tyco Fire Protection Products

One Stanton Street
Marinette, WI 54143

September 3, 2019

David Neste
Remediation and Redevelopment Program
Wisconsin Department of Natural Resources
625 E. County Road Y, Suite 700
Oshkosh, WI 54901

RE: Request for Additional Site Information in Marinette, Wisconsin
DNR BRRTS ACTIVITY #S 02-38-581955 & 02-38-580694

Dear Mr. Neste:

We received your letter dated July 2, 2019 concerning the subject above (the "Information Request"), addressed to Jeffrey Danko at Johnson Controls International, plc; please note that Mr. Danko is not employed by Johnson Controls International, plc. Mr. Danko's business address is correctly identified as 5757 N. Green Bay Avenue, and he therefore forwarded the letter to me. I am the Senior Project Manager – Fire Suppression Products at Tyco Fire Products LP ("Tyco").

We understand that Johnson Controls International, plc responded to the DNR Letter for the purpose of clarifying Johnson Controls International plc's corporate status and activities in the State of Wisconsin. However, the issues addressed in the DNR Letter relate to Tyco's operations in Marinette, Wisconsin.

In keeping with the spirit of cooperation between Tyco Fire Products LP ("Tyco") and the WDNR, although the Information Request was not addressed to Tyco, Tyco is voluntarily providing the following in response to the Information Request. This Response is submitted only on behalf of Tyco.

Tyco has generated the enclosed information summary in response to this request (Attachment 1).

Tyco appreciates the WDNR's attention to this matter and looks forward to our continued cooperation. If you have any questions regarding this submission, please feel free to contact me.

Sincerely,

Scott Wahl

Senior Program Manager

tyco Fire Protection Products

One Stanton Street
Marinette, WI 54143

ATTACHMENT 1

RESPONSE OF TYCO FIRE PRODUCTS LP TO WISCONSIN DEPARTMENT OF NATURAL RESOURCES' REQUEST FOR ADDITIONAL SITE INFORMATION IN MARINETTE, WISCONSIN

DNR BRRTS ACTIVITY #S 02-38-581955 & 02-38-580694

September 3, 2019

The Wisconsin Department of Natural Resources ("WDNR") Information Request dated July 2, 2019 ("Information Request") is addressed to Jeffery Danko, Johnson Controls International, plc. Johnson Controls International, plc is incorporated under the laws of the Republic of Ireland and is not registered to transact business in the State of Wisconsin. Johnson Controls International, plc has no employees or operations in the State of Wisconsin. In addition, please note that Mr. Danko is not employed by Johnson Controls International, plc. Mr. Danko's business address was correctly identified as 5757 N. Green Bay Avenue, and he therefore forwarded the letter to Tyco Fire Products LP.

In keeping with the spirit of cooperation between Tyco Fire Products LP ("Tyco") and the WDNR, although the Information Request was not addressed to Tyco, Tyco is voluntarily providing the following in response to the Information Request. This Response is submitted only on behalf of Tyco.

Tyco is the owner and operator of the properties located at: 1 Stanton Street, Marinette, Wisconsin (identified as BRRTS Activity Number 02-38-581955), and 2700 Industrial Parkway, Marinette, Wisconsin (identified as BRRTS Activity Number 02-38-580694) (collectively, the "Tyco Properties"). Tyco is also identified as the Responsible Party in the DNR BRRTS website for Activities #02-38-581955 and #02-38-580694. Although the Information Request asks that Johnson Controls International, plc. provide future submittals for the Tyco Properties, for the reasons stated above, Tyco will solely continue to submit information required by the DNR for the Tyco Properties.

All responses were prepared with the assistance and advice of counsel and such discussions are covered by attorney/client and attorney work product privileges.

GENERAL OBJECTIONS

Tyco's objections are made without in any way waiving or intending to waive but, on the contrary, preserving and intending to preserve:

(a) all questions and/or objections as to competency, relevancy, materiality, privilege, and admissibility as evidence for any purpose of the responses or subject matter thereof, in any subsequent proceeding involving Tyco;

(b) the right to object on any ground to the use of these responses or the subject matter thereof in any subsequent proceeding involving Tyco; and

(c) the right to object on any ground at any time to other requests or discovery procedures involving or relating to the subject of these responses.

Tyco has a corporate document retention program that limits the availability of older records and information. These responses are based on, and therefore necessarily limited by, the records and information still in existence, presently recollected, and thus far discovered in the course of preparing these responses. Tyco reserves the right to supplement and make any changes to these responses if it appears at any time that omissions or errors have been made or that more accurate information is available.

Tyco objects to each and every instruction and request to the extent that it seeks information that is not relevant or otherwise beyond that authorized by Wisconsin statutes.

Tyco objects to each and every instruction and request to the extent that it seeks information protected by the attorney/client privilege, the attorney work product doctrine, or any other applicable privilege or restriction, and Tyco has not included in this response copies of any such documents protected by such privileges, doctrines, or restrictions.

Tyco objects to each and every request to the extent that such requests are overly broad and unduly burdensome.

Tyco objects to this Information Request to the extent it lacks any definitions for the terminology utilized in the requests, such that Tyco is unable to determine what information is being sought by WDNR. Nothing in this response or in any subsequent or previous response to the Information Request shall be considered or deemed to be a waiver of these objections.

Tyco objects to this Information Request to the extent it asks duplicative questions from the responses to the WDNR's Information Request dated August 16, 2018, to which Tyco responded on October 18, 2018 and the WDNR's Information Request dated January 16, 2018, to which Tyco responded on March 12, 2018. Tyco incorporates all responses to the August 16, 2018 and January 16, 2018 Information Requests herein by reference.

Tyco's response is provided below[1]. The following responses correspond to the numbered requests in the Information Request (the Information Request language is set forth in italics). Tyco emphasizes that the information provided in this response is based on the Company's reasonable and good faith searches conducted to date for responsive information. WDNR's request for information is broad, calling for information spanning different products,

[1] This response is provided without any admission of liability of Tyco or its officers, directors, employees, agents or representatives, or as a waiver of any rights, objections, privileges or defenses. Tyco reserves the right to object to the use, in whole or in part, of any document or information submitted with this response in any proceeding for any purpose.

constituents, and activities that may date back a number decades. Tyco to date has not located comprehensive collections of information that are responsive to all parts of WDNR's requests, to the extent they may even exist. This response is being provided in good faith and in the spirit of cooperation with WDNR. Tyco reserves the right to amend this response as appropriate as it learns additional or different information.

REQUEST NO. 1: *Where was wastewater generated by JCI/Tyco transported to prior to the recent or current practice of off-site transportation of wastewater to the Publicly Owned Treatment Works ("POTW") located in Kimberly, Wisconsin by Covanta or out-of-state wastewater transportation to Ohio? Please provide a list of service providers and associated local POTWs denoting years utilized by Ansul, Tyco International, plc and JCI for the disposal of PFAS-containing wastewater.*

RESPONSE:

Based on available records and information, prior to sending wastewater to the POTW located in Kimberly, Wisconsin or to out-of-state wastewater transportation to Vickery, Ohio, Tyco sent wastewater to Heritage Environmental Solutions, LLC ("Heritage"). Based on our records, we understand that wastewater produced by Tyco was sent to Heritage since at least 2007. While we have not identified records going back further than 2007, we understand from interviews with Tyco employees that Heritage was likely used by Tyco going back to at least 2001. Based on available records, waste streams sent to Heritage were sent to the following locations: Indianapolis, Indiana; East Liverpool, Ohio; Oak Creek, Wisconsin; and Phoenix, Arizona, all of which were licensed to receive these materials.

Tyco has not located any additional information regarding where PFAS-containing wastewater was sent prior to the POTW located in Kimberly, Wisconsin or to out-of-state wastewater transportation to Vickery, Ohio.

REQUEST NO.2: *Where was the solid waste found in the wastewater generated by JCI/Tyco, the out-of-specification or out-of-date products created by JCI/Tyco, or clean up material generated by JCI/Tyco transported to prior to the recent or current practice of out-of-state transportation of solids by Heritage Environmental Services to Indianapolis, IN? Please provide a list of service providers and associated landfills or incineration facilities denoting years utilized by Ansul, Tyco International, plc and JCI for the disposal of PFAS-containing solid waste and waste products.*

RESPONSE:

Based on available records and information, Tyco sent other PFAS-containing waste products to Heritage since at least 2007. Please see Response to DNR Request No. 1.

REQUEST NO. 3: *Where were totes previously containing PFAS transported to for reconditioning or disposal prior to the current or recent or current practice of off-site transportation to Menominee Falls, Wisconsin by Covanta, and to the Kitzinger Cooperage facility in St. Francis, Wisconsin? Please provide a list of service providers and facilities denoting years*

utilized by Ansul, Tyco International, plc and JCI for the reconditioning or disposal of PFAS-containing totes and containers.

RESPONSE:

Based on available records and information, prior to sending totes previously containing PFAS to Menominee Falls, Wisconsin by Covanta, and to the Kitzinger Cooperage facility in St. Francis, Wisconsin, Tyco sent totes previously containing PFAS materials to Heritage since at least 2007. Please see Response to DNR Request No. 1. Tyco has not located any additional information regarding where totes previously containing PFAS materials were previously sent.

REQUEST NO. 4: *Please provide a list of entities and businesses acquired by JCI and your predecessors that manufactured PFAS-containing products such as Rockwood Systems, Inc. (dba Rockwood Foam) previously located at 171 Stephenson Ave in Peshtigo, Wisconsin.*

RESPONSE:

Tyco has never owned nor operated the facility located at 171 Stephenson Ave in Peshtigo, Wisconsin. On or about May 18, 1993, Wormald U.S. Inc.("Wormald") acquired certain assets of Rockwood Systems Corporation ("Rockwood") through Rockwood's bankruptcy proceeding in the Northern District of Texas U.S. Bankruptcy Court. Tyco did not acquire the Rockwood entity, only certain assets.

At the time of Rockwood's bankruptcy and Wormald's acquisition, Rockwood operations were solely located in Dallas. The assets were acquired from Rockwood in Dallas and were moved to Tyco's facility in Marinette. (Through a series of mergers, Wormald was eventually merged into Tyco.) Wormwald only purchased assets, however, based on available information, Rockwood never owned or operated the facility located at 171 Stephenson Avenue in Peshtigo, Wisconsin. Therefore, neither Wormald nor Tyco ever owned or operated the facility located at 171 Stephenson Avenue in Peshtigo, Wisconsin, either.

Tyco is not aware of any acquisition of entities or assets relating to PFAS-containing products in the state of Wisconsin.

REQUEST NO. 5: *Please provide all field sampling data of PFAS that was collected on or off the FTC property by your previous environmental consultant, O&M Inc. or any other parties prior to 2016. Please provide any reports generated by O&M Inc. pertaining to this data.*

RESPONSE:

Laboratory data for PFAS compounds for field sampling conducted by O&M, Inc. are provided in Appendix A. Tyco has not identified any other field sampling data for PFAS prior to 2016.

One Stanton Street
Marinette, WI 54143

Appendix A

Southeast ACCUTEST Laboratories Technical Reports for O&M, Inc.
Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI

Southeast
ACCUTEST
LABORATORIES

11/19/13

Technical Report for

O & M, Inc

Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI

493

Accutest Job Number: FA9482

Sampling Date: 10/23/13

Report to:

O & M, Inc
450 Montbrook Ln
Knoxville, TN 37919
efrauen@oandm-inc.com

ATTN: Eric Frauen

Total number of pages in report: **43**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Muna Mohammed 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

Sections: 1 2 3 4 5

Table of Contents

-1-

Section 1: Sample Summary **3**
Section 2: Summary of Hits **5**
Section 3: Sample Results 8
3.1: FA9482-1: FTC-58-S 9
3.2: FA9482-2: FTC-59 10
3.3: FA9482-3: FTC-59-S 11
3.4: FA9482-4: FTC-60 12
3.5: FA9482-5: FTC-60-S 13
3.6: FA9482-6: FTC-61-S 14
3.7: FA9482-7: FTC-62 15
3.8: FA9482-8: FTC-62-S 16
3.9: FA9482-9: FTC-63-S 17
3.10: FA9482-10: FTC-71 18
3.11: FA9482-11: FTC-71 19
3.12: FA9482-12: FTC-72 20
3.13: FA9482-13: FTC-72 21
3.14: FA9482-14: FTC-73 22
3.15: FA9482-15: FTC-74 23
3.16: FA9482-16: FTC-75 24
3.17: FA9482-17: FTC-76 25
3.18: FA9482-18: FTC-77 26
3.19: FA9482-19: FTC-77 27
Section 4: Misc. Forms **28**
4.1: Chain of Custody 29
Section 5: GC/MS Semi-volatiles - QC Data Summaries 32
5.1: Method Blank Summary 33
5.2: Blank Spike Summary 38
5.3: Matrix Spike/Matrix Spike Duplicate Summary 41

Sample Summary

O & M, Inc

Job No: FA9482

Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI
Project No: 493

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
FA9482-1	10/23/13	10:25	EF	10/26/13	AQ	Ground Water	FTC-58-S
FA9482-2	10/23/13	10:45	EF	10/26/13	SO	Soil	FTC-59
FA9482-3	10/23/13	10:50	EF	10/26/13	AQ	Ground Water	FTC-59-S
FA9482-4	10/23/13	11:10	EF	10/26/13	SO	Soil	FTC-60
FA9482-5	10/23/13	11:15	EF	10/26/13	AQ	Ground Water	FTC-60-S
FA9482-6	10/23/13	12:25	EF	10/26/13	AQ	Ground Water	FTC-61-S
FA9482-7	10/23/13	13:10	EF	10/26/13	SO	Soil	FTC-62
FA9482-8	10/23/13	13:15	EF	10/26/13	AQ	Ground Water	FTC-62-S
FA9482-9	10/23/13	13:30	EF	10/26/13	AQ	Ground Water	FTC-63-S
FA9482-10	10/23/13	15:48	EF	10/26/13	SO	Soil	FTC-71
FA9482-11	10/23/13	15:55	EF	10/26/13	AQ	Ground Water	FTC-71
FA9482-12	10/23/13	16:25	EF	10/26/13	SO	Soil	FTC-72
FA9482-13	10/23/13	16:30	EF	10/26/13	AQ	Ground Water	FTC-72

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Summary
(continued)

O & M, Inc

Job No: FA9482

Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI
Project No: 493

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
FA9482-14	10/23/13	16:40	EF	10/26/13	AQ	Ground Water	FTC-73
FA9482-15	10/23/13	16:55	EF	10/26/13	AQ	Ground Water	FTC-74
FA9482-16	10/23/13	17:10	EF	10/26/13	AQ	Ground Water	FTC-75
FA9482-17	10/23/13	17:25	EF	10/26/13	AQ	Ground Water	FTC-76
FA9482-18	10/23/13	17:40	EF	10/26/13	SO	Soil	FTC-77
FA9482-19	10/23/13	17:45	EF	10/26/13	AQ	Ground Water	FTC-77

The reported LOD and LOQ values have been adjusted for dry weight unless otherwise indicated on the results page. The reported LOD and LOQ values have been adjusted for the same dilution factor as that used for the sample result unless otherwise indicated on the results page. LOD = MDL and LOQ = RL.

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Summary of Hits

Job Number: FA9482
Account: O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI
Collected: 10/23/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA9482-1	**FTC-58-S**					
Perfluoroheptanoic acid		15.8	10	4.0	ug/l	EPA 537 MOD
Perfluorooctanoic acid		31.2	10	4.0	ug/l	EPA 537 MOD
FA9482-2	**FTC-59**					
Perfluorooctanoic acid [a]		35.6	26	10	ug/kg	EPA 537 MOD
FA9482-3	**FTC-59-S**					
Perfluoroheptanoic acid		16.0 J	20	8.0	ug/l	EPA 537 MOD
Perfluorooctanoic acid		136	20	8.0	ug/l	EPA 537 MOD
FA9482-4	**FTC-60**					
Perfluorooctanoic acid [a]		122	29	12	ug/kg	EPA 537 MOD
Perfluorooctanesulfonic acid [a]		19.1 J	29	12	ug/kg	EPA 537 MOD
FA9482-5	**FTC-60-S**					
Perfluoroheptanoic acid [b]		21.9 J	50	20	ug/l	EPA 537 MOD
Perfluorooctanoic acid [b]		254	50	20	ug/l	EPA 537 MOD
Perfluorobutanesulfonic acid [b]		22.1 J	50	20	ug/l	EPA 537 MOD
FA9482-6	**FTC-61-S**					
Perfluorohexanoic acid		4.0 J	5.0	2.0	ug/l	EPA 537 MOD
Perfluoroheptanoic acid		1.1	0.20	0.080	ug/l	EPA 537 MOD
Perfluorooctanoic acid		11.8	5.0	2.0	ug/l	EPA 537 MOD
Perfluorononanoic acid		0.46	0.20	0.080	ug/l	EPA 537 MOD
Perfluorodecanoic acid		0.23	0.20	0.080	ug/l	EPA 537 MOD
Perfluoroundecanoic acid		0.32	0.20	0.080	ug/l	EPA 537 MOD
Perfluorotridecanoic acid		0.082 J	0.20	0.080	ug/l	EPA 537 MOD
Perfluorohexanesulfonic acid		0.46	0.20	0.080	ug/l	EPA 537 MOD
Perfluorooctanesulfonic acid		0.75	0.20	0.080	ug/l	EPA 537 MOD
FA9482-7	**FTC-62**					
Perfluorooctanoic acid		84.9	13	5.3	ug/kg	EPA 537 MOD
Perfluoroundecanoic acid		6.7 J	13	5.3	ug/kg	EPA 537 MOD
FA9482-8	**FTC-62-S**					
Perfluorohexanoic acid		16.9	10	4.0	ug/l	EPA 537 MOD

Summary of Hits

Job Number: FA9482
Account: O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI
Collected: 10/23/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Perfluoroheptanoic acid		6.7 J	10	4.0	ug/l	EPA 537 MOD
Perfluorooctanoic acid		32.6	10	4.0	ug/l	EPA 537 MOD
Perfluoroundecanoic acid		6.9 J	10	4.0	ug/l	EPA 537 MOD
Perfluorooctanesulfonic acid		22.0	10	4.0	ug/l	EPA 537 MOD
FA9482-9	**FTC-63-S**					
Perfluorooctanoic acid [b]		84.5	50	20	ug/l	EPA 537 MOD
Perfluorobutanesulfonic acid [b]		36.1 J	50	20	ug/l	EPA 537 MOD
FA9482-10	**FTC-71**					
Perfluorooctanesulfonic acid [b]		308	63	25	ug/kg	EPA 537 MOD
FA9482-11	**FTC-71**					
Perfluorohexanoic acid		251	50	20	ug/l	EPA 537 MOD
Perfluoroheptanoic acid		77.2	50	20	ug/l	EPA 537 MOD
Perfluorooctanoic acid		50.3	50	20	ug/l	EPA 537 MOD
Perfluorobutanesulfonic acid		27.5 J	50	20	ug/l	EPA 537 MOD
FA9482-12	**FTC-72**					
Perfluorohexanoic acid		12.6	12	4.9	ug/kg	EPA 537 MOD
Perfluoroheptanoic acid		16.4	12	4.9	ug/kg	EPA 537 MOD
Perfluorooctanoic acid		35.8	12	4.9	ug/kg	EPA 537 MOD
Perfluorononanoic acid		5.4 J	12	4.9	ug/kg	EPA 537 MOD
Perfluorooctanesulfonic acid		13.5	12	4.9	ug/kg	EPA 537 MOD
FA9482-13	**FTC-72**					
Perfluorohexanoic acid		56.6	8.0	3.2	ug/l	EPA 537 MOD
Perfluoroheptanoic acid		16.3	5.0	2.0	ug/l	EPA 537 MOD
Perfluorooctanoic acid		16.2	5.0	2.0	ug/l	EPA 537 MOD
FA9482-14	**FTC-73**					
Perfluorohexanoic acid		84.2	10	4.0	ug/l	EPA 537 MOD
Perfluoroheptanoic acid		10.4	10	4.0	ug/l	EPA 537 MOD
Perfluorooctanoic acid		34.8	10	4.0	ug/l	EPA 537 MOD
Perfluorobutanesulfonic acid		10.2	10	4.0	ug/l	EPA 537 MOD
FA9482-15	**FTC-74**					
Perfluorohexanoic acid		25.5	10	4.0	ug/l	EPA 537 MOD

Summary of Hits

Job Number: FA9482
Account: O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI
Collected: 10/23/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Perfluoroheptanoic acid		11.4	10	4.0	ug/l	EPA 537 MOD
Perfluorooctanoic acid		24.6	5.0	2.0	ug/l	EPA 537 MOD
Perfluorononanoic acid		2.9 J	5.0	2.0	ug/l	EPA 537 MOD
FA9482-16	**FTC-75**					
Perfluorohexanoic acid		68.9	8.0	3.2	ug/l	EPA 537 MOD
Perfluoroheptanoic acid		13.1	8.0	3.2	ug/l	EPA 537 MOD
Perfluorooctanoic acid		14.7	8.0	3.2	ug/l	EPA 537 MOD
Perfluorobutanesulfonic acid		3.4 J	8.0	3.2	ug/l	EPA 537 MOD
FA9482-17	**FTC-76**					
Perfluorohexanoic acid [b]		142	50	20	ug/l	EPA 537 MOD
Perfluoroheptanoic acid [b]		22.1 J	50	20	ug/l	EPA 537 MOD
Perfluorooctanoic acid [b]		40.9 J	50	20	ug/l	EPA 537 MOD
Perfluorobutanesulfonic acid [b]		26.2 J	50	20	ug/l	EPA 537 MOD
FA9482-18	**FTC-77**					
Perfluorohexanoic acid		11.4 J	12	4.8	ug/kg	EPA 537 MOD
Perfluorooctanoic acid		17.6	12	4.8	ug/kg	EPA 537 MOD
Perfluorodecanoic acid		47.3	12	4.8	ug/kg	EPA 537 MOD
Perfluoroundecanoic acid		61.2	12	4.8	ug/kg	EPA 537 MOD
Perfluorododecanoic acid		18.2	12	4.8	ug/kg	EPA 537 MOD
Perfluorotridecanoic acid		17.6	12	4.8	ug/kg	EPA 537 MOD
Perfluorotetradecanoic acid		6.0 J	12	4.8	ug/kg	EPA 537 MOD
Perfluorooctanesulfonic acid		580	120	48	ug/kg	EPA 537 MOD
FA9482-19	**FTC-77**					
Perfluorohexanoic acid [b]		87.2	50	20	ug/l	EPA 537 MOD

(a) Dilution required due to matrix interference (internal standard failure).
(b) Dilution required due to matrix interference.

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	FTC-58-S		
Lab Sample ID:	FA9482-1	**Date Sampled:**	10/23/13
Matrix:	AQ - Ground Water	**Date Received:**	10/26/13
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	n/a
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q3632.D	2	11/12/13	MRE	11/05/13	OP49318	SQ101
Run #2							

	Initial Volume	Final Volume
Run #1	1.0 ml	2.0 ml
Run #2		

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	ND	10	4.0	ug/l	
375-85-9	Perfluoroheptanoic acid	15.8	10	4.0	ug/l	
335-67-1	Perfluorooctanoic acid	31.2	10	4.0	ug/l	
375-95-1	Perfluorononanoic acid	ND	10	4.0	ug/l	
335-76-2	Perfluorodecanoic acid	ND	10	4.0	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	10	4.0	ug/l	
307-55-1	Perfluorododecanoic acid	ND	10	4.0	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	10	4.0	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	10	4.0	ug/l	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	ND	10	4.0	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	10	4.0	ug/l	
	Perfluoroheptanesulfonic acid	ND	10	4.0	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	10	4.0	ug/l	
	Perfluorodecanesulfonic acid	ND	10	4.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	93%		70-130%
	13C2-PFDA	102%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FTC-59		
Lab Sample ID:	FA9482-2	**Date Sampled:**	10/23/13
Matrix:	SO - Soil	**Date Received:**	10/26/13
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	80.2
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	Q3465.D	2	11/05/13	MRE	11/01/13	OP49273	SQ96
Run #2							

	Initial Weight	Final Volume
Run #1	1.2 g	5.0 ml
Run #2		

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	ND	26	10	ug/kg	
375-85-9	Perfluoroheptanoic acid	ND	26	10	ug/kg	
335-67-1	Perfluorooctanoic acid	35.6	26	10	ug/kg	
375-95-1	Perfluorononanoic acid	ND	26	10	ug/kg	
335-76-2	Perfluorodecanoic acid	ND	26	10	ug/kg	
2058-94-8	Perfluoroundecanoic acid	ND	26	10	ug/kg	
307-55-1	Perfluorododecanoic acid	ND	26	10	ug/kg	
72629-94-8	Perfluorotridecanoic acid	ND	26	10	ug/kg	
376-06-7	Perfluorotetradecanoic acid	ND	26	10	ug/kg	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	ND	26	10	ug/kg	
355-46-4	Perfluorohexanesulfonic acid	ND	26	10	ug/kg	
	Perfluoroheptanesulfonic acid	ND	26	10	ug/kg	
1763-23-1	Perfluorooctanesulfonic acid	ND	26	10	ug/kg	
	Perfluorodecanesulfonic acid	ND	26	10	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	96%		70-130%
	13C2-PFDA	111%		70-130%

(a) Dilution required due to matrix interference (internal standard failure).

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FTC-59-S		
Lab Sample ID:	FA9482-3	**Date Sampled:**	10/23/13
Matrix:	AQ - Ground Water	**Date Received:**	10/26/13
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	n/a
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q3633.D	4	11/12/13	MRE	11/05/13	OP49318	SQ101
Run #2							

	Initial Volume	Final Volume
Run #1	1.0 ml	2.0 ml
Run #2		

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	ND	20	8.0	ug/l	
375-85-9	Perfluoroheptanoic acid	16.0	20	8.0	ug/l	J
335-67-1	Perfluorooctanoic acid	136	20	8.0	ug/l	
375-95-1	Perfluorononanoic acid	ND	20	8.0	ug/l	
335-76-2	Perfluorodecanoic acid	ND	20	8.0	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	20	8.0	ug/l	
307-55-1	Perfluorododecanoic acid	ND	20	8.0	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	20	8.0	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	20	8.0	ug/l	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	ND	20	8.0	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	20	8.0	ug/l	
	Perfluoroheptanesulfonic acid	ND	20	8.0	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	20	8.0	ug/l	
	Perfluorodecanesulfonic acid	ND	20	8.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	123%		70-130%
	13C2-PFDA	123%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FTC-60		
Lab Sample ID:	FA9482-4	**Date Sampled:**	10/23/13
Matrix:	SO - Soil	**Date Received:**	10/26/13
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	80.0
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	Q3466.D	2	11/05/13	MRE	11/01/13	OP49273	SQ96
Run #2							

	Initial Weight	Final Volume
Run #1	1.1 g	5.0 ml
Run #2		

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	ND	29	12	ug/kg	
375-85-9	Perfluoroheptanoic acid	ND	29	12	ug/kg	
335-67-1	Perfluorooctanoic acid	122	29	12	ug/kg	
375-95-1	Perfluorononanoic acid	ND	29	12	ug/kg	
335-76-2	Perfluorodecanoic acid	ND	29	12	ug/kg	
2058-94-8	Perfluoroundecanoic acid	ND	29	12	ug/kg	
307-55-1	Perfluorododecanoic acid	ND	29	12	ug/kg	
72629-94-8	Perfluorotridecanoic acid	ND	29	12	ug/kg	
376-06-7	Perfluorotetradecanoic acid	ND	29	12	ug/kg	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	ND	29	12	ug/kg	
355-46-4	Perfluorohexanesulfonic acid	ND	29	12	ug/kg	
	Perfluoroheptanesulfonic acid	ND	29	12	ug/kg	
1763-23-1	Perfluorooctanesulfonic acid	19.1	29	12	ug/kg	J
	Perfluorodecanesulfonic acid	ND	29	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	95%		70-130%
	13C2-PFDA	127%		70-130%

(a) Dilution required due to matrix interference (internal standard failure).

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FTC-60-S		
Lab Sample ID:	FA9482-5	**Date Sampled:**	10/23/13
Matrix:	AQ - Ground Water	**Date Received:**	10/26/13
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	n/a
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	Q3634.D	10	11/12/13	MRE	11/05/13	OP49318	SQ101
Run #2							

	Initial Volume	Final Volume
Run #1	1.0 ml	2.0 ml
Run #2		

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	ND	50	20	ug/l	
375-85-9	Perfluoroheptanoic acid	21.9	50	20	ug/l	J
335-67-1	Perfluorooctanoic acid	254	50	20	ug/l	
375-95-1	Perfluorononanoic acid	ND	50	20	ug/l	
335-76-2	Perfluorodecanoic acid	ND	50	20	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	50	20	ug/l	
307-55-1	Perfluorododecanoic acid	ND	50	20	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	50	20	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	50	20	ug/l	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	22.1	50	20	ug/l	J
355-46-4	Perfluorohexanesulfonic acid	ND	50	20	ug/l	
	Perfluoroheptanesulfonic acid	ND	50	20	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	50	20	ug/l	
	Perfluorodecanesulfonic acid	ND	50	20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	0% [b]		70-130%
	13C2-PFDA	0% [b]		70-130%

(a) Dilution required due to matrix interference.
(b) Outside control limits due to dilution.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FTC-61-S		
Lab Sample ID:	FA9482-6	**Date Sampled:**	10/23/13
Matrix:	AQ - Ground Water	**Date Received:**	10/26/13
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	n/a
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q3601.D	1	11/11/13	MRE	11/06/13	OP49408	SQ100
Run #2	Q3617.D	25	11/12/13	MRE	11/06/13	OP49408	SQ101

	Initial Volume	Final Volume
Run #1	25.0 ml	2.0 ml
Run #2	25.0 ml	2.0 ml

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	4.0 [a]	5.0	2.0	ug/l	J
375-85-9	Perfluoroheptanoic acid	1.1	0.20	0.080	ug/l	
335-67-1	Perfluorooctanoic acid	11.8 [a]	5.0	2.0	ug/l	
375-95-1	Perfluorononanoic acid	0.46	0.20	0.080	ug/l	
335-76-2	Perfluorodecanoic acid	0.23	0.20	0.080	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.32	0.20	0.080	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.20	0.080	ug/l	
72629-94-8	Perfluorotridecanoic acid	0.082	0.20	0.080	ug/l	J
376-06-7	Perfluorotetradecanoic acid	ND	0.20	0.080	ug/l	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	ND	0.20	0.080	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.46	0.20	0.080	ug/l	
	Perfluoroheptanesulfonic acid	ND	0.20	0.080	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.75	0.20	0.080	ug/l	
	Perfluorodecanesulfonic acid	ND	0.20	0.080	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	112%	0% [b]	70-130%
	13C2-PFDA	126%	0% [b]	70-130%

(a) Result is from Run# 2
(b) Outside control limits due to dilution.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FTC-62		
Lab Sample ID:	FA9482-7	**Date Sampled:**	10/23/13
Matrix:	SO - Soil	**Date Received:**	10/26/13
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	86.8
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q3452.D	1	11/04/13	MRE	11/01/13	OP49273	SQ95
Run #2							

	Initial Weight	Final Volume
Run #1	1.1 g	5.0 ml
Run #2		

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	ND	13	5.3	ug/kg	
375-85-9	Perfluoroheptanoic acid	ND	13	5.3	ug/kg	
335-67-1	Perfluorooctanoic acid	84.9	13	5.3	ug/kg	
375-95-1	Perfluorononanoic acid	ND	13	5.3	ug/kg	
335-76-2	Perfluorodecanoic acid	ND	13	5.3	ug/kg	
2058-94-8	Perfluoroundecanoic acid	6.7	13	5.3	ug/kg	J
307-55-1	Perfluorododecanoic acid	ND	13	5.3	ug/kg	
72629-94-8	Perfluorotridecanoic acid	ND	13	5.3	ug/kg	
376-06-7	Perfluorotetradecanoic acid	ND	13	5.3	ug/kg	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	ND	13	5.3	ug/kg	
355-46-4	Perfluorohexanesulfonic acid	ND	13	5.3	ug/kg	
	Perfluoroheptanesulfonic acid	ND	13	5.3	ug/kg	
1763-23-1	Perfluorooctanesulfonic acid	ND	13	5.3	ug/kg	
	Perfluorodecanesulfonic acid	ND	13	5.3	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	94%		70-130%
	13C2-PFDA	92%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FTC-62-S		
Lab Sample ID:	FA9482-8	**Date Sampled:**	10/23/13
Matrix:	AQ - Ground Water	**Date Received:**	10/26/13
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	n/a
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q3625.D	50	11/12/13	MRE	11/06/13	OP49408	SQ101
Run #2							

	Initial Volume	Final Volume
Run #1	25.0 ml	2.0 ml
Run #2		

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	16.9	10	4.0	ug/l	
375-85-9	Perfluoroheptanoic acid	6.7	10	4.0	ug/l	J
335-67-1	Perfluorooctanoic acid	32.6	10	4.0	ug/l	
375-95-1	Perfluorononanoic acid	ND	10	4.0	ug/l	
335-76-2	Perfluorodecanoic acid	ND	10	4.0	ug/l	
2058-94-8	Perfluoroundecanoic acid	6.9	10	4.0	ug/l	J
307-55-1	Perfluorododecanoic acid	ND	10	4.0	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	10	4.0	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	10	4.0	ug/l	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	ND	10	4.0	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	10	4.0	ug/l	
	Perfluoroheptanesulfonic acid	ND	10	4.0	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	22.0	10	4.0	ug/l	
	Perfluorodecanesulfonic acid	ND	10	4.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	0% [a]		70-130%
	13C2-PFDA	0% [a]		70-130%

(a) Outside control limits due to dilution.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FTC-63-S		
Lab Sample ID:	FA9482-9	**Date Sampled:**	10/23/13
Matrix:	AQ - Ground Water	**Date Received:**	10/26/13
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	n/a
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	Q3655.D	10	11/13/13	MRE	11/05/13	OP49318	SQ102
Run #2							

	Initial Volume	Final Volume
Run #1	1.0 ml	2.0 ml
Run #2		

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	ND	50	20	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	50	20	ug/l	
335-67-1	Perfluorooctanoic acid	84.5	50	20	ug/l	
375-95-1	Perfluorononanoic acid	ND	50	20	ug/l	
335-76-2	Perfluorodecanoic acid	ND	50	20	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	50	20	ug/l	
307-55-1	Perfluorododecanoic acid	ND	50	20	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	50	20	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	50	20	ug/l	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	36.1	50	20	ug/l	J
355-46-4	Perfluorohexanesulfonic acid	ND	50	20	ug/l	
	Perfluoroheptanesulfonic acid	ND	50	20	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	50	20	ug/l	
	Perfluorodecanesulfonic acid	ND	50	20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	0% [b]		70-130%
	13C2-PFDA	0% [b]		70-130%

(a) Dilution required due to matrix interference.
(b) Outside control limits due to dilution.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FTC-71		
Lab Sample ID:	FA9482-10	**Date Sampled:**	10/23/13
Matrix:	SO - Soil	**Date Received:**	10/26/13
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	94.6
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	Q3467.D	5	11/05/13	MRE	11/01/13	OP49273	SQ96
Run #2							

	Initial Weight	Final Volume
Run #1	1.1 g	5.0 ml
Run #2		

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	ND	63	25	ug/kg	
375-85-9	Perfluoroheptanoic acid	ND	63	25	ug/kg	
335-67-1	Perfluorooctanoic acid	ND	63	25	ug/kg	
375-95-1	Perfluorononanoic acid	ND	63	25	ug/kg	
335-76-2	Perfluorodecanoic acid	ND	63	25	ug/kg	
2058-94-8	Perfluoroundecanoic acid	ND	63	25	ug/kg	
307-55-1	Perfluorododecanoic acid	ND	63	25	ug/kg	
72629-94-8	Perfluorotridecanoic acid	ND	63	25	ug/kg	
376-06-7	Perfluorotetradecanoic acid	ND	63	25	ug/kg	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	ND	63	25	ug/kg	
355-46-4	Perfluorohexanesulfonic acid	ND	63	25	ug/kg	
	Perfluoroheptanesulfonic acid	ND	63	25	ug/kg	
1763-23-1	Perfluorooctanesulfonic acid	308	63	25	ug/kg	
	Perfluorodecanesulfonic acid	ND	63	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	104%		70-130%
	13C2-PFDA	111%		70-130%

(a) Dilution required due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FTC-71		
Lab Sample ID:	FA9482-11	**Date Sampled:**	10/23/13
Matrix:	AQ - Ground Water	**Date Received:**	10/26/13
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	n/a
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q3638.D	10	11/12/13	MRE	11/05/13	OP49318	SQ101
Run #2							

	Initial Volume	Final Volume
Run #1	1.0 ml	2.0 ml
Run #2		

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	251	50	20	ug/l	
375-85-9	Perfluoroheptanoic acid	77.2	50	20	ug/l	
335-67-1	Perfluorooctanoic acid	50.3	50	20	ug/l	
375-95-1	Perfluorononanoic acid	ND	50	20	ug/l	
335-76-2	Perfluorodecanoic acid	ND	50	20	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	50	20	ug/l	
307-55-1	Perfluorododecanoic acid	ND	50	20	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	50	20	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	50	20	ug/l	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	27.5	50	20	ug/l	J
355-46-4	Perfluorohexanesulfonic acid	ND	50	20	ug/l	
	Perfluoroheptanesulfonic acid	ND	50	20	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	50	20	ug/l	
	Perfluorodecanesulfonic acid	ND	50	20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	113%		70-130%
	13C2-PFDA	115%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FTC-72		
Lab Sample ID:	FA9482-12	**Date Sampled:**	10/23/13
Matrix:	SO - Soil	**Date Received:**	10/26/13
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	94.5
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q3456.D	1	11/04/13	MRE	11/01/13	OP49273	SQ95
Run #2							

	Initial Weight	Final Volume
Run #1	1.1 g	5.0 ml
Run #2		

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	12.6	12	4.9	ug/kg	
375-85-9	Perfluoroheptanoic acid	16.4	12	4.9	ug/kg	
335-67-1	Perfluorooctanoic acid	35.8	12	4.9	ug/kg	
375-95-1	Perfluorononanoic acid	5.4	12	4.9	ug/kg	J
335-76-2	Perfluorodecanoic acid	ND	12	4.9	ug/kg	
2058-94-8	Perfluoroundecanoic acid	ND	12	4.9	ug/kg	
307-55-1	Perfluorododecanoic acid	ND	12	4.9	ug/kg	
72629-94-8	Perfluorotridecanoic acid	ND	12	4.9	ug/kg	
376-06-7	Perfluorotetradecanoic acid	ND	12	4.9	ug/kg	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	ND	12	4.9	ug/kg	
355-46-4	Perfluorohexanesulfonic acid	ND	12	4.9	ug/kg	
	Perfluoroheptanesulfonic acid	ND	12	4.9	ug/kg	
1763-23-1	Perfluorooctanesulfonic acid	13.5	12	4.9	ug/kg	
	Perfluorodecanesulfonic acid	ND	12	4.9	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	123%		70-130%
	13C2-PFDA	128%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FTC-72		
Lab Sample ID:	FA9482-13	**Date Sampled:**	10/23/13
Matrix:	AQ - Ground Water	**Date Received:**	10/26/13
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	n/a
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q3626.D	25	11/12/13	MRE	11/06/13	OP49408	SQ101
Run #2	Q3666.D	40	11/13/13	MRE	11/06/13	OP49408	SQ102
Run #3 [a]	Q3639.D	4	11/12/13	MRE	11/05/13	OP49318	SQ101

	Initial Volume	Final Volume
Run #1	25.0 ml	2.0 ml
Run #2	25.0 ml	2.0 ml
Run #3	1.0 ml	2.0 ml

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	56.6 [b]	8.0	3.2	ug/l	
375-85-9	Perfluoroheptanoic acid	16.3	5.0	2.0	ug/l	
335-67-1	Perfluorooctanoic acid	16.2	5.0	2.0	ug/l	
375-95-1	Perfluorononanoic acid	ND	5.0	2.0	ug/l	
335-76-2	Perfluorodecanoic acid	ND	5.0	2.0	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	5.0	2.0	ug/l	
307-55-1	Perfluorododecanoic acid	ND	5.0	2.0	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	5.0	2.0	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	5.0	2.0	ug/l	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	ND	5.0	2.0	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	5.0	2.0	ug/l	
	Perfluoroheptanesulfonic acid	ND	5.0	2.0	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	5.0	2.0	ug/l	
	Perfluorodecanesulfonic acid	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
	13C2-PFHxA	0% [c]	0% [c]	129%	70-130%
	13C2-PFDA	0% [c]	0% [c]	100%	70-130%

(a) Confirmation run.
(b) Result is from Run# 2
(c) Outside control limits due to dilution.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FTC-73		
Lab Sample ID:	FA9482-14	**Date Sampled:**	10/23/13
Matrix:	AQ - Ground Water	**Date Received:**	10/26/13
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	n/a
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q3656.D	2	11/13/13	MRE	11/05/13	OP49318	SQ102
Run #2							

	Initial Volume	Final Volume
Run #1	1.0 ml	2.0 ml
Run #2		

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	84.2	10	4.0	ug/l	
375-85-9	Perfluoroheptanoic acid	10.4	10	4.0	ug/l	
335-67-1	Perfluorooctanoic acid	34.8	10	4.0	ug/l	
375-95-1	Perfluorononanoic acid	ND	10	4.0	ug/l	
335-76-2	Perfluorodecanoic acid	ND	10	4.0	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	10	4.0	ug/l	
307-55-1	Perfluorododecanoic acid	ND	10	4.0	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	10	4.0	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	10	4.0	ug/l	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	10.2	10	4.0	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	10	4.0	ug/l	
	Perfluoroheptanesulfonic acid	ND	10	4.0	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	10	4.0	ug/l	
	Perfluorodecanesulfonic acid	ND	10	4.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	116%		70-130%
	13C2-PFDA	94%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FTC-74		
Lab Sample ID:	FA9482-15	**Date Sampled:**	10/23/13
Matrix:	AQ - Ground Water	**Date Received:**	10/26/13
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	n/a
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q3667.D	25	11/13/13	MRE	11/06/13	OP49408	SQ102
Run #2	Q3700.D	50	11/18/13	MRE	11/06/13	OP49408	SQ105
Run #3 [a]	Q3643.D	4	11/12/13	MRE	11/05/13	OP49318	SQ101

	Initial Volume	Final Volume
Run #1	25.0 ml	2.0 ml
Run #2	25.0 ml	2.0 ml
Run #3	1.0 ml	2.0 ml

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	25.5 [b]	10	4.0	ug/l	
375-85-9	Perfluoroheptanoic acid	11.4 [b]	10	4.0	ug/l	
335-67-1	Perfluorooctanoic acid	24.6	5.0	2.0	ug/l	
375-95-1	Perfluorononanoic acid	2.9	5.0	2.0	ug/l	J
335-76-2	Perfluorodecanoic acid	ND	5.0	2.0	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	5.0	2.0	ug/l	
307-55-1	Perfluorododecanoic acid	ND	5.0	2.0	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	5.0	2.0	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	5.0	2.0	ug/l	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	ND	5.0	2.0	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	5.0	2.0	ug/l	
	Perfluoroheptanesulfonic acid	ND	5.0	2.0	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	5.0	2.0	ug/l	
	Perfluorodecanesulfonic acid	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
	13C2-PFHxA	0% [c]	0% [c]	128%	70-130%
	13C2-PFDA	0% [c]	0% [c]	121%	70-130%

(a) Confirmation run.
(b) Result is from Run# 2
(c) Outside control limits due to dilution.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FTC-75		
Lab Sample ID:	FA9482-16	**Date Sampled:**	10/23/13
Matrix:	AQ - Ground Water	**Date Received:**	10/26/13
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	n/a
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q3628.D	40	11/12/13	MRE	11/06/13	OP49408	SQ101
Run #2 [a]	Q3665.D	4	11/13/13	MRE	11/05/13	OP49318	SQ102

	Initial Volume	Final Volume
Run #1	25.0 ml	2.0 ml
Run #2	1.0 ml	2.0 ml

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	68.9	8.0	3.2	ug/l	
375-85-9	Perfluoroheptanoic acid	13.1	8.0	3.2	ug/l	
335-67-1	Perfluorooctanoic acid	14.7	8.0	3.2	ug/l	
375-95-1	Perfluorononanoic acid	ND	8.0	3.2	ug/l	
335-76-2	Perfluorodecanoic acid	ND	8.0	3.2	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	8.0	3.2	ug/l	
307-55-1	Perfluorododecanoic acid	ND	8.0	3.2	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	8.0	3.2	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	8.0	3.2	ug/l	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	3.4	8.0	3.2	ug/l	J
355-46-4	Perfluorohexanesulfonic acid	ND	8.0	3.2	ug/l	
	Perfluoroheptanesulfonic acid	ND	8.0	3.2	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	8.0	3.2	ug/l	
	Perfluorodecanesulfonic acid	ND	8.0	3.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	0% [b]	139%	70-130%
	13C2-PFDA	0% [b]	176%	70-130%

(a) Confirmation run.
(b) Outside control limits due to dilution.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FTC-76		
Lab Sample ID:	FA9482-17	**Date Sampled:**	10/23/13
Matrix:	AQ - Ground Water	**Date Received:**	10/26/13
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	n/a
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	Q3657.D	10	11/13/13	MRE	11/05/13	OP49318	SQ102
Run #2 [b]	Q3645.D	5	11/12/13	MRE	11/05/13	OP49318	SQ101

	Initial Volume	Final Volume
Run #1	1.0 ml	2.0 ml
Run #2	1.0 ml	2.0 ml

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	142	50	20	ug/l	
375-85-9	Perfluoroheptanoic acid	22.1	50	20	ug/l	J
335-67-1	Perfluorooctanoic acid	40.9	50	20	ug/l	J
375-95-1	Perfluorononanoic acid	ND	50	20	ug/l	
335-76-2	Perfluorodecanoic acid	ND	50	20	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	50	20	ug/l	
307-55-1	Perfluorododecanoic acid	ND	50	20	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	50	20	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	50	20	ug/l	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	26.2	50	20	ug/l	J
355-46-4	Perfluorohexanesulfonic acid	ND	50	20	ug/l	
	Perfluoroheptanesulfonic acid	ND	50	20	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	50	20	ug/l	
	Perfluorodecanesulfonic acid	ND	50	20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	141% [c]	236%	70-130%
	13C2-PFDA	118%	194%	70-130%

(a) Dilution required due to matrix interference.
(b) Confirmation run for surrogate recoveries.
(c) Outside control limits due to matrix interference. Confirmed by reanalysis.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FTC-77		
Lab Sample ID:	FA9482-18	**Date Sampled:**	10/23/13
Matrix:	SO - Soil	**Date Received:**	10/26/13
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	90.8
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q3463.D	1	11/05/13	MRE	11/01/13	OP49273	SQ96
Run #2	Q3464.D	10	11/05/13	MRE	11/01/13	OP49273	SQ96

	Initial Weight	Final Volume
Run #1	1.2 g	5.0 ml
Run #2	1.2 g	5.0 ml

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	11.4	12	4.8	ug/kg	J
375-85-9	Perfluoroheptanoic acid	ND	12	4.8	ug/kg	
335-67-1	Perfluorooctanoic acid	17.6	12	4.8	ug/kg	
375-95-1	Perfluorononanoic acid	ND	12	4.8	ug/kg	
335-76-2	Perfluorodecanoic acid	47.3	12	4.8	ug/kg	
2058-94-8	Perfluoroundecanoic acid	61.2	12	4.8	ug/kg	
307-55-1	Perfluorododecanoic acid	18.2	12	4.8	ug/kg	
72629-94-8	Perfluorotridecanoic acid	17.6	12	4.8	ug/kg	
376-06-7	Perfluorotetradecanoic acid	6.0	12	4.8	ug/kg	J
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	ND	12	4.8	ug/kg	
355-46-4	Perfluorohexanesulfonic acid	ND	12	4.8	ug/kg	
	Perfluoroheptanesulfonic acid	ND	12	4.8	ug/kg	
1763-23-1	Perfluorooctanesulfonic acid	580 [a]	120	48	ug/kg	
	Perfluorodecanesulfonic acid	ND	12	4.8	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	114%	117%	70-130%
	13C2-PFDA	87%	123%	70-130%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FTC-77		
Lab Sample ID:	FA9482-19	**Date Sampled:**	10/23/13
Matrix:	AQ - Ground Water	**Date Received:**	10/26/13
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	n/a
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	Q3658.D	10	11/13/13	MRE	11/05/13	OP49318	SQ102
Run #2 [b]	Q3646.D	4	11/12/13	MRE	11/05/13	OP49318	SQ101

	Initial Volume	Final Volume
Run #1	1.0 ml	2.0 ml
Run #2	1.0 ml	2.0 ml

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	87.2	50	20	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	50	20	ug/l	
335-67-1	Perfluorooctanoic acid	ND	50	20	ug/l	
375-95-1	Perfluorononanoic acid	ND	50	20	ug/l	
335-76-2	Perfluorodecanoic acid	ND	50	20	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	50	20	ug/l	
307-55-1	Perfluorododecanoic acid	ND	50	20	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	50	20	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	50	20	ug/l	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	ND	50	20	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	50	20	ug/l	
	Perfluoroheptanesulfonic acid	ND	50	20	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	50	20	ug/l	
	Perfluorodecanesulfonic acid	ND	50	20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	150% [c]	207%	70-130%
	13C2-PFDA	112%	196%	70-130%

(a) Dilution required due to matrix interference.
(b) Confirmation run for surrogate recoveries.
(c) Outside control limits due to matrix interference. Confirmed by reanalysis.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES

Accutest Laboratories Southeast
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.accutest.com

ACCUTEST JOB #: FA9482 PAGE ____ OF ____

Accutest Quote # | SKIFF #

Client / Reporting Information

Company Name: O+M, Inc.
Address: 450 Montbrook Ln.
City: Knoxville State: TN Zip: 37919
Project Contact: Eric Frauen E-mail: EFrauen@OandM-Inc.com
Phone #: 414-963-6210
Sampler(s) Name(s) (Printed) Sampler 1: ETF Sampler 2:

Project Information

Project Name: Tyco Marinette FTC
Street: 2900 Industrial Parkway S
City: Marinette State: WI
Project #: 493
Fax #:
Client Purchase Order #: 493

Analytical Information

PFCs

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid

Accutest Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Sampled By:	Matrix	Total # of Bottles	Container Information	PFCs	LAB USE ONLY
	[redacted]							X	
11	FTC-58-S		10:25		W	1	X	X	1
12	FTC-59		10:45		S				2
13	FTC-59-S		10:50		W				3
	FTC-60		11:10		S				4
	FTC-60-S		11:15		W				5
	[redacted]								
	FTC-61-S		12:25		W				6
	FTC-62 MS/MSD		13:10		S				7
	FTC-62-S MS/MSD		13:15		W				8
	FTC-63-S		13:30		W				9

Turnaround Time (Business days)

Std. 10 Business Days
7 Day *RUSH*
5 Day *RUSH*
3 Day *EMERGENCY*
2 Day *EMERGENCY*
1 Day *EMERGENCY*
Other
Approved By: / Date/Rush Code:
Emergency or Rush T/A Data Available VIA Email or Labiink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

CHICAGO SC

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		10/25/13 11:46	2	3		4
5	Relinquished by/Affiliation: FED EX 10-26-13	Date Time: 9:15	Received By/Affiliation: 6	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved Where Applicable: Y N Total # of Coolers: ____ Cooler Temperature (s) Celsius: 3.7

FA9482: Chain of Custody
Page 1 of 3

Accutest Laboratories Southeast

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.accutest.com

ACCUTEST LABORATORIES

FA9482

ACCUTEST JOB #: PAGE____ OF____

Accutest Quote # | SKIFF #

Client / Reporting Information

Company Name: O+M, Inc.
Address: 450 Montbrook Ln.
City: Knoxville State: TN Zip: 37919
Project Contact: Eric Frauen E-mail: efrauen@OandM-Inc.com
Phone #: 414-963-6210
Sampler(s) Name(s) (Printed) Sampler 1: ETE Sampler 2:

Project Information

Project Name: Tyco Marinette FTC
Street: 2700 Industrial Parkway S
City: Marinette State: WI
Project #: 493
Fax #:
Client Purchase Order #: 493

Analytical Information

PFCs

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid

Accutest Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Sampled By:	Matrix	Total # of Bottles	Container Information: Other	None	HCl	HNO3	H2SO4	NaOH+ZnAc	DI Water	MeOH	LAB USE ONLY
	~~FTC-65~~	~~10/23~~	~~16:05~~					X							
	~~Rinsate~~														
1	FTC-71		15:48		S	1								X	8 10
2	FTC-71		15:55		W									X	9 11
3	FTC-72		16:25		S										10 12
4	FTC-72		16:30		W										11 13
5	FTC-73		16:40		W										12 14
6	FTC-74		16:55		W										13 15
7	FTC-75		17:10		W										14 16
8	FTC-76		17:25		W										15 17
9	FTC-77		17:40		S										16 18
10	FTC-77		17:45		W										17 19

Turnaround Time (Business days)

Std. 10 Business Days — Approved By: / Date/Rush Code:
7 Day *RUSH*
5 Day *RUSH*
3 Day *EMERGENCY*
2 Day *EMERGENCY*
1 Day *EMERGENCY*
Other
Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

CHICAGO SC

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 ETE	10/25/13 11:46	2 10/25/13 11:46	3		4 FED
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5 FED 10/26/13	915	6	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved Where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius:

4.1 4

FA9482: Chain of Custody
Page 2 of 3

SAMPLE RECEIPT & PRELOGIN CONFIRMATION

ACCUTEST'S JOB NUMBER: FA9482 CLIENT: O&M PROJECT: Tyco Marinette

DATE/TIME RECEIVED: 10-26-13 915 (MM/DD/YY 24:00) NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 8037 1296 3952

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [x] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM 5-GRAM

NUMBER OF 5035 FIELD KITS ?

NUMBER OF LAB FILTERED METALS ?

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.4
- [ ] OBSERVED TEMPS: 2.8
- [ ] CORRECTED TEMPS: 3.2

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

(APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE: 10/26/13 REVIEWER SIGNATURE/DATE: 10/26/13

NF 12/10 receipt confirmation 122910.xls

FA9482: Chain of Custody
Page 3 of 3

Southeast ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA9482
Account: OMTNK O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP49273-MB	Q3449.D	1	11/04/13	MRE	11/01/13	OP49273	SQ95

The QC reported here applies to the following samples: **Method:** EPA 537 MOD

FA9482-2, FA9482-4, FA9482-7, FA9482-10, FA9482-12, FA9482-18

CAS No.	Compound	Result	RL	MDL	Units	Q
307-24-4	Perfluorohexanoic acid	ND	13	5.0	ug/kg	
375-85-9	Perfluoroheptanoic acid	ND	13	5.0	ug/kg	
335-67-1	Perfluorooctanoic acid	ND	13	5.0	ug/kg	
375-95-1	Perfluorononanoic acid	ND	13	5.0	ug/kg	
335-76-2	Perfluorodecanoic acid	ND	13	5.0	ug/kg	
2058-94-8	Perfluoroundecanoic acid	ND	13	5.0	ug/kg	
307-55-1	Perfluorododecanoic acid	ND	13	5.0	ug/kg	
72629-94-8	Perfluorotridecanoic acid	ND	13	5.0	ug/kg	
376-06-7	Perfluorotetradecanoic acid	ND	13	5.0	ug/kg	
375-73-5	Perfluorobutanesulfonic acid	ND	13	5.0	ug/kg	
355-46-4	Perfluorohexanesulfonic acid	ND	13	5.0	ug/kg	
	Perfluoroheptanesulfonic acid	ND	13	5.0	ug/kg	
1763-23-1	Perfluorooctanesulfonic acid	ND	13	5.0	ug/kg	
	Perfluorodecanesulfonic acid	ND	13	5.0	ug/kg	

CAS No.	Surrogate Recoveries		Limits
	13C2-PFHxA	96%	70-130%
	13C2-PFDA	92%	70-130%

Method Blank Summary

Job Number: FA9482
Account: OMTNK O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP49273-MB	Q3462.D	1	11/05/13	MRE	11/01/13	OP49273	SQ96

The QC reported here applies to the following samples: **Method:** EPA 537 MOD

FA9482-2, FA9482-4, FA9482-7, FA9482-10, FA9482-12, FA9482-18

CAS No.	Compound	Result	RL	MDL	Units	Q
307-24-4	Perfluorohexanoic acid	ND	13	5.0	ug/kg	
375-85-9	Perfluoroheptanoic acid	ND	13	5.0	ug/kg	
335-67-1	Perfluorooctanoic acid	ND	13	5.0	ug/kg	
375-95-1	Perfluorononanoic acid	ND	13	5.0	ug/kg	
335-76-2	Perfluorodecanoic acid	ND	13	5.0	ug/kg	
2058-94-8	Perfluoroundecanoic acid	ND	13	5.0	ug/kg	
307-55-1	Perfluorododecanoic acid	ND	13	5.0	ug/kg	
72629-94-8	Perfluorotridecanoic acid	ND	13	5.0	ug/kg	
376-06-7	Perfluorotetradecanoic acid	ND	13	5.0	ug/kg	
375-73-5	Perfluorobutanesulfonic acid	ND	13	5.0	ug/kg	
355-46-4	Perfluorohexanesulfonic acid	ND	13	5.0	ug/kg	
	Perfluoroheptanesulfonic acid	ND	13	5.0	ug/kg	
1763-23-1	Perfluorooctanesulfonic acid	ND	13	5.0	ug/kg	
	Perfluorodecanesulfonic acid	ND	13	5.0	ug/kg	

CAS No.	Surrogate Recoveries		Limits
	13C2-PFHxA	97%	70-130%
	13C2-PFDA	99%	70-130%

Method Blank Summary

Job Number: FA9482
Account: OMTNK O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP49318-MB	Q3631.D	1	11/12/13	MRE	11/05/13	OP49318	SQ101

5.1.3

5

The QC reported here applies to the following samples: **Method:** EPA 537 MOD

FA9482-1, FA9482-3, FA9482-5, FA9482-9, FA9482-11, FA9482-14, FA9482-17, FA9482-19

CAS No.	Compound	Result	RL	MDL	Units	Q
307-24-4	Perfluorohexanoic acid	ND	5.0	2.0	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	5.0	2.0	ug/l	
335-67-1	Perfluorooctanoic acid	ND	5.0	2.0	ug/l	
375-95-1	Perfluorononanoic acid	ND	5.0	2.0	ug/l	
335-76-2	Perfluorodecanoic acid	ND	5.0	2.0	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	5.0	2.0	ug/l	
307-55-1	Perfluorododecanoic acid	ND	5.0	2.0	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	5.0	2.0	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	5.0	2.0	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	5.0	2.0	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	5.0	2.0	ug/l	
	Perfluoroheptanesulfonic acid	ND	5.0	2.0	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	5.0	2.0	ug/l	
	Perfluorodecanesulfonic acid	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
	13C2-PFHxA	105%	70-130%
	13C2-PFDA	97%	70-130%

Method Blank Summary

Job Number: FA9482
Account: OMTNK O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP49408-MB	Q3600.D	1	11/11/13	MRE	11/06/13	OP49408	SQ100

5.1.4 5

The QC reported here applies to the following samples: **Method:** EPA 537 MOD

FA9482-6, FA9482-8, FA9482-13, FA9482-15, FA9482-16

CAS No.	Compound	Result	RL	MDL	Units	Q
307-24-4	Perfluorohexanoic acid	ND	0.20	0.080	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.20	0.080	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.20	0.080	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.20	0.080	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.20	0.080	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.20	0.080	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.20	0.080	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.20	0.080	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.20	0.080	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.20	0.080	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.20	0.080	ug/l	
	Perfluoroheptanesulfonic acid	ND	0.20	0.080	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.20	0.080	ug/l	
	Perfluorodecanesulfonic acid	ND	0.20	0.080	ug/l	

CAS No.	Surrogate Recoveries		Limits
	13C2-PFHxA	96%	70-130%
	13C2-PFDA	91%	70-130%

Method Blank Summary

Job Number: FA9482
Account: OMTNK O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP49408-MB	Q3612.D	1	11/12/13	MRE	11/06/13	OP49408	SQ101

The QC reported here applies to the following samples: **Method:** EPA 537 MOD

FA9482-6, FA9482-8, FA9482-13, FA9482-15, FA9482-16

CAS No.	Compound	Result	RL	MDL	Units	Q
307-24-4	Perfluorohexanoic acid	ND	0.20	0.080	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.20	0.080	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.20	0.080	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.20	0.080	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.20	0.080	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.20	0.080	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.20	0.080	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.20	0.080	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.20	0.080	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.20	0.080	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.20	0.080	ug/l	
	Perfluoroheptanesulfonic acid	ND	0.20	0.080	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.20	0.080	ug/l	
	Perfluorodecanesulfonic acid	ND	0.20	0.080	ug/l	

CAS No.	Surrogate Recoveries		Limits
	13C2-PFHxA	106%	70-130%
	13C2-PFDA	92%	70-130%

Blank Spike Summary

Job Number: FA9482
Account: OMTNK O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP49273-BS	Q3448.D	1	11/04/13	MRE	11/01/13	OP49273	SQ95

The QC reported here applies to the following samples: **Method:** EPA 537 MOD

FA9482-2, FA9482-4, FA9482-7, FA9482-10, FA9482-12, FA9482-18

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
307-24-4	Perfluorohexanoic acid	100	85.4	85	70-130
375-85-9	Perfluoroheptanoic acid	100	89.6	90	70-130
335-67-1	Perfluorooctanoic acid	100	87.2	87	70-130
375-95-1	Perfluorononanoic acid	100	84.0	84	70-130
335-76-2	Perfluorodecanoic acid	100	82.8	83	70-130
2058-94-8	Perfluoroundecanoic acid	100	86.1	86	70-130
307-55-1	Perfluorododecanoic acid	100	82.4	82	70-130
72629-94-8	Perfluorotridecanoic acid	100	84.2	84	70-130
376-06-7	Perfluorotetradecanoic acid	100	85.1	85	70-130
375-73-5	Perfluorobutanesulfonic acid	100	96.3	96	70-130
355-46-4	Perfluorohexanesulfonic acid	100	90.2	90	70-130
1763-23-1	Perfluorooctanesulfonic acid	100	87.1	87	70-130
	Perfluorodecanesulfonic acid	100	86.8	87	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
	13C2-PFHxA	86%	70-130%
	13C2-PFDA	82%	70-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA9482
Account: OMTNK O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP49318-BS	Q3630.D	1	11/12/13	MRE	11/05/13	OP49318	SQ101

The QC reported here applies to the following samples: **Method:** EPA 537 MOD

FA9482-1, FA9482-3, FA9482-5, FA9482-9, FA9482-11, FA9482-14, FA9482-17, FA9482-19

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
307-24-4	Perfluorohexanoic acid	40	42.2	106	70-130
375-85-9	Perfluoroheptanoic acid	40	41.9	105	70-130
335-67-1	Perfluorooctanoic acid	40	42.6	107	70-130
375-95-1	Perfluorononanoic acid	40	41.5	104	70-130
335-76-2	Perfluorodecanoic acid	40	44.0	110	70-130
2058-94-8	Perfluoroundecanoic acid	40	40.5	101	70-130
307-55-1	Perfluorododecanoic acid	40	38.5	96	70-130
72629-94-8	Perfluorotridecanoic acid	40	32.7	82	70-130
376-06-7	Perfluorotetradecanoic acid	40	33.5	84	70-130
375-73-5	Perfluorobutanesulfonic acid	40	44.1	110	70-130
355-46-4	Perfluorohexanesulfonic acid	40	38.7	97	70-130
1763-23-1	Perfluorooctanesulfonic acid	40	40.4	101	70-130
	Perfluorodecanesulfonic acid	40	39.4	99	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
	13C2-PFHxA	108%	70-130%
	13C2-PFDA	99%	70-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA9482
Account: OMTNK O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP49408-BS	Q3599.D	1	11/11/13	MRE	11/06/13	OP49408	SQ100

The QC reported here applies to the following samples: **Method:** EPA 537 MOD

FA9482-6, FA9482-8, FA9482-13, FA9482-15, FA9482-16

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
307-24-4	Perfluorohexanoic acid	1.6	1.6	100	70-130
375-85-9	Perfluoroheptanoic acid	1.6	1.4	88	70-130
335-67-1	Perfluorooctanoic acid	1.6	1.6	100	70-130
375-95-1	Perfluorononanoic acid	1.6	1.4	88	70-130
335-76-2	Perfluorodecanoic acid	1.6	1.4	88	70-130
2058-94-8	Perfluoroundecanoic acid	1.6	1.5	94	70-130
307-55-1	Perfluorododecanoic acid	1.6	1.6	100	70-130
72629-94-8	Perfluorotridecanoic acid	1.6	1.3	81	70-130
376-06-7	Perfluorotetradecanoic acid	1.6	1.3	81	70-130
375-73-5	Perfluorobutanesulfonic acid	1.6	1.5	94	70-130
355-46-4	Perfluorohexanesulfonic acid	1.6	1.5	94	70-130
1763-23-1	Perfluorooctanesulfonic acid	1.6	1.4	88	70-130
	Perfluorodecanesulfonic acid	1.6	1.4	88	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
	13C2-PFHxA	111%	70-130%
	13C2-PFDA	99%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA9482
Account: OMTNK O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP49273-MS	Q3468.D	5	11/05/13	MRE	11/01/13	OP49273	SQ96
OP49273-MSD	Q3469.D	5	11/05/13	MRE	11/01/13	OP49273	SQ96
FA9482-10 [a]	Q3467.D	5	11/05/13	MRE	11/01/13	OP49273	SQ96

The QC reported here applies to the following samples: **Method:** EPA 537 MOD

FA9482-2, FA9482-4, FA9482-7, FA9482-10, FA9482-12, FA9482-18

CAS No.	Compound	FA9482-10 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
307-24-4	Perfluorohexanoic acid	ND		103	132	129	120	131*	10	70-130/30
375-85-9	Perfluoroheptanoic acid	ND		103	117	114	110	120	6	70-130/30
335-67-1	Perfluorooctanoic acid	ND		103	120	117	109	119	10	70-130/30
375-95-1	Perfluorononanoic acid	ND		103	118	115	105	114	12	70-130/30
335-76-2	Perfluorodecanoic acid	ND		103	126	123	116	126	8	70-130/30
2058-94-8	Perfluoroundecanoic acid	ND		103	136	133*	123	134*	10	70-130/30
307-55-1	Perfluorododecanoic acid	ND		103	138	134*	127	138*	8	70-130/30
72629-94-8	Perfluorotridecanoic acid	ND		103	138	134*	127	138*	8	70-130/30
376-06-7	Perfluorotetradecanoic acid	ND		103	144	140*	126	137*	13	70-130/30
375-73-5	Perfluorobutanesulfonic acid	ND		103	116	113	103	112	12	70-130/30
355-46-4	Perfluorohexanesulfonic acid	ND		103	112	109	110	120	2	70-130/30
1763-23-1	Perfluorooctanesulfonic acid	308		103	440	129	447	151* [b]	2	70-130/30
	Perfluorodecanesulfonic acid	ND		103	109	106	109	119	0	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	FA9482-10	Limits
	13C2-PFHxA	114%	113%	104%	70-130%
	13C2-PFDA	122%	115%	111%	70-130%

(a) Dilution required due to matrix interference.
(b) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA9482
Account: OMTNK O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP49318-MS	Q3659.D	10	11/13/13	MRE	11/05/13	OP49318	SQ102
OP49318-MSD	Q3660.D	10	11/13/13	MRE	11/05/13	OP49318	SQ102
FA9482-19 [a]	Q3646.D	4	11/12/13	MRE	11/05/13	OP49318	SQ101
FA9482-19 [b]	Q3658.D	10	11/13/13	MRE	11/05/13	OP49318	SQ102

The QC reported here applies to the following samples: **Method:** EPA 537 MOD

FA9482-1, FA9482-3, FA9482-5, FA9482-9, FA9482-11, FA9482-14, FA9482-17, FA9482-19

CAS No.	Compound	FA9482-19 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
307-24-4	Perfluorohexanoic acid	87.2 [c]		40	183	85	199	125	8	70-130/30
375-85-9	Perfluoroheptanoic acid	ND [c]		40	86.1	157*	89.9	166*	4	70-130/30
335-67-1	Perfluorooctanoic acid	ND [c]		40	85.0	141*	85.1	141*	0	70-130/30
375-95-1	Perfluorononanoic acid	ND [c]		40	69.2	173*	73.5	184*	6	70-130/30
335-76-2	Perfluorodecanoic acid	ND [c]		40	68.5	171*	67.7	169*	1	70-130/30
2058-94-8	Perfluoroundecanoic acid	ND [c]		40	66.0	165*	66.8	167*	1	70-130/30
307-55-1	Perfluorododecanoic acid	ND [c]		40	61.4	154*	59.5	149*	3	70-130/30
72629-94-8	Perfluorotridecanoic acid	ND [c]		40	48.0	120	49.8	125	4	70-130/30
376-06-7	Perfluorotetradecanoic acid	ND [c]		40	47.6	119	47.0	118	1	70-130/30
375-73-5	Perfluorobutanesulfonic acid	ND [c]		40	63.4	159*	59.2	148*	7	70-130/30
355-46-4	Perfluorohexanesulfonic acid	ND [c]		40	51.8	130	52.0	130	0	70-130/30
	Perfluoroheptanesulfonic acid	ND [c]		40	ND	0*	ND	0*	nc	70-130/30
1763-23-1	Perfluorooctanesulfonic acid	ND [c]		40	52.2	131*	52.6	132*	1	70-130/30
	Perfluorodecanesulfonic acid	ND [c]		40	53.7	134*	52.4	131*	2	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	FA9482-19	FA9482-19	Limits
	13C2-PFHxA	177%* [e]	190%* [e]	207%*	150%* [d]	70-130%
	13C2-PFDA	161%* [e]	154%* [e]	196%*	112%	70-130%

(a) Confirmation run for surrogate recoveries.
(b) Dilution required due to matrix interference.
(c) Result is from Run #2.
(d) Outside control limits due to matrix interference. Confirmed by reanalysis.
(e) Outside control limits due to dilution.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA9482
Account: OMTNK O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP49408-MS	Q3624.D	10	11/12/13	MRE	11/06/13	OP49408	SQ101
OP49408-MSD	Q3618.D	10	11/12/13	MRE	11/06/13	OP49408	SQ101
FA9482-6	Q3601.D	1	11/11/13	MRE	11/06/13	OP49408	SQ100
FA9482-6	Q3617.D	25	11/12/13	MRE	11/06/13	OP49408	SQ101

The QC reported here applies to the following samples: **Method:** EPA 537 MOD

FA9482-6, FA9482-8, FA9482-13, FA9482-15, FA9482-16

CAS No.	Compound	FA9482-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
307-24-4	Perfluorohexanoic acid	4.0 [b]	J	1.6	5.7	106	5.1	69* [a]	11	70-130/30
375-85-9	Perfluoroheptanoic acid	1.1		1.6	2.7	100	2.6	94	4	70-130/30
335-67-1	Perfluorooctanoic acid	11.8 [b]		1.6	12.6	50* [a]	12.7	56* [a]	1	70-130/30
375-95-1	Perfluorononanoic acid	0.46		1.6	2.2	109	2.2	109	0	70-130/30
335-76-2	Perfluorodecanoic acid	0.23		1.6	2.0	111	1.9	104	5	70-130/30
2058-94-8	Perfluoroundecanoic acid	0.32		1.6	1.9	99	1.9	99	0	70-130/30
307-55-1	Perfluorododecanoic acid	ND		1.6	1.1	69*	1.2	75	9	70-130/30
72629-94-8	Perfluorotridecanoic acid	0.082	J	1.6	ND	-5*	ND	-5*	nc	70-130/30
376-06-7	Perfluorotetradecanoic acid	ND		1.6	ND	0*	ND	0*	nc	70-130/30
375-73-5	Perfluorobutanesulfonic acid	ND		1.6	1.7	106	1.7	106	0	70-130/30
355-46-4	Perfluorohexanesulfonic acid	0.46		1.6	1.7	78	1.9	90	11	70-130/30
1763-23-1	Perfluorooctanesulfonic acid	0.75		1.6	2.2	91	2.1	84	5	70-130/30
	Perfluorodecanesulfonic acid	ND		1.6	0.94	59*	0.94	59*	0	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	FA9482-6	FA9482-6	Limits
	13C2-PFHxA	125%	118%	112%	0%* [c]	70-130%
	13C2-PFDA	129%	120%	126%	0%* [c]	70-130%

(a) Outside control limits due to high level in sample relative to spike amount.
(b) Result is from Run #2.
(c) Outside control limits due to dilution.

* = Outside of Control Limits.

Southeast
ACCUTEST
LABORATORIES

05/21/14

Technical Report for

O & M, Inc

Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI

493

Accutest Job Number: FA14553

Sampling Date: 04/21/14

Report to:

O & M, Inc
450 Montbrook Ln
Knoxville, TN 37919
efrauen@oandm-inc.com; jrost@tycoint.com

ATTN: Judy Rost

Total number of pages in report: **19**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Muna Mohammed 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

Sections: 1 2 3 4 5

Table of Contents

-1-

Section 1: Sample Summary **3**
Section 2: Summary of Hits **4**
Section 3: Sample Results 5
3.1: FA14553-1: FTC-82 6
3.2: FA14553-2: FTC-83 7
3.3: FA14553-3: FTC-82 8
3.4: FA14553-4: FTC-83 9
Section 4: Misc. Forms **10**
4.1: Chain of Custody 11
Section 5: GC/MS Semi-volatiles - QC Data Summaries 14
5.1: Method Blank Summary 15
5.2: Blank Spike Summary 17
5.3: Matrix Spike/Matrix Spike Duplicate Summary 19

Accutest Laboratories

Sample Summary

O & M, Inc

Job No: FA14553

Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI
Project No: 493

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
FA14553-1	04/21/14	13:00	CF	04/26/14	SO	Soil	FTC-82
FA14553-2	04/21/14	13:30	CF	04/26/14	SO	Soil	FTC-83
FA14553-3	04/21/14	13:10	CF	04/26/14	AQ	Ground Water	FTC-82
FA14553-4	04/21/14	13:30	CF	04/26/14	AQ	Ground Water	FTC-83

The reported LOD and LOQ values have been adjusted for dry weight unless otherwise indicated on the results page. The reported LOD and LOQ values have been adjusted for the same dilution factor as that used for the sample result unless otherwise indicated on the results page. LOD = MDL and LOQ = RL.

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Summary of Hits

2

Job Number: FA14553
Account: O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI
Collected: 04/21/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA14553-1	**FTC-82**					
Perfluoroheptanoic acid		5.8 J	14	5.4	ug/kg	EPA 537 MOD
Perfluorooctanoic acid		14.8	14	5.4	ug/kg	EPA 537 MOD
Perfluorononanoic acid		113	14	6.3	ug/kg	EPA 537 MOD
Perfluoroundecanoic acid		10.3 J	14	8.3	ug/kg	EPA 537 MOD
Perfluorooctanesulfonic acid		234	54	22	ug/kg	EPA 537 MOD
FA14553-2	**FTC-83**					
Perfluorooctanoic acid		5.3 J	13	5.2	ug/kg	EPA 537 MOD
FA14553-3	**FTC-82**					
Perfluorohexanoic acid		2.01 B	1.2	0.49	ug/l	EPA 537 MOD
Perfluoroheptanoic acid		1.41 B	1.2	0.49	ug/l	EPA 537 MOD
Perfluorooctanoic acid		22.3 B	1.2	0.49	ug/l	EPA 537 MOD
Perfluorononanoic acid		9.17	1.2	0.49	ug/l	EPA 537 MOD
Perfluorodecanoic acid		1.17 J	1.2	0.49	ug/l	EPA 537 MOD
Perfluoroundecanoic acid		1.27	1.2	0.49	ug/l	EPA 537 MOD
Perfluorohexanesulfonic acid		10.4	1.2	0.49	ug/l	EPA 537 MOD
Perfluoroheptanesulfonic acid		1.86	1.2	0.49	ug/l	EPA 537 MOD
Perfluorooctanesulfonic acid		64.0 E	2.4	0.98	ug/l	EPA 537 MOD
FA14553-4	**FTC-83**					
Perfluorohexanoic acid		0.931 B	0.12	0.048	ug/l	EPA 537 MOD
Perfluoroheptanoic acid		0.412 B	0.12	0.048	ug/l	EPA 537 MOD
Perfluorooctanoic acid		0.336 B	0.12	0.048	ug/l	EPA 537 MOD
Perfluorononanoic acid		0.103 J	0.12	0.048	ug/l	EPA 537 MOD
Perfluorodecanoic acid		0.248	0.12	0.048	ug/l	EPA 537 MOD
Perfluoroundecanoic acid		0.0860 J	0.12	0.048	ug/l	EPA 537 MOD
Perfluorooctanesulfonic acid		0.566	0.12	0.048	ug/l	EPA 537 MOD

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	FTC-82		
Lab Sample ID:	FA14553-1	**Date Sampled:**	04/21/14
Matrix:	SO - Soil	**Date Received:**	04/26/14
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	84.9
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q5089.D	1	05/15/14	MRE	05/03/14	OP51479	SQ167
Run #2	Q5084.D	4	05/15/14	MRE	05/03/14	OP51479	SQ167

	Initial Weight	Final Volume
Run #1	1.1 g	5.0 ml
Run #2	1.1 g	5.0 ml

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	ND	14	5.4	ug/kg	
375-85-9	Perfluoroheptanoic acid	5.8	14	5.4	ug/kg	J
335-67-1	Perfluorooctanoic acid	14.8	14	5.4	ug/kg	
375-95-1	Perfluorononanoic acid	113	14	6.3	ug/kg	
335-76-2	Perfluorodecanoic acid	ND	14	6.9	ug/kg	
2058-94-8	Perfluoroundecanoic acid	10.3	14	8.3	ug/kg	J
307-55-1	Perfluorododecanoic acid	ND	14	5.4	ug/kg	
72629-94-8	Perfluorotridecanoic acid	ND	14	6.9	ug/kg	
376-06-7	Perfluorotetradecanoic acid	ND	14	5.4	ug/kg	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	ND	14	5.4	ug/kg	
355-46-4	Perfluorohexanesulfonic acid	ND	14	5.4	ug/kg	
	Perfluoroheptanesulfonic acid	ND	14	5.4	ug/kg	
1763-23-1	Perfluorooctanesulfonic acid	234 [a]	54	22	ug/kg	
	Perfluorodecanesulfonic acid	ND	14	5.4	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	101%	74%	70-130%
	13C2-PFDA	103%	70%	70-130%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FTC-83		
Lab Sample ID:	FA14553-2	**Date Sampled:**	04/21/14
Matrix:	SO - Soil	**Date Received:**	04/26/14
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	79.0
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q5085.D	1	05/15/14	MRE	05/03/14	OP51479	SQ167
Run #2							

	Initial Weight	Final Volume
Run #1	1.2 g	5.0 ml
Run #2		

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	ND	13	5.2	ug/kg	
375-85-9	Perfluoroheptanoic acid	ND	13	5.2	ug/kg	
335-67-1	Perfluorooctanoic acid	5.3	13	5.2	ug/kg	J
375-95-1	Perfluorononanoic acid	ND	13	6.0	ug/kg	
335-76-2	Perfluorodecanoic acid	ND	13	6.6	ug/kg	
2058-94-8	Perfluoroundecanoic acid	ND	13	7.9	ug/kg	
307-55-1	Perfluorododecanoic acid	ND	13	5.2	ug/kg	
72629-94-8	Perfluorotridecanoic acid	ND	13	6.6	ug/kg	
376-06-7	Perfluorotetradecanoic acid	ND	13	5.2	ug/kg	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	ND	13	5.2	ug/kg	
355-46-4	Perfluorohexanesulfonic acid	ND	13	5.2	ug/kg	
	Perfluoroheptanesulfonic acid	ND	13	5.2	ug/kg	
1763-23-1	Perfluorooctanesulfonic acid	ND	13	5.2	ug/kg	
	Perfluorodecanesulfonic acid	ND	13	5.2	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	98%		70-130%
	13C2-PFDA	94%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FTC-82		
Lab Sample ID:	FA14553-3	**Date Sampled:**	04/21/14
Matrix:	AQ - Ground Water	**Date Received:**	04/26/14
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	n/a
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q5153.D	10	05/20/14	MRE	05/03/14	OP51478	SQ169
Run #2	Q5154.D	20	05/20/14	MRE	05/03/14	OP51478	SQ169

	Initial Volume	Final Volume
Run #1	205 ml	10.0 ml
Run #2	205 ml	10.0 ml

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	2.01	1.2	0.49	ug/l	B
375-85-9	Perfluoroheptanoic acid	1.41	1.2	0.49	ug/l	B
335-67-1	Perfluorooctanoic acid	22.3	1.2	0.49	ug/l	B
375-95-1	Perfluorononanoic acid	9.17	1.2	0.49	ug/l	
335-76-2	Perfluorodecanoic acid	1.17	1.2	0.49	ug/l	J
2058-94-8	Perfluoroundecanoic acid	1.27	1.2	0.49	ug/l	
307-55-1	Perfluorododecanoic acid	ND	1.2	0.49	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	1.2	0.49	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	1.2	0.49	ug/l	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	ND	1.2	0.49	ug/l	
355-46-4	Perfluorohexanesulfonic acid	10.4	1.2	0.49	ug/l	
	Perfluoroheptanesulfonic acid	1.86	1.2	0.49	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	64.0 [a]	2.4	0.98	ug/l	E
	Perfluorodecanesulfonic acid	ND	1.2	0.49	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	110%	0% [b]	70-130%
	13C2-PFDA	99%	0% [b]	70-130%

(a) Result is from Run# 2
(b) Outside control limits due to dilution.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FTC-83		
Lab Sample ID:	FA14553-4	**Date Sampled:**	04/21/14
Matrix:	AQ - Ground Water	**Date Received:**	04/26/14
Method:	EPA 537 MOD IN HOUSE	**Percent Solids:**	n/a
Project:	Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q5152.D	1	05/20/14	MRE	05/03/14	OP51478	SQ169
Run #2							

	Initial Volume	Final Volume
Run #1	210 ml	10.0 ml
Run #2		

Perfluorinated Carboxylic Acids and Sulfonates

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
307-24-4	Perfluorohexanoic acid	0.931	0.12	0.048	ug/l	B
375-85-9	Perfluoroheptanoic acid	0.412	0.12	0.048	ug/l	B
335-67-1	Perfluorooctanoic acid	0.336	0.12	0.048	ug/l	B
375-95-1	Perfluorononanoic acid	0.103	0.12	0.048	ug/l	J
335-76-2	Perfluorodecanoic acid	0.248	0.12	0.048	ug/l	
2058-94-8	Perfluoroundecanoic acid	0.0860	0.12	0.048	ug/l	J
307-55-1	Perfluorododecanoic acid	ND	0.12	0.048	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.12	0.048	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.12	0.048	ug/l	
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	ND	0.12	0.048	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.12	0.048	ug/l	
	Perfluoroheptanesulfonic acid	ND	0.12	0.048	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.566	0.12	0.048	ug/l	
	Perfluorodecanesulfonic acid	ND	0.12	0.048	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	13C2-PFHxA	77%		70-130%
	13C2-PFDA	71%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA14553 PAGE ____ OF ____

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: D+M, Inc.
Address: 4830 N. Berkeley
City: Whitefish Bay State: WI Zip: 53217
Project Contact: Eric Frauen E-mail: efrauen@D+M-Inc.com
Phone#: 414-963-6210
Sampler(s) Name(s) (Printed): Chris Frauen

Project Information

Project Name: FTC Marinette
Street: 2700 Industrial Pkwy
City: Marinette State: WI
Project #: 493
Fax #:
Client Purchase Order #: 493

Analytical Information

PFCs

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	NaOH	H2SO4	HNO3	ZnAc+NaOH	DI Water	MeOH	LAB USE ONLY
1	FTC-82	4/21/14	13:00	CF	S	1		X								X
2	FTC-83		13:30		S	1		X								X
3	FTC-82		13:00		W	1		X								X
4	FTC-83		13:30		W	1		X								X
~~5~~	~~FB-1~~		14:00		S											X

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [X] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [X] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1	4/23/14 11:30	2	3 FP 04-26-14	1000	4
Relinquished by:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
5		6	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: 2.6

4.1 4

FA14553: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA14553 CLIENT: D&M PROJECT: FTC

DATE/TIME RECEIVED: 04-26-14 1000 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 8046 2065 4300

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [X] TRIP BLANK NOT PROVIDED
- [X] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.4
- [ ] OBSERVED TEMPS: 3.0
- [ ] CORRECTED TEMPS: 2.6

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

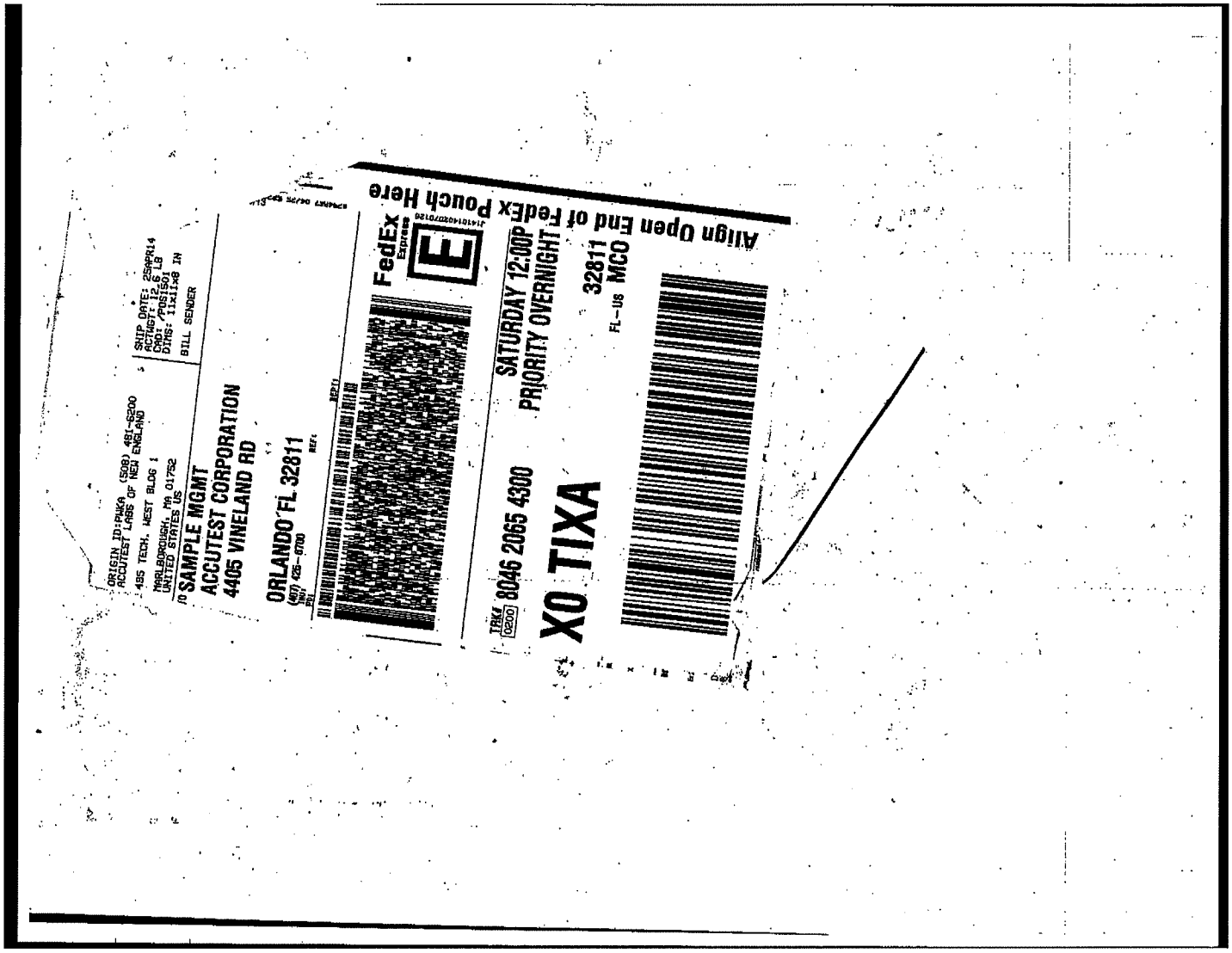
SUMMARY OF COMMENTS: _____

TECHNICIAN SIGNATURE/DATE: [signature] 04-26-14 REVIEWER SIGNATURE/DATE: [signature] 4-26-14

RS 04/14 receipt confirmation 041514.xls

4.1 4

FA14553: Chain of Custody
Page 2 of 3



FA14553: Chain of Custody
Page 3 of 3

Southeast ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA14553
Account: OMTNK O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP51479-MB	Q5083.D	1	05/15/14	MRE	05/03/14	OP51479	SQ167

The QC reported here applies to the following samples: **Method:** EPA 537 MOD

FA14553-1, FA14553-2

CAS No.	Compound	Result	RL	MDL	Units	Q
307-24-4	Perfluorohexanoic acid	ND	13	5.0	ug/kg	
375-85-9	Perfluoroheptanoic acid	ND	13	5.0	ug/kg	
335-67-1	Perfluorooctanoic acid	ND	13	5.0	ug/kg	
375-95-1	Perfluorononanoic acid	ND	13	5.8	ug/kg	
335-76-2	Perfluorodecanoic acid	ND	13	6.4	ug/kg	
2058-94-8	Perfluoroundecanoic acid	ND	13	7.7	ug/kg	
307-55-1	Perfluorododecanoic acid	ND	13	5.0	ug/kg	
72629-94-8	Perfluorotridecanoic acid	ND	13	6.4	ug/kg	
376-06-7	Perfluorotetradecanoic acid	7.1	13	5.0	ug/kg	J
375-73-5	Perfluorobutanesulfonic acid	ND	13	5.0	ug/kg	
355-46-4	Perfluorohexanesulfonic acid	ND	13	5.0	ug/kg	
	Perfluoroheptanesulfonic acid	ND	13	5.0	ug/kg	
1763-23-1	Perfluorooctanesulfonic acid	ND	13	5.0	ug/kg	
	Perfluorodecanesulfonic acid	ND	13	5.0	ug/kg	

CAS No.	Surrogate Recoveries		Limits
	13C2-PFHxA	99%	70-130%
	13C2-PFDA	91%	70-130%

Method Blank Summary

Job Number: FA14553
Account: OMTNK O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP51478-MB	Q5150.D	1	05/20/14	MRE	05/03/14	OP51478	SQ169

The QC reported here applies to the following samples: **Method:** EPA 537 MOD

FA14553-3, FA14553-4

CAS No.	Compound	Result	RL	MDL	Units	Q
307-24-4	Perfluorohexanoic acid	0.00971	0.020	0.0080	ug/l	J
375-85-9	Perfluoroheptanoic acid	0.0110	0.020	0.0080	ug/l	J
335-67-1	Perfluorooctanoic acid	0.0124	0.020	0.0080	ug/l	J
375-95-1	Perfluorononanoic acid	ND	0.020	0.0080	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.020	0.0080	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.020	0.0080	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.020	0.0080	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.020	0.0080	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.020	0.0080	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.020	0.0080	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.020	0.0080	ug/l	
	Perfluoroheptanesulfonic acid	ND	0.020	0.0080	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.020	0.0080	ug/l	
	Perfluorodecanesulfonic acid	ND	0.020	0.0080	ug/l	

CAS No.	Surrogate Recoveries		Limits
	13C2-PFHxA	100%	70-130%
	13C2-PFDA	110%	70-130%

Blank Spike Summary

Job Number: FA14553
Account: OMTNK O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP51479-BS	Q5082.D	1	05/15/14	MRE	05/03/14	OP51479	SQ167

The QC reported here applies to the following samples: **Method:** EPA 537 MOD

FA14553-1, FA14553-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
307-24-4	Perfluorohexanoic acid	100	112	112	70-130
375-85-9	Perfluoroheptanoic acid	100	99.2	99	70-130
335-67-1	Perfluorooctanoic acid	100	113	113	70-130
375-95-1	Perfluorononanoic acid	100	97.3	97	70-130
335-76-2	Perfluorodecanoic acid	100	106	106	70-130
2058-94-8	Perfluoroundecanoic acid	100	80.1	80	70-130
307-55-1	Perfluorododecanoic acid	100	102	102	70-130
72629-94-8	Perfluorotridecanoic acid	100	195	195*	70-130
376-06-7	Perfluorotetradecanoic acid	100	94.6	95	70-130
375-73-5	Perfluorobutanesulfonic acid	100	103	103	70-130
355-46-4	Perfluorohexanesulfonic acid	100	101	101	70-130
1763-23-1	Perfluorooctanesulfonic acid	100	101	101	70-130
	Perfluorodecanesulfonic acid	100	103	103	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
	13C2-PFHxA	109%	70-130%
	13C2-PFDA	103%	70-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA14553
Account: OMTNK O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP51478-BS [a]	Q5149.D	1	05/20/14	MRE	05/03/14	OP51478	SQ169

The QC reported here applies to the following samples: **Method:** EPA 537 MOD

FA14553-3, FA14553-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
307-24-4	Perfluorohexanoic acid	0.16	0.177	111	70-130
375-85-9	Perfluoroheptanoic acid	0.16	0.170	106	70-130
335-67-1	Perfluorooctanoic acid	0.16	0.186	116	70-130
375-95-1	Perfluorononanoic acid	0.16	0.176	110	70-130
335-76-2	Perfluorodecanoic acid	0.16	0.196	123	70-130
2058-94-8	Perfluoroundecanoic acid	0.16	0.162	101	70-130
307-55-1	Perfluorododecanoic acid	0.16	0.126	79	70-130
72629-94-8	Perfluorotridecanoic acid	0.16	0.134	84	70-130
376-06-7	Perfluorotetradecanoic acid	0.16	0.118	74	70-130
375-73-5	Perfluorobutanesulfonic acid	0.16	0.175	109	70-130
355-46-4	Perfluorohexanesulfonic acid	0.16	0.176	110	70-130
1763-23-1	Perfluorooctanesulfonic acid	0.16	0.179	112	70-130
	Perfluorodecanesulfonic acid	0.16	0.164	103	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
	13C2-PFHxA	104%	70-130%
	13C2-PFDA	114%	70-130%

(a) Insufficient sample for MS/MSD.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA14553
Account: OMTNK O & M, Inc
Project: Tyco Marinette FTC; 2700 Industrial Pkwy S, Marinette, WI

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP51479-MS	Q5086.D	1	05/15/14	MRE	05/03/14	OP51479	SQ167
OP51479-MSD	Q5087.D	1	05/15/14	MRE	05/03/14	OP51479	SQ167
FA14553-2	Q5085.D	1	05/15/14	MRE	05/03/14	OP51479	SQ167

The QC reported here applies to the following samples: **Method:** EPA 537 MOD

FA14553-1, FA14553-2

CAS No.	Compound	FA14553-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
307-24-4	Perfluorohexanoic acid	ND		97.4	107	110	80.6	89.2	111	18	70-130/30
375-85-9	Perfluoroheptanoic acid	ND		97.4	92.3	95	80.6	78.6	97	16	70-130/30
335-67-1	Perfluorooctanoic acid	5.3	J	97.4	94.2	91	80.6	78.9	91	18	70-130/30
375-95-1	Perfluorononanoic acid	ND		97.4	88.8	91	80.6	73.3	91	19	70-130/30
335-76-2	Perfluorodecanoic acid	ND		97.4	102	105	80.6	88.3	110	14	70-130/30
2058-94-8	Perfluoroundecanoic acid	ND		97.4	77.5	80	80.6	65.5	81	17	70-130/30
307-55-1	Perfluorododecanoic acid	ND		97.4	125	128	80.6	106	131*	16	70-130/30
72629-94-8	Perfluorotridecanoic acid	ND		97.4	91.3	94	80.6	79.1	98	14	70-130/30
376-06-7	Perfluorotetradecanoic acid	ND		97.4	88.2	91	80.6	78.8	98	11	70-130/30
375-73-5	Perfluorobutanesulfonic acid	ND		97.4	98.5	101	80.6	83.8	104	16	70-130/30
355-46-4	Perfluorohexanesulfonic acid	ND		97.4	95.2	98	80.6	82.1	102	15	70-130/30
1763-23-1	Perfluorooctanesulfonic acid	ND		97.4	95.2	98	80.6	82.0	102	15	70-130/30
	Perfluorodecanesulfonic acid	ND		97.4	95.9	98	80.6	82.4	102	15	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	FA14553-2	Limits
	13C2-PFHxA	102%	104%	98%	70-130%
	13C2-PFDA	100%	103%	94%	70-130%

* = Outside of Control Limits.