



# RANDOLPH-HOLBROOK JOINT WATER BOARD



**Town of Holbrook**  
Office of Joint Superintendent  
(781) 767-1800  
Fax (781) 767-0705

50 North Franklin Street  
Holbrook, MA 02343

**Town of Randolph**

May 12, 2020

Commonwealth of Massachusetts  
Department of Environmental Protection  
Southeast Regional Office  
20 Riverside Drive  
Lakeville, MA 02374

Monthly Reports Filtered System Forms  
Forms F, G, I, J, TT  
Analysis for TOC, DOC and SUVA  
Chemical Addition Reports  
DBPR Compliance Report  
April, 2020 Randolph/Holbrook  
Joint Water System, PWS #424001

Gentlemen:

Enclosed please find all reports as referenced above for the month of April, 2020. Should there be any questions, please do not hesitate to call.

Sincerely,

A handwritten signature in blue ink that reads "William Cookerly".

William Cookerly  
Chief Plant Operator

Enclosures

Cc: Board of Health Holbrook  
Board of Health Randolph  
Brian Howard, Town Manager, Randolph  
Ryan Allgrove, EPG



Massachusetts Department of Environmental Protection - Drinking Water Program  
**Compliance Determination for Filtered Systems - Monthly Report**

SWTR  
G

**I. PWS INFORMATION:**

PWSID#: 4244001 PWS Name: RANDOLPH-HOLBROOK JOINT WATER PWS Town: RANDOLPH  
 Treatment Plant Name: RANDOLPH WATER PLANT Reporting Period → Month: APRIL Year: 2020

**II. TURBIDITY PERFORMANCE CRITERIA:**

1. Monthly Turbidity (95%) NTU Limit - The turbidity level of a system's filtered water must be less than or equal to the Monthly Turbidity NTU Limit in at least 95% of the measurements taken each month for the filtration technology used, otherwise SWTR TT Violation (Tier 2).

<u>180</u>	= A	Total # of filtered water turbidity measurements for month (SWTR - Form F)
<u>180</u>	= B	Total # of filtered water turbidity measurements less than or equal to the specified limits for the filtration technology used. (SWTR - Form F)
<u>100</u>	= (B / A) x 100	The percentage of turbidity measurements meeting the Monthly Turbidity 95% NTU Limit.

2. Max Day NTU Limit - The turbidity level of a system's filtered water must at no time exceed the Max Day NTU Limit for the filtration technology used, otherwise SWTR TT Violation (Tier 2).

Record the date and turbidity value for any measurements exceeding the Max Day NTU. Check box  if "None"

Date	Value	Date Reported to DEP	Date	Value	Date Reported to DEP

For each day the Max Day NTU limit is exceeded, the DEP must be notified by the end of the next business day. SWTR TT Violation (Tier 2). If DEP is not consulted within 24 hours then it is a SWTR TT (Tier 1) violation requiring public notification within 24 hours.

**III. DISINFECTION PERFORMANCE CRITERIA:**

1. Point-of-Entry Minimum Disinfectant Residual Criteria - Residual Disinfectant concentration cannot be < 0.2 mg/L for more than 4 hours. SWTR TT Violation (Tier 2).

Minimum Disinfectant Residual at Point-of-Entry to Distribution System

Day	Cl <sub>2</sub> mg/l												
1	<u>1.92</u>	6	<u>1.76</u>	11	<u>1.82</u>	16	<u>1.94</u>	21	<u>1.57</u>	26	<u>1.63</u>	31	
2	<u>1.81</u>	7	<u>1.81</u>	12	<u>1.87</u>	17	<u>1.93</u>	22	<u>2.23</u>	27	<u>1.76</u>		
3	<u>1.81</u>	8	<u>1.80</u>	13	<u>1.75</u>	18	<u>2.03</u>	23	<u>2.03</u>	28	<u>1.80</u>		
4	<u>1.87</u>	9	<u>1.80</u>	14	<u>1.67</u>	19	<u>1.67</u>	24	<u>1.64</u>	29	<u>1.83</u>		
5	<u>1.68</u>	10	<u>1.66</u>	15	<u>1.85</u>	20	<u>0.42</u>	25	<u>1.72</u>	30	<u>1.62</u>		

If at any time the residual falls below 0.2 mg/l in the water entering the distribution system, the supplier of water must notify the Department as soon as possible, but no later than by the end of the next business day. The supplier of water also must notify the Department by the end of the next business day whether or not the residual was restored to at least 0.2 mg/l within four hours.

Date(s) Residual < 0.2 mg/l	Duration of Low Level (hrs.)	Date Reported to DEP	Date(s) Residual < 0.2 mg/l	Duration of Low Level (hrs.)	Date Reported to DEP

2. Distribution System Disinfectant Residual Criteria - Residual Disinfectant concentration (V) cannot be undetectable in greater than 5% of samples in a month, for any two consecutive months. SWTR TT Violation (Tier 2). Chlorine residuals must be measured at the same time and location as total coliform distribution routine & repeat samples. If no residual is detected, an HPC sample must be collected and analyzed.

Total # of HPC samples taken during month: 65 # HPC sites > 500/mL: 1 # HPC sites ≤ 500/mL: 64

<u>66</u>	= a	# of sites where Cl <sub>2</sub> residual measurements were made, whether a residual was detected or not (should be the same # of sites reported on your monthly DBPR Cl <sub>2</sub> residual report)
<u>0</u>	= b	# of sites HPC samples were analyzed <i>instead</i> of Cl <sub>2</sub> residual measurements
<u>0</u>	= c	# of sites where no Cl <sub>2</sub> residual was detected and no HPC sample was analyzed
<u>0</u>	= d	# of sites where no Cl <sub>2</sub> residual was detected and HPC > 500 CFU/mL
<u>1</u>	= e	# of sites where no Cl <sub>2</sub> residual measurement was made and HPC > 500 CFU/mL

Water in the distribution system with a heterotrophic bacteria concentration (HPC) less than or equal to 500/mL, is deemed to have a detectable disinfectant residual for purposes of determining compliance with this requirement. When analyzed, report HPC results on your monthly DEP Bacteriological Report.

$V = \frac{(c+d+e)}{(a+b)} \times 100$  This Month % V = 1.5 Previous Month % V = 0 Is V > 5% for 2 months?  Yes or  No

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true,

PWS Authorized Signature

William Cookerly Chief Plant Operator  
 5-12-2020



Massachusetts Department of Environmental Protection - Drinking Water Program  
 TURBIDITY DATA SHEET FOR FILTERED SYSTEMS

SWTR  
F

**PWS INFORMATION:**

PWSID#: 4144001 PWS Name: RANDOLPH-HOLBROOK JOINT WATER PWS Town: RANDOLPH  
 Treatment Plant Name: RANDOLPH WATER PLANT Reporting Period → Month: APRIL Year: 2020

**DAILY REPORTING:**

Filtered Water Turbidity Measured: (check only one)  Combined Filter Effluent  Individual Filter Effluent  Clearwell  Plant Effluent

Filtration Technology:  Conventional  Direct  Alternative  Slow Sand  Diatomaceous Earth  
 Monthly Turbidity (95%) NTU Limit = 0.3      Max Day Turbidity NTU Limit = 1  
 Monthly Turbidity (95%) NTU Limit = 1      Max Day Turbidity NTU Limit = 5

Day	Max Filtered Water Turbidity Result (NTU)	Number of Turbidity Measurements	Number of Turbidity Measurements < Monthly (95%) NTU Limit	Number of Turbidity Measurements > Max Day NTU Limit
1	.07	6	6	0
2	.08	6	6	0
3	.08	6	6	0
4	.08	6	6	0
5	.07	6	6	0
6	.09	6	6	0
7	.07	6	6	0
8	.07	6	6	0
9	.08	6	6	0
10	.08	6	6	0
11	.09	6	6	0
12	.08	6	6	0
13	.08	6	6	0
14	.07	6	6	0
15	.07	6	6	0
16	.06	6	6	0
17	.07	6	6	0
18	.08	6	6	0
19	.07	6	6	0
20	.06	6	6	0
21	.06	6	6	0
22	.07	6	6	0
23	.08	6	6	0
24	.08	6	6	0
25	.09	6	6	0
26	.08	6	6	0
27	.08	6	6	0
28	.09	6	6	0
29	.08	6	6	0
30	.08	6	6	0
Totals:		180	180	0
		A	B	% Turbidity Meeting 95% Limit B/A x 100% = X (Enter on SWTR - Form G)

- May be used by systems serving less than 10,000 persons, subject to DEP approval.
- Enter the Maximum Filtered Water Turbidity Result recorded each day, at the 4<sup>th</sup> hour or other approved interval.
- Enter the Total # of Turbidity measurements taken for each day. Measurements must be taken at a minimum of 4-hour intervals (i.e. 6 readings per day). For continuous monitors count each 4-hour period as 1 measurement. Record the actual turbidity result at the specified interval of time. Do not average turbidity measurements. If DEP approved, 15-minute readings (i.e. 96 readings per day) may be submitted. Filtered turbidity data must be kept on file for DEP review.
- Out of the # of turbidity measurements taken and recorded in the previous column, enter the number of turbidity measurements that were less than or equal to the Monthly (95%) NTU Limit for the filtration technology used.
- If at any time the filtered turbidity Max Day NTU Limit is exceeded, the DEP must be notified no later than the end of the next business day. For each exceedance, record the turbidity value(s) and date(s) on SWTR - Form G

I hereby certify that the information contained herein is true and complete to the best extent of my knowledge.

PWS Authorized Signature: William G. Baker  
 Date: 5-4-2020 Title: Chief Plant Operator



## CT Determination for Filtered Systems

I

## I. PWS INFORMATION:

PWSID#: 4244001 PWS Name: Randolph-Holliston Joint Water PWS Town: Randolph  
 Treatment Plant Name: Randolph Water Plant Reporting Period → Month: APRIL Year: 2020  
 Disinfectant<sup>1</sup>: Chlorine Gas/Filter Eff. Sequence of Application:  1<sup>st</sup>  2<sup>nd</sup>  3<sup>rd</sup>  4<sup>th</sup>  5  6<sup>th</sup>

## II. DAILY REPORTING: All measurements taken during peak hourly flow.

Day	Peak Hourly Flow <sup>2</sup> (gpm)	Disinfectant Concentration <sup>3</sup> C (mg/L)	Disinfectant Contact Time <sup>4</sup> T (min.)	CT calc (= C x T)	pH <sup>5</sup>	Water Temp <sup>6</sup> (°C)	CT <sup>7</sup> 99.9	Inactivation Ratio <sup>8</sup> (CT calc / CT 99.9)	Inactivation Ratio <sup>9</sup> < 1.0
1	2,400	1.92	50	96	6.05	5.3	17	5.7	<input type="checkbox"/> Yes
2	2,400	1.81	50	90.5	6.05	5.8	17	5.3	<input type="checkbox"/> Yes
3	2,400	1.81	50	90.5	5.90	5.7	17	5.3	<input type="checkbox"/> Yes
4	2,400	1.87	50	93.5	5.85	5.9	17	5.5	<input type="checkbox"/> Yes
5	2,400	1.68	50	84	5.90	6.2	17	4.9	<input type="checkbox"/> Yes
6	2,400	1.76	50	88	6.05	6.2	17	5.2	<input type="checkbox"/> Yes
7	2,400	1.81	50	90.5	5.90	6.8	17	5.3	<input type="checkbox"/> Yes
8	2,400	1.80	50	90	6.00	6.6	17	5.3	<input type="checkbox"/> Yes
9	2,400	1.80	50	90	5.90	6.4	17	5.3	<input type="checkbox"/> Yes
10	2,400	1.66	50	83	6.00	6.7	17	4.9	<input type="checkbox"/> Yes
11	2,400	1.82	50	91	5.85	6.8	17	5.4	<input type="checkbox"/> Yes
12	2,400	1.87	50	93.5	5.90	6.8	17	5.5	<input type="checkbox"/> Yes
13	2,400	1.75	50	87.5	6.05	6.8	17	5.2	<input type="checkbox"/> Yes
14	2,400	1.67	50	83.5	6.00	6.8	17	4.9	<input type="checkbox"/> Yes
15	2,400	1.85	50	92.5	6.00	6.9	17	5.4	<input type="checkbox"/> Yes
16	2,400	1.94	50	97	6.05	6.9	17	5.7	<input type="checkbox"/> Yes
17	2,400	1.93	50	96.5	6.10	6.2	17	5.7	<input type="checkbox"/> Yes
18	2,400	2.03	50	101.5	6.10	6.0	17	6.0	<input type="checkbox"/> Yes
19	2,400	1.67	50	83.5	6.05	6.3	17	4.9	<input type="checkbox"/> Yes
20	2,400	0.42	50	21	5.90	6.0	17	6.2	<input type="checkbox"/> Yes
21	2,400	1.57	50	78.5	6.00	6.0	17	4.6	<input type="checkbox"/> Yes
22	2,400	2.23	50	111.5	6.00	5.8	17	6.6	<input type="checkbox"/> Yes
23	2,400	2.03	50	101.5	5.85	5.4	17	6.0	<input type="checkbox"/> Yes
24	2,400	1.64	50	82	6.05	6.2	17	4.8	<input type="checkbox"/> Yes
25	2,400	1.72	50	86	6.10	6.0	17	5.1	<input type="checkbox"/> Yes
26	2,400	1.63	50	81.5	6.15	5.7	17	4.8	<input type="checkbox"/> Yes
27	2,400	1.76	50	88	6.10	5.6	17	5.2	<input type="checkbox"/> Yes
28	2,400	1.80	50	90	6.05	5.2	17	5.3	<input type="checkbox"/> Yes
29	2,400	1.83	50	91.5	5.90	5.8	17	5.4	<input type="checkbox"/> Yes
30	2,400	1.62	50	81	6.05	5.2	17	4.8	<input type="checkbox"/> Yes
31			50						<input type="checkbox"/> Yes

1. Use a separate form for each disinfectant/sampling point. Enter disinfectant and sequence position, e.g. "ozone/1<sup>st</sup>" or "Cl<sub>2</sub>/3<sup>rd</sup>". If more than one disinfectant sampling point, you must also complete SWTR Form H and calculate the cumulative inactivation ratio SUM (CTcalc/CT99.9) to determine compliance.
2. Peak hourly flow means the highest pumpage *hour* during the day, not the absolute peak flow at any instant.
3. The residual disinfectant concentration(s) ("C") of the water before or at the first customer must be measured each day during peak hourly flow.
4. The disinfectant contact time(s) ("T") must be determined for each day during peak hourly flow. The time T used in calculating CT, is the time it takes the water, during peak hourly flow, to move between the point of disinfection application and the residual is measured.
5. If the system uses free chlorine, the pH of the disinfected water must be measured at least once per day at each chlorine residual disinfectant concentration sampling point during peak hourly flow.
6. The temperature of the disinfected water must be measured at least once per day at each residual disinfectant concentration sampling point during peak hourly flow.
7. Use Inactivation Tables at 310 CMR 22.20A Tables 1.1 – 1.6, 2.1 and/or 3.1
8. The inactivation ratio (CTcalc/CT99.9) is determined before or at the first customer during peak hourly flow and if the (CTcalc/CT99.9) is < 1.0, the 99.9% *Giardia lamblia* inactivation requirement has not been achieved.
9. More than one "Yes" response above may indicate a SWTR Treatment Technique violation (Tier 2).

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.

PWS Authorized Signature:

Date: 5-4-2020

Title:

William Corleby  
Chief Plant Operator



Massachusetts Department of Environmental Protection – Drinking Water Program  
**CHEMICAL ADDITION REPORT – 310 CMR 11.15(4) Chemical Addition Reporting Requirements**

C-ADD

**I. PWS Information - Refer to MassDEP "Chemical Addition Report Guidance and Instructions" for details.**

PWS Name <sup>1</sup> :	RANDOLPH-HOLBROOK JW	Town <sup>1</sup> :	RANDOLPH-HOLBROOK	PWSID <sup>1</sup> :	424001
Treatment Plant Name <sup>2</sup> :	RANDOLPH WATER PLANT	Treatment Plant ID# <sup>2</sup> :	424400.1-OIT	Reporting Period <sup>2</sup> :	APRIL, 2020 Month Year

**II. Chemical & Operational Information**

Chemical Name <sup>4</sup> :	POLYALUMINUM CHLORIDE	Purchased Strength <sup>8</sup> :	1.0	Target Range/min <sup>12</sup> :	14mg/l
Manufacturer <sup>5</sup> :	HOLLAND COMPANY	Purchased Density (lbs/gal) <sup>9</sup> :	10.3	Target Dose <sup>13</sup> :	18mg
Product Name <sup>6</sup> :	PCH-180	Dilution Factor or Mix Ratio <sup>10</sup> :	NA	Alarm Setting (low) <sup>14</sup> :	NA
Reason for Adding Chemical <sup>7</sup> :	COAGULATION	NSF Approved (Y/N) <sup>11</sup> :	Y	Alarm Setting (high) <sup>14</sup> :	NA
		Date of last anti-siphon valve inspection/replacement <sup>15</sup> :		NA	

**III. Daily Reporting** Note: Water quality data reported on C-ADD form may be considered for compliance purposes.

Day	Treated Water <sup>16</sup> <input type="checkbox"/> Gallons <input checked="" type="checkbox"/> MG	Measured Chemical Used		Calculated Chemical Used (lbs) <sup>10</sup>	Chemical Dosage <sup>10</sup> (mg/L)	Parameters Measured <sup>4</sup> , Results, Units and Method <sup>20</sup> - (G)rab or Continuous (A)nalyzer <sup>21</sup>			O&M Notes/Comments <sup>22</sup>  PWS note any equipment breakdown, off-line status, changes in purchased product or batch mixing day, measured parameters or dosages that are out of target range, etc.
		Volume <sup>17</sup> (gal/day)	Weight <sup>17</sup> (lbs/day)			a. RAW PH DAILY AVG <input checked="" type="checkbox"/> G <input type="checkbox"/> A	b. <input type="checkbox"/> G <input type="checkbox"/> A	c. <input type="checkbox"/> G <input type="checkbox"/> A	
1	2.9	125		1,288	18	7.15			
2	2.8	123		1,267	18	7.20			
3	2.7	115		1,185	17	7.10			
4	2.7	110		1,133	17	7.15			
5	2.8	100		1,030	15	7.15			
6	2.7	110		1,133	17	7.20			
7	2.8	120		1,236	18	7.20			
8	2.9	134		1,380	19	7.10			
9	2.8	120		1,236	18	7.15			
10	2.8	135		1,391	20	7.20			
11	2.8	140		1,442	20	7.25			
12	2.8	150		1,545	22	7.15			
13	2.8	102		1,051	15	7.20			
14	2.7	103		1,051	16	7.15			
15	2.9	110		1,133	16	7.10			
16	2.8	126		1,298	18	7.00			
17	2.6	125		1,288	20	7.15			
18	2.8	142		1,463	21	7.15			
19	2.8	118		1,215	17	7.10			
20	2.7	105		1,082	16	7.10			
21	2.8	100		1,030	15	7.20			
22	2.9	121		1,246	17	7.15			
23	2.7	121		1,246	18	7.05			
24	2.7	125		1,288	19	7.15			
25	2.9	144		1,483	20	7.20			
26	2.7	106		1,092	16	7.15			
27	2.9	115		1,185	16	7.10			
28	2.9	125		1,288	18	7.15			
29	2.8	111		1,143	16	7.20			
30	2.9	131		1,349	18	7.20			
31									

Total Indicate total # of days the residual was off-target for the month (from Section II) Monthly Target Summary<sup>23</sup>:

\*Describe result (daily average, min/max, instantaneous reading, grab, etc), sample location (entry-point, before/after filters, tanks, etc.) and instrumentation used (SCADA, chart recorder, test kit, bench, etc.)<sup>20</sup>:

a. Raw Water Ph, Daily Average, Test Kit.

b.

c.

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.

PWS Authorized Person - Signature & Date<sup>24</sup>:  
 William Cookerby 5-4-2020

Print Name: William Cookerby Title: Chief Plant Operator



Massachusetts Department of Environmental Protection – Drinking Water Program  
**CHEMICAL ADDITION REPORT – 310 CMR 11.15(4) Chemical Addition Reporting Requirements**

C-ADD

**I. PWS Information** - Refer to MassDEP "Chemical Addition Report Guidance and Instructions" for details.

PWS Name <sup>1</sup> :	RANDOLPH-HOLBROOK JOINT WATER	Town <sup>1</sup> :	RANDOLPH-HOLBROOK	PWSID <sup>1</sup> :	424001
Treatment Plant Name <sup>2</sup> :	RANDOLPH WATER PLANT	Treatment Plant ID# <sup>2</sup> :	4244002-01T	Reporting Period <sup>2</sup> :	APRIL 2020 Month Year

**II. Chemical & Operational Information**

Chemical Name <sup>4</sup> :	CHLORINE	Purchased Strength <sup>8</sup> :	1.0	Target Range/min <sup>12</sup> :	0.20	
Manufacturer <sup>5</sup> :	AXIALL, LLC	Purchased Density (lbs/gal) <sup>9</sup> :	12.3	Target Dose <sup>13</sup> :	NA	
Product Name <sup>6</sup> :	CHLORINE	Dilution Factor or Mix Ratio <sup>10</sup> :	NA	Alarm Setting (low) <sup>14</sup> :	1.0	
Reason for Adding Chemical <sup>7</sup> :	DISINFECTANT	NSF Approved (Y/N) <sup>11</sup> :	Y	Alarm Setting (high) <sup>14</sup> :	3.0	
		Date of last anti-siphon valve inspection/replacement <sup>15</sup> :				NA

**III. Daily Reporting** Note: Water quality data reported on C-ADD form may be considered for compliance purposes.

Day	Treated Water <sup>16</sup> <input type="checkbox"/> Gallons <input checked="" type="checkbox"/> MG	Measured Chemical Used		Calculated Chemical Used (lbs) <sup>18</sup>	Chemical Dosage <sup>19</sup> (mg/L)	Parameters Measured*, Results, Units and Method <sup>20</sup> - (G)rab or Continuous (A)nalyzer <sup>21</sup>			O&M Notes/Comments <sup>22</sup> PWS note any equipment breakdown, off-line status, changes in purchased product or batch mixing day, measured parameters or dosages that are out of target range, etc.
		Volume <sup>17</sup> (gal/day)	Weight <sup>17</sup> (lbs/day)			a. FREE CHL. FINISHED		c.	
						<input checked="" type="checkbox"/> G <input type="checkbox"/> A	<input checked="" type="checkbox"/> G <input type="checkbox"/> A		
1	2.9		74		3.1	2.10	1.92		
2	2.8		66		2.8	2.09	1.81		
3	2.7		61		2.7	2.07	1.81		
4	2.7		64		2.8	2.05	1.87		
5	2.8		57		2.4	1.92	1.68		
6	2.7		66		2.9	2.07	1.76		
7	2.8		68		2.9	2.08	1.81		
8	2.9		66		2.7	2.05	1.80		
9	2.8		64		2.7	1.95	1.80		
10	2.8		56		2.4	1.90	1.66		
11	2.8		57		2.4	1.95	1.82		
12	2.8		52		2.2	2.02	1.87		
13	2.8		53		2.3	2.01	1.75		
14	2.7		56		2.5	1.97	1.67		
15	2.9		54		2.2	2.04	1.85		
16	2.8		64		2.7	2.07	1.94		
17	2.6		61		2.8	2.05	1.93		
18	2.8		62		2.9	2.12	2.03		
19	2.8		52		2.2	1.87	1.67		
20	2.7		55		2.4	2.16	0.66		
21	2.8		55		2.4	1.90	1.57		
22	2.9		75		3.1	2.37	2.23		
23	2.7		59		2.6	2.22	2.03		
24	2.7		68		3.0	1.87	1.64		
25	2.9		60		2.5	1.89	1.72		
26	2.7		56		2.5	1.91	1.63		
27	2.9		61		2.5	2.00	1.76		
28	2.8		60		2.6	2.04	1.80		
29	2.8		60		2.6	1.99	1.83		
30	2.9		62		2.6	1.93	1.62		
31									

Total: Indicate total # of days the residual was off-target for the month (from Section II) Monthly Target Summary<sup>23</sup>:

\*Describe result (daily average, min/max, instantaneous reading, grab, etc), sample location (entry-point, before/after filters, tanks, etc.) and instrumentation used (SCADA, chart recorder, test kit, bench, etc.)<sup>20</sup>:

a. Daily Average, Free Chlorine, Finished Water, Grab Sample, Test Kit	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. PWS Authorized Person - Signature & Date <sup>24</sup> : William Cookerly 5-4-2020
b. Daily Minimum, Free Chlorine, Finished Water, Grab Sample, Test Kit	
c.	

Print Name: William Cookerly Title: Chief Plant Operator



Massachusetts Department of Environmental Protection – Drinking Water Program  
**CHEMICAL ADDITION REPORT – 310 CMR 11.15(4) Chemical Addition Reporting Requirements**

C-ADD

**I. PWS Information - Refer to MassDEP "Chemical Addition Report Guidance and Instructions" for details.**

PWS Name <sup>1</sup> :	RANDOLPH-HOLBROOK JW	Town <sup>1</sup> :	RANDOLPH-HOLBROOK	PWSID <sup>1</sup> :	424001
Treatment Plant Name <sup>2</sup> :	RANDOLPH WATER PLANT	Treatment Plant ID# <sup>2</sup> :	4244001-DIT	Reporting Period <sup>2</sup> :	APRIL 2020 Month Year

**II. Chemical & Operational Information**

Chemical Name <sup>4</sup> :	CALCIUM HYDROXIDE	Purchased Strength <sup>8</sup> :	0.85	Target Range/min <sup>12</sup> :	NA	
Manufacturer <sup>5</sup> :	CARMEUSE LIME & STONE	Purchased Density (lbs/gal) <sup>9</sup> :	18.7	Target Dose <sup>13</sup> :	NA	
Product Name <sup>6</sup> :	HYDRATED LIME	Dilution Factor or Mix Ratio <sup>10</sup> :	NA	Alarm Setting (low) <sup>14</sup> :	NA	
Reason for Adding Chemical <sup>7</sup> :	PH ADJUSTMENT	NSF Approved (Y/N) <sup>11</sup> :	Y	Alarm Setting (high) <sup>14</sup> :	NA	
		Date of last anti-siphon valve inspection/replacement <sup>15</sup> :				NA

**III. Daily Reporting** Note: Water quality data reported on C-ADD form may be considered for compliance purposes.

Day	Treated Water <sup>19</sup> <input type="checkbox"/> Gallons <input checked="" type="checkbox"/> MG	Measured Chemical Used		Calculated Chemical Used (lbs) <sup>18</sup>	Chemical Dosage <sup>19</sup> (mg/L)	Parameters Measured <sup>20</sup> , Results, Units and Method <sup>20</sup> - (G)rab or Continuous (A)nalyzer <sup>21</sup>			O&M Notes/Comments <sup>22</sup> PWS note any equipment breakdown, off-line status, changes in purchased product or batch mixing day, measured parameters or dosages that are out of target range, etc.
		Volume <sup>17</sup> (gal/day)	Weight <sup>17</sup> (lbs/day)			a. FINISHED PH <input checked="" type="checkbox"/> G <input type="checkbox"/> A	b. <input type="checkbox"/> G <input type="checkbox"/> A	c. <input type="checkbox"/> G <input type="checkbox"/> A	
1	2.4		100		5.0	7.05			
2	2.2		100		5.5	7.10			
3	2.0		100		6.0	7.05			
4	2.1		100		5.7	7.15			
5	2.0		100		6.0	7.10			
6	2.2		100		5.5	7.10			
7	2.2		100		5.5	7.15			
8	2.3		100		5.5	7.10			
9	2.1		100		5.7	7.10			
10	1.9		100		6.3	7.05			
11	2.0		100		6.0	7.10			
12	2.0		100		6.0	7.10			
13	2.0		100		6.0	7.15			
14	1.8		100		6.7	7.05			
15	2.0		100		6.0	7.10			
16	2.1		100		5.7	7.10			
17	2.0		100		6.0	7.05			
18	2.1		100		5.7	7.05			
19	1.9		100		6.3	7.00			
20	2.0		100		6.0	7.15			
21	2.0		100		6.0	7.10			
22	2.2		100		5.5	7.05			
23	2.0		100		6.0	7.15			
24	1.8		100		6.7	7.00			
25	1.9		100		6.3	7.05			
26	1.8		100		6.7	7.10			
27	2.1		100		5.7	7.10			
28	1.9		100		6.3	7.15			
29	2.0		100		6.0	7.10			
30	2.0		100		6.0	7.15			
31									

Total Indicate total # of days the residual was off-target for the month (from Section II) Monthly Target Summary<sup>23</sup>:

\*Describe result (daily average, min/max, instantaneous reading, grab, etc), sample location (entry-point, before/after filters, tanks, etc.) and instrumentation used (SCADA, chart recorder, test kit, bench, etc.)<sup>20</sup>:

a. Finished Water Ph, Daily Average, Test Kit

b. 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.

c. PWS Authorized Person - Signature & Date<sup>24</sup>:  
 William Cookerly 5-4-2020  
 Print Name: William Cookerly Title: Chief Plant Operator



Massachusetts Department of Environmental Protection – Drinking Water Program  
**CHEMICAL ADDITION REPORT – 310 CMR 11.15(4) Chemical Addition Reporting Requirements**

C-ADD

**I. PWS Information** - Refer to MassDEP "Chemical Addition Report Guidance and Instructions" for details.

PWS Name <sup>1</sup> :	RANDOLPH-HOLBROOK JW	Town <sup>1</sup> :	RANDOLPH-HOLBROOK	PWSID <sup>1</sup> :	424001
Treatment Plant Name <sup>2</sup> :	RANDOLPH WATER PLANT	Treatment Plant ID# <sup>2</sup> :	4244001-017	Reporting Period <sup>3</sup> :	APRIL 2020 Month Year

**II. Chemical & Operational Information**

Chemical Name <sup>4</sup> :	SODIUM BISULFATE	Purchased Strength <sup>6</sup> :	0.15	Target Range/min <sup>12</sup> :	NA	
Manufacturer <sup>5</sup> :	CARUS CORPORATION	Purchased Density (lbs/gal) <sup>6</sup> :	12.03	Target Dose <sup>13</sup> :	NA	
Product Name <sup>5</sup> :	CARUS 3350	Dilution Factor or Mix Ratio <sup>10</sup> :	0.33	Alarm Setting (low) <sup>14</sup> :	NA	
Reason for Adding Chemical <sup>7</sup> :	CORROSION INHIBITOR	NSF Approved (Y/N) <sup>11</sup> :	Y	Alarm Setting (high) <sup>14</sup> :	NA	
		Date of last anti-siphon valve inspection/replacement <sup>15</sup> :				NA

**III. Daily Reporting** Note: Water quality data reported on C-ADD form may be considered for compliance purposes.

Day	Treated Water <sup>16</sup> <input type="checkbox"/> Gallons <input checked="" type="checkbox"/> MG	Measured Chemical Used		Calculated Chemical Used (lbs) <sup>16</sup>	Chemical Dosage <sup>19</sup> (mg/L)	Parameters Measured <sup>4</sup> , Results, Units and Method <sup>20</sup> - (G) grab or Continuous (A) analyzer <sup>21</sup>			O&M Notes/Comments <sup>22</sup> PWS note any equipment breakdown, off-line status, changes in purchased product or batch mixing day, measured parameters or dosages that are out of target range, etc.
		Volume <sup>17</sup> (gal/day)	Weight <sup>17</sup> (lbs/day)			a. <i>Finished PH</i> <input checked="" type="checkbox"/> G <input type="checkbox"/> A	b. <input type="checkbox"/> G <input type="checkbox"/> A	c. <input type="checkbox"/> G <input type="checkbox"/> A	
1	2.4				7.05				
2	2.2				7.10				
3	2.0				7.05				
4	2.1				7.15				
5	2.0				7.10				
6	2.2				7.10				
7	2.2				7.15				
8	2.3				7.10				
9	2.1				7.10				
10	1.9				7.05				
11	2.0				7.10				
12	2.0				7.10				
13	2.0				7.15				
14	1.8				7.05				
15	2.0				7.10				
16	2.1				7.10				
17	2.0				7.05				
18	2.1				7.05				
19	1.9				7.00				
20	2.0				7.15				
21	2.0				7.10				
22	2.2				7.05				
23	2.0				7.15				
24	1.8				7.00				
25	1.9				7.05				
26	1.8				7.10				
27	2.1				7.10				
28	1.9				7.15				
29	2.0				7.10				
30	2.0				7.15				
31									

Total Indicate total # of days the residual was off-target for the month (from Section II) Monthly Target Summary<sup>23</sup>:

\*Describe result (daily average, min/max, instantaneous reading, grab, etc), sample location (entry-point, before/after filters, tanks, etc.) and instrumentation used (SCADA, chart recorder, test kit, bench, etc.)<sup>20</sup>:

a. *Finished Water PH, Daily Average, Test Kit*

b.

c.

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.

PWS Authorized Person - Signature & Date<sup>24</sup>:  
*William Cooksey* 5-4-2020  
 Print Name: *William Cooksey* Title: *Chief Plant Operator*



# DBPR TT Compliance Report

## PWS INFORMATION

PWS ID #: 4244001 City/Town: RANDOLPH  
 PWS Name: RANDOLPH-HOLBROOK JOINT WATER PWS Class: COM  NTNC  TNC

DEP LOCATION (LOC) ID#	DEP Location Name	Date Collected	Collected By
<u>015/10300</u>	<u>Raw Water/Combined Filter Effluent</u>	<u>4-6-2020</u>	<u>Bill Cookerby</u>
SAMPLE NOTES:			

## COMPLIANCE CALCULATIONS

Month	# of Paired Samples	A: % Removal of TOC <sup>1</sup>	B: Required % Removal of TOC <sup>2</sup>	Met Alternative Compliance Criteria	Alternative Criteria Result(s) <sup>3</sup> (See Below)	A + B <sup>4</sup>
5-19	1	34	35	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	TWSUVA	1.00
6-19	1	52	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.49
7-19	1	46	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.31
8-19	1	56	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.60
9-19	1	39	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.11
10-19	1	42	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.20
11-19	1	44	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.26
12-19	1	51	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.46
1-20	1	40	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.14
2-20	1	45	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.29
3-20	1	44	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.26
4-20	1	45	35	<input type="checkbox"/> YES <input type="checkbox"/> NO		1.29
Sum of Past 12 Months:						<u>15.41</u>
Compliance Value (Sum of Past 12 Months/ 12):						<u>1.28</u>

I certify under penalties of law that I am the person authorized to sign this form and the information contained herein is accurate and complete to the best extent of my knowledge.

PWS Authorized Signature: William Cookerby  
 Date: 5-12-2020

Mail ONE copy of this report to your DEP Regional Office no later than 10 days after the end of the month in which you received this report or no later than 10 days after the end of the reporting period, whichever is sooner.

<sup>1</sup> Percent Removal:  $(1 - (\text{Treated Water TOC} \div \text{Raw Water TOC})) \times 100$ . If > 1 paired sample sets in any month report the average of all individual percent TOC removals (Example: % TOC Removal = (Average of Set 1 + Average of Set 2) ÷ 2).  
<sup>2</sup> From table at 310.CMR 22.07E(10)(b)2.  
<sup>3</sup> As listed at 310.CMR 22.07E(10)(a)2 and 310.CMR 22.07E(10)(a)3, summarized as follows:

Alternative Compliance Criteria	Code Value	Result(s) to Report/RAA - Running Annual Average
Source Water TOC <2.0 mg/L	SWTOC	RAA of source water TOC
Treated Water <2.0 mg/L	TWTOC	RAA of treated water TOC
Source Water TOC < 4.0 mg/L AND Alkalinity >60 mg/L (as CaCO <sub>3</sub> ) AND TTHM/HAA5 ≤ 0.040/0.030 mg/L	COMBO	RAA of source water TOC, RAA of source water alkalinity, RAA of TTHM and HAA5
TTHM/HAA5 ≤ 0.040/0.030 mg/L AND only using chlorine	TTHM/HAA5	RAA of TTHM and HAA5
Source Water SUVA ≤ 2.0 L/mg-m	SWSUVA	RAA of treated water SUVA
Treated Water SUVA ≤ 2.0 L/mg-m	TWSUVA	RAA of treated water SUVA
Softening that lowers alkalinity to <60 mg/L (as CaCO <sub>3</sub> )	SOFT60	RAA of treated water alkalinity
Softening that removes ≥ 10 mg/L (as CaCO <sub>3</sub> ) of hardness	SOFT10	RAA of hardness (as CaCO <sub>3</sub> ) removal

Note: All supplemental measurements and calculations used to meet the alternative criteria must be attached to this report.

<sup>4</sup> For any month where the system met an alternative compliance criteria a value of 1.0 may be inserted.

DEP REVIEW STATUS (Initial & Date)	Review Comments
<input type="checkbox"/> Accepted <input type="checkbox"/> Disapproved	

# Massachusetts Department of Environmental Protection - Drinking Water Program

TOC

## Total Organic Carbon Report

PWS Information: Please refer to your DEP Water Sampling Schedule (WQSS) to help complete this form.

PWS ID #: 4244001  
 PWS Name: Randolph-Holbrook Joint Water Board

City/Town: Holbrook  
 PWS Class: COM X NTNC NC

DEP location ID	DEP location name	Sample Information		Collected		Collected by	
				Date	Time		
A	01S	Raw Water	<input type="checkbox"/> Multiple <input checked="" type="checkbox"/> Single	<input checked="" type="checkbox"/> Raw <input type="checkbox"/> Finished	04/06/2020	09:00	B. Cookery
B	10300	Combined Filter Effluent	<input type="checkbox"/> Multiple <input checked="" type="checkbox"/> Single	<input type="checkbox"/> Raw <input checked="" type="checkbox"/> Finished	04/06/2020	09:00	B. Cookery
Routine or Special Sample		Original or Resubmitted or Confirmation Report		If resubmitted report, list below:			
				Reason for resubmission		Collection date of original sample	
A	<input checked="" type="checkbox"/> RS <input type="checkbox"/> SS	<input checked="" type="checkbox"/> Original <input type="checkbox"/> Resubmitted		<input type="checkbox"/> Resample <input type="checkbox"/> Reanalysis <input type="checkbox"/> Report Corr.			
B	<input checked="" type="checkbox"/> RS <input type="checkbox"/> SS	<input checked="" type="checkbox"/> Original <input type="checkbox"/> Resubmitted		<input type="checkbox"/> Resample <input type="checkbox"/> Reanalysis <input type="checkbox"/> Report Corr.			
Lab sample notes:							
A							
B							

### II. Analytical Laboratory Information:

Primary Lab MA Cert. # M-MA022 Primary Lab name: Analytical Balance Corp. Subcontracted?  Y  N

TOC analyzed by (check one): <input type="checkbox"/> PWS <input checked="" type="checkbox"/> Lab			Samples acidified? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
TOC result (mg/L)	MDL (mg/L)	Lab Method	Date Analyzed	Analysis Lab MA Cert. #	Analysis Lab Name	Lab Sample ID #	
A	4.99	SM 5310B	04/08/2020	M-RI002	ESS	46139-01	
B	2.75	SM 5310B	04/08/2020	M-RI002	ESS	46139-02	
<p><u>Surface water or GWUDI systems &gt; 500 persons</u>                      Monthly source (raw) water TOC samplings required at each surface/GWUDI source to qualify for and remain on reduced THM/HAA5 monitoring.                      Each source must maintain a running annual average source (raw) water TOC level of &lt; 4.0 mg/L (calculated quarterly).                      TOC analysis does <u>not</u> require the use of a Massachusetts or EPA certified laboratory.  <u>Surface or GWUDI sources using conventional filtration</u> shall each month (unless monitoring is reduced): take one TOC sample at each treatment plant no later than the point of combined filter effluent turbidity monitoring representative of the treated (finished) water, one source (raw) sample prior to any treatment, and one alkalinity source (raw) water sample - at a time representative of normal operating conditions and influent water quality.                      The time between collection of raw and treated (finished) water must not exceed the time it takes to move through the plant.</p>							
Alkalinity analyzed by (check one): <input type="checkbox"/> PWS <input checked="" type="checkbox"/> Lab							
Alkalinity result (mg/L as CaCO <sub>3</sub> )	MDL (mg/L)	Lab Method	Date Analyzed	Analysis Lab MA Cert. #	Analysis Lab Name	Lab Sample ID #	
A	20.0	SM 2320B	04/15/2020	M-MA022	Analytical Balance	46139-01	
B	—	—	—	—	—	—	
<p>If using conventional filtration - raw water alkalinity must be measured at the same time as the raw water TOC sample is collected.                      Alkalinity analysis does <u>not</u> require the use of a Massachusetts or EPA certified laboratory.</p>							
Lab sample notes:							
A							
B							

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.

Robert E. Bentley

 Digitally signed by Robert E. Bentley  
 DN: cn=Robert E. Bentley  
 o=Analytical Balance Corp.  
 e=rob@h2otest.net

Primary Lab Director Signature/ Date: 04/20/2020

If not submitting these results electronically, mail TWO copies of this report to your DEP Regional Office no later than 10 days after the end of the month in which you received this report or no later than 10 days after the end of the reporting period, whichever is sooner.

DEP REVIEW STATUS (Initial & date) Accepted _____ Disapproved _____	Review comments	_____ WQTS data entered
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**CERTIFICATE OF ANALYSIS**

Keith Nastasia  
 Randolph-Holbrook Joint Water Board  
 50 N. Franklin Street  
 Holbrook, MA 02343  
 COLLECTED BY: B. Cookerly  
 TIME: 9:00  
 LOCATION: Raw Water  
 01S

REPORTED: 04/16/2020  
 ORDER #: G2046138  
 SAMPLE DATE: 4/6/2020  
 DATE RECEIVED: 4/6/2020  
 SAMPLE ID: Grab  
 DESCRIPTION: DRINKING WATER

**RESULTS OF ANALYSIS**

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	MCL <sup>1</sup> / Rec. Limit <sup>2</sup>	Result
				LAB-ID#: <b>2046138-01</b>		
<b>Test Parameters</b>						
Carbon, Total Dissolved Organic	SM 5310B	04/08/2020	mg/L	0.500	---	<b>4.53</b>
SUVA	Calculation	04/14/2020	# per 100 mL	0	0	<b>0.018</b>
UV 254	SM 5910B	04/07/2020	Abs/cm	0.002	-----	<b>0.081</b>

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp. (M-MA022). DOC and UV254 were analyzed by subcontract lab M-RI002.



**CERTIFICATE OF ANALYSIS**

Keith Nastasia  
 Randolph-Holbrook Joint Water Board  
 50 N. Franklin Street  
 Holbrook, MA 02343

COLLECTED BY: B. Cookerly  
 TIME: 9:00  
 LOCATION: Combined Filter Effluent  
 10300

REPORTED: 04/16/2020  
 ORDER #: G2046138  
 SAMPLE DATE: 4/6/2020  
 DATE RECEIVED: 4/6/2020  
 SAMPLE ID: Grab  
 DESCRIPTION: DRINKING WATER

**RESULTS OF ANALYSIS**

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	MCL <sup>1</sup> / Rec. Limit <sup>2</sup>	Result
				LAB-ID#:	2046138-02	
<b>Test Parameters</b>						
Carbon, Total Dissolved Organic	SM 5310B	04/08/2020	mg/L	0.500	---	2.74
SUVA	Calculation	04/14/2020	# per 100 mL	0	0	0.014
UV 254	SM 5910B	04/07/2020	Abs/cm	0.002	-----	0.037

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp. (M-MA022). DOC and UV254 were analyzed by subcontract lab M-RI002.

NA = Not Applicable  
 ND = Not Detected  
 '<' = Less Than  
 '\*' = Detection Limit

Approved By: Timothy A. Begley  
 Lab Manager / Date

Digitally signed by Timothy A. Begley  
 CN=Timothy A. Begley  
 2.5.4.11e  
 Date: 2020.04.16  
 18:29:28

- MCL = Maximum Contaminant Level as adopted by the Commonwealth of Massachusetts and represents the maximum acceptable level in drinking water.
- Recommended limits are suggested levels of materials allowed in water. These may be for aesthetic reasons rather than for human health.
- Currently there are no limits (recommended or mandated) for this parameter. This is merely presented for guidance.
- If present, coliform values (in parentheses) are defined as estimated numbers.



Keith Nastasia  
 Randolph-Holbrook Joint Water Board  
 50 N. Franklin Street  
 Holbrook, MA 02343  
 COLLECTED BY: B. Cookerly  
 TIME: 9:00  
 LOCATION: Raw Water  
 01S

REPORTED: 04/16/2020  
 ORDER #: G2046138  
 SAMPLE DATE: 4/6/2020  
 DATE RECEIVED: 4/6/2020  
 SAMPLE ID: Grab  
 DESCRIPTION: DRINKING WATER

**CERTIFICATE OF ANALYSIS**

**RESULTS OF ANALYSIS**

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	MCL <sup>1</sup> / Rec. Limit <sup>2</sup>	Result
				LAB-ID#: 2046138-01		
<b>Test Parameters</b>						
Carbon, Total Dissolved Organic	SM 5310B	04/08/2020	mg/L	0.500	---	4.53
SUVA	Calculation	04/14/2020	# per 100 mL	0	0	0.018
UV 254	SM 5910B	04/07/2020	Abs/cm	0.002	-----	0.081

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp. (M-MA022). DOC and UV254 were analyzed by subcontract lab M-RI002.





Massachusetts Department of Environmental Protection - Drinking Water Program  
 TURBIDITY - INDIVIDUAL FILTER MONITORING  
 For Conventional or Direct Filtered Systems

SWTR

J

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DAILY REPORTING

Day	Filter Number: 1		Filter Number: 2		Filter Number: 3		Filter Number: 4	
	<sup>3</sup> Max Day NTU	<sup>4</sup> Max after 4 Hours NTU	<sup>3</sup> Max Day NTU	<sup>4</sup> Max after 4 Hours NTU	<sup>3</sup> Max Day NTU	<sup>4</sup> Max after 4 Hours NTU	<sup>3</sup> Max Day NTU	<sup>4</sup> Max after 4 Hours NTU
1	.18	.07	.13	.05	.10	.06	.07	-
2	.04	-	.04	-	.05	-	.11	.07
3	.16	.07	.14	.05	.11	.06	.10	.07
4	.15	.07	.13	.05	.07	.04	.06	-
5	.13	.06	.07	-	.04	-	.09	.06
6	.06	-	.06	.04	.13	.05	.10	.06
7	.14	.05	.09	.04	.07	.04	.09	.06
8	.09	.05	.09	.04	.07	.04	.06	-
9	.15	.06	.04	-	.04	-	.12	.07
10	.06	-	.09	.04	.13	.04	.10	.06
11	.10	.05	.10	.03	.08	.04	.11	.06
12	.09	.05	.08	.04	.04	-	.06	-
13	.05	-	.04	-	.10	.04	.12	.06
14	.11	.05	.09	.04	.14	.05	.10	.06
15	.13	.05	.08	.04	.12	.04	.06	-
16	.08	.05	.07	.04	.07	-	.13	.06
17	.05	-	.04	-	.08	.04	.10	.06
18	.07	.05	.13	.04	.13	.05	.09	.05
19	.10	.07	.07	.04	.16	.06	.07	-
20	.05	-	.04	-	.05	-	.12	.06
21	.11	.05	.20	.04	.15	.04	.11	.06
22	.14	.05	.10	.06	.12	.06	.10	.06
23	.16	.06	.05	-	.04	-	.07	.05
24	.15	.05	.13	.04	.14	.05	.09	.06
25	.05	-	.08	.04	.11	.04	.12	.05
26	.09	.05	.11	.04	.09	.04	.09	.06
27	.18	.07	.14	.04	.05	-	.07	-
28	.05	-	.04	-	.09	.04	.11	.06
29	.11	.05	.16	.04	.13	.04	.10	.06
30	.22	.05	.08	.04	.07	.04	.09	.06
31								

- Systems shall conduct continuous turbidity monitoring of the filter effluent for each individual filter at the filtration facility and record turbidity measurements every 15-minutes. Record the actual turbidity result at the specified interval of time. Do not average turbidity measurements. Individual filter turbidity records must be retained for 3 years and kept on file for MassDEP review.
- Systems serving less than 10,000: If the treatment system has only one or two filters, the supplier may conduct continuous monitoring of the CFE turbidity in lieu of individual filter effluent (IFE) turbidity monitoring. If there are two filters, a continuous turbidity monitor can be installed on the combined filter effluent. If a CFE problem appears, follow-up action must then be completed on both filters.
- Enter the highest daily 15-minute interval turbidity measurement recorded for the filter specified.
- Enter the highest daily 15-minute interval turbidity measurement recorded at the end of the first four hours of continuous filter operation after the filter has been backwashed or otherwise taken offline.

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.

PWS Authorized Signature:

*William G. Baker*

Date: 5-5-2020 Title:

*Chief Plant Operator*



Massachusetts Department of Environmental Protection - Drinking Water Program  
 TURBIDITY - INDIVIDUAL FILTER MONITORING  
 For Conventional or Direct Filtered Systems

SWTR

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III. DAILY REPORTING

Day	Filter Number: 5		Filter Number: 6		Filter Number: 7		Filter Number: 8	
	Max Day NTU	Max after 4 Hours NTU	Max Day NTU	Max after 4 Hours NTU	Max Day NTU	Max after 4 Hours NTU	Max Day NTU	Max after 4 Hours NTU
1	.18	.07	.18	.09	.14	.08	.10	.06
2	.11	.07	.10	.06	.12	.08	.08	.05
3	.24	.07	.21	.06	.12	-	.05	-
4	.05	-	.06	-	.10	.08	.09	.05
5	.08	.05	.16	.05	.13	.07	.08	.05
6	.10	.05	.10	.05	.13	.08	.10	.07
7	.14	.04	.14	-	.08	-	.05	-
8	.05	-	.09	.05	.13	.08	.08	.04
9	.09	.06	.13	.06	.13	.08	.14	.04
10	.10	.07	.09	.04	.14	.07	.09	.05
11	.04	-	.04	-	.07	-	.04	-
12	.10	.06	.14	.05	.16	.07	.09	.04
13	.09	.05	.10	.04	.14	.07	.04	-
14	.10	.05	.10	-	.08	-	.11	.04
15	.09	.05	.10	.05	.27	.08	.10	.04
16	.12	.05	.21	.05	.15	.07	.09	.04
17	.08	.05	.10	.05	.13	.07	.08	.04
18	.12	.05	.04	-	.07	-	.04	-
19	.05	-	.08	.05	.11	.07	.09	.04
20	.12	.04	.11	.04	.12	.07	.11	.04
21	.10	.05	.15	.05	.14	.07	.04	-
22	.10	.05	.05	-	.08	-	.07	.04
23	.13	.06	.15	.06	.23	.08	.24	.05
24	.08	.04	.17	.04	.13	.07	.10	.04
25	.11	.04	.09	.05	.12	.08	.04	-
26	.12	.06	.04	-	.09	.07	.08	.04
27	.05	-	.16	.06	.15	.08	.11	.04
28	.10	.06	.10	.05	.15	.07	.09	.04
29	.09	.05	.10	.05	.07	-	.04	-
30	.05	-	.05	-	.12	.08	.10	.04
31								

- Systems shall conduct continuous turbidity monitoring of the filter effluent for each individual filter at the filtration facility and record turbidity measurements every 15-minutes. Record the actual turbidity result at the specified interval of time. Do not average turbidity measurements. Individual filter turbidity records must be retained for 3 years and kept on file for MassDEP review.
- Systems serving less than 10,000: If the treatment system has only one or two filters, the supplier may conduct continuous monitoring of the CFE turbidity in lieu of individual filter effluent (IFE) turbidity monitoring. If there are two filters, a continuous turbidity monitor can be installed on the combined filter effluent. If a CFE problem appears, follow-up action must then be completed on both filters.
  - Enter the highest daily 15-minute interval turbidity measurement recorded for the filter specified.
  - Enter the highest daily 15-minute interval turbidity measurement recorded at the end of the first four hours of continuous filter operation after the filter has been backwashed or otherwise taken offline.

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.

PWS Authorized Signature: William Coakley  
 Date: 5-5-2020 Title: Chief Plant Operator



**Massachusetts Department of Environmental Protection - Drinking Water Program  
CHLORINE/CHLORAMINES - MONTHLY REPORT**

CI

**I. PWS INFORMATION:**

PWS ID #: **4133000** PWS Name: **TOWN OF HOLBROOK** City/Town: **HOLBROOK** Class: COM  NTNC  TNC

**II. ANALYTICAL INFORMATION: Refer to your MassDEP Coliform Sampling Plan and/or DBPR monitoring plan to help complete this section.**

Type Measured:  Free Chlorine  Total Chlorine  Combined Chlorine Analytical Method: SM 4500-Cl:  D  E  F  G  H  I ASTM D1253-86

**Notes:**

DEP Sample Type <sup>1,4</sup>	DEP Location Code # <sup>1</sup>	DEP Approved Sample Location <sup>1</sup>	CHLORINE RESULT <sup>2</sup> (mg/L)	COLLECTION AND ANALYSIS <sup>3</sup> :		COLLECTED AND ANALYZED BY:
				DATE	TIME	
RS	001	TOWN HALL	0.4	4/6/2020	07:08	T. Duggan
RS	004	COTTAGE VARIETY	0.6	4/6/2020	07:55	T. Duggan
RS	008E	STEWARTS POWER EQUIPMENT	0.1	4/6/2020	07:31	T. Duggan
RS	006	COMMUNITY CENTER	0.2	4/6/2020	09:05	T. Duggan
RS	001	TOWN HALL	0.3	4/13/2020	07:26	T. Duggan
RS	004	COTTAGE VARIETY	0.4	4/13/2020	07:50	T. Duggan
RS	008E	STEWARTS POWER EQUIPMENT	0.4	4/13/2020	09:15	T. Duggan
RS	006	COMMUNITY CENTER	0.1	4/13/2020	08:10	T. Duggan
RS	001	TOWN HALL	0.4	4/22/2020	07:08	T. Duggan
RS	004	COTTAGE VARIETY	0.5	4/22/2020	08:00	T. Duggan
RS	008E	STEWARTS POWER EQUIPMENT	0.1	4/22/2020	09:00	T. Duggan
RS	006	COMMUNITY CENTER	0.1	4/22/2020	07:36	T. Duggan
RS	001	TOWN HALL	0.4	4/27/2020	07:08	T. Duggan
RS	004	COTTAGE VARIETY	0.6	4/27/2020	07:50	T. Duggan
RS	008E	STEWARTS POWER EQUIPMENT	0.1	4/27/2020	08:28	T. Duggan
RS	006	COMMUNITY CENTER	0.3	4/27/2020	07:29	T. Duggan

<sup>1</sup> DEP Sample Type, Location Code#, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.  
<sup>2</sup> SWTR systems: HPC must be collected at distribution sites with zero chlorine residual and results reported on the DEP Bacteriological Monthly Report form and on the appropriate SWTR Form.  
<sup>3</sup> Collection and Analysis: Chlorine residual shall be measured in the field (immediately upon collection) at the same time and location in the distribution system as total coliforms are sampled. Record ND values as 0 (zero).  
<sup>4</sup> Sample Type: RS-Routine Distribution Sample, RO-Original Site Repeat, DR-Downstream Repeat, AR-Additional Repeat, or SS-Special Sample (as determined by DEP).  
<sup>5</sup> All DISTRIBUTION samples taken and analyzed shall be included in determining compliance, even if that number is greater than the minimum required. If you collect repeat coliform samples within the distribution system during the month, you must also measure for a detectable chlorine residual at the repeat sites and include these samples. DO NOT include raw water (RW) or plant tap (PT) chlorine residual samples in your calculations.

**III. COMPLIANCE REPORTING:** Total # of Samples Collected for Month<sup>5</sup>: **66** Average Chlorine Result of All Samples For Month<sup>5</sup> (mg/L): **0.81**

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 Certified Operator Signature and Date: *T. Duggan* 5-12-2020

DEP Review Status:  Accepted  Disapproved  Review Comments:



Massachusetts Department of Environmental Protection - Drinking Water Program  
**CHLORINE/CHLORAMINES - MONTHLY REPORT**

CI

**I. PWS INFORMATION:**

PWS ID #: **4244000** PWS Name: **RANDOLPH WATER DEPARTMENT** City/Town: **RANDOLPH** Class: COM  NTNC  TNC

**II. ANALYTICAL INFORMATION:** Refer to your MassDEP Coliform Sampling Plan and/or DBPR monitoring plan to help complete this section.

Type Measured:  Free Chlorine  Total Chlorine  Combined Chlorine Analytical Method: SM 4500-Cl:  D  E  F  G  H  I ASTM D1263-86

Notes: Weekly samples taken in the distribution system

DEP Sample Type <sup>1,4</sup>	DEP Location Code # <sup>1</sup>	DEP Approved SAMPLE LOCATION <sup>1</sup>	CHLORINE RESULT <sup>2</sup> (mg/L)	COLLECTION AND ANALYSIS <sup>3</sup> :		COLLECTED AND ANALYZED BY:
				DATE	TIME	
RS	003	TOWER HILL SCHOOL - ADAMS STREET	0.90	4-8-20	10:30 AM	A. PIERRE-LOUIS
RS	004	JFK SCHOOL - 20 HURLEY DRIVE	1.30		11:30 AM	
RS	005	MARTIN E. YOUNG SCHOOL- COURTNEY DRIVE	1.59		12:00 PM	
RS	006	COMFORT INN - 1374 NORTH MAIN STREET	1.12		10:00 AM	
RS	008	COMMUNITY MIDDLE SCHOOL - HIGH STREET	1.16		8:00 AM	
RS	011	MOBIL STATION - 93 MAZZEO DRIVE	1.28		8:45 AM	
RS	012	7-11 FOOD SHOP - 675 NORTH STREET	0.30		9:30 AM	
RS	014 A	ENTERPRISE - 249 NORTH MAI STREET				
RS	014 E	AXP AUTO 317 NORTH MAIN STREET	1.31		9:00 AM	
RS	014 F	OAK GROVE STANDPIPE	0.90		8:30 AM	
RS		SOUTH MAIN STREET STANDPIPE	0.64		7:30 AM	

<sup>1</sup> DEP Sample Type, Location Code#, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.

<sup>2</sup> SWTR systems: HPC must be collected at distribution sites with zero chlorine residual and results reported on the DEP Bacteriological Monthly Report form and on the appropriate SWTR Form.

<sup>3</sup> Collection and Analysis: Chlorine residual shall be measured in the field (immediately upon collection) at the same time and location in the distribution system as total coliforms are sampled. Record ND values as 0 (zero).

<sup>4</sup> Sample Type: RS-Routine Distribution Sample, RO-Original Site Repeat, UR-Upstream Repeat, DR-Downstream Repeat, AR-Additional Repeat, or SS-Special Sample (as determined by DEP).

<sup>5</sup> All DISTRIBUTION samples taken and analyzed shall be included in determining compliance, even if that number is greater than the minimum required. If you collect repeat coliform samples within the distribution system during the month, you must also measure for a detectable chlorine residual at the repeat sites and include these samples. DO NOT include raw water (RW) or plant tap (PT) chlorine residual samples in your calculations.

**III. COMPLIANCE REPORTING:**

Total # of Samples Collected for Month<sup>5</sup>: **66**

Average Chlorine Result of All Samples For Month<sup>5</sup> (mg/L): **0.81**

In accordance with 310 CMR 22.15(2), if mailing paper reports, TWO copies of this report must be received by your MassDEP Regional Office no later than 10 days after the end of the month in which the results are received or no later than 10 days after the end of the monitoring period, whichever is sooner. Please note: Electronic reporting (eDEP) deadline is the same as above.

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 Certified Operator Signature and

Date:

*William G. Gentry* 5-12-2020

DEP Review Status:

Accepted  Disapproved

Review Comments:



Massachusetts Department of Environmental Protection - Drinking Water Program  
**CHLORINE/CHLORAMINES - MONTHLY REPORT**

CI

**I. PWS INFORMATION:**

PWS ID #: **4244000** PWS Name: **RANDOLPH WATER DEPARTMENT** City/Town: **RANDOLPH** Class: COM  NTNC  TNC

**II. ANALYTICAL INFORMATION:** Refer to your MassDEP Coliform Sampling Plan and/or DBPR monitoring plan to help complete this section.

Type Measured:  Free Chlorine  Total Chlorine  Combined Chlorine Analytical Method: SM 4500-Cl:  D  E  F  G  H  I ASTM D1253-86

Notes: Weekly samples taken in the distribution system

DEP Sample Type <sup>1,4</sup>	DEP Location Code # <sup>1</sup>	DEP Approved Sample Location <sup>1</sup>	CHLORINE RESULT <sup>2</sup> (mg/L)	COLLECTION AND ANALYSIS <sup>3</sup> :		COLLECTED AND ANALYZED BY:
				DATE	TIME	
RS	003	TOWER HILL SCHOOL - ADAMS STREET	0.56	4-6-20	9:00 AM	A. PIERRE-LOUIS
RS	004	JFK SCHOOL - 20 HURLEY DRIVE	1.14		8:30 AM	
RS	005	MARTIN E. YOUNG SCHOOL - COURTNEY DRIVE	0.48		8:00 AM	
RS	006	COMFORT INN - 1374 NORTH MAIN STREET	1.15		11:00 AM	
RS	008	COMMUNITY MIDDLE SCHOOL - HIGH STREET	1.40		8:45 AM	
RS	011	MOBIL STATION - 93 MAZZEO DRIVE	1.04		9:45 AM	
RS	012	7-11 FOOD SHOP - 675 NORTH STREET	0.30		10:30 AM	
RS	014 A	ENTERPRISE - 249 NORTH MAI STREET	NO ACCESS		COVID 19	
RS	014E	MAP AUTO 317 NORTH MAIN STREET	1.30		10:00 AM	
RS		OAK GROVE STANDPIPE	0.99		9:15 AM	
RS		SOUTH MAIN STREET STANDPIPE	0.61		7:30 AM	

<sup>1</sup> DEP Sample Type, Location Code#, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.

<sup>2</sup> SWTR systems: HPC must be collected at distribution sites with zero chlorine residual and results reported on the DEP Bacteriological Monthly Report form and on the appropriate SWTR Form.

<sup>3</sup> Collection and Analysis: Chlorine residual shall be measured in the field (immediately upon collection) at the same time and location in the distribution system as total coliforms are sampled. Record ND values as 0 (zero).

<sup>4</sup> Sample Type: RS-Routine Distribution Sample, RO-Original Site Repeat, UR-Upstream Repeat, DR-Downstream Repeat, AR-Additional Repeat, or SS-Special Sample (as determined by DEP).

<sup>5</sup> All DISTRIBUTION samples taken and analyzed shall be included in determining compliance, even if that number is greater than the minimum required. If you collect repeat coliform samples within the distribution system during the month, you must also measure for a detectable chlorine residual at the repeat sites and include these samples. DO NOT include raw water (RW) or plant tap (PT) chlorine residual samples in your calculations.

**III. COMPLIANCE REPORTING:**

Total # of Samples Collected for Month<sup>5</sup>: **66**

Average Chlorine Result of All Samples For Month<sup>5</sup> (mg/L): **0.81**

In accordance with 310 CMR 22.15(2), if mailing paper reports, TWO copies of this report must be received by your MassDEP Regional Office no later than 10 days after the end of the month in which the results are received or no later than 10 days after the end of the monitoring period, whichever is sooner. Please note: Electronic reporting (eDEP) deadline is the same as above.

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 Certified Operator Signature and Date: *William Corleary* 5-12-2020

DEP Review Status:  Accepted  Disapproved  Review Comments:



Massachusetts Department of Environmental Protection - Drinking Water Program  
**CHLORINE/CHLORAMINES - MONTHLY REPORT**

CI

**I. PWS INFORMATION:**

PWS ID #: 4244000 PWS Name: RANDOLPH WATER DEPARTMENT City/Town: RANDOLPH Class: COM  NTNC  TNC

**II. ANALYTICAL INFORMATION:** Refer to your MassDEP Coliform Sampling Plan and/or DBPR monitoring plan to help complete this section.

Type Measured:  Free Chlorine  Total Chlorine  Combined Chlorine Analytical Method: SM 4500-Cl:  D  E  F  G  H  I ASTM D1253-86

Notes: Weekly samples taken in the distribution system

DEP Sample Type <sup>1,4</sup>	DEP APPROVED SAMPLE SITE INFORMATION <sup>1</sup>		CHLORINE RESULT <sup>2</sup> (mg/L)	COLLECTION AND ANALYSIS <sup>3</sup> :		COLLECTED AND ANALYZED BY:
	DEP Location Code # <sup>1</sup>	DEP Approved SAMPLE LOCATION <sup>1</sup>		DATE	TIME	
RS	003	TOWER HILL SCHOOL - ADAMS STREET	0.67		9:40	
RS	004	JFK SCHOOL - 20 HURLEY DRIVE	1.19		8:00	
RS	005	MARTIN E. YOUNG SCHOOL - COURTNEY DRIVE	0.29		8:15	
RS	006	COMFORT INN - 1374 NORTH MAIN STREET	1.25	4/13/20	9:00	RS
RS	008	COMMUNITY MIDDLE SCHOOL - HIGH STREET	1.25		8:45	
RS	011	MOBIL STATION - 93 MAZZEO DRIVE	1.06		10:30	
RS	012	7-11 FOOD SHOP - 675 NORTH STREET	0.20		11:00	
RS	014 A	ENTERPRISE - 249 NORTH MAI STREET <u>AXP</u>	1.13		10:45	
RS		OAK GROVE STANDPIPE	0.98		8:40	RS
RS		SOUTH MAIN STREET STANDPIPE	0.73		1:08	

<sup>1</sup> DEP Sample Type, Location Code#, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.  
<sup>2</sup> SWTR systems: HPC must be collected at distribution sites with zero chlorine residual and results reported on the DEP Bacteriological Monthly Report form and on the appropriate SWTR Form.  
<sup>3</sup> Collection and Analysis: Chlorine residual shall be measured in the field (immediately upon collection) at the same time and location in the distribution system as total coliforms are sampled. Record ND values as 0 (zero).  
<sup>4</sup> Sample Type: RS-Routine Distribution Sample, RO-Original Site Repeat, UR-Upstream Repeat, DR-Downstream Repeat, AR-Additional Repeat, or SS-Special Sample (as determined by DEP).  
<sup>5</sup> All DISTRIBUTION samples taken and analyzed shall be included in determining compliance, even if that number is greater than the minimum required. If you collect repeat coliform samples within the distribution system during the month, you must also measure for a detectable chlorine residual at the repeat sites and include these samples. DO NOT include raw water (RW) or plant tap (PT) chlorine residual samples in your calculations.

**III. COMPLIANCE REPORTING:** Total # of Samples Collected for Month<sup>5</sup>: 66 Average Chlorine Result of All Samples For Month<sup>5</sup> (mg/L): 0.81

In accordance with 310 CMR 22.15(2), if mailing paper reports, two copies of this report must be received by your MassDEP Regional Office no later than 10 days after the end of the month in which the results are received or no later than 10 days after the end of the monitoring period, whichever is sooner. Please note: Electronic reporting (eDEP) deadline is the same as above.

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 Certified Operator Signature and Date: [Signature] 5-12-2020

DEP Review Status:

Accepted  Disapproved

Review Comments:



Massachusetts Department of Environmental Protection - Drinking Water Program  
**CHLORINE/CHLORAMINES - MONTHLY REPORT**

CI

I. PWS INFORMATION:

PWS ID #: **4244000** PWS Name: **RANDOLPH WATER DEPARTMENT** City/Town: **RANDOLPH** Class: COM  NTNC  TNC   
 II. ANALYTICAL INFORMATION: Refer to your MassDEP Coliform Sampling Plan and/or DBPR monitoring plan to help complete this section.  
 Type Measured:  Free Chlorine  Total Chlorine  Combined Chlorine Analytical Method: SM 4500-Cl:  D  E  F  G  H  I ASTM D1253-86

Notes: Weekly samples taken in the distribution system

DEP Sample Type <sup>1,4</sup>	DEP APPROVED SAMPLE SITE INFORMATION <sup>1</sup>		CHLORINE RESULT <sup>2</sup> (mg/L)	COLLECTION AND ANALYSIS <sup>3</sup> :		COLLECTED AND ANALYZED BY:
	DEP Location Code # <sup>1</sup>	DEP Approved SAMPLE LOCATION <sup>1</sup>		DATE	TIME	
RS	003	TOWER HILL SCHOOL - ADAMS STREET	1.58	4-22-20	10:45 AM	A. PIERCE - LOUIS
RS	004	JFK SCHOOL - 20 HURLEY DRIVE	1.10		9:15 AM	
RS	005	MARTIN E. YOUNG SCHOOL - COURTNEY DRIVE	0.61		9:45 AM	
RS	006	COMFORT INN - 1374 NORTH MAIN STREET	1.78		11:45 AM	
RS	008	COMMUNITY MIDDLE SCHOOL - HIGH STREET	1.60		8:45 AM	
RS	011	MOBIL STATION - 93 MAZZEO DRIVE	1.11		11:15 AM	
RS	012	7-11 FOOD SHOP - 675 NORTH STREET	0.39		10:15 AM	
RS	014 A	ENTERPRISE - 249 NORTH MAI STREET	NO ACCESS	6-10-19		
RS	014 NE	AKP AVE-317 NORTH MAIN STREET	1.47		8:15 AM	
RS		OAK GROVE STANDPIPE	0.91		11:00 AM	
RS		SOUTH MAIN STREET STANDPIPE	0.84		10:00 AM	

<sup>1</sup> DEP Sample Type, Location Code#, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.

<sup>2</sup> SWTR systems: HPC must be collected at distribution sites with zero chlorine residual and results reported on the DEP Bacteriological Monthly Report form and on the appropriate SWTR Form.

<sup>3</sup> Collection and Analysis: Chlorine residual shall be measured in the field (immediately upon collection) at the same time and location in the distribution system as total coliforms are sampled. Record ND values as 0 (zero).

<sup>4</sup> Sample Type: RS-Routine Distribution Sample, RO-Original Site Repeat, UR-Upstream Repeat, DR-Downstream Repeat, AR-Additional Repeat, or SS-Special Sample (as determined by DEP).

<sup>5</sup> All DISTRIBUTION samples taken and analyzed shall be included in determining compliance, even if that number is greater than the minimum required. If you collect repeat coliform samples within the distribution system during the month, you must also measure for a detectable chlorine residual at the repeat sites and include these samples. DO NOT include raw water (RW) or plant tap (PT) chlorine residual samples in your calculations.

III. COMPLIANCE REPORTING:

Total # of Samples Collected for Month<sup>5</sup>: **66** Average Chlorine Result of All Samples For Month<sup>5</sup> (mg/L): **0.81**

In accordance with 310 CMR 22.15(2), if mailing paper reports, TWO copies of this report must be received by your MassDEP Regional Office no later than 10 days after the end of the month in which the results are received or no later than 10 days after the end of the monitoring period, whichever is sooner. Please note: Electronic reporting (eDEP) deadline is the same as above.

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 Certified Operator Signature and Date: *William Corbett* 5-12-2020

DEP Review Status:  Accepted  Disapproved

Review Comments:



Massachusetts Department of Environmental Protection - Drinking Water Program  
**CHLORINE/CHLORAMINES - MONTHLY REPORT**

CI

**I. PWS INFORMATION:**

PWS ID #: **4244000** PWS Name: **RANDOLPH WATER DEPARTMENT** City/Town: **RANDOLPH** Class: COM  NTNC  TNC

**II. ANALYTICAL INFORMATION: Refer to your MassDEP Coliform Sampling Plan and/or DBPR monitoring plan to help complete this section.**

Type Measured:  Free Chlorine  Total Chlorine  Combined Chlorine Analytical Method: SM 4500-Cl:  D  E  F  G  H  I ASTM D1253-86

Notes: Weekly samples taken in the distribution system

DEP Sample Type	DEP Location Code # <sup>1</sup>	DEP APPROVED SAMPLE SITE INFORMATION <sup>1</sup>		CHLORINE RESULT <sup>2</sup> (mg/L)	COLLECTION AND ANALYSIS <sup>3</sup> :		COLLECTED AND ANALYZED BY:
		DEP Approved SAMPLE LOCATION <sup>1</sup>	DEP Approved SAMPLE LOCATION <sup>1</sup>		DATE	TIME	
RS	003	TOWER HILL SCHOOL - ADAMS STREET		1.12	4-27-20	11:00 AM	A. PIERRE-LOUIS
RS	004	JFK SCHOOL - 20 HURLEY DRIVE		1.46		9:30 AM	
RS	005	MARTIN E. YOUNG SCHOOL - COURTNEY DRIVE		0.54		9:00 AM	
RS	006	COMFORT INN - 1374 NORTH MAIN STREET		1.07		11:45 AM	
RS	008	COMMUNITY MIDDLE SCHOOL - HIGH STREET		1.26		10:30 AM	
RS	011	MOBIL STATION - 93 MAZZEO DRIVE		1.05		11:20 AM	
RS	012	7-11 FOOD SHOP - 675 NORTH STREET		0.10		10:00 AM	
RS	014 A	ENTERPRISE - 249 NORTH MAI STREET		NO ACCESS	COVID 19	NO ACCESS	
RS	014E	AXP AUTO 317 NORTH MAIN STREET		1.31		8:30 AM	
RS		OAK GROVE STANDPIPE		0.84		10:45 AM	
RS		SOUTH MAIN STREET STANDPIPE		0.79		9:20 AM	

**III. COMPLIANCE REPORTING:**

Total # of Samples Collected for Month<sup>5</sup>: **66** Average Chlorine Result of All Samples For Month<sup>5</sup> (mg/L): **0.81**  
 in accordance with 310 CMR 22.15(2), if mailing paper reports, TWO copies of this report must be received by your MassDEP Regional Office no later than 10 days after the end of the month in which the results are received or no later than 10 days after the end of the monitoring period, whichever is sooner. Please note: Electronic reporting (eDEP) deadline is the same as above.  
 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.

DEP Sample Type, Location Code#, and DEP Approved Sample Site Location must correspond to the same information on your DEP Total Coliform Sampling Plan.  
<sup>2</sup> SWTR systems: HPC must be collected at distribution sites with zero chlorine residual and results reported on the DEP Bacteriological Monthly Report form and on the appropriate SWTR Form.  
<sup>3</sup> Collection and Analysis: Chlorine residual shall be measured in the field (immediately upon collection) at the same time and location in the distribution system as total coliforms are sampled. Record ND values as 0 (zero).  
<sup>4</sup> Sample Type: RS-Routine Distribution Sample, RO-Original Site Repeat, UR-Upstream Repeat, DR-Downstream Repeat, AR-Additional Repeat, or SS-Special Sample (as determined by DEP).  
<sup>5</sup> All DISTRIBUTION samples taken and analyzed shall be included in determining compliance, even if that number is greater than the minimum required. If you collect repeat coliform samples within the distribution system during the month, you must also measure for a detectable chlorine residual at the repeat sites and include these samples. DO NOT include raw water (RW) or plant tap (PT) chlorine residual samples in your calculations.

Primary Certified Operator Signature and Date: *William Corbett* 5-12-2020

DEP Review Status:  Accepted  Disapproved  Review Comments:



Massachusetts Department of Environmental Protection - Drinking Water Program  
**Disinfection Byproducts Rule Compliance Report** - DBPR

**I. PWS INFORMATION:** Please refer to your DBPR Monitoring Plan to help complete this form.

PWS ID #: 4244001 City/Town: RANDOLPH  
 PWS Name: RANDOLPH-HOLBROOK JOINT WATER PWS Class: COM  NTNC  TNC   
 Monitoring Period (YEAR): 2020 Monitoring Period (QUARTER):  Q1 (Jan-Mar)  Q2 (Apr-Jun)  Q3 (Jul-Sep)  Q4 (Oct-Dec)

**II. FOR SYSTEMS USING CHLORINATION**

**A. Trihalomethanes (TTHM)**

Total Number of TTHM Samples:		Quarterly Average:	µg/L
Was the Running Annual Average MCL (80 µg/L) exceeded?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Running Annual Average:	µg/L

**B. Haloacetic Acids (HAA5)**

Total Number of HAA5 Samples:		Quarterly Average:	µg/L
Was the Running Annual Average MCL (60 µg/L) exceeded?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Running Annual Average:	µg/L

**C. Chlorine/Chloramines**

Total Number of Samples:	Month 1: <u>66</u>	Monthly Averages: (report all 3 months per quarter)	<u>0.81</u> mg/L	Quarterly Average:	<u>0.81</u> mg/L
	Month 2: <u>MA</u>		mg/L		
	Month 3: <u>JUNE</u>		mg/L		
Was the Running Annual Average MRDL (4.0 mg/L) exceeded?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Running Annual Average:	<u>0.86</u> mg/L		

**D. Total Organic Carbon - raw (TOC)** (Required for SW or GWUDI systems >499 seeking or approved to reduce THM/HAA5 monitoring.) Plant Name: \_\_\_\_\_  
 (Attach additional sheet(s) to report more than 1 plant)

Total Number of Samples:	Month 1:	Monthly Averages: (report all 3 months per quarter)	mg/L	Quarterly Average:	mg/L
	Month 2:		mg/L		
	Month 3:		mg/L		
Was the (4.0 mg/L) threshold exceeded?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Running Annual Average:	mg/L		

**III. FOR SYSTEMS USING OZONATION** - attach additional sheet(s) to report more than 1 plant

**E. Bromate (treated)** Plant Name: \_\_\_\_\_

Total Number of Samples:	Month 1:	Monthly Averages: (report all 3 months per quarter)	mg/L	Quarterly Average:	mg/L
	Month 2:		mg/L		
	Month 3:		mg/L		
Was the Running Annual Average MCL (0.010 ug/l) exceeded?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Running Annual Average:	mg/L		

**F. Bromide (raw)** Plant Name: \_\_\_\_\_  
 Required for systems seeking or approved to reduce Bromate monitoring

Total Number of Samples:	Month 1:	Monthly Averages: (report all 3 months per quarter)	mg/L	Quarterly Average:	mg/L
	Month 2:		mg/L		
	Month 3:		mg/L		
Was the (0.05 mg/l) threshold exceeded?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Running Annual Average:	mg/L		

**IV. FOR SYSTEMS USING CHLORINE DIOXIDE** - Report compliance information on your Chlorine/Chlorine Dioxide (Daily Samples) Report

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 Certified Operator Signature: William Cookerly Date: 5-12-2020

DEFINITIONS	
MONTHLY AVERAGE:	Monthly average = average of all results within the current month.
QUARTERLY AVERAGE:	Quarterly Average = average result of all locations sampled during monitoring period
RUNNING ANNUAL AVERAGE:	Running Annual Average = Average of 4 quarters. Average of this quarter and three prior consecutive quarterly averages (for systems on quarterly monitoring)
TOTAL NUMBER OF SAMPLES:	Total number of samples collected during the monitoring period.

NOTE: Record and calculate all ND or <MDL results as the number zero (0).

Submit one copy of this form each quarter to your DEP regional office (by Jan 10<sup>th</sup>, April 10<sup>th</sup>, July 10<sup>th</sup>, and Oct 10<sup>th</sup> of each year)

DEP REVIEW STATUS (Initial & Date)	Review Comments
<input type="checkbox"/> Accepted _____ <input type="checkbox"/> Disapproved _____	