

Richard Brewer
 Randolph-Holbrook Joint Water Board
 50 N. Franklin Street
 Holbrook, MA 02343
 COLLECTED BY: T. Letourneau
 TIME: 5:00
 LOCATION: Lagoon Discharge
 Composite

REPORTED: 04/13/2018
 ORDER #: G1822739
 SAMPLE DATE: 4/2/2018
 DATE RECEIVED: 4/2/2018
 SAMPLE ID: Treated Filter Backwash
 DESCRIPTION: WATER

CERTIFICATE OF ANALYSIS

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	Result
Test Parameters					
				LAB-ID#:	1822739-02
Aluminum 200.8	EPA 200.8	04/12/2018	mg/L	0.5	0.29
Chlorine, Residual	SM4500-Cl G	04/02/2018	mg/L	0.01	0.20
pH	SM 4500 H+B	04/02/2018	S.U.	0-14	7.4
Solids, Settleable	SM 2540 F	04/09/2018	mL/L	0.1	<0.1

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp. (M-MA022)

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
 2.5.4.11=
 Date: 2018.04.13.13:05:02

Randolph Department of Public
 Water Division
 Town Hall 41 South Main Street
 Randolph, MA 02368

CERTIFICATE OF ANALYSIS

COLLECTED BY: J. Steward
 TIME: 12:10
 LOCATION: Turner Free Library-2 N Main St.
 Grab

REPORTED: 06/21/2018
 ORDER #: G1825060
 SAMPLE DATE: 6/11/2018
 DATE RECEIVED: 6/11/2018
 SAMPLE ID: Special
 DESCRIPTION: DRINKING WATER

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	MCL ¹ / Rec. Limit ²	Result
				LAB-ID#:	1825060-01	
Potability						
Coliform, Total (Colisure) 9223	SM 9223	06/11/2018	# per 100 mL	Absent	Absent	Absent
Alkalinity 310.2	EPA 310.2	06/13/2018	mg/L	4.0	30-100 ²	19.9
Ammonia, Nitrogen 350.1	EPA 350.1	06/14/2018	mg/L	0.10	---	ND
Calcium 3111B	SM3111B	06/20/2018	mg/L	0.05	---	19.3
Chloride 4110B	SM 4110B	06/12/2018	mg/L	20.0	250 ²	173
Copper 200.8	EPA 200.8	06/19/2018	mg/L	0.02	1.3 ¹	0.07
Hardness	SM 2340B	06/20/2018	mg/L	4.0	50-150 ²	63.6
Lead 200.8	EPA 200.8	06/19/2018	mg/L	0.001	0.015 ¹	0.001
Nitrate, Nitrogen 4110B	SM 4110B	06/11/2018	mg/L	0.1	10.0 ¹	0.14
Nitrite, Nitrogen 4110B	SM 4110B	06/11/2018	mg/L	0.05	1.0 ¹	ND
pH	SM 4500 H+B	06/11/2018	S.U.	0-14	6.5-8.5 ²	6.8
Specific Conductance	SM 2510B	06/11/2018	umhos/cm	0.5	---	672
Sulfate 4110B	SM 4110B	06/11/2018	mg/L	4.0	500 ²	9.60
Turbidity	SM 2130B	06/11/2018	NTU	0.25	0.25-1.0 ²	ND
Iron	EPA 200.8	06/20/2018	mg/L	0.02	0.30 ²	0.06
Magnesium 3111B	SM 3111B	06/20/2018	mg/L	0.01	50 ³	3.75
Manganese 200.8	EPA 200.8	06/19/2018	mg/L	0.005	0.05 ³	0.015
Potassium 200.8	EPA 200.8	06/19/2018	mg/L	0.005	---	2.30
Sodium	SM 3111B	06/19/2018	mg/L	0.02	20.0 ²	111

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp. (M-MA022) Mass. DEP does not offer drinking water certification for: ammonia, hardness, specific conductance, or potassium. We are certified for all of these parameters in non-potable water. Bacteriologically and chemically, this water meets the Maximum Contaminant Level requirements as established by the Commonwealth of Massachusetts for drinking water (for the parameters tested).

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

Timothy A. Begley
 Approved By: **Begley**
 Lab Manager / Date

Digitally signed by Timothy A. Begley
 CN=Timothy A. Begley
 2.5.4.11n
 Date: 2018.06.22 14:45:18

- 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.



CERTIFICATE OF ANALYSIS

Richard Brewer
Randolph-Holbrook Joint Water Board
50 N. Franklin Street
Holbrook, MA 02343
COLLECTED BY: T. Letourneau
TIME: 8:00
LOCATION: Lagoon Discharge
Composite

REPORTED: 07/27/2018
ORDER #: G1826287
SAMPLE DATE: 7/16/2018
DATE RECEIVED: 7/16/2018
SAMPLE ID: Treated Filter Backwash
DESCRIPTION: WATER

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	Result
Test Parameters					LAB-ID#: 1826287-01
Solids, Suspended	SM 2540 D	07/18/2018	mg/L	4	5.0

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp.(M-MA022).

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CERTIFICATE OF ANALYSIS

Richard Brewer
Randolph-Holbrook Joint Water Board
50 N. Franklin Street
Holbrook, MA 02343
COLLECTED BY: T. Letourneau
TIME: 8:00
LOCATION: Lagoon Discharge
Composite

REPORTED: 07/27/2018
ORDER #: G1826287
SAMPLE DATE: 7/16/2018
DATE RECEIVED: 7/16/2018
SAMPLE ID: Treated Filter Backwash
DESCRIPTION: WATER

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	Result
Test Parameters					
LAB-ID#: 1826287-02					
Aluminum 200.8	EPA 200.8	07/24/2018	mg/L	0.05	0.57
Chlorine, Residual	SM4500-Cl G	07/16/2018	mg/L	0.01	0.13
pH	SM 4500 H+B	07/16/2018	S.U.	0-14	7.3
Solids, Settleable	SM 2540 F	07/16/2018	mL/L	0.1	<0.1

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp.(M-MA022).

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
2.5.4.11=
Date: 2018.07.28 17:53:32

362



CERTIFICATE OF ANALYSIS

Richard Brewer
Randolph-Holbrook Joint Water Board
50 N. Franklin Street
Holbrook, MA 02343
COLLECTED BY: J. Caruso
TIME: 9:00
LOCATION: Raw Water
01S

REPORTED: 08/20/2018
ORDER #: G1827026
SAMPLE DATE: 8/6/2018
DATE RECEIVED: 8/6/2018
SAMPLE ID: Grab
DESCRIPTION: DRINKING WATER

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	MCL ¹ / Rec Limit ²	Result
Test Parameters				LAB-ID#: 1827026-01		
Carbon, Total Dissolved Organic	SM 5310B	08/07/2018	mg/L	0.5	---	5.6
SUVA	Calculation	08/17/2018	# per 100 mL	0	0	0.015
UV 254	SM 5910B	08/07/2018	Abs/cm	0.002	-----	0.085

DOC and UV254 analyzed by sub contract lab M-RI002.

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Richard Brewer
 Randolph-Holbrook Joint Water Board
 50 N. Franklin Street
 Holbrook, MA 02343

CERTIFICATE OF ANALYSIS

REPORTED: 08/20/2018
 ORDER #: G1827026
 SAMPLE DATE: 8/6/2018
 DATE RECEIVED: 8/6/2018
 SAMPLE ID: Grab
 DESCRIPTION: DRINKING WATER

COLLECTED BY: J. Caruso
 TIME: 9:00
 LOCATION: Combined Filter Effluent
 10300

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	MCL ¹ / Rec Limit ²	Result
Test Parameters				LAB-ID#: 1827026-02		
Carbon, Total Dissolved Organic	SM 5310B	08/07/2018	mg/L	0.5	---	3.4
SUVA	Calculation	08/17/2018	# per 100 mL	0	0	0.014
UV 254	SM 5910B	08/07/2018	Abs/cm	0.002	----	0.047

DOC and UV254 analyzed by sub contract lab M-RI002.

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

Amanda Cronin
 Approved By: **Amanda Cronin**
 Lab Manager / Date

Digitally signed by Amanda Cronin
 DN: cn=Amanda Cronin, o=Analytical Balance Corp., email=Amanda@hZetest.net, 2.5.4.11=, Date: 2018.08.20 20:35:49

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.

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CERTIFICATE OF ANALYSIS

Richard Brewer
Randolph-Holbrook Joint Water Board
50 N. Franklin Street
Holbrook, MA 02343

COLLECTED BY: J. Caruso
TIME: 8:00
LOCATION: Lagoon Discharge
Composite

REPORTED: 08/23/2018
ORDER #: G1827298
SAMPLE DATE: 8/13/2018
DATE RECEIVED: 8/13/2018
SAMPLE ID: Treated Filter Backwash
DESCRIPTION: WATER

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	Result
<i>Test Parameters</i>				LAB-ID#: <u>1827298-01</u>	
Solids, Suspended	SM 2540 D	08/14/2018	mg/L	4	<4.0

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp.(M-MA022).

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Richard Brewer
 Randolph-Holbrook Joint Water Board
 50 N. Franklin Street
 Holbrook, MA 02343
 COLLECTED BY: J. Caruso
 TIME: 8:00
 LOCATION: Lagoon Discharge
 Composite

REPORTED: 08/23/2018
 ORDER #: G1827298
 SAMPLE DATE: 8/13/2018
 DATE RECEIVED: 8/13/2018
 SAMPLE ID: Treated Filter Backwash
 DESCRIPTION: WATER

CERTIFICATE OF ANALYSIS

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	Result
Test Parameters					LAB-ID#: 1827298-02
Aluminum 200.8	EPA 200.8	08/20/2018	mg/L	0.5	0.24
Chlorine, Residual	SM4500-Cl G	08/13/2018	mg/L	0.01	0.10
pH	SM 4500 H+B	08/13/2018	S.U.	0-14	7.5
Solids, Settleable	SM 2540 F	08/13/2018	mL/L	0.1	<0.1

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp.(M-MA022).

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
 2.5.4.11#
 Date: 2018.08.23 20:54:38

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CERTIFICATE OF ANALYSIS

Richard Brewer
Randolph-Holbrook Joint Water Board
50 N. Franklin Street
Holbrook, MA 02343

REPORTED: 09/15/2018
ORDER #: G1828179
SAMPLE DATE: 9/5/2018
DATE RECEIVED: 9/5/2018
SAMPLE ID: Treated Filter Backwash
DESCRIPTION: WATER

COLLECTED BY: T. Letourneau
TIME: 9:00
LOCATION: Lagoon Discharge
Composite

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	Result
Test Parameters				LAB-ID#: <u>1828179-01</u>	
Solids, Suspended	SM 2540 D	09/06/2018	mg/L	4	<4.0

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp.(M-MA022).

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Richard Brewer
 Randolph-Holbrook Joint Water Board
 50 N. Franklin Street
 Holbrook, MA 02343

COLLECTED BY: T. Letourneau
 TIME: 9:00
 LOCATION: Lagoon Discharge
 Composite

REPORTED: 09/15/2018
 ORDER #: G1828179
 SAMPLE DATE: 9/5/2018
 DATE RECEIVED: 9/5/2018
 SAMPLE ID: Treated Filter Backwash
 DESCRIPTION: WATER

CERTIFICATE OF ANALYSIS

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	Result
Test Parameters					LAB-ID#: 1828179-02
Aluminum 200.8	EPA 200.8	09/13/2018	mg/L	0.5	0.20
Chlorine, Residual	SM4500-Cl G	09/05/2018	mg/L	0.01	0.09
pH	SM 4500 H+B	09/05/2018	S.U.	0-14	7.5
Solids, Settleable	SM 2540 F	09/11/2018	mL/L	0.1	<0.1

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp.(M-MA022).

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
 2.5.4.11=

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Richard Brewer
 Randolph-Holbrook Joint Water Board
 50 N. Franklin Street
 Holbrook, MA 02343

CERTIFICATE OF ANALYSIS

REPORTED: 10/03/2018
 ORDER #: G1828646
 SAMPLE DATE: 9/17/2018
 DATE RECEIVED: 9/17/2018
 SAMPLE ID: Treated Filter Backwash
 DESCRIPTION: WATER

COLLECTED BY: B. Cookerly
 TIME: 8:00
 LOCATION: Lagoon Discharge
 Composite

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det Limit*	Result
<i>Test Parameters</i>					LAB-ID#: <u>1828646-01</u>
Solids, Suspended	SM 2540 D	09/21/2018	mg/L	4	<4.0

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp.(M-MA022).

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CERTIFICATE OF ANALYSIS

Richard Brewer
 Randolph-Holbrook Joint Water Board
 50 N. Franklin Street
 Holbrook, MA 02343

REPORTED: 10/03/2018
 ORDER #: G1828646
 SAMPLE DATE: 9/17/2018
 DATE RECEIVED: 9/17/2018
 SAMPLE ID: Treated Filter Backwash
 DESCRIPTION: WATER

COLLECTED BY: B. Cookerly
 TIME: 8:00
 LOCATION: Lagoon Discharge
 Composite

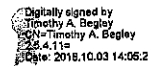
RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det Limit*	Result
Test Parameters					LAB-ID#: <u>1828646-02</u>
Aluminum 200.8	EPA 200.8	09/27/2018	mg/L	0.5	0.15
Chlorine, Residual	SM4500-Cl G	09/17/2018	mg/L	0.01	0.08
pH	SM 4500 H+B	09/17/2018	S.U.	0-14	7.3
Solids, Settleable	SM 2540 F	09/19/2018	mL/L	0.1	<0.10

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp.(M-MA022).

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

Approved By: Timothy A. Begley
 Lab Manager / Date



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Randolph Department of Public
 Water Division
 Town Hall 41 South Main Street
 Randolph, MA 02368

COLLECTED BY: J. Steward
 TIME: 13:20
 LOCATION: 16 Francis Drive
 Entry Point

REPORTED: 11/06/2018
 ORDER #: G1830041
 SAMPLE DATE: 10/23/2018
 DATE RECEIVED: 10/23/2018
 SAMPLE ID: Special
 DESCRIPTION: DRINKING WATER

CERTIFICATE OF ANALYSIS

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	MCL / Rec. Limit ²	Result
Potability						
				LAB-ID#:	1830041-01	
Alkalinity 310.2	EPA 310.2	11/01/2018	mg/L	4.0	30-100 ²	17.4
Ammonia, Nitrogen 350.1	EPA 350.1	10/30/2018	mg/L	0.10	---	ND
Calcium 3111B	SM3111B	10/26/2018	mg/L	0.05	---	16.4
Chloride 4110B	SM 4110B	10/23/2018	mg/L	10.0	250 ²	152
Copper 200.8	EPA 200.8	10/29/2018	mg/L	0.02	1.3 ¹	0.02
Hardness	SM 2340B	10/26/2018	mg/L	4.0	50-150 ²	56.5
Lead 200.8	EPA 200.8	10/29/2018	mg/L	0.001	0.015 ¹	0.002
Nitrate, Nitrogen 4110B	SM 4110B	10/23/2018	mg/L	0.1	10.0 ¹	ND
Nitrite, Nitrogen 4110B	SM 4110B	10/23/2018	mg/L	0.05	1.0 ¹	ND
pH	SM 4500 H+B	10/23/2018	S.U.	0-14	6.5-8.5 ²	6.8
Specific Conductance	SM 2510B	10/23/2018	umhos/cm	0.5	---	628
Sulfate 4110B	SM 4110B	10/23/2018	mg/L	4.0	500 ²	7.11
Turbidity	SM 2130B	10/23/2018	NTU	0.25	0.25-1.0 ²	ND
Iron	EPA 200.8	10/29/2018	mg/L	0.02	0.30 ²	0.09
Magnesium 3111B	SM 3111B	10/26/2018	mg/L	0.01	50 ³	3.78
Manganese 200.8	EPA 200.8	10/29/2018	mg/L	0.005	0.05 ³	0.108
Potassium 200.8	EPA 200.8	10/29/2018	mg/L	0.005	---	2.13
Sodium	SM 3111B	10/29/2018	mg/L	0.02	20.0 ²	104

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp. (M-MA022) Mass. DEP does not offer drinking water certification for: ammonia, chloride, hardness, specific conductance, iron, manganese or potassium. We are certified for all of these parameters in non-potable water. Chemically, this water meets the Maximum Contaminant Level requirements as established by the Commonwealth of Massachusetts for drinking water (for the parameters tested).

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

Timothy A. Begley
 Approved By: **Begley**
 Lab Manager / Date

Digitally signed by Timothy A. Begley
 CN=Timothy A. Begley
 2018.11.06 15:59:08

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.

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Randolph Department of Public
 Water Division
 Town Hall 41 South Main Street
 Randolph, MA 02368

CERTIFICATE OF ANALYSIS

REPORTED: 12/10/2018
 ORDER #: G1831356
 SAMPLE DATE: 12/5/2018
 DATE RECEIVED: 12/5/2018
 SAMPLE ID: Special
 DESCRIPTION: DRINKING WATER

COLLECTED BY: J. Steward
 TIME: 13:15
 LOCATION: Scanlon Circle
 Grab

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det Limit*	MCL ¹ / Rec Limit ²	Result
New Main				LAB-ID#: 1831356-01		
Coliform, Total 1604	EPA 1604	12/05/2018	CFU/100 mL	1	Absent	Absent
Heterotrophic Plate Count	SM 9215B	12/05/2018	CFU/mL	1	500 ³	< 1

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp.(M-MA022).

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

Approved By: **Timothy A. Begley**
 Lab Manager / Date

Digitally signed by Timothy A. Begley
 DN: cn=Timothy A. Begley
 2.5.4.11=
 Date: 2018.12.10 23:58:05

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.

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Randolph Department of Public
 Water Division
 Town Hall 41 South Main Street
 Randolph, MA 02368

CERTIFICATE OF ANALYSIS

COLLECTED BY: J. Steward
 TIME: 11:10
 LOCATION: Scanlon Circle
 Grab

REPORTED: 12/11/2018
 ORDER #: G1831390
 SAMPLE DATE: 12/6/2018
 DATE RECEIVED: 12/6/2018
 SAMPLE ID: Special
 DESCRIPTION: DRINKING WATER

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit ¹	MCL ¹ / Rec. Limit ²	Result
New Main				LAB-ID#: 1831390-01		
Coliform, Total 1604	EPA 1604	12/06/2018	CFU/100 mL	1	Absent	Absent
Heterotrophic Plate Count	SM 9215B	12/06/2018	CFU/mL	1	500 ³	< 1

Unless otherwise noted, all analyses were conducted by Analytical Balance Corp.(M-MA022).

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

Approved By: **Timothy A. Begley**
 Lab Manager / Date

Digitally signed by Timothy A. Begley
 DN: Timothy A. Begley
 2018.12.12 15:28:05

- 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.

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CERTIFICATE OF ANALYSIS

Richard Brewer
 Randolph-Holbrook Joint Water Board
 50 N. Franklin Street
 Holbrook, MA 02343

REPORTED: 12/14/2018
 ORDER #: G1831269
 SAMPLE DATE: 12/3/2018
 DATE RECEIVED: 12/3/2018
 SAMPLE ID: Grab
 DESCRIPTION: DRINKING WATER

COLLECTED BY: J. Caruso
 TIME: 9:00
 LOCATION: Combined Filter Effluent
 10300

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	MCL ¹ / Rec. Limit ²	Result
Test Parameters				LAB-ID#:	1831269-02	
Carbon, Total Dissolved Organic	SM 5310B	12/04/2018	mg/L	0.5	---	3.0
SUVA	Calculation	12/13/2018	# per 100 mL	0	0	0.019
UV 254	SM 5910B	12/04/2018	Abs/cm	0.002	----	0.058

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: **Amanda Cronin**
 Lab Manager / Date

Digitally signed by Amanda Cronin
 DN: Amanda Cronin
 O=Analytical Balance Corp.
 E=amanda@h2otest.net
 2.5.4.11=
 Date: 2018.12.17 15:48:25

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.

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Richard Brewer
 Randolph-Holbrook Joint Water Board
 50 N. Franklin Street
 Holbrook, MA 02343
 COLLECTED BY: J. Caruso
 TIME: 9:00
 LOCATION: Raw Water
 01S

CERTIFICATE OF ANALYSIS

REPORTED: 12/14/2018
 ORDER #: G1831269
 SAMPLE DATE: 12/3/2018
 DATE RECEIVED: 12/3/2018
 SAMPLE ID: Grab
 DESCRIPTION: DRINKING WATER

RESULTS OF ANALYSIS

Parameter	Analytical Method	Date Analyzed	Units	Det. Limit*	MCL / Rec. Limit ²	Result
Test Parameters				LAB-ID#: 1831269-01		
Carbon, Total Dissolved Organic	SM 5310B	12/04/2018	mg/L	0.5	---	5.9
SUVA	Calculation	12/13/2018	# per 100 mL	0	0	0.023
UV 254	SM 5910B	12/04/2018	Abs/cm	0.002	-----	0.137

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

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Total Organic Carbon Report

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

PWS ID #: 4244001

City/Town: Holbrook

PWS Name: Randolph-Holbrook Joint Water Board

PWS Class: **COM** **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	12/03/2018	09:00	J. Caruso
B	10300	Combined Filter Effluent	<input type="checkbox"/> Multiple <input checked="" type="checkbox"/> Single	<input type="checkbox"/> Raw <input checked="" type="checkbox"/> Finished	12/03/2018	09:00	J. Caruso
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	6.1	SM 5310B	12/04/2018	M-RI002	ESS	31268-01	
B	3.1	SM 5310B	12/04/2018	M-RI002	ESS	31268-02	

Surface water or GWUDI systems > 500 persons

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 ≤ 4.0 mg/L (calculated quarterly).

TOC analysis does not require the use of a Massachusetts or EPA certified laboratory.

Surface or GWUDI sources using conventional filtration 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.

Alkalinity analyzed by (check one): <input type="checkbox"/> PWS <input checked="" type="checkbox"/> Lab							
Alkalinity result (mg/L as CaCO ₃)	MDL (mg/L)	Lab Method	Date Analyzed	Analysis Lab MA Cert. #	Analysis Lab Name	Lab Sample ID #	
A	21.7	SM 2320B	12/10/2018	M-MA022	Analytical Balance	31268-01	
B	—	—	—	—	—	—	

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 not require the use of a Massachusetts or EPA certified laboratory.

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: Robert E. Bentley
O=Analytical Balance Corp.
E=bob@h2ctest.net

Primary Lab Director Signature/ Date: 12/17/2018

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)	Review comments	WQTS data entered
Accepted _____ Disapproved _____		<input type="checkbox"/>

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