

I. PWS INFORMATION: Please refer to your MassDEP Water Quality Sampling Schedule (WQSS) to help complete this form PWS ID #: City / Town: | Millis 2187000 **PWS Name:** MILLIS WATER DEPT **PWS Class:** MassDEP Location MassDEP Location Name Sample Information Date Collected Collected By (LOC) ID# (R)aw (M)ultiple 03G FINISHED: WELL #3 VILLAGE ST. WTF 12/21/20 R.M. (S)ingle (F)inished If Resubmitted Report, list below: Routine or Original, Resubmitted or Special Sample Confirmation Report (1) Reason for Resubmission (2) Collection Date of Original Sample $\square RS \square SS$ ☐ Original ☐ Resubmitted ☐ Confirmation Resample Reanalysis Report Correction SAMPLE COMMENTS - Such as, if a Manifold/Multiple sample, list the source(s) that were on-line during sample collection or if this is a field reagent blank **II. ANALYTICAL LABORATORY INFORMATION:** Primary Lab Cert. #: M-MA086 Primary Lab Name: Alpha Analytical Subcontracted? (Y/N) Υ M-MA030 Alpha Analytical Analysis Lab Cert. #: Analysis Lab Name: If Analysis Lab is not certified by MassDEP or U.S. EPA, list certification authority: Date Date Dilution Lab Method Lab Sample IDs# Extracted Analyzed Factor L2056964-01 Primary Lab: 537.1 12/31/20 01/04/21 1 L2056964-01 Subcontracted Lab: Result² MCL* MDL MRL Result **REGULATED PFAS CONTAMINANTS** CAS# Qualifier ng/L ng/L ng/L ng/L 1.87 1763-23-1 Perfluorooctane Sulfonic Acid (PFOS) 6.61 0.459 1.87 335-67-1 Perfluorooctanoic Acid (PFOA) 5.15 0.582 1.87 355-46-4 Perfluorohexane Sulfonic Acid (PFHxS) J 0.448 1.75 1 87 0.444 0.560 J 375-95-1 Perfluorononanoic Acid (PFNA) 1.87 J 0.243 375-85-9 Perfluorohepatanoic Acid (PFHpA) 1.57 1.87 Perfluorodecanoic acid (PFDA) 335-76-2 ND 0.601 PFAS6 (sum of PFOS, PFOA, PFHxS, PFNA, PFHpA and PFDA; only include Results at or above the MRL; do not include estimated Results as = 11.76 20 _ described by a Result Qualifier in the next column)

UNREGULATED PFAS CONTAMINANTS 1.87 375-73-5 Perfluorobutane sulfonic acid (PFBS) 0.265 6.53 1.87 307-55-1 Perfluorododecanoic acid (PFDoA) ND 0 605 1.87 307-24-4 Perfluorohexanoic acid (PFHxA) 2.31 0.246 1.87 ND 376-06-7 Perfluorotetradecanoic acid (PFTA) 0 403 ND 1.87 72629-94-8 Perfluorotridecanoic acid (PFTrDA) 0.474 ND 1.87 0.399 2058-94-8 Perfluoroundecanoic acid (PFUnA) ND 1.87 2991-50-6 N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA) 0.523 ND 1.87 2355-31-9 N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA) 0.560 1.87 ND 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS) 763051-92-9 0.196 ND 1.87 756426-58-1 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9CI-PF3ONS) 0.257 ND 1.87 919005-14-4 4,8-dioxa-3H-perfluorononanoic acid (ADONA) 0.067 ND Hexafluoropropylene oxide dimer acid (HFPO-DA) 0.422 13252-13-6 373

¹ A field reagent blank (FRB) must be analyzed and reported on a separate PFAS form if any PFAS are detected above the MRL. ² All qualifiers must be described under Lab Analysis Comments on page 2.



Per- and Polyfluoroalkyl Substances (PFAS) Report

Page 2 of 2

PWS II	D#: 2187000	Lab Sample ID#:	Primary Subcont	Lab: racted Lab:	L2056 L2056		
CAS#	UNREGU	LATED PFAS CONTAMINANTS	Result ¹ ng/L	Result ² Qualifier	MCL * ng/L	MDL ng/L	MRL ng/L
					-		

Surrogate Name	% Recovery (70 – 130%)	Alternate Surrogate (must document reason for change)
¹³ C ₂ -PFHxA	90	
¹³ C ₂ -PFDA	87	
d₅-NEtFOSAA	99	
¹³ C ₃ -HFPO-DA	75	

Note: ¹³C₃-HFPO-DA is not required for EPA Method 537 v1.1

In addition to the SUR above you must attach the results of the ongoing QC results as specified by the method for the sample's extraction batch. **Laboratory analytical report with QC attached (check one item below).**

All associated QC criteria reported within control limits including Lab Reagent/Method Blank (LRB), Field Reagent Blank (FRB), Surrogate Standards (SUR), Laboratory Fortified Blank (LFB), Matrix Spike/Duplicate (LFSM/LFSMD or FD) and RPD.

All associated sample and/or QC batch criteria not met. See Lab Analysis Comments below and narrative in attached report.

Lab Analysis Con	nments: (include sample/method parameters outside of or affecting QC controls/limits and result qualifiers)
Result Qualifier	Qualifier Description
J	The target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit.
Other Analysis Comments:	

* MCL or proposed MCL

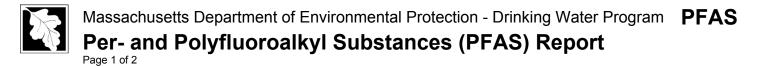
I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge. Primary Lab Director Signature:

Date:

Joseph Warkens 1/6/21

If not submitting these results electronically, mail <u>TWO</u> copies of this report to your MassDEP Regional Office no later than 10 days after the end of the month in which you received this report <u>or</u> no later than 10 days after the end of the reporting period, whichever is sooner. Note that during the Massachusetts COVID-19 state of emergency, in addition to submitting by mail reports may be emailed to program.director-dwp@mass.gov.

MassDEP REVIEW STATUS (Initial & Date)		
Accepted Disapproved	Review Comments	UWQTS Data Entered



I. PWS INFOR	MATION: Pleas	se refer to your	MassDEP W	/ater	Quality S	ampling So	chedule (WQSS) to he	lp complet	e this f	form						
PWS ID #:	218700	0			Cit	y / Town:	Millis										
PWS Name:	MILLIS W	ATER DEPT						PWS Class	СОМ	🛛 NT	NC 🗌	TNC					
MassDEP Location (LOC) ID#	S Name: MILLIS WATER DEPT assDEP MassDEP Location Name O3G FINISHED: WELL #3 VILLAGE ST. WTF (FE utine or Original, Resubmitted or ial Sample Original, Resubmitted or S S S Original Resubmitted Or PLE COMMENTS - Such as, if a Manifold/Multiple sample, list the source NALYTICAL LABORATORY INFORMATION: ary Lab Cert. #: M-MA086 Primary Lab Name: Image: Comparison of the sample is the source NALYTICAL LABORATORY INFORMATION: analysis Lab Name: ary Lab Cert. #: M-MA030 Analysis Lab is not certified by MassDEP or U.S. Ist certification authority: ab Method Date Date Analyzed Factor Factor 537.1 12/31/20 01/04/21 1			Sar	nple Inforr	nation	Date Colle	Co	Collected By								
03G	FINISHED: WE	ELL #3 VILLA	GE ST. WTI	F (F	B)	☐ (M)ulti ⊠ (S)ing		(R)aw (F)inished	12/21/	20		R.M.					
Routine or			r			<u>.</u>		ubmitted Repor	· ·								
Special Sample			anfirmation		. ,	Reason for R		ion ort Correction	(2) Collec	ction Da	te of Ori	iginal Sa	mple				
					· ·		<u> </u>		his is a field i	reagent	blank						
				Jouro						lougoni	biant						
			-	.	Alpha Ana	lytical			Sub	contra	cted? (`	Y/N)	Y				
				l	/upile /uk	ilytical			005	contra	0100. (<u> </u>				
Analysis Lab Ce	ert. #: M-MA03	0 Analys	is Lab Name	ə:	Alpha Ana	alytical											
		y MassDEP or l	J.S.														
Lab Method							Lab Sample IDs#										
	Extracted	Analyzed	Factor	Dr	imary Lab	.	L2056964-02										
537.1	12/31/20	01/04/21		bcontract		L2056964-02											
						ou Eusi											
CAS#		REGULATED F	PFAS CONTAN	MINA	NTS		Result ng/L	¹ Result ² Qualifier	MCL* ng/L	ME ng		MRL ng/L					
1763-23-1	Perfluorooctan	e Sulfonic Acid (F	PFOS)				ND			0.4	66	1.90					
335-67-1	Perfluorooctan	oic Acid (PFOA)					ND			0.5	92	1.90					
355-46-4	MMENTS - Such as, if a Manifold/Multiple sample, list the supervised of the sample, list the sample, list the supervised of the sample, list the sample,					ND			0.4	55	1.90						
375-95-1	Perfluorononar	noic Acid (PFNA)					ND			0.4	51	1.90					
375-85-9	Perfluorohepat	anoic Acid (PFHp	A)				ND			0.2	46	1.90					
		. ,					ND			0.6	11	1.90					
Res	sults at or above t	he MRL; do not i	nclude estim	ated					20	-		-					
		UNREGULATED	PFAS CONTA	AMIN	ANTS												
375-73-5	Perfluorobutan	e sulfonic acid (P	FBS)				ND			0.2	69	1.90					
307-55-1	Perfluorododeo	anoic acid (PFDo	A)				ND			0.6	14	1.90					
307-24-4	Perfluorohexan	oic acid (PFHxA)					ND			0.2	50	1.90					
376-06-7	Perfluorotetrad	ecanoic acid (PF	ГА)				ND			0.4	10	1.90					
72629-94-8	Perfluorotridec	anoic acid (PFTr	DA)				ND			0.4	82	1.90					
2058-94-8	Perfluorounded	anoic acid (PFUn	A)				ND			0.4	06	1.90					
2991-50-6	1763-23-1 Perfluorooctane Sulfonic Acid (PFOS) 335-67-1 Perfluorooctanoic Acid (PFOA) 355-46-4 Perfluorohexane Sulfonic Acid (PFNA) 375-95-1 Perfluorohepatanoic Acid (PFNA) 375-85-9 Perfluorohepatanoic Acid (PFNA) 335-76-2 Perfluorohepatanoic Acid (PFDA) PFAS6 (sum of PFOS, PFOA, PFHxS, PFNA, PFHpA and PFI Results at or above the MRL; do not include estimate described by a Result Qualifier in the next column) UNREGULATED PFAS CONTAM 375-73-5 Perfluorohexanoic acid (PFDA) 307-55-1 Perfluorohexanoic acid (PFDA) 307-24-4 Perfluorobutane sulfonic acid (PFDA) 307-24-4 Perfluorohexanoic acid (PFTA) 72629-94-8 Perfluorotetradecanoic acid (PFTA) 2058-94-8 Perfluoroundecanoic acid (PFUNA) 2091-50-6 N-ethyl perfluorooctanesulfonamidoacetic acid (PSDA)						ND			0.5	31	1.90					
2355-31-9	alysis Lab Cert. #: M-MA030 Analysis Lab Names nalysis Lab is not certified by MassDEP or U.S. A, list certification authority: .ab Method Date Date Analyzed 537.1 12/31/20 01/04/21 1 CAS# REGULATED PFAS CONTAM 1763-23-1 Perfluorooctane Sulfonic Acid (PFOS) 335-67-1 Perfluorooctanoic Acid (PFOA) 355-46-4 Perfluorohexane Sulfonic Acid (PFNA) 375-95-1 Perfluorohexane Sulfonic Acid (PFNA) 375-95-2 Perfluorohepatanoic Acid (PFNA) 335-76-2 Perfluorohepatanoic Acid (PFNA) 375-85-9 Perfluorobezanoic acid (PFDA) PFAS6 (sum of PFOS, PFOA, PFHxS, PFNA, PFHpA and Pf Results at or above the MRL; do not include estimated described by a Result Qualifier in the next column) UNREGULATED PFAS CONTAI 375-73-5 Perfluorobutane sulfonic acid (PFBS) 307-55-1 Perfluorobezanoic acid (PFDA) 376-06-7 Perfluorotetradecanoic acid (PFTA) 376-06-7 Perfluorotetradecanoic acid (PFTA) 376-06-7 Perfluorotidecanoic acid (PFUnA) 2058-94-8 Perfluoroundecanoic acid (PFUnA) 2058-94-8				NMeFOSAA)	ND			0.5	69	1.90					
763051-92-9	11-chloroeicos	afluoro-3-oxaund	ecane-1-sulfor	nic a	cid (11CI-PI	-3OUdS)	ND			0.1	99	1.90					
756426-58-1	9-chlorohexade	ecafluoro-3-oxano	ne-1-sulfonic	acid	(9CI-PF3OI	NS)	ND			0.2	61	1.90					
919005-14-4	4,8-dioxa-3H-pe	erfluorononanoic	acid (ADONA))			ND			0.0	68	1.90					
13252-13-6	Hexafluoropror	vlene oxide dime	r acid (HFPO-	DA)			ND			0.4	29	3.79					

¹ A field reagent blank (FRB) must be analyzed and reported on a separate PFAS form if any PFAS are detected above the MRL. ² All qualifiers must be described under Lab Analysis Comments on page 2.



Per- and Polyfluoroalkyl Substances (PFAS) Report

Page 2 of 2

PWS II	D#: 21 3	87000	Lab Sample ID#:	Primary Subcont	Lab: racted Lab:	L2056964-02 L2056964-02			
CAS#		UNREGUI	ATED PFAS CONTAMINANTS	Result ¹ ng/L	Result ² Qualifier	MCL * ng/L	MDL ng/L	MRL ng/L	
						-			

Surrogate Name	% Recovery (70 – 130%)	Alternate Surrogate (must document reason for change)
¹³ C ₂ -PFHxA	104	
¹³ C ₂ -PFDA	98	
d₅-NEtFOSAA	102	
¹³ C ₃ -HFPO-DA	93	

Note: ¹³C₃-HFPO-DA is not required for EPA Method 537 v1.1

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All associated QC criteria reported within control limits including Lab Reagent/Method Blank (LRB), Field Reagent Blank (FRB), Surrogate Standards (SUR), Laboratory Fortified Blank (LFB), Matrix Spike/Duplicate (LFSM/LFSMD or FD) and RPD.

All associated sample and/or QC batch criteria not met. See Lab Analysis Comments below and narrative in attached report.

Lab Analysis Com	nments: (include sample/method parameters outside of or affecting QC controls/limits and result qualifiers)
Result Qualifier	Qualifier Description
J	The target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit.
Other Analysis Comments:	

* MCL or proposed MCL

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge. Primary Lab Director Signature:

Date:

Joseph Warkens

1/6/21

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MassDEP REVIEW STATUS (Initial & Date)		
Accepted Disapproved	Review Comments	UWQTS Data Entered

NO C	ooler Bln	nK	Pa	ovide	d	Ru	_												-
	CHAIN O	FCU	STO	DY	PAGE	_OF)ate Re	c'd in L	ab:	17/21	120			ALP	HA Job	o #:	2056964	1
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Tel: 508-896-6220 Client Information	Mansfield, MA 02048 Tel: 508-822-9300		Name:				5425	ADE	Concession of the local division of the loca	THE OWNER WHEN	EMAIL			_			ent info		
Client Jown 9	g Melles Main st Ozosy	Project L Project # Project M ALPHA	lanager 💭	Nulli MG		A		I Yes 🗆 I Yes 🗔 I Yes 🗔 I Yes 🗔	No Ma	MCP trix Spl /1 Star DES R	Analytic ke Requ dards (I GP	il Meth	nods n this \$	SDG?	Requir	Yes D No	CP Inorg 1 Targets	CP Analytical Metho	ods
Email Mickay	@ Hilly MA.60	Date D		RUSH (ant)	sastimod i gro-a	aquraved")		SVOC: D 8260 D 624 D 50	METALS: CIMCOL	EPH. C. RCRAS C. DRCP 14 CRCP.	VPH: CRanges & Targets C Ran. 15 VPH: CRance	C PCB 0 4 Targets C Ranges Only TPH. C PEST	Couant Only De	hingebring				SAMPLE INFO Filtration I Field I Lab to do Preservation	TOTAL # BO
ALPHA Lab ID (Lab Use Only)	Sample ID		Colle	ction · Time	Sample Matrix	Sampler Initials	Von	SVOC:	FTALS:	PH. C.	PHILIR	PCB	3	//	//	11		Lab to do	TTL
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-02 0.	36 Villaĝe 36 Villaĝe P	TB (17140	938 AT	Qw 1	nu											0.	// <i>n</i> ç//(C	20
Plastic A=1 Amber glass B= Vial C= Glass D= Bacteria cup E= Cube F= Other G= Encore H= BOD Bottle I= A	servative None HCI HNO3 HaSO4 NaOH MeOH NaISSO3 scorbic Acid NHaCI Cn Acetate	O = T A = A Relinquist	TRIZIC VOD		Pre	ner Type servative Time 30	P 0	PA	Receiv	red By:	alg-1	990	0.	ate/Tim	-	Alpha's	ples subr Terms ar	nitted are subject ind Conditions.	to