NYC Environmental Protection

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August 10, 2020

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New York City Department of Health and Mental Hygiene
Environmental Sciences & Engineering
42-09 28th Street, 14th Floor CN# 56
Long Island City, NY 11101

Patrick Palmer
New York State Department of Health
Bureau of Water Supply Protection, NYC Watershed Section
Empire State Plaza, Corning Tower, Room 1198
Albany, NY 12237

Katie Lynch
United States Environmental Protection Agency
Clean Water Division - New York City Water Supply Protection Program
290 Broadway, 24th Floor
New York, New York 10007-1866

RE: Monthly Water Quality Report for July 2020

Dear Ms. Huang, Mr. Palmer and Ms. Lynch:

Enclosed, please find the New York City Water Quality report for the month of **July 2020**. There was no well pumpage to distribution in the Groundwater System this month. Croton water was not feeding into distribution for the month of July 2020. In addition to the following list of compliance reports, electronic files containing compliance and non-compliance data for this month are being emailed to you.

- Raw Water Fecal Coliform Report
- Raw Water Turbidity Report
- Distribution Microbiological Compliance Reports
  - Summary
  - Positive Samples
  - Resamples
- Chlorine Residual Reports
  - Entry Point Online
  - Entry Point Daily Minimum
  - Heterotrophic Plate Count
  - Monthly Summary
- Distribution Turbidity Reports
  - Distribution Turbidity Report
  - Source Water > 1.49 NTU Table
- Color Entry Point Report

- Fluoride Reports
  - Fluoride Entry Point Report
  - Distribution Fluoride Report
- Quarterly Disinfection By-products Report

The reports are summarized as follows:

FAD REQUIREMENTS

1. *Raw Water Fecal Coliform Concentrations* (Section 141.71(a)(1)):
Requirements met. The Delaware Aqueduct effluent from Kensico Reservoir exhibited fecal coliform concentrations in water prior to disinfection at levels less than or equal to 20 CFU/100 mL in at least 90% of the samples collected in the six-month period from February 1, 2020 to July 31, 2020. The six month running percentage of samples collected with fecal coliform concentrations >20 CFU/100 mL was 0.00% for the Catskill/Delaware System for this time period.

2. *Raw Water Turbidity* (Section 141.71(a)(2)):
Requirements met. The raw water leaving Kensico Reservoir via the Delaware Aqueduct in compliance samples collected at DEL18DT, just prior to disinfection, exhibited turbidity levels less than or equal to 5 NTU on an ongoing basis during the month. The highest reported turbidity value was 1.0 NTU on the Catskill/Delaware System for the month.

3. *Entry Point Chlorine Residual* (Section 141.71(b)(1)(iii) and 141.72(a)(3)):
Requirements met. As required, continuous monitoring for free chlorine residual was maintained at the distribution entry points throughout the month and at no time did the concentration fall below 0.2 mg/L for more than four hours. The minimum daily free chlorine residual value for entry point readings for the Catskill/Delaware System from sites 1S03 (Tunnel 1) was 0.52 mg/L, 1S03A (Tunnel 2) was 0.85 mg/L, and 1S03B (Tunnel 3) was 0.49 mg/L.

The Croton Filtration Plant was offline and thus there was no operational Croton entry point for the month of July.

4. *Distribution System Disinfection Residuals* (Section 141.71(b)(1)(iv) and 141.72(a)(4)):
Requirements met. All free chlorine residuals measured at compliance sites within the distribution system during the month were greater than or equal to 0.01 mg/L except for one sample that was 0.00 mg/L.

A total of 1249 distribution samples were tested for free chlorine residual this month. For all monthly distribution sites free chlorine residual ranged from 0.00 to 1.23 mg/L, and averaged 0.60 mg/L.

5. *Trihalomethane Monitoring / HAA5 Monitoring* (Section 141.71(b)(6)):
Requirements met. The results for the second quarter of 2020 were included in the report dated June 9, 2020 (for the May 2020 reporting period).

6. Total Coliform Monitoring (Section 141.71(b)(5)):
Requirements met. The results of monthly coliform monitoring performed in the distribution system are enclosed. A total of 846 compliance samples were tested for total coliform during this period. HPC were all ≤500 CFU/mL, equivalent to a measurable free chlorine residual. Zero percent of the samples had an undetectable free chlorine residual or HPC >500 CFU/mL. This meets the requirements that a free chlorine residual be maintained at representative points in the distribution system, and that no more than 5% of the free chlorine residual samples be undetectable in any two months. During the month, nine (9) samples tested positive for total coliform, and all samples were negative for *E. coli*.

- A sample collected on 07/4/2020 from Site 77150 (sample station north side of Linden Blvd, first sample station west of 230th Street) was positive for total coliform. Repeat sampling on 07/6/2020 was coliform negative at all locations.
- A sample collected on 07/6/2020 from Site 15150 (sample station in front of 1420 Grand Concourse) was positive for total coliform. Repeat sampling on 07/8/2020 coliform negative at all locations.
- A sample collected on 07/9/2020 from Site 55450 (sample station west side of Seguine Ave, first sample station south of Kingsland Street) was positive for total coliform. Repeat sampling on 07/11/2020 was coliform negative at all locations.
- A sample collected on 07/11/2020 from Site 50250 (sample station in front of 937 Victory Blvd) was positive for total coliform. Repeat sampling on 07/13/2020 was coliform negative at all locations.
- A sample collected on 07/14/2020 from Site 31450 (sample station in front of 22 Howard Street) was positive for total coliform. Repeat sampling on 07/16/2020 was coliform negative at all locations.
- A sample collected on 07/15/2020 from Site 78450 (sample station in front of 88-18 Hollis Court Blvd) was positive for total coliform. Repeat sampling on 07/17/2020 was coliform negative at all locations.
- A sample collected on 07/15/2020 from Site 51550 (sample station west side of Huguenot Ave, first sample station south of Sinclair Ave) was positive for total coliform. Repeat sampling on 07/17/2020 was coliform negative at all locations.
- A sample collected on 07/17/2020 from Site 78450 (sample station west side of Hollis Court Blvd, first sample station south of Hillside Ave) was positive for total coliform. Repeat sampling on 07/19/2020 was coliform negative at all locations.
- A sample collected on 07/24/2020 from Site 21350 (sample station in front of 1135 Decatur Street) was positive for total coliform. Repeat sampling on 07/26/2020 was coliform negative at all locations.

OTHER WATER QUALITY MONITORING

7. *Microbiological Monitoring:*
Coliform monitoring at distribution sites near first service connections, in response to source water having a turbidity >1.49 NTU, was not required this month, but all of these samples were negative for total coliform and *E. coli*.

The analyses of 403 distribution Operational samples resulted in eight (8) samples testing positive for total coliform. No *E. coli* were detected.

The analyses of 248 Pre-Finished samples resulted in eighteen (18) samples testing positive for total coliform. No *E. coli* were detected.

The analyses of 522 Autosampler Pre-finished samples resulted in seventeen (17) samples testing positive for total coliform. No *E. coli* were detected.

8. *Distribution Turbidity Monitoring:*
For distribution sites, turbidity ranged from 0.47 to 2.67 NTU and averaged 0.77 NTU for the month. This meets the MCL of 5 NTU for the monthly average of all distribution samples.

9. *Color Monitoring:*
The MCL of 15 units for color were met at each Catskill/Delaware entry point for the month. Daily analyses of entry point samples (93 samples in total), produced monthly average color value of seven (7) units for sites 1S03 (Tunnel 1) and 1S03B (Tunnel 3), and six (6) units for site 1S03A (Tunnel 2).

10. *Volatile Organic/TTHM/HAA5 Monitoring:*
Monthly Results: Due to a QC error, all TTHM and several other analytes were not reportable in all samples collected for monitoring VOC's and TTHM's on 7/7/2020 and were resampled on 7/28/2020. Forty (40) distribution and six (6) entry point samples were analyzed for volatile organic contaminants (VOC). All VOC's were below detection in all samples. Twenty (20) distribution samples were analyzed for TTHM and ranged from 35 µg/L to 73 µg/L. Three (3) entry point samples were analyzed for TTHM and ranged from 32 µg/L to 74 µg/L. Nineteen (19) distribution samples were analyzed for HAA5 and ranged from 4 µg/L to 55 µg/L. The value of 4 µg/L from site number 30150, collected on 7/7/2020, was not representative of normal conditions, as the water main had not been fully reopened following an emergency shutdown on 6/28/2020. Three (3) entry point samples were analyzed for HAA5 and ranged from 29 µg/L to 38 µg/L.

11. *Semivolatile and Other Organic Chemicals/parameters:*
EPA Method 525.3 monitoring for 112 compounds of specified and unspecified organic parameters was conducted on July 20, 2020 at the three (3) Catskill/Delaware entry points (1S07, 1S03A, and 1S03B), at Croton High Service entry point (1SCH3) which represented distribution Catskill/Delaware water, and six (6) distribution points. All semi-volatile organic contaminant samples from distribution sites and entry points were below detection limits.

Monitoring for Method 505 organohalide pesticides was conducted on July 27, 2020 at three Catskill/Delaware entry points (1S07, 1S03A, and 1S03B), and at the Croton High Service entry point (1SCH3) which represented distribution Catskill/Delaware water. All results were below detection.

12. *Fluoride Monitoring:*
Daily analyses of entry point samples (93 samples in total), produced monthly average fluoride levels of 0.72 mg/L for sites 1S03 (Tunnel 1), 1S03A (Tunnel 2), and 1S03B (Tunnel 3). The fluoride levels at the entry points did not exceed the MCL of 2.2 mg/L at any time during the month.

13. Other Monitoring:
Monitoring for Taste and Odor (T&O) compounds was conducted in July on eight (8) samples from New Croton Reservoir. Results from July 20 and July 29 sampling events are pending. Available results were ND for both Geosmin and 2-Methylisoborneol (MIB). Contract laboratory reports of available data are included as pdf files on the disc of electronic files enclosed with this report.

Please feel free to contact me at (845) 340-7701 if you would like to discuss any of this information in greater detail.

Sincerely,

Salomé Freud for SS

Steven C. Schindler
Director, Water Quality

Enclosure

cc:
by email
Mr. Andrew Brunsden, Inspector General for NYCDEP
Mr. Kenneth Kosinski, NYSDEC
Mr. David Kvinge, Westchester County Water Agency
Mr. Huan Li, NYCDOHMH
Ms. Millie Magraw, Westchester County Water Agency
Mr. Trevor McProud, NYCDOHMH
Mr. Andy Tse, NYSDOH
Mr. Steven Zahn, NYSDEC – Region 2

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RAW WATER FECAL COLIFORM CONCENTRATIONS
(FAD Requirement)

NYCDEP Division of Watershed Water Quality Operations

Catskill/Delaware System Raw Water Fecal Coliform Compliance Report

Hawthorne Laboratory, ELAP Lab ID No. 10771
15 Skyline Drive, Hawthorne, NY 10532
Deputy Chief: David Robinson
914-345-4973

Catskill/Delaware Public Water System at Shaft 18 (DEL18DT) - Raw Water				Period: 05/18 To: 07/20
Date	Number of Fecal Coliform Samples Examined per Month	Number of Fecal Coliform Samples with >20 colonies per 100 mL	Percent of Monthly Fecal Coliform Samples with >20 colonies per 100 mL	Percent of Monthly Fecal Coliform Samples with >20 colonies per 100 mL for Previous Six Months
5-18	31	0	0.00	0.00
6-18	30	0	0.00	0.00
7-18	31	0	0.00	0.00
8-18	31	0	0.00	0.00
9-18	30	2	6.67	1.30
10-18	31	2	6.45	2.17
11-18	30	0	0.00	2.19
12-18	31	0	0.00	2.17
1-19	31	0	0.00	2.17
2-19	28	0	0.00	2.21
3-19	31	0	0.00	1.10
4-19	30	0	0.00	0.00
5-19	31	0	0.00	0.00
6-19	30	0	0.00	0.00
7-19	31	0	0.00	0.00
8-19	31	0	0.00	0.00
9-19	30	0	0.00	0.00
10-19	31	0	0.00	0.00
11-19	30	0	0.00	0.00
12-19	31	0	0.00	0.00
1-20	31	0	0.00	0.00
2-20	29	0	0.00	0.00
3-20	31	0	0.00	0.00
4-20	30	0	0.00	0.00
5-20	31	0	0.00	0.00
6-20	30	0	0.00	0.00
7-20	31	0	0.00	0.00

D.W. Robinson 8/4/20

Reported by: David Robinson, Deputy Chief, Hawthorne Water Quality Operations 8/4/2020

All results that fall within the scope of the NELAP program meet that program's requirements unless stated in the qualifiers addendum printed at the end of this

RAW WATER TURBIDITY
(FAD Requirement)

NYCDEP Division of Watershed Water Quality Operations

Water Systems Operation Report - Catskill/Delaware System

Environmental Protection

Hawthorne Laboratory, ELAP Lab ID No. 10771
15 Skyline Drive, Hawthorne, NY 10532

Deputy Chief: David Robinson
914-345-4973

Catskill/Delaware Public Water System at Shaft 18 (DEL18DT) - Raw Water — **Period: July, 2020**

Date	Turbidity (NTU) 12 AM	4 AM	8 AM	12 PM	4 PM	8 PM	Total Coliform (Colonies per 100 mL)	Fecal Coliform (Colonies per 100 mL)
7/1/20	0.75	0.80	0.80	0.75	0.80	0.85	100	<1
7/2/20	0.80	0.70	0.75	0.80	0.80	0.85	640	<1
7/3/20	0.85	0.80	0.80	0.80	0.75	0.70	840	E2
7/4/20	0.70	0.75	0.75	0.80	0.75	0.75	900	E1
7/5/20	0.70	0.70	0.80	0.90	0.90	0.80	640	<1
7/6/20	0.75	0.75	0.85	0.90	0.80	0.85	760	E1
7/7/20	0.75	0.85	0.85	0.75	0.75	0.70	910	E2
7/8/20	0.70	0.70	0.65	0.75	0.65	0.65	1100	<1
7/9/20	0.75	0.75	0.80	0.80	0.85	0.70	760	E1
7/10/20	0.85	0.70	0.85	0.80	0.80	0.80	540	<1
7/11/20	0.70	0.75	0.75	0.70	0.65	0.75	E900	E2
7/12/20	0.70	0.80	0.70	0.80	0.75	0.75	E750	E2
7/13/20	0.80	0.75	0.70	0.75	0.75	0.75	E300	<1
7/14/20	0.70	0.85	0.75	0.70	0.70	0.80	E240	<1
7/15/20	0.75	0.70	0.75	0.70	0.75	0.75	E400	E1
7/16/20	0.80	0.80	0.85	0.70	0.80	0.75	E120	<1
7/17/20	0.85	0.80	0.80	0.70	0.70	0.75	E100	E1
7/18/20	0.70	0.75	0.75	0.85	0.80	0.80	E400	E1
7/19/20	0.80	0.80	0.85	0.85	0.85	0.85	E140	E1
7/20/20	0.85	1.0	0.90	0.85	0.85	0.85	E220	<1
7/21/20	0.90	0.80	0.85	0.75	0.90	0.80	E320	<1
7/22/20	0.80	0.85	0.75	0.80	0.85	0.90	E280	<1
7/23/20	0.80	0.80	0.85	0.90	0.90	0.85	E380	E2
7/24/20	0.85	0.90	0.90	0.85	0.80	0.85	480	E3
7/25/20	0.90	0.85	0.85	0.85	0.85	0.90	2900	<1
7/26/20	0.90	0.85	0.85	1.0	1.0	0.90	1600	E1
7/27/20	0.90	0.90	1.0	1.0	1.0	1.0	E850	E1
7/28/20	0.95	0.85	0.95	0.95	0.95	0.95	E750	<1
7/29/20	0.90	0.95	0.85	0.95	0.95	0.95	E650	E1
7/30/20	0.95	0.90	0.90	0.80	0.85	0.85	E750	<1
7/31/20	0.90	0.85	0.85	0.80	0.85	0.85	E650	E1

.: Aqueduct Shutdown, CONF: Confluent Growth (+ indicates positive coliform growth), LE: Lab Error, FE: Field Error,
E: estimated count based on non-ideal plate, >=: plate count may be biased low based on heavy growth, >: observed count replaced with dilution based value

1. Does a raw water turbidity M & R violation exist? ___ Yes _X_ No
2. Does the turbidity reading exceed 5 NTU at any time? ___ Yes X No
   If yes, check for MCL violation, and notify state by the end of the next business day.
3. Minimum number of microbiological samples required per week: __5__
4. A daily microbiological sample is required every day the raw water turbidity exceeds 1 NTU.

Additional Comments:

D.W. Robinson 8/4/20

Reported by: David Robinson, Deputy Chief, Hawthorne Water Quality Operations 8/4/2020

All results that fall within the scope of the NELAP program meet that program's requirements unless stated in the qualifiers addendum printed at the end of this report.

Report Printed on 08/03/2020 3:56 pm

NYCDEP Division of Watershed Water Quality Operations

Water Systems Operation Report - Qualifiers and Methods Addendum

Environmental Protection

Hawthorne Laboratory, ELAP Lab ID No. 10771
15 Skyline Drive, Hawthorne, NY 10532

Deputy Chief: David Robinson
914-345-4973

Data Qualifiers and Additional Notes

Period: July 2020

Date/Time	Site	Analytes Affected	Qualifier

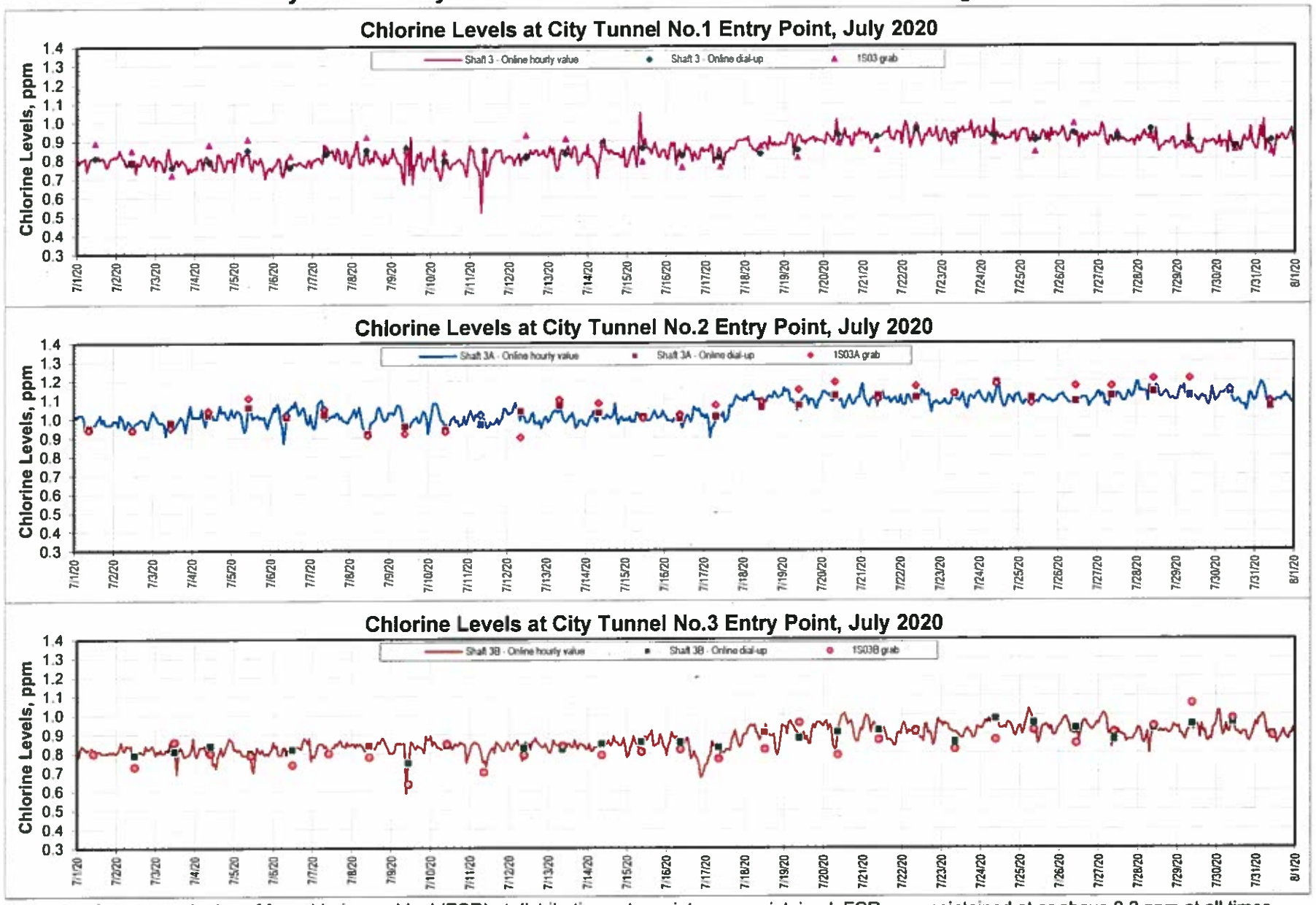
Analytical Methods

Coliform, Fecal	-	SM 9222D (2006)
Coliform, Total	-	SM 9222B (2006)
Turbidity	-	SM 2130B (01)

ENTRY POINT CHLORINE RESIDUAL
(FAD Requirement)

New York City Department of Environmental Protection
Bureau of Water Supply

City Tunnel Entry Point Residual Chlorine Continuous Monitoring Results



Note: Continuous monitoring of free chlorine residual (FCR) at distribution entry points was maintained. FCR was maintained at or above 0.2 ppm at all times. Since 3/8/20, all online readings, grab and online dial-up readings were recorded in Eastern Daylight Saving Time.

New York City Department of Environmental Protection
Bureau of Water Supply

Daily Minimum Chlorine Readings Recorded at Tunnel Entry Shafts for Catskill/Delaware System

Tunnel No.1 (Catskill) at Shaft 3			Tunnel No.2 (Delaware) at Shaft 3A			Tunnel No.3 (Cat/Del) at Shaft 3B		
Date	MinCl_1DL	Remark 1	Date	MinCl_2DL	Remark 2	Date	MinCl_3DL	Remark 3
07/01/20	0.71		07/01/20	0.92		07/01/20	0.78	
07/02/20	0.72		07/02/20	0.92		07/02/20	0.76	
07/03/20	0.72		07/03/20	0.90		07/03/20	0.67	
07/04/20	0.72		07/04/20	0.92		07/04/20	0.71	
07/05/20	0.70		07/05/20	0.93		07/05/20	0.70	
07/06/20	0.64		07/06/20	0.85		07/06/20	0.76	
07/07/20	0.76		07/07/20	0.93		07/07/20	0.77	
07/08/20	0.74		07/08/20	0.91		07/08/20	0.78	
07/09/20	0.61		07/09/20	0.90		07/09/20	0.49	
07/10/20	0.65		07/10/20	0.94		07/10/20	0.75	
07/11/20	0.52		07/11/20	0.94		07/11/20	0.66	
07/12/20	0.76		07/12/20	0.93		07/12/20	0.75	
07/13/20	0.71		07/13/20	0.93		07/13/20	0.79	
07/14/20	0.67		07/14/20	0.94		07/14/20	0.77	
07/15/20	0.74		07/15/20	0.96		07/15/20	0.78	
07/16/20	0.76		07/16/20	0.94		07/16/20	0.64	
07/17/20	0.76		07/17/20	0.94		07/17/20	0.74	
07/18/20	0.78		07/18/20	1.05		07/18/20	0.78	
07/19/20	0.79		07/19/20	1.04		07/19/20	0.83	
07/20/20	0.83		07/20/20	1.01		07/20/20	0.80	
07/21/20	0.86		07/21/20	1.06		07/21/20	0.83	
07/22/20	0.84		07/22/20	1.02		07/22/20	0.84	
07/23/20	0.85		07/23/20	1.04		07/23/20	0.86	
07/24/20	0.89		07/24/20	1.04		07/24/20	0.88	
07/25/20	0.87		07/25/20	1.06		07/25/20	0.82	
07/26/20	0.85		07/26/20	1.05		07/26/20	0.85	
07/27/20	0.83		07/27/20	1.04		07/27/20	0.82	
07/28/20	0.76		07/28/20	1.08		07/28/20	0.75	
07/29/20	0.71		07/29/20	1.07		07/29/20	0.81	
07/30/20	0.78		07/30/20	1.03		07/30/20	0.86	
07/31/20	0.81		07/31/20	1.05		07/31/20	0.84	

Legend: MinCl_1DL: Shaft 3's minimum chlorine level measured at the shaft and recorded at the location via data logger, in ppm.
MinCl_2DL: Shaft 3A's minimum chlorine level measured at the shaft and recorded at the location via data logger, in ppm.
MinCl_3DL: Shaft 3B's minimum chlorine level measured at the shaft and recorded at the location via data logger, in ppm.

New York City Department of Environmental Protection
Bureau of Water Supply

Daily Minimum Chlorine Readings Recorded at Croton Distribution Entry Points

Low Service			High Service		
Date	MinCl_1SCL1	Remark 1	Date	MinCl_1SCH3	Remark 2
07/01/20		No Croton water.	07/01/20		No Croton water.
07/02/20			07/02/20		
07/03/20			07/03/20		
07/04/20			07/04/20		
07/05/20			07/05/20		
07/06/20			07/06/20		
07/07/20			07/07/20		
07/08/20			07/08/20		
07/09/20			07/09/20		
07/10/20			07/10/20		
07/11/20			07/11/20		
07/12/20			07/12/20		
07/13/20			07/13/20		
07/14/20			07/14/20		
07/15/20			07/15/20		
07/16/20			07/16/20		
07/17/20			07/17/20		
07/18/20			07/18/20		
07/19/20			07/19/20		
07/20/20			07/20/20		
07/21/20			07/21/20		
07/22/20			07/22/20		
07/23/20			07/23/20		
07/24/20			07/24/20		
07/25/20			07/25/20		
07/26/20			07/26/20		
07/27/20			07/27/20		
07/28/20			07/28/20		
07/29/20			07/29/20		
07/30/20			07/30/20		
07/31/20			07/31/20		

Legend: MinCl_1SCL1: 1SCL1's minimum chlorine level measured and recorded at the location via data logger, in ppm.
MinCl_1SCH3: 1SCH3's minimum chlorine level measured and recorded at the location via data logger, in ppm.

Note: Croton water fed to High Service time period was determined by specific conductance greater than 150 uS/cm.

DISTRIBUTION SYSTEM DISINFECTION RESIDUAL
(FAD Requirement)

REPORT

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY, DISTRIBUTION LAB (NYSDOH ELAP #10770; USEPA #NY01351)

Residual Chlorine (mg/L) Distribution Samples

July 2020

All Distribution Sites			
Samples	Min	Max	Average
1249	0.00	1.23	0.60

Hach DPD Method (analyte is not ELAP certified)

SAMPLE NUMBER	SAMPLE DATE	SAMPLE SITE	LOCATION TYPE	RESIDUAL CHLORINE	COMMENT
20393	7/30/20	40200	Reg Stop	1.23	Max
18664	7/16/20	36500	Reg Stop	0.00	Min

A FCR is to be maintained at representative points in the distribution system and no more than 5% of the samples can be undetectable in any two months.

TOTAL COLIFORM MONITORING
(FAD Requirement)

REPORT

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY, DISTRIBUTION LAB (NYSDOH ELAP #10770; USEPA #NY01351)

Summary of Results for Microbiological Quality
Compliance Samples

7/1/2020 to 7/31/2020

Location	Number of Sampling Points	Number of Samples Collected	Number of Samples Tested	Number of Samples with Positive Coliform *	Number of Samples with Positive E. coli *	Percent of Samples with Positive Coliform **
Bronx	46	140	140	1	0	0.7%
Brooklyn	70	204	204	1	0	0.5%
Manhattan	57	172	172	1	0	0.6%
Queens ***	79	238	238	3	0	1.3%
Staten Island	29	92	92	3	0	3.3%
Ground Water Supply ***	-	-	-	-	-	-
Total	281	846	846	9	0	1.1%

* As determined by Colilert Quanti-Tray-18 Method (SM 9223 B).

** If more than 5.0 % of all monthly TCR compliance samples are positive for total coliform, a Level I Assessment must be conducted.

*** There was no groundwater sample this month because no well was in operation to distribution.

Supervisor: Roopa Aggarwal Date: 08/05/20

Director: Date: 8/5/2020

REPORT

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY, DISTRIBUTION LAB (NYSDOH ELAP #10770; USEPA #NY01351)

Results for Microbiological Quality
Positive Compliance Samples
7/1/2020 to 7/31/2020

Date	Time	Site Number	Boro	Location	Coliform *	E. coli *	Chlorine Residual (mg/L) **	Remarks
7/4/2020	8:24	77150	Queens	SS - N/S Linden Blvd, 1st SS W/O 230th St	1.0	<1	0.01	To Be Resampled
7/6/2020	9:47	15150	Bronx	SS - IFO 1420 E/S Grand Concourse, 1st SS S/O E 171st St, 12 "	20.7	<1	0.63	To Be Resampled
7/9/2020	8:57	55450	Staten Island	SS - W/S Seguine Ave, 1st SS S/O Kingsland St, 12 "	5.3	<1	0.02	To Be Resampled
7/11/2020	9:08	50250	Staten Island	SS - IFO 937 N/S Victory Blvd, 2nd SS E/O Highland Ave, 20 "	2.0	<1	0.76	To Be Resampled
7/14/2020	10:57	31450	Manhattan	SS - IFO 22 N/S Howard St, BTW Crosby & Lafayette Sts, 12 "	1.0	<1	0.35	To Be Resampled
7/15/2020	7:07	78450	Queens	SS - IFO 88-18 W/S Hollis Court Blvd, 2nd SS S/O Hillside Ave	4.2	<1	0.04	To Be Resampled
7/15/2020	7:31	51550	Staten Island	SS - W/S Huguenot Ave, 1st SS S/O Sinclair Avenue, 12"	1.0	<1	0.03	To Be Resampled
7/17/2020	9:19	78450	Queens	SS - W/S Hollis Court Blvd, 1st SS S/O Hillside Ave	2.0	<1	0.11	To Be Resampled
7/24/2020	10:31	21350	Brooklyn	SS - IFO 1135 W/S Decatur St, 2nd SS N/O Evergreen Ave, 12 "	12.4	<1	0.34	To Be Resampled

* As determined by Colilert Quanti-Tray-18 Method (SM 9223 B). Results expressed in "MPN/100 mL."

** As determined by Hach DPD Method (analyte is not ELAP certified).

Supervisor: Rupa Aggarwal Date: 08/07/20

Director: [signature] Date: 8/5/2020

REPORT

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY, DISTRIBUTION LAB (NYSDOH ELAP #10770; USEPA #NY01351)

Results for Microbiological Quality
Resamples for Positive Compliance Samples

7/1/2020 to 7/31/2020

Date	Time	Site Number	Boro	Location	Coliform *	E. coli *	Chlorine Residual (mg/L) **	Remarks
7/6/2020	10:43	77150	Queens	SS - N/S Linden Blvd, 1st SS E/O 230th St	<1	<1	0.12	Upstream
7/6/2020	11:03	77150	Queens	SS - N/S Linden Blvd, 1st SS W/O 230th St	<1	<1	0.09	Original Location
7/6/2020	11:21	77150	Queens	SS - N/S Linden Blvd, 2nd SS W/O 230th St	<1	<1	0.16	Downstream
7/8/2020	9:04	15150	Bronx	SS - E/S Grand Concourse, 1st SS N/O E 170th St, IFO 1420 Grand Concourse	<1	<1	0.63	Upstream
7/8/2020	9:23	15150	Bronx	SS - IFO 1420 E/S Grand Concourse, 1st SS S/O E 171st St, 12 "	<1	<1	0.68	Original Location
7/8/2020	9:28	15150	Bronx	SS - IFO 1454 E/S Grand Concourse, 1st SS N/O E 171st St	<1	<1	0.66	Downstream
7/11/2020	7:26	55450	Staten Island	SS - IFO 346 W/S Seguine Ave, BTW Keating & Kingsland Sts	<1	<1	0.21	Upstream
7/11/2020	7:43	55450	Staten Island	SS - W/S Seguine Ave, 1st SS S/O Kingsland St, 12 "	<1	<1	0.20	Original Location
7/11/2020	8:06	55450	Staten Island	SS - W/S Seguine Ave, 1st SS N/O Memo St	<1	<1	0.04	Downstream
7/13/2020	7:37	50250	Staten Island	SS - N/S Victory Blvd, 1st SS E/O Highland Ave	<1	<1	0.64	Upstream
7/13/2020	7:51	50250	Staten Island	SS - IFO 937 N/S Victory Blvd, 2nd SS E/O Highland Ave, 20 "	<1	<1	0.70	Original Location
7/13/2020	8:05	50250	Staten Island	SS - N/S Victory Blvd, 1st SS W/O Silver Lake Park Rd	<1	<1	0.97	Downstream
7/16/2020	8:07	31450	Manhattan	SS - N/S Howard St, BTW Broadway & Crosby St, IFO 34 Howard St.	<1	<1	0.34	Upstream
7/16/2020	8:23	31450	Manhattan	SS - IFO 22 N/S Howard St, BTW Crosby & Lafayette Sts, 12 "	<1	<1	0.35	Original Location
7/16/2020	8:41	31450	Manhattan	SS - N/S Howard St, BTW Centre & Lafayette Sts, OPP 3 Howard St.	<1	<1	0.32	Downstream

* As determined by Colilert Quanti-Tray-18 Method (SM 9223 B). Results expressed in "MPN/100 mL."
** As determined by Hach DPD Method (analyte is not ELAP certified).

Supervisor: Rupa Agrawal Date: 08/05/2020

Director: [signature] Date: 8/5/2020

REPORT

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY, DISTRIBUTION LAB (NYSDOH ELAP #10770; USEPA #NY01351)

Results for Microbiological Quality
Resamples for Positive Compliance Samples

7/1/2020 to 7/31/2020

Date	Time	Site Number	Boro	Location	Coliform *	E. coli *	Chlorine Residual (mg/L) **	Remarks
7/17/2020	8:22	51550	Staten Island	SS - W/S Huguenot Avenue, 1st SS N/O Sinclair Avenue, 12"	<1	<1	0.08	Upstream
7/17/2020	8:52	51550	Staten Island	SS - W/S Huguenot Ave, 1st SS S/O Sinclair Avenue, 12"	<1	<1	0.14	Original Location
7/17/2020	9:14	51550	Staten Island	SS - W/S Huguenot Ave, 1st SS S/O Sheldon Avenue, 12"	<1	<1	0.06	Downstream
7/17/2020	9:19	78450	Queens	SS - W/S Hollis Court Blvd, 1st SS S/O Hillside Ave	2.0	<1	0.11	Upstream
7/17/2020	9:34	78450	Queens	SS - IFO 88-18 W/S Hollis Court Blvd, 2nd SS S/O Hillside Ave	<1	<1	0.03	Original Location
7/17/2020	9:47	78450	Queens	SS - IFO 89-72 W/S Hollis Court Blvd, BTW 89th & 90th Aves	<1	<1	0.12	Downstream
7/19/2020	10:03	78450	Queens	SS - W/S Hollis Court Blvd, 1st SS S/O Hillside Ave	<1	<1	0.05	Upstream
7/19/2020	10:18	78450	Queens	SS - IFO 88-18 W/S Hollis Court Blvd, 2nd SS S/O Hillside Ave	<1	<1	0.12	Original Location
7/19/2020	10:38	78450	Queens	SS - IFO 89-72 W/S Hollis Court Blvd, BTW 89th & 90th Aves	<1	<1	0.13	Downstream
7/26/2020	9:15	21350	Brooklyn	SS - W/S Decatur St, 1st SS S/O Central Ave, IFO 1155 Decatur St.	<1	<1	0.37	Upstream
7/26/2020	9:22	21350	Brooklyn	SS - IFO 1135 W/S Decatur St, 2nd SS N/O Evergreen Ave, 12 "	<1	<1	0.39	Original Location
7/26/2020	9:28	21350	Brooklyn	SS - W/S Decatur St, 1st SS N/O Evergreen Ave, IFO 1119 Decatur St.	<1	<1	0.32	Downstream

* As determined by Colilert Quanti-Tray-18 Method (SM 9223 B). Results expressed in "MPN/100 mL."
** As determined by Hach DPD Method (analyte is not ELAP certified).

Supervisor: Rupa Aggarwal Date: 08/05/20

Director: [signature] Date: 8/5/2020

REPORT

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY, DISTRIBUTION LAB (NYSDOH ELAP #10770; USEPA #NY01351)

Results for Microbiological Quality
Free Chlorine Residual and Heterotrophic Plate Count
Compliance Samples

7/1/2020 to 7/31/2020

Location	Number of Sampling Points	Number of Samples Collected	Number of Samples Tested (Free Chlorine Residual)	Number of Samples Tested (Heterotrophic Plate Count)	Number of Samples with Free Chlorine Residual *		Range of Heterotrophic Plate Count (CFU/mL) for Free Chlorine Residual of 0.00 mg/L **	Number of Samples with Free Chlorine Residual of 0.00 mg/L and HPC > 500	Percent of Samples with Free Chlorine Residual of 0.00 mg/L and HPC > 500 ***
					< 0.20 mg/L	0.00 mg/L			
Bronx	46	140	140	92	2	0	--	0	0.0%
Brooklyn	70	204	204	135	9	0	--	0	0.0%
Manhattan	57	172	172	119	18	0	--	0	0.0%
Queens †	79	238	238	172	50	0	--	0	0.0%
Staten Island	29	92	92	63	15	0	--	0	0.0%
Ground Water Supply †	-	-	-	-	-	-	--	-	-
Total	281	846	846	581	94	0	--	0	0.0%

* Free chlorine residual is determined by Hach DPD Method (analyte is not ELAP certified).
** Heterotrophic plate count is determined by method SM 9215 B, PCA medium, 35°C, 48hrs. HPC result ≤ 500 CFU/mL is equivalent to a measurable FCR.
*** No more than 5 % of FCR samples shall be undetectable in any 2 consecutive months.

† There was no groundwater sample this month because no well was in operation to distribution.

Supervisor: Rupe Aggarwal Date: 08/05/20

Director: [signature] Date: 8/5/2020

MICROBIOLOGICAL MONITORING

REPORT

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY, DISTRIBUTION LAB (NYSDOH ELAP #10770; USEPA #NY01351)

Coliform Monitoring Results at Sample Sites near the First Service Connection When Source Water Turbidity Exceeds 1.49 NTU

July 2020

Source water		Distribution site near first service connection			
Date Turb>1.49 NTU	System	Sample Date	Sample Site	Coliform *	E.coli *

No official four-hour turbidity readings from Cat-Del source water were greater than 1.5 NTU this month.

*** As determined by Colilert Quanti-Tray-18 Method (SM 9223B). Results expressed in "MPN /100mL."**

DISTRIBUTION TURBIDITY MONITORING

REPORT

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY, DISTRIBUTION LAB (NYSDOH ELAP #10770; USEPA #NY01351)

Turbidity (NTU) Distribution Samples

July 2020

All Distribution Sites			
Samples	Min	Max	Average
1249	0.47	2.67	0.77

Analytical Method SM 2130 B

SAMPLE NUMBER	SAMPLE DATE	SAMPLE SITE	LOCATION TYPE	TURBIDITY	COMMENT
17460	7/7/20	30150	Reg Stop	2.67	Max
17936	7/10/20	50200	Reg Stop	0.47	Min

The monthly average of all distribution samples is not to exceed 5 NTU.

COLOR MONITORING

REPORT

NYC DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY DISTRIBUTION LABORATORY (NYSDOH ELAP #10770; USEPA #NY01351)

Color (U) for Distribution Entry Points

July 2020

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Catskill/Delaware 1S03 (Tunnel 1)	6	7	6	7	6	7	6	7	6	6	9	8	7	8	6	6	6	7	6	8	7	7	7	7	7	7	7	7	8	7	7
Catskill/Delaware 1S03A (Tunnel 2)	6	7	6	7	5	6	7	6	6	5	6	7	7	7	6	6	7	7	7	7	7	6	6	7	7	6	6	6	7	6	7
Catskill/Delaware 1S03B (Tunnel 3)	6	7	6	7	6	7	7	7	6	5	7	6	7	7	7	6	6	7	6	7	7	6	7	6	7	6	7	7	7	7	8
Croton System 1SCL1 [a]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Croton System 1SCH3 [b]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Analytical Method SM 2120 B. Apparent color.

The average of two consecutive samples from the same site is not to exceed the MCL of 15 color units.

[a] Croton System offline as of 12/24/19 at 1SCL1.

[b] Croton System offline as of 12/4/19 at 1SCH3.

Entry Point	Samples	Minimum	Maximum	Average
Catskill/Delaware 1S03 (Tunnel 1)	31	6	9	7
Catskill/Delaware 1S03A (Tunnel 2)	31	5	7	6
Catskill/Delaware 1S03B (Tunnel 3)	31	5	8	7
Croton System 1SCL1 [a]	-	-	-	-
Croton System 1SCH3 [b]	-	-	-	-

Supervisor _____ **Date** 8/3/2020

Director _____ **Date** 8/4/2020

FLUORIDE MONITORING

REPORT

NYC DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY DISTRIBUTION LABORATORY (NYSDOH ELAP #10770; USEPA #NY01351)

Fluoride (mg/L) for Distribution Entry Points

July 2020

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Catskill/Delaware 1S03 (Tunnel 1)	0.73	0.73	0.74	0.73	0.72	0.73	0.70	0.73	0.74	0.72	0.72	0.73	0.73	0.72	0.71	0.72	0.72	0.72	0.70	0.70	0.70	0.73	0.70	0.71	0.72	0.71	0.71	0.71	0.72	0.72	0.70
Catskill/Delaware 1S03A (Tunnel 2)	0.72	0.72	0.74	0.73	0.72	0.71	0.70	0.72	0.73	0.73	0.72	0.74	0.73	0.73	0.71	0.72	0.73	0.72	0.70	0.70	0.70	0.73	0.70	0.71	0.71	0.71	0.71	0.71	0.73	0.72	0.70
Catskill/Delaware 1S03B (Tunnel 3)	0.72	0.73	0.74	0.73	0.72	0.71	0.70	0.72	0.73	0.72	0.72	0.74	0.73	0.72	0.71	0.72	0.73	0.72	0.70	0.70	0.69	0.73	0.70	0.71	0.72	0.71	0.71	0.71	0.73	0.73	0.70
Croton System 1SCL1 [a]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Croton System 1SCH3 [b]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Analytical Method SM 4500 F C (97)

The average of two consecutive samples from the same distribution entry point site is not to exceed the MCL of 2.2 ppm.

[a] Croton System offline as of 12/24/19 at 1SCL1.

[b] Croton System offline as of 12/4/19 at 1SCH3.

Entry Point	Samples	Minimum	Maximum	Average
Catskill/Delaware 1S03 (Tunnel 1)	31	0.70	0.74	0.72
Catskill/Delaware 1S03A (Tunnel 2)	31	0.70	0.74	0.72
Catskill/Delaware 1S03B (Tunnel 3)	31	0.69	0.74	0.72
Croton System 1SCL1 [a]	-	-	-	-
Croton System 1SCH3 [b]	-	-	-	-

Supervisor _____ **Date** 8/3/2020

Director _____ **Date** 8/4/2020