 07:36	1

# Lab Chronicle

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-258799-1

**Client Sample ID: Sludge**

**Date Collected: 06/21/23 15:00**

**Date Received: 06/23/23 07:45**

**Lab Sample ID: 310-258799-1**

**Matrix: Sludge**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9040C		1	391600	W9YR	EET CF	06/23/23 10:24
Total/NA	Analysis	SM 2540G		1	391859	DGU1	EET CF	06/27/23 07:36

**Client Sample ID: Sludge**

**Date Collected: 06/21/23 15:00**

**Date Received: 06/23/23 07:45**

**Lab Sample ID: 310-258799-1**

**Matrix: Sludge**

**Percent Solids: 12.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			392532	QTZ5	EET CF	07/05/23 09:26
Soluble	Analysis	9056A		10	392882	QTZ5	EET CF	07/05/23 13:12
Total/NA	Prep	3050B			391775	DHM5	EET CF	06/28/23 11:15
Total/NA	Analysis	6010D		1	392385	ZRI4	EET CF	06/30/23 13:12
Total/NA	Prep	7471B			392345	XXW3	EET CF	06/30/23 11:12
Total/NA	Analysis	7471B		1	392553	XXW3	EET CF	07/03/23 13:14
Total/NA	Prep	Distill/Ammonia			391944	MQ8M	EET CF	06/27/23 14:10
Total/NA	Analysis	350.1		1	391975	ZJX4	EET CF	06/27/23 21:11
Total/NA	Prep	351.2			391694	W9YR	EET CF	06/26/23 06:29
Total/NA	Analysis	351.2		1	391831	ZJX4	EET CF	06/26/23 19:47
Total/NA	Prep	365.2/365.3/365			391738	MAQ3	EET CF	06/26/23 09:27
Total/NA	Analysis	365.1		1	391835	ZJX4	EET CF	06/26/23 22:01

## Laboratory References:

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

## Definitions/Glossary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-258799-1

### Qualifiers

#### General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

### 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
■QL	Method Quantitation Limit
■C	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



## Accreditation/Certification Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-258799-1

### 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	12-01-23

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
9040C		Sludge	pH

## Method Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-258799-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6010D	Metals (ICP)	SW846	EET CF
7471B	Mercury (CVAA)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.1	Phosphorus, Total	EPA	EET CF
9040C	pH	SW846	EET CF
SM 2540G	Total, Fixed, and Volatile Solids	SM	EET CF
3050B	Preparation, Metals	SW846	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.2/365.3/365	Phosphorus, Total	EPA	EET CF
7471B	Preparation, Mercury	SW846	EET CF
DI Leach	Deionized Water Leaching Procedure	ASTM	EET CF
Distill/Ammonia	Distillation, Ammonia	None	EET CF

### Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

None = None

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.

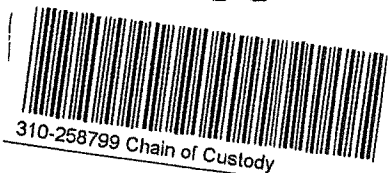
### Laboratory References:

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





Environment Testing  
America



### Cooler/Sample Receipt and Temperature Log Form

<b>Client Information</b>			
Client: <u>Kraft</u>			
City/State:	CITY	STATE	Project:
		<u>IA</u>	
<b>Receipt Information</b>			
Date/Time Received:	DATE	TIME	Received By:
	<u>6 23 23</u>	<u>745</u>	<u>MC</u>
Delivery Type: <input checked="" type="checkbox"/> UPS <u>Carry</u> <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>W</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>—</u>		Corrected Temp (°C): <u>—</u>	
<b>• Sample Container Temperature</b>			
Container(s) used:	CONTAINER 1		CONTAINER 2
	<u>500 mL plastic</u>		
Uncorrected Temp (°C):	<u>1.2</u>		
Corrected Temp (°C):	<u>1.2</u>		
<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 Division  
3019 Venture Way  
Cedar Falls, IA 50613

Phone 319-277-2401 or 1-800-750-2401  
Fax 319-277-2425

1  
2  
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5  
6  
7

**Kraft Foods  
Company.**

**Your PO #:**

Send Report To Dave Haag

Invoice To	Accounts Payable
------------	------------------

Address 1022 12th St. NW

City/State/Zip Code. Mason City, IA 50401

Telephone Number: 641-421-2966  
Fax: 641-421-2936

Sampled by- (Pmnt Name)

Project Manager- Linda Cmelik

(Signature)

Email Address ked'mh31@kr2πfoods.com





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[illegible]

NOTE. All turn around times are calculated from the time of receipt at TestAmerica

**NOTICE: Pre-Arrangements must be made AT LEAST 48 Hours in ADVANCE to receive results**

**NOTE:** There may be charges in advance for RUSH turn around time commitments; *additional charges* may be assessed.

Relinquished by 	Date 	Time 	Received by 
---	--	--	---

NOTE: There may be a charge assessed for testAmerica disposing of sample remains.

Time	2:00 PM
Re	

Shipped Via

Received for TestAmerica by

Time

Comments  
Temperature Upon Receipt

Laboratory Comments

Shipped Via

Time

Date	Time	Relinquished by
------	------	-----------------

Date \_\_\_\_\_

Time

## Login Sample Receipt Checklist

Client: Kraft Heinz Foods Company

Job Number: 310-258799-1

Login Number: 258799

List Number: 1

Creator: Costello, Mackenzie K

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	

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Dave M Haag  
Kraft Heinz Foods Company  
1022 12th Street, NW  
Mason City, Iowa 50401

Generated 10/10/2023 5:29:31 PM

## JOB DESCRIPTION

503 Sludge Quarterly

## JOB NUMBER

310-265706-1

# 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  
10/10/2023 5:29:31 PM

Authorized for release by  
Hannah Dietz, Project Management Assistant I  
[Hannah.Dietz@et.eurofinsus.com](mailto:Hannah.Dietz@et.eurofinsus.com)  
(319)277-2401

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## Case Narrative

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge Quarterly

Job ID: 310-265706-1

**Job ID: 310-265706-1**

**Laboratory: Eurofins Cedar Falls**

### Narrative

#### Job Narrative 310-265706-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

### Receipt

The sample was received on 9/27/2023 8:45 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 2.9°C

### HPLC/IC

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

### 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: Kraft Heinz Foods Company  
Project/Site: 503 Sludge Quarterly

Job ID: 310-265706-1

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Job Sample ID	Client Sample ID	Matrix	Collected	Received
310-265706-1	Sludge	Sludge	09/25/23 09:00	09/27/23 08:45

---



# Client Sample Results

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge Quarterly

Job ID: 310-265706-1

## Client Sample ID: Sludge

Lab Sample ID: 310-265706-1

ate Collected: 09/25/23 09:00

Matrix: Sludge

Date Received: 09/27/23 08:45

Percent Solids: 18.2

### Method: SW846 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<105		105		mg/Kg	☆		10/02/23 22:06	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<3.32		3.32		mg/Kg	☆	10/03/23 11:21	10/05/23 16:22	1
Cadmium	<0.829		0.829		mg/Kg	☆	10/03/23 11:21	10/05/23 16:22	1
Chromium	18.4		0.829		mg/Kg	☆	10/03/23 11:21	10/05/23 16:22	1
Copper	14.4		0.829		mg/Kg	☆	10/03/23 11:21	10/06/23 13:47	1
Lead	<4.14		4.14		mg/Kg	☆	10/03/23 11:21	10/05/23 16:22	1
Molybdenum	<2.07		2.07		mg/Kg	☆	10/03/23 11:21	10/06/23 13:47	1
Nickel	8.33		2.07		mg/Kg	☆	10/03/23 11:21	10/05/23 16:22	1
Potassium	2280		82.9		mg/Kg	☆	10/03/23 11:21	10/05/23 16:22	1
Selenium	<4.14		4.14		mg/Kg	☆	10/03/23 11:21	10/05/23 16:22	1
Zinc	13.7		4.14		mg/Kg	☆	10/03/23 11:21	10/06/23 13:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.103		0.103		mg/Kg	☆	10/09/23 09:38	10/10/23 10:32	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	864		266		mg/Kg	☆	09/28/23 14:22	09/29/23 00:00	1
Nitrogen, Kjeldahl (EPA 351.2)	23400		1410		mg/Kg	☆	09/29/23 05:34	09/29/23 17:02	1
Total Phosphorus as P (EPA 365.1)	4650		544		mg/Kg	☆	09/29/23 09:45	09/30/23 11:34	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	3.20	HF	1.00		SU			09/27/23 13:21	1
Total Solids (SM 2540G)	16.0		0.100		%			09/29/23 09:39	1
Total Volatile Solids (SM 2540G)	94.1		0.0100		%			09/29/23 09:39	1

# Lab Chronicle

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge Quarterly

Job ID: 310-265706-1

**Client Sample ID: Sludge**

**Lab Sample ID: 310-265706-1**

**Date Collected: 09/25/23 09:00**

**Matrix: Sludge**

**Date Received: 09/27/23 08:45**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9040C		1	400808	W9YR	EET CF	09/27/23 13:21
Total/NA	Analysis	SM 2540G		1	401037	DGU1	EET CF	09/29/23 09:39

**Client Sample ID: Sludge**

**Lab Sample ID: 310-265706-1**

**Date Collected: 09/25/23 09:00**

**Matrix: Sludge**

**Date Received: 09/27/23 08:45**

**Percent Solids: 18.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			401188	QTZ5	EET CF	10/02/23 13:47
Soluble	Analysis	9056A		10	401279	QTZ5	EET CF	10/02/23 22:06
Total/NA	Prep	3050B			401215	KCK5	EET CF	10/03/23 11:21
Total/NA	Analysis	6010D		1	401741	ZRI4	EET CF	10/05/23 16:22
Total/NA	Prep	3050B			401215	KCK5	EET CF	10/03/23 11:21
Total/NA	Analysis	6010D		1	401799	ZRI4	EET CF	10/06/23 13:47
Total/NA	Prep	7471B			401878	NFT2	EET CF	10/09/23 09:38
Total/NA	Analysis	7471B		1	402080	NFT2	EET CF	10/10/23 10:32
Total/NA	Prep	Distill/Ammonia			400942	MQ8M	EET CF	09/28/23 14:22
Total/NA	Analysis	350.1		1	400964	ZJX4	EET CF	09/29/23 00:00
Total/NA	Prep	351.2			400966	W9YR	EET CF	09/29/23 05:34
Total/NA	Analysis	351.2		1	401072	WZC8	EET CF	09/29/23 17:02
Total/NA	Prep	365.2/365.3/365			401042	MAQ3	EET CF	09/29/23 09:45
Total/NA	Analysis	365.1		10	401096	WZC8	EET CF	09/30/23 11:34

## Laboratory References:

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

## Definitions/Glossary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge Quarterly

Job ID: 310-265706-1

### Qualifiers

#### 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
QQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Accreditation/Certification Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge Quarterly

Job ID: 310-265706-1

### 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	12-01-23

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
9040C		Sludge	pH

## Method Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge Quarterly

Job ID: 310-265706-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6010D	Metals (ICP)	SW846	EET CF
7471B	Mercury (CVAA)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.1	Phosphorus, Total	EPA	EET CF
9040C	pH	SW846	EET CF
SM 2540G	Total, Fixed, and Volatile Solids	SM	EET CF
3050B	Preparation, Metals	SW846	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.2/365.3/365	Phosphorus, Total	EPA	EET CF
7471B	Preparation, Mercury	SW846	EET CF
DI Leach	Deionized Water Leaching Procedure	ASTM	EET CF
Distill/Ammonia	Distillation, Ammonia	None	EET CF

### Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

None = None

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

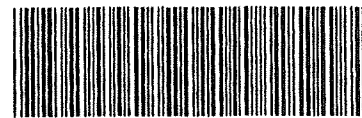
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

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



Environment Testing  
America



310-265706 Chain of Custody

### Cooler/Sample Receipt and Temperature Log Form

<b>Client Information</b>			
Client: <u>Kraft Foods</u>			
City/State:	CITY	STATE	Project:
		<u>IA</u>	
<b>Receipt Information</b>			
Date/Time Received:	DATE	TIME	Received By:
	<u>9/27/23</u>	<u>845</u>	<u>SL</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>P</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>2.9 N/A</u>		Corrected Temp (°C): <u>2.9</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1 <u>500 plastic</u>		CONTAINER 2
Uncorrected Temp (°C):	<u>2.9</u>		<u>N/A</u>
Corrected Temp (°C):	<u>2.9</u>		<u>N/A</u>
<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 Division  
3019 Venture Way  
Cedar Falls, IA 50613

Phone 319-277-2401 or 1-800-750-2401  
Fax 319-277-2425

# FIELD

**Kraft Foods Company**

**Join PO #.**

Send Report To	Dave Haag	Invoice To	Accounts Payable
Address	1022 12th St. NW	Project Name	503 Sludge
City/State/Zip Code	Mason City, IA 50401		Quarterly
Telephone Number	641-421-2966	Project Number	31002510
Sampled by (Print Name)	Keh Reed	Project Manager	Linda Cmelik
(Signature)		Email Address	kedmh31@krafftfoods.com

kedmh31@kraftfoods.com

66

[illegible]

## NOTES:

**Please fill in shaded areas**

NOTE: All turn around times are calculated from the time of receipt at TestAmerica

**NOTICE:** Pre-Arrangements must be made **AT LEAST 48 Hours in ADVANCE** to receive results with RUSH turn around time commitments; additional charges may be assessed. There may be a charge associated for this service.

**NOTE:** There may be a charge associated for this service.

### Simple remainders

Date	Time	Relinquished by	Date	Time
------	------	-----------------	------	------

1

by

Received:

Time

Date \_\_\_\_\_

---

by 1

11/11/11

[illegible]

	Date	Time	Comments	Shipped Via
Received for TestAmerica by				

Laboratory Comments	
Temperature Upon Receipt:	82°C
Date	2/2/2017
Time	13:13

[illegible]



## Login Sample Receipt Checklist

Client: Kraft Heinz Foods Company

Job Number: 310-265706-1

Login Number: 265706

List Number: 1

Creator: Lage, Sydney

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.	False	No sample date and/or time on COC, logged in per container labels.
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	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Dave M Haag  
Kraft Heinz Foods Company  
1022 12th Street, NW  
Mason City, Iowa 50401

Generated 1/17/2024 4:23:38 PM

## JOB DESCRIPTION

503 Sludge Quarterly

## JOB NUMBER

310-272269-1

# 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  
1/17/2024 4:23:38 PM

Authorized for release by  
Hannah Dietz, Project Management Assistant I  
[Hannah.Dietz@et.eurofinsus.com](mailto:Hannah.Dietz@et.eurofinsus.com)  
(319)277-2401

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## Case Narrative

Client: Kraft Heinz Foods Company  
Project: 503 Sludge Quarterly

Job ID: 310-272269-1

**Job ID: 310-272269-1**

**Eurofins Cedar Falls**

### **Job Narrative 310-272269-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### **Receipt**

The sample was received on 12/28/2023 8:30 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 1.9°C

#### **HPLC/IC**

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

#### **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: Kraft Heinz Foods Company  
Project/Site: 503 Sludge Quarterly

Job ID: 310-272269-1

Job Sample ID	Client Sample ID	Matrix	Collected	Received
310-272269-1	Sludge	Sludge	12/24/23 11:00	12/28/23 08:30



# Client Sample Results

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge Quarterly

Job ID: 310-272269-1

## Client Sample ID: Sludge

Lab Sample ID: 310-272269-1

ate Collected: 12/24/23 11:00

Matrix: Sludge

Date Received: 12/28/23 08:30

Percent Solids: 24.3

### Method: SW846 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<76.7		76.7		mg/Kg	✱		01/09/24 12:46	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<13.8		13.8		mg/Kg	✱	01/03/24 09:45	01/15/24 11:25	1
Cadmium	<3.44		3.44		mg/Kg	✱	01/03/24 09:45	01/15/24 11:25	1
Chromium	26.7		3.44		mg/Kg	✱	01/03/24 09:45	01/15/24 11:25	1
Copper	21.8		3.44		mg/Kg	✱	01/03/24 09:45	01/15/24 11:25	1
Lead	<17.2		17.2		mg/Kg	✱	01/03/24 09:45	01/15/24 11:25	1
Molybdenum	<8.60		8.60		mg/Kg	✱	01/03/24 09:45	01/15/24 11:25	1
Nickel	14.3		8.60		mg/Kg	✱	01/03/24 09:45	01/15/24 11:25	1
Potassium	1710		344		mg/Kg	✱	01/03/24 09:45	01/15/24 11:25	1
Selenium	<17.2		17.2		mg/Kg	✱	01/03/24 09:45	01/15/24 11:25	1
Zinc	33.3		17.2		mg/Kg	✱	01/03/24 09:45	01/15/24 11:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0748		0.0748		mg/Kg	✱	01/10/24 09:20	01/11/24 12:24	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	2620		343		mg/Kg	✱	12/29/23 14:41	12/29/23 21:59	1
Nitrogen, Kjeldahl (EPA 351.2)	35600		9360		mg/Kg	✱	01/02/24 06:10	01/02/24 13:54	10
Total Phosphorus as P (EPA 365.1)	8100		399		mg/Kg	✱	12/29/23 09:44	12/29/23 17:43	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids (SM 2540G)	26.5		0.100		%			12/28/23 13:28	1
Total Volatile Solids (SM 2540G)	90.0		0.0100		%			12/28/23 13:28	1

### General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9045D)	4.8	HF	1.0		SU			12/28/23 21:00	1



## Lab Chronicle

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge Quarterly

Job ID: 310-272269-1

**Client Sample ID: Sludge**

**Lab Sample ID: 310-272269-1**

**Date Collected: 12/24/23 11:00**

**Matrix: Sludge**

**Date Received: 12/28/23 08:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			410034	ZJX4	EET CF	12/28/23 16:18
Soluble	Analysis	9045D		1	410043	ZJX4	EET CF	12/28/23 21:00
Total/NA	Analysis	SM 2540G		1	410009	DGU1	EET CF	12/28/23 13:28

**Client Sample ID: Sludge**

**Lab Sample ID: 310-272269-1**

**Date Collected: 12/24/23 11:00**

**Matrix: Sludge**

**Date Received: 12/28/23 08:30**

**Percent Solids: 24.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			410674	QTZ5	EET CF	01/09/24 10:35
Soluble	Analysis	9056A		10	410847	QTZ5	EET CF	01/09/24 12:46
Total/NA	Prep	3050B			410151	QTZ5	EET CF	01/03/24 09:45
Total/NA	Analysis	6010D		1	411172	ZRI4	EET CF	01/15/24 11:25
Total/NA	Prep	7471B			410824	NFT2	EET CF	01/10/24 09:20
Total/NA	Analysis	7471B		1	411012	NFT2	EET CF	01/11/24 12:24
Total/NA	Prep	Distill/Ammonia			410157	A3GU	EET CF	12/29/23 14:41
Total/NA	Analysis	350.1		1	410173	ZJX4	EET CF	12/29/23 21:59
Total/NA	Prep	351.2			410191	W9YR	EET CF	01/02/24 06:10
Total/NA	Analysis	351.2		10	410254	ENB7	EET CF	01/02/24 13:54
Total/NA	Prep	365.2/365.3/365			410094	MAQ3	EET CF	12/29/23 09:44
Total/NA	Analysis	365.1		10	410168	ZJX4	EET CF	12/29/23 17:43

**Laboratory References:**

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

## Definitions/Glossary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge Quarterly

Job ID: 310-272269-1

### Qualifiers

#### 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
PQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge Quarterly

Job ID: 310-272269-1

Laboratory: Eurofins Cedar Falls

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

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

## Method Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge Quarterly

Job ID: 310-272269-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6010D	Metals (ICP)	SW846	EET CF
7471B	Mercury (CVAA)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.1	Phosphorus, Total	EPA	EET CF
9045D	pH	SW846	EET CF
SM 2540G	Total, Fixed, and Volatile Solids	SM	EET CF
3050B	Preparation, Metals	SW846	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.2/365.3/365	Phosphorus, Total	EPA	EET CF
7471B	Preparation, Mercury	SW846	EET CF
DI Leach	Deionized Water Leaching Procedure	ASTM	EET CF
Distill/Ammonia	Distillation, Ammonia	None	EET CF

### Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

None = None

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



310-272269 Chain of Custody

### Cooler/Sample Receipt and Temperature Log Form

<b>Client Information</b>			
Client: <u>Kraft Foods</u>			
City/State:	CITY	STATE	Project:
		<u>IA</u>	
<b>Receipt Information</b>			
Date/Time Received:	DATE	TIME	Received By:
	<u>12/28/23</u>	<u>0830</u>	<u>R</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 checked="" 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:		Correction Factor (°C):	
<u>T</u>		<u>+0.0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C):		Corrected Temp (°C):	
<u>1.9</u>		<u>1.9</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>			

Email Address. kedmh31@krafffoods.com

17/17/2024

## Login Sample Receipt Checklist

Client: Kraft Heinz Foods Company

Job Number: 310-272269-1

Login Number: 272269

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.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	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	





# ANALYTICAL REPORT

## PREPARED FOR

Attn: Dave M Haag  
Kraft Heinz Foods Company  
1022 12th Street, NW  
Mason City, Iowa 50401

Generated 4/19/2024 8:38:11 AM

## JOB DESCRIPTION

503 Sludge

## JOB NUMBER

310-278578-1

# 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



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Authorized for release by  
Hannah Dietz, Project Management Assistant I  
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## Case Narrative

Client: Kraft Heinz Foods Company  
Project: 503 Sludge

Job ID: 310-278578-1

**Job ID: 310-278578-1**

**Eurofins Cedar Falls**

### **Job Narrative 310-278578-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### **Receipt**

The sample was received on 4/10/2024 8:50 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 4.1°C.

#### **HPLC/IC**

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

#### **Metals**

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

#### **General Chemistry**

Method 365.1: The method blank for Prep Batch 418579 contained Phosphorus above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

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: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-278578-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-278578-1	Sludge	Solid	03/28/24 11:00	04/10/24 08:50



# Client Sample Results

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-278578-1

**Client Sample ID: Sludge**

**Lab Sample ID: 310-278578-1**

**ate Collected: 03/28/24 11:00**

**Matrix: Solid**

**Date Received: 04/10/24 08:50**

**Percent Solids: 7.9**

## Method: SW846 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<231		231		mg/Kg	*		04/17/24 19:38	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<9.19		9.19		mg/Kg	*	04/11/24 10:00	04/11/24 14:19	1
Cadmium	<2.30		2.30		mg/Kg	*	04/11/24 10:00	04/11/24 14:19	1
<b>Chromium</b>	<b>6.46</b>		2.30		mg/Kg	*	04/11/24 10:00	04/11/24 14:19	1
<b>Copper</b>	<b>14.7</b>		2.30		mg/Kg	*	04/11/24 10:00	04/11/24 14:19	1
Lead	<11.5		11.5		mg/Kg	*	04/11/24 10:00	04/11/24 14:19	1
Molybdenum	<5.75		5.75		mg/Kg	*	04/11/24 10:00	04/11/24 14:19	1
Nickel	<5.75		5.75		mg/Kg	*	04/11/24 10:00	04/11/24 14:19	1
<b>Potassium</b>	<b>2640</b>		230		mg/Kg	*	04/11/24 10:00	04/11/24 14:19	1
Selenium	<11.5		11.5		mg/Kg	*	04/11/24 10:00	04/11/24 14:19	1
<b>Zinc</b>	<b>17.7</b>		11.5		mg/Kg	*	04/11/24 10:00	04/11/24 14:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.210		0.210		mg/Kg	*	04/17/24 17:02	04/18/24 16:37	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	<601		601		mg/Kg	*	04/11/24 14:15	04/11/24 23:18	1
<b>Nitrogen, Kjeldahl (EPA 351.2)</b>	<b>30800</b>		3670		mg/Kg	*	04/15/24 05:41	04/15/24 20:26	1
<b>Total Phosphorus as P (EPA 365.1)</b>	<b>4080</b>	<b>B</b>	123		mg/Kg	*	04/12/24 10:08	04/12/24 21:51	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	<b>6.21</b>	<b>HF</b>	1.00		SU			04/10/24 11:24	1
<b>Total Solids (SM 2540G)</b>	<b>8.27</b>		0.100		%			04/10/24 11:03	1
<b>Total Volatile Solids (SM 2540G)</b>	<b>95.0</b>		0.0100		%			04/10/24 11:03	1

# Lab Chronicle

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-278578-1

**Client Sample ID: Sludge**

**Lab Sample ID: 310-278578-1**

**Date Collected: 03/28/24 11:00**

**Matrix: Solid**

**Date Received: 04/10/24 08:50**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9040C		1	418309	W9YR	EET CF	04/10/24 11:24
Total/NA	Analysis	SM 2540G		1	418353	DGU1	EET CF	04/10/24 11:03

**Client Sample ID: Sludge**

**Lab Sample ID: 310-278578-1**

**Date Collected: 03/28/24 11:00**

**Matrix: Solid**

**Date Received: 04/10/24 08:50**

**Percent Solids: 7.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			418875	QTZ5	EET CF	04/17/24 15:20
Soluble	Analysis	9056A		10	419152	QTZ5	EET CF	04/17/24 19:38
Total/NA	Prep	3050B			418403	QTZ5	EET CF	04/11/24 10:00
Total/NA	Analysis	6010D		1	418580	ZRI4	EET CF	04/11/24 14:19
Total/NA	Prep	7471B			419038	DHM5	EET CF	04/17/24 17:02
Total/NA	Analysis	7471B		1	419198	A6US	EET CF	04/18/24 16:37
Total/NA	Prep	Distill/Ammonia			418513	MQ8M	EET CF	04/11/24 14:15
Total/NA	Analysis	350.1		1	418544	ZJX4	EET CF	04/11/24 23:18
Total/NA	Prep	351.2			418676	W9YR	EET CF	04/15/24 05:41
Total/NA	Analysis	351.2		1	418797	ZJX4	EET CF	04/15/24 20:26
Total/NA	Prep	365.2/365.3/365			418579	MAQ3	EET CF	04/12/24 10:08
Total/NA	Analysis	365.1		1	418659	ZJX4	EET CF	04/12/24 21:51

## Laboratory References:

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



## Definitions/Glossary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-278578-1

### Qualifiers

#### General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
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
QL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Accreditation/Certification Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-278578-1

### 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
9040C		Solid	pH

## Method Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-278578-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6010D	Metals (ICP)	SW846	EET CF
7471B	Mercury (CVAA)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.1	Phosphorus, Total	EPA	EET CF
9040C	pH	SW846	EET CF
SM 2540G	Total, Fixed, and Volatile Solids	SM	EET CF
3050B	Preparation, Metals	SW846	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.2/365.3/365	Phosphorus, Total	EPA	EET CF
7471B	Preparation, Mercury	SW846	EET CF
DI Leach	Deionized Water Leaching Procedure	ASTM	EET CF
Distill/Ammonia	Distillation, Ammonia	None	EET CF

### Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

None = None

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



310-278578 Chain of Custody

### Cooler/Sample Receipt and Temperature Log Form

<b>Client Information</b>			
Client: <u>Kraft</u>			
City/State:	CITY	STATE	Project:
		<u>IA</u>	
<b>Receipt Information</b>			
Date/Time Received:	DATE	TIME	Received By:
	<u>4-10-24</u>	<u>850</u>	<u>ML</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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Sample Custody Seals Present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No
Trip Blank Present?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓
<b>Temperature Record</b>			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>X</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>4.1</u>		Corrected Temp (°C): <u>4.1</u>	
<b>• Sample Container Temperature</b>			
Container(s) used:	<u>CONTAINER 1</u>		<u>CONTAINER 2</u>
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>			

## Kraft Foods

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4/19/2024

## Login Sample Receipt Checklist

Client: Kraft Heinz Foods Company

Job Number: 310-278578-1

Login Number: 278578

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Costello, Mackenzie K

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.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	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	Date or time on COC did not match containers, logged in per container labels.
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	

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Dave M Haag  
Kraft Heinz Foods Company  
1022 12th Street, NW  
Mason City, Iowa 50401

Generated 9/28/2024 11:08:01 AM

## JOB DESCRIPTION

503 Sludge

## JOB NUMBER

310-290913-1



# 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.

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## Authorization



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9/28/2024 11:08:01 AM

Authorized for release by  
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[Hannah.Dietz@et.eurofinsus.com](mailto:Hannah.Dietz@et.eurofinsus.com)  
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## Case Narrative

Client: Kraft Heinz Foods Company  
Project: 503 Sludge

Job ID: 310-290913-1

**Job ID: 310-290913-1**

**Eurofins Cedar Falls**

### **Job Narrative 310-290913-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### **Receipt**

The sample was received on 9/19/2024 8:25 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.

#### **HPLC/IC**

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

#### **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: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-290913-1

.ab Sample ID	Client Sample ID	Matrix	Collected	Received
310-290913-1	Sludge	Solid	09/18/24 12:00	09/19/24 08:25

# Client Sample Results

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-290913-1

## Client Sample ID: Sludge

Date Collected: 09/18/24 12:00

Date Received: 09/19/24 08:25

Lab Sample ID: 310-290913-1

Matrix: Solid

Percent Solids: 27.2

### Method: SW846 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<70.0		70.0		mg/Kg	✱		09/24/24 12:01	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<12.7		12.7		mg/Kg	✱	09/24/24 09:30	09/25/24 11:28	1
Cadmium	<3.17		3.17		mg/Kg	✱	09/24/24 09:30	09/25/24 11:28	1
Chromium	43.3		3.17		mg/Kg	✱	09/24/24 09:30	09/25/24 11:28	1
Copper	75.1		3.17		mg/Kg	✱	09/24/24 09:30	09/25/24 11:28	1
Lead	<15.9		15.9		mg/Kg	✱	09/24/24 09:30	09/25/24 11:28	1
Molybdenum	<7.93		7.93		mg/Kg	✱	09/24/24 09:30	09/25/24 11:28	1
Nickel	49.1		7.93		mg/Kg	✱	09/24/24 09:30	09/25/24 11:28	1
Potassium	1300		317		mg/Kg	✱	09/24/24 09:30	09/25/24 11:28	1
Selenium	<15.9		15.9		mg/Kg	✱	09/24/24 09:30	09/25/24 11:28	1
Zinc	59.5		15.9		mg/Kg	✱	09/24/24 09:30	09/25/24 11:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0603		0.0603		mg/Kg	✱	09/26/24 15:40	09/27/24 16:55	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	2490		179		mg/Kg	✱	09/19/24 15:18	09/19/24 19:24	1
Nitrogen, Kjeldahl (EPA 351.2)	31400		8240		mg/Kg	✱	09/20/24 16:17	09/20/24 19:05	10
Total Phosphorus as P (EPA 365.1)	9120		353		mg/Kg	✱	09/20/24 17:56	09/23/24 14:24	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids (SM 2540G)	27.6		0.100		%			09/19/24 11:53	1
Total Volatile Solids (SM 2540G)	83.9		0.0100		%			09/19/24 11:53	1

### General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9045D)	4.7	HF	1.0		SU			09/23/24 15:19	1

## Lab Chronicle

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-290913-1

Client Sample ID: Sludge

Lab Sample ID: 310-290913-1

Date Collected: 09/18/24 12:00

Matrix: Solid

Date Received: 09/19/24 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			433987	T5AC	EET CF	09/23/24 13:20
Soluble	Analysis	9045D		1	434003	T5AC	EET CF	09/23/24 15:19
Total/NA	Analysis	SM 2540G		1	433691	DGU1	EET CF	09/19/24 11:53

Client Sample ID: Sludge

Lab Sample ID: 310-290913-1

Date Collected: 09/18/24 12:00

Matrix: Solid

Date Received: 09/19/24 08:25

Percent Solids: 27.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			433981	HE7K	EET CF	09/23/24 13:11
Soluble	Analysis	9056A		10	434276	HE7K	EET CF	09/24/24 12:01
Total/NA	Prep	3050B			433711	F5MW	EET CF	09/24/24 09:30
Total/NA	Analysis	6010D		1	434270	ZRI4	EET CF	09/25/24 11:28
Total/NA	Prep	7471B			434257	QTZ5	EET CF	09/26/24 15:40
Total/NA	Analysis	7471B		1	434589	QTZ5	EET CF	09/27/24 16:55
Total/NA	Prep	Distill/Ammonia			433721	MQ8M	EET CF	09/19/24 15:18
Total/NA	Analysis	350.1		1	433690	ENB7	EET CF	09/19/24 19:24
Total/NA	Prep	351.2			433748	W9YR	EET CF	09/20/24 16:17
Total/NA	Analysis	351.2		10	433869	ZJX4	EET CF	09/20/24 19:05
Total/NA	Prep	365.2/365.3/365			433872	T5AC	EET CF	09/20/24 17:56
Total/NA	Analysis	365.1		10	433964	ENB7	EET CF	09/23/24 14:24

### Laboratory References:

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



## Definitions/Glossary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-290913-1

### Qualifiers

#### 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
QL	Method Quantitation Limit
.C	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



Accreditation/Certification Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-290913-1

Laboratory: Eurofins Cedar Falls

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

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

## Method Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-290913-1

ethod	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6010D	Metals (ICP)	SW846	EET CF
7471B	Mercury (CVAA)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.1	Phosphorus, Total	EPA	EET CF
9045D	pH	SW846	EET CF
SM 2540G	Total, Fixed, and Volatile Solids	SM	EET CF
3050B	Preparation, Metals	SW846	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.2/365.3/365	Phosphorus, Total	EPA	EET CF
7471B	Preparation, Mercury	SW846	EET CF
DI Leach	Deionized Water Leaching Procedure	ASTM	EET CF
Distill/Ammonia	Distillation, Ammonia	None	EET CF

### Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

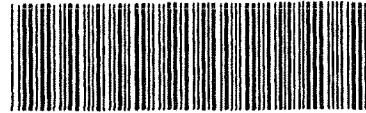
None = None

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



### Cooler/Sample Receipt and Temperature Log Form

<b>Client Information</b>			
Client: <u>Kraft Foods</u>			
City/State:	CITY	STATE	Project.
<b>Receipt Information</b>			
Date/Time Received.	DATE <u>9/19/24</u>	TIME <u>825</u>	Received By: <u>XP</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>2</u>		Correction Factor (°C): <u>0</u>	
• <b>Temp Blank Temperature</b> – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>0.6</u>		Corrected Temp (°C): <u>0.6</u>	
• <b>Sample Container Temperature</b>			
Container(s) used:	<u>CONTAINER 1</u>		<u>CONTAINER 2</u>
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>			

**Company. Kraft Foods**

Send Report To Dave Haag

Address 1022 12th St. NW

City/State/Zip Code Mason City, IA 50401

Telephone Number 641-421-2966

Sampled by: (Print Name) AL E. Klenborg

(Signature) Al Eblen

**Your PO #:**

**Invoice To**

Project Name

Quarterly

Project Number 31002510

**Project Manager Linda Cmelik**

Email Address kedmh31@krafftfoods.com

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[illegible]

**NOTE:** All turn around times are calculated from the time of receipt at TestAmerica

**NOTICE:** Pre-Arrangements must be made **AT LEAST 48 Hours in ADVANCE** to receive results with RUSH turn around time commitments; **additional charges** may be assessed. There may be a charge assessed for Tissue.

Relinquished by	Date	Time	Received by
A. J. J. J.			

NOTE: Here may be a charge assessed for TestAmerica disposing of sample remainders.

Relinquished by <i>AL Eddlebong</i>	Received by <i>pt</i>	Date <i>9-18-24</i>	Time <i>14:00</i>	Date <i>9/19/24</i>	Time <i>8:25</i>	Date	Time
--	--------------------------	------------------------	----------------------	------------------------	---------------------	------	------

Shipped Via	Date	Time	Comments.	Shipped Via
Received for TestAmerica by			Temperature Upon Receipt:	Laboratory Comments
Shipped Via			Temperature Upon Receipt:	Laboratory Comments

## Login Sample Receipt Checklist

Client: Kraft Heinz Foods Company

Job Number: 310-290913-1

Login Number: 290913

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	

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Dave M Haag  
Kraft Heinz Foods Company  
1022 12th Street, NW  
Mason City, Iowa 50401

Generated 1/7/2025 3:38:38 PM

## JOB DESCRIPTION

503 Sludge  
Quarterly

## JOB NUMBER

310-297448-1



# 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  
1/7/2025 3:38:38 PM

Authorized for release by  
Hannah Dietz, Project Manager I  
[Hannah.Dietz@et.eurofinsus.com](mailto:Hannah.Dietz@et.eurofinsus.com)  
(319)277-2401

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## Case Narrative

Client: Kraft Heinz Foods Company  
Project: 503 Sludge

Job ID: 310-297448-1

Job ID: 310-297448-1

Eurofins Cedar Falls

### Job Narrative 310-297448-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### Receipt

The sample was received on 12/19/2024 8:40 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 0.4°C.

#### HPLC/IC

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

#### 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: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-297448-1  
SDG: Quarterly

Job Sample ID	Client Sample ID	Matrix	Collected	Received
310-297448-1	Sludge	Solid	12/18/24 08:00	12/19/24 08:40

# Client Sample Results

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-297448-1  
SDG: Quarterly

Client Sample ID: Sludge

Lab Sample ID: 310-297448-1

ate Collected: 12/18/24 08:00

Matrix: Solid

Date Received: 12/19/24 08:40

Percent Solids: 10.1

## Method: SW846 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<190		190		mg/Kg	✱		12/20/24 12:40	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<7.60		7.60		mg/Kg	✱	12/27/24 10:00	01/06/25 14:37	1
Cadmium	<1.90		1.90		mg/Kg	✱	12/27/24 10:00	01/06/25 14:37	1
<b>Chromium</b>	<b>4.72</b>		1.90		mg/Kg	✱	12/27/24 10:00	01/06/25 14:37	1
<b>Copper</b>	<b>13.4 F1</b>		1.90		mg/Kg	✱	12/27/24 10:00	01/07/25 14:41	1
Lead	<9.50		9.50		mg/Kg	✱	12/27/24 10:00	01/06/25 14:37	1
Molybdenum	<4.75		4.75		mg/Kg	✱	12/27/24 10:00	01/06/25 14:37	1
Nickel	<4.75		4.75		mg/Kg	✱	12/27/24 10:00	01/06/25 14:37	1
<b>Potassium</b>	<b>4430</b>		190		mg/Kg	✱	12/27/24 10:00	01/06/25 14:37	1
Selenium	<9.50		9.50		mg/Kg	✱	12/27/24 10:00	01/06/25 14:37	1
<b>Zinc</b>	<b>17.4</b>		9.50		mg/Kg	✱	12/27/24 10:00	01/07/25 14:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.158		0.158		mg/Kg	✱	12/30/24 13:50	12/31/24 11:40	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	661		467		mg/Kg	✱	12/23/24 12:00	12/23/24 21:42	1
Nitrogen, Kjeldahl (EPA 351.2)	60800		23000		mg/Kg	✱	12/19/24 11:09	12/19/24 18:34	10
Total Phosphorus as P (EPA 365.1)	14900		934		mg/Kg	✱	12/19/24 19:09	12/20/24 01:29	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids (SM 2540G)	11.0		0.100		%			12/19/24 11:27	1
Total Volatile Solids (SM 2540G)	88.8		0.0100		%			12/19/24 11:27	1

## General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9045D)	5.3	HF	1.0		SU			12/19/24 22:11	1



# Lab Chronicle

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-297448-1  
SDG: Quarterly

**Client Sample ID: Sludge**

**Lab Sample ID: 310-297448-1**

Date Collected: 12/18/24 08:00

Matrix: Solid

Date Received: 12/19/24 08:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			443050	T5AC	EET CF	12/19/24 20:21
Soluble	Analysis	9045D		1	443054	T5AC	EET CF	12/19/24 22:11
Total/NA	Analysis	SM 2540G		1	442992	DGU1	EET CF	12/19/24 11:27

**Client Sample ID: Sludge**

**Lab Sample ID: 310-297448-1**

Date Collected: 12/18/24 08:00

Matrix: Solid

Date Received: 12/19/24 08:40

Percent Solids: 10.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			443080	WZC8	EET CF	12/20/24 08:52
Soluble	Analysis	9056A		10	443181	WZC8	EET CF	12/20/24 12:40
Total/NA	Prep	3050B			443188	F5MW	EET CF	12/27/24 10:00
Total/NA	Analysis	6010D		1	444055	ZRI4	EET CF	01/06/25 14:37
Total/NA	Prep	3050B			443188	F5MW	EET CF	12/27/24 10:00
Total/NA	Analysis	6010D		1	444136	ZRI4	EET CF	01/07/25 14:41
Total/NA	Prep	7471B			443001	QTZ5	EET CF	12/30/24 13:50
Total/NA	Analysis	7471B		1	443752	QTZ5	EET CF	12/31/24 11:40
Total/NA	Prep	Distill/Ammonia			443266	RLT9	EET CF	12/23/24 12:00
Total/NA	Analysis	350.1		1	443315	ZJX4	EET CF	12/23/24 21:42
Total/NA	Prep	351.2			442893	W9YR	EET CF	12/19/24 11:09
Total/NA	Analysis	351.2		10	443046	ZJX4	EET CF	12/19/24 18:34
Total/NA	Prep	365.2/365.3/365			443047	T5AC	EET CF	12/19/24 19:09
Total/NA	Analysis	365.1		10	443058	ZJX4	EET CF	12/20/24 01:29

## Laboratory References:

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



## Definitions/Glossary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-297448-1  
SDG: Quarterly

### Qualifiers

#### Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

#### 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
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CFU	Colony Forming Unit
CNF	Contains No Free Liquid
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Dil Fac	Dilution Factor
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DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-297448-1  
SDG: Quarterly

Laboratory: Eurofins Cedar Falls

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

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

## Method Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-297448-1  
SDG: Quarterly

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6010D	Metals (ICP)	SW846	EET CF
7471B	Mercury (CVAA)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.1	Phosphorus, Total	EPA	EET CF
9045D	pH	SW846	EET CF
SM 2540G	Total, Fixed, and Volatile Solids	SM	EET CF
3050B	Preparation, Metals	SW846	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.2/365.3/365	Phosphorus, Total	EPA	EET CF
7471B	Preparation, Mercury	SW846	EET CF
DI Leach	Deionized Water Leaching Procedure	ASTM	EET CF
Distill/Ammonia	Distillation, Ammonia	None	EET CF

### Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

None = None

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

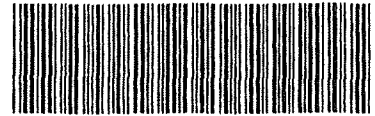
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

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



Environment Testing  
America



310-297448 Chain of Custody

### Cooler/Sample Receipt and Temperature Log Form

<b>Client Information</b>			
Client: <u>Kraft Foods</u>			
City/State:	CITY	STATE <u>A</u>	Project:
<b>Receipt Information</b>			
Date/Time Received:	DATE <u>12/19/24</u>	TIME <u>0840</u>	Received By: <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>R</u>		Correction Factor (°C): <u>+0.2</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>0.4</u>		Corrected Temp (°C): <u>0.4</u>	
• Sample Container Temperature			
Container(s) used:	<u>CONTAINER 1</u>		<u>CONTAINER 2</u>
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 Division  
3019 Venture Way  
Cedar Falls, IA 50613

Phone 319-277-2401 or 1-800-750-2-  
Fax 319-277-2425

# RECEIVED

**Company** **Kraft Foods**

Send Report To Dave Haag

Address 1022 12th St. NW

City/State/Zip Code Mason City, IA 50401

Telephone Number 641-421-2966

Sampled by: (Print Name)

(Signature)

Fax: 641-421-2936

Project Number: 31002510

**Project Manager Linda Cmelik**

Email Address kedmh31@krafffoods.com

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[illegible]

NOTE: All turn around times are calculated from the time of receipt at TestAmerica

**NOTICE:** Pre-Arrangements must be made AT LEAST 48 Hours in ADVANCE to receive results with RUSH turn around time commitments; additional charges may be assessed. There may be a charge associated for this.

NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders with each turn around time commitments; additional charges may be assessed for sample remainders relinquished by the customer.

Please fill in shaded areas

Date	Time
------	------

Date	Time	Relinquished by:
------	------	------------------

Received by-

Date	Time
12-18-24	1400

Received for TestAmerica by

Date \_\_\_\_\_

Comments.

Temperature Upon Receipt:

**Laboratory Comments**

Shipped Via

## Login Sample Receipt Checklist

Client: Kraft Heinz Foods Company

Job Number: 310-297448-1

SDG Number: Quarterly

Login Number: 297448

List Number: 1

Creator: Homolar, Dana J

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	





# ANALYTICAL REPORT

## PREPARED FOR

Attn: Dave M Haag  
Kraft Heinz Foods Company  
1022 12th Street, NW  
Mason City, Iowa 50401

Generated 3/13/2025 1:47:57 PM

## JOB DESCRIPTION

503 Sludge

## JOB NUMBER

310-300997-1

# 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  
3/13/2025 1:47:57 PM

Authorized for release by  
Hannah Dietz, Project Manager I  
[Hannah.Dietz@et.eurofinsus.com](mailto:Hannah.Dietz@et.eurofinsus.com)  
(319)277-2401

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## Case Narrative

Client: Kraft Heinz Foods Company  
Project: 503 Sludge

Job ID: 310-300997-1

**Job ID: 310-300997-1**

**Eurofins Cedar Falls**

### **Job Narrative 310-300997-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### **Receipt**

The sample was received on 2/27/2025 8:55 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 3.1°C.

#### **HPLC/IC**

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

#### **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: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-300997-1

Job Sample ID	Client Sample ID	Matrix	Collected	Received
310-300997-1	Sludge	Sludge	02/26/25 08:00	02/27/25 08:55



# Client Sample Results

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-300997-1

## Client Sample ID: Sludge

ate Collected: 02/26/25 08:00

Date Received: 02/27/25 08:55

## Lab Sample ID: 310-300997-1

Matrix: Sludge

Percent Solids: 11.7

### Method: SW846 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<156	H	156		mg/Kg	✱		02/28/25 10:05	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<6.44		6.44		mg/Kg	✱	03/10/25 09:00	03/11/25 12:38	1
Cadmium	<1.61		1.61		mg/Kg	✱	03/10/25 09:00	03/11/25 12:38	1
Chromium	11.5		1.61		mg/Kg	✱	03/10/25 09:00	03/11/25 12:38	1
Copper	64.9		1.61		mg/Kg	✱	03/10/25 09:00	03/12/25 15:47	1
Lead	<8.05		8.05		mg/Kg	✱	03/10/25 09:00	03/11/25 12:38	1
Molybdenum	<4.02		4.02		mg/Kg	✱	03/10/25 09:00	03/11/25 12:38	1
Nickel	7.42		4.02		mg/Kg	✱	03/10/25 09:00	03/11/25 12:38	1
Potassium	3250		161		mg/Kg	✱	03/10/25 09:00	03/11/25 12:38	1
Selenium	<8.05		8.05		mg/Kg	✱	03/10/25 09:00	03/11/25 12:38	1
Zinc	45.9		8.05		mg/Kg	✱	03/10/25 09:00	03/11/25 12:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.142		0.142		mg/Kg	✱	02/28/25 10:32	02/28/25 13:18	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	749		405		mg/Kg	✱	03/03/25 11:48	03/03/25 21:54	1
Nitrogen, Kjeldahl (EPA 351.2)	65000		14900		mg/Kg	✱	03/05/25 06:54	03/05/25 16:58	10
Total Phosphorus as P (EPA 365.1)	15600		790		mg/Kg	✱	03/04/25 18:05	03/04/25 23:13	10

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids (SM 2540G)	8.71		0.100		%			02/28/25 05:46	1
Total Volatile Solids (SM 2540G)	89.2		0.0100		%			02/28/25 05:46	1

### General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9045D)	5.8	HF	1.0		SU			03/04/25 20:17	1



## Lab Chronicle

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-300997-1

**Client Sample ID: Sludge**

**Lab Sample ID: 310-300997-1**

**Date Collected: 02/26/25 08:00**

**Matrix: Sludge**

**Date Received: 02/27/25 08:55**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			448065	T5AC	EET CF	03/04/25 18:27
Soluble	Analysis	9045D		1	448067	T5AC	EET CF	03/04/25 20:17
Total/NA	Analysis	SM 2540G		1	447714	DGU1	EET CF	02/28/25 05:46

**Client Sample ID: Sludge**

**Lab Sample ID: 310-300997-1**

**Date Collected: 02/26/25 08:00**

**Matrix: Sludge**

**Date Received: 02/27/25 08:55**

**Percent Solids: 11.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			447729	QTZ5	EET CF	02/28/25 08:27
Soluble	Analysis	9056A		10	447760	QTZ5	EET CF	02/28/25 10:05
Total/NA	Prep	3050B			448110	F5MW	EET CF	03/10/25 09:00
Total/NA	Analysis	6010D		1	448680	ZRI4	EET CF	03/11/25 12:38
Total/NA	Prep	3050B			448110	F5MW	EET CF	03/10/25 09:00
Total/NA	Analysis	6010D		1	448742	ZRI4	EET CF	03/12/25 15:47
Total/NA	Prep	7471B			447683	F5MW	EET CF	02/28/25 10:32
Total/NA	Analysis	7471B		1	447802	F5MW	EET CF	02/28/25 13:18
Total/NA	Prep	Distill/Ammonia			447900	RLT9	EET CF	03/03/25 11:48
Total/NA	Analysis	350.1		1	447948	ZJX4	EET CF	03/03/25 21:54
Total/NA	Prep	351.2			448081	W9YR	EET CF	03/05/25 06:54
Total/NA	Analysis	351.2		10	448150	ZJX4	EET CF	03/05/25 16:58
Total/NA	Prep	365.2/365.3/365			448063	T5AC	EET CF	03/04/25 18:05
Total/NA	Analysis	365.1		10	448066	ZJX4	EET CF	03/04/25 23:13

**Laboratory References:**

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

## Definitions/Glossary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-300997-1

### Qualifiers

#### APLC/C

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

#### 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

Accreditation/Certification Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-300997-1

Laboratory: Eurofins Cedar Falls

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

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

## Method Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-300997-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6010D	Metals (ICP)	SW846	EET CF
7471B	Mercury (CVAA)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.1	Phosphorus, Total	EPA	EET CF
9045D	pH	SW846	EET CF
SM 2540G	Total, Fixed, and Volatile Solids	SM	EET CF
3050B	Preparation, Metals	SW846	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.2/365.3/365	Phosphorus, Total	EPA	EET CF
7471B	Preparation, Mercury	SW846	EET CF
DI Leach	Deionized Water Leaching Procedure	ASTM	EET CF
Distill/Ammonia	Distillation, Ammonia	None	EET CF

### Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

None = None

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



310-300997 Chain of Custody

### Cooler/Sample Receipt and Temperature Log Form

<b>Client Information</b>			
Client: <u>Kraft Foods</u>			
City/State: <u>Mason City IA</u>		Project:	
<b>Receipt Information</b>			
Date/Time Received: <u>2/27/25</u> <u>855</u>		Received By: <u>XB</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>2</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>31</u>		Corrected Temp (°C) <u>31</u>	
• Sample Container Temperature			
Container(s) used:	<u>CONTAINER 1</u>	<u>CONTAINER 2</u>	
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>			

Document CED-P-SAM-FRM45521

Revision 26

Date: 27 Jan 2022

Eurofins Cedar Falls

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

Cedar Falls Division  
3019 Venture Way  
Cedar Falls, IA 50613

Phone 319-277-2401 or 1-800-750-2401  
Fax 319-277-2425

**Company Kraft Foods**

Company **Kraft Foods** Your PO # \_\_\_\_\_

Send Report To	Dave Haag	Invoice To	Accounts Payable
Address	1022 12th St NW	Project Name	503 Sludge
City/State/Zip Code	Mason City, IA 50401		Quarterly
Telephone Number	641-421-2966	Project Number	31002510
Sampled by: (Print Name)	AL Eicklenborg	Project Manager	Linda Crmelik
(Signature)	<i>AL Eicklenborg</i>	Email Address	kedmh31@kraftfoods.com

[illegible]



## Login Sample Receipt Checklist

Client: Kraft Heinz Foods Company

Job Number: 310-300997-1

Login Number: 300997

List Number: 1

Creator: Bunker, Xavier M

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	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Dave M Haag  
Kraft Heinz Foods Company  
1022 12th Street, NW  
Mason City, Iowa 50401

Generated 7/10/2025 10:38:21 AM

## JOB DESCRIPTION

503 Sludge

## JOB NUMBER

310-309905-1

# Eurofins Cedar Falls

## Job Notes

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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  
7/10/2025 10:38:21 AM

Authorized for release by  
Hannah Dietz, Project Manager I  
[Hannah.Dietz@et.eurofinsus.com](mailto:Hannah.Dietz@et.eurofinsus.com)  
(319)277-2401

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Job Narrative  
310-309905-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**

The sample was received on 7/1/2025 8:30 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 3.3°C.

**HPLC/IC**

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

**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: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-309905-1

Job Sample ID	Client Sample ID	Matrix	Collected	Received
310-309905-1	Sludge	Sludge	06/30/25 07:30	07/01/25 08:30



# Client Sample Results

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-309905-1

## Client Sample ID: Sludge

Lab Sample ID: 310-309905-1

Date Collected: 06/30/25 07:30

Matrix: Sludge

Date Received: 07/01/25 08:30

Percent Solids: 21.7

### Method: SW846 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<83.7	F1	83.7		mg/Kg	*		07/07/25 10:10	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<3.65		3.65		mg/Kg	*	07/08/25 09:30	07/09/25 12:43	1
Cadmium	<0.913		0.913		mg/Kg	*	07/08/25 09:30	07/09/25 12:43	1
Chromium	11.8		0.913		mg/Kg	*	07/08/25 09:30	07/09/25 12:43	1
Copper	55.2		0.913		mg/Kg	*	07/08/25 09:30	07/09/25 12:43	1
Lead	<4.57		4.57		mg/Kg	*	07/08/25 09:30	07/09/25 12:43	1
Molybdenum	<2.28		2.28		mg/Kg	*	07/08/25 09:30	07/09/25 12:43	1
Nickel	6.81		2.28		mg/Kg	*	07/08/25 09:30	07/09/25 12:43	1
Potassium	2550		91.3		mg/Kg	*	07/08/25 09:30	07/09/25 12:43	1
Selenium	<4.57		4.57		mg/Kg	*	07/08/25 09:30	07/09/25 12:43	1
Zinc	34.4		4.57		mg/Kg	*	07/08/25 09:30	07/09/25 12:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0866		0.0866		mg/Kg	*	07/02/25 13:36	07/03/25 10:11	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	1360		202		mg/Kg	*	07/03/25 12:49	07/03/25 19:46	1
Nitrogen, Kjeldahl (EPA 351.2)	44800		9360		mg/Kg	*	07/02/25 05:24	07/02/25 11:42	10
Total Phosphorus as P (EPA 365.1)	7040		462		mg/Kg	*	07/02/25 12:33	07/02/25 22:15	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids (SM 2540G)	20.5		0.100		%			07/02/25 04:54	1
Total Volatile Solids (SM 2540G)	92.2		0.0100		%			07/02/25 04:54	1

### General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9045D)	4.8	HF	1.0		SU			07/03/25 15:32	1

# Lab Chronicle

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-309905-1

**Client Sample ID: Sludge**

**Date Collected: 06/30/25 07:30**

**Date Received: 07/01/25 08:30**

**Lab Sample ID: 310-309905-1**

**Matrix: Sludge**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			459588	T5AC	EET CF	07/03/25 13:11
Soluble	Analysis	9045D		1	459603	T5AC	EET CF	07/03/25 15:32
Total/NA	Analysis	SM 2540G		1	459338	DGU1	EET CF	07/02/25 04:54

**Client Sample ID: Sludge**

**Date Collected: 06/30/25 07:30**

**Date Received: 07/01/25 08:30**

**Lab Sample ID: 310-309905-1**

**Matrix: Sludge**

**Percent Solids: 21.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			459559	QTZ5	EET CF	07/07/25 08:50
Soluble	Analysis	9056A		10	459727	QTZ5	EET CF	07/07/25 10:10
Total/NA	Prep	3050B			459425	WK2X	EET CF	07/08/25 09:30
Total/NA	Analysis	6010D		1	460003	ZRI4	EET CF	07/09/25 12:43
Total/NA	Prep	3050B			459425	WK2X	EET CF	07/08/25 09:30
Total/NA	Analysis	6010D		1	460052	ZRI4	EET CF	07/09/25 12:43
Total/NA	Prep	7471B			459296	F5MW	EET CF	07/02/25 13:36
Total/NA	Analysis	7471B		1	459558	F5MW	EET CF	07/03/25 10:11
Total/NA	Prep	Distill/Ammonia			459581	E6KR	EET CF	07/03/25 12:49
Total/NA	Analysis	350.1		1	459625	ZJX4	EET CF	07/03/25 19:46
Total/NA	Prep	351.2			459341	W9YR	EET CF	07/02/25 05:24
Total/NA	Analysis	351.2		10	459423	ENB7	EET CF	07/02/25 11:42
Total/NA	Prep	365.2/365.3/365			459430	T5AC	EET CF	07/02/25 12:33
Total/NA	Analysis	365.1		10	459480	ZJX4	EET CF	07/02/25 22:15

## Laboratory References:

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

## Definitions/Glossary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-309905-1

### Qualifiers

#### PLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

#### 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

## Accreditation/Certification Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-309905-1

### Laboratory: Eurofins Cedar Falls

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

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

## Method Summary

Client: Kraft Heinz Foods Company  
Project/Site: 503 Sludge

Job ID: 310-309905-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6010D	Metals (ICP)	SW846	EET CF
7471B	Mercury (CVAA)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.1	Phosphorus, Total	EPA	EET CF
9045D	pH	SW846	EET CF
SM 2540G	Total, Fixed, and Volatile Solids	SM	EET CF
3050B	Preparation, Metals	SW846	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.2/365.3/365	Phosphorus, Total	EPA	EET CF
7471B	Preparation, Mercury	SW846	EET CF
DI Leach	Deionized Water Leaching Procedure	ASTM	EET CF
Distill/Ammonia	Distillation, Ammonia	None	EET CF

### Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

None = None

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

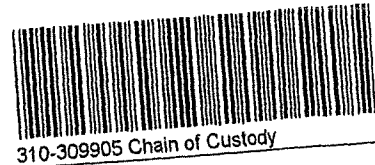
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

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



Environment Testing  
America



### Cooler/Sample Receipt and Temperature Log Form

<b>Client Information</b>			
Client: <u>Kraft Foods</u>			
City/State:	CITY <u>Mason City</u>	STATE <u>IA</u>	Project:
<b>Receipt Information</b>			
Date/Time Received:	DATE <u>7/1/25</u>	TIME <u>0830</u>	Received By: <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>R</u>		Correction Factor (°C): <u>+0.0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>3.3</u>		Corrected Temp (°C): <u>3.3</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>			





## Login Sample Receipt Checklist

Client: Kraft Heinz Foods Company

Job Number: 310-309905-1

Login Number: 309905

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	



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Dave M Haag  
Kraft Heinz Foods Company  
1022 12th Street, NW  
Mason City, Iowa 50401

Generated 9/25/2025 4:12:43 PM

## JOB DESCRIPTION

Quarterly

## JOB NUMBER

310-315567-1

# 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  
9/25/2025 4:12:43 PM

Authorized for release by  
Hannah Dietz, Project Manager I  
[Hannah.Dietz@et.eurofinsus.com](mailto:Hannah.Dietz@et.eurofinsus.com)  
(319)277-2401

# Table of Contents

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## Case Narrative

Client: Kraft Heinz Foods Company  
Project: Quartelry

Job ID: 310-315567-1

Job ID: 310-315567-1

Eurofins Cedar Falls

### Job Narrative 310-315567-1

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 9/12/2025 8:25 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.

#### HPLC/IC

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

#### 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: Kraft Heinz Foods Company  
Project/Site: Quartelry

Job ID: 310-315567-1

Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
J-315567-1	Sludge	Solid	09/11/25 07:30	09/12/25 08:25	Iowa

# Client Sample Results

Client: Kraft Heinz Foods Company  
Project/Site: Quartelry

Job ID: 310-315567-1

## Client Sample ID: Sludge

Lab Sample ID: 310-315567-1

Date Collected: 09/11/25 07:30

Matrix: Solid

Date Received: 09/12/25 08:25

Percent Solids: 13.2

### Method: SW846 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<136		136		mg/Kg	*		09/18/25 19:34	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<27.0		27.0		mg/Kg	*	09/23/25 10:30	09/25/25 12:02	1
Cadmium	<6.75		6.75		mg/Kg	*	09/23/25 10:30	09/25/25 12:02	1
Chromium	19.5		6.75		mg/Kg	*	09/23/25 10:30	09/25/25 12:02	1
Copper	46.6		6.75		mg/Kg	*	09/23/25 10:30	09/25/25 12:02	1
Lead	<33.7		33.7		mg/Kg	*	09/23/25 10:30	09/25/25 12:02	1
Molybdenum	<16.9		16.9		mg/Kg	*	09/23/25 10:30	09/25/25 12:02	1
Nickel	<16.9		16.9		mg/Kg	*	09/23/25 10:30	09/25/25 12:02	1
Potassium	2490		675		mg/Kg	*	09/23/25 10:30	09/25/25 12:02	1
Selenium	<33.7		33.7		mg/Kg	*	09/23/25 10:30	09/25/25 12:02	1
Zinc	52.6		33.7		mg/Kg	*	09/23/25 10:30	09/25/25 12:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.145		0.145		mg/Kg	*	09/22/25 15:40	09/23/25 09:47	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	451		366		mg/Kg	*	09/16/25 13:21	09/16/25 18:49	1
Nitrogen, Kjeldahl (EPA 351.2)	66600		16100		mg/Kg	*	09/15/25 05:56	09/15/25 17:57	10
Total Phosphorus as P (EPA 365.1)	13600		731		mg/Kg	*	09/16/25 19:33	09/17/25 01:59	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	4.79	HF	1.00		SU			09/12/25 12:13	1
Total Solids (SM 2540G)	12.9		0.100		%			09/15/25 04:39	1
Total Volatile Solids (SM 2540G)	87.4		0.0100		%			09/15/25 04:39	1

# Lab Chronicle

Client: Kraft Heinz Foods Company  
Project/Site: Quartely

Job ID: 310-315567-1

## Client Sample ID: Sludge

Lab Sample ID: 310-315567-1

Date Collected: 09/11/25 07:30

Matrix: Solid

Date Received: 09/12/25 08:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9040C		1	466532	W9YR	EET CF	09/12/25 12:13
Total/NA	Analysis	SM 2540G		1	466619	DGU1	EET CF	09/15/25 04:39

## Client Sample ID: Sludge

Lab Sample ID: 310-315567-1

Date Collected: 09/11/25 07:30

Matrix: Solid

Date Received: 09/12/25 08:25

Percent Solids: 13.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			466570	QTZ5	EET CF	09/18/25 12:45
Soluble	Analysis	9056A		10	467454	ZRI4	EET CF	09/18/25 19:34
Total/NA	Prep	3050B			467562	QTZ5	EET CF	09/23/25 10:30
Total/NA	Analysis	6010D		1	467986	ZRI4	EET CF	09/25/25 12:02
Total/NA	Prep	7471B			467358	RLT9	EET CF	09/22/25 15:40
Total/NA	Analysis	7471B		1	467638	RLT9	EET CF	09/23/25 09:47
Total/NA	Prep	Distill/Ammonia			466847	WZC8	EET CF	09/16/25 13:21
Total/NA	Analysis	350.1		1	466904	ZJX4	EET CF	09/16/25 18:49
Total/NA	Prep	351.2			466623	W9YR	EET CF	09/15/25 05:56
Total/NA	Analysis	351.2		10	466768	ZJX4	EET CF	09/15/25 17:57
Total/NA	Prep	365.2/365.3/365			466901	T5AC	EET CF	09/16/25 19:33
Total/NA	Analysis	365.1		10	466907	ZJX4	EET CF	09/17/25 01:59

### Laboratory References:

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

## Definitions/Glossary

Client: Kraft Heinz Foods Company  
Project/Site: Quartelry

Job ID: 310-315567-1

### Qualifiers

#### 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
SQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Accreditation/Certification Summary

Client: Kraft Heinz Foods Company  
Project/Site: Quartely

Job ID: 310-315567-1

## 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
9040C		Solid	pH

## Method Summary

Client: Kraft Heinz Foods Company  
Project/Site: Quartelry

Job ID: 310-315567-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6010D	Metals (ICP)	SW846	EET CF
7471B	Mercury (CVAA)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.1	Phosphorus, Total	EPA	EET CF
9040C	pH	SW846	EET CF
SM 2540G	Total, Fixed, and Volatile Solids	SM	EET CF
3050B	Preparation, Metals	SW846	EET CF
351.2	Nitrogen, Total Kjeldahl	EPA	EET CF
365.2/365.3/365	Phosphorus, Total	EPA	EET CF
7471B	Preparation, Mercury	SW846	EET CF
DI Leach	Deionized Water Leaching Procedure	ASTM	EET CF
Distill/Ammonia	Distillation, Ammonia	None	EET CF

### Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

None = None

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



310-315567 Chain of Custody

### Cooler/Sample Receipt and Temperature Log Form

<b>Client Information</b>			
Client: <u>Kraft Foods</u>			
City/State:	CITY <u>Mason City</u>	STATE <u>IA</u>	Project
<b>Receipt Information</b>			
Date/Time Received:	DATE <u>9.12.25</u>	TIME <u>825</u>	Received By: <u>PH</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>B8</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:	<u>CONTAINER 1</u>		<u>CONTAINER 2</u>
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>			

Phone 319-277-2401 or 1-800-750-2424  
Fax 319-277-2425

Send Report To Dave Haag

Address 1022 12th St NW

City/State/Zip Code Mason City, IA 50401

Telephone Number: 641-421-2966

Sampled by: (Print Name)

(Signature)

[kedmh31@kraftfoods.com](mailto:kedmh31@kraftfoods.com)

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[illegible]

## Login Sample Receipt Checklist

Client: Kraft Heinz Foods Company

Job Number: 310-315567-1

SDG Number:

Login Number: 315567

List Number: 1

Creator: Homolar, Dana J

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	

Permit Amendment Application  
17-SDP-06-95P-LAN  
February 2026

## **SECTION C: PROOF OF FINANCIAL ASSURANCE**

Corporate Guarantee is provided for Proof of Financial Assurance

# LAND APPLICATION OF WASTES CORPORATE GUARANTEE

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Guarantee made this February 1, 2026 by Kraft Heinz Company, herein referred to as "Guarantor". This Guarantee is made on behalf of the Kraft Heinz Company located at 1022 12<sup>th</sup> Street, Mason City IA, 50401, which is an entity with which Guarantor has a substantial business relationship". This Guarantee is made by the Guarantor on behalf of Kraft Heinz Company to the Iowa Department of Natural Resources, herein referred to as "IDNR", in an amount not to exceed forty-nine thousand six hundred forty dollars (\$49,640.00) lawful money of the United States.

**WHEREAS**, Section 455B.306 of the Code of Iowa requires financial assurance instruments for all sanitary disposal projects; and

**WHEREAS**, Kraft Heinz Company has applied to the IDNR to operate a sanitary disposal project located within the State of Iowa, and is required pursuant to IAC 567 Chapter 121.8 to maintain financial assurance for closure care in connection therewith; and

**WHEREAS**, IAC 567 Chapter 121.8(4)"e" provides for the "Corporate Guarantee" mechanism to be an acceptable financial assurance instrument, and Guarantor meets or exceeds the financial test criteria and agrees to comply with the requirements of said subrule; and

**WHEREAS**, the Kraft Heinz Company owns or operates the following waste generating facility(ies) covered by this Guarantee: IDNR Solid Waste Land Application Permit Number 17-SDP-06-95P-LAN, The Kraft Heinz Company, 1022 12th Street NW Mason City IA 50401-1802, with a cost closure estimate of \$49,640.00, or portions thereof, for which financial assurance is demonstrated by this Guarantee.

**WHEREAS**, the Guarantor guarantees to IDNR that in the event that Kraft Heinz Company fails to perform site closure of the above site(s) in accordance with the approved plan or other permit requirements, whenever required to do so, the Guarantor shall either perform closure, pay a third party to perform closure, establish a fully funded secured trust fund as specified in IAC 567 Chapter 121.8(4)"a", or establish an alternate financial assurance instrument in the name of Kraft Heinz Company in the amount of the current closure cost estimate, as required by Chapter 121.

**WHEREAS**, the Guarantor agrees to remain bound under this Guarantee for as long as Kraft Heinz Company must comply with the applicable financial assurance requirements of Chapter 121, or until the Guarantor provides written notice, by certified mail, of intent to terminate Guarantee, at least 90 days prior to the date said Guarantee is to be terminated. When such notice is provided, Kraft Heinz Company shall, within 60 days, provide proof of alternate financial assurance to IDNR.

If a means of alternate financial assurance is not provided within the 60 days, IDNR shall suspend the permit and Kraft Heinz Company shall be required to perform proper closure within 30 days of the permit suspension. If Kraft Heinz Company does not properly close the site within the 30 days, this shall constitute a failure to perform and IDNR shall file a claim with the Guarantor to collect the amount of funds necessary to properly close the site(s) covered by this Guarantee.

**WHEREAS**, the Guarantor expressly waives notice of acceptance of this Guarantee by Kraft Heinz Company or by IDNR. Guarantor also expressly waives notice of amendments or modifications of the closure plan and of amendments or modifications of the facility permit(s).

IN WITNESS THEREOF, the Guarantor executes this Corporate Guarantee under their respective hand and seal, this \_\_\_\_\_ day of 1/19/2026, 20\_\_\_\_.

Kraft Heinz Company

**Guarantor**

Signed by:  
*MICHAEL MARTINEZ*  
Signature: \_\_\_\_\_  
EFA9F0EE1897405...

Name: MICHAEL MARTINEZ Title: Plant Manager

Signature: \_\_\_\_\_

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature of Witness or Notary: \_\_\_\_\_



Permit Amendment Application  
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February 2020

## **SECTION D: COST CLOSURE ESTIMATE**

The current cost closure estimate is provided and stamped by a professional engineer licensed by the State of Iowa.

Solid Waste Land Application

Permit 17-SDP-06-95P-LAN

Kraft Heinz Foods Company

December 2025

Supplemental Information

## SECTIONS R & S. SITE CLOSURE

In the event of closure, when Kraft Heinz Foods Company will no longer use the land disposal option, the solid waste will be handled by Future EnviroAssets, LLC. There is no projected date for closure. Following closure, there will be no post closure monitoring or site inspections necessary. Contacts for post closure are the same as in Section C. The current closure estimates are as follows.

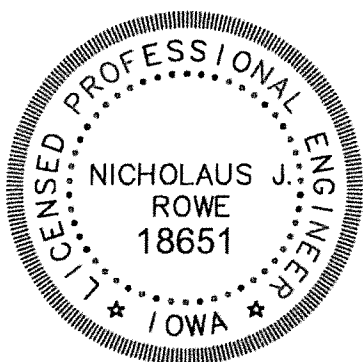
Kraft Heinz Foods Company  
Solid Waste Permit #17-SDP-06-95P-LAN  
Mason City, Iowa  
Facility Closure Cost Estimate 567-121.8

Storage capacity at land application site, 14480 Thrush Avenue, Mason City  
200,000 gallons  
Typically 5%-7% solids

In the event that the site is closed, Future EnviroAssets, LLC would provide 6000 gallon tankers for transport to Amana Farms Anaerobic Digester

Assume 200,000 gallons to be hauled from farm silo and transported  
One 6,000 gallon tanker load transportation fee is \$885 per load  
Anaerobic Digester Tip Fee is \$575 per load  
 $200,000 \text{ gallons} / 6,000 \text{ gallons per load} = 33.33 \text{ loads, or } 34 \text{ loads}$   
 $34 \text{ loads} \times \$885/\text{load} = \$30,090 \text{ for transportation costs}$   
 $34 \text{ loads} \times \$575/\text{load} = \$19,550 \text{ for digester tip fee}$

Closure costs for hauling and treatment of 200,000 gallons is  
 $\$30,090 + \$19,550 = \$49,640 \text{ plus any applicable fuel surcharge}$



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

*Nicholaus J. Rowe*

Date *12/11/25*

Nicholaus J. Rowe, P.E.  
License number 18651

My license renewal date is December 31, 2025

Pages or sheets covered by this seal:

*Sheet 1 of 1*