From:	Ziegelbauer, Heather/MKE <heather.ziegelbauer@jacobs.com></heather.ziegelbauer@jacobs.com>
Sent:	Monday, May 04, 2020 3:58 PM
То:	Dodds, Jennifer
Cc:	Carey, Angela J - DNR; Rick Dewey Bethel; Jeffrey Howard Danko
Subject:	RE: Tyco - EPA Request for FA and VI Assessment Update
Attachments:	2004241_d.pdf; J180517-1 UDS Level 2 Report Final Report.pdf
Follow Up Flag:	Follow up
Flag Status:	Flagged

Jennifer, On behalf of Tyco, attached are the April 9, 2020 Building 14 VI sampling laboratory reports. The same locations/samples were collected as the February 11, 2020 event that is detailed in the email trail below (with the same IDs, except for the date).

All air sample results were non-detect for the analyzed parameters (vinyl chloride, cis-1,2dichloroethene, and trichloroethene) with reporting limits below applicable indoor air screening levels. The groundwater and wastewater treatment facility influent samples also were non-detect.

The non-residential building indoor air evaluation form sent in your April 29, 2020 email is currently being filled out for Building 14 and will be sent in a separate email.

Please let us know if you have any questions.

Thanks,

Heather Ziegelbauer, PE* | Jacobs | Project Manager O:+1.262.644.6167 | M:+1.312.933.1017 | <u>heather.ziegelbauer@jacobs.com</u> 1610 N. 2nd Street, Suite 201 | Milwaukee, WI 53202 | USA *Wisconsin

From: Ziegelbauer, Heather/MKE
Sent: Tuesday, March 3, 2020 4:49 PM
To: Dodds, Jennifer <<u>dodds.jennifer@epa.gov</u>>
Cc: Angie Carey (<u>Angela.Carey@wisconsin.gov</u>) <<u>Angela.Carey@wisconsin.gov</u>>; Rick Dewey Bethel
<<u>rick.dewey.bethel@jci.com</u>>; Jeffrey Howard Danko <<u>jeffrey.howard.danko@jci.com</u>>
Subject: FW: Tyco - EPA Request for FA and VI Assessment Update

Jennifer, On behalf of Tyco and per your request in the email below, here is a summary of the VI sampling at Building 14.

Building 14 Preliminary VI Sampling Results

Five indoor air samples, including one duplicate, and one outdoor air sample were collected at Building 14 on February 11, 2020. All air sample results were non-detect for the analyzed parameters (vinyl chloride, cis-1,2-dichloroethene, and trichloroethene) with reporting limits below applicable indoor air screening levels. See attached level 2 laboratory report 2002336. Samples were collected from the following locations:

• One indoor air sample and a duplicate were collected from the office/lunchroom area in the central portion of the building (sample IDs B14-IA004-20200211 and B14-IA004-20200211-D)

- One indoor air sample was collected from the wastewater treatment area in the eastern portion of the building (sample ID B14-IA003-20200211)
- One indoor air sample was collected from the groundwater treatment area in the western portion of the building (sample ID B14-IA002-20200211)
- One indoor air sample was collected in the extended western portion of the building where the Vibratory Shear Enhanced Processing units are located (sample ID B14-IA001-20200211)
- One outdoor (ambient) air sample was collected on the north side of the building near the air intake (sample ID B14-OA005-20200211)

Concurrent with the indoor air sampling, the groundwater and wastewater treatment facility influent samples also were non-detect for the same analyzed parameters (sample IDs B14-INGWCTS-20200211) and B14-INWWTP-20200211). See attached level 2 laboratory report J177806-1.

Please let us know if you have any questions.

Heather Ziegelbauer, PE* | Jacobs | Project Manager O:+1.262.644.6167 | M:+1.312.933.1017 | <u>heather.ziegelbauer@jacobs.com</u> 1610 N. 2nd Street, Suite 201 | Milwaukee, WI 53202 | USA *Wisconsin

From: Dodds, Jennifer [mailto:dodds.jennifer@epa.gov]
Sent: Tuesday, March 03, 2020 1:34 PM
To: Jeffrey Howard Danko <jeffrey.howard.danko@jci.com>
Cc: angela.carey@wisconsin.gov; Rick Bethel <rick.dewey.bethel@jci.com>; Clarizio, Richard
<Clarizio.Richard@epa.gov>; Abrams, Justin <a brans.justin@epa.gov>
Subject: Tyco - EPA Request for FA and VI Assessment Update

Mr. Danko,

Per EPA's February 4, 2020 letter (see attached) approving the 2020 Cost Estimate for the Tyco Fire Products Facility in Marinette, WI (EPA ID: WID 006 125 215), the financial assurance instrument was due into the Agency by February 28, 2020. To date, I have not received a copy of the required instrument. Please provide a status update on this by COB tomorrow, March 4, 2020.

Additionally, EPA is requesting an update on any preliminary data from the VI sampling that recently took place in Building 14.

I look forward to a quick response to both of these requests. Please respond via email so all parties are aware.

Thank you,

Jennifer Dodds U.S. Environmental Protection Agency, Region 5 Land, Chemicals and Redevelopment Division 77 West Jackson Blvd, LR-16J Chicago, IL 60604-3590 Tel: (312) 886-1484 dodds.jennifer@epa.gov

From: Jeffrey Howard Danko <jeffrey.howard.danko@jci.com>
Sent: Thursday, February 6, 2020 1:43 PM
To: Dodds, Jennifer <<u>dodds.jennifer@epa.gov</u>>
Cc: angela.carey@wisconsin.gov; Rick Bethel <<u>rick.dewey.bethel@jci.com</u>>
Subject: RE: Tyco - EPA Request for VI Assessment Update

We are scheduled to be taking the samples in Building 14 next week. In addition, the response to comments on VI Work Plan are under internal review and should be to the agencies next week.

Also to let you know Jacobs is nearing completion of the draft porewater investigation report and the annual report. Following internal review, they will be submitted to the agencies.

Per discussion today, we will set up a meeting for the week of April 27, most likely for the 29th at the Marinette site.

Jeffrey Danko

EHS Manager – Environmental Remediation Johnson Controls 5757 N. Green Bay Ave Milwaukee, WI 53209 +1 414 524 3344 direct +1 262 349 2528 cell jeffrey.howard.danko@jci.com @johnsoncontrols www.johnsoncontrols.com

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From: Dodds, Jennifer [mailto:dodds.jennifer@epa.gov]
Sent: Wednesday, February 05, 2020 2:34 PM
To: Jeffrey Howard Danko <jeffrey.howard.danko@jci.com>

Cc: <u>angela.carey@wisconsin.gov</u> Subject: Tyco - EPA Request for VI Assessment Update

Mr. Danko,

Please provide an update on your progress related to the September 27, 2019 Vapor Intrusion Assessment and Work Plan. Additionally, EPA is requesting an update on the vapor intrusion assessment of Building 14 by <u>COB February 7, 2020</u> as this pathway was identified as a priority by EPA and WDNR in our December 18, 2019 comment letter.

Thank you,

Jennifer Dodds U.S. Environmental Protection Agency, Region 5 Land, Chemicals and Redevelopment Division 77 West Jackson Blvd, LR-16J Chicago, IL 60604-3590 Tel: (312) 886-1484 dodds.jennifer@epa.gov

From: Dodds, Jennifer
Sent: Thursday, December 19, 2019 8:25 AM
To: 'Jeffrey Howard Danko' <<u>jeffrey.howard.danko@jci.com</u>>
Cc: Moore, Tammy <<u>moore.tammy@epa.gov</u>>; Clarizio, Richard <<u>Clarizio.Richard@epa.gov</u>>; 'Carey,
Angela J - DNR' <<u>Angela.Carey@wisconsin.gov</u>>
Subject: EPA Review of Tyco 9-27-19 VI Work Plan - 12-18-19

Mr. Danko,

Please find attached an electronic copy of the December 18, 2019 EPA review of the September 27, 2019 Vapor Intrusion Assessment and Work Plan (VI Work Plan) for the Tyco Fire Products LP, Stanton Street Facility, located in Marinette, Wisconsin. The September 2019 VI Work Plan was reviewed by both EPA and WDNR and a signed copy of this comment letter was mailed out to you. Should you have any questions regarding this matter, please let me know.

Thank you,

Jennifer Dodds U.S. Environmental Protection Agency, Region 5 Land, Chemicals and Redevelopment Division 77 West Jackson Blvd, LR-16J Chicago, IL 60604-3590 Tel: (312) 886-1484 dodds.jennifer@epa.gov NOTICE - This communication may contain confidential and privileged information that is for the sole use of the intended recipient. Any viewing, copying or distribution of, or reliance on this message by unintended recipients is strictly prohibited. If you have received this message in error, please notify us immediately by replying to the message and deleting it from your computer.



4/21/2020 Ms. Kaye Walker Jacobs (formerly CH2M Hill) 4121 Carmichael Road Suite 400 Montgomery AL 36106

Project Name: 2020 Indoor Air Sampling Project #: D3235600 Workorder #: 2004241

Dear Ms. Kaye Walker

The following report includes the data for the above referenced project for sample(s) received on 4/13/2020 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Brian Whittaker at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Brian Whittaker

Brian Whittaker Project Manager

180 Blue Ravine Road, Suite B Folsom, CA 95630 T 916-985-1000 F 916-351-8279 www.airtoxics.com



WORK ORDER #: 2004241

Work Order Summary

CLIENT:	Ms. Kaye Walker Jacobs (formerly CH2M Hill) 4121 Carmichael Road Suite 400 Montgomery, AL 36106	BILL TO:	Ms. Kaye Walker Jacobs (formerly CH2M Hill) 4121 Carmichael Road Suite 400 Montgomery, AL 36106
PHONE:	334-215-9058	P.O. #	
FAX:	334-277-5763	PROJECT #	D3235600 2020 Indoor Air Sampling
DATE RECEIVED:	04/13/2020	CONTACT:	Brian Whittaker
DATE COMPLETED:	04/21/2020	continent	brian wintaker

			RECEIPT	FINAL
FRACTION #	NAME	<u>TEST</u>	VAC./PRES.	PRESSURE
01A	B14-IA001-20200409	Modified TO-15	6.3 "Hg	5.2 psi
02A	B14-IA002-20200409	Modified TO-15	6.7 "Hg	5.2 psi
03A	B14-IA003-20200409	Modified TO-15	5.3 "Hg	4.8 psi
04A	B14-IA004-20200409	Modified TO-15	5.7 "Hg	5.1 psi
05A	B14-IA004-20200409-D	Modified TO-15	7.1 "Hg	4.9 psi
06A	B14-OA005-20200409	Modified TO-15	5.5 "Hg	5 psi
07A	Lab Blank	Modified TO-15	NA	NA
08A	CCV	Modified TO-15	NA	NA
09A	LCS	Modified TO-15	NA	NA
09AA	LCSD	Modified TO-15	NA	NA

layes end

04/21/20 DATE:

CERTIFIED BY:

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209218, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-18-13, UT NELAP – CA009332019-11, VA NELAP - 460197, WA NELAP - C935 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program) Accreditation number: CA300005-011, Effective date: 10/18/2019, Expiration date: 10/17/2020. Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630 (916) 985-1000. (800) 985-5955. FAX (916) 351-8279

LABORATORY NARRATIVE Modified TO-15 Jacobs (formerly CH2M Hill) Workorder# 2004241

Six 6 Liter Summa Canister (100% Cert Ambient) samples were received on April 13, 2020. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the EATL modifications.

Requirement	TO-15	ATL Modifications
Initial Calibration	=30% RSD with 2<br compounds allowed out to < 40% RSD	=30% RSD with 4 compounds allowed out to < 40% RSD</td
Blank and standards	Zero Air	UHP Nitrogen provides a higher purity gas matrix than zero air

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

- J Estimated value.
- E Exceeds instrument calibration range.
- S Saturated peak.
- Q Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B14-IA001-20200409

Lab ID#: 2004241-01A No Detections Were Found.

Client Sample ID: B14-IA002-20200409

Lab ID#: 2004241-02A No Detections Were Found.

Client Sample ID: B14-IA003-20200409

Lab ID#: 2004241-03A No Detections Were Found.

Client Sample ID: B14-IA004-20200409

Lab ID#: 2004241-04A No Detections Were Found.

Client Sample ID: B14-IA004-20200409-D

Lab ID#: 2004241-05A No Detections Were Found.

Client Sample ID: B14-OA005-20200409

Lab ID#: 2004241-06A No Detections Were Found.



Client Sample ID: B14-IA001-20200409 Lab ID#: 2004241-01A MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Т

File Name: Dil. Factor:	v041507 1.72		of Collection: 4/9 of Analysis: 4/15/	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Trichloroethene	0.17	Not Detected	0.92	Not Detected

		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	108	70-130	
Toluene-d8	102	70-130	
4-Bromofluorobenzene	102	70-130	



Client Sample ID: B14-IA002-20200409 Lab ID#: 2004241-02A MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Т

File Name: Dil. Factor:	v041508 1.74		of Collection: 4/9 of Analysis: 4/15/	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.69	Not Detected
Trichloroethene	0.17	Not Detected	0.94	Not Detected

0	1/ D	Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: B14-IA003-20200409 Lab ID#: 2004241-03A MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Т

File Name: Dil. Factor:	v041509 1.61		of Collection: 4/9 of Analysis: 4/15/	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Trichloroethene	0.16	Not Detected	0.86	Not Detected

		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	108	70-130	
Toluene-d8	102	70-130	
4-Bromofluorobenzene	100	70-130	



Client Sample ID: B14-IA004-20200409 Lab ID#: 2004241-04A MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Т

File Name: Dil. Factor:	v041510 1.66		of Collection: 4/9 of Analysis: 4/15/	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.17	Not Detected	0.42	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Trichloroethene	0.17	Not Detected	0.89	Not Detected

		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	106	70-130	
Toluene-d8	101	70-130	
4-Bromofluorobenzene	102	70-130	



Client Sample ID: B14-IA004-20200409-D Lab ID#: 2004241-05A MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Т

File Name: Dil. Factor:	v041511 1.75		of Collection: 4/9 of Analysis: 4/15/	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.18	Not Detected	0.45	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Trichloroethene	0.18	Not Detected	0.94	Not Detected

		Method Limits	
Surrogates	%Recovery		
1,2-Dichloroethane-d4	103	70-130	
Toluene-d8	101	70-130	
4-Bromofluorobenzene	103	70-130	



Client Sample ID: B14-OA005-20200409 Lab ID#: 2004241-06A MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Т

File Name: Dil. Factor:	v041512 1.64		of Collection: 4/9 of Analysis: 4/15/	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Trichloroethene	0.16	Not Detected	0.88	Not Detected

		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	106	70-130	
Toluene-d8	102	70-130	
4-Bromofluorobenzene	102	70-130	



Client Sample ID: Lab Blank Lab ID#: 2004241-07A MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: Dil. Factor:	v041506 1.00	2 410	of Collection: NA of Analysis: 4/15/	20 09:53 AM
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected

Т

Container Type: NA - Not Applicable

		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	114	70-130	
Toluene-d8	105	70-130	
4-Bromofluorobenzene	104	70-130	



Client Sample ID: CCV Lab ID#: 2004241-08A MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v041502	v041502Date of Collection: NA1.00Date of Analysis: 4/15/20 07:03 AM	
Dil. Factor:	1.00		
Compound		%Recovery	
Vinyl Chloride		96	
cis-1,2-Dichloroethene		92	
Trichloroethene		106	
Container Type: NA - Not App	licable		
			Method
Surrogates		%Recoverv	Limits

%Recovery	Limits
101	70-130
105	70-130
94	70-130
	101 105



Client Sample ID: LCS Lab ID#: 2004241-09A MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: Dil. Factor:	v041503 1.00	Date of Collection: NA Date of Analysis: 4/15/20 07:46 AM		
Compound		%Recovery	Method Limits	
Vinyl Chloride		110	70-130	
cis-1,2-Dichloroethene		92	70-130	
Trichloroethene		106	70-130	
Container Type: NA - Not App	licable			
			Method	
Surrogates		%Recovery	Limits	
1,2-Dichloroethane-d4		95	70-130	
Toluene-d8		103	70-130	
4-Bromofluorobenzene		94	70-130	



Client Sample ID: LCSD Lab ID#: 2004241-09AA MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: Dil. Factor:	v041504 1.00	Date of Collection: NA Date of Analysis: 4/15/20 08:24 AM		
Compound		%Recovery	Method Limits	
Vinyl Chloride		112	70-130	
cis-1,2-Dichloroethene		92	70-130	
Trichloroethene		105	70-130	
Container Type: NA - Not App	licable			
			Method	
Surrogates		%Recovery	Limits	
1,2-Dichloroethane-d4		96	70-130	
Toluene-d8		101	70-130	
4-Bromofluorobenzene		93	70-130	

🛟 eurofins

Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 500-180517-1

Client Project/Site: Building 14

For:

..... Links

Review your project results through

Total Access

Have a Question?

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The

www.testamericainc.com

Visit us at:

Expert

Tyco Fire Protection Products 1 Stanton St Marinette, Wisconsin 54143

Attn: Mr. Ryan Suennen

D.L.h

Authorized for release by: 4/17/2020 1:21:03 PM

Richard Wright, Senior Project Manager (708)534-5200 richard.wright@testamericainc.com

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

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

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

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Method Summary	5
Sample Summary	6
Client Sample Results	7
Definitions	10
QC Association	11
Surrogate Summary	12
QC Sample Results	13
Chronicle	14
Certification Summary	15
Chain of Custody	16
Receipt Checklists	18

Job ID: 500-180517-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-180517-1

Case Narrative

Receipt

The samples were received on 4/10/2020 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.3° C.

GC/MS VOA

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

Detection Summary	1
Client: Tyco Fire Protection Products Job ID: 500-180517-1 Project/Site: Building 14	2
Client Sample ID: 1314-INGWCTS-20200409 Lab Sample ID: 500-180517-1	3
No Detections.	
Client Sample ID: 1314-INWWTP-20200409 Lab Sample ID: 500-180517-2	4
No Detections.	5
Client Sample ID: TB001-20200409 Lab Sample ID: 500-180517-3	6
No Detections.	7
	-
	8
	9
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	14
	15

Client: Tyco Fire Protection Products Project/Site: Building 14

5
8
9
13

lethod	Method Description	Protocol	Laboratory
24	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL CHI
Protocol F	References:		
	136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR,	Part 136, Appendix A, Octob	oer 26, 1984 and
subseq	uent revisions.		
	y References:		
TAL CH	II = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)5	34-5200	

Sample Summary

Client: Tyco Fire Protection Products Project/Site: Building 14

5 6 7

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset II
500-180517-1	1314-INGWCTS-20200409	Water	04/09/20 10:05	04/10/20 09:45	
500-180517-2	1314-INWWTP-20200409	Water	04/09/20 10:10	04/10/20 09:45	
500-180517-3	TB001-20200409	Water	04/09/20 10:45	04/10/20 09:45	

Client Sample ID: 1314-INGWCTS-20200409 Date Collected: 04/09/20 10:05 Date Received: 04/10/20 09:45

Lab Sample ID: 500-180517-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			04/13/20 17:04	1
Trichloroethene	<0.16		0.50	0.16	ug/L			04/13/20 17:04	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			04/13/20 17:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		71 - 127					04/13/20 17:04	1
4-Bromofluorobenzene (Surr)	114		71 - 120					04/13/20 17:04	1
Dibromofluoromethane (Surr)	102		70 - 120					04/13/20 17:04	1

5

Client Sample ID: 1314-INWWTP-20200409 Date Collected: 04/09/20 10:10 Date Received: 04/10/20 09:45

Lab Sample ID: 500-180517-2

Matrix: Water

Job ID: 500-180517-1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			04/13/20 17:29	1
Trichloroethene	<0.16		0.50	0.16	ug/L			04/13/20 17:29	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			04/13/20 17:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		71 - 127					04/13/20 17:29	1
4-Bromofluorobenzene (Surr)	112		71 - 120					04/13/20 17:29	1
Dibromofluoromethane (Surr)	102		70 - 120					04/13/20 17:29	1

5 7

Eurofins TestAmerica, Chicago

Client Sample ID: TB001-20200409 Date Collected: 04/09/20 10:45 Date Received: 04/10/20 09:45

Method: 624 - Volatile Orga	anic Compoun	ds (GC/MS	5)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			04/13/20 13:15	1
Trichloroethene	<0.16		0.50	0.16	ug/L			04/13/20 13:15	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			04/13/20 13:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		71 - 127					04/13/20 13:15	1
4-Bromofluorobenzene (Surr)	112		71 - 120					04/13/20 13:15	1
Dibromofluoromethane (Surr)	97		70 - 120					04/13/20 13:15	1

Job ID: 500-180517-1

Lab Sample ID: 500-180517-3

Matrix: Water

5

7

Definitions/Glossary

Client: Tyco Fire Protection Products Project/Site: Building 14

Glossary		
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
CFL	Contains Free Liquid	5
CNF	Contains No Free Liquid	J
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision Level Concentration (Radiochemistry)	
EDL	Estimated Detection Limit (Dioxin)	8
LOD	Limit of Detection (DoD/DOE)	
LOQ	Limit of Quantitation (DoD/DOE)	9
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
NC	Not Calculated	
ND	Not Detected at the reporting limit (or MDL or EDL if shown)	
PQL	Practical Quantitation Limit	
QC	Quality Control	13
RER	Relative Error Ratio (Radiochemistry)	
RL	Reporting Limit or Requested Limit (Radiochemistry)	
RPD	Relative Percent Difference, a measure of the relative difference between two points	
TEF	Toxicity Equivalent Factor (Dioxin)	
TEQ	Toxicity Equivalent Quotient (Dioxin)	

GC/MS VOA

Analysis Batch: 537771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-180517-1	1314-INGWCTS-20200409	Total/NA	Water	624	
500-180517-2	1314-INWWTP-20200409	Total/NA	Water	624	
500-180517-3	TB001-20200409	Total/NA	Water	624	
MB 500-537771/7	Method Blank	Total/NA	Water	624	
LCS 500-537771/5	Lab Control Sample	Total/NA	Water	624	

Surrogate Summary

Method: 624 - Volatile Organic Compounds (GC/MS) Matrix: Water

			Pe	ercent Surro	ogate Reco
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(71-127)	(71-120)	(70-120)	(75-120)
500-180517-1	1314-INGWCTS-20200409	100	114	102	96
500-180517-2	1314-INWWTP-20200409	97	112	102	98
500-180517-3	TB001-20200409	90	112	97	102
LCS 500-537771/5	Lab Control Sample	89	107	98	98
MB 500-537771/7	Method Blank	94	112	99	99
Surrogate Legend					

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Job ID: 500-180517-1

Prep Type: Total/NA

Method: 624 - Volatile Organic Compounds (GC/MS)

99

Lab Sample ID: MB 500-537771/7 Matrix: Water

Analysis Batch: 537771

Toluene-d8 (Surr)

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			04/13/20 11:08	1
Trichloroethene	<0.16		0.50	0.16	ug/L			04/13/20 11:08	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			04/13/20 11:08	1
	MB	МВ							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		71 - 127			-		04/13/20 11:08	1
4-Bromofluorobenzene (Surr)	112		71 - 120					04/13/20 11:08	1
Dibromofluoromethane (Surr)	99		70 - 120					04/13/20 11:08	1

75 - 120

Lab Sample ID: LCS 500-537771/5 Matrix: Water Analysis Batch: 537771

Spike LCS LCS %Rec. Analyte Added **Result Qualifier** Unit %Rec Limits D 1,2-Dichlorobenzene 50.0 45.9 ug/L 92 18 - 190 1,2-Dichloroethane 50.0 43.3 ug/L 87 49 - 155 50.0 44.7 ug/L 1,4-Dichlorobenzene 89 18 - 190 Benzene 50.0 48.3 ug/L 97 37 - 151 Chlorobenzene 50.0 48.5 97 37 - 160 ug/L Chloromethane 50.0 48.1 ug/L 96 10_273 Ethylbenzene 103 50.0 51.3 ug/L 37 - 162 Methylene Chloride 50.0 53.1 ug/L 106 10_221 Toluene 50.0 47.7 ug/L 95 47 - 150 Trichloroethene 50.0 46.2 ug/L 92 71 - 157 Vinyl chloride 50.0 58.4 ug/L 117 10_251 LCS LCS

	200	200	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	89		71 - 127
4-Bromofluorobenzene (Surr)	107		71 - 120
Dibromofluoromethane (Surr)	98		70 - 120
Toluene-d8 (Surr)	98		75 - 120

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

04/13/20 11:08

Prep Type: Total/NA

Client Sample ID: Method Blank

Job ID: 500-180517-1

Client Sam		4-INGWCTS- 0:05	2020040	9			Lab Sa	ample ID:	500-180517-1 Matrix: Water
Date Receive	d: 04/10/20 0	9:45							
_	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	624		1	537771	04/13/20 17:04		TAL CHI	
Client Sam	ple ID: 131	4-INWWTP-2	0200409				Lab Sa	ample ID:	500-180517-2
Date Collecte Date Receive									Matrix: Water
_	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	624		1	537771	04/13/20 17:29	JDD	TAL CHI	
Client Sam	ple ID: TBC	01-20200409	•				Lab Sa	ample ID:	500-180517-3
Date Collecte	d: 04/09/20 1	0:45							Matrix: Water
Date Receive	d: 04/10/20 0	9:45							
_	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
	Analysis	624			537771	04/13/20 13:15	JDD	TAL CHI	

Laboratory References:

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

Laboratory: Eurofins TestAmerica, Chicago The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date		
Wisconsin	State	999580010	08-31-20		

Eurofins TestAmerica, Chicago

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Environment Testing

TestAmerica

Address: 2417 Bond St. University Park, IL 60484

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Chain of Custody Record

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Login Sample Receipt Checklist

Client: Tyco Fire Protection Products

Login Number: 180517 List Number: 1 Creator: Hernandez, Stephanie

Question	Answer	Comment	
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td> <td></td>	True		
The cooler's custody seal, if present, is intact.	True		1
Sample custody seals, if present, are intact.	True		
The cooler or samples do not appear to have been compromised or tampered with.	True		ĺ
Samples were received on ice.	True		ŝ
Cooler Temperature is acceptable.	True		
Cooler Temperature is recorded.	True	1.3	
COC is present.	True		
COC is filled out in ink and legible.	True		
COC is filled out with all pertinent information.	True		
Is the Field Sampler's name present on COC?	True		
There are no discrepancies between the containers received and the COC.	True		1
Samples are received within Holding Time (excluding tests with immediate HTs)	True		
Sample containers have legible labels.	True		
Containers are not broken or leaking.	True		
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	True		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A		

Job Number: 500-180517-1

List Source: Eurofins TestAmerica, Chicago