RANDOLPH-HOLBROOK JOINT WATER BOARD

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

50 North Franklin Street
Holbrook, MA 02343

Town of Randolph

June 23, 2021

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

Forms G, Bacteria included
Analysis for SUVA
May, 2021 Randolph/Holbrook
Joint Water System, PWS #424001

Gentlemen:

Enclosed please find Form G, along reports as referenced above for the month of May, 2021
This should complete the reports for the month of May.

Should there be any questions, please do not hesitate to call.

Sincerely,

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

SWTR G

Compliance Determination for Filtered Systems - Monthly Report

I. PWS INFORMATION:

PWSID#: 4244001 PWS Name: RANDOLPH-HOLBROOK JOINT WATER PWS Town: RANDOLPH

Treatment Plant Name: RANDOLPH WATER PLANT Reporting Period → Month: MAY Year: 2021

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).

186	= A	Total # of filtered water turbidity measurements for month (SWTR – Form F)
186	= B	Total # of filtered water turbidity measurements less than or equal to the specified limits for the filtration technology used. (SWTR – Form F)
100	= (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_2 mg/l	Day	Cl_2 mg/l	Day	Cl_2 mg/l	Day	Cl_2 mg/l	Day	Cl_2 mg/l	Day	Cl_2 mg/l	Day	Cl_2 mg/l
1	1.71	6	1.69	11	1.84	16	1.74	21	1.71	26	1.66	31	1.68
2	1.82	7	1.65	12	1.62	17	1.69	22	1.66	27	1.65		
3	1.76	8	1.69	13	1.50	18	1.70	23	1.65	28	1.74		
4	1.75	9	1.67	14	1.84	19	1.65	24	1.64	29	1.74		
5	1.53	10	1.63	15	1.70	20	1.74	25	1.71	30	1.77		

Residual Measured
☑ Free Cl_2
☐ Total Cl_2
☐ Combined Cl_2

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: 50 # HPC sites > 500/mL: Ø # HPC sites ≤ 500/mL: 50

66	= a	# of sites where Cl_2 residual measurements were made, whether a residual was detected or not (should be the same # of sites reported on your monthly DBPR Cl_2 residual report)
Ø	= b	# of sites HPC samples were analyzed *instead* of Cl_2 residual measurements
Ø	= c	# of sites where no Cl_2 residual was detected and no HPC sample was analyzed
Ø	= d	# of sites where no Cl_2 residual was detected and HPC > 500 CFU/mL
Ø	= e	# of sites where no Cl_2 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 = Ø Previous Month % V = Ø Is V > 5% for 2 months? ☐ Yes or ☐ No

I certify under penalties of law that I am the person authorized ... and the information contained herein is true.

PWS Authorized Signature: 6-24-2021 William Corkery, Chief Operator

CERTIFICATE OF ANALYSIS

Chris Pelleteri
Randolph - Holbrook Joint Water Board
50 North Franklin Street
Holbrook, MA 02343

Project Name: DOC SUVA
Work Order Number: 2105043
Date Received: 05/03/2021

Sampled By: P. Hennessey
Location: Raw Water

Date Sampled: 5/3/21 10:00
Matrix: Drinking Water

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	MCL/ Rec Limit#	Result
Test Parameters				**LAB-ID#:**	**2105043-01**	
Dissolved Organic Carbon (Average)	5310B	5/5/2021	mg/L	0.500	---	4.53
SUVA	4153	5/5/2021	/100 ml	N/A	---	0.0182
UV 254	5910B	5/4/2021	abs/cm	0.002	---	0.082

Sampled By: P. Hennessey
Location: Combined Filter Effluent

Date Sampled: 5/3/21 10:00
Matrix: Surface Water

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	MCL/ Rec Limit#	Result
Test Parameters				**LAB-ID#:**	**2105043-02**	
Dissolved Organic Carbon (Average)	5310B	5/5/2021	mg/L	0.500	---	3.02
SUVA	4153	5/5/2021	/100 ml	N/A	---	0.0145
UV 254	5910B	5/4/2021	abs/cm	0.002	---	0.044

DOC, SUVA & UV 254 analyzed by sub contract lan M-RI002.

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

Approved By: _____
Lab Director

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

REVIEWED
By Amanda Cronin at 3:19 pm, May 28, 2021

422 West Grove Street, Middleboro, MA 02346 Ph: 508-946-2225 http://www.h2otest.net/

MA Certification M-MA022