NYC Environmental Protection

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August 10, 2021

Li Huang, P.E.
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 2021

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

Enclosed, please find the New York City Water Quality report for the month of **July 2021**. There was no well pumpage to distribution in the Groundwater System this month. Croton water was feeding into distribution for the month of July. 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, 2021 to July 31, 2021. 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 0.95 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 values for Catskill/Delaware System entry points from site 1S03 (Tunnel 1) was 0.59 mg/L, 1S03A (Tunnel 2) was 0.83 mg/L, and 1S03B (Tunnel 3) was 0.66 mg/L.

The Croton Filtration Plant was online and continuously feeding the Croton Low Service for the month of June. The Croton High Service entry point was offline for July. When the High Service pump is off, distribution Tunnel 3 water intermittently back feeds through the High Service tunnel to the Low Service entry point. The minimum daily free chlorine residual value for Croton entry points from site 1SCL1 (Low Service) was 0.58 mg/L.

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.

A total of 1319 distribution samples were tested for free chlorine residual during the month. For all monthly distribution sites free chlorine residual ranged from 0.01 to 1.17 mg/L and averaged 0.59 mg/L.

5. *Trihalomethane Monitoring / HAA5 Monitoring* (Section 141.71(b)(6)):
Requirements met. The results for the second quarter of 2021 were included in the report dated June 9, 2021 (for the May 2021 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 854 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, ten (10) samples tested positive for total coliform and negative for *E. coli*.

- A sample collected on 7/1/2021 from Site 78850 (sample station opposite 109-36 160 Street, Queens) was positive for total coliform. Resampling on 7/3/2021 was coliform negative at all locations.
- A sample collected on 7/12/2021 from Site 78850 (sample station opposite 109-36 160 Street, Queens) was positive for total coliform. Resampling on 7/14/2021 was coliform negative at all locations.
- A sample collected on 7/14/2021 from Site 36950 (sample station west side Main St. Roosevelt Island, second sample station north of bridge, Manhattan) was positive for total coliform. Resampling on 7/16/2021 was coliform negative at all locations.
- A sample collected on 7/20/2021 from Site 15450 (sample station in front 83 E. Gunhill Rd., Bronx) was positive for total coliform. Resampling on 7/22/2021 was coliform negative at all locations.
- A sample collected on 7/24/2021/ from Site 20050 (sample station north side Ave U, first sample station west of E 65th St, Brooklyn) was positive for total coliform. Resampling on 7/26/2021 was coliform negative at all locations.
- A sample collected on 7/24/2021 from Site 29850 (sample station in front of 1425 east side Pennsylvania Ave, Brooklyn) was positive for total coliform. Resampling on 7/26/2021 was coliform negative at all locations.
- A sample collected on 7/25/2021 from Site 21950 (sample station in front of 992 west side Nostrand Ave, Brooklyn) was positive for total coliform. Resampling on 7/27/2021 was coliform negative at all locations.
- A sample collected on 7/25/2021 from Site 25950 (sample station in front of 2187 Flatbush Ave, Brooklyn) in was positive for total coliform. Resampling on 7/27/2021 was coliform negative at all locations.
- A sample collected on 7/29/2021 from Site 22550 (sample station in front of P.S. 97 opposite 870-86 Stillwell Ave, Brooklyn) was positive for total coliform. Resampling on 7/31/2021 was coliform negative at all locations.
- A sample collected on 7/31/2021 from Site 41450 (sample station opposite 18-20 Decatur St, Queens) was positive for total coliform. Resampling on 8/2/2021 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 these samples were negative for total coliform and *E. coli*.

The analyses of 465 distribution Operational samples resulted in eleven (11) samples testing positive for total coliform. No *E. coli* were detected.

The analyses of 248 Pre-Finished samples resulted in nine (9) samples testing positive for total coliform. No *E. coli* were detected.

The analyses of 496 Autosampler Pre-finished samples resulted in nine (9) samples testing positive for total coliform. No *E. coli* were detected.

8. *Distribution Turbidity Monitoring:*
For distribution sites, turbidity ranged from <0.10 to 4.58 NTU and averaged 0.64 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 was met for the month. Daily analyses of entry point samples (124 samples in total), produced monthly average color values of 6 units for sites 1S03 (Tunnel 1) and 1S03A (Tunnel 2), 7 units for site 1S03B (Tunnel 3), and 4 units for site 1SCL1 (Croton Low Service).

10. *Volatile Organic/TTHM/HAA5 Monitoring:*
Monthly Results: Twenty-one (21) distribution and four (4) entry point samples were collected for volatile organic contaminant (VOC) analysis. All VOC samples from distribution sites and entry points were below detection. Twenty-one (21) TTHM distribution samples were collected ranging from 20 µg/L to 62 µg/L. Four (4) TTHM entry point samples were collected ranging from 14 µg/L to 51 µg/L. Twenty-one (21) HAA5 distribution samples were collected ranging from 16 µg/L to 53 µg/L. Four (4) HAA5 entry point samples were collected ranging from 11 µg/L to 36 µg/L.

11. *Semivolatile and Other Organic Chemicals/parameters:*
Monitoring for Method 505 organohalide pesticides was conducted on July 26, 2021 at three (3) Catskill/Delaware entry points (1S07, 1S03A, and 1S03B), and at the Croton Low Service entry point (1SCL1) and Croton High Service entry point (1SCH3) which represented distribution Catskill/Delaware water. All results were below detection.

Quarterly monitoring for the two compounds 1,2-Dibromo-3-chloropropane and 1,2-Dibromoethane by EPA Method 524.3 SIM, determination of micro extractables, was conducted at the three (3) Catskill/Delaware entry points (1S07, 1S03A, and 1S03B), at the Croton Low Service entry point (1SCL1) and Croton High Service entry point (1SCH3) which represented distribution Catskill/Delaware water, and one (1) distribution sampling site (50250) on July 21, 2021. All sample results were below detection.

EPA Method 525.3 monitoring for 112 compounds of specified and unspecified organic parameters was conducted on July 19, 2021 at the three (3) Catskill/Delaware entry points (1S07, 1S03A, and 1S03B), at the Croton Low Service entry point (1SCL1) and Croton High Service entry point (1SCH3) which represented distribution Catskill/Delaware water, and six (6) distribution points. All semi-volatile organic contaminant samples were below detection limits.

12. *Fluoride Monitoring:*
Daily analyses of entry point samples (124 samples in total), produced monthly average fluoride levels of 0.71 mg/L for sites 1S03 (Tunnel 1), 1S03A (Tunnel 2), and 1S03B (Tunnel 3), and 0.72 mg/L for site 1SCL1 (Croton Low Service). The fluoride levels at the entry points did not exceed the MCL of 2.2 mg/L at any time during the month.

Please feel free to contact me at (718) 595-5367 or sfreud@dep.nyc.gov if you would like to discuss any of this information in greater detail.

Sincerely,

Salome Freud

Salome Freud
Deputy Director of Water Quality & Innovation

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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Coliform Resample for Positive Compliance Samples	*(NYC_Micro_Compliance_Resamples_202107.xls)*
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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: 08/19 To: 07/21
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
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
8-20	31	1	3.23	0.54
9-20	30	1	3.33	1.09
10-20	31	0	0.00	1.09
11-20	30	0	0.00	1.09
12-20	31	0	0.00	1.09
1-21	31	0	0.00	1.09
2-21	28	0	0.00	0.55
3-21	31	0	0.00	0.00
4-21	30	0	0.00	0.00
5-21	31	0	0.00	0.00
6-21	30	0	0.00	0.00
7-21	31	0	0.00	0.00

T.W Robinson 8/5/21

Reported by: David Robinson, Deputy Chief, Hawthorne Water Quality Operations 8/4/2021

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.

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, 2021**

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)
7/1/21	0.70	0.70	0.80	0.70	0.80	0.75	E12	E2
7/2/21	0.75	0.80	0.75	0.70	0.65	0.70	E16	<1
7/3/21	0.75	0.70	0.75	0.65	0.65	0.65	>=66	E16
7/4/21	0.65	0.70	0.70	0.65	0.65	0.65	E25	E1
7/5/21	0.65	0.65	0.65	0.70	0.70	0.85	E35	<1
7/6/21	0.80	0.80	0.80	0.80	0.85	0.90	E24	E3
7/7/21	0.85	0.80	0.85	0.75	0.85	0.80	E55	E2
7/8/21	0.85	0.80	0.85	0.80	0.80	0.75	E65	<1
7/9/21	0.70	0.85	0.85	0.90	0.75	0.90	E55	E4
7/10/21	0.85	0.85	0.75	0.70	0.70	0.70	E30	E10
7/11/21	0.70	0.60	0.60	0.85	0.75	0.90	>=E45	E2
7/12/21	0.80	0.75	0.95	0.65	0.70	0.60	210	E1
7/13/21	0.60	0.65	0.65	0.70	0.70	0.65	E240	E5
7/14/21	0.70	0.70	0.65	0.70	0.75	0.75	E130	E6
7/15/21	0.80	0.85	0.90	0.75	0.75	0.75	E120	E3
7/16/21	0.80	0.80	0.80	0.75	0.75	0.80	E100	<1
7/17/21	0.80	0.80	0.70	0.70	0.65	0.60	E60	<1
7/18/21	0.65	0.70	0.70	0.75	0.65	0.70	E380	E15
7/19/21	0.70	0.65	0.65	0.70	0.85	0.75	E120	E7
7/20/21	0.90	0.75	0.90	0.65	0.60	0.60	E120	<1
7/21/21	0.65	0.65	0.65	0.65	0.65	0.60	E60	E2
7/22/21	0.65	0.60	0.65	0.60	0.70	0.70	E80	<1
7/23/21	0.70	0.70	0.70	0.55	0.65	0.70	E40	E1
7/24/21	0.65	0.60	0.60	0.50	0.55	0.60	E40	<1
7/25/21	0.60	0.60	0.60	0.60	0.73*	0.60	E40	E2
7/26/21	0.60	0.65	0.65	0.65	0.65	0.80	E20	<1
7/27/21	0.60	0.65	0.65	0.60	0.60	0.65	<20	<1
7/28/21	0.65	0.60	0.65	0.60	0.60	0.75	E50	E1
7/29/21	0.70	0.65	0.60	0.70	0.65	0.70	E40	E1
7/30/21	0.60	0.65	0.55	0.60	0.60	0.60	E20	E2
7/31/21	0.60	0.65	0.60	0.60	0.60	0.70	<10	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: * - Continuous monitoring result reported for the 4 PM reading on 7/25, as sampling for the grab was missed.

D. W. Robinson 8/5/21

Reported by: David Robinson, Deputy Chief, Hawthorne Water Quality Operations 8/4/2021

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 08/04/2021 3:07 pm

NYCDEP Division of Watershed Water Quality Operations

Water Systems Operation Report - Qualifiers and Methods Addendum

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 2021

Date/Time	Site	Analytes Affected	Qualifier
7/11/21 09:53	DEL18DT	Total Coliform	QC blank contamination. End Control contamination plate 9 (second dilution affected)

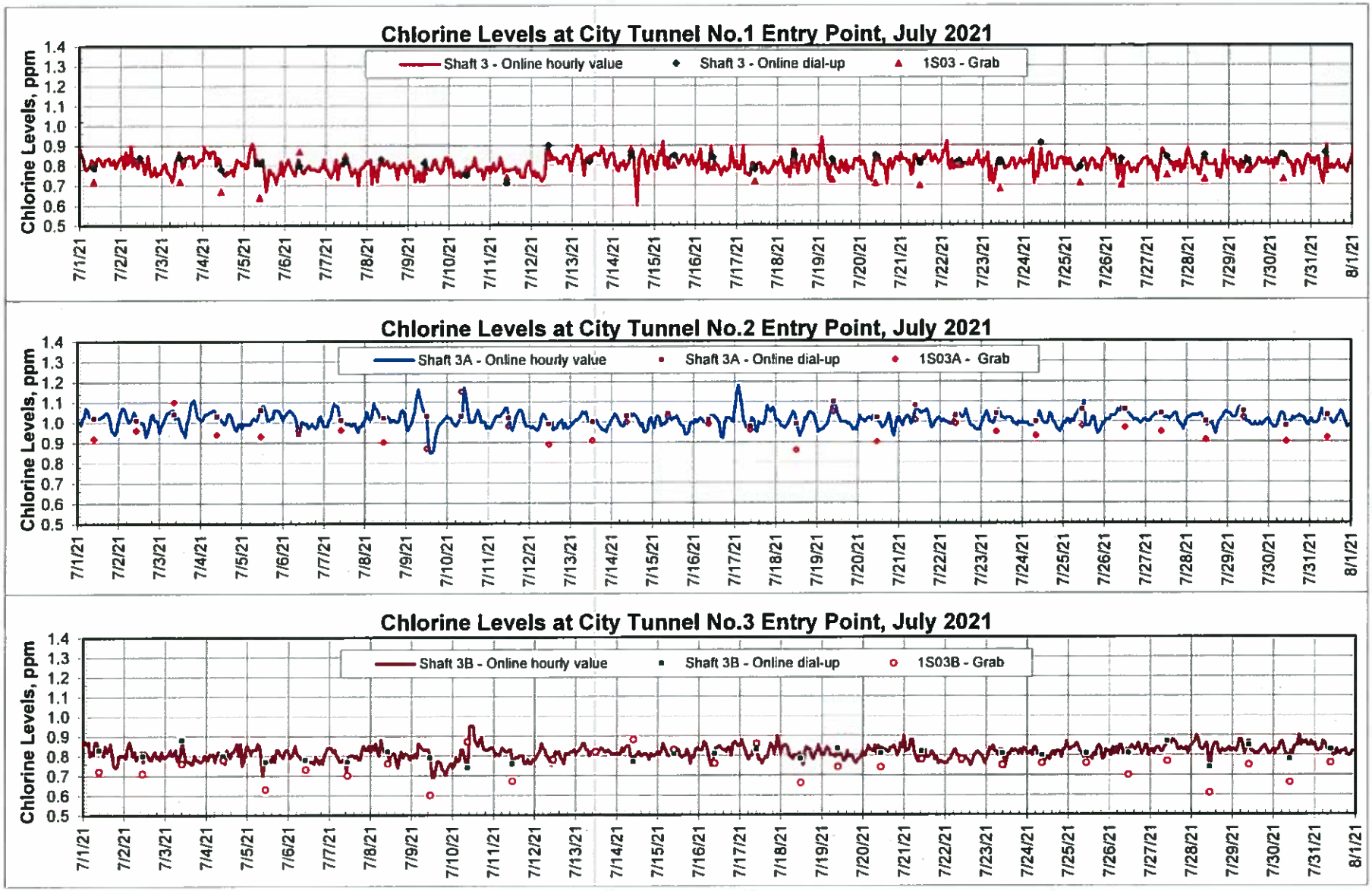
Analytical Methods

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 above 0.2 ppm at all times.

Since 3/14/2021 grab and online dial-up readings were recorded in Eastern Daylight Time.

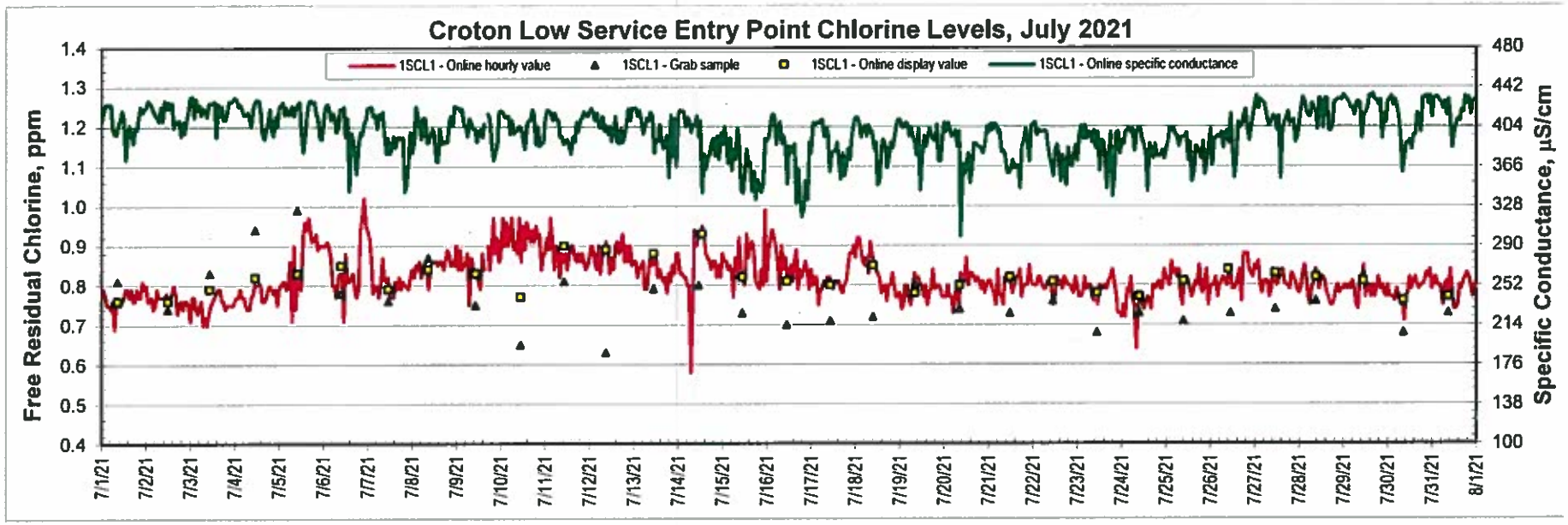
New York City Department of Environmental Protection
Bureau of Water Supply

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
07/01/21	0.76		07/01/21	0.94		07/01/21	0.72	
07/02/21	0.74		07/02/21	0.93		07/02/21	0.76	
07/03/21	0.72		07/03/21	0.91		07/03/21	0.74	
07/04/21	0.71		07/04/21	0.96		07/04/21	0.73	
07/05/21	0.66		07/05/21	0.98		07/05/21	0.74	
07/06/21	0.74		07/06/21	0.94		07/06/21	0.73	
07/07/21	0.72		07/07/21	0.94		07/07/21	0.70	
07/08/21	0.70		07/08/21	0.96		07/08/21	0.73	
07/09/21	0.70		07/09/21	0.83		07/09/21	0.66	
07/10/21	0.69		07/10/21	0.96		07/10/21	0.73	
07/11/21	0.71		07/11/21	0.96		07/11/21	0.73	
07/12/21	0.71		07/12/21	0.95		07/12/21	0.74	
07/13/21	0.68		07/13/21	0.94		07/13/21	0.79	
07/14/21	0.59		07/14/21	0.94		07/14/21	0.76	
07/15/21	0.74		07/15/21	0.93		07/15/21	0.76	
07/16/21	0.73		07/16/21	0.91		07/16/21	0.73	
07/17/21	0.63		07/17/21	0.92		07/17/21	0.73	
07/18/21	0.68		07/18/21	0.91		07/18/21	0.74	
07/19/21	0.70		07/19/21	0.95		07/19/21	0.75	
07/20/21	0.69		07/20/21	0.91		07/20/21	0.80	
07/21/21	0.72		07/21/21	0.96		07/21/21	0.75	
07/22/21	0.74		07/22/21	0.95		07/22/21	0.74	
07/23/21	0.64		07/23/21	0.98		07/23/21	0.74	
07/24/21	0.70		07/24/21	0.94		07/24/21	0.75	
07/25/21	0.74		07/25/21	0.94		07/25/21	0.77	
07/26/21	0.63		07/26/21	0.97		07/26/21	0.78	
07/27/21	0.71		07/27/21	0.95		07/27/21	0.80	
07/28/21	0.71		07/28/21	0.94		07/28/21	0.72	
07/29/21	0.72		07/29/21	0.97		07/29/21	0.80	
07/30/21	0.74		07/30/21	0.97		07/30/21	0.74	
07/31/21	0.64		07/31/21	0.96		07/31/21	0.78	

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
Croton Distribution 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 3/14/21, all grab and online display 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 Croton Distribution Entry Points

Low Service			High Service		
Date	MinCl_1SCL1	Remark 1	Date	MinCl_1SCH3	Remark 2
07/01/21	0.69		07/01/21		
07/02/21	0.69		07/02/21		
07/03/21	0.66		07/03/21		
07/04/21	0.70		07/04/21		
07/05/21	0.64		07/05/21		
07/06/21	0.63		07/06/21		
07/07/21	0.66		07/07/21		
07/08/21	0.75		07/08/21		
07/09/21	0.75		07/09/21		
07/10/21	0.77		07/10/21		
07/11/21	0.78		07/11/21		
07/12/21	0.78		07/12/21		
07/13/21	0.69		07/13/21		
07/14/21	0.58		07/14/21		
07/15/21	0.58		07/15/21		
07/16/21	0.66		07/16/21		No Croton Water
07/17/21	0.72		07/17/21		
07/18/21	0.73		07/18/21		
07/19/21	0.71		07/19/21		
07/20/21	0.68		07/20/21		
07/21/21	0.72		07/21/21		
07/22/21	0.74		07/22/21		
07/23/21	0.70		07/23/21		
07/24/21	0.62		07/24/21		
07/25/21	0.75		07/25/21		
07/26/21	0.73		07/26/21		
07/27/21	0.68		07/27/21		
07/28/21	0.73		07/28/21		
07/29/21	0.71		07/29/21		
07/30/21	0.68		07/30/21		
07/31/21	0.70		07/31/21		

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 was determined by specific conductance greater than 150 µS/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 2021

All Distribution Sites			
Samples	Min	Max	Average
1319	0.01	1.17	0.59

Hach DPD Method (analyte is not ELAP certified)

SAMPLE NUMBER	SAMPLE DATE	SAMPLE SITE	LOCATION TYPE	RESIDUAL CHLORINE	COMMENT
21292	7/10/21	40200	Reg Stop	1.17	Max
21344	7/11/21	55450	Reg Stop	0.01	Min
22876	7/24/21	40150	Reg Stop	0.01	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)

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

7/1/2021 to 7/31/2021

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 CFU/mL	Percent of Samples with Free Chlorine Residual of 0.00 mg/L and HPC > 500 CFU/mL ***
					< 0.20 mg/L	0.00 mg/L			
Bronx	46	140	140	95	2	0	--	0	0.0%
Brooklyn	70	215	215	147	3	0	--	0	0.0%
Manhattan	57	173	173	122	6	0	--	0	0.0%
Queens †	79	240	240	177	44	0	--	0	0.0%
Staten Island	29	86	86	62	8	0	--	0	0.0%
Ground Water Supply †	-	-	-	-	-	-	--	-	-
Total	281	854	854	603	63	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: Rupa Aggarwal Date: 08/03/21

Director: [signature] Date: 8/4/2021

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

7/1/2021 to 7/31/2021

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	215	215	5	0	2.3%
Manhattan	57	173	173	1	0	0.6%
Queens ***	79	240	240	3	0	1.3%
Staten Island	29	86	86	0	0	0.0%
Ground Water Supply ***	-	-	-	-	-	-
Total	281	854	854	10	0	1.2%

* 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: Rupa Aggarwal Date: 08/03/21

Director: [signature] Date: 8/4/2021

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
7/1/2021 to 7/31/2021

Date	Time	Site Number	Boro	Location	Coliform *	E. coli *	Chlorine Residual (mg/L) **	Remarks
7/1/2021	8:18	78850	Queens	SS - OPP 109-36 E/S 160th St, 2nd SS N/O 110th Ave	1.0	<1	0.55	To Be Resampled
7/12/2021	10:30	78850	Queens	SS - OPP 109-36 E/S 160th St, 2nd SS N/O 110th Ave	1.0	<1	0.15	To Be Resampled
7/14/2021	11:57	36950	Manhattan	SS - W/S Main St. Roosevelt Island - Operating Corporation, 591 Main St	165.2	<1	0.29	To Be Resampled
7/20/2021	10:01	15450	Bronx	SS - IFO 79E N/S East Gun Hill Rd, 1st SS W/O Rochambeau Ave, IFO 83 E. Gunhill Rd.20 "	3.1	<1	1.01	To Be Resampled
7/24/2021	7:43	20050	Brooklyn	SS - N/S Ave U, 1st SS W/O E 65th St, 12 "	165.2	<1	0.20	To Be Resampled
7/24/2021	8:17	29850	Brooklyn	SS - IFO 1425 E/S Pennsylvania Ave, 2nd SS S/O Schroeders Ave, 20 "	144.5	<1	0.55	To Be Resampled
7/25/2021	10:33	21950	Brooklyn	SS - IFO 992 W/S Nostrand Ave, 2nd SS S/O Sullivan Pl, 12 "	3.1	<1	0.54	To Be Resampled
7/25/2021	9:24	25950	Brooklyn	SS - E/S Flatbush Ave, 2nd SS N/O Ave R, IFO 2187 Flatbush Ave 16 "	13.7	<1	0.45	To Be Resampled
7/29/2021	8:24	22550	Brooklyn	SS - E/S Stillwell Ave, 1st SS N/O Ave S, IFO P.S. 97 OPP 870-86 Stillwell Ave, 20 "	2.0	<1	0.73	To Be Resampled
7/31/2021	10:34	41450	Queens	SS - OPP 18-20 W/S Decatur St, 2nd SS S/O Forest Ave, 12 "	3.1	<1	0.16	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: 08/03/21

Director: Date: 8/4/2021

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

7/1/2021 to 7/31/2021

Date	Time	Site Number	Boro	Location	Coliform *	E. coli *	Chlorine Residual (mg/L) **	Remarks
7/3/2021	15:28	78850	Queens	SS - E/S 160th St, 1st SS S/O 109th Ave (IFO Community Center)	<1	<1	0.28	Upstream
7/3/2021	15:40	78850	Queens	SS - OPP 109-36 E/S 160th St, 2nd SS N/O 110th Ave	<1	<1	0.32	Original Location
7/3/2021	16:05	78850	Queens	SS - E/S 160th St, 1st SS N/O 110th Ave, OPP 109-52 160th St	<1	<1	0.26	Downstream
7/14/2021	10:34	78850	Queens	SS - E/S 160th St, 1st SS S/O 109th Ave (IFO Community Center)	<1	<1	0.23	Upstream
7/14/2021	10:45	78850	Queens	SS - OPP 109-36 E/S 160th St, 2nd SS N/O 110th Ave	<1	<1	0.30	Original Location
7/14/2021	10:56	78850	Queens	SS - E/S 160th St, 1st SS N/O 110th Ave, OPP 109-52 160th St	<1	<1	0.34	Downstream
7/16/2021	8:46	36950	Manhattan	SS - W/S Main St. S/O Coller St	<1	<1	0.20	Upstream
7/16/2021	8:52	36950	Manhattan	SS - W/S Main St. Roosevelt Island - Operating Corporation, 591 Main St	<1	<1	0.29	Original Location
7/16/2021	9:03	36950	Manhattan	SS - W/s Main St, IFOoctagon park	<1	<1	0.27	Downstream
7/22/2021	8:14	15450	Bronx	SS - N/S E Gun Hill Rd, 1st SS E/O De Kalb Ave, IFO 51 E. Gunhill Rd.	<1	<1	0.91	Upstream
7/22/2021	8:39	15450	Bronx	SS - IFO 79E N/S East Gun Hill Rd, 1st SS W/O Rochambeau Ave, IFO 83 E. Gunhill Rd.20 "	<1	<1	0.91	Original Location
7/22/2021	9:00	15450	Bronx	SS - N/S E Gun Hill Rd, BTW Rochambeau & Bainbridge Aves, IFO 147 E. Gunhill Rd.	<1	<1	0.91	Downstream
7/26/2021	9:00	20050	Brooklyn	SS - N/S Ave U, 1st SS E/O E 64th St	<1	<1	0.30	Upstream
7/26/2021	9:09	20050	Brooklyn	SS - N/S Ave U, 1st SS W/O E 65th St, 12 "	<1	<1	0.20	Original Location
7/26/2021	9:20	20050	Brooklyn	SS - N/S Ave U, BTW E 65th & E 66th Sts	<1	<1	0.20	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: 08/03/21

Director: [signature] Date: 8/4/2021

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

7/1/2021 to 7/31/2021

Date	Time	Site Number	Boro	Location	Coliform *	E. coli *	Chlorine Residual (mg/L) **	Remarks
7/26/2021	10:27	29850	Brooklyn	SS - E/S Pennsylvania Ave, 1st SS S/O Schroeders Ave	<1	<1	0.52	Upstream
7/26/2021	10:34	29850	Brooklyn	SS - IFO 1425 E/S Pennsylvania Ave, 2nd SS S/O Schroeders Ave, 20 "	<1	<1	0.43	Original Location
7/26/2021	10:42	29850	Brooklyn	SS - E/S Pennsylvania Ave, 3rd SS S/O Schroeders Ave	<1	<1	0.42	Downstream
7/27/2021	8:28	21950	Brooklyn	SS - IFO 986 W/S Nostrand Ave, 1st SS S/O Sullivan Pl.,	<1	<1	0.55	Upstream
7/27/2021	8:43	21950	Brooklyn	SS - IFO 992 W/S Nostrand Ave, 2nd SS S/O Sullivan Pl, 12 "	<1	<1	0.57	Original Location
7/27/2021	8:57	21950	Brooklyn	SS - IFO 1000 W/S Nostrand Ave, 1st SS N/O Empire Blvd	<1	<1	0.54	Downstream
7/27/2021	9:31	25950	Brooklyn	SS - E/S Flatbush Ave, 1st SS S/O Quentin Rd	<1	<1	0.52	Upstream
7/27/2021	9:45	25950	Brooklyn	SS - E/S Flatbush Ave, 2nd SS N/O Ave R, IFO 2187 Flatbush Ave 16 "	<1	<1	0.55	Original Location
7/27/2021	10:00	25950	Brooklyn	SS - E/S Flatbush Ave, 1st SS N/O Ave R	<1	<1	0.58	Downstream
7/31/2021	7:46	22550	Brooklyn	SS - E/S Stillwell Ave, 1st SS S/O Highlawn Ave, IFO P.S. 97 (end of bldg)	<1	<1	0.70	Upstream
7/31/2021	7:56	22550	Brooklyn	SS - E/S Stillwell Ave, 1st SS N/O Ave S, IFO P.S. 97 OPP 870-86 Stillwell Ave, 20 "	<1	<1	0.60	Original Location
7/31/2021	8:08	22550	Brooklyn	SS - E/S Stillwell Ave, 1st SS S/O Ave S	<1	<1	0.57	Downstream
8/2/2021	7:30	41450	Queens	SS - IFO 18-39 W/S Decatur St, 1st SS S/O Forest Ave	<1	<1	0.09	Upstream
8/2/2021	7:54	41450	Queens	SS - OPP 18-20 W/S Decatur St, 2nd SS S/O Forest Ave, 12 "	<1	<1	0.07	Original Location
8/2/2021	8:18	41450	Queens	SS - IFO 18-07 W/S Decatur St, 1st SS N/O Seneca Ave	<1	<1	0.06	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: 08/03/21

Director: Date: 8/4/2021

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 2021

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 2021

All Distribution Sites			
Samples	Min	Max	Average
1319	<0.10	4.58	0.64

Analytical Method SM 2130 B

SAMPLE NUMBER	SAMPLE DATE	SAMPLE SITE	LOCATION TYPE	TURBIDITY	COMMENT
21556	7/13/21	43950	Reg Stop	4.58	Max
22258	7/19/21	14650	Reg Stop	<0.10	Min
22262	7/19/21	3SC26	Reg Stop	<0.10	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	7	6	7	7	6	6	6	7	6	6	7	6	6	6	7	6	6	7	6	6	6	6	7	7	7	5	6	6	6
Catskill/Delaware 1S03A (Tunnel 2)	6	7	6	6	7	7	7	7	6	7	7	7	7	6	6	6	6	7	6	7	6	6	7	6	6	6	6	6	6	7	7
Catskill/Delaware 1S03B (Tunnel 3)	6	8	7	7	7	7	6	6	7	7	6	6	7	6	7	7	6	7	6	6	7	6	6	6	7	7	6	5	7	7	6
Croton System 1SCL1 [a]	4	3	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	4
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 online as of 10/27/20 at 1SCL1.

[b] Croton System offline as of 5/28/21 at 1SCH3.

Entry Point	Samples	Minimum	Maximum	Average
Catskill/Delaware 1S03 (Tunnel 1)	31	5	7	6
Catskill/Delaware 1S03A (Tunnel 2)	31	6	7	6
Catskill/Delaware 1S03B (Tunnel 3)	31	5	8	7
Croton System 1SCL1 [a]	31	3	4	4
Croton System 1SCH3 [b]				

Supervisor _____ Date 08/03/2021

Director _____ Date 8/5/2021

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 2021

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)	0.71	0.72	0.74	0.71	0.71	0.70	0.71	0.72	0.70	0.70	0.70	0.71	0.71	0.70	0.70	0.70	0.69	0.71	0.69	0.72	0.70	0.71	0.71	0.69	0.71	0.71	0.71	0.72	0.69	0.73	0.70
Catskill/Delaware 1S03A (Tunnel 2)	0.73	0.73	0.72	0.71	0.72	0.70	0.72	0.71	0.71	0.71	0.70	0.71	0.71	0.69	0.71	0.69	0.69	0.71	0.69	0.72	0.70	0.70	0.72	0.70	0.71	0.72	0.72	0.72	0.70	0.73	0.70
Catskill/Delaware 1S03B (Tunnel 3)	0.72	0.73	0.72	0.72	0.72	0.70	0.71	0.71	0.70	0.71	0.70	0.71	0.71	0.71	0.71	0.69	0.70	0.71	0.69	0.72	0.70	0.70	0.71	0.69	0.70	0.71	0.71	0.72	0.69	0.73	0.71
Croton System 1SCL1 [a]	0.69	0.69	0.73	0.68	0.69	0.70	0.68	0.75	0.70	0.70	0.70	0.73	0.73	0.72	0.72	0.72	0.71	0.75	0.72	0.75	0.73	0.74	0.72	0.72	0.72	0.73	0.71	0.72	0.71	0.74	0.72
Croton System 1SCH3 [b]																															

Analytical Method SM 4500 FC (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 online as of 10/27/20 at 1SCL1.

[b] Croton System offline as of 5/28/21 at 1SCH3.

Entry Point	Samples	Minimum	Maximum	Average
Catskill/Delaware 1S03 (Tunnel 1)	31	0.69	0.74	0.71
Catskill/Delaware 1S03A (Tunnel 2)	31	0.69	0.73	0.71
Catskill/Delaware 1S03B (Tunnel 3)	31	0.69	0.73	0.71
Croton System 1SCL1 [a]	31	0.68	0.75	0.72
Croton System 1SCH3 [b]				

Supervisor _____ **Date** 08/03/2021

Director _____ **Date** 8/5/2021