One Stanton Street
Marinette, WI 54143-2542

Tele: 715-735-7411

October 15, 2018

Mr. Conor Neal
Geologist
EPA Region 5
Land & Chemicals Division
77 West Jackson Blvd, LU-9J
Chicago, IL 60604-3590

Subject: Quarterly Progress Report (July through September 2018)
Administrative Order on Consent (February 26, 2009)
Tyco Fire Products LP
Stanton Street Facility
Marinette, Wisconsin
WID 006 125 215

Dear Mr. Neal:

Section VI, 21, b (Page 10) of the Administrative Order on Consent (AOC), dated February 26, 2009, requires Tyco Fire Products LP (Tyco) to submit quarterly progress reports to the U.S. Environmental Protection Agency (USEPA) Region 5 and the Wisconsin Department of Natural Resources (WDNR). The reports are required to document activities conducted as part of the Resource Conservation and Recovery Act (RCRA) Corrective Actions at the Tyco facility in Marinette, Wisconsin. The enclosed report covers the period from July 1, 2018 through September 30, 2018, and presents a brief description of the work completed to date, data collected, problems encountered, and schedule of activities as required by the February 2009 AOC.

Work Completed During this Reporting Period

Operation of the groundwater collection and treatment system (GWCTS) continued through the third quarter of 2018. A summary of the operational data is included as Attachment 1. The Discharge Monitoring Reports (DMRs) are included in Attachment 2.

Substantial tightening and sealing of the tieback back system in the main plant was completed on August 14, 2018. River levels were noted as being high continuing a trend dating back to last year.

The Spring Barrier Wall Groundwater Monitoring Plan Update (BWGMPU) groundwater sampling event was completed the Week of September 17, 2018. Laboratory results from this event are included in Attachment 3.

The temporary dewatering system was continued in the third quarter of 2018 under management by endpoint solutions. Progress reports are being submitted bi-weekly.

Additional Activities

Tyco completed the quarterly download of data from the transducers installed in prescribed monitoring wells on September 12, 2018. Manual groundwater elevation data was obtained at each transducer location for calibration of the data at the time of the download. Manual groundwater elevation data were also collected from the former 8th Street Slip and former Salt Vault areas throughout the quarter in accordance with the pump down program requirements. The 5 year sediment sampling event was completed between July 9 and July 19, 2018.

Extraction wells EW-13 and EW-14 were cleaned out the week of September 17, 2018 in an attempt to enhance aquifer communication and increase overall recovery rates in the former Salt Vault area.

Monitoring well MW118D was appropriately abandoned on August 27, 2018. During manual water level data collected, the well appeared to have a casing offset at approximately 25 feet below grade, potentially indicating data quality could be suspect; therefore, the well was abandoned.

The flush-mount covers and surrounding area at the MW040 well nest were repaired and the casing was extended and stick-up protective pipes were added to monitoring well nest MW105 between August 28 and 29, 2018. Resurvey of the well casing elevation is pending

Data Collected

Extraction and treatment volumes, analytical testing, and discharge data are required as part of the Wisconsin Pollutant Discharge and Elimination System (WPDES) permits obtained from WDNR for operation of the GWCTS. The GWCTS operates under permit WPDES WI-0001040-07-0. Attachment 2 includes the monthly WPDES DMRs for June 2018 through August 2018 for the GWCTS. Additional data on the operation of the GWCTS is included in Attachment 1.

Barrier monitoring well sample was completed and laboratory results received. The data are currently undergoing data validation. Sediment samples were collected and laboratory results received. The USEPA sample results were also received for incorporation into the sediment quality evaluation. Additional sediment samples have been selected for laboratory analysis to support the evaluation.

Problems Encountered

River water levels have been high throughout summer. On a few occasions in September, the river water level reached high enough to lap over the Vertical Barrier Wall into the wetland area of the site. This additionally contributed to increased groundwater levels in that area. The Groundwater Collection system experienced fouling issues on the RO and VSEP systems attributed in August and September to high TDS in the process waters. This issue was corrected, but was then followed by issues in VSEP programming which have caused considerable downtime during this past quarter.

Schedule of Upcoming Activities

The following is a summary of activities to be conducted during the next reporting period.

- Submit the quarterly progress report.
- Meet with USEPA and WDNR to discuss project status and upcoming activities, including barrier monitoring program enhancement, sediment sampling results, and WPDES permitting.
- Complete Storm Sewer Verification Sampling.
- Commence conveyance system construction of permanent PDP system.
- Continue work on 5 year review package.

List of Key Correspondence and Document Submittals

Table 1
Documents Submitted
Quarterly Progress Report (July through August 2018), Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Submittal	Submitted To	Date Submitted
Final Conveyance Design Drawings	USEPA	September 28, 2018
PDP Bi-Weekly Reports	USEPA	Throughout Reporting Period
2018 Sediment Monitoring Report	USEPA	September 28, 2018
MW-118D Well Abandonment Notification	WDNR	September 10, 2018
RTC on 2017 BWGMP Report	USEPA	August 27, 2018
Presentation on Enhanced Monitoring Well Network Proposal	USEPA	July 30, 2018

Table 2
Correspondence from Agency
Quarterly Progress Report (July through August 2018) Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Correspondence	Received From	Date Received
Agency Comments 2017 BWGMP Report	USEPA	July 30, 2018
USEPA Sediment Sample Results	USEPA	September 19, 2018

Please contact me at 715-587-6670 if you have any questions or require additional information.

Respectfully Yours,

Tyco Fire Products LP

Ryan Suennen

Ryan Suennen
Environmental Field Projects

Attachments

1 GWCTS Operation Summary
2 DMRs for the GWCTS
3 BWGMPU sample results

cc: Angela Carey, WDNR
Jim Killian, WDNR
Joe Janeczek, Johnson Controls
Rich Mator, Johnson Controls
Jeff Danko, Tyco
Mariel Carter, Stephenson Public Library

Document Control No.: 20171015 US10.11014

Attachment 1
GWCTS Operation Summary

MEMORANDUM

Groundwater Collection and Treatment System Operation

SUBJECT: Groundwater Collection and Treatment System Operation for Tyco Fire Products LP, Marinette, Wisconsin

DATE: October 15, 2018

Operation of the groundwater collection and treatment system (GWCTS) occurring from July 1, 2017 through September 30, 2017 is summarized below:

- The GWCTS operated for 22 days in July, 6 days in August, and 0 days in September, for a total of 28 days.
- Approximately 86,700 gallons of reject water was produced during system operations and subsequently disposed of off-site.
- The precipitation recorded from the weather station in Marinette, Wisconsin was 15.43 inches of rain. (https://www.ncdc.noaa.gov/cdo-web/datasets/GHCND/stations/GHCND:USC00475091/detail).
- An estimated total of 390,872 gallons was discharged to the Menominee River as effluent under WPDES permit.
- An estimated total of 350,113 gallons of groundwater were extracted (not including volumes extracted as part of the pump down program) from the site during the reporting period. Details of water volumes extracted from each area of the site and changes in water levels are shown in the Table 1 below.

Table 1 – Extraction Well Data Summary

Extraction Well	Gallons Run Q3 2018 (7/01/2018-9/30/2018)
EW-1	30,977
EW-2	29
EW-3	1,102
EW-4	1,241
EW-5	67,979
EW-6	147,432
EW-7	102,594
Total	351,354

Attachment 2
DMRs

Wastewater Discharge Monitoring Long Report

For DNR Use Only

Facility Name: TYCO FIRE PROTECTION PRODUCTS LP
Contact Address: One Stanton St
Marinette, WI 54143
Facility Contact: Mike Elliott, EHS Manager
Phone Number: 715-735-7411
Reporting Period: 07/01/2018 - 07/31/2018
Form Due Date: 08/21/2018
Permit Number: 0001040

Date Received:	
DOC:	406454
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Trevor J Moen
Reviewer:	Nicole E Krueger
Office:	Green Bay

	Sample Point	001	703	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	Intake Water Monitoring	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	211	280	487	374	373
	Description	Flow Rate	Mercury, Total Recoverable	Temperature	pH (Minimum)	pH (Maximum)
	Units	MGD	ng/L	degF	su	su
	Sample Type	CONTINUOUS	GRAB	GRAB	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	MONTHLY	MONTHLY	DAILY	DAILY
Sample Results	Day 1	0.25457		82	6.2	7.4
	2	0.15115		78	6.7	6.9
	3	0.13408		81	6.7	7.4
	4	0.16765		84	6.1	7.9
	5	0.14317		81	6.6	7.4
	6	0.12999		79	6.8	7.2
	7	0.12781		78	7.1	7.5
	8	0.14079		77	7.1	7.8
	9	0.16055		80	6.8	7.6
	10	0.15707		79	6.7	7.5
	11	0.15913		79	7.0	7.4
	12	0.18894		78	6.5	7.2
	13	0.12900		80	6.6	7.2
	14	0.11532		78	6.8	7.3
	15	0.12227		71	6.7	7.6
	16	0.16050		78	6.6	6.7
	17	0.15809		78	6.8	7.8
	18	0.15787		87	7.7	8.4
	19	0.15317		80	7.3	8.2
	20	0.15122		79	7.3	7.8
	21	0.10083		78	7.3	7.8
	22	0.08045		80	7.1	7.6
	23	0.15520		80	7.0	7.3
	24	0.18805		83	7.1	7.8
	25	0.17473		81	6.8	7.6
	26	0.13596	3.6	81	7.0	7.4
	27	0.09097		79	7.0	7.4
	28	0.00351		82	7.0	7.6
	29	0.06030		83	7.0	7.2
	30	0.14711		81	6.9	7.1
	31	0.15327		82	7.0	7.8

	Sample Point	001		703		001		001		001	
	Description	PRIOR TO MENOMINEE RIVER		Intake Water Monitoring		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER	
	Parameter	211		280		487		374		373	
	Description	Flow Rate		Mercury, Total Recoverable		Temperature		pH (Minimum)		pH (Maximum)	
	Units	MGD		ng/L		degF		su		su	
Summary Values	**Monthly Avg**	0.140410323		3.6		79.903225806		6.880645161		7.509677419	
	Monthly Total										
	Daily Max	0.25457		3.6		87		7.7		8.4	
	Daily Min	0.00351		3.6		71		6.1		6.7	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total										
	Daily Max									11	0
	Daily Min							4	0		
	Rolling 12 Month Avg										
QA/QC Information	**LOD**			0.2							
	LOQ			0.5							
	QC Exceedance	N		N		N		N		N	
	Lab Certification			721026460							

	Sample Point	001	001	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	379	376	388	231	35
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes	Phosphorus, Total	Hardness, Total as CaCO3	Arsenic, Total Recoverable
	Units	minutes	Number	mg/L	mg/L	ug/L
	Sample Type	CONTINUOUS	CONTINUOUS	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	DAILY	DAILY	WEEKLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2			0.17	270	49
	3					
	4					
	5					
	6					
	7					
	8					
	9			0.27	20	22
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18			0.39	240	23
	19					
	20					
	21					
	22					
	23			0.18	250	32
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001		001		001		001		001	
	Description	PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER	
	Parameter	379		376		388		231		35	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes		Phosphorus, Total		Hardness, Total as CaCO3		Arsenic, Total Recoverable	
	Units	minutes		Number		mg/L		mg/L		ug/L	
Summary Values	**Monthly Avg**					0.2525		195		31.5	
	Monthly Total										
	Daily Max					0.39		270		49	
	Daily Min					0.17		20		22	
	Rolling 12 Month Avg					0.2					
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total	446	0								
	Daily Max			0	0					680	0
	Daily Min										
	Rolling 12 Month Avg					1	0				
QA/QC Information	**LOD**					0.024				2.1	
	LOQ					0.05				5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification					999580010		999580010		999580010	

	Sample Point	001	001	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	35	147	147	87	152
	Description	Arsenic, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable	Cadmium, Total Recoverable	Cyanide, Amenable
	Units	lbs/day	ug/L	lbs/day	ug/L	ug/L
	Sample Type	CALCULATED	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2	0.06174	3.3	0.004158	<0.49	
	3					
	4					
	5					
	6					
	7					
	8					
	9	0.02948	11	0.01474	<0.49	3.8
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18	0.03036	10	0.0132	<0.49	
	19					
	20					
	21					
	22					
	23	0.04128	8.8	0.011352	<0.49	
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001		001		001		001		001	
	Description	PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER	
	Parameter	35		147		147		87		152	
	Description	Arsenic, Total Recoverable		Copper, Total Recoverable		Copper, Total Recoverable		Cadmium, Total Recoverable		Cyanide, Amenable	
	Units	lbs/day		ug/L		lbs/day		ug/L		ug/L	
Summary Values	**Monthly Avg**	0.040715		8.275		0.0108625		0		3.8	
	Monthly Total										
	Daily Max	0.06174		11		0.01474		<0.49		3.8	
	Daily Min	0.02948		3.3		0.004158		<0.49		3.8	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total										
	Daily Max	12	0	69	0	0.98	0				
	Daily Min										
	Rolling 12 Month Avg										
QA/QC Information	**LOD**			1.7				0.49		3	
	LOQ			5				1		10	
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010				999580010		999580010	

	Sample Point	001	001	101	101	101
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	112	280	211	457	342
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	Flow Rate	Suspended Solids, Total	Oil & Grease (Freon)
	Units	ug/L	ng/L	MGD	mg/L	mg/L
	Sample Type	GRAB	GRAB	CONTINUOUS	24 HR COMP	GRAB
	Frequency	MONTHLY	MONTHLY	DAILY	DAILY	2/WEEK
Sample Results	Day 1			0.00877	3.3	
	2			0.02410	1.4	1.6
	3			0.03321	<1.0	1.4
	4			0.00317	3.2	
	5			0.02287	2.0	
	6			0.01600	.6	
	7			0.00865	1.3	
	8			0.01074	1.9	
	9	10		0.02562	1.5	1.7
	10			0.03008	1.2	2.7
	11			0.02714	<1.0	
	12			0.03087	1.2	
	13			0.01942	1.6	
	14			0.00269	12.2	
	15					
	16			0.02794	2.4	
	17			0.02689	1.3	
	18			0.02885	1.2	4.6
	19			0.01605	2.7	3.0
	20			0.01100	27.1	
	21			0.00984	8.7	
	22			0.00872	5.9	
	23			0.02082	7.1	2.8
	24			0.02247	3.3	1.5
	25			0.02362	2.9	
	26		10	0.01874	3.0	
	27			0.02020	5.7	
	28					
	29					
	30			0.02129	7.0	
	31			0.021198	2.2	

	Sample Point	001	001	101	101	101
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	112	280	211	457	342
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	Flow Rate	Suspended Solids, Total	Oil & Grease (Freon)
	Units	ug/L	ng/L	MGD	mg/L	mg/L
Summary Values	**Monthly Avg**	10	10	0.019319929	3.996428571	2.4125
	Monthly Total					
	Daily Max	10	10	0.03321	27.1	4.6
	Daily Min	10	10	0.00269	0.6	1.4
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**				31 0	26 0
	Monthly Total					
	Daily Max				60 0	52 0
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	**LOD**	30	0.2			1.3
	LOQ	100	0.5			5.1
	QC Exceedance	N	N	N	N	N
	Lab Certification		721026460		438039470	999580010

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	87	133	315	553	155
	Description	Cadmium, Total Recoverable	Chromium, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Cyanide, Total
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
	Sample Type	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP	GRAB
	Frequency	2/WEEK	MONTHLY	2/WEEK	2/WEEK	MONTHLY
Sample Results	**Day 1**	<0.49	<2.2	12	88	
	2	<0.49	<2.2	9.3	90	
	3					
	4					
	5					
	6					
	7					
	8					
	9	<0.49	<2.2	8.9	58	
	10	<0.49	<2.2	17	42	3.1
	11					
	12					
	13					
	14					
	15					
	16	<0.49	<2.2	22	77	
	17	<0.49	<2.2	20	51	
	18					
	19					
	20					
	21					
	22					
	23	<0.49	<2.2	27	81	
	24	<0.49	<2.2	18	57	
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	87		133		315		553		155	
	Description	Cadmium, Total Recoverable		Chromium, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Cyanide, Total	
	Units	ug/L		ug/L		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**	0		0		16.775		68		3.1	
	Monthly Total										
	Daily Max	<0.49		<2.2		27		90		3.1	
	Daily Min	<0.49		<2.2		8.9		42		3.1	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**	260	0	1710	0	2380	0	1480	0	650	0
	Monthly Total										
	Daily Max	690	0	2770	0	3980	0	2610	0	1200	0
	Daily Min										
	Rolling 12 Month Avg										
QA/QC Information	**LOD**	0.49		2.2		1.5		3.6		3	
	LOQ	1		5		5		10		10	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010		999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	147	264	430	374	373
	Description	Copper, Total Recoverable	Lead, Total Recoverable	Silver, Total Recoverable	pH (Minimum)	pH (Maximum)
	Units	ug/L	ug/L	ug/L	su	su
	Sample Type	24 HR COMP	24 HR COMP	24 HR COMP	CONTINUOUS	CONTINUOUS
	Frequency	2/WEEK	MONTHLY	MONTHLY	DAILY	DAILY
Sample Results	Day 1	2.7	<1.3	<1.1	6.9	7.5
	2	3.3	2.3	<1.1	6.9	8.1
	3				7.2	7.9
	4				7.6	7.6
	5				7.4	7.8
	6				6.8	7.6
	7				7.2	7.5
	8				7.0	7.6
	9	3.0	<1.3	<1.1	7.1	7.7
	10	3.3	<1.3	<1.1	7.3	8.0
	11				7.2	8.0
	12				7.2	7.9
	13				7.4	7.7
	14				6.9	7.0
	15					
	16	5.3	<1.3	<1.1	7.4	7.8
	17	4.8	<1.3	<1.1	7.5	7.9
	18				7.5	7.8
	19				7.4	7.8
	20				7.7	8.1
	21				7.9	8.1
	22				7.8	8.2
	23	5.6	<1.3	<1.1	7.3	8.0
	24	4.0	<1.3	<1.1	7.0	7.9
	25				7.2	7.9
	26				7.5	8.6
	27				7.2	8.7
	28					
	29					
	30				7.6	7.8
	31				7.3	7.7

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	147		264		430		374		373	
	Description	Copper, Total Recoverable		Lead, Total Recoverable		Silver, Total Recoverable		pH (Minimum)		pH (Maximum)	
	Units	ug/L		ug/L		ug/L		su		su	
Summary Values	**Monthly Avg**	4		0.2875		0		7.3		7.864285714	
	Monthly Total										
	Daily Max	5.6		2.3		<1.1		7.9		8.7	
	Daily Min	2.7		<1.3		<1.1		6.8		7	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**	2070	0	430	0	240	0				
	Monthly Total										
	Daily Max	3380	0	690	0	430	0			11	0
	Daily Min							4	0		
	Rolling 12 Month Avg										
QA/QC Information	**LOD**	1.7		1.3		1.1					
	LOQ	5		2.5		2.5					
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010					

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	379	376	507	40	490
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes	Total Toxic Organics	Benzene	Tetrachloroethylene
	Units	minutes	Number	ug/L	ug/L	ug/L
	Sample Type	CALCULATED	CALCULATED	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	DAILY	DAILY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	379		376		507		40		490	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes		Total Toxic Organics		Benzene		Tetrachloroethylene	
	Units	minutes		Number		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**										
	Monthly Total										
	Daily Max										
	Daily Min										
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total	446	0	0	0						
	Daily Max					2130					
	Daily Min										
	Rolling 12 Month Avg										
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	500	561	200	508	285
	Description	Toluene	1,1,1-Trichloro- ethane	Ethylbenzene	Trichloro- ethylene	Methylene chloride
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
	Sample Type	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	500	561	200	508	285
	Description	Toluene	1,1,1-Trichloro- ethane	Ethylbenzene	Trichloro- ethylene	Methylene chloride
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	101	106	106	106	107
	Description	Metal Finishing Effluent	Future remedial action ww	Future remedial action ww	Future remedial action ww	Mercury Field Blank Results
	Parameter	167	211	35	457	280
	Description	Di-n-butyl phthalate (dibutyl phthalate)	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	ug/L	gpd	ug/L	mg/L	ng/L
	Sample Type	24 HR COMP	CONTINUOUS	24 HR COMP	24 HR COMP	GRAB
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					<0.20
	27					
	28					
	29					
	30					
	31					

	Sample Point	101	106	106	106	107
	Description	Metal Finishing Effluent	Future remedial action ww	Future remedial action ww	Future remedial action ww	Mercury Field Blank Results
	Parameter	167	211	35	457	280
	Description	Di-n-butyl phthalate (dibutyl phthalate)	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	ug/L	gpd	ug/L	mg/L	ng/L
Summary Values	**Monthly Avg**					0
	Monthly Total					
	Daily Max					<0.2
	Daily Min					<0.2
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	**LOD**					0.2
	LOQ					0.5
	QC Exceedance	N	N	N	N	N
	Lab Certification					721026460

	Sample Point	003	003	003	003	003
	Description	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg
	Parameter	211	457	35	374	373
	Description	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	pH (Minimum)	pH (Maximum)
	Units	MGD	mg/L	ug/L	su	su
	Sample Type	CONTINUOUS	24 HR COMP	24 HR COMP	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	WEEKLY	WEEKLY	DAILY	DAILY
Sample Results	Day 1					
	2	0.009376			7.2	8.5
	3	0.003389			6.9	7.1
	4					
	5	0.012722	<1.0	17	7.2	8.5
	6	0.011009			7.1	8.6
	7					
	8					
	9	0.015481	<1.0	18	6.8	7.5
	10	0.012714			6.5	7.8
	11	0.023996			6.7	8.3
	12	0.023485			6.9	8.7
	13	0.019887			6.6	8.7
	14					
	15					
	16	0.007002			6.4	6.6
	17	0.016403			6.6	9.0
	18	0.017188	<1.0	36	6.4	8.3
	19	0.016155			6.9	8.9
	20	0.010120			7.3	8.5
	21	0.007536			7.5	7.6
	22					
	23	0.016105	<1.0	66	6.4	6.5
	24	0.012781			6.0	6.3
	25	0.016483			6.0	8.6
	26	0.023088			6.1	8.9
	27	0.016046			6.9	7.1
	28					
	29					
	30	0.022121			6.6	6.7
	31	0.017866			6.4	6.7

	Sample Point	003		003		003		003		003	
	Description	Future remedial action dischg		Future remedial action dischg		Future remedial action dischg		Future remedial action dischg		Future remedial action dischg	
	Parameter	211		457		35		374		373	
	Description	Flow Rate		Suspended Solids, Total		Arsenic, Total Recoverable		pH (Minimum)		pH (Maximum)	
	Units	MGD		mg/L		ug/L		su		su	
Summary Values	**Monthly Avg**	0.015043318		0		34.25		6.7		7.881818182	
	Monthly Total										
	Daily Max	0.023996		<1		66		7.5		9	
	Daily Min	0.003389		<1		17		6		6.3	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total										
	Daily Max					680	0			11	0
	Daily Min							4	0		
	Rolling 12 Month Avg										
QA/QC Information	**LOD**					2.1					
	LOQ					5					
	QC Exceedance	N		N		N		N		N	
	Lab Certification			438039470		999580010					

	Sample Point	003	003
	Description	Future remedial action dischg	Future remedial action dischg
	Parameter	379	376
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes
	Units	minutes	Number
	Sample Type	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	DAILY
Sample Results	**Day 1**		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
	17		
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	19		
	20		
	21		
	22		
	23		
	24		
	25		
	26		
	27		
	28		
	29		
	30		
	31		

	Sample Point	003		003	
	Description	Future remedial action dischg		Future remedial action dischg	
	Parameter	379		376	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	minutes		Number	
Summary Values	**Monthly Avg**				
	Monthly Total				
	Daily Max				
	Daily Min				
	Rolling 12 Month Avg				
Limit(s) in Effect	**Monthly Avg**				
	Monthly Total	446	0		
	Daily Max			0	0
	Daily Min				
	Rolling 12 Month Avg				
QA/QC Information	**LOD**				
	LOQ				
	QC Exceedance	N		N	
	Lab Certification				

Footnotes (DNR Use Only; Instructions for completing this form that are unique for your facility may be displayed here.)

1. Based on my inquiry of the person or persons directly responsible for managing compiliance with the permit limitation for TTO I certify that to the best of my knowledge and belief no dumping of concentrated toxic organics into the wastewaters has
2. occurred since filing of the last discharge monitoring report. I further certify that this facility is implementing the solvent management plan submitted to the department.

General Remarks

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 8/14/2018 12:13:55 PM

eReport Certify - TYCO FIRE PROTECTION PRODUCTS LP - 438259

Facility Name
TYCO FIRE PROTECTION PRODUCTS LP
Form Type
Wastewater Discharge Monitoring Long Report
DOC ID
406455
Reporting Period
8/1/2018 to 8/31/2018
Enter Certification Code
entylvaill
E-Mail was sent to
afleury@tycoint.com
Return To List
Certification complete.

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eReport Certify - TYCO FIRE PROTECTION PRODUCTS LP - 438259

Facility Name
TYCO FIRE PROTECTION PRODUCTS LP
Form Type
Wastewater Discharge Monitoring Long Report
DOC ID
406455
Reporting Period
8/1/2018 to 8/31/2018
Enter Certification Code
entylvaill
E-Mail was sent to
afleury@tycoint.com
Certify
Return To List
Without leaving THIS page, check E-Mail address for message containing Certification code. Enter code and click 'Certify' button to complete Submittal.
Submittal of this form is required by section 283.55, Wis. Stats., and chapters NR 205 and NR 214 or NR 204, Wis. Admin. Code.

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I certify under penalty of law that this form submitted to DNR on 9/11/2018 for the period 8/1/2018 to 8/31/2018 and identified by the DOC ID number listed above was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

eReport Certify - TYCO FIRE PROTECTION PRODUCTS LP - 438259

Facility Name
TYCO FIRE PROTECTION PRODUCTS LP
Form Type
Wastewater Discharge Monitoring Long Report
DOC ID
406455
Reporting Period
8/1/2018 to 8/31/2018
Enter Certification Code

E-Mail was sent to
afleury@tycoint.com

Certify

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Submittal of this form is required by section 283.55, Wis. Stats., and chapters NR 205 and NR 214 or NR 204, Wis. Admin. Code.

Personally identifiable information collected on this form may be used for purposes other than that for which it was originally collected. Under Wisconsin's open records laws, DNR is required to provide all non-confidential information to any person who requests it. Such information may be provided to the public in written or electronic form. Information reported may be made available to the public via a DNR web page.

I certify under penalty of law that this form submitted to DNR on 9/11/2018 for the period 8/1/2018 to 8/31/2018 and identified by the DOC ID number listed above was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

eReport Submit - TYCO FIRE PROTECTION PRODUCTS LP - 438259

Facility Name
TYCO FIRE PROTECTION PRODUCTS LP
Form Type
Wastewater Discharge Monitoring Long Report
DOC ID
406455
Reporting Period
8/1/2018 to 8/31/2018

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Wastewater Discharge Monitoring Long Report

Facility Name: TYCO FIRE PROTECTION PRODUCTS LP
Contact Address: One Stanton St
Marinette, WI 54143
Facility Contact: Mike Elliott, EHS Manager
Phone Number: 715-735-7411
Reporting Period: 08/01/2018 - 08/31/2018
Form Due Date: 09/21/2018
Permit Number: 0001040

For DNR Use Only

Date Received:	
DOC:	406455
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Trevor J Moen
Reviewer:	Nicole E Krueger
Office:	Green Bay

	Sample Point	001	703	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	Intake Water Monitoring	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	211	280	487	374	373
	Description	Flow Rate	Mercury, Total Recoverable	Temperature	pH (Minimum)	pH (Maximum)
	Units	MGD	ng/L	degF	su	su
	Sample Type	CONTINUOUS	GRAB	GRAB	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	MONTHLY	MONTHLY	DAILY	DAILY
Sample Results	Day 1	0.161330		81	7.0	7.5
	2	0.163460		79	6.9	7.4
	3	0.039390		80	7.2	7.9
	4	0.019230		83	6.9	8.5
	5	0.025990		82	6.9	7.2
	6	0.144870		81	6.8	7.1
	7	0.151030		78	6.8	7.2
	8	0.150700		78	6.7	7.0
	9	0.155680		77	6.9	7.6
	10	0.120270		80	6.9	7.2
	11	0.012190		83	7.2	8.5
	12	0.065640		87	7.6	8.5
	13	0.150670		80	7.3	7.9
	14	0.144720		81	6.0	7.4
	15	0.143630		80	7.2	7.5
	16	0.144920		83	7.1	7.6
	17	0.119030		83	7.1	7.7
	18	0.077430		81	7.4	8.0
	19	0.037720		84	7.3	8.3
	20	0.147160		82	6.8	7.6
	21	0.151780		81	6.8	7.2
	22	0.154190		83	6.7	7.1
	23	0.152830	1.4	83	6.5	6.7
	24	0.139460		82	6.5	7.0
	25	0.069600		80	6.6	7.5
	26	0.078160		82	6.9	7.9
	27	0.320130		75	6.5	7.3
	28	0.162870		78	6.0	7.2
	29	0.181520		78	7.1	7.4
	30	0.177070		75	7.1	7.5
	31	0.119650		77	7.1	7.5

	Sample Point	001	703	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	Intake Water Monitoring	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	211	280	487	374	373
	Description	Flow Rate	Mercury, Total Recoverable	Temperature	pH (Minimum)	pH (Maximum)
	Units	MGD	ng/L	degF	su	su
Summary Values	Monthly Avg	0.125236129	1.4	80.548387097	6.896774194	7.54516129
	Monthly Total					
	Daily Max	0.32013	1.4	87	7.6	8.5
	Daily Min	0.01219	1.4	75	6	6.7
	Rolling 12 Month Avg					
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max					11 0
	Daily Min				4 0	
	Rolling 12 Month Avg					
QA/QC Information	LOD		0.2			
	LOQ		0.5			
	QC Exceedance	N	N	N	N	N
	Lab Certification		721026460			

	Sample Point	001	001	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	379	376	388	231	35
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes	Phosphorus, Total	Hardness, Total as CaCO3	Arsenic, Total Recoverable
	Units	minutes	Number	mg/L	mg/L	ug/L
	Sample Type	CONTINUOUS	CONTINUOUS	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	DAILY	DAILY	WEEKLY	MONTHLY	MONTHLY
Sample Results	Day 1			0.12	270	16
	2					
	3					
	4					
	5					
	6					
	7					
	8			0.10	240	20
	9					
	10					
	11					
	12					
	13					
	14					
	15			0.20	240	14
	16					
	17					
	18					
	19					
	20					
	21					
	22			0.14	230	15
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001		001		001		001		001	
	Description	PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER	
	Parameter	379		376		388		231		35	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes		Phosphorus, Total		Hardness, Total as CaCO3		Arsenic, Total Recoverable	
	Units	minutes		Number		mg/L		mg/L		ug/L	
Summary Values	Monthly Avg					0.14		245		16.25	
	Monthly Total										
	Daily Max					0.2		270		20	
	Daily Min					0.1		230		14	
	Rolling 12 Month Avg					0.2					
Limit(s) in Effect	Monthly Avg										
	Monthly Total	446	0								
	Daily Max			0	0					680	0
	Daily Min										
	Rolling 12 Month Avg					1	0				
QA/QC Information	LOD					0.024				2.1	
	LOQ					0.05				5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification					999580010		999580010		999580010	

	Sample Point	001	001	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	35	147	147	87	152
	Description	Arsenic, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable	Cadmium, Total Recoverable	Cyanide, Amenable
	Units	lbs/day	ug/L	lbs/day	ug/L	ug/L
	Sample Type	CALCULATED	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1	0.0216	9.5	0.012825	0.51	
	2					
	3					
	4					
	5					
	6					
	7					
	8	0.0252	12	0.01512	<0.49	<3.0
	9					
	10					
	11					
	12					
	13					
	14					
	15	0.0168	11	0.0132	<0.49	
	16					
	17					
	18					
	19					
	20					
	21					
	22	0.01935	8.6	0.011094	<0.49	
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001		001		001		001		001	
	Description	PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER	
	Parameter	35		147		147		87		152	
	Description	Arsenic, Total Recoverable		Copper, Total Recoverable		Copper, Total Recoverable		Cadmium, Total Recoverable		Cyanide, Amenable	
	Units	lbs/day		ug/L		lbs/day		ug/L		ug/L	
Summary Values	**Monthly Avg**	0.0207375		10.275		0.01305975		0.1275		0	
	Monthly Total										
	Daily Max	0.0252		12		0.01512		0.51		<3	
	Daily Min	0.0168		8.6		0.011094		<0.49		<3	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total										
	Daily Max	12	0	69	0	0.98	0				
	Daily Min										
	Rolling 12 Month Avg										
QA/QC Information	**LOD**			1.7				0.49		3	
	LOQ			5				1		10	
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010				999580010		999580010	

	Sample Point	001	001	101	101	101
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	112	280	211	457	342
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	Flow Rate	Suspended Solids, Total	Oil & Grease (Freon)
	Units	ug/L	ng/L	MGD	mg/L	mg/L
	Sample Type	GRAB	GRAB	CONTINUOUS	24 HR COMP	GRAB
	Frequency	MONTHLY	MONTHLY	DAILY	DAILY	2/WEEK
Sample Results	Day 1			0.027620	2.7	<1.4
	2			0.034848	3.5	1.4
	3			0.019160	3.6	
	4					
	5					
	6			0.023562	12.3	
	7			0.028938	3.4	
	8			0.030878	2.0	1.8
	9			0.028114	2.2	1.6
	10			0.019118	2.0	
	11					
	12					
	13			0.026814	8.7	
	14			0.032021	2.1	
	15	20		0.023858	3.7	<1.5
	16			0.025742	2.9	1.6
	17			0.017052	4.1	
	18			0.009388	3.4	
	19					
	20			0.022359	6.1	
	21			0.029493	3.9	
	22			0.034038	2.3	<1.4
	23		0.91	0.035159	1.6	1.6
	24			0.017559	2.4	
	25			0.008967	4.1	
	26					
	27			0.024457	2.4	
	28			0.017862	3.0	
	29			0.030883	1.7	
	30			0.026167	1.5	
	31			0.018892	1.8	

	Sample Point	001	001	101	101	101
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	112	280	211	457	342
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	Flow Rate	Suspended Solids, Total	Oil & Grease (Freon)
	Units	ug/L	ng/L	MGD	mg/L	mg/L
Summary Values	Monthly Avg	20	0.91	0.02451796	3.496	1
	Monthly Total					
	Daily Max	20	0.91	0.035159	12.3	1.8
	Daily Min	20	0.91	0.008967	1.5	<1.4
	Rolling 12 Month Avg					
Limit(s) in Effect	Monthly Avg				31 0	26 0
	Monthly Total					
	Daily Max				60 0	52 0
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	LOD	30	0.2			1.4
	LOQ	100	0.5			5.6
	QC Exceedance	N	N	N	N	N
	Lab Certification		721026460		438039470	999580010

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	87	133	315	553	155
	Description	Cadmium, Total Recoverable	Chromium, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Cyanide, Total
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
	Sample Type	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP	GRAB
	Frequency	2/WEEK	MONTHLY	2/WEEK	2/WEEK	MONTHLY
Sample Results	Day 1	<0.49	<2.2	14	66	
	2	0.50	<2.2	13	39	
	3					
	4					
	5					
	6					
	7					
	8	<0.49	<2.2	34	63	<3.0
	9	<0.49	<2.2	47	77	
	10					
	11					
	12					
	13					
	14					
	15	<0.49	<2.2	150	330	
	16	<0.49	3.3	260	270	
	17					
	18					
	19					
	20					
	21					
	22	<0.49	<2.2	170	380	
	23	0.72	18	2100	1500	
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	87		133		315		553		155	
	Description	Cadmium, Total Recoverable		Chromium, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Cyanide, Total	
	Units	ug/L		ug/L		ug/L		ug/L		ug/L	
Summary Values	Monthly Avg	0.1525		2.6625		348.5		340.625		0	
	Monthly Total										
	Daily Max	0.72		18		2100		1500		<3	
	Daily Min	<0.49		<2.2		13		39		<3	
	Rolling 12 Month Avg										
Limit(s) in Effect	Monthly Avg	260	0	1710	0	2380	0	1480	0	650	0
	Monthly Total										
	Daily Max	690	0	2770	0	3980	0	2610	0	1200	0
	Daily Min										
	Rolling 12 Month Avg										
QA/QC Information	LOD	0.49		2.2		1.5		3.6		3	
	LOQ	1		5		5		10		10	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010		999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	147	264	430	374	373
	Description	Copper, Total Recoverable	Lead, Total Recoverable	Silver, Total Recoverable	pH (Minimum)	pH (Maximum)
	Units	ug/L	ug/L	ug/L	su	su
	Sample Type	24 HR COMP	24 HR COMP	24 HR COMP	CONTINUOUS	CONTINUOUS
	Frequency	2/WEEK	MONTHLY	MONTHLY	DAILY	DAILY
Sample Results	Day 1	4.8	<1.3	<1.1	7.4	7.9
	2	4.3	<1.3	<1.1	7.5	8.1
	3				7.4	8.0
	4					
	5					
	6				7.4	7.9
	7				7.3	7.9
	8	7.5	<1.3	<1.1	7.7	8.1
	9	6.0	<1.3	<1.1	7.3	8.0
	10				7.7	8.0
	11					
	12					
	13				7.7	8.0
	14				7.6	7.8
	15	3.4	<1.3	<1.1	7.6	7.8
	16	2.7	<1.3	<1.1	7.2	7.8
	17				7.4	7.7
	18				7.7	7.8
	19					
	20				7.2	8.0
	21				7.7	7.9
	22	5.4	<1.3	<1.1	7.7	7.9
	23	9.8	<1.3	<1.1	7.9	8.0
	24				7.3	8.0
	25				7.5	7.8
	26					
	27				7.5	7.8
	28				7.0	7.7
	29				7.3	7.6
	30				7.5	7.8
	31				7.4	7.7

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	147		264		430		374		373	
	Description	Copper, Total Recoverable		Lead, Total Recoverable		Silver, Total Recoverable		pH (Minimum)		pH (Maximum)	
	Units	ug/L		ug/L		ug/L		su		su	
Summary Values	Monthly Avg	5.4875		0		0		7.476		7.88	
	Monthly Total										
	Daily Max	9.8		<1.3		<1.1		7.9		8.1	
	Daily Min	2.7		<1.3		<1.1		7		7.6	
	Rolling 12 Month Avg										
Limit(s) in Effect	Monthly Avg	2070	0	430	0	240	0				
	Monthly Total										
	Daily Max	3380	0	690	0	430	0			11	0
	Daily Min							4	0		
	Rolling 12 Month Avg										
QA/QC Information	LOD	1.7		1.3		1.1					
	LOQ	5		2.5		2.5					
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010					

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	379	376	507	40	490
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes	Total Toxic Organics	Benzene	Tetrachloroethylene
	Units	minutes	Number	ug/L	ug/L	ug/L
	Sample Type	CALCULATED	CALCULATED	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	DAILY	DAILY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	379		376		507		40		490	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes		Total Toxic Organics		Benzene		Tetrachloroethylene	
	Units	minutes		Number		ug/L		ug/L		ug/L	
Summary Values	Monthly Avg										
	Monthly Total										
	Daily Max										
	Daily Min										
	Rolling 12 Month Avg										
Limit(s) in Effect	Monthly Avg										
	Monthly Total	446	0	0	0						
	Daily Max					2130					
	Daily Min										
	Rolling 12 Month Avg										
QA/QC Information	LOD										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	500	561	200	508	285
	Description	Toluene	1,1,1-Trichloro- ethane	Ethylbenzene	Trichloro- ethylene	Methylene chloride
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
	Sample Type	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	500	561	200	508	285
	Description	Toluene	1,1,1-Trichloro- ethane	Ethylbenzene	Trichloro- ethylene	Methylene chloride
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
Summary Values	Monthly Avg					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	LOD					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	101	106	106	106	107
	Description	Metal Finishing Effluent	Future remedial action ww	Future remedial action ww	Future remedial action ww	Mercury Field Blank Results
	Parameter	167	211	35	457	280
	Description	Di-n-butyl phthalate (dibutyl phthalate)	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	ug/L	gpd	ug/L	mg/L	ng/L
	Sample Type	24 HR COMP	CONTINUOUS	24 HR COMP	24 HR COMP	GRAB
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					<0.20
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101	106	106	106	107
	Description	Metal Finishing Effluent	Future remedial action ww	Future remedial action ww	Future remedial action ww	Mercury Field Blank Results
	Parameter	167	211	35	457	280
	Description	Di-n-butyl phthalate (dibutyl phthalate)	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	ug/L	gpd	ug/L	mg/L	ng/L
Summary Values	Monthly Avg					0
	Monthly Total					
	Daily Max					<0.2
	Daily Min					<0.2
	Rolling 12 Month Avg					
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	LOD					0.2
	LOQ					0.5
	QC Exceedance	N	N	N	N	N
	Lab Certification					721026460

	Sample Point	003	003	003	003	003
	Description	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg
	Parameter	211	457	35	374	373
	Description	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	pH (Minimum)	pH (Maximum)
	Units	MGD	mg/L	ug/L	su	su
	Sample Type	CONTINUOUS	24 HR COMP	24 HR COMP	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	WEEKLY	WEEKLY	DAILY	DAILY
Sample Results	Day 1	0.012048			6.3	6.8
	2	0.009285	<1.0	31	6.9	7.7
	3	0.011289			6.8	9.0
	4					
	5					
	6	0.012911			6.0	8.5
	7					
	8	0.002494			7.2	7.2
	9	0.008097	<1.0	120	7.7	8.5
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	003	003	003	003	003
	Description	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg
	Parameter	211	457	35	374	373
	Description	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	pH (Minimum)	pH (Maximum)
	Units	MGD	mg/L	ug/L	su	su
Summary Values	Monthly Avg	0.009354	0	75.5	6.816666667	7.95
	Monthly Total					
	Daily Max	0.012911	<1	120	7.7	9
	Daily Min	0.002494	<1	31	6	6.8
	Rolling 12 Month Avg					
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max			680 0		11 0
	Daily Min				4 0	
	Rolling 12 Month Avg					
QA/QC Information	LOD			2.1		
	LOQ			5		
	QC Exceedance	N	N	N	N	N
	Lab Certification		438039470	999580010		

	Sample Point	003	003
	Description	Future remedial action dischg	Future remedial action dischg
	Parameter	379	376
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes
	Units	minutes	Number
	Sample Type	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	DAILY
Sample Results	Day 1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
	17		
	18		
	19		
	20		
	21		
	22		
	23		
	24		
	25		
	26		
	27		
	28		
	29		
	30		
	31		

	Sample Point	003		003	
	Description	Future remedial action dischg		Future remedial action dischg	
	Parameter	379		376	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	minutes		Number	
Summary Values	Monthly Avg				
	Monthly Total				
	Daily Max				
	Daily Min				
	Rolling 12 Month Avg				
Limit(s) in Effect	Monthly Avg				
	Monthly Total	446	0		
	Daily Max			0	0
	Daily Min				
	Rolling 12 Month Avg				
QA/QC Information	LOD				
	LOQ				
	QC Exceedance	N		N	
	Lab Certification				

Footnotes (DNR Use Only; Instructions for completing this form that are unique for your facility may be displayed here.)

1. Based on my inquiry of the person or persons directly responsible for managing compiliance with the permit limitation for TTO I certify that to the best of my knowledge and belief no dumping of concentrated toxic organics into the wastewaters has
2. occurred since filing of the last discharge monitoring report. I further certify that this facility is implementing the solvent management plan submitted to the department.

General Remarks

OF003 has been shut down since 8/9/18 so, we had only two weeks of sampling. We are working on maintenance issues.

Laboratory Quality Control Comments

eReport Submit - TYCO FIRE PRODUCTS LP - 437897

Facility Name
TYCO FIRE PRODUCTS LP
Form Type
Wastewater Discharge Monitoring Long Report
DOC ID
406456
Reporting Period
9/1/2018 to 9/30/2018

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eReport Certify - TYCO FIRE PRODUCTS LP - 437897

Facility Name
TYCO FIRE PRODUCTS LP
Form Type
Wastewater Discharge Monitoring Long Report
DOC ID
406456
Reporting Period
9/1/2018 to 9/30/2018
Enter Certification Code
parkatouer
E-Mail was sent to
afleury@tycoint.com
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Certification complete.

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101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621

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eReport Certify - TYCO FIRE PRODUCTS LP - 437897

Facility Name
TYCO FIRE PRODUCTS LP
Form Type
Wastewater Discharge Monitoring Long Report
DOC ID
406456
Reporting Period
9/1/2018 to 9/30/2018
Enter Certification Code

E-Mail was sent to
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Without leaving THIS page, check E-Mail address for message containing Certification code. Enter code and click 'Certify' button to complete Submittal.
Submittal of this form is required by section 283.55, Wis. Stats., and chapters NR 205 and NR 214 or NR 204, Wis. Admin. Code.

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I certify under penalty of law that this form submitted to DNR on 10/9/2018 for the period 9/1/2018 to 9/30/2018 and identified by the DOC ID number listed above was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility Name: TYCO FIRE PROTECTION PRODUCTS LP
Contact Address: One Stanton St
Marinette, WI 54143
Facility Contact: Mike Elliott, EHS Manager
Phone Number: 715-735-7411
Reporting Period: 09/01/2018 - 09/30/2018
Form Due Date: 10/21/2018
Permit Number: 0001040

For DNR Use Only

Date Received:	
DOC:	406456
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Trevor J Moen
Reviewer:	Nicole E Krueger
Office:	Green Bay

	Sample Point	001	703	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	Intake Water Monitoring	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	211	280	487	374	373
	Description	Flow Rate	Mercury, Total Recoverable	Temperature	pH (Minimum)	pH (Maximum)
	Units	MGD	ng/L	degF	su	su
	Sample Type	CONTINUOUS	GRAB	GRAB	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	MONTHLY	MONTHLY	DAILY	DAILY
Sample Results	Day 1	0.02217		81	7.3	7.8
	2	0.00201		82	7.7	7.9
	3	0.20414		81	6.6	7.9
	4	0.20734		77	6.7	7.0
	5	0.20168		76	6.4	6.9
	6	0.14941		76	6.7	6.9
	7	0.12124		94	6.8	7.0
	8	0.00468		76	7.0	7.6
	9	0.04777		79	7.2	8.0
	10	0.13730		77	7.0	7.6
	11	0.12992		78	7.0	7.6
	12	0.14199		78	6.9	7.5
	13	0.12660		78	6.8	7.1
	14	0.11252		78	6.8	7.4
	15	0.07329		77	6.7	7.5
	16	0.04728		81	6.8	8.0
	17	0.12988		79	6.7	7.4
	18	0.13703	1.6	77	7.0	7.4
	19	0.12464		77	6.4	7.2
	20	0.10017		77	6.2	6.6
	21	0.00692		74	6.4	7.2
	22	0.00168		77	7.2	7.4
	23	0.01551		78	6.8	7.7
	24	0.12439		76	6.6	7.2
	25	0.14119		77	6.8	7.2
	26	0.13172		75	6.6	6.8
	27	0.13683		74	6.4	7.0
	28	0.08972		74	6.7	7.3
	29	0.00168		70	6.8	7.7
	30	0.04995		71	6.7	7.6
	31					

	Description	PRIOR TO MENOMINEE RIVER	Intake Water Monitoring	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	211	280	487	374	373
	Description	Flow Rate	Mercury, Total Recoverable	Temperature	pH (Minimum)	pH (Maximum)
	Units	MGD	ng/L	degF	su	su
Summary Values	**Monthly Avg**	0.097355	1.6	77.5	6.79	7.38
	Monthly Total					
	Daily Max	0.20734	1.6	94	7.7	8
	Daily Min	0.00168	1.6	70	6.2	6.6
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					11 0
	Daily Min				4 0	
	Rolling 12 Month Avg					
QA/QC Information	**LOD**		0.2			
	LOQ		0.5			
	QC Exceedance	N	N	N	N	N
	Lab Certification		721026460			

	Sample Point	001	001	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	379	376	388	231	35
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes	Phosphorus, Total	Hardness, Total as CaCO3	Arsenic, Total Recoverable
	Units	minutes	Number	mg/L	mg/L	ug/L
	Sample Type	CONTINUOUS	CONTINUOUS	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	DAILY	DAILY	WEEKLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4			0.20		50
	5					
	6					
	7					
	8					
	9					
	10			0.16	260	44
	11					
	12					
	13					
	14					
	15					
	16					
	17			0.12	310	39
	18					
	19					
	20					
	21					
	22					
	23					
	24			0.13	270	37
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Description	PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER	
	Parameter	379		376		388		231		35	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes		Phosphorus, Total		Hardness, Total as CaCO3		Arsenic, Total Recoverable	
	Units	minutes		Number		mg/L		mg/L		ug/L	
Summary Values	**Monthly Avg**					0.1525		280		42.5	
	Monthly Total										
	Daily Max					0.2		310		50	
	Daily Min					0.12		260		37	
	Rolling 12 Month Avg					0.2					
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total	446	0								
	Daily Max			0	0					680	0
	Daily Min										
	Rolling 12 Month Avg					1	0				
QA/QC Information	**LOD**					0.024				2.1	
	LOQ					0.05				5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification					999580010		999580010		999580010	

	Sample Point	001	001	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	35	147	147	87	152
	Description	Arsenic, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable	Cadmium, Total Recoverable	Cyanide, Amenable
	Units	lbs/day	ug/L	lbs/day	ug/L	ug/L
	Sample Type	CALCULATED	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4	0.0865	22	0.03806	0.78	<3.0
	5					
	6					
	7					
	8					
	9					
	10	0.05016	13	0.01482	<0.49	
	11					
	12					
	13					
	14					
	15					
	16					
	17	0.04446	14	0.01596	<0.49	
	18					
	19					
	20					
	21					
	22					
	23					
	24	0.03848	28	0.02912	1.0	
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001		001		001		001		001	
	Description	PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER	
	Parameter	35		147		147		87		152	
	Description	Arsenic, Total Recoverable		Copper, Total Recoverable		Copper, Total Recoverable		Cadmium, Total Recoverable		Cyanide, Amenable	
	Units	lbs/day		ug/L		lbs/day		ug/L		ug/L	
Summary Values	**Monthly Avg**	0.0549		19.25		0.02449		0.445		0	
	Monthly Total										
	Daily Max	0.0865		28		0.03806		1		<3	
	Daily Min	0.03848		13		0.01482		<0.49		<3	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total										
	Daily Max	12	0	69	0	0.98	0				
	Daily Min										
	Rolling 12 Month Avg										
QA/QC Information	**LOD**			1.7				0.49		3	
	LOQ			5				1		10	
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010				999580010		999580010	

	Sample Point	001	001	101	101	101
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	112	280	211	457	342
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	Flow Rate	Suspended Solids, Total	Oil & Grease (Freon)
	Units	ug/L	ng/L	MGD	mg/L	mg/L
	Sample Type	GRAB	GRAB	CONTINUOUS	24 HR COMP	GRAB
	Frequency	MONTHLY	MONTHLY	DAILY	DAILY	2/WEEK
Sample Results	Day 1					
	2					
	3			0.007519	7.5	
	4			0.035345	1.9	1.9
	5			0.035128	1.5	<1.4
	6			0.036443	4.5	
	7			0.018977	3.0	
	8					
	9					
	10			0.030579	11.0	1.9
	11			0.033210	1.9	2.1
	12			0.029132	1.9	
	13			0.027799	5.5	
	14			0.010973	14.0	
	15			0.010951	9.5	
	16					
	17			0.025466	2.5	1.9
	18		3.4	0.020901	3.0	1.8
	19			0.023137	2.0	
	20			0.023966	2.5	
	21			0.007787	4.0	
	22					
	23					
	24	20		0.023177	1.9	1.5
	25			0.030445	1.9	1.7
	26			0.033362	3.0	
	27			0.021741	2.0	
	28			0.006467	4.0	
	29					
	30					
	31					

	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	112	280	211	457	342
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	Flow Rate	Suspended Solids, Total	Oil & Grease (Freon)
	Units	ug/L	ng/L	MGD	mg/L	mg/L
Summary Values	**Monthly Avg**	20	3.4	0.023452619	4.238095238	1.6
	Monthly Total					
	Daily Max	20	3.4	0.036443	14	2.1
	Daily Min	20	3.4	0.006467	1.5	<1.4
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**				31 0	26 0
	Monthly Total					
	Daily Max				60 0	52 0
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	**LOD**	30	0.2			1.4
	LOQ	100	0.5			5.4
	QC Exceedance	N	N	N	N	N
	Lab Certification		721026460		999580010	999580010

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	87	133	315	553	155
	Description	Cadmium, Total Recoverable	Chromium, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Cyanide, Total
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
	Sample Type	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP	GRAB
	Frequency	2/WEEK	MONTHLY	2/WEEK	2/WEEK	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4	0.93	6.8	1300	330	<3.0
	5	0.74	36	1700	330	
	6					
	7					
	8					
	9					
	10	<0.49	3.1	400	270	
	11	<0.49	<2.2	170	170	
	12					
	13					
	14					
	15					
	16					
	17	0.51	4.2	260	480	
	18	<0.49	<2.2	100	320	
	19					
	20					
	21					
	22					
	23					
	24	2.8	5.0	380	320	
	25	0.87	<2.2	210	140	
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Unit	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	87		133		315		553		155	
	Description	Cadmium, Total Recoverable		Chromium, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Cyanide, Total	
	Units	ug/L		ug/L		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**	0.73125		6.8875		565		295		0	
	Monthly Total										
	Daily Max	2.8		36		1700		480		<3	
	Daily Min	<0.49		<2.2		100		140		<3	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**	260	0	1710	0	2380	0	1480	0	650	0
	Monthly Total										
	Daily Max	690	0	2770	0	3980	0	2610	0	1200	0
	Daily Min										
	Rolling 12 Month Avg										
QA/QC Information	**LOD**	0.49		2.2		1.5		3.6		3	
	LOQ	1		5		5		10		10	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010		999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	147	264	430	374	373
	Description	Copper, Total Recoverable	Lead, Total Recoverable	Silver, Total Recoverable	pH (Minimum)	pH (Maximum)
	Units	ug/L	ug/L	ug/L	su	su
	Sample Type	24 HR COMP	24 HR COMP	24 HR COMP	CONTINUOUS	CONTINUOUS
	Frequency	2/WEEK	MONTHLY	MONTHLY	DAILY	DAILY
Sample Results	Day 1					
	2					
	3				7.5	7.5
	4	26	<1.3	<1.1	7.3	7.8
	5	28	<1.3	<1.1	7.7	7.8
	6				7.2	7.8
	7				7.1	7.4
	8					
	9					
	10	17	<1.3	<1.1	7.7	8.1
	11	12	<1.3	<1.1	7.5	7.8
	12				7.4	7.5
	13				7.0	7.8
	14				7.0	8.0
	15				7.7	7.9
	16					
	17	19	1.9	<1.1	7.4	7.6
	18	5.3	3.1	<1.1	6.9	7.8
	19				7.3	7.7
	20				7.5	7.9
	21				7.1	7.5
	22					
	23					
	24	39	<1.3	<1.1	7.6	7.9
	25	14	<1.3	<1.1	7.6	7.8
	26				7.3	7.7
	27				7.2	7.5
	28				7.2	7.4
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	147		264		430		374		373	
	Description	Copper, Total Recoverable		Lead, Total Recoverable		Silver, Total Recoverable		pH (Minimum)		pH (Maximum)	
	Units	ug/L		ug/L		ug/L		su		su	
Summary Values	**Monthly Avg**	20.0375		0.625		0		7.342857143		7.723809524	
	Monthly Total										
	Daily Max	39		3.1		<1.1		7.7		8.1	
	Daily Min	5.3		<1.3		<1.1		6.9		7.4	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**	2070	0	430	0	240	0				
	Monthly Total										
	Daily Max	3380	0	690	0	430	0			11	0
	Daily Min							4	0		
	Rolling 12 Month Avg										
QA/QC Information	**LOD**	1.7		1.3		1.1					
	LOQ	5		2.5		2.5					
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010					

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	379	376	507	40	490
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes	Total Toxic Organics	Benzene	Tetrachloroethylene
	Units	minutes	Number	ug/L	ug/L	ug/L
	Sample Type	CALCULATED	CALCULATED	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	DAILY	DAILY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	379		376		507		40		490	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes		Total Toxic Organics		Benzene		Tetrachloroethylene	
	Units	minutes		Number		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**										
	Monthly Total										
	Daily Max										
	Daily Min										
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total	446	0	0	0						
	Daily Max					2130					
	Daily Min										
	Rolling 12 Month Avg										
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	500	561	200	508	285
	Description	Toluene	1,1,1-Trichloro- ethane	Ethylbenzene	Trichloro- ethylene	Methylene chloride
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
	Sample Type	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	500	561	200	508	285
	Description	Toluene	1,1,1-Trichloro- ethane	Ethylbenzene	Trichloro- ethylene	Methylene chloride
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	101	106	106	106	107
	Description	Metal Finishing Effluent	Future remedial action ww	Future remedial action ww	Future remedial action ww	Mercury Field Blank Results
	Parameter	167	211	35	457	280
	Description	Di-n-butyl phthalate (dibutyl phthalate)	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	ug/L	gpd	ug/L	mg/L	ng/L
	Sample Type	24 HR COMP	CONTINUOUS	24 HR COMP	24 HR COMP	GRAB
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					<0.20
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Description	Metal Finishing Effluent	Future remedial action ww	Future remedial action ww	Future remedial action ww	Mercury Field Blank Results
	Parameter	167	211	35	457	280
	Description	Di-n-butyl phthalate (dibutyl phthalate)	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	ug/L	gpd	ug/L	mg/L	ng/L
Summary Values	**Monthly Avg**					0
	Monthly Total					
	Daily Max					<0.2
	Daily Min					<0.2
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	**LOD**					0.2
	LOQ					0.5
	QC Exceedance	N	N	N	N	N
	Lab Certification					721026460

	Sample Point	003	003	003	003	003
	Description	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg
	Parameter	211	457	35	374	373
	Description	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	pH (Minimum)	pH (Maximum)
	Units	MGD	mg/L	ug/L	su	su
	Sample Type	CONTINUOUS	24 HR COMP	24 HR COMP	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	WEEKLY	WEEKLY	DAILY	DAILY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
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	18					
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	27					
	28					
	29					
	30					
	31					

	Sample Point					
	Description	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg
	Parameter	211	457	35	374	373
	Description	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	pH (Minimum)	pH (Maximum)
	Units	MGD	mg/L	ug/L	su	su
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max			680		11
	Daily Min				4	
	Rolling 12 Month Avg					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance	N	N	N	N	N
	Lab Certification					

	Sample Point	003	003
	Description	Future remedial action dischg	Future remedial action dischg
	Parameter	379	376
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes
	Units	minutes	Number
	Sample Type	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	DAILY
Sample Results	Day 1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
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	20		
	21		
	22		
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	25		
	26		
	27		
	28		
	29		
	30		
	31		

	Sample Point	[illegible]		[illegible]	
	Description	Future remedial action dischg		Future remedial action dischg	
	Parameter	379		376	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	minutes		Number	
Summary Values	**Monthly Avg**				
	Monthly Total				
	Daily Max				
	Daily Min				
	Rolling 12 Month Avg				
Limit(s) in Effect	**Monthly Avg**				
	Monthly Total	446			
	Daily Max			0	
	Daily Min				
	Rolling 12 Month Avg				
QA/QC Information	**LOD**				
	LOQ				
	QC Exceedance	N		N	
	Lab Certification				

Footnotes (DNR Use Only; Instructions for completing this form that are unique for your facility may be displayed here.)

1. Based on my inquiry of the person or persons directly responsible for managing compiliance with the permit limitation for TTO I certify that to the best of my knowledge and belief no dumping of concentrated toxic organics into the wastewaters has
2. occurred since filing of the last discharge monitoring report. I further certify that this facility is implementing the solvent management plan submitted to the department.

General Remarks

The Groundwater system was not running for the whole month of September so, there will be no results for any sampling at OF003.

Laboratory Quality Control Comments

Attachment 3
BWGMPU Sampling Results

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 500-151650-1
Client Project/Site: Barrier Wall Monitoring

For:
Tyco Fire Protection Products
1 Stanton St
Marinette, Wisconsin 54143

Attn: Mr. Ryan Suennen

Authorized for release by:
10/1/2018 12:35:38 PM

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

Table of Contents

Case Narrative

Client: Tyco Fire Protection Products
Project/Site: Barrier Wall Monitoring

TestAmerica Job ID: 500-151650-1

Job ID: 500-151650-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-151650-1

Receipt
The samples were received on 9/19/2018 8:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

Metals
Method(s) 200.7 Rev 4.4: The continuing calibration verification (CCV) at line 80 in AD batch 500-451778 recovered above the upper control limit for Arsenic. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: MW100M (500-151650-22).

Method(s) 200.7 Rev 4.4: The continuing calibration verification (CCV) at line 76 in AD batch 452196 was outside the control limits for Arsenic. This CCV bracketed the method blank (MB) and laboratory control sample (LCS). The MB and LCS were both within the method control limits. The associated samples MW021M (500-151650-5), MW101S (500-151650-6), MW101M (500-151650-7), MW047S (500-151650-8), MW047M (500-151650-9), MW047D (500-151650-10), MW102S (500-151650-11), MW102S/D (500-151650-12), MW102M (500-151650-13), MW102D (500-151650-14), MW103S (500-151650-15), MW103M (500-151650-16), MW118S (500-151650-17), MW118M (500-151650-18), FB#1 (500-151650-19) and FB#2 (500-151650-20) were bracketed with continuing calibration verifications that were within control limits, therefore the data has been reported.

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

Detection Summary

Client: Tyco Fire Protection Products
Project/Site: Barrier Wall Monitoring

TestAmerica Job ID: 500-151650-1

Client Sample ID: MW107M — Lab Sample ID: 500-151650-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	35		0.050	0.021	mg/L	10		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW107D — Lab Sample ID: 500-151650-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.13		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW021S — Lab Sample ID: 500-151650-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.072		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW021S/D — Lab Sample ID: 500-151650-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.070		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW021M — Lab Sample ID: 500-151650-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.045		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW101S — Lab Sample ID: 500-151650-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.061		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW101M — Lab Sample ID: 500-151650-7

No Detections.

Client Sample ID: MW047S — Lab Sample ID: 500-151650-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.12		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW047M — Lab Sample ID: 500-151650-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.3		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW047D — Lab Sample ID: 500-151650-10

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Tyco Fire Protection Products
Project/Site: Barrier Wall Monitoring

TestAmerica Job ID: 500-151650-1

Client Sample ID: MW047D (Continued) — Lab Sample ID: 500-151650-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.23		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW102S — Lab Sample ID: 500-151650-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.11		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW102S/D — Lab Sample ID: 500-151650-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.11		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW102M — Lab Sample ID: 500-151650-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.35		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW102D — Lab Sample ID: 500-151650-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.063		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW103S — Lab Sample ID: 500-151650-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.039		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW103M — Lab Sample ID: 500-151650-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.023		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW118S — Lab Sample ID: 500-151650-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.2		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW118M — Lab Sample ID: 500-151650-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	9.9		0.025	0.010	mg/L	5		200.7 Rev 4.4	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Tyco Fire Protection Products
Project/Site: Barrier Wall Monitoring

TestAmerica Job ID: 500-151650-1

Client Sample ID: FB#1 — Lab Sample ID: 500-151650-19

No Detections.

Client Sample ID: FB#2 — Lab Sample ID: 500-151650-20

No Detections.

Client Sample ID: MW100S — Lab Sample ID: 500-151650-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.091		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW100M — Lab Sample ID: 500-151650-22

No Detections.

Client Sample ID: MW100D — Lab Sample ID: 500-151650-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.14		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW109S — Lab Sample ID: 500-151650-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	42	F2	0.050	0.021	mg/L	10		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW109M — Lab Sample ID: 500-151650-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1900		2.5	1.0	mg/L	500		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW109D — Lab Sample ID: 500-151650-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.9		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW109D/D — Lab Sample ID: 500-151650-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.9		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW064S — Lab Sample ID: 500-151650-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.0		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW064M — Lab Sample ID: 500-151650-29

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Tyco Fire Protection Products
Project/Site: Barrier Wall Monitoring

TestAmerica Job ID: 500-151650-1

Client Sample ID: MW064M (Continued) — Lab Sample ID: 500-151650-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	320		0.50	0.21	mg/L	100		200.7 Rev 4.4	Total Recoverable

Client Sample ID: MW064D — Lab Sample ID: 500-151650-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.86		0.0050	0.0021	mg/L	1		200.7 Rev 4.4	Total Recoverable

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Tyco Fire Protection Products
Project/Site: Barrier Wall Monitoring

TestAmerica Job ID: 500-151650-1

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	TAL CHI
200.7	Preparation, Total Recoverable Metals	EPA	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

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

Sample Summary

Client: Tyco Fire Protection Products
Project/Site: Barrier Wall Monitoring

TestAmerica Job ID: 500-151650-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-151650-1	MW107M	Water	09/12/18 13:14	09/19/18 08:50
500-151650-2	MW107D	Water	09/12/18 13:50	09/19/18 08:50
500-151650-3	MW021S	Water	09/12/18 14:47	09/19/18 08:50
500-151650-4	MW021S/D	Water	09/12/18 14:47	09/19/18 08:50
500-151650-5	MW021M	Water	09/12/18 14:49	09/19/18 08:50
500-151650-6	MW101S	Water	09/12/18 16:09	09/19/18 08:50
500-151650-7	MW101M	Water	09/12/18 16:12	09/19/18 08:50
500-151650-8	MW047S	Water	09/13/18 10:28	09/19/18 08:50
500-151650-9	MW047M	Water	09/13/18 10:31	09/19/18 08:50
500-151650-10	MW047D	Water	09/13/18 10:33	09/19/18 08:50
500-151650-11	MW102S	Water	09/13/18 14:15	09/19/18 08:50
500-151650-12	MW102S/D	Water	09/13/18 14:15	09/19/18 08:50
500-151650-13	MW102M	Water	09/13/18 14:12	09/19/18 08:50
500-151650-14	MW102D	Water	09/13/18 14:19	09/19/18 08:50
500-151650-15	MW103S	Water	09/13/18 15:23	09/19/18 08:50
500-151650-16	MW103M	Water	09/13/18 15:25	09/19/18 08:50
500-151650-17	MW118S	Water	09/13/18 16:12	09/19/18 08:50
500-151650-18	MW118M	Water	09/13/18 16:17	09/19/18 08:50
500-151650-19	FB#1	Water	09/13/18 16:16	09/19/18 08:50
500-151650-20	FB#2	Water	09/14/18 08:58	09/19/18 08:50
500-151650-21	MW100S	Water	09/13/18 09:28	09/19/18 08:50
500-151650-22	MW100M	Water	09/13/18 09:19	09/19/18 08:50
500-151650-23	MW100D	Water	09/13/18 09:19	09/19/18 08:50
500-151650-24	MW109S	Water	09/13/18 07:46	09/19/18 08:50
500-151650-25	MW109M	Water	09/13/18 07:58	09/19/18 08:50
500-151650-26	MW109D	Water	09/13/18 07:55	09/19/18 08:50
500-151650-27	MW109D/D	Water	09/13/18 07:56	09/19/18 08:50
500-151650-28	MW064S	Water	09/13/18 12:57	09/19/18 08:50
500-151650-29	MW064M	Water	09/13/18 13:00	09/19/18 08:50
500-151650-30	MW064D	Water	09/13/18 13:18	09/19/18 08:50

Client Sample ID: MW107M
Lab Sample ID: 500-151650-1
Date Collected: 09/12/18 13:14
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	35		0.050	0.021	mg/L		09/19/18 15:34	09/28/18 13:00	10

Client Sample ID: MW107D
Lab Sample ID: 500-151650-2
Date Collected: 09/12/18 13:50
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.13		0.0050	0.0021	mg/L		09/19/18 15:34	09/28/18 13:16	1

Client Sample ID: MW021S
Lab Sample ID: 500-151650-3
Date Collected: 09/12/18 14:47
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.072		0.0050	0.0021	mg/L		09/19/18 15:34	09/28/18 13:20	1

Client Sample ID: MW021S/D
Lab Sample ID: 500-151650-4
Date Collected: 09/12/18 14:47
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.070		0.0050	0.0021	mg/L		09/19/18 15:34	09/28/18 13:24	1

Client Sample ID: MW021M
Lab Sample ID: 500-151650-5
Date Collected: 09/12/18 14:49
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.045		0.0050	0.0021	mg/L		09/19/18 15:34	09/28/18 04:46	1

Client Sample ID: MW101S
Lab Sample ID: 500-151650-6
Date Collected: 09/12/18 16:09
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.061		0.0050	0.0021	mg/L		09/19/18 15:34	09/28/18 04:50	1

Client Sample ID: MW101M
Lab Sample ID: 500-151650-7
Date Collected: 09/12/18 16:12
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0021		0.0050	0.0021	mg/L		09/19/18 15:34	09/28/18 04:54	1

Client Sample ID: MW047S
Lab Sample ID: 500-151650-8
Date Collected: 09/13/18 10:28
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.12		0.0050	0.0021	mg/L		09/19/18 15:34	09/28/18 04:59	1

Client Sample ID: MW047M
Lab Sample ID: 500-151650-9
Date Collected: 09/13/18 10:31
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.3		0.0050	0.0021	mg/L		09/19/18 15:34	09/28/18 05:03	1

Client Sample ID: MW047D
Lab Sample ID: 500-151650-10
Date Collected: 09/13/18 10:33
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.23		0.0050	0.0021	mg/L		09/19/18 15:34	09/28/18 05:07	1

Client Sample ID: MW102S
Lab Sample ID: 500-151650-11
Date Collected: 09/13/18 14:15
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.11		0.0050	0.0021	mg/L		09/19/18 15:34	09/28/18 05:11	1

Client Sample ID: MW102S/D
Lab Sample ID: 500-151650-12
Date Collected: 09/13/18 14:15
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.11		0.0050	0.0021	mg/L		09/19/18 15:34	09/28/18 05:41	1

Client Sample ID: MW102M
Lab Sample ID: 500-151650-13
Date Collected: 09/13/18 14:12
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.35		0.0050	0.0021	mg/L		09/19/18 15:34	09/28/18 05:45	1

Client Sample ID: MW102D
Lab Sample ID: 500-151650-14
Date Collected: 09/13/18 14:19
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.063		0.0050	0.0021	mg/L		09/19/18 15:34	09/28/18 05:49	1

Client Sample ID: MW103S
Lab Sample ID: 500-151650-15
Date Collected: 09/13/18 15:23
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.039		0.0050	0.0021	mg/L		09/19/18 15:34	09/28/18 05:54	1

Client Sample ID: MW103M
Lab Sample ID: 500-151650-16
Date Collected: 09/13/18 15:25
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.023		0.0050	0.0021	mg/L		09/19/18 15:34	09/28/18 05:58	1

Client Sample ID: MW118S
Lab Sample ID: 500-151650-17
Date Collected: 09/13/18 16:12
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.2		0.0050	0.0021	mg/L		09/19/18 15:34	09/28/18 06:02	1

Client Sample ID: MW118M
Lab Sample ID: 500-151650-18
Date Collected: 09/13/18 16:17
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.9		0.025	0.010	mg/L		09/19/18 15:34	09/28/18 13:28	5

Client Sample ID: FB#1
Lab Sample ID: 500-151650-19
Date Collected: 09/13/18 16:16
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0021		0.0050	0.0021	mg/L		09/19/18 15:34	09/28/18 06:10	1

Client Sample ID: FB#2
Lab Sample ID: 500-151650-20
Date Collected: 09/14/18 08:58
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0021		0.0050	0.0021	mg/L		09/19/18 15:34	09/28/18 06:14	1

Client Sample ID: MW100S
Lab Sample ID: 500-151650-21
Date Collected: 09/13/18 09:28
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.091		0.0050	0.0021	mg/L		09/20/18 08:19	09/27/18 20:28	1

Client Sample ID: MW100M
Lab Sample ID: 500-151650-22
Date Collected: 09/13/18 09:19
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0021	^	0.0050	0.0021	mg/L		09/20/18 08:19	09/26/18 04:03	1

Client Sample ID: MW100D
Lab Sample ID: 500-151650-23
Date Collected: 09/13/18 09:19
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.14		0.0050	0.0021	mg/L		09/20/18 08:19	09/27/18 20:32	1

Client Sample ID: MW109S
Lab Sample ID: 500-151650-24
Date Collected: 09/13/18 07:46
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	42	F2	0.050	0.021	mg/L		09/20/18 08:19	09/27/18 20:36	10

Client Sample ID: MW109M
Lab Sample ID: 500-151650-25
Date Collected: 09/13/18 07:58
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1900		2.5	1.0	mg/L		09/20/18 08:19	09/28/18 13:00	500

Client Sample ID: MW109D
Lab Sample ID: 500-151650-26
Date Collected: 09/13/18 07:55
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.9		0.0050	0.0021	mg/L		09/20/18 08:19	09/27/18 21:09	1

Client Sample ID: MW109D/D
Lab Sample ID: 500-151650-27
Date Collected: 09/13/18 07:56
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.9		0.0050	0.0021	mg/L		09/20/18 08:19	09/27/18 21:13	1

Client Sample ID: MW064S
Lab Sample ID: 500-151650-28
Date Collected: 09/13/18 12:57
Matrix: Water
Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.0		0.0050	0.0021	mg/L		09/20/18 08:19	09/27/18 21:17	1

Client: Tyco Fire Protection Products
Project/Site: Barrier Wall Monitoring

TestAmerica Job ID: 500-151650-1

Client Sample ID: MW064M

Lab Sample ID: 500-151650-29

Date Collected: 09/13/18 13:00

Matrix: Water

Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	320		0.50	0.21	mg/L		09/20/18 08:19	09/28/18 13:04	100

Client Sample ID: MW064D

Lab Sample ID: 500-151650-30

Date Collected: 09/13/18 13:18

Matrix: Water

Date Received: 09/19/18 08:50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.86		0.0050	0.0021	mg/L		09/20/18 08:19	09/27/18 21:25	1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

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
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
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
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)

Metals

Prep Batch: 450739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-151650-1	MW107M	Total Recoverable	Water	200.7	
500-151650-2	MW107D	Total Recoverable	Water	200.7	
500-151650-3	MW021S	Total Recoverable	Water	200.7	
500-151650-4	MW021S/D	Total Recoverable	Water	200.7	
500-151650-5	MW021M	Total Recoverable	Water	200.7	
500-151650-6	MW101S	Total Recoverable	Water	200.7	
500-151650-7	MW101M	Total Recoverable	Water	200.7	
500-151650-8	MW047S	Total Recoverable	Water	200.7	
500-151650-9	MW047M	Total Recoverable	Water	200.7	
500-151650-10	MW047D	Total Recoverable	Water	200.7	
500-151650-11	MW102S	Total Recoverable	Water	200.7	
500-151650-12	MW102S/D	Total Recoverable	Water	200.7	
500-151650-13	MW102M	Total Recoverable	Water	200.7	
500-151650-14	MW102D	Total Recoverable	Water	200.7	
500-151650-15	MW103S	Total Recoverable	Water	200.7	
500-151650-16	MW103M	Total Recoverable	Water	200.7	
500-151650-17	MW118S	Total Recoverable	Water	200.7	
500-151650-18	MW118M	Total Recoverable	Water	200.7	
500-151650-19	FB#1	Total Recoverable	Water	200.7	
500-151650-20	FB#2	Total Recoverable	Water	200.7	
MB 500-450739/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 500-450739/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
500-151650-1 MS	MW107M	Total Recoverable	Water	200.7	
500-151650-11 MS	MW102S	Total Recoverable	Water	200.7	
500-151650-11 MSD	MW102S	Total Recoverable	Water	200.7	
500-151650-1 DU	MW107M	Total Recoverable	Water	200.7	
500-151650-11 DU	MW102S	Total Recoverable	Water	200.7	

Prep Batch: 450861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-151650-21	MW100S	Total Recoverable	Water	200.7	
500-151650-22	MW100M	Total Recoverable	Water	200.7	
500-151650-23	MW100D	Total Recoverable	Water	200.7	
500-151650-24	MW109S	Total Recoverable	Water	200.7	
500-151650-25	MW109M	Total Recoverable	Water	200.7	
500-151650-26	MW109D	Total Recoverable	Water	200.7	
500-151650-27	MW109D/D	Total Recoverable	Water	200.7	
500-151650-28	MW064S	Total Recoverable	Water	200.7	
500-151650-29	MW064M	Total Recoverable	Water	200.7	
500-151650-30	MW064D	Total Recoverable	Water	200.7	
MB 500-450861/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 500-450861/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
500-151650-24 MS	MW109S	Total Recoverable	Water	200.7	
500-151650-24 MSD	MW109S	Total Recoverable	Water	200.7	
500-151650-24 DU	MW109S	Total Recoverable	Water	200.7	

Analysis Batch: 451778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-151650-22	MW100M	Total Recoverable	Water	200.7 Rev 4.4	450861
MB 500-450861/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	450861
LCS 500-450861/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	450861

QC Association Summary

Client: Tyco Fire Protection Products
Project/Site: Barrier Wall Monitoring

TestAmerica Job ID: 500-151650-1

Analysis Batch: 452195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-151650-21	MW100S	Total Recoverable	Water	200.7 Rev 4.4	450861
500-151650-23	MW100D	Total Recoverable	Water	200.7 Rev 4.4	450861
500-151650-24	MW109S	Total Recoverable	Water	200.7 Rev 4.4	450861
500-151650-26	MW109D	Total Recoverable	Water	200.7 Rev 4.4	450861
500-151650-27	MW109D/D	Total Recoverable	Water	200.7 Rev 4.4	450861
500-151650-28	MW064S	Total Recoverable	Water	200.7 Rev 4.4	450861
500-151650-30	MW064D	Total Recoverable	Water	200.7 Rev 4.4	450861
500-151650-24 MS	MW109S	Total Recoverable	Water	200.7 Rev 4.4	450861
500-151650-24 MSD	MW109S	Total Recoverable	Water	200.7 Rev 4.4	450861
500-151650-24 DU	MW109S	Total Recoverable	Water	200.7 Rev 4.4	450861

Analysis Batch: 452196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-151650-5	MW021M	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-6	MW101S	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-7	MW101M	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-8	MW047S	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-9	MW047M	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-10	MW047D	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-11	MW102S	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-12	MW102S/D	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-13	MW102M	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-14	MW102D	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-15	MW103S	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-16	MW103M	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-17	MW118S	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-19	FB#1	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-20	FB#2	Total Recoverable	Water	200.7 Rev 4.4	450739
MB 500-450739/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	450739
LCS 500-450739/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-11 MS	MW102S	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-11 MSD	MW102S	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-11 DU	MW102S	Total Recoverable	Water	200.7 Rev 4.4	450739

Analysis Batch: 452316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-151650-1	MW107M	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-2	MW107D	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-3	MW021S	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-4	MW021S/D	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-18	MW118M	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-1 MS	MW107M	Total Recoverable	Water	200.7 Rev 4.4	450739
500-151650-1 DU	MW107M	Total Recoverable	Water	200.7 Rev 4.4	450739

Analysis Batch: 452317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-151650-25	MW109M	Total Recoverable	Water	200.7 Rev 4.4	450861
500-151650-29	MW064M	Total Recoverable	Water	200.7 Rev 4.4	450861

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 500-450739/1-A
Matrix: Water
Analysis Batch: 452196

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 450739

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0021	^	0.0050	0.0021	mg/L		09/19/18 15:34	09/28/18 03:59	1

Lab Sample ID: LCS 500-450739/2-A
Matrix: Water
Analysis Batch: 452196

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 450739

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0545	^	mg/L		109	85 - 115

Lab Sample ID: 500-151650-1 MS
Matrix: Water
Analysis Batch: 452316

Client Sample ID: MW107M
Prep Type: Total Recoverable
Prep Batch: 450739

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	35		0.0500	35.8	4	mg/L		2454	70 - 130

Lab Sample ID: 500-151650-11 MS
Matrix: Water
Analysis Batch: 452196

Client Sample ID: MW102S
Prep Type: Total Recoverable
Prep Batch: 450739

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.11		0.0500	0.170		mg/L		114	70 - 130

Lab Sample ID: 500-151650-11 MSD
Matrix: Water
Analysis Batch: 452196

Client Sample ID: MW102S
Prep Type: Total Recoverable
Prep Batch: 450739

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.11		0.0500	0.169		mg/L		111	70 - 130	1	20

Lab Sample ID: 500-151650-1 DU
Matrix: Water
Analysis Batch: 452316

Client Sample ID: MW107M
Prep Type: Total Recoverable
Prep Batch: 450739

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	35		32.2		mg/L		7	20

Lab Sample ID: 500-151650-11 DU
Matrix: Water
Analysis Batch: 452196

Client Sample ID: MW102S
Prep Type: Total Recoverable
Prep Batch: 450739

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.11		0.120		mg/L		6	20

Lab Sample ID: MB 500-450861/1-A
Matrix: Water
Analysis Batch: 451778

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 450861

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0021		0.0050	0.0021	mg/L		09/20/18 08:19	09/26/18 03:43	1

QC Sample Results

Client: Tyco Fire Protection Products
Project/Site: Barrier Wall Monitoring

TestAmerica Job ID: 500-151650-1

Lab Sample ID: LCS 500-450861/2-A
Matrix: Water
Analysis Batch: 451778

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 450861

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic			0.0500	0.0487	^	mg/L		97	85 - 115		

Lab Sample ID: 500-151650-24 MS
Matrix: Water
Analysis Batch: 452195

Client Sample ID: MW109S
Prep Type: Total Recoverable
Prep Batch: 450861

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic	42	F2	0.0500	27.0	4	mg/L		-30763	70 - 130		

Lab Sample ID: 500-151650-24 MSD
Matrix: Water
Analysis Batch: 452195

Client Sample ID: MW109S
Prep Type: Total Recoverable
Prep Batch: 450861

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	42	F2	0.0500	13.5	4 F2	mg/L		-57766	70 - 130	67	20

Lab Sample ID: 500-151650-24 DU
Matrix: Water
Analysis Batch: 452195

Client Sample ID: MW109S
Prep Type: Total Recoverable
Prep Batch: 450861

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Arsenic	42	F2		41.9		mg/L				1	20

Lab Chronicle

Client: Tyco Fire Protection Products
Project/Site: Barrier Wall Monitoring

TestAmerica Job ID: 500-151650-1

Client Sample ID: MW107M — Lab Sample ID: 500-151650-1

Date Collected: 09/12/18 13:14 — **Matrix: Water**
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		10	452316	09/28/18 13:00	JEF	TAL CHI

Client Sample ID: MW107D — Lab Sample ID: 500-151650-2

Date Collected: 09/12/18 13:50 — **Matrix: Water**
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452316	09/28/18 13:16	JEF	TAL CHI

Client Sample ID: MW021S — Lab Sample ID: 500-151650-3

Date Collected: 09/12/18 14:47 — **Matrix: Water**
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452316	09/28/18 13:20	JEF	TAL CHI

Client Sample ID: MW021S/D — Lab Sample ID: 500-151650-4

Date Collected: 09/12/18 14:47 — **Matrix: Water**
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452316	09/28/18 13:24	JEF	TAL CHI

Client Sample ID: MW021M — Lab Sample ID: 500-151650-5

Date Collected: 09/12/18 14:49 — **Matrix: Water**
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452196	09/28/18 04:46	EEN	TAL CHI

Client Sample ID: MW101S — Lab Sample ID: 500-151650-6

Date Collected: 09/12/18 16:09 — **Matrix: Water**
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452196	09/28/18 04:50	EEN	TAL CHI

Lab Chronicle

Client: Tyco Fire Protection Products
Project/Site: Barrier Wall Monitoring

TestAmerica Job ID: 500-151650-1

Client Sample ID: MW101M
Lab Sample ID: 500-151650-7
Date Collected: 09/12/18 16:12
Matrix: Water
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452196	09/28/18 04:54	EEN	TAL CHI

Client Sample ID: MW047S
Lab Sample ID: 500-151650-8
Date Collected: 09/13/18 10:28
Matrix: Water
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452196	09/28/18 04:59	EEN	TAL CHI

Client Sample ID: MW047M
Lab Sample ID: 500-151650-9
Date Collected: 09/13/18 10:31
Matrix: Water
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452196	09/28/18 05:03	EEN	TAL CHI

Client Sample ID: MW047D
Lab Sample ID: 500-151650-10
Date Collected: 09/13/18 10:33
Matrix: Water
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452196	09/28/18 05:07	EEN	TAL CHI

Client Sample ID: MW102S
Lab Sample ID: 500-151650-11
Date Collected: 09/13/18 14:15
Matrix: Water
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452196	09/28/18 05:11	EEN	TAL CHI

Client Sample ID: MW102S/D
Lab Sample ID: 500-151650-12
Date Collected: 09/13/18 14:15
Matrix: Water
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452196	09/28/18 05:41	EEN	TAL CHI

Client Sample ID: MW102M
Lab Sample ID: 500-151650-13
Date Collected: 09/13/18 14:12
Matrix: Water
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452196	09/28/18 05:45	EEN	TAL CHI

Client Sample ID: MW102D
Lab Sample ID: 500-151650-14
Date Collected: 09/13/18 14:19
Matrix: Water
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452196	09/28/18 05:49	EEN	TAL CHI

Client Sample ID: MW103S
Lab Sample ID: 500-151650-15
Date Collected: 09/13/18 15:23
Matrix: Water
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452196	09/28/18 05:54	EEN	TAL CHI

Client Sample ID: MW103M
Lab Sample ID: 500-151650-16
Date Collected: 09/13/18 15:25
Matrix: Water
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452196	09/28/18 05:58	EEN	TAL CHI

Client Sample ID: MW118S
Lab Sample ID: 500-151650-17
Date Collected: 09/13/18 16:12
Matrix: Water
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452196	09/28/18 06:02	EEN	TAL CHI

Client Sample ID: MW118M
Lab Sample ID: 500-151650-18
Date Collected: 09/13/18 16:17
Matrix: Water
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		5	452316	09/28/18 13:28	JEF	TAL CHI

Lab Chronicle

Client: Tyco Fire Protection Products
Project/Site: Barrier Wall Monitoring

TestAmerica Job ID: 500-151650-1

Client Sample ID: FB#1
Lab Sample ID: 500-151650-19
Date Collected: 09/13/18 16:16
Matrix: Water
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452196	09/28/18 06:10	EEN	TAL CHI

Client Sample ID: FB#2
Lab Sample ID: 500-151650-20
Date Collected: 09/14/18 08:58
Matrix: Water
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450739	09/19/18 15:34	BDE	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452196	09/28/18 06:14	EEN	TAL CHI

Client Sample ID: MW100S
Lab Sample ID: 500-151650-21
Date Collected: 09/13/18 09:28
Matrix: Water
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450861	09/20/18 08:19	SAH	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452195	09/27/18 20:28	EEN	TAL CHI

Client Sample ID: MW100M
Lab Sample ID: 500-151650-22
Date Collected: 09/13/18 09:19
Matrix: Water
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450861	09/20/18 08:19	SAH	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	451778	09/26/18 04:03	EEN	TAL CHI

Client Sample ID: MW100D
Lab Sample ID: 500-151650-23
Date Collected: 09/13/18 09:19
Matrix: Water
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450861	09/20/18 08:19	SAH	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452195	09/27/18 20:32	EEN	TAL CHI

Client Sample ID: MW109S
Lab Sample ID: 500-151650-24
Date Collected: 09/13/18 07:46
Matrix: Water
Date Received: 09/19/18 08:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450861	09/20/18 08:19	SAH	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		10	452195	09/27/18 20:36	EEN	TAL CHI

Lab Chronicle

Client: Tyco Fire Protection Products
Project/Site: Barrier Wall Monitoring

TestAmerica Job ID: 500-151650-1

Client Sample ID: MW109M
Date Collected: 09/13/18 07:58
Date Received: 09/19/18 08:50

Lab Sample ID: 500-151650-25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450861	09/20/18 08:19	SAH	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		500	452317	09/28/18 13:00	JEF	TAL CHI

Client Sample ID: MW109D
Date Collected: 09/13/18 07:55
Date Received: 09/19/18 08:50

Lab Sample ID: 500-151650-26
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450861	09/20/18 08:19	SAH	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452195	09/27/18 21:09	EEN	TAL CHI

Client Sample ID: MW109D/D
Date Collected: 09/13/18 07:56
Date Received: 09/19/18 08:50

Lab Sample ID: 500-151650-27
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450861	09/20/18 08:19	SAH	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452195	09/27/18 21:13	EEN	TAL CHI

Client Sample ID: MW064S
Date Collected: 09/13/18 12:57
Date Received: 09/19/18 08:50

Lab Sample ID: 500-151650-28
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450861	09/20/18 08:19	SAH	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452195	09/27/18 21:17	EEN	TAL CHI

Client Sample ID: MW064M
Date Collected: 09/13/18 13:00
Date Received: 09/19/18 08:50

Lab Sample ID: 500-151650-29
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450861	09/20/18 08:19	SAH	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		100	452317	09/28/18 13:04	JEF	TAL CHI

Client Sample ID: MW064D
Date Collected: 09/13/18 13:18
Date Received: 09/19/18 08:50

Lab Sample ID: 500-151650-30
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			450861	09/20/18 08:19	SAH	TAL CHI
Total Recoverable	Analysis	200.7 Rev 4.4		1	452195	09/27/18 21:25	EEN	TAL CHI

Lab Chronicle

Client: Tyco Fire Protection Products
Project/Site: Barrier Wall Monitoring

TestAmerica Job ID: 500-151650-1

Laboratory References:

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

Accreditation/Certification Summary

Client: Tyco Fire Protection Products
Project/Site: Barrier Wall Monitoring

TestAmerica Job ID: 500-151650-1

Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-19

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534..

500-151650 COC

(optional)
Report To
Contact: Jeff Danko
Company: Johnson Controls
Address:
Address:
Phone: 262-951-6888
Fax:
E-Mail: jeff.danko-ext@jci.com

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO/Reference#

Chain of Custody Record

Lab Job #: 500-151650
Chain of Custody Number:
Page 1 of 6
Temperature °C of Cooler: Unchilled

Client: Tyco Fire Products
Client Project #:
Project Name: Barrier Wall Monitoring
Project Location/State: Marinette, WI
Lab Project #:
Sampler: J. Danko
Lab PM:

Preservative: 3
Parameter: Tal 1 AS

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Tal 1 AS								Comments
1		MW107M	9/12/18	1314	1	W	X								
2		MW107D	9/12/18	1350	1	W	X								
3		MW021S	9/12/18	1447	1	W	X								
4		MW021S/D	9/12/18	1447	1	W	X								
5		MW021M	9/12/18	1449	1	W	X								
6		MW101S	9/12/18	1609	1	W	X								
7		MW101M	9/12/18	1612	1	W	X								
8		MW047S	9/13/18	1028	1	W	X								
9		MW047M	9/13/18	1031	1	W	X								
10		MW047D	9/13/18	1033	1	W	X								

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days X 10 Days ___ 15 Days _____ Other
Requested Due Date: _____

Sample Disposal
[ ] Return to Client [X] Disposal by Lab [X] Archive for 6 Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	JCI	9/17/18	1636	[illegible]	TA-Ant	9/19/18	0850
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier:
Shipped: FedEx
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TAL-4124-500 (1209)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.634.5200 Fax: 708.634.5211

Chain of Custody Record

Lab Job #: 500-151650

Chain of Custody Number:

Page 2 of 6

Temperature °C of Cooler:

(optional)
Report To
Contact: Jeff Danko
Company:
Address:
Address:
Phone: 262-951-6888
Fax:
E-Mail: jeff.danko-exteji.com

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Client: Tyco Fire Products
Client Project #:
Project Name: Barrier Wall Monitoring
Project Location/State: Marinette, WI
Lab Project #:
Sampler: JDanko
Lab PM:

Preservative: 3
Parameter: Total Hg

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Total Hg	Comments
11	X	MW102S	9/13/18	1415	3	W	X	
12		MW102S/D	9/13/18	1415	1	W	X	
13		MW102M	9/13/18	1412	1	W	X	
14		MW102D	9/13/18	1419	1	W	X	
15		MW103S	9/13/18	1523	1	W	X	
16		MW103M	9/13/18	1525	1	W	X	
17		MW118S	9/13/18	1612	1	W	X	
18		MW118M	9/13/18	1617	1	W	X	
19		FB#1	9/13/18	1616	1	W	X	
20		FB#2	9/14/18	858	1	W	X	

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days X 10 Days ___ 15 Days ___ Other
Requested Due Date:

Sample Disposal
[ ] Return to Client [X] Disposal by Lab [X] Archive for 6 Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	JCE	9/17/18	1636		TA-CHI	9/19/18	0850

Lab Courier:
Shipped: Fed X
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TAL-4124-500 (1209)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Chain of Custody Record

Lab Job #: 500-151650

Chain of Custody Number:

Page 3 of 6

Temperature °C of Cooler:

(optional)
Report To
Contact: Jeff Danko
Company:
Address:
Address:
Phone: 262-951-6888
Fax:
E-Mail: jeff.danko-ext@jci.com

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Client: Tyco Fire Products
Client Project #:
Project Name: Barrier Wall Monitoring
Project Location/State: Marinette, WI
Lab Project #: J
Sampler: J. Danko
Lab PM:

Preservative: 3
Parameter: Total As

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Total As	Comments
21		MW100S	9/13/18	928	1	W	X	
22		MW100M	9/13/18	919	1	W	X	
23		MW100D	9/13/18	919	1	W	X	
24	X	MW109S	9/13/18	746	3	W	X	
25		MW109M	9/13/18	758	1	W	X	
26		MW109D	9/13/18	755	1	W	X	
27		MW109D/D	9/13/18	758	1	W	X	
28		MW064S	9/13/18	1257	1	W	X	
29		MW064M	9/13/18	1300	1	W	X	
30		MW064D	9/13/18	1318	1	W	X	

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days X 10 Days ___ 15 Days ___ Other
Requested Due Date:

Sample Disposal
[ ] Return to Client [X] Disposal by Lab [X] Archive for 6 Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	JCE	9/17/18	1636		TA-CHI	9/19/18	0850

Lab Courier:
Shipped: Fed X
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TAL-4124-500 (1209)

Login Sample Receipt Checklist

Client: Tyco Fire Protection Products

Job Number: 500-151650-1

Login Number: 151650
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

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