

May 19, 2023

Via Email

sarah.krueger@wisconsin.gov

Sarah Kreuger
Contaminated Sediment Specialist
Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay WI 54313-6727

Re: Tyco Fire Products LP, Stanton Street Property
NR 718 Location Standards Exemption Request

Dear Ms. Kreuger:

On behalf of Tyco Fire Products LP (Tyco), attached is a written exemption request from the NR 718.05 (2) (a) location standard requirements for the Tyco property located at One Stanton Street, Marinette, Wisconsin (Property). Because of the location of the Property adjacent to the Menomonee River, most areas of the Property do not meet the location criteria in NR 718.05 (2) (a) for the storage of excavated contaminated soil. However, Tyco has constructed and maintains a barrier wall and groundwater collection treatment system on the Property, and will also manage soil in accordance with the Soil Management Plan submitted May 12, 2023. As a result, Tyco is requesting an exemption from the NR 718.05 (2) (a) location standard requirements so that for future onsite work, contaminated soil can be stockpiled and stored on the Property as allowed in NR 718.05 (2) (b).

The enclosed exemption request provides additional justification for exempting future soil management stockpiling and storage activities from the location standards and details on how the proposed soil handling and onsite storage procedures do not pose an unacceptable threat to public health, safety, welfare, or the environment, including worker safety.

The information presented within the enclosed is serving as the written exemption request as required in NR 718.05 (2) (b). Please contact me at 651.280.7259 if you have any question.

Sincerely,



Denice K. Nelson
Senior Director – Remediation & Strategy

Ms. Sarah Kreuger
May 19, 2023

Enc.

Copies to: Ryan Suennen/JCI
Heather Ziegelbauer/Jacobs
Angela Carey/WDNR
Andrew Kleinberg/EPA

NR 718 Location Standards Exemption Request

1.0 Purpose of Request

The property located at One Stanton Street, Marinette, Wisconsin (Property) is an operating manufacturing facility, located on the banks of the Menomonee River. Tyco Fire Products LP (Tyco) operates in compliance with a U.S Environmental Protection Agency (EPA) Administrative Order on Consent (AOC), pursuant to which Tyco constructed, operates and maintains a barrier wall and groundwater collection and treatment system on the Property. Because of the location of the Property adjacent to the Menomonee River, most areas of the Property do not meet the location criteria in NR 718.05 (2) (a) for the storage of excavated contaminated soil. However, because soil and groundwater are contained on the Property pursuant to the AOC, Tyco is requesting an exemption from the NR 718.05 (2) (a) location standard requirements so that for onsite work, contaminated soil can be stockpiled and stored on the Property, as allowed in NR 718.05 (2) (b).

2.0 Contact and Property Information

Information About the Property Where Material is Proposed to be Excavated and Stored

Property Name	Tyco Fire Products LP
Other Property Names	Tyco, Ansul
BRRTS #s	02-38-000011
FID #	438039470
Address	One Stanton Street, Marinette, WI 54143
County	Marinette
Location	NW 1/4 of the SW 1/4 of Sec 05, T30N, R24E
Parcel IDs	251-4273.1, 251-4273.2, 251-4273.5, 251-4273.8, 251-4273.9
WTM Coordinates	-
Latitude/Longitude	45.0978639, -87.6160825
Current Zoning	Industrial
Current Land Use	Manufacturing

Contact Information

Requestor	Denice Nelson, Senior Director, Remediation and Strategy Johnson Controls 5757 North Green Bay Avenue Glendale, WI 53209 denice.karen.nelson@jci.com 651.280.7259
Environmental Consultant	Heather Ziegelbauer, Project Manager Jacobs

	1610 N. 2nd Street, Suite 201 Milwaukee, WI 53202 heather.ziegelbauer@jacobs.com 262.644.6167
WDNR Contact	Sarah Kreuger WDNR 2984 Shawano Avenue Green Bay, WI 54313 sarah.krueger@wisconsin.gov 920.510.8277

3.0 Locational Criteria

Indicate if excavated contaminated soil will be stored in any of the following locations:

- Within a floodplain – Yes, see attached figures
- Within 100 feet of any wetland or critical habitat area – Yes, WDNR mapped wetlands on the eastern edge of the Property as shown in attached figure
- Within 300 feet of any navigable river, stream, lake, pond, or flowage – Yes, Menominee River adjacent to the north edge of the Property, see attached figures
- Within 100 feet of any on-site water supply well or 300 feet of any off-site water supply well – No

Provide the justification for exempting the proposed soil management activity from the indicated criteria as described below.

Explain below why granting an exception to the NR 718.05 (2) (a) location criteria will not cause a threat to public health, safety, welfare and the environment by assessing how all potential exposure and migration pathways of concern (including direct contact exposure, vapor intrusion, groundwater, surface water, sediment and any other relevant pathway) will be addressed by the proposed management. Consider the quantity and characteristics of the waste being managed, the geologic and hydrogeological characteristics of the receiving site, the unavailability of other environmentally suitable alternatives, and whether the activities will comply with other state and federal regulations including other portions of NR 700 to NR 754.

Tyco operates the Property in compliance with the EPA AOC, pursuant to which Tyco constructed, operates and maintains a barrier wall and groundwater collection and treatment system on the Property. Tyco has also prepared a Soil Management Plan that will apply to soil management activities on the Property.

Waste Characteristics and Quantities

Soil excavation activities are anticipated within areas where Resource Conservation and Recovery Act (RCRA) metal (mainly arsenic and low-level mercury), volatile organic compound (VOC), per- and polyfluoroalkyl substances (PFAS), and limited to no semi-volatile organic compound (SVOC) impacted soil will be encountered. Contaminated material would consist primarily of fill materials, native soil, and occasional debris. Fill and underlying native materials are described in the following Section. Subsurface activities will include, but are not limited to, stripping of topsoil, site leveling, constructing building

foundations, utility trenching, and horizontal and vertical drilling to install wells and utilities. Quantities would vary by activity. Soil and groundwater have been characterized through Property knowledge (historical investigations) and laboratory analytical results, and Tyco currently has approved waste profiles for disposal of both soil and groundwater. Recent waste soil sample analytical laboratory reports are included as Attachment A.

Geologic and Hydrogeologic Characteristics

Geology at the Property consists of an upper soil layer consisting of sand/gravel fill. Based on historical documentation, the fill material has been placed on the Property periodically for over 100 years of various operations. Beneath the fill layer is a loose to medium dense alluvial deposits consisting of fine- to coarse-grained sand and gravel. Some of these alluvial deposits consist of an organic-rich, fine-grained peat material. Underlying the alluvial stratigraphy is a layer of dense silty sand to sandy silt that transitions to an even denser sandy silt and clay-compacted glacial till deposit. Below this is dolomitic bedrock at approximately 40 feet below ground surface (bgs).

Groundwater, when encountered at the Property, has typically been present between 3 and 5 feet below ground surface (bgs), but depending on Property conditions can approach 1-foot bgs in some areas. Regional groundwater flow beneath the Property is generally northeast toward the Menominee River. Noted variations in historical groundwater flow (before construction of the barrier wall) were observed in the northwestern portion of the Property: groundwater flow was from the southeast toward the northwest, likely the result of a filled-in slip that is present along the western border of the Property. Other local preferential pathways of migration may be present at the Property. The direction of groundwater flow is affected near the Property because of the presence of the vertical barrier wall (that contains groundwater at the Property), which was completed in fall 2010. Regional groundwater flow outside the Property likely remains generally toward the Menominee River but is diverted around the barrier wall directly south of the Property.

VOCs and total arsenic are monitored as part of the barrier wall groundwater monitoring plan activities per the 2015 Revised Barrier Wall Groundwater Monitoring Plan Update (BWGMPU; CH2M 2015) and June 24, 2019, Addendum to 2015 Revised Barrier Wall Groundwater Monitoring Plan Update (Jacobs 2019). Concentrations were reported at levels exceeding their respective NR 140 PALs and/or NR 140 ESs.

Groundwater on the Property is relatively shallow and is contained by the barrier wall and treated by the groundwater treatment system. Property groundwater levels within the containment barrier walls are also maintained by a groundwater treatment system. As a result, storage of impacted soil/fill will not have any additional impact on groundwater quality at the Property. As required by the Soil Management Plan, if dewatering is required as part of subsurface activities, groundwater will be collected in containers and will be disposed of offsite or treated at the groundwater treatment system.

Information on contaminant concentrations in groundwater and soil can be found in Appendix A to the Soil Management Plan.

Unavailability of Environmentally Suitable Alternatives

The corrective measures conducted at the Property, as required in the AOC included components to address historical impacts at the Property and be protective of human health and the environment. The main component consisted of onsite groundwater management, which includes the containment barrier wall, engineered groundwater collection and treatment system, and a phyto-pumping system. The AOC also requires monitoring to be conducted to evaluate the effectiveness of the groundwater management system to contain arsenic-impacted groundwater within the containment areas. The Property has limited

areas overall, and no areas within the containment barrier walls that meet the location standards. We believe it would be less protective of the environment to move contaminated soil from the Property to offsite areas for stockpiling/storage. The Property is already contained and monitored and has restricted access and 24-hour security; therefore, onsite storage is a practical and environmentally suitable option with the Soil Management Plan in place to provide procedures to properly manage contaminated soil.

Compliance with Other State and Federal Regulations

Soil management will follow other state and federal regulations. Contaminated soil would also be managed in accordance with stormwater requirements and other NR 718 requirements. Plans for proposed subsurface activities will be reviewed by Tyco's Remediation Manager, and the soil will be managed per the Soil Management Plan that includes proper erosion control (to prevent the potential runoff or surface migration of contaminants during subsurface activities) and other measures to be implemented at the Property, designed to be protective of human health and the environment.

Subsurface activities that could impact the effectiveness of the RCRA corrective measures (e.g., cover areas, phyto-plots, monitoring wells, and vertical barrier walls) under the AOC may require approval from EPA and WDNR and impacts to these areas are not addressed by this exemption. The approval of Tyco, EPA and WDNR may be required for proposed work that involves any disturbance or replacement of the existing corrective measures required by the AOC.

Public Health, Safety, or Welfare or the Environment

If this exemption is not granted, excavated soil would have to be transported and stored offsite or outside the containment barrier wall boundary, which we believe elevates potential environmental risk. If this exemption is granted, the soil can be stored near the area from which it was excavated, thus limiting the potential for cross contamination to clean areas and allowing Tyco more control and visibility over the stockpile. The Property already has RCRA AOC corrective measures in place with monitoring requirements. The Property has restricted access and 24-hour security to keep the public away from stored contaminated soil. The proposed soil handling and onsite storage procedures do not pose an unacceptable threat to public health, safety, welfare, or the environment, including worker safety. Potential exposure and migration pathways of concern are addressed below.

Vapor Intrusion

Identified contamination associated with groundwater and soil may consist of VOCs, limited SVOCs, metals, and PFAS. The metals, SVOCs, and PFAS constituents do not pose a threat to human health or safety from vapor migration to underlying soils. VOCs were detected at concentrations exceeding the PAL and ES in groundwater at the Property. Storage and stockpiling of contaminated soils managed in accordance with the Soil Management Plan are not expected to provide a complete pathway for vapor intrusion. Therefore, the vapor exposure pathway is not applicable.

Sediment/Surface Water

Storm water discharge at the Property is regulated by the WPDES Industrial Stormwater General Permit; coverage under the Construction Stormwater General Permit would be obtained if applicable. Appropriate storm water and erosion control measures will be put in place prior to subsurface activities to minimize erosion and storm water runoff. To prevent tracking of soil on and off the Property, access areas will be made clear for loading trucks/containers and trucks/containers and equipment will be cleaned of soil prior to leaving the area. As practicable, the weather forecast shall be used to schedule subsurface activities to minimize the potential for significant storm water accumulation. However, potentially impacted

groundwater and storm water may accumulate in areas requiring removal. Impacted liquids will be collected and disposed offsite or treated at the groundwater treatment system per Section 4.7 of the Soil Management Plan.

Air Quality

Contaminated soil piles will be covered when not actively being managed, limiting volatilization of residual VOCs. Subsurface activities will include best management practices to limit particulate emissions. Contractors will be required to adequately wet soil during dry periods to prevent dust emissions.

Direct Contact Exposure

The direct contact pathway will be protected by constructing a barrier, such as barricade tape or temporary fencing, for storage areas that are accessible to unauthorized workers and visitors. The contractor performing subsurface activities must evaluate potential health and safety hazards for their workers from potential exposure to contaminants in soil, sediment, buried waste, or groundwater while performing these activities and prepare an activity-specific plan to address these hazards. The plan should include the appropriate level of monitoring and personal protective equipment identified by the contractor based on known conditions. However, if actual conditions vary from expected hazards based on field observations, the contractor should stop work. The activity-specific plan should be reevaluated and updated by the contractor when appropriate. Workers that may come into contact with impacted soil should be informed of possible contaminant concentrations that may be encountered and properly trained in the handling of the soil by the contractor. In addition, based on the tasks that workers perform and whether they come in contact with groundwater, the contractor must determine if their staff have the required training.

Groundwater Quality/Water Supply

Groundwater at this Property is impacted from historical activities and has detections above the NR 140 PAL and ES. Groundwater is addressed by the barrier wall and an active groundwater collection and treatment system. Groundwater and liquids encountered in construction activities will be managed as documented within the Soil Management Plan. Surface water controls will be implemented by the contractor to prevent surface runoff that could result in surface water contact with the soil and groundwater, including the construction of berms if necessary. Any water which has been in contact with contaminated soil or groundwater shall be contained and may be replaced in the storage pile or shall be collected and sent offsite for disposal or treated at the groundwater treatment system. There are no water supply wells within 300 feet of the Property, only groundwater monitoring and extraction wells associated with the corrective measures.

4.0 Attachments

- A. Analytical laboratory reports for recent waste characterization activities
- B. Figures
 - a. Property Map
 - b. Site Plan With Wells
 - c. Conceptual Site Model
 - d. FEMA Flood Plain Map
 - e. Marinette County Map with parcels, 100-year flood plain and WDNR mapped wetlands

Attachment A
Waste Characterization Analytical Laboratory
Reports

ANALYTICAL REPORT

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-222178-1
Client Project/Site: 415-001 JCI

For:
Endpoint Solutions Corp
6871 S. Lover's Lane
Franklin, Wisconsin 53132

Attn: Mr. Kirk Kapfhammer



Authorized for release by:
9/19/2022 12:22:24 PM

Sandie Fredrick, Project Manager II
(920)261-1660
Sandra.Fredrick@et.eurofinsus.com

LINKS

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results through



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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Method Summary	5
Sample Summary	6
Client Sample Results	7
Definitions	9
QC Association	10
QC Sample Results	11
Chronicle	12
Certification Summary	13
Chain of Custody	14
Receipt Checklists	16
Field Data Sheets	17

Case Narrative

Client: Endpoint Solutions Corp
Project/Site: 415-001 JCI

Job ID: 500-222178-1

Job ID: 500-222178-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative
500-222178-1

Comments

No additional comments.

Receipt

The samples were received on 9/14/2022 9:35 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.9° C.

Metals

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

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Detection Summary

Client: Endpoint Solutions Corp
Project/Site: 415-001 JCI

Job ID: 500-222178-1

Client Sample ID: Contain

Lab Sample ID: 500-222178-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	580		1.0	0.23	ug/L	1		6020A	Total Recoverable

Client Sample ID: SP

Lab Sample ID: 500-222178-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	71		1.1	0.38	mg/Kg	1	☆	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

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Method Summary

Client: Endpoint Solutions Corp
Project/Site: 415-001 JCI

Job ID: 500-222178-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	EET CHI
6020A	Metals (ICP/MS)	SW846	EET CHI
Moisture	Percent Moisture	EPA	EET CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CHI
3050B	Preparation, Metals	SW846	EET CHI

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Endpoint Solutions Corp
Project/Site: 415-001 JCI

Job ID: 500-222178-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-222178-1	Contain	Water	09/07/22 00:00	09/14/22 09:35
500-222178-2	SP	Solid	09/07/22 00:00	09/14/22 09:35

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Client Sample Results

Client: Endpoint Solutions Corp
Project/Site: 415-001 JCI

Job ID: 500-222178-1

Client Sample ID: Contain
Date Collected: 09/07/22 00:00
Date Received: 09/14/22 09:35

Lab Sample ID: 500-222178-1
Matrix: Water

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	580		1.0	0.23	ug/L		09/15/22 08:33	09/15/22 17:26	1

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Client Sample Results

Client: Endpoint Solutions Corp
Project/Site: 415-001 JCI

Job ID: 500-222178-1

Client Sample ID: SP

Lab Sample ID: 500-222178-2

Date Collected: 09/07/22 00:00

Matrix: Solid

Date Received: 09/14/22 09:35

Percent Solids: 90.0

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	71		1.1	0.38	mg/Kg	✱	09/15/22 14:44	09/16/22 23:22	1

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Definitions/Glossary

Client: Endpoint Solutions Corp
Project/Site: 415-001 JCI

Job ID: 500-222178-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Endpoint Solutions Corp
Project/Site: 415-001 JCI

Job ID: 500-222178-1

Metals

Prep Batch: 674717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-222178-1	Contain	Total Recoverable	Water	3005A	
MB 500-674717/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-674717/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 674840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-222178-2	SP	Total/NA	Solid	3050B	
MB 500-674840/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-674840/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 674891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-222178-1	Contain	Total Recoverable	Water	6020A	674717
MB 500-674717/1-A	Method Blank	Total Recoverable	Water	6020A	674717
LCS 500-674717/2-A	Lab Control Sample	Total Recoverable	Water	6020A	674717

Analysis Batch: 675227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-222178-2	SP	Total/NA	Solid	6010C	674840
MB 500-674840/1-A	Method Blank	Total/NA	Solid	6010C	674840
LCS 500-674840/2-A	Lab Control Sample	Total/NA	Solid	6010C	674840

General Chemistry

Analysis Batch: 674589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-222178-2	SP	Total/NA	Solid	Moisture	

QC Sample Results

Client: Endpoint Solutions Corp
Project/Site: 415-001 JCI

Job ID: 500-222178-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-674840/1-A
Matrix: Solid
Analysis Batch: 675227

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 674840

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.34		1.0	0.34	mg/Kg		09/15/22 14:44	09/16/22 23:15	1

Lab Sample ID: LCS 500-674840/2-A
Matrix: Solid
Analysis Batch: 675227

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 674840

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	10.0	9.30		mg/Kg		93	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-674717/1-A
Matrix: Water
Analysis Batch: 674891

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 674717

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.23		1.0	0.23	ug/L		09/15/22 08:33	09/15/22 17:19	1

Lab Sample ID: LCS 500-674717/2-A
Matrix: Water
Analysis Batch: 674891

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 674717

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	96.9		ug/L		97	80 - 120

Lab Chronicle

Client: Endpoint Solutions Corp
Project/Site: 415-001 JCI

Job ID: 500-222178-1

Client Sample ID: Contain

Lab Sample ID: 500-222178-1

Date Collected: 09/07/22 00:00

Matrix: Water

Date Received: 09/14/22 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			674717	BDE	EET CHI	09/15/22 08:33 - 09/15/22 09:03 ¹
Total Recoverable	Analysis	6020A		1	674891	FXG	EET CHI	09/15/22 17:26

Client Sample ID: SP

Lab Sample ID: 500-222178-2

Date Collected: 09/07/22 00:00

Matrix: Solid

Date Received: 09/14/22 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	674589	LWN	EET CHI	09/14/22 15:03

Client Sample ID: SP

Lab Sample ID: 500-222178-2

Date Collected: 09/07/22 00:00

Matrix: Solid

Date Received: 09/14/22 09:35

Percent Solids: 90.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			674840	LMB	EET CHI	09/15/22 14:44 - 09/15/22 15:14 ¹
Total/NA	Analysis	6010C		1	675227	JJB	EET CHI	09/16/22 23:22

¹ Completion dates and times are reported or not reported per method requirements or individual lab discretion.

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Endpoint Solutions Corp
Project/Site: 415-001 JCI

Job ID: 500-222178-1

Laboratory: Eurofins Chicago

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

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-23

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- 13
- 14
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Eurofins Sacramento

880 Riverside Parkway
West Sacramento CA 95605
Phone 916-373 5600 Fax 916-372 009

Chain of Custody Record

euoifns

Client Information Client Contact: <i>Kirk Kapphammer</i> Company: <i>Endpoint Solutions Corp</i> Address: <i>6871 S Lover's Lane</i> City: <i>Franklin</i> State Zip: <i>WI 53132</i> Phone: <i>414-427 1200</i> Email: <i>kirk@endpointcorporation.com</i> Project Name: <i>PFAS 415-001</i> Site: <i>FJI</i>		Sample ID: <i>KLK</i> Phone: <i>414 897 3238</i> Due Date Requested: <i>ASAP</i> TAT Requested (days): Compliance Project: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No PO #: <i>50016218</i> Purchase Order not required Project #: <i>50016218</i> SOW#:	Method: <i>Fredrick Sande</i> Analyst: <i>Sandra Fredrick</i> Center Tracking No: Lab No: <i>500-104935-44823 1</i> Page: <i>Page 1 of 1</i> Job #: <i>500-222178</i>
Analysis Requested Preservation Codes: A -IC M Hexane B NaOH N None T Acetate P Na2C4s D Nitric Acid Q Na2CO3 E NaI-Su4 R Na2S2O3 F MeOH S H2SO4 G Amulitor T TSP Dodecahyd rate H Asorbir A-d U Acetone I Ice V M AA J Water V pH 4-5 K DTA Y Tzima L ED Z other (specify) Other:		Analysis Requested JPC_IDA_WI PFAS Extended List (36 Analytes) PFC_IDA_WI PFAS, Standard List (36 Analytes) Arsenic	
Sample Identification Sample Date Sample Time Sample Type (C=comp, G=grab) Matrix (W=water, S=solid, O=waste/oil) Preservation Code	Field Filtered Sample (Yes or No) Perform MS/MS (Yes or No) Total Number of Containers	Special Instructions/Note <i>Arsenic pres-HNO3</i>	Special Instructions/Note
1 <i>Contain</i> 9/7 G Solid Water X X			
2 <i>SP</i> 9/7 C Solid X			
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested I II III IV Other (specify)		Special Instructions, QC Requirements	
Empty Kit Relinquished by: <i>[Signature]</i> Date: <i>9/9/22</i> Time:		Method of Disposition:	
Relinquished by: <i>[Signature]</i> Date/Time: <i>9/13/22 17:00</i> Company: <i>Eurofins</i>		Received by: <i>[Signature]</i> Date/Time: <i>9/13/22 0800</i> Company: <i>Eurofins</i>	
Relinquished by: <i>[Signature]</i> Date/Time: <i>9/13/22 17:00</i> Company: <i>Eurofins</i>		Received by: <i>[Signature]</i> Date/Time: <i>9/14/22 0935</i> Company: <i>Eurofins</i>	
Custody Seals Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No:		Cooler Temperature(s) and Other Remarks: <i>22-70.9</i>	

ORIGIN ID-RRLA (262) 202-5955
IAN EVANS
EUROFINS TESTAMERILA
4125 N 124TH ST
SUITE F (REAR)
BROOKFIELD, WI 53005
UNITED STATES US

SHIP DATE- 13SEP22
ACTWGT 28.35 LB
CAD- 0269688/LAFE361E

BILL RECIPIENT

TO **SAMPLE RECEIPT**
EUROFINS
2417 BOND ST.



5770 /FFMC/4324

UNIVERSITY PARK IL 60484

500-222178 Waybl

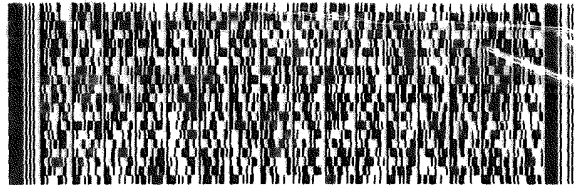
(262) 202-5965

REF

INU:

DEPT

PG:



FedEx
Express



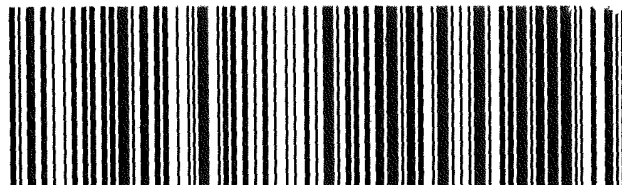
42220220798PT.0X

TRK# 6058 8695 8999
0201

WED - 14 SEP 10:30A
PRIORITY OVERNIGHT

79 JOTA

60484



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Login Sample Receipt Checklist

Client: Endpoint Solutions Corp

Job Number: 500-222178-1

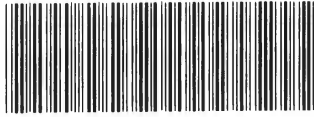
Login Number: 222178

List Number: 1

Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



500-222178 Field Sheet

Tracking #: 1893 4459 7700

SO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier
GSO / OnTrac / Goldstreak / USPS / Other _____

Job: _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations. File in the job folder with the COC.

<p>Therm. ID: <u>L02</u> Corr. Factor: (+/-) <u>-</u> °C</p> <p>Ice <u>1</u> Wet <u>1</u> Gel _____ Other _____</p> <p>Cooler Custody Seal: <u>1994288</u></p> <p>Cooler ID: _____</p> <p>Temp Observed: <u>14.1</u> °C Corrected: <u>1.4</u> °C From: Temp Blank <input type="checkbox"/> Sample <input checked="" type="checkbox"/></p> <table border="0" style="width:100%;"> <tr> <td>Opening/Processing The Shipment</td> <td>Yes</td> <td>No</td> <td>NA</td> </tr> <tr> <td>Cooler compromised/tampered with?</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Cooler Temperature is acceptable?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Frozen samples show signs of thaw?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </table> <p>Initials: <u>D</u> Date: <u>9.15.00</u></p> <table border="0" style="width:100%;"> <tr> <td>Unpacking/Labeling The Samples</td> <td>Yes</td> <td>No</td> <td>NA</td> </tr> <tr> <td>COC is complete w/o discrepancies?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Samples compromised/tampered with?</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Containers are not broken or leaking?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Sample custody seal?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Sample containers have legible labels?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Sample date/times are provided?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Appropriate containers are used?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Sample bottles are completely filled?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Sample preservatives verified?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Is the Field Sampler's name on COC?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Samples require splitting/compositing?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Samples w/o discrepancies?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Zero headspace?*</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Alkalinity has no headspace?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Perchlorate has headspace? 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(Methods 314, 331, 6850)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Multiphasic samples are not present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Notes: <u>Samples have coloration. Job# 500-222178 #1(A,B)</u></p> <p style="text-align: right;"><u>D P.15.00</u></p> <p>Trizma Lot #(s): _____</p> <table border="0" style="width:100%;"> <tr> <td>Login Completion</td> <td>Yes</td> <td>No</td> <td>NA</td> </tr> <tr> <td>Receipt Temperature on COC?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Samples received within hold time?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>NCM Filed?</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Log Release checked in TALS?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </table> <p>Initials: <u>D</u> Date: <u>9.15.00</u></p>	Login Completion	Yes	No	NA	Receipt Temperature on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Samples received within hold time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NCM Filed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Log Release checked in TALS?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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ANALYTICAL REPORT

PREPARED FOR

Attn: Krista Hovestol
Endpoint Solutions Corp
6871 S. Lover's Lane
Franklin, Wisconsin 53132

Generated 4/5/2023 11:01:22 PM

JOB DESCRIPTION

TYCO/JOHNSON CONTROLS

JOB NUMBER

500-231486-1

Eurofins Chicago

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.

Results relate only to the items tested and the sample(s) as received by the laboratory. The results, detection limits (LOD) and Quantitation Limits (LOQ) have been adjusted for sample dilutions and/or solids content.

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 Chicago Project Manager.

Authorization



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4/5/2023 11:01:22 PM

Authorized for release by
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Designee for
Sandie Fredrick, Project Manager II
Sandra.Fredrick@et.eurofinsus.com
(920)261-1660



Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Detection Summary	5
Method Summary	6
Sample Summary	7
Client Sample Results	8
Definitions	10
QC Association	11
QC Sample Results	12
Chronicle	16
Certification Summary	17
Chain of Custody	18
Receipt Checklists	19
Field Data Sheets	20
Isotope Dilution Summary	21

Case Narrative

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231486-1

Job ID: 500-231486-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative
500-231486-1

Receipt

The sample was received on 3/31/2023 9:30 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 was 5.5° C.

LCMS

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

General Chemistry

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

Organic Prep

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

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Detection Summary

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231486-1

Client Sample ID: SP-1

Lab Sample ID: 500-231486-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	0.40		0.23	0.053	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.4		0.23	0.048	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	1.6		0.23	0.036	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.7		0.23	0.044	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	1.6		0.23	0.062	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.39		0.23	0.026	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.18	J	0.23	0.056	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.11	J	0.23	0.049	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.081	J	0.23	0.035	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.035	J	0.23	0.024	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.049	J	0.23	0.043	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.051	J	0.23	0.034	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.50		0.23	0.050	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.15	J	0.23	0.060	ug/Kg	1	✳	537 (modified)	Total/NA
6:2 FTS	0.63		0.23	0.031	ug/Kg	1	✳	537 (modified)	Total/NA
8:2 FTS	2.8		0.23	0.041	ug/Kg	1	✳	537 (modified)	Total/NA
10:2 FTS	1.1		0.23	0.044	ug/Kg	1	✳	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Method Summary

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231486-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	EET SAC
Moisture	Percent Moisture	EPA	EET SAC
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	EET SAC

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

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Sample Summary

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231486-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-231486-1	SP-1	Solid	03/28/23 08:00	03/31/23 09:30

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Client Sample Results

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231486-1

Client Sample ID: SP-1

Lab Sample ID: 500-231486-1

Date Collected: 03/28/23 08:00

Matrix: Solid

Date Received: 03/31/23 09:30

Percent Solids: 83.0

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	0.40		0.23	0.053	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluoropentanoic acid (PFPeA)	3.4		0.23	0.048	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluorohexanoic acid (PFHxA)	1.6		0.23	0.036	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluoroheptanoic acid (PFHpA)	1.7		0.23	0.044	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluorooctanoic acid (PFOA)	1.6		0.23	0.062	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluorononanoic acid (PFNA)	0.39		0.23	0.026	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluorodecanoic acid (PFDA)	0.18	J	0.23	0.056	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluoroundecanoic acid (PFUnA)	0.11	J	0.23	0.049	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluorododecanoic acid (PFDoA)	0.081	J	0.23	0.035	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluorotridecanoic acid (PFTriA)	0.035	J	0.23	0.024	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluorotetradecanoic acid (PFTeA)	0.049	J	0.23	0.043	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.044		0.23	0.044	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.077		0.23	0.077	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluorobutanesulfonic acid (PFBS)	<0.044		0.23	0.044	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluoropentanesulfonic acid (PFPeS)	<0.043		0.23	0.043	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluorohexanesulfonic acid (PFHxS)	0.051	J	0.23	0.034	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.057		0.23	0.057	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluorooctanesulfonic acid (PFOS)	0.50		0.23	0.050	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluorononanesulfonic acid (PFNS)	<0.034		0.23	0.034	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluorodecanesulfonic acid (PFDS)	0.15	J	0.23	0.060	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluorododecanesulfonic acid (PFDoS)	<0.055		0.23	0.055	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
Perfluorooctanesulfonamide (FOSA)	<0.038		0.23	0.038	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
NEtFOSA	<0.055		0.23	0.055	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
NMeFOSA	<0.057		0.23	0.057	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
NMeFOSAA	<0.027		0.23	0.027	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
NEtFOSAA	<0.056		0.23	0.056	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
NMeFOSE	<0.055		0.23	0.055	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
NEtFOSE	<0.033		0.23	0.033	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
4:2 FTS	<0.059		0.23	0.059	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
6:2 FTS	0.63		0.23	0.031	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
8:2 FTS	2.8		0.23	0.041	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
10:2 FTS	1.1		0.23	0.044	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	<0.045		0.23	0.045	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
HFPO-DA (GenX)	<0.048		0.23	0.048	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
F-53B Major	<0.041		0.23	0.041	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1
F-53B Minor	<0.036		0.23	0.036	ug/Kg	✳	04/02/23 19:30	04/05/23 09:56	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	53		25 - 150	04/02/23 19:30	04/05/23 09:56	1
13C5 PFPeA	75		25 - 150	04/02/23 19:30	04/05/23 09:56	1
13C2 PFHxA	72		25 - 150	04/02/23 19:30	04/05/23 09:56	1

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Client Sample Results

Client: Endpoint Solutions Corp
 Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231486-1

Client Sample ID: SP-1

Lab Sample ID: 500-231486-1

Date Collected: 03/28/23 08:00

Matrix: Solid

Date Received: 03/31/23 09:30

Percent Solids: 83.0

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C4 PFHpA	71		25 - 150	04/02/23 19:30	04/05/23 09:56	1
13C4 PFOA	79		25 - 150	04/02/23 19:30	04/05/23 09:56	1
13C5 PFNA	83		25 - 150	04/02/23 19:30	04/05/23 09:56	1
13C2 PFDA	92		25 - 150	04/02/23 19:30	04/05/23 09:56	1
13C2 PFUnA	85		25 - 150	04/02/23 19:30	04/05/23 09:56	1
13C2 PFDoA	95		25 - 150	04/02/23 19:30	04/05/23 09:56	1
13C2 PFTeDA	92		25 - 150	04/02/23 19:30	04/05/23 09:56	1
13C2 PFHxDA	96		25 - 150	04/02/23 19:30	04/05/23 09:56	1
13C3 PFBS	73		25 - 150	04/02/23 19:30	04/05/23 09:56	1
18O2 PFHxS	80		25 - 150	04/02/23 19:30	04/05/23 09:56	1
13C4 PFOS	82		25 - 150	04/02/23 19:30	04/05/23 09:56	1
13C8 FOSA	83		10 - 150	04/02/23 19:30	04/05/23 09:56	1
d3-NMeFOSAA	77		25 - 150	04/02/23 19:30	04/05/23 09:56	1
d5-NEtFOSAA	99		25 - 150	04/02/23 19:30	04/05/23 09:56	1
d-N-MeFOSA-M	87		10 - 150	04/02/23 19:30	04/05/23 09:56	1
d-N-EtFOSA-M	85		10 - 150	04/02/23 19:30	04/05/23 09:56	1
d7-N-MeFOSE-M	81		10 - 150	04/02/23 19:30	04/05/23 09:56	1
d9-N-EtFOSE-M	81		10 - 150	04/02/23 19:30	04/05/23 09:56	1
M2-4:2 FTS	59		25 - 150	04/02/23 19:30	04/05/23 09:56	1
M2-6:2 FTS	73		25 - 150	04/02/23 19:30	04/05/23 09:56	1
M2-8:2 FTS	92		25 - 150	04/02/23 19:30	04/05/23 09:56	1
13C3 HFPO-DA	78		25 - 150	04/02/23 19:30	04/05/23 09:56	1
13C2 10:2 FTS	128		25 - 150	04/02/23 19:30	04/05/23 09:56	1

Definitions/Glossary

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231486-1

Qualifiers

LCMS

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231486-1

LCMS

Prep Batch: 665308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-231486-1	SP-1	Total/NA	Solid	SHAKE	
MB 320-665308/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 320-665308/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 665600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-231486-1	SP-1	Total/NA	Solid	537 (modified)	665308
MB 320-665308/1-A	Method Blank	Total/NA	Solid	537 (modified)	665308
LCS 320-665308/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	665308

General Chemistry

Analysis Batch: 664789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-231486-1	SP-1	Total/NA	Solid	Moisture	

QC Sample Results

Client: Endpoint Solutions Corp
 Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231486-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-665308/1-A

Matrix: Solid

Analysis Batch: 665600

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 665308

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	<0.046		0.20	0.046	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluoropentanoic acid (PFPeA)	<0.041		0.20	0.041	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorohexanoic acid (PFHxA)	<0.031		0.20	0.031	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluoroheptanoic acid (PFHpA)	<0.038		0.20	0.038	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorooctanoic acid (PFOA)	<0.053		0.20	0.053	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorononanoic acid (PFNA)	<0.022		0.20	0.022	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorodecanoic acid (PFDA)	<0.048		0.20	0.048	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluoroundecanoic acid (PFUnA)	<0.042		0.20	0.042	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorododecanoic acid (PFDoA)	<0.030		0.20	0.030	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorotridecanoic acid (PFTriA)	<0.021		0.20	0.021	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorotetradecanoic acid (PFTeA)	<0.037		0.20	0.037	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.038		0.20	0.038	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.066		0.20	0.066	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorobutanesulfonic acid (PFBS)	<0.038		0.20	0.038	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluoropentanesulfonic acid (PFPeS)	<0.037		0.20	0.037	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorohexanesulfonic acid (PFHxS)	<0.029		0.20	0.029	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.049		0.20	0.049	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorooctanesulfonic acid (PFOS)	<0.043		0.20	0.043	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorononanesulfonic acid (PFNS)	<0.029		0.20	0.029	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorodecanesulfonic acid (PFDS)	<0.052		0.20	0.052	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorododecanesulfonic acid (PFDoS)	<0.047		0.20	0.047	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorooctanesulfonamide (FOSA)	<0.033		0.20	0.033	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
NEtFOSA	<0.047		0.20	0.047	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
NMeFOSA	<0.049		0.20	0.049	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
NMeFOSAA	<0.023		0.20	0.023	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
NEtFOSAA	<0.048		0.20	0.048	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
NMeFOSE	<0.047		0.20	0.047	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
NEtFOSE	<0.028		0.20	0.028	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
4:2 FTS	<0.051		0.20	0.051	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
6:2 FTS	<0.027		0.20	0.027	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
8:2 FTS	<0.035		0.20	0.035	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
10:2 FTS	<0.038		0.20	0.038	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.039		0.20	0.039	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
HFPO-DA (GenX)	<0.041		0.20	0.041	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
F-53B Major	<0.035		0.20	0.035	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
F-53B Minor	<0.031		0.20	0.031	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Isotope Dilution	MB	MB	Limits	Prepared	Analyzed	Dil Fac			
	%Recovery	Qualifier							
13C4 PFBA	58		25 - 150	04/02/23 19:30	04/05/23 09:36	1			
13C5 PFPeA	91		25 - 150	04/02/23 19:30	04/05/23 09:36	1			
13C2 PFHxA	83		25 - 150	04/02/23 19:30	04/05/23 09:36	1			
13C4 PFHpA	92		25 - 150	04/02/23 19:30	04/05/23 09:36	1			
13C4 PFOA	80		25 - 150	04/02/23 19:30	04/05/23 09:36	1			
13C5 PFNA	92		25 - 150	04/02/23 19:30	04/05/23 09:36	1			

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QC Sample Results

Client: Endpoint Solutions Corp
 Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231486-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-665308/1-A
Matrix: Solid
Analysis Batch: 665600

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 665308

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C2 PFDA	89		25 - 150	04/02/23 19:30	04/05/23 09:36	1
13C2 PFUnA	90		25 - 150	04/02/23 19:30	04/05/23 09:36	1
13C2 PFDoA	91		25 - 150	04/02/23 19:30	04/05/23 09:36	1
13C2 PFTeDA	91		25 - 150	04/02/23 19:30	04/05/23 09:36	1
13C2 PFHxDA	88		25 - 150	04/02/23 19:30	04/05/23 09:36	1
13C3 PFBS	87		25 - 150	04/02/23 19:30	04/05/23 09:36	1
18O2 PFHxS	86		25 - 150	04/02/23 19:30	04/05/23 09:36	1
13C4 PFOS	91		25 - 150	04/02/23 19:30	04/05/23 09:36	1
13C8 FOSA	90		10 - 150	04/02/23 19:30	04/05/23 09:36	1
d3-NMeFOSAA	79		25 - 150	04/02/23 19:30	04/05/23 09:36	1
d5-NEtFOSAA	92		25 - 150	04/02/23 19:30	04/05/23 09:36	1
d-N-MeFOSA-M	92		10 - 150	04/02/23 19:30	04/05/23 09:36	1
d-N-EtFOSA-M	91		10 - 150	04/02/23 19:30	04/05/23 09:36	1
d7-N-MeFOSE-M	88		10 - 150	04/02/23 19:30	04/05/23 09:36	1
d9-N-EtFOSE-M	87		10 - 150	04/02/23 19:30	04/05/23 09:36	1
M2-4:2 FTS	70		25 - 150	04/02/23 19:30	04/05/23 09:36	1
M2-6:2 FTS	71		25 - 150	04/02/23 19:30	04/05/23 09:36	1
M2-8:2 FTS	82		25 - 150	04/02/23 19:30	04/05/23 09:36	1
13C3 HFPO-DA	86		25 - 150	04/02/23 19:30	04/05/23 09:36	1
13C2 10:2 FTS	94		25 - 150	04/02/23 19:30	04/05/23 09:36	1

Lab Sample ID: LCS 320-665308/2-A
Matrix: Solid
Analysis Batch: 665600

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 665308

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	Limits
Perfluoropentanoic acid (PFPeA)	2.00	2.12		ug/Kg		106	60 - 135	
Perfluorohexanoic acid (PFHxA)	2.00	1.84		ug/Kg		92	60 - 135	
Perfluoroheptanoic acid (PFHpA)	2.00	2.08		ug/Kg		104	60 - 135	
Perfluorooctanoic acid (PFOA)	2.00	2.11		ug/Kg		105	60 - 135	
Perfluorononanoic acid (PFNA)	2.00	2.09		ug/Kg		104	60 - 135	
Perfluorodecanoic acid (PFDA)	2.00	2.25		ug/Kg		112	60 - 135	
Perfluoroundecanoic acid (PFUnA)	2.00	2.20		ug/Kg		110	60 - 135	
Perfluorododecanoic acid (PFDoA)	2.00	2.14		ug/Kg		107	60 - 135	
Perfluorotridecanoic acid (PFTriA)	2.00	2.22		ug/Kg		111	60 - 135	
Perfluorotetradecanoic acid (PFTeA)	2.00	2.05		ug/Kg		102	60 - 135	
Perfluoro-n-hexadecanoic acid (PFHxDA)	2.00	2.24		ug/Kg		112	60 - 135	
Perfluoro-n-octadecanoic acid (PFODA)	2.00	2.00		ug/Kg		100	60 - 135	
Perfluorobutanesulfonic acid (PFBS)	1.78	1.99		ug/Kg		112	60 - 135	
Perfluoropentanesulfonic acid (PFPeS)	1.88	2.08		ug/Kg		111	60 - 135	
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.81		ug/Kg		99	60 - 135	

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QC Sample Results

Client: Endpoint Solutions Corp
 Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231486-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-665308/2-A
Matrix: Solid
Analysis Batch: 665600

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 665308

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanesulfonic acid (PFHpS)	1.91	2.26		ug/Kg		118	60 - 135
Perfluorooctanesulfonic acid (PFOS)	1.86	1.84		ug/Kg		99	60 - 135
Perfluorononanesulfonic acid (PFNS)	1.92	2.26		ug/Kg		118	60 - 135
Perfluorodecanesulfonic acid (PFDS)	1.93	2.18		ug/Kg		113	60 - 135
Perfluorododecanesulfonic acid (PFDoS)	1.94	2.27		ug/Kg		117	60 - 135
Perfluorooctanesulfonamide (FOSA)	2.00	1.96		ug/Kg		98	60 - 135
NEtFOSA	2.00	2.13		ug/Kg		106	60 - 135
NMeFOSA	2.00	2.04		ug/Kg		102	60 - 135
NMeFOSAA	2.00	1.93		ug/Kg		96	60 - 135
NEtFOSAA	2.00	2.14		ug/Kg		107	60 - 135
NMeFOSE	2.00	2.06		ug/Kg		103	60 - 135
NEtFOSE	2.00	2.06		ug/Kg		103	60 - 135
4:2 FTS	1.88	1.83		ug/Kg		98	60 - 135
6:2 FTS	1.90	1.70		ug/Kg		89	60 - 135
8:2 FTS	1.92	1.94		ug/Kg		101	60 - 135
10:2 FTS	1.93	1.85		ug/Kg		96	60 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.89	2.09		ug/Kg		111	60 - 135
HFPO-DA (GenX)	2.00	2.09		ug/Kg		105	60 - 135
F-53B Major	1.87	1.94		ug/Kg		104	60 - 135
F-53B Minor	1.89	1.93		ug/Kg		102	60 - 135

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	63		25 - 150
13C5 PFPeA	82		25 - 150
13C2 PFHxA	85		25 - 150
13C4 PFHpA	95		25 - 150
13C4 PFOA	89		25 - 150
13C5 PFNA	90		25 - 150
13C2 PFDA	85		25 - 150
13C2 PFUnA	94		25 - 150
13C2 PFDoA	94		25 - 150
13C2 PFTeDA	98		25 - 150
13C2 PFHxDA	89		25 - 150
13C3 PFBS	84		25 - 150
18O2 PFHxS	88		25 - 150
13C4 PFOS	87		25 - 150
13C8 FOSA	89		10 - 150
d3-NMeFOSAA	83		25 - 150
d5-NEtFOSAA	84		25 - 150
d-N-MeFOSA-M	91		10 - 150
d-N-EtFOSA-M	89		10 - 150
d7-N-MeFOSE-M	86		10 - 150
d9-N-EtFOSE-M	87		10 - 150

QC Sample Results

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231486-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-665308/2-A

Matrix: Solid

Analysis Batch: 665600

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 665308

<i>Isotope Dilution</i>	<i>LCS LCS</i>		<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
<i>M2-4:2 FTS</i>	63		25 - 150
<i>M2-6:2 FTS</i>	91		25 - 150
<i>M2-8:2 FTS</i>	85		25 - 150
<i>13C3 HFPO-DA</i>	83		25 - 150
<i>13C2 10:2 FTS</i>	99		25 - 150

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Lab Chronicle

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231486-1

Client Sample ID: SP-1

Date Collected: 03/28/23 08:00

Date Received: 03/31/23 09:30

Lab Sample ID: 500-231486-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	664789	TCS	EET SAC	03/31/23 12:33

Client Sample ID: SP-1

Date Collected: 03/28/23 08:00

Date Received: 03/31/23 09:30

Lab Sample ID: 500-231486-1

Matrix: Solid

Percent Solids: 83.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			665308	FX	EET SAC	04/02/23 19:30
Total/NA	Analysis	537 (modified)		1	665600	AEC	EET SAC	04/05/23 09:56

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231486-1

Laboratory: Eurofins Sacramento

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

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	998204680	08-31-23

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- 11
- 12
- 13
- 14
- 15
- 16


Chain of Custody Record 589321

Environment Testing
TestAmerica

TAL-8210

Address:

Regulatory Program: DW NPDES RCRA Other

Company Name: <u>Endpoint Solutions Corp.</u> Address: <u>6871 S. Lovers Lane</u> City/State/Zip: <u>Franklin, WI</u> Phone: <u>414-858-2265</u> Fax: _____ Project Name: <u>Tyco/Johnson Controls</u> Site: <u>Marquette, WI</u> PO #: _____		Client Contact Tell/Email: _____ Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input checked="" type="checkbox"/> 2 days <input type="checkbox"/> 1 day Sample Date: <u>3/28 0800</u> Sample Time: <u>C</u> Sample Type (C=Comp, G=Grab): <u>C</u> Matrix: <u>Soil</u> # of Cont: <u>1</u>		Date: _____ Carrier: _____ Lab Contact: _____ Lab Contact: <u>PFAS S33M</u> Perform MS/MSD (Y/N): _____ Filtered Sample (Y/N): _____ Tolerances: _____ Job / SDG No.: _____ Sample Specific Notes: _____		COC No. _____ of _____ COCs Sampler: _____ For Lab Use Only: Walk-In Client: _____ Lab Sampling: _____ Job / SDG No.: _____ Sample Specific Notes: _____	
Sample Identification <u>SP-1</u>		Barcode:  500-231486 Chain of Custody		Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other Possible Hazard Identification: _____ Are any samples from a listed EPA Hazardous Waste? <input type="checkbox"/> Yes <input type="checkbox"/> No Comments Section if the lab is to dispose of the sample: _____ <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Son Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months	
Special Instructions/QC Requirements & Comments: <u>ASAP turn</u>		Custody Seal No: <u>2119460</u> Company: <u>Endpoint</u> Date/Time: <u>3/30/23</u>		Cooler Temp (°C) Obs'd: _____ Received by: <u>[Signature]</u> Date/Time: <u>3-30-23 1200</u> Company: <u>Eurofins</u>		Therm ID No.: <u>603</u> Date/Time: _____ Date/Time: _____ Date/Time: _____ Company: <u>Eurofins</u> Company: <u>Eurofins</u> Company: _____	
Relinquished by: <u>[Signature]</u> Date/Time: _____		Relinquished by: <u>[Signature]</u> Date/Time: <u>3-30-23 1700</u> Company: <u>Eurofins</u>		Relinquished by: _____ Date/Time: _____		Relinquished by: _____ Date/Time: _____	



Login Sample Receipt Checklist

Client: Endpoint Solutions Corp

Job Number: 500-231486-1

Login Number: 231486

List Number: 2

Creator: Oropeza, Salvador

List Source: Eurofins Sacramento

List Creation: 03/31/23 10:01 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	2119460
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	5.5C
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?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



500-231486 Field Sheet

Job: _____

Tracking #: 6374 2128 3903

SO PO FO SAT 2-Day Ground UPS CDO Courier
GSO OnTrac Goldstreak USPS Other _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Therm. ID: LO3 Corr. Factor: (+/-) N/A °C

Ice Wet Gel _____ Other _____

Cooler Custody Seal: 2119460

Cooler ID: _____

Temp Observed: 5.5 °C Corrected: 5.5 °C

From: Temp Blank Sample

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cooler Temperature is acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frozen samples show signs of thaw?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initials: SJ Date: 3-31-23

Unpacking/Labeling The Samples	Yes	No	NA
COC is complete w/o discrepancies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples compromised/tampered with?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Containers are not broken or leaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample custody seal?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sample containers have legible labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample date/times are provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate containers are used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample bottles are completely filled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample preservatives verified?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the Field Sampler's name on COC?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Samples require splitting/compositing?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Samples w/o discrepancies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Zero headspace?*	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Alkalinity has no headspace?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Perchlorate has headspace? (Methods 314, 331, 6850)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Multiphasic samples are not present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Initials: SJ Date: 3-31-23

Notes: _____

Trizma Lot #(s): _____

Login Completion	Yes	No	NA
Receipt Temperature on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within hold time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NCM Filed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Log Release checked in TALS?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initials: SJ Date: 3-31-23



Isotope Dilution Summary

Client: Endpoint Solutions Corp
 Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231486-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
500-231486-1	SP-1	53	75	72	71	79	83	92	85
LCS 320-665308/2-A	Lab Control Sample	63	82	85	95	89	90	85	94
MB 320-665308/1-A	Method Blank	58	91	83	92	80	92	89	90

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFDoA (25-150)	PFTDA (25-150)	PFHxDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (10-150)	d3NMFOS (25-150)
500-231486-1	SP-1	95	92	96	73	80	82	83	77
LCS 320-665308/2-A	Lab Control Sample	94	98	89	84	88	87	89	83
MB 320-665308/1-A	Method Blank	91	91	88	87	86	91	90	79

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	d5NEFOS (25-150)	dMeFOSA (10-150)	dEtFOSA (10-150)	NMFM (10-150)	NEFM (10-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)
500-231486-1	SP-1	99	87	85	81	81	59	73	92
LCS 320-665308/2-A	Lab Control Sample	84	91	89	86	87	63	91	85
MB 320-665308/1-A	Method Blank	92	92	91	88	87	70	71	82

		Percent Isotope Dilution Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	HFPODA (25-150)	M102FTS (25-150)
500-231486-1	SP-1	78	128
LCS 320-665308/2-A	Lab Control Sample	83	99
MB 320-665308/1-A	Method Blank	86	94

Surrogate Legend

- PFBA = 13C4 PFBA
- PFPeA = 13C5 PFPeA
- PFHxA = 13C2 PFHxA
- C4PFHA = 13C4 PFHpA
- PFOA = 13C4 PFOA
- PFNA = 13C5 PFNA
- PFDA = 13C2 PFDA
- PFUnA = 13C2 PFUnA
- PFDoA = 13C2 PFDoA
- PFTDA = 13C2 PFTeDA
- PFHxDA = 13C2 PFHxDA
- C3PFBS = 13C3 PFBS
- PFHxS = 18O2 PFHxS
- PFOS = 13C4 PFOS
- PFOSA = 13C8 FOSA
- d3NMFOS = d3-NMeFOSAA
- d5NEFOS = d5-NEtFOSAA
- dMeFOSA = d-N-MeFOSA-M
- dEtFOSA = d-N-EtFOSA-M
- NMFM = d7-N-MeFOSE-M
- NEFM = d9-N-EtFOSE-M
- M242FTS = M2-4:2 FTS
- M262FTS = M2-6:2 FTS
- M282FTS = M2-8:2 FTS
- HFPODA = 13C3 HFPO-DA
- M102FTS = 13C2 10:2 FTS



ANALYTICAL REPORT

PREPARED FOR

Attn: Krista Hovestol
Endpoint Solutions Corp
6871 S. Lover's Lane
Franklin, Wisconsin 53132

Generated 4/5/2023 10:54:14 PM

JOB DESCRIPTION

TYCO/JOHNSON CONTROLS

JOB NUMBER

500-231487-1

Eurofins Chicago

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.

Results relate only to the items tested and the sample(s) as received by the laboratory. The results, detection limits (LOD) and Quantitation Limits (LOQ) have been adjusted for sample dilutions and/or solids content.

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 Chicago Project Manager.

Authorization



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Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Detection Summary	5
Method Summary	6
Sample Summary	7
Client Sample Results	8
Definitions	11
QC Association	12
QC Sample Results	13
Chronicle	24
Certification Summary	25
Chain of Custody	26
Receipt Checklists	27
Field Data Sheets	28
Isotope Dilution Summary	29

Case Narrative

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Job ID: 500-231487-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative 500-231487-1

Receipt

The sample was received on 3/31/2023 9:30 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 was 5.5° C.

LCMS

Method 537 (modified): Results for samples SP-2 (500-231487-1), (500-231487-A-1-B MS) and (500-231487-A-1-C MSD) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits.

Method 537 (modified): The concentration of one or more analytes associated with the following samples exceeded the instrument calibration range: SP-2 (500-231487-1), (500-231487-A-1-B MS) and (500-231487-A-1-C MSD). These analytes have been qualified; however, the peaks did not saturate the instrument detector. The samples were analyzed at a dilution and both sets of data are reported.

Method 537 (modified): The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 320-665308 and analytical batch 320-665600 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 537 (modified): The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with preparation batch 320-665308 and analytical batch 320-665600 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of 6:2 FTS in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

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

General Chemistry

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

Organic Prep

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

Detection Summary

Client: Endpoint Solutions Corp
 Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Client Sample ID: SP-2

Lab Sample ID: 500-231487-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoropentanoic acid (PFPeA)	0.099	J	0.22	0.045	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	0.48		0.22	0.034	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.17	J	0.22	0.041	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	0.29		0.22	0.058	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.087	J	0.22	0.024	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	0.21	J	0.22	0.052	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	0.22		0.22	0.046	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	0.39		0.22	0.033	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.13	J	0.22	0.023	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.13	J	0.22	0.040	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	0.50		0.22	0.047	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	0.12	J	0.22	0.057	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	0.26		0.22	0.036	ug/Kg	1	✳	537 (modified)	Total/NA
NMeFOSAA	3.9		0.22	0.025	ug/Kg	1	✳	537 (modified)	Total/NA
NEtFOSAA	0.093	J	0.22	0.052	ug/Kg	1	✳	537 (modified)	Total/NA
NMeFOSE	1.3		0.22	0.051	ug/Kg	1	✳	537 (modified)	Total/NA
6:2 FTS	16		0.22	0.029	ug/Kg	1	✳	537 (modified)	Total/NA
8:2 FTS	21	E	0.22	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
10:2 FTS	8.6		0.22	0.041	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA) - DL	0.54	J	1.1	0.17	ug/Kg	5	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA) - DL	0.29	J	1.1	0.29	ug/Kg	5	✳	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA) - DL	0.34	J	1.1	0.16	ug/Kg	5	✳	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA) - DL	0.13	J	1.1	0.11	ug/Kg	5	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - DL	0.59	J	1.1	0.23	ug/Kg	5	✳	537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA) - DL	0.28	J	1.1	0.18	ug/Kg	5	✳	537 (modified)	Total/NA
NMeFOSAA - DL	4.1	F1	1.1	0.12	ug/Kg	5	✳	537 (modified)	Total/NA
NMeFOSE - DL	1.1		1.1	0.26	ug/Kg	5	✳	537 (modified)	Total/NA
6:2 FTS - DL	20		1.1	0.15	ug/Kg	5	✳	537 (modified)	Total/NA
8:2 FTS - DL	24		1.1	0.19	ug/Kg	5	✳	537 (modified)	Total/NA
10:2 FTS - DL	10		1.1	0.21	ug/Kg	5	✳	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Method Summary

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	EET SAC
Moisture	Percent Moisture	EPA	EET SAC
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	EET SAC

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



Sample Summary

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-231487-1	SP-2	Solid	03/28/23 08:00	03/31/23 09:30

- 1
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Client Sample Results

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Client Sample ID: SP-2

Lab Sample ID: 500-231487-1

Date Collected: 03/28/23 08:00

Matrix: Solid

Date Received: 03/31/23 09:30

Percent Solids: 88.8

Method: EPA 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<0.050		0.22	0.050	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluoropentanoic acid (PFPeA)	0.099	J	0.22	0.045	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluorohexanoic acid (PFHxA)	0.48		0.22	0.034	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluoroheptanoic acid (PFHpA)	0.17	J	0.22	0.041	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluorooctanoic acid (PFOA)	0.29		0.22	0.058	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluorononanoic acid (PFNA)	0.087	J	0.22	0.024	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluorodecanoic acid (PFDA)	0.21	J	0.22	0.052	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluoroundecanoic acid (PFUnA)	0.22		0.22	0.046	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluorododecanoic acid (PFDoA)	0.39		0.22	0.033	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluorotridecanoic acid (PFTriA)	0.13	J	0.22	0.023	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluorotetradecanoic acid (PFTeA)	0.13	J	0.22	0.040	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.041		0.22	0.041	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.072	F1	0.22	0.072	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluorobutanesulfonic acid (PFBS)	<0.041		0.22	0.041	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluoropentanesulfonic acid (PFPeS)	<0.040		0.22	0.040	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluorohexanesulfonic acid (PFHxS)	<0.032		0.22	0.032	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.053		0.22	0.053	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluorooctanesulfonic acid (PFOS)	0.50		0.22	0.047	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluorononanesulfonic acid (PFNS)	<0.032		0.22	0.032	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluorodecanesulfonic acid (PFDS)	0.12	J	0.22	0.057	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluorododecanesulfonic acid (PFDoS)	<0.051		0.22	0.051	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Perfluorooctanesulfonamide (FOSA)	0.26		0.22	0.036	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
NEtFOSA	<0.051		0.22	0.051	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
NMeFOSA	<0.053		0.22	0.053	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
NMeFOSAA	3.9		0.22	0.025	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
NEtFOSAA	0.093	J	0.22	0.052	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
NMeFOSE	1.3		0.22	0.051	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
NEtFOSE	<0.030		0.22	0.030	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
4:2 FTS	<0.055		0.22	0.055	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
6:2 FTS	16		0.22	0.029	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
8:2 FTS	21	E	0.22	0.038	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
10:2 FTS	8.6		0.22	0.041	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.042		0.22	0.042	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
HFPO-DA (GenX)	<0.045		0.22	0.045	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
F-53B Major	<0.038		0.22	0.038	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
F-53B Minor	<0.034		0.22	0.034	ug/Kg	✳	04/02/23 19:30	04/05/23 10:06	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	40		25 - 150				04/02/23 19:30	04/05/23 10:06	1
13C5 PFPeA	84		25 - 150				04/02/23 19:30	04/05/23 10:06	1
13C2 PFHxA	79		25 - 150				04/02/23 19:30	04/05/23 10:06	1

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Client Sample Results

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Client Sample ID: SP-2

Lab Sample ID: 500-231487-1

Date Collected: 03/28/23 08:00

Matrix: Solid

Date Received: 03/31/23 09:30

Percent Solids: 88.8

Method: EPA 537 (modified) - Fluorinated Alkyl Substances (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFHpA	87		25 - 150	04/02/23 19:30	04/05/23 10:06	1
13C4 PFOA	79		25 - 150	04/02/23 19:30	04/05/23 10:06	1
13C5 PFNA	87		25 - 150	04/02/23 19:30	04/05/23 10:06	1
13C2 PFDA	85		25 - 150	04/02/23 19:30	04/05/23 10:06	1
13C2 PFUnA	91		25 - 150	04/02/23 19:30	04/05/23 10:06	1
13C2 PFDoA	98		25 - 150	04/02/23 19:30	04/05/23 10:06	1
13C2 PFTeDA	94		25 - 150	04/02/23 19:30	04/05/23 10:06	1
13C2 PFHxDA	93		25 - 150	04/02/23 19:30	04/05/23 10:06	1
13C3 PFBS	77		25 - 150	04/02/23 19:30	04/05/23 10:06	1
18O2 PFHxS	85		25 - 150	04/02/23 19:30	04/05/23 10:06	1
13C4 PFOS	83		25 - 150	04/02/23 19:30	04/05/23 10:06	1
13C8 FOSA	87		10 - 150	04/02/23 19:30	04/05/23 10:06	1
d3-NMeFOSAA	81		25 - 150	04/02/23 19:30	04/05/23 10:06	1
d5-NEtFOSAA	84		25 - 150	04/02/23 19:30	04/05/23 10:06	1
d-N-MeFOSA-M	85		10 - 150	04/02/23 19:30	04/05/23 10:06	1
d-N-EtFOSA-M	87		10 - 150	04/02/23 19:30	04/05/23 10:06	1
d7-N-MeFOSE-M	83		10 - 150	04/02/23 19:30	04/05/23 10:06	1
d9-N-EtFOSE-M	82		10 - 150	04/02/23 19:30	04/05/23 10:06	1
M2-4:2 FTS	69		25 - 150	04/02/23 19:30	04/05/23 10:06	1
M2-6:2 FTS	88		25 - 150	04/02/23 19:30	04/05/23 10:06	1
M2-8:2 FTS	90		25 - 150	04/02/23 19:30	04/05/23 10:06	1
13C3 HFPO-DA	84		25 - 150	04/02/23 19:30	04/05/23 10:06	1
13C2 10:2 FTS	127		25 - 150	04/02/23 19:30	04/05/23 10:06	1

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	<0.25		1.1	0.25	ug/Kg	✱	04/02/23 19:30	04/05/23 10:37	5
Perfluoropentanoic acid (PFPeA)	<0.22		1.1	0.22	ug/Kg	✱	04/02/23 19:30	04/05/23 10:37	5
Perfluorohexanoic acid (PFHxA)	0.54	J	1.1	0.17	ug/Kg	✱	04/02/23 19:30	04/05/23 10:37	5
Perfluoroheptanoic acid (PFHpA)	<0.21		1.1	0.21	ug/Kg	✱	04/02/23 19:30	04/05/23 10:37	5
Perfluorooctanoic acid (PFOA)	0.29	J	1.1	0.29	ug/Kg	✱	04/02/23 19:30	04/05/23 10:37	5
Perfluorononanoic acid (PFNA)	<0.12		1.1	0.12	ug/Kg	✱	04/02/23 19:30	04/05/23 10:37	5
Perfluorodecanoic acid (PFDA)	<0.26		1.1	0.26	ug/Kg	✱	04/02/23 19:30	04/05/23 10:37	5
Perfluoroundecanoic acid (PFUnA)	<0.23		1.1	0.23	ug/Kg	✱	04/02/23 19:30	04/05/23 10:37	5
Perfluorododecanoic acid (PFDoA)	0.34	J	1.1	0.16	ug/Kg	✱	04/02/23 19:30	04/05/23 10:37	5
Perfluorotridecanoic acid (PFTriA)	0.13	J	1.1	0.11	ug/Kg	✱	04/02/23 19:30	04/05/23 10:37	5
Perfluorotetradecanoic acid (PFTeA)	<0.20		1.1	0.20	ug/Kg	✱	04/02/23 19:30	04/05/23 10:37	5
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.21		1.1	0.21	ug/Kg	✱	04/02/23 19:30	04/05/23 10:37	5
Perfluoro-n-octadecanoic acid (PFODA)	<0.36	F1	1.1	0.36	ug/Kg	✱	04/02/23 19:30	04/05/23 10:37	5
Perfluorobutanesulfonic acid (PFBS)	<0.21		1.1	0.21	ug/Kg	✱	04/02/23 19:30	04/05/23 10:37	5
Perfluoropentanesulfonic acid (PFPeS)	<0.20		1.1	0.20	ug/Kg	✱	04/02/23 19:30	04/05/23 10:37	5
Perfluorohexanesulfonic acid (PFHxS)	<0.16		1.1	0.16	ug/Kg	✱	04/02/23 19:30	04/05/23 10:37	5
Perfluoroheptanesulfonic acid (PFHpS)	<0.27		1.1	0.27	ug/Kg	✱	04/02/23 19:30	04/05/23 10:37	5
Perfluorooctanesulfonic acid (PFOS)	0.59	J	1.1	0.23	ug/Kg	✱	04/02/23 19:30	04/05/23 10:37	5
Perfluoronanesulfonic acid (PFNS)	<0.16		1.1	0.16	ug/Kg	✱	04/02/23 19:30	04/05/23 10:37	5

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Client Sample Results

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Client Sample ID: SP-2

Lab Sample ID: 500-231487-1

Date Collected: 03/28/23 08:00

Matrix: Solid

Date Received: 03/31/23 09:30

Percent Solids: 88.8

Method: EPA 537 (modified) - Fluorinated Alkyl Substances - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid (PFDS)	<0.28		1.1	0.28	ug/Kg	☼	04/02/23 19:30	04/05/23 10:37	5
Perfluorododecanesulfonic acid (PFDoS)	<0.26		1.1	0.26	ug/Kg	☼	04/02/23 19:30	04/05/23 10:37	5
Perfluorooctanesulfonamide (FOSA)	0.28	J	1.1	0.18	ug/Kg	☼	04/02/23 19:30	04/05/23 10:37	5
NEtFOSA	<0.26		1.1	0.26	ug/Kg	☼	04/02/23 19:30	04/05/23 10:37	5
NMeFOSA	<0.27		1.1	0.27	ug/Kg	☼	04/02/23 19:30	04/05/23 10:37	5
NMeFOSAA	4.1	F1	1.1	0.12	ug/Kg	☼	04/02/23 19:30	04/05/23 10:37	5
NEtFOSAA	<0.26		1.1	0.26	ug/Kg	☼	04/02/23 19:30	04/05/23 10:37	5
NMeFOSE	1.1		1.1	0.26	ug/Kg	☼	04/02/23 19:30	04/05/23 10:37	5
NEtFOSE	<0.15		1.1	0.15	ug/Kg	☼	04/02/23 19:30	04/05/23 10:37	5
4:2 FTS	<0.28		1.1	0.28	ug/Kg	☼	04/02/23 19:30	04/05/23 10:37	5
6:2 FTS	20		1.1	0.15	ug/Kg	☼	04/02/23 19:30	04/05/23 10:37	5
8:2 FTS	24		1.1	0.19	ug/Kg	☼	04/02/23 19:30	04/05/23 10:37	5
10:2 FTS	10		1.1	0.21	ug/Kg	☼	04/02/23 19:30	04/05/23 10:37	5
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.21		1.1	0.21	ug/Kg	☼	04/02/23 19:30	04/05/23 10:37	5
HFPO-DA (GenX)	<0.22		1.1	0.22	ug/Kg	☼	04/02/23 19:30	04/05/23 10:37	5
F-53B Major	<0.19		1.1	0.19	ug/Kg	☼	04/02/23 19:30	04/05/23 10:37	5
F-53B Minor	<0.17		1.1	0.17	ug/Kg	☼	04/02/23 19:30	04/05/23 10:37	5

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	45		25 - 150	04/02/23 19:30	04/05/23 10:37	5
13C5 PFPeA	91		25 - 150	04/02/23 19:30	04/05/23 10:37	5
13C2 PFHxA	84		25 - 150	04/02/23 19:30	04/05/23 10:37	5
13C4 PFHpA	88		25 - 150	04/02/23 19:30	04/05/23 10:37	5
13C4 PFOA	93		25 - 150	04/02/23 19:30	04/05/23 10:37	5
13C5 PFNA	91		25 - 150	04/02/23 19:30	04/05/23 10:37	5
13C2 PFDA	96		25 - 150	04/02/23 19:30	04/05/23 10:37	5
13C2 PFUnA	98		25 - 150	04/02/23 19:30	04/05/23 10:37	5
13C2 PFDoA	105		25 - 150	04/02/23 19:30	04/05/23 10:37	5
13C2 PFTeDA	112		25 - 150	04/02/23 19:30	04/05/23 10:37	5
13C2 PFHxDA	104		25 - 150	04/02/23 19:30	04/05/23 10:37	5
13C3 PFBS	78		25 - 150	04/02/23 19:30	04/05/23 10:37	5
18O2 PFHxS	100		25 - 150	04/02/23 19:30	04/05/23 10:37	5
13C4 PFOS	85		25 - 150	04/02/23 19:30	04/05/23 10:37	5
13C8 FOSA	93		10 - 150	04/02/23 19:30	04/05/23 10:37	5
d3-NMeFOSAA	86		25 - 150	04/02/23 19:30	04/05/23 10:37	5
d5-NEtFOSAA	89		25 - 150	04/02/23 19:30	04/05/23 10:37	5
d-N-MeFOSA-M	93		10 - 150	04/02/23 19:30	04/05/23 10:37	5
d-N-EtFOSA-M	88		10 - 150	04/02/23 19:30	04/05/23 10:37	5
d7-N-MeFOSE-M	89		10 - 150	04/02/23 19:30	04/05/23 10:37	5
d9-N-EtFOSE-M	95		10 - 150	04/02/23 19:30	04/05/23 10:37	5
M2-4:2 FTS	66		25 - 150	04/02/23 19:30	04/05/23 10:37	5
M2-6:2 FTS	90		25 - 150	04/02/23 19:30	04/05/23 10:37	5
M2-8:2 FTS	82		25 - 150	04/02/23 19:30	04/05/23 10:37	5
13C3 HFPO-DA	89		25 - 150	04/02/23 19:30	04/05/23 10:37	5
13C2 10:2 FTS	103		25 - 150	04/02/23 19:30	04/05/23 10:37	5

Definitions/Glossary

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Qualifiers

LCMS

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

LCMS

Prep Batch: 665308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-231487-1 - DL	SP-2	Total/NA	Solid	SHAKE	
500-231487-1	SP-2	Total/NA	Solid	SHAKE	
MB 320-665308/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 320-665308/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
500-231487-1 MS - DL	SP-2	Total/NA	Solid	SHAKE	
500-231487-1 MS	SP-2	Total/NA	Solid	SHAKE	
500-231487-1 MSD	SP-2	Total/NA	Solid	SHAKE	
500-231487-1 MSD - DL	SP-2	Total/NA	Solid	SHAKE	

Analysis Batch: 665600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-231487-1	SP-2	Total/NA	Solid	537 (modified)	665308
500-231487-1 - DL	SP-2	Total/NA	Solid	537 (modified)	665308
MB 320-665308/1-A	Method Blank	Total/NA	Solid	537 (modified)	665308
LCS 320-665308/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	665308
500-231487-1 MS	SP-2	Total/NA	Solid	537 (modified)	665308
500-231487-1 MS - DL	SP-2	Total/NA	Solid	537 (modified)	665308
500-231487-1 MSD	SP-2	Total/NA	Solid	537 (modified)	665308
500-231487-1 MSD - DL	SP-2	Total/NA	Solid	537 (modified)	665308

General Chemistry

Analysis Batch: 664789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-231487-1	SP-2	Total/NA	Solid	Moisture	

QC Sample Results

Client: Endpoint Solutions Corp
 Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-665308/1-A

Matrix: Solid

Analysis Batch: 665600

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 665308

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	<0.046		0.20	0.046	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluoropentanoic acid (PFPeA)	<0.041		0.20	0.041	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorohexanoic acid (PFHxA)	<0.031		0.20	0.031	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluoroheptanoic acid (PFHpA)	<0.038		0.20	0.038	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorooctanoic acid (PFOA)	<0.053		0.20	0.053	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorononanoic acid (PFNA)	<0.022		0.20	0.022	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorodecanoic acid (PFDA)	<0.048		0.20	0.048	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluoroundecanoic acid (PFUnA)	<0.042		0.20	0.042	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorododecanoic acid (PFDoA)	<0.030		0.20	0.030	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorotridecanoic acid (PFTriA)	<0.021		0.20	0.021	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorotetradecanoic acid (PFTeA)	<0.037		0.20	0.037	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.038		0.20	0.038	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluoro-n-octadecanoic acid (PFODA)	<0.066		0.20	0.066	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorobutanesulfonic acid (PFBS)	<0.038		0.20	0.038	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluoropentanesulfonic acid (PFPeS)	<0.037		0.20	0.037	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorohexanesulfonic acid (PFHxS)	<0.029		0.20	0.029	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.049		0.20	0.049	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorooctanesulfonic acid (PFOS)	<0.043		0.20	0.043	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorononanesulfonic acid (PFNS)	<0.029		0.20	0.029	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorodecanesulfonic acid (PFDS)	<0.052		0.20	0.052	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorododecanesulfonic acid (PFDoS)	<0.047		0.20	0.047	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Perfluorooctanesulfonamide (FOSA)	<0.033		0.20	0.033	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
NEtFOSA	<0.047		0.20	0.047	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
NMeFOSA	<0.049		0.20	0.049	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
NMeFOSAA	<0.023		0.20	0.023	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
NEtFOSAA	<0.048		0.20	0.048	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
NMeFOSE	<0.047		0.20	0.047	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
NEtFOSE	<0.028		0.20	0.028	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
4:2 FTS	<0.051		0.20	0.051	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
6:2 FTS	<0.027		0.20	0.027	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
8:2 FTS	<0.035		0.20	0.035	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
10:2 FTS	<0.038		0.20	0.038	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.039		0.20	0.039	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
HFPO-DA (GenX)	<0.041		0.20	0.041	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
F-53B Major	<0.035		0.20	0.035	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
F-53B Minor	<0.031		0.20	0.031	ug/Kg		04/02/23 19:30	04/05/23 09:36	1
Isotope Dilution	MB	MB	Limits	Prepared	Analyzed	Dil Fac			
	%Recovery	Qualifier							
13C4 PFBA	58		25 - 150	04/02/23 19:30	04/05/23 09:36	1			
13C5 PFPeA	91		25 - 150	04/02/23 19:30	04/05/23 09:36	1			
13C2 PFHxA	83		25 - 150	04/02/23 19:30	04/05/23 09:36	1			
13C4 PFHpA	92		25 - 150	04/02/23 19:30	04/05/23 09:36	1			
13C4 PFOA	80		25 - 150	04/02/23 19:30	04/05/23 09:36	1			
13C5 PFNA	92		25 - 150	04/02/23 19:30	04/05/23 09:36	1			

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QC Sample Results

Client: Endpoint Solutions Corp
 Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: MB 320-665308/1-A
Matrix: Solid
Analysis Batch: 665600

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 665308

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C2 PFDA	89		25 - 150	04/02/23 19:30	04/05/23 09:36	1
13C2 PFUnA	90		25 - 150	04/02/23 19:30	04/05/23 09:36	1
13C2 PFDoA	91		25 - 150	04/02/23 19:30	04/05/23 09:36	1
13C2 PFTeDA	91		25 - 150	04/02/23 19:30	04/05/23 09:36	1
13C2 PFHxDA	88		25 - 150	04/02/23 19:30	04/05/23 09:36	1
13C3 PFBS	87		25 - 150	04/02/23 19:30	04/05/23 09:36	1
18O2 PFHxS	86		25 - 150	04/02/23 19:30	04/05/23 09:36	1
13C4 PFOS	91		25 - 150	04/02/23 19:30	04/05/23 09:36	1
13C8 FOSA	90		10 - 150	04/02/23 19:30	04/05/23 09:36	1
d3-NMeFOSAA	79		25 - 150	04/02/23 19:30	04/05/23 09:36	1
d5-NEtFOSAA	92		25 - 150	04/02/23 19:30	04/05/23 09:36	1
d-N-MeFOSA-M	92		10 - 150	04/02/23 19:30	04/05/23 09:36	1
d-N-EtFOSA-M	91		10 - 150	04/02/23 19:30	04/05/23 09:36	1
d7-N-MeFOSE-M	88		10 - 150	04/02/23 19:30	04/05/23 09:36	1
d9-N-EtFOSE-M	87		10 - 150	04/02/23 19:30	04/05/23 09:36	1
M2-4:2 FTS	70		25 - 150	04/02/23 19:30	04/05/23 09:36	1
M2-6:2 FTS	71		25 - 150	04/02/23 19:30	04/05/23 09:36	1
M2-8:2 FTS	82		25 - 150	04/02/23 19:30	04/05/23 09:36	1
13C3 HFPO-DA	86		25 - 150	04/02/23 19:30	04/05/23 09:36	1
13C2 10:2 FTS	94		25 - 150	04/02/23 19:30	04/05/23 09:36	1

Lab Sample ID: LCS 320-665308/2-A
Matrix: Solid
Analysis Batch: 665600

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 665308

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanoic acid (PFPeA)	2.00	2.12		ug/Kg		106	60 - 135
Perfluorohexanoic acid (PFHxA)	2.00	1.84		ug/Kg		92	60 - 135
Perfluoroheptanoic acid (PFHpA)	2.00	2.08		ug/Kg		104	60 - 135
Perfluorooctanoic acid (PFOA)	2.00	2.11		ug/Kg		105	60 - 135
Perfluorononanoic acid (PFNA)	2.00	2.09		ug/Kg		104	60 - 135
Perfluorodecanoic acid (PFDA)	2.00	2.25		ug/Kg		112	60 - 135
Perfluoroundecanoic acid (PFUnA)	2.00	2.20		ug/Kg		110	60 - 135
Perfluorododecanoic acid (PFDoA)	2.00	2.14		ug/Kg		107	60 - 135
Perfluorotridecanoic acid (PFTriA)	2.00	2.22		ug/Kg		111	60 - 135
Perfluorotetradecanoic acid (PFTeA)	2.00	2.05		ug/Kg		102	60 - 135
Perfluoro-n-hexadecanoic acid (PFHxDA)	2.00	2.24		ug/Kg		112	60 - 135
Perfluoro-n-octadecanoic acid (PFODA)	2.00	2.00		ug/Kg		100	60 - 135
Perfluorobutanesulfonic acid (PFBS)	1.78	1.99		ug/Kg		112	60 - 135
Perfluoropentanesulfonic acid (PFPeS)	1.88	2.08		ug/Kg		111	60 - 135
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.81		ug/Kg		99	60 - 135

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QC Sample Results

Client: Endpoint Solutions Corp
 Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-665308/2-A
Matrix: Solid
Analysis Batch: 665600

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 665308

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanesulfonic acid (PFHpS)	1.91	2.26		ug/Kg		118	60 - 135
Perfluorooctanesulfonic acid (PFOS)	1.86	1.84		ug/Kg		99	60 - 135
Perfluorononanesulfonic acid (PFNS)	1.92	2.26		ug/Kg		118	60 - 135
Perfluorodecanesulfonic acid (PFDS)	1.93	2.18		ug/Kg		113	60 - 135
Perfluorododecanesulfonic acid (PFDoS)	1.94	2.27		ug/Kg		117	60 - 135
Perfluorooctanesulfonamide (FOSA)	2.00	1.96		ug/Kg		98	60 - 135
NEtFOSA	2.00	2.13		ug/Kg		106	60 - 135
NMeFOSA	2.00	2.04		ug/Kg		102	60 - 135
NMeFOSAA	2.00	1.93		ug/Kg		96	60 - 135
NEtFOSAA	2.00	2.14		ug/Kg		107	60 - 135
NMeFOSE	2.00	2.06		ug/Kg		103	60 - 135
NEtFOSE	2.00	2.06		ug/Kg		103	60 - 135
4:2 FTS	1.88	1.83		ug/Kg		98	60 - 135
6:2 FTS	1.90	1.70		ug/Kg		89	60 - 135
8:2 FTS	1.92	1.94		ug/Kg		101	60 - 135
10:2 FTS	1.93	1.85		ug/Kg		96	60 - 135
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	1.89	2.09		ug/Kg		111	60 - 135
HFPO-DA (GenX)	2.00	2.09		ug/Kg		105	60 - 135
F-53B Major	1.87	1.94		ug/Kg		104	60 - 135
F-53B Minor	1.89	1.93		ug/Kg		102	60 - 135

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFBA	63		25 - 150
13C5 PFPeA	82		25 - 150
13C2 PFHxA	85		25 - 150
13C4 PFHpA	95		25 - 150
13C4 PFOA	89		25 - 150
13C5 PFNA	90		25 - 150
13C2 PFDA	85		25 - 150
13C2 PFUnA	94		25 - 150
13C2 PFDoA	94		25 - 150
13C2 PFTeDA	98		25 - 150
13C2 PFHxDA	89		25 - 150
13C3 PFBS	84		25 - 150
18O2 PFHxS	88		25 - 150
13C4 PFOS	87		25 - 150
13C8 FOSA	89		10 - 150
d3-NMeFOSAA	83		25 - 150
d5-NEtFOSAA	84		25 - 150
d-N-MeFOSA-M	91		10 - 150
d-N-EtFOSA-M	89		10 - 150
d7-N-MeFOSE-M	86		10 - 150
d9-N-EtFOSE-M	87		10 - 150

QC Sample Results

Client: Endpoint Solutions Corp
 Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-665308/2-A
Matrix: Solid
Analysis Batch: 665600

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 665308

<i>Isotope Dilution</i>	<i>LCS</i>	<i>LCS</i>	<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
M2-4:2 FTS	63		25 - 150
M2-6:2 FTS	91		25 - 150
M2-8:2 FTS	85		25 - 150
13C3 HFPO-DA	83		25 - 150
13C2 10:2 FTS	99		25 - 150

Lab Sample ID: 500-231487-1 MS
Matrix: Solid
Analysis Batch: 665600

Client Sample ID: SP-2
Prep Type: Total/NA
Prep Batch: 665308

<i>Analyte</i>	<i>Sample</i>	<i>Sample</i>	<i>Spike</i>	<i>MS</i>	<i>MS</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>Limits</i>
	<i>Result</i>	<i>Qualifier</i>	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>				
Perfluorobutanoic acid (PFBA)	<0.050		2.12	2.59		ug/Kg	☼	119	70 - 130
Perfluoropentanoic acid (PFPeA)	0.099	J	2.12	1.94		ug/Kg	☼	87	70 - 130
Perfluorohexanoic acid (PFHxA)	0.48		2.12	2.62		ug/Kg	☼	101	70 - 130
Perfluoroheptanoic acid (PFHpA)	0.17	J	2.12	2.71		ug/Kg	☼	119	70 - 130
Perfluorooctanoic acid (PFOA)	0.29		2.12	2.51		ug/Kg	☼	105	70 - 130
Perfluorononanoic acid (PFNA)	0.087	J	2.12	2.40		ug/Kg	☼	109	70 - 130
Perfluorodecanoic acid (PFDA)	0.21	J	2.12	2.56		ug/Kg	☼	111	70 - 130
Perfluoroundecanoic acid (PFUnA)	0.22		2.12	2.38		ug/Kg	☼	102	70 - 130
Perfluorododecanoic acid (PFDoA)	0.39		2.12	2.64		ug/Kg	☼	106	70 - 130
Perfluorotridecanoic acid (PFTriA)	0.13	J	2.12	2.48		ug/Kg	☼	111	70 - 130
Perfluorotetradecanoic acid (PFTeA)	0.13	J	2.12	2.26		ug/Kg	☼	101	70 - 130
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.041		2.12	2.27		ug/Kg	☼	107	70 - 130
Perfluoro-n-octadecanoic acid (PFODA)	<0.072	F1	2.12	0.612	F1	ug/Kg	☼	29	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<0.041		1.88	2.23		ug/Kg	☼	119	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<0.040		1.99	2.35		ug/Kg	☼	118	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<0.032		1.93	1.93		ug/Kg	☼	100	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<0.053		2.02	2.10		ug/Kg	☼	104	70 - 130
Perfluorooctanesulfonic acid (PFOS)	0.50		1.97	2.46		ug/Kg	☼	99	70 - 130
Perfluorononanesulfonic acid (PFNS)	<0.032		2.04	2.21		ug/Kg	☼	108	70 - 130
Perfluorodecanesulfonic acid (PFDS)	0.12	J	2.04	2.36		ug/Kg	☼	110	70 - 130
Perfluorododecanesulfonic acid (PFDoS)	<0.051		2.06	2.32		ug/Kg	☼	113	70 - 130
Perfluorooctanesulfonamide (FOSA)	0.26		2.12	2.43		ug/Kg	☼	103	70 - 130
NEtFOSA	<0.051		2.12	2.23		ug/Kg	☼	105	70 - 130
NMeFOSA	<0.053		2.12	2.14		ug/Kg	☼	101	70 - 130
NMeFOSAA	3.9		2.12	6.27		ug/Kg	☼	113	70 - 130
NEtFOSAA	0.093	J	2.12	2.21		ug/Kg	☼	100	70 - 130
NMeFOSE	1.3		2.12	3.28		ug/Kg	☼	94	70 - 130

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QC Sample Results

Client: Endpoint Solutions Corp
 Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 500-231487-1 MS

Matrix: Solid

Analysis Batch: 665600

Client Sample ID: SP-2

Prep Type: Total/NA

Prep Batch: 665308

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
NETFOSE	<0.030		2.12	2.25		ug/Kg	⊛	106	70 - 130	
4:2 FTS	<0.055		1.99	2.41		ug/Kg	⊛	121	70 - 130	
6:2 FTS	16		2.02	18.8	4	ug/Kg	⊛	119	70 - 130	
8:2 FTS	21	E	2.04	25.4	E 4	ug/Kg	⊛	209	70 - 130	
10:2 FTS	8.6		2.05	10.4	4	ug/Kg	⊛	88	70 - 130	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.042		2.00	1.98		ug/Kg	⊛	99	70 - 130	
HFPO-DA (GenX)	<0.045		2.12	2.14		ug/Kg	⊛	101	70 - 130	
F-53B Major	<0.038		1.98	1.98		ug/Kg	⊛	100	70 - 130	
F-53B Minor	<0.034		2.00	2.15		ug/Kg	⊛	107	70 - 130	

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C4 PFBA	37		25 - 150
13C5 PFPeA	102		25 - 150
13C2 PFHxA	86		25 - 150
13C4 PFHpA	86		25 - 150
13C4 PFOA	93		25 - 150
13C5 PFNA	100		25 - 150
13C2 PFDA	92		25 - 150
13C2 PFUnA	97		25 - 150
13C2 PFDoA	103		25 - 150
13C2 PFTeDA	98		25 - 150
13C2 PFHxDA	104		25 - 150
13C3 PFBS	84		25 - 150
18O2 PFHxS	92		25 - 150
13C4 PFOS	93		25 - 150
13C8 FOSA	95		10 - 150
d3-NMeFOSAA	86		25 - 150
d5-NEtFOSAA	97		25 - 150
d-N-MeFOSA-M	100		10 - 150
d-N-EtFOSA-M	95		10 - 150
d7-N-MeFOSE-M	93		10 - 150
d9-N-EtFOSE-M	91		10 - 150
M2-4:2 FTS	71		25 - 150
M2-6:2 FTS	98		25 - 150
M2-8:2 FTS	93		25 - 150
13C3 HFPO-DA	92		25 - 150
13C2 10:2 FTS	119		25 - 150

Lab Sample ID: 500-231487-1 MSD

Matrix: Solid

Analysis Batch: 665600

Client Sample ID: SP-2

Prep Type: Total/NA

Prep Batch: 665308

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Perfluorobutanoic acid (PFBA)	<0.050		2.15	2.65		ug/Kg	⊛	120	70 - 130	2	30
Perfluoropentanoic acid (PFPeA)	0.099	J	2.15	2.25		ug/Kg	⊛	100	70 - 130	15	30
Perfluorohexanoic acid (PFHxA)	0.48		2.15	2.59		ug/Kg	⊛	98	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)	0.17	J	2.15	2.65		ug/Kg	⊛	115	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	0.29		2.15	2.59		ug/Kg	⊛	107	70 - 130	3	30

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QC Sample Results

Client: Endpoint Solutions Corp
 Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 500-231487-1 MSD

Matrix: Solid

Analysis Batch: 665600

Client Sample ID: SP-2

Prep Type: Total/NA

Prep Batch: 665308

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
Perfluorononanoic acid (PFNA)	0.087	J	2.15	2.77		ug/Kg	*	125	70 - 130	14	30
Perfluorodecanoic acid (PFDA)	0.21	J	2.15	2.73		ug/Kg	*	117	70 - 130	6	30
Perfluoroundecanoic acid (PFUnA)	0.22		2.15	2.52		ug/Kg	*	107	70 - 130	6	30
Perfluorododecanoic acid (PFDoA)	0.39		2.15	2.54		ug/Kg	*	100	70 - 130	4	30
Perfluorotridecanoic acid (PFTriA)	0.13	J	2.15	2.43		ug/Kg	*	107	70 - 130	2	30
Perfluorotetradecanoic acid (PFTeA)	0.13	J	2.15	2.53		ug/Kg	*	112	70 - 130	11	30
Perfluoro-n-hexadecanoic acid (PFHxDA)	<0.041		2.15	2.54		ug/Kg	*	118	70 - 130	11	30
Perfluoro-n-octadecanoic acid (PFODA)	<0.072	F1	2.15	0.827	F1	ug/Kg	*	39	70 - 130	30	30
Perfluorobutanesulfonic acid (PFBS)	<0.041		1.91	2.16		ug/Kg	*	113	70 - 130	4	30
Perfluoropentanesulfonic acid (PFPeS)	<0.040		2.02	2.30		ug/Kg	*	114	70 - 130	2	30
Perfluorohexanesulfonic acid (PFHxS)	<0.032		1.96	2.17		ug/Kg	*	110	70 - 130	11	30
Perfluoroheptanesulfonic acid (PFHpS)	<0.053		2.05	2.18		ug/Kg	*	106	70 - 130	4	30
Perfluorooctanesulfonic acid (PFOS)	0.50		2.00	2.23		ug/Kg	*	86	70 - 130	10	30
Perfluorononanesulfonic acid (PFNS)	<0.032		2.07	1.91		ug/Kg	*	92	70 - 130	15	30
Perfluorodecanesulfonic acid (PFDS)	0.12	J	2.07	2.03		ug/Kg	*	92	70 - 130	15	30
Perfluorododecanesulfonic acid (PFDoS)	<0.051		2.08	2.16		ug/Kg	*	104	70 - 130	7	30
Perfluorooctanesulfonamide (FOSA)	0.26		2.15	2.54		ug/Kg	*	106	70 - 130	4	30
NEtFOSA	<0.051		2.15	2.24		ug/Kg	*	104	70 - 130	0	30
NMeFOSA	<0.053		2.15	2.26		ug/Kg	*	105	70 - 130	5	30
NMeFOSAA	3.9		2.15	5.59		ug/Kg	*	79	70 - 130	12	30
NEtFOSAA	0.093	J	2.15	2.30		ug/Kg	*	103	70 - 130	4	30
NMeFOSE	1.3		2.15	3.38		ug/Kg	*	97	70 - 130	3	30
NEtFOSE	<0.030		2.15	2.34		ug/Kg	*	109	70 - 130	4	30
4:2 FTS	<0.055		2.02	2.54		ug/Kg	*	126	70 - 130	5	30
6:2 FTS	16		2.05	21.5	E 4	ug/Kg	*	250	70 - 130	13	30
8:2 FTS	21	E	2.06	18.9	4	ug/Kg	*	-111	70 - 130	30	30
10:2 FTS	8.6		2.08	11.0	4	ug/Kg	*	118	70 - 130	6	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.042		2.03	2.03		ug/Kg	*	100	70 - 130	2	30
HFPO-DA (GenX)	<0.045		2.15	2.39		ug/Kg	*	111	70 - 130	11	30
F-53B Major	<0.038		2.01	1.85		ug/Kg	*	92	70 - 130	7	30
F-53B Minor	<0.034		2.03	1.75		ug/Kg	*	86	70 - 130	21	30

Isotope Dilution	MSD	MSD	Limits
	%Recovery	Qualifier	
13C4 PFBA	32		25 - 150
13C5 PFPeA	84		25 - 150
13C2 PFHxA	88		25 - 150
13C4 PFHpA	83		25 - 150

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QC Sample Results

Client: Endpoint Solutions Corp
 Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: 500-231487-1 MSD
Matrix: Solid
Analysis Batch: 665600

Client Sample ID: SP-2
Prep Type: Total/NA
Prep Batch: 665308

Isotope Dilution	MSD		Limits
	%Recovery	Qualifier	
13C4 PFOA	91		25 - 150
13C5 PFNA	86		25 - 150
13C2 PFDA	85		25 - 150
13C2 PFUnA	89		25 - 150
13C2 PFDoA	99		25 - 150
13C2 PFTeDA	94		25 - 150
13C2 PFHxDA	97		25 - 150
13C3 PFBS	84		25 - 150
18O2 PFHxS	85		25 - 150
13C4 PFOS	96		25 - 150
13C8 FOSA	89		10 - 150
d3-NMeFOSAA	83		25 - 150
d5-NEtFOSAA	97		25 - 150
d-N-MeFOSA-M	89		10 - 150
d-N-EtFOSA-M	89		10 - 150
d7-N-MeFOSE-M	86		10 - 150
d9-N-EtFOSE-M	87		10 - 150
M2-4:2 FTS	68		25 - 150
M2-6:2 FTS	79		25 - 150
M2-8:2 FTS	96		25 - 150
13C3 HFPO-DA	89		25 - 150
13C2 10:2 FTS	115		25 - 150

Method: 537 (modified) - Fluorinated Alkyl Substances - DL

Lab Sample ID: 500-231487-1 MS
Matrix: Solid
Analysis Batch: 665600

Client Sample ID: SP-2
Prep Type: Total/NA
Prep Batch: 665308

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
Perfluorobutanoic acid (PFBA) - DL	<0.25		2.12	2.31		ug/Kg	✱	109	70 - 130
Perfluoropentanoic acid (PFPeA) - DL	<0.22		2.12	2.37		ug/Kg	✱	112	70 - 130
Perfluorohexanoic acid (PFHxA) - DL	0.54	J	2.12	2.36		ug/Kg	✱	86	70 - 130
Perfluoroheptanoic acid (PFHpA) - DL	<0.21		2.12	2.53		ug/Kg	✱	120	70 - 130
Perfluorooctanoic acid (PFOA) - DL	0.29	J	2.12	2.60		ug/Kg	✱	123	70 - 130
Perfluorononanoic acid (PFNA) - DL	<0.12		2.12	2.42		ug/Kg	✱	114	70 - 130
Perfluorodecanoic acid (PFDA) - DL	<0.26		2.12	2.55		ug/Kg	✱	120	70 - 130
Perfluoroundecanoic acid (PFUnA) - DL	<0.23		2.12	2.51		ug/Kg	✱	118	70 - 130
Perfluorododecanoic acid (PFDoA) - DL	0.34	J	2.12	2.46		ug/Kg	✱	100	70 - 130
Perfluorotridecanoic acid (PFTriA) - DL	0.13	J	2.12	2.24		ug/Kg	✱	99	70 - 130
Perfluorotetradecanoic acid (PFTeA) - DL	<0.20		2.12	2.10		ug/Kg	✱	99	70 - 130

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QC Sample Results

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Method: 537 (modified) - Fluorinated Alkyl Substances - DL (Continued)

Lab Sample ID: 500-231487-1 MS
Matrix: Solid
Analysis Batch: 665600

Client Sample ID: SP-2
Prep Type: Total/NA
Prep Batch: 665308

<i>Isotope Dilution</i>	<i>MS</i>	<i>MS</i>	<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
13C4 PFOS - DL	85		25 - 150
13C8 FOSA - DL	90		10 - 150
d3-NMeFOSAA - DL	85		25 - 150
d5-NEtFOSAA - DL	90		25 - 150
d-N-MeFOSA-M - DL	89		10 - 150
d-N-EtFOSA-M - DL	89		10 - 150
d7-N-MeFOSE-M - DL	89		10 - 150
d9-N-EtFOSE-M - DL	87		10 - 150
M2-4:2 FTS - DL	66		25 - 150
M2-6:2 FTS - DL	77		25 - 150
M2-8:2 FTS - DL	87		25 - 150
13C3 HFPO-DA - DL	81		25 - 150
13C2 10:2 FTS - DL	90		25 - 150

Lab Sample ID: 500-231487-1 MSD
Matrix: Solid
Analysis Batch: 665600

Client Sample ID: SP-2
Prep Type: Total/NA
Prep Batch: 665308

<i>Analyte</i>	<i>Sample</i>	<i>Sample</i>	<i>Spike</i>	<i>MSD</i>	<i>MSD</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i>	<i>RPD</i>	<i>RPD</i>
	<i>Result</i>	<i>Qualifier</i>	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>				<i>Limits</i>	<i>RPD</i>	<i>Limit</i>
Perfluorobutanoic acid (PFBA) - DL	<0.25		2.15	2.41		ug/Kg	✳	112	70 - 130	4	30
Perfluoropentanoic acid (PFPeA) - DL	<0.22		2.15	2.25		ug/Kg	✳	105	70 - 130	5	30
Perfluorohexanoic acid (PFHxA) - DL	0.54	J	2.15	2.33		ug/Kg	✳	83	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA) - DL	<0.21		2.15	2.63		ug/Kg	✳	122	70 - 130	4	30
Perfluorooctanoic acid (PFOA) - DL	0.29	J	2.15	2.56		ug/Kg	✳	119	70 - 130	1	30
Perfluorononanoic acid (PFNA) - DL	<0.12		2.15	2.29		ug/Kg	✳	107	70 - 130	5	30
Perfluorodecanoic acid (PFDA) - DL	<0.26		2.15	2.55		ug/Kg	✳	119	70 - 130	0	30
Perfluoroundecanoic acid (PFUnA) - DL	<0.23		2.15	2.58		ug/Kg	✳	120	70 - 130	3	30
Perfluorododecanoic acid (PFDoA) - DL	0.34	J	2.15	2.82		ug/Kg	✳	115	70 - 130	13	30
Perfluorotridecanoic acid (PFTriA) - DL	0.13	J	2.15	2.62		ug/Kg	✳	116	70 - 130	16	30
Perfluorotetradecanoic acid (PFTeA) - DL	<0.20		2.15	2.29		ug/Kg	✳	107	70 - 130	9	30
Perfluoro-n-hexadecanoic acid (PFHxDA) - DL	<0.21		2.15	2.27		ug/Kg	✳	106	70 - 130	3	30
Perfluoro-n-octadecanoic acid (PFODA) - DL	<0.36	F1	2.15	1.11	F1	ug/Kg	✳	52	70 - 130	5	30
Perfluorobutanesulfonic acid (PFBS) - DL	<0.21		1.91	2.21		ug/Kg	✳	116	70 - 130	14	30
Perfluoropentanesulfonic acid (PFPeS) - DL	<0.20		2.02	2.35		ug/Kg	✳	117	70 - 130	8	30
Perfluorohexanesulfonic acid (PFHxS) - DL	<0.16		1.96	2.06		ug/Kg	✳	105	70 - 130	0	30
Perfluoroheptanesulfonic acid (PFHpS) - DL	<0.27		2.05	2.26		ug/Kg	✳	110	70 - 130	10	30

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QC Sample Results

Client: Endpoint Solutions Corp
 Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Method: 537 (modified) - Fluorinated Alkyl Substances - DL (Continued)

Lab Sample ID: 500-231487-1 MSD

Matrix: Solid

Analysis Batch: 665600

Client Sample ID: SP-2

Prep Type: Total/NA

Prep Batch: 665308

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanesulfonic acid (PFOS) - DL	0.59	J	2.00	2.57		ug/Kg	☼	99	70 - 130	0	30
Perfluorononanesulfonic acid (PFNS) - DL	<0.16		2.07	2.35		ug/Kg	☼	114	70 - 130	2	30
Perfluorodecanesulfonic acid (PFDS) - DL	<0.28		2.07	2.32		ug/Kg	☼	112	70 - 130	5	30
Perfluorododecanesulfonic acid (PFDoS) - DL	<0.26		2.08	2.47		ug/Kg	☼	119	70 - 130	5	30
Perfluorooctanesulfonamide (FOSA) - DL	0.28	J	2.15	2.43		ug/Kg	☼	100	70 - 130	3	30
NEtFOSA - DL	<0.26		2.15	2.31		ug/Kg	☼	107	70 - 130	1	30
NMeFOSA - DL	<0.27		2.15	2.19		ug/Kg	☼	102	70 - 130	5	30
NMeFOSAA - DL	4.1	F1	2.15	5.30	F1	ug/Kg	☼	56	70 - 130	12	30
NEtFOSAA - DL	<0.26		2.15	2.34		ug/Kg	☼	109	70 - 130	3	30
NMeFOSE - DL	1.1		2.15	3.43		ug/Kg	☼	110	70 - 130	6	30
NEtFOSE - DL	<0.15		2.15	2.05		ug/Kg	☼	96	70 - 130	9	30
4:2 FTS - DL	<0.28		2.02	1.93		ug/Kg	☼	96	70 - 130	4	30
6:2 FTS - DL	20		2.05	22.4	4	ug/Kg	☼	131	70 - 130	11	30
8:2 FTS - DL	24		2.06	21.9	4	ug/Kg	☼	-86	70 - 130	2	30
10:2 FTS - DL	10		2.08	12.4	4	ug/Kg	☼	107	70 - 130	6	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA) - DL	<0.21		2.03	2.36		ug/Kg	☼	116	70 - 130	12	30
HFPO-DA (GenX) - DL	<0.22		2.15	2.24		ug/Kg	☼	104	70 - 130	3	30
F-53B Major - DL	<0.19		2.01	2.07		ug/Kg	☼	103	70 - 130	1	30
F-53B Minor - DL	<0.17		2.03	2.25		ug/Kg	☼	111	70 - 130	3	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C4 PFBA - DL	33		25 - 150
13C5 PFPeA - DL	83		25 - 150
13C2 PFHxA - DL	87		25 - 150
13C4 PFHpA - DL	81		25 - 150
13C4 PFOA - DL	89		25 - 150
13C5 PFNA - DL	89		25 - 150
13C2 PFDA - DL	83		25 - 150
13C2 PFUnA - DL	83		25 - 150
13C2 PFDoA - DL	89		25 - 150
13C2 PFTeDA - DL	96		25 - 150
13C2 PFHxDA - DL	104		25 - 150
13C3 PFBS - DL	76		25 - 150
18O2 PFHxS - DL	83		25 - 150
13C4 PFOS - DL	79		25 - 150
13C8 FOSA - DL	85		10 - 150
d3-NMeFOSAA - DL	77		25 - 150
d5-NEtFOSAA - DL	82		25 - 150
d-N-MeFOSA-M - DL	87		10 - 150
d-N-EtFOSA-M - DL	80		10 - 150
d7-N-MeFOSE-M - DL	77		10 - 150
d9-N-EtFOSE-M - DL	89		10 - 150
M2-4:2 FTS - DL	63		25 - 150
M2-6:2 FTS - DL	80		25 - 150

QC Sample Results

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Method: 537 (modified) - Fluorinated Alkyl Substances - DL (Continued)

Lab Sample ID: 500-231487-1 MSD

Matrix: Solid

Analysis Batch: 665600

Client Sample ID: SP-2

Prep Type: Total/NA

Prep Batch: 665308

<u>Isotope Dilution</u>	<u>MSD MSD</u>		<u>Limits</u>
	<u>%Recovery</u>	<u>Qualifier</u>	
M2-8:2 FTS - DL	75		25 - 150
13C3 HFPO-DA - DL	81		25 - 150
13C2 10:2 FTS - DL	77		25 - 150

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- 2
- 3
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- 14
- 15
- 16

Lab Chronicle

Client: Endpoint Solutions Corp
 Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Client Sample ID: SP-2

Date Collected: 03/28/23 08:00

Date Received: 03/31/23 09:30

Lab Sample ID: 500-231487-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	664789	TCS	EET SAC	03/31/23 12:33

Client Sample ID: SP-2

Date Collected: 03/28/23 08:00

Date Received: 03/31/23 09:30

Lab Sample ID: 500-231487-1

Matrix: Solid

Percent Solids: 88.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			665308	FX	EET SAC	04/02/23 19:30
Total/NA	Analysis	537 (modified)		1	665600	AEC	EET SAC	04/05/23 10:06
Total/NA	Prep	SHAKE	DL		665308	FX	EET SAC	04/02/23 19:30
Total/NA	Analysis	537 (modified)	DL	5	665600	AEC	EET SAC	04/05/23 10:37

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



Accreditation/Certification Summary

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Laboratory: Eurofins Sacramento

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

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	998204680	08-31-23

- 1
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- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

587322
589321

Chain of Custody Record

Environment Testing
TestAmerica



Address:

TAL-0210

Regulatory Program: DW NPDES RCRA Other

Company Name: <u>Endpoint Solutions Corp.</u> Address: <u>6871 S. Lovers Lane</u> City/State/Zip: <u>Franklin, WI</u> Phone: <u>414-858-2265</u> Fax: _____ Project Name: <u>Tyco / Johnson Controls</u> Site: <u>Marinette, WI</u> PO # _____		Client Contact Project Manager: _____ Tell/Email: _____ Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input checked="" type="checkbox"/> 1 day <u>ASAP</u>		Site Contact: Lab Contact: <u>PFAS S33M</u> Filtered Sample (Y/N) _____ Perform MS/MSD (Y/N) _____		Date: _____ Carrier: _____ COC No: _____ of _____ COCs Sampler: _____ For Lab Use Only: Walk-in Client _____ Lab Sampling _____ Job / SDG No _____ Sample Specific Notes	
Sample Identification <u>SP-2</u>		Sample Date: <u>3/28/2000</u> Sample Time: <u>0800</u> Sample Type: <u>C</u> Matrix: <u>Soil I</u> # of Cont: <u>1</u>		<input checked="" type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Therms ID No: <u>55</u> Corrd: <u>55</u> Date/Time: <u>3-30-23</u> Company: <u>Eurofins</u>	
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant		Special Instructions/QC Requirements & Comments: <u>ASAP turn</u>		Custody Seal No: <u>2119460</u> Company: <u>Endpoint</u> Date/Time: <u>3/30/23</u> Relinquished by: <u>[Signature]</u>		Relinquished by: <u>[Signature]</u> Date/Time: <u>3-30-23</u> Company: <u>Eurofins</u>	
Relinquished by: <u>[Signature]</u> Date/Time: <u>3-30-23</u> Company: <u>Eurofins</u>		Relinquished by: <u>[Signature]</u> Date/Time: <u>17:00</u> Company: _____		Relinquished by: <u>[Signature]</u> Date/Time: _____ Company: _____		Relinquished by: <u>[Signature]</u> Date/Time: _____ Company: _____	



Login Sample Receipt Checklist

Client: Endpoint Solutions Corp

Job Number: 500-231487-1

Login Number: 231487

List Number: 2

Creator: Oropeza, Salvador

List Source: Eurofins Sacramento

List Creation: 03/31/23 10:01 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	2119460
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.5C
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?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: Endpoint Solutions Corp
Project/Site: TYCO/JOHNSON CONTROLS

Job ID: 500-231487-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	C4PFHA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
500-231487-1 - DL	SP-2	45	91	84	88	93	91	96	98
500-231487-1	SP-2	40	84	79	87	79	87	85	91
500-231487-1 MS - DL	SP-2	33	83	87	80	81	89	85	90
500-231487-1 MS	SP-2	37	102	86	86	93	100	92	97
500-231487-1 MSD	SP-2	32	84	88	83	91	86	85	89
500-231487-1 MSD - DL	SP-2	33	83	87	81	89	89	83	83
LCS 320-665308/2-A	Lab Control Sample	63	82	85	95	89	90	85	94
MB 320-665308/1-A	Method Blank	58	91	83	92	80	92	89	90

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDaA (25-150)	PFTDA (25-150)	PFHxDA (25-150)	C3PFBS (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (10-150)	d3NMFOS (25-150)
500-231487-1 - DL	SP-2	105	112	104	78	100	85	93	86
500-231487-1	SP-2	98	94	93	77	85	83	87	81
500-231487-1 MS - DL	SP-2	98	104	100	86	82	85	90	85
500-231487-1 MS	SP-2	103	98	104	84	92	93	95	86
500-231487-1 MSD	SP-2	99	94	97	84	85	96	89	83
500-231487-1 MSD - DL	SP-2	89	96	104	76	83	79	85	77
LCS 320-665308/2-A	Lab Control Sample	94	98	89	84	88	87	89	83
MB 320-665308/1-A	Method Blank	91	91	88	87	86	91	90	79

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	d5NEFOS (25-150)	dMeFOSA (10-150)	dEtFOSA (10-150)	NMFM (10-150)	NEFM (10-150)	M242FTS (25-150)	M262FTS (25-150)	M282FTS (25-150)
500-231487-1 - DL	SP-2	89	93	88	89	95	66	90	82
500-231487-1	SP-2	84	85	87	83	82	69	88	90
500-231487-1 MS - DL	SP-2	90	89	89	89	87	66	77	87
500-231487-1 MS	SP-2	97	100	95	93	91	71	98	93
500-231487-1 MSD	SP-2	97	89	89	86	87	68	79	96
500-231487-1 MSD - DL	SP-2	82	87	80	77	89	63	80	75
LCS 320-665308/2-A	Lab Control Sample	84	91	89	86	87	63	91	85
MB 320-665308/1-A	Method Blank	92	92	91	88	87	70	71	82

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HFPODA (25-150)	M102FTS (25-150)
500-231487-1 - DL	SP-2	89	103
500-231487-1	SP-2	84	127
500-231487-1 MS - DL	SP-2	81	90
500-231487-1 MS	SP-2	92	119
500-231487-1 MSD	SP-2	89	115
500-231487-1 MSD - DL	SP-2	81	77
LCS 320-665308/2-A	Lab Control Sample	83	99
MB 320-665308/1-A	Method Blank	86	94

Surrogate Legend

- PFBA = 13C4 PFBA
- PFPeA = 13C5 PFPeA
- PFHxA = 13C2 PFHxA
- C4PFHA = 13C4 PFHpA
- PFOA = 13C4 PFOA
- PFNA = 13C5 PFNA

Isotope Dilution Summary

Client: Endpoint Solutions Corp

Job ID: 500-231487-1

Project/Site: TYCO/JOHNSON CONTROLS

PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFTDA = 13C2 PFTeDA
PFHxDA = 13C2 PFHxDA
C3PFBS = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3NMFOS = d3-NMeFOSAA
d5NEFOS = d5-NEtFOSAA
dMeFOSA = d-N-MeFOSA-M
dEtFOSA = d-N-EtFOSA-M
NMFm = d7-N-MeFOSE-M
NEFM = d9-N-EtFOSE-M
M242FTS = M2-4:2 FTS
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
HFPODA = 13C3 HFPO-DA
M102FTS = 13C2 10:2 FTS

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

ANALYTICAL REPORT

NORTHERN LAKE SERVICE, INC.
 Analytical Laboratory and Environmental Services
 400 North Lake Avenue - Crandon, WI 54520
 Ph: (715)-478-2777 Fax: (715)-478-3060

WDNR Laboratory ID No. 721026460
WDATCP Laboratory Certification No. 105-330
EPA Laboratory ID No. WI00034
 Printed: 10/26/22 Page 1 of 1

Client: Endpoint Solutions
Attn: Kirk Kapfhammer
 6871 South Lovers Lane
 Franklin, WI 53132

NLS Project: 394639
NLS Customer: 97304
Phone: 414 858 1202
Fax: 414 427 1259
PO # 415

Project: Tyco - Stanton

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
EX01101822 NLS ID: 1344503								
COC: 264574:1 Matrix: SO Collected: 10/18/22 15:00 Received: 10/19/22								
Arsenic, tot. recoverable as As by ICP	38	mg/Kg DWB	5	1.3	4.2	10/24/22	SW846 6010	721026460
Barium, tot. recoverable as Ba by ICP	16	mg/Kg DWB	5	0.32	1.1	10/24/22	SW846 6010	721026460
Cadmium, tot. recoverable as Cd by ICP	[0.11]	mg/Kg DWB	5	0.050	0.16	10/24/22	SW846 6010	721026460
Chromium, tot. recoverable as Cr by ICP	6.8	mg/Kg DWB	5	0.29	1.0	10/24/22	SW846 6010	721026460
Lead, tot. recoverable as Pb by ICP	18	mg/Kg DWB	5	1.1	3.7	10/24/22	SW846 6010	721026460
Mercury, total as Hg on solids	[0.23]	mg/Kg DWB	1	0.080	0.26	10/25/22	SW846 7471B	721026460
pH, lab (soil/sludge)	8.8	s.u. ph/w	1		*	10/19/22	SW846 9045	721026460
Selenium, tot. recoverable as Se by ICP	ND	mg/Kg DWB	5	3.2	11	10/24/22	SW846 6010	721026460
Silver, tot. recoverable as Ag by ICP	ND	mg/Kg DWB	5	0.21	0.71	10/24/22	SW846 6010	721026460
Solids, total on solids	90.6	%	1	0.10*		10/19/22	SM 2540-G 20ed	721026460
Metals digestion - tot. recov (solid) ICP	yes					10/20/22	SW846 3050	721026460

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Ex Frac NLS ID: 1344504								
COC: 264574:2 Matrix: WW Collected: 10/18/22 17:45 Received: 10/19/22								
Hydrogen sulfide, water	Absent	ug/L	1	0.0*		10/19/22	SM 4500S-M	721026460


Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
PDP Frac NLS ID: 1344505								
COC: 264574:3 Matrix: WW Collected: 10/18/22 17:30 Received: 10/19/22								
Hydrogen sulfide, water	Absent	ug/L	1	0.0*		10/19/22	SM 4500S-M	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and/or LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dilution and/or solids content.

ND = Not Detected (< LOD) LOD = Limit of Detection
 DWB = Dry Weight Basis %DWB = (mg/kg DWB) / 10000
 MCL = Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.

LOQ = Limit of Quantitation NA = Not Applicable

1000 ug/L = 1 mg/L

Reviewed by:  R. T. Krueger
 President

Synergy Environmental Lab, LLC.

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

TRAVIS MANSER
ENDPOINT SOLUTIONS
6871 SOUTH LOVER'S LANE
FRANKLIN, WI 53132

Report Date 03-Oct-22

Project Name TYCO STENTON STREET
Project #

Invoice # E41511

Lab Code 5041511A
Sample ID VOC STOCKPILE
Sample Matrix Soil
Sample Date 9/29/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	86.9	%			1	5021		9/30/2022	NJC	1
Organic										
VOC's										
Benzene	< 0.025	mg/kg	0.025	0.1	1	8260B		9/30/2022	CJR	1
Bromobenzene	< 0.04	mg/kg	0.04	0.16	1	8260B		9/30/2022	CJR	1
Bromodichloromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		9/30/2022	CJR	1
Bromoform	< 0.035	mg/kg	0.035	0.14	1	8260B		9/30/2022	CJR	1
tert-Butylbenzene	< 0.033	mg/kg	0.033	0.14	1	8260B		9/30/2022	CJR	1
sec-Butylbenzene	< 0.03	mg/kg	0.03	0.12	1	8260B		9/30/2022	CJR	1
n-Butylbenzene	< 0.029	mg/kg	0.029	0.12	1	8260B		9/30/2022	CJR	1
Carbon Tetrachloride	< 0.032	mg/kg	0.032	0.13	1	8260B		9/30/2022	CJR	1
Chlorobenzene	0.063 "J"	mg/kg	0.027	0.11	1	8260B		9/30/2022	CJR	1
Chloroethane	< 0.1	mg/kg	0.1	0.41	1	8260B		9/30/2022	CJR	1
Chloroform	< 0.032	mg/kg	0.032	0.13	1	8260B		9/30/2022	CJR	1
Chloromethane	< 0.064	mg/kg	0.064	0.26	1	8260B		9/30/2022	CJR	1
2-Chlorotoluene	< 0.034	mg/kg	0.034	0.14	1	8260B		9/30/2022	CJR	1
4-Chlorotoluene	< 0.031	mg/kg	0.031	0.13	1	8260B		9/30/2022	CJR	1
1,2-Dibromo-3-chloropropane	< 0.055	mg/kg	0.055	0.22	1	8260B		9/30/2022	CJR	1
Dibromochloromethane	< 0.038	mg/kg	0.038	0.16	1	8260B		9/30/2022	CJR	1
1,4-Dichlorobenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		9/30/2022	CJR	1
1,3-Dichlorobenzene	< 0.036	mg/kg	0.036	0.15	1	8260B		9/30/2022	CJR	1
1,2-Dichlorobenzene	< 0.026	mg/kg	0.026	0.11	1	8260B		9/30/2022	CJR	1
Dichlorodifluoromethane	< 0.046	mg/kg	0.046	0.19	1	8260B		9/30/2022	CJR	1
1,2-Dichloroethane	< 0.042	mg/kg	0.042	0.17	1	8260B		9/30/2022	CJR	1
1,1-Dichloroethane	< 0.033	mg/kg	0.033	0.13	1	8260B		9/30/2022	CJR	1

Project Name TYCO STENTON STREET
Project #

Invoice # E41511

Lab Code 5041511A
Sample ID VOC STOCKPILE
Sample Matrix Soil
Sample Date 9/29/2022

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1-Dichloroethene	< 0.049	mg/kg	0.049	0.2	1	8260B		9/30/2022	CJR	1
cis-1,2-Dichloroethene	< 0.027	mg/kg	0.027	0.11	1	8260B		9/30/2022	CJR	1
trans-1,2-Dichloroethene	< 0.03	mg/kg	0.03	0.12	1	8260B		9/30/2022	CJR	1
1,2-Dichloropropane	< 0.04	mg/kg	0.04	0.16	1	8260B		9/30/2022	CJR	1
1,3-Dichloropropane	< 0.031	mg/kg	0.031	0.13	1	8260B		9/30/2022	CJR	1
trans-1,3-Dichloropropene	< 0.027	mg/kg	0.027	0.11	1	8260B		9/30/2022	CJR	1
cis-1,3-Dichloropropene	< 0.035	mg/kg	0.035	0.14	1	8260B		9/30/2022	CJR	1
Di-isopropyl ether	< 0.028	mg/kg	0.028	0.11	1	8260B		9/30/2022	CJR	1
EDB (1,2-Dibromoethane)	< 0.025	mg/kg	0.025	0.1	1	8260B		9/30/2022	CJR	1
Ethylbenzene	0.158	mg/kg	0.023	0.096	1	8260B		9/30/2022	CJR	1
Hexachlorobutadiene	< 0.1	mg/kg	0.1	0.42	1	8260B		9/30/2022	CJR	1
Isopropylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		9/30/2022	CJR	1
p-Isopropyltoluene	< 0.03	mg/kg	0.03	0.12	1	8260B		9/30/2022	CJR	1
Methylene chloride	< 0.1	mg/kg	0.1	0.42	1	8260B		9/30/2022	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.036	mg/kg	0.036	0.15	1	8260B		9/30/2022	CJR	1
Naphthalene	< 0.12	mg/kg	0.12	0.38	1	8260B		9/30/2022	CJR	1
n-Propylbenzene	< 0.025	mg/kg	0.025	0.1	1	8260B		9/30/2022	CJR	1
1,1,2,2-Tetrachloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		9/30/2022	CJR	1
1,1,1,2-Tetrachloroethane	< 0.041	mg/kg	0.041	0.17	1	8260B		9/30/2022	CJR	1
Tetrachloroethene	< 0.039	mg/kg	0.039	0.16	1	8260B		9/30/2022	CJR	1
Toluene	< 0.031	mg/kg	0.031	0.13	1	8260B		9/30/2022	CJR	1
1,2,4-Trichlorobenzene	< 0.045	mg/kg	0.045	0.18	1	8260B		9/30/2022	CJR	1
1,2,3-Trichlorobenzene	< 0.18	mg/kg	0.18	0.56	1	8260B		9/30/2022	CJR	1
1,1,1-Trichloroethane	< 0.03	mg/kg	0.03	0.12	1	8260B		9/30/2022	CJR	1
1,1,2-Trichloroethane	< 0.037	mg/kg	0.037	0.15	1	8260B		9/30/2022	CJR	1
Trichloroethene (TCE)	< 0.039	mg/kg	0.039	0.16	1	8260B		9/30/2022	CJR	1
Trichlorofluoromethane	< 0.066	mg/kg	0.066	0.27	1	8260B		9/30/2022	CJR	1
1,2,4-Trimethylbenzene	< 0.035	mg/kg	0.035	0.14	1	8260B		9/30/2022	CJR	1
1,3,5-Trimethylbenzene	< 0.031	mg/kg	0.031	0.13	1	8260B		9/30/2022	CJR	1
Vinyl Chloride	< 0.036	mg/kg	0.036	0.15	1	8260B		9/30/2022	CJR	1
m&p-Xylene	0.53	mg/kg	0.062	0.25	1	8260B		9/30/2022	CJR	1
o-Xylene	0.157	mg/kg	0.03	0.12	1	8260B		9/30/2022	CJR	1
SUR - Toluene-d8	100	Rec %			1	8260B		9/30/2022	CJR	1
SUR - 1,2-Dichloroethane-d4	97	Rec %			1	8260B		9/30/2022	CJR	1
SUR - 4-Bromofluorobenzene	97	Rec %			1	8260B		9/30/2022	CJR	1
SUR - Dibromofluoromethane	92	Rec %			1	8260B		9/30/2022	CJR	1

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

Code *Comment*

1 Laboratory QC within limits.

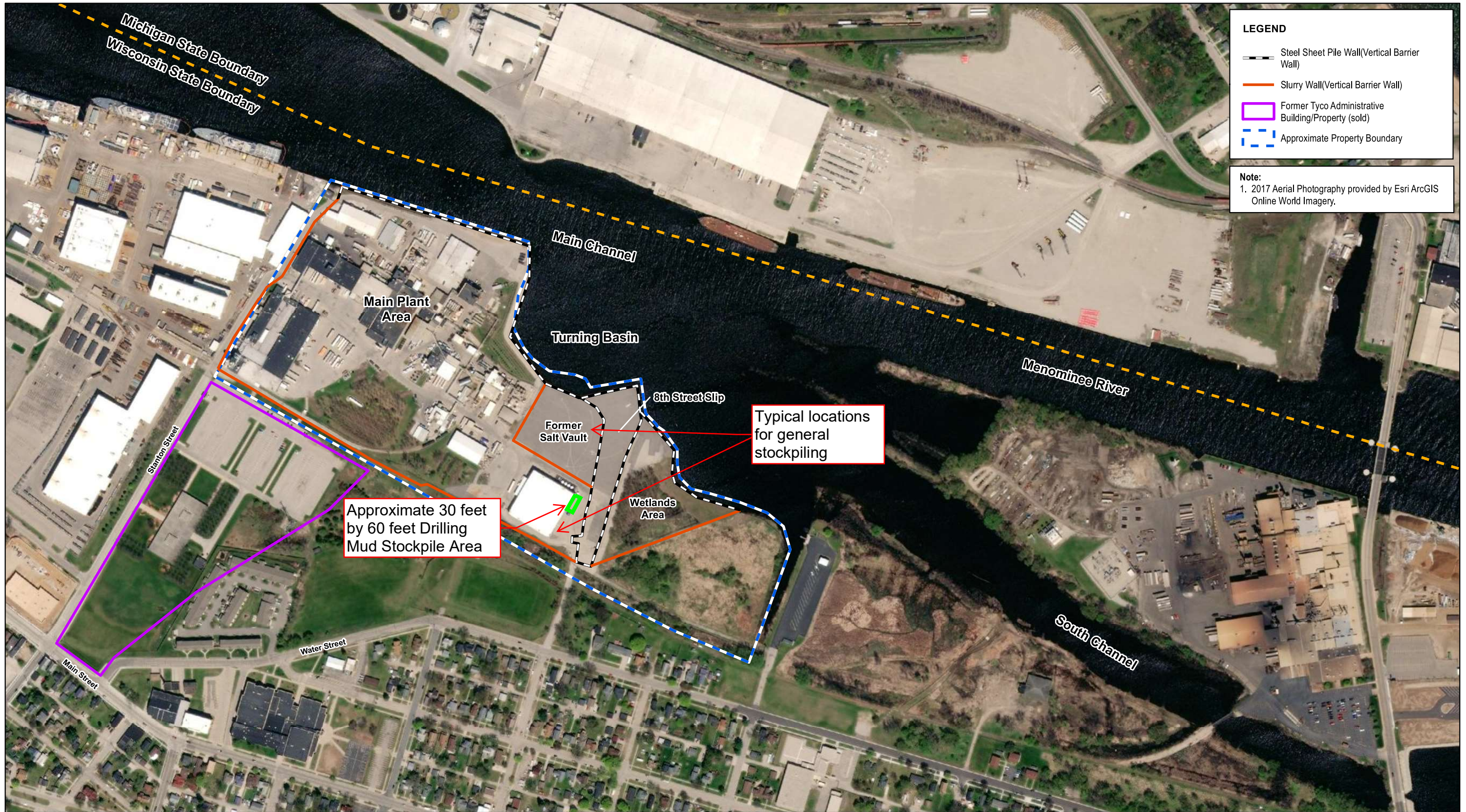
All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature



A handwritten signature in blue ink, appearing to read "Michael J. [unclear]", is written over a horizontal line.

Attachment B
Figures



LEGEND

- Steel Sheet Pile Wall (Vertical Barrier Wall)
- Slurry Wall (Vertical Barrier Wall)
- Former Tyco Administrative Building/Property (sold)
- Approximate Property Boundary

Note:
 1. 2017 Aerial Photography provided by Esri ArcGIS Online World Imagery.

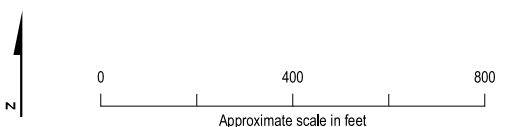
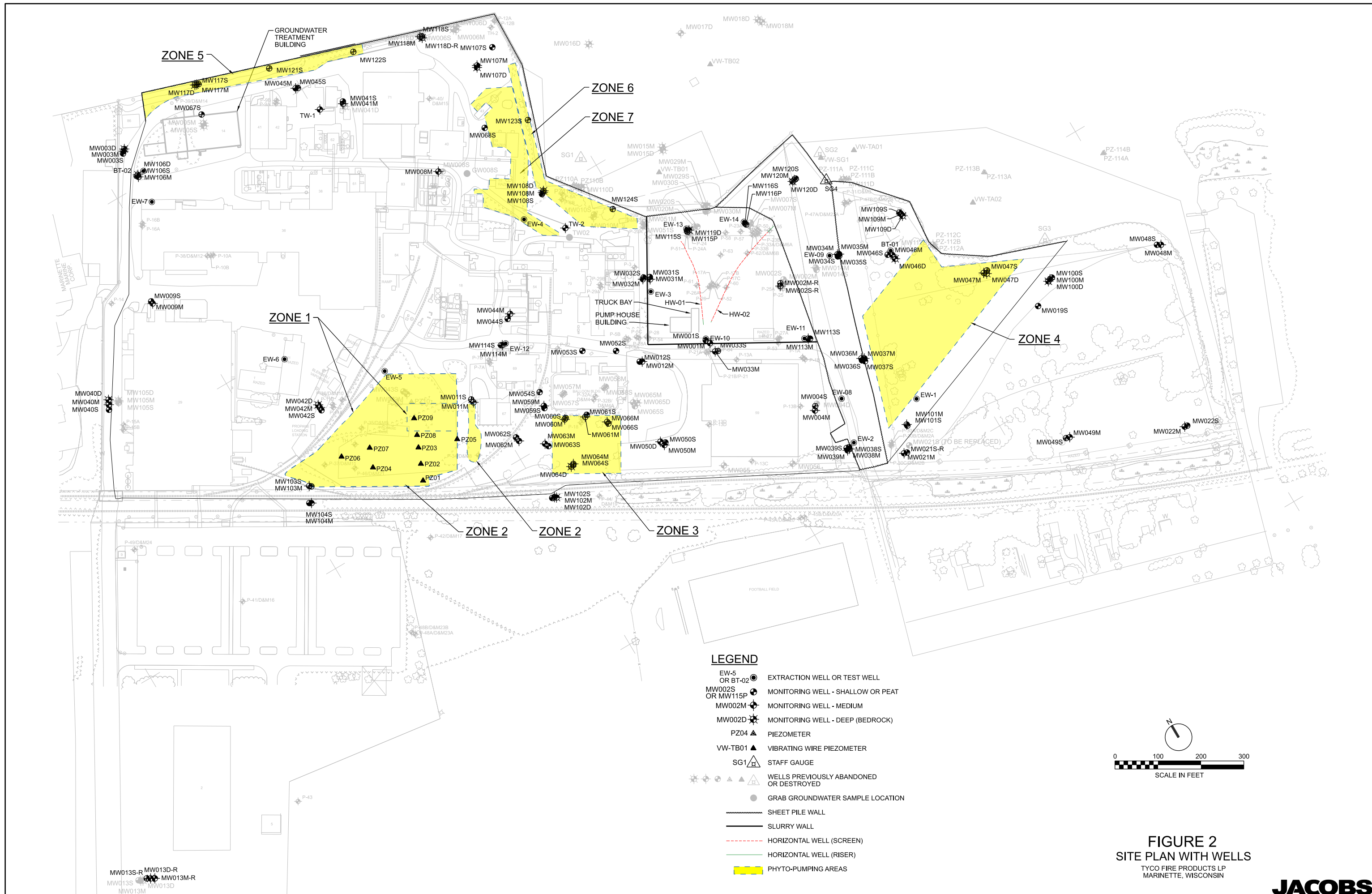
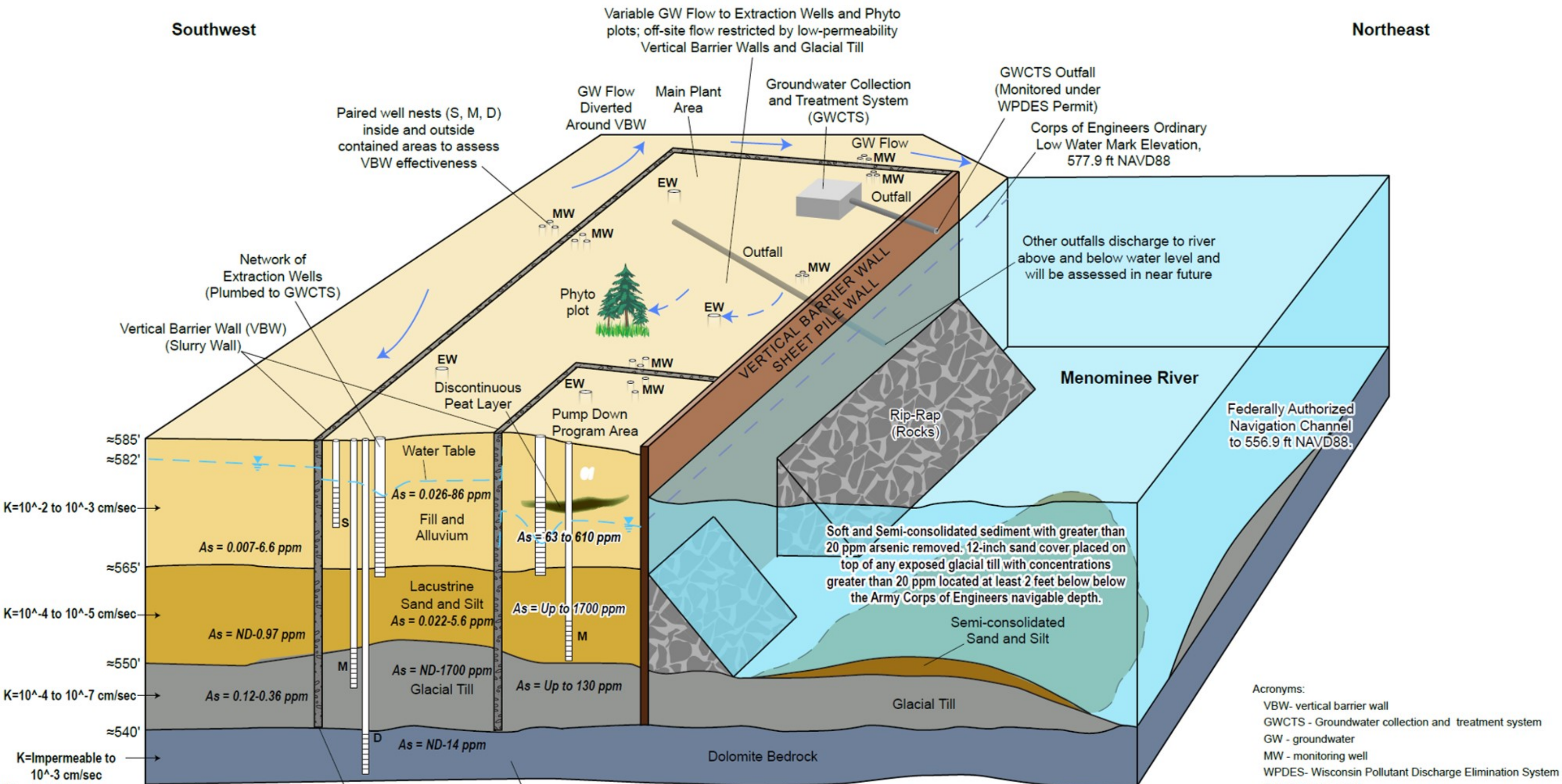


Figure 1. Property Map
 Tyco Fire Products LP
 Marinette, WI
JACOBS



Southwest

Northeast



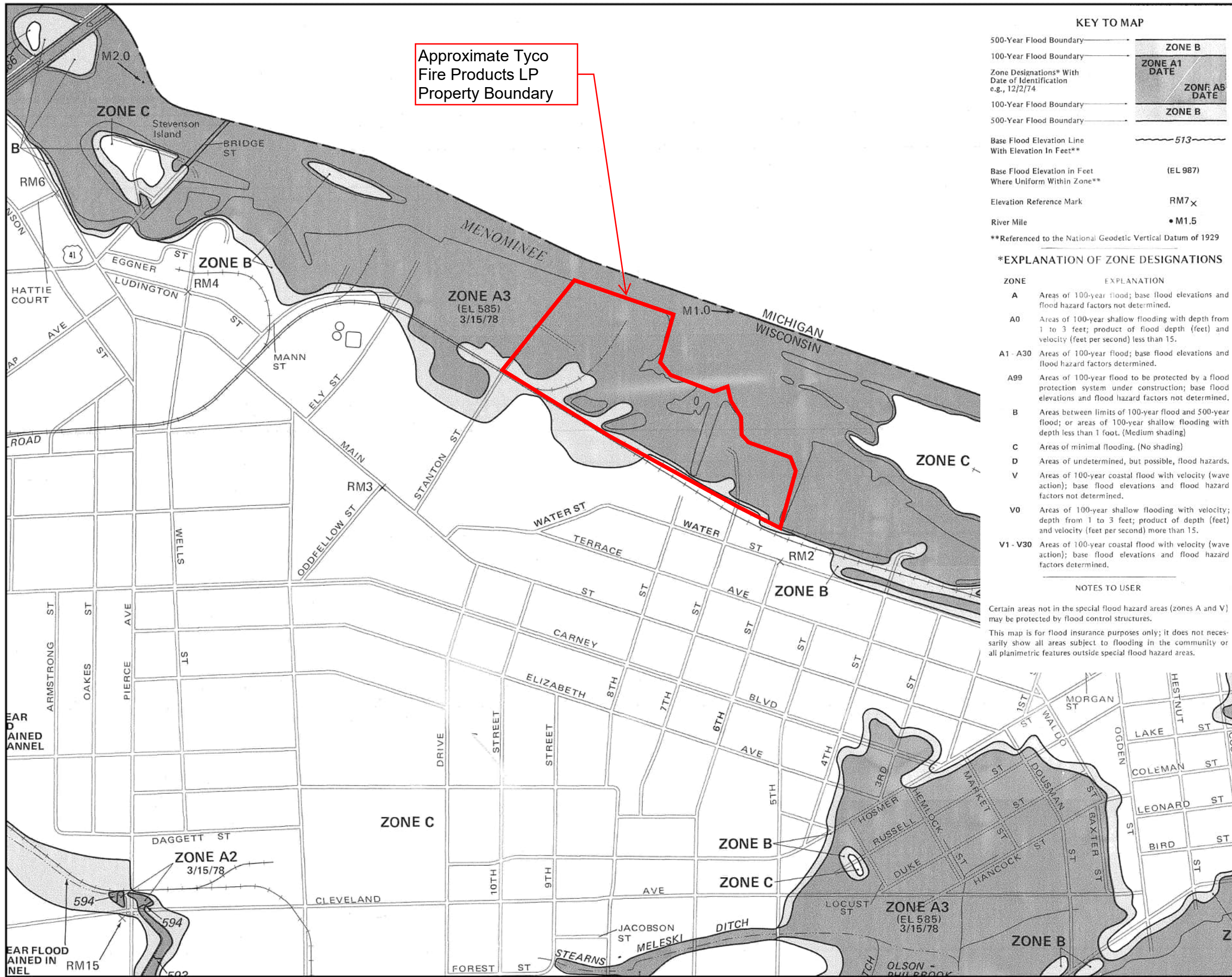
- Acronyms:
- VBW- vertical barrier wall
 - GWCTS - Groundwater collection and treatment system
 - GW - groundwater
 - MW - monitoring well
 - WPDES- Wisconsin Pollutant Discharge Elimination System
 - EW- Extraction well
 - ft- feet
 - NAVD88 - North American Vertical Datum 1988
 - ppm - parts per million
 - As - arsenic
 - cm/sec - centimeters per second

Note:
 S: Shallow wells screened typically from 5 to 15 feet deep.
 M: Medium depth or intermediate wells, screened typically from 25 to 30 feet deep.
 D: Deep wells installed and sealed within the uppermost portion of bedrock using a 5-foot long screen.
 Arsenic results are from 2013-2014 and represent highest and lowest arsenic concentrations detected in each area.
 Bedrock concentrations are the range for the entire site since bedrock is located below the barrier wall system.

Unit	Wetlands	8th St Slip
Alluvium	0.014 to 1.5 ppm	65 to 120 ppm
Lacustrine sand and silt	ND to 1800 ppm	No data
Till	Up to 2.6 ppm	No data

NOT TO SCALE

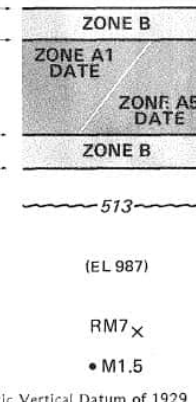
FIGURE 3
 Conceptual Site Model Post-barrier Wall
 Tyco Fire Products LP
 Marinette, Wisconsin



Approximate Tyco Fire Products LP Property Boundary

KEY TO MAP

- 500-Year Flood Boundary
- 100-Year Flood Boundary
- Zone Designations* With Date of Identification e.g., 12/2/74
- 100-Year Flood Boundary
- 500-Year Flood Boundary
- Base Flood Elevation Line With Elevation In Feet**
- Base Flood Elevation in Feet Where Uniform Within Zone**
- Elevation Reference Mark
- River Mile

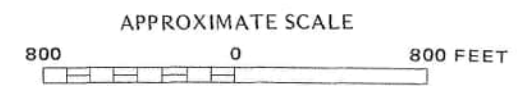


***EXPLANATION OF ZONE DESIGNATIONS**

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding with depth from 1 to 3 feet; product of flood depth (feet) and velocity (feet per second) less than 15.
A1 - A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by a flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of 100-year flood and 500-year flood; or areas of 100-year shallow flooding with depth less than 1 foot. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V0	Areas of 100-year shallow flooding with velocity; depth from 1 to 3 feet; product of depth (feet) and velocity (feet per second) more than 15.
V1 - V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.
 This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.



NATIONAL FLOOD INSURANCE PROGRAM


FLOOD INSURANCE RATE MAP

CITY OF MARINETTE, WISCONSIN
MARINETTE COUNTY

COMMUNITY-PANEL NUMBER
550261 0001 B

PAGE 1 OF 1

EFFECTIVE
MARCH 15, 1978



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEDERAL INSURANCE ADMINISTRATION

This is an official FIRMette showing a portion of the above-referenced flood map created from the MSC FIRMette Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at <https://msc.fema.gov>.

