

Croton-Catskill Blend September 16 - October 7, 2002 Post Operations Report

Prepared by the Division of Drinking Water Quality Control

November 2002



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Deputy Commissioner
Bureau of Water Supply**

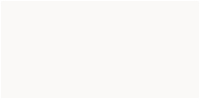
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Acknowledgements

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The Croton-Catskill Blend Operation was made possible through the coordinating efforts of staff from DWQC and the Division of Operations and Engineering. The following individuals were directly involved in the Croton-Catskill Blend Operation and should also be recognized: Anthony Fiore for providing water quality results and critical input to Croton Operations; Vinnie LoMonaco and Lori Tsaldaris for assisting with the Croton Laboratory and Croton Operations; Jim Morris and the Kensico Laboratory staff for assisting in the analysis of Croton samples; Karen Hacker, Frank Phelan and the Ben Nesin Laboratory staff for the analysis of Catskill samples; Joe Licari and Bob Waterhouse for coordinating all Croton Operations; and Jeff Helmuth for coordinating Catskill Operations.

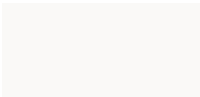
Project Summary

In response to increasing color in the New York City distribution areas served by the Croton System, New York City Department of Environmental Protection (NYCDEP) requested approval on August 27, 2002 from New York State Department of Health (NYSDOH) to blend source water from the Catskill water supply into the Croton supply. The NYSDOH granted the NYCDEP approval to blend the source waters on August 30, 2002. Copies of the letters are included in Appendix 1.

Due to the Drought Emergency Condition that the New York City has been in since March 2002, the initiation of the Croton-Catskill Blend was delayed until the color within the Croton Distribution areas had reached a significant level. In-City consumer complaints concerning the color of the Croton water rose sharply after the first week of September and as a result the Croton-Catskill blend was implemented. The objective during this year's Croton-Catskill blending operation was to maximize use of the Croton System during the Drought condition, but to improve water quality within the distribution system and decrease consumer complaints.

The Croton-Catskill Blend was initiated at 1500 hours on September 16, 2002 to improve color and to provide the highest water quality possible within the City's distribution system. The initial blend ratio was 35 MGD of Catskill water to 145 MGD Croton water. The blend ratio was established to begin supplementing the Croton water with the minimum amount of Catskill water that could be delivered through the Catskill Connection. During the first week of the blend the Croton source water intake location was also changed to increase the percentage of Croton water coming from the Cornell Dam (Gatehouse #1) versus the new Croton Lake Gatehouse.

The Croton-Catskill Blend operation and the intake changes made within the Croton System were successful in reducing the manganese concentrations within the New Croton Aqueduct and the color levels within the distribution system. Throughout the entire blending operation the Catskill flow was maintained at the 35 MGD rate. The Croton-Catskill blend was terminated at 1200 hours on 10/7/02 after the quality of the Croton raw water improved and stabilized at a level greater than that of the Catskill raw water. The City remained in a Drought Emergency following the termination of the Croton-Catskill Blend.



1. Introduction

1.1 Purpose of the Report

The purpose of this report is to summarize the operation of the Bureau of Water Supply's (NYCDEP) blending of Catskill System water with Croton System water during the fall of 2002. The report has been prepared in accordance with conditions set forth in the August 30, 2002 approval letter issued by the NYSDOH to the NYCDEP. The report includes the raw water quality data from the Catskill and Croton Systems, blended water quality data from Jerome Park Reservoir, flow and blend ratio operations data, In-City consumer complaints, and recommendations for future Croton-Catskill blending operations.

1.2 Statement of the Problem

New Croton Reservoir serves as the terminal reservoir for the New York City Croton Water Supply System. The Croton System supplies approximately 10% of the City's water demand via the New Croton Aqueduct and the City's Jerome Park Reservoir, which is located in the Bronx.

New Croton Reservoir is eutrophic and experiences anoxia in the hypolimnion during the summer months. As a result, iron and manganese in the sediments become reduced and enter the water column. After chlorination the dissolved manganese desolublizes, imparting a distinct color to the Croton System water within the distribution system. Rising color levels within the distribution system during the late summer months as a result of the elevated manganese concentrations have caused increases in consumer complaints. In past years, and depending on water storage levels, the DEP has reduced the Croton System flow, blended water from the Catskill System to reduce the manganese concentrations, or taken the Croton System off line to minimize the color in the City's Distribution System.

1.3 Description of Key Reservoirs

1.3.1 Ashokan Reservoir

The Ashokan Reservoir, located in Ulster County, New York, serves as the terminal reservoir for the New York City Water Supply's Catskill System (Figure 1.1). The major inflow to the Ashokan Reservoir is the Esopus Creek, which includes water that is diverted from the Schoharie Reservoir via the Shandaken Tunnel. Water leaving the Ashokan Reservoir enters the Catskill Aqueduct and travels to the Kensico Reservoir in Westchester County, where it mixes with water from the City's Delaware System. Upstream of the Kensico Reservoir the Catskill Aqueduct passes adjacent to the New Croton Reservoir, where Catskill System water can be transferred to the Croton System via the Catskill Connection at the New Croton Lake Gatehouse (CLGH) during blending operations.

1.3.2 New Croton Reservoir

New Croton Reservoir, located in Westchester County, New York, serves as the terminal reservoir for the New York City Water Supply's Croton System (Figure 1.1). The primary water input to New Croton Reservoir is from flow over the Muscoot Reservoir spillway and release from the north. Other direct inputs include the Kisco River from the south and numerous smaller streams. Water can be withdrawn from the New Croton Reservoir through a combination of intakes to obtain the best water quality. These intakes are located at two different depths at the New Croton Dam (GH#1) and three different depths at the CLGH. The CLGH is also the location where water from the Catskill Aqueduct can be blended via the Catskill Connection, and where chlorination occurs prior to the diversion of water to Jerome Park Reservoir.

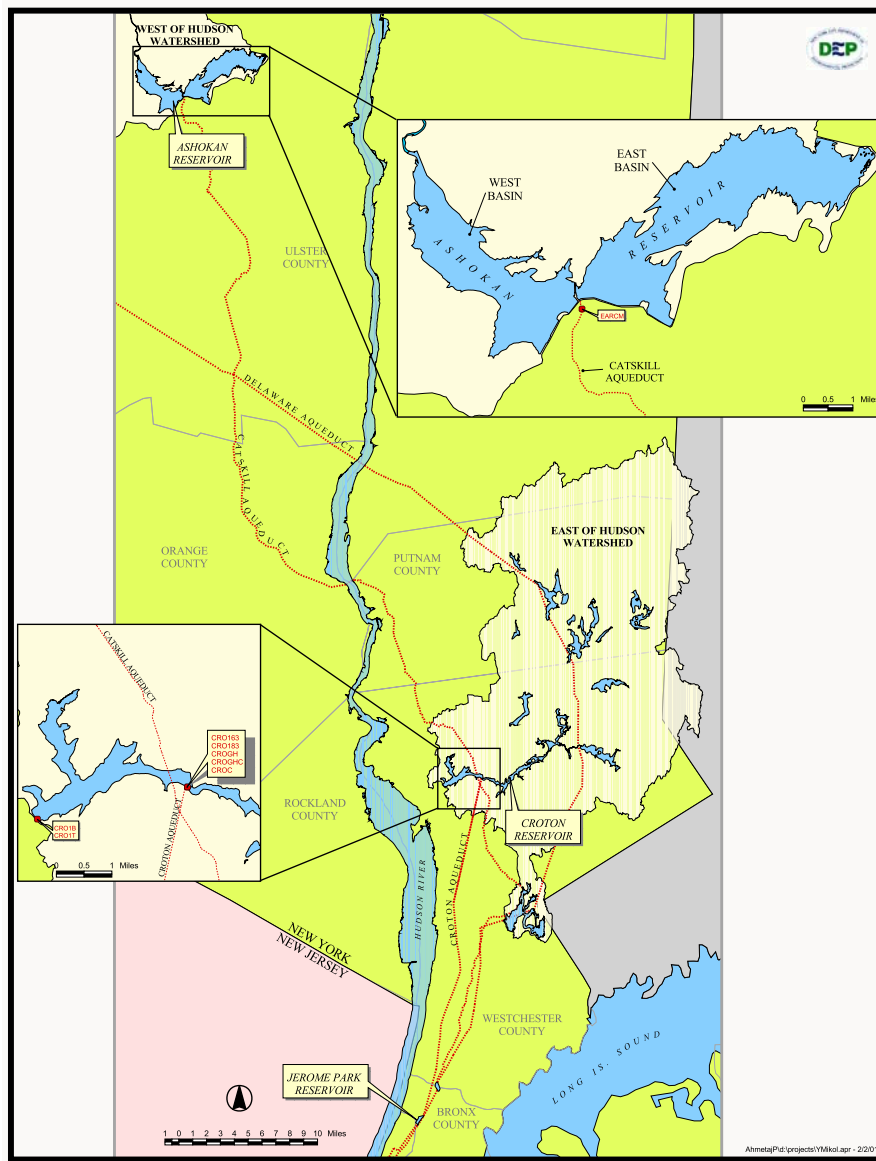


Figure 1.1 Location of Ashokan and New Croton Reservoirs .

2. Reservoir Water Quality

2.1 Ashokan Reservoir

During the 2002 Croton-Catskill Blend DEP performed biweekly Limnological Surveys of the Ashokan Reservoir as part of routine water quality monitoring programs. Water quality results from these limnology surveys are included in Appendix 2. Throughout the Croton-Catskill Blend, the draw from the Catskill Aqueduct was exclusively from the East Basin of Ashokan. Intake elevation was reported as 551-528 feet (167-161 meters). The East Basin was surveyed on September 9, September 23, and October 10, 2002 by limnology staff. Survey sites included gate-house (4EAE) and mid-basin (5EAE). Both sites remained strongly stratified during the blend operation with a thermocline depth that ranged from 9-12 meters. Both sites were anoxic throughout the time period for almost half the water column (bottom 8 – 10 meters). This anoxic bottom water caused turbidity and color levels to rise. Turbidity at the bottom of both sites ranged from 5.8 to 7.3 NTU. Apparent color values at the bottom of each site ranged from 14 to >40 during this time. The phytoplankton population was mainly dominated by the diatom *Synedra*, with total phytoplankton values ranging from 130 – 1400 SAU mL⁻¹. Total coliform values ranged from 4 CFU 100mL⁻¹ to TNTC. The higher values were reported at Site 5. Fecal coliforms were essentially non-existent, with values ranging from <1 to 2 CFU 100mL⁻¹ for the entire period.

2.2 New Croton Reservoir

During the 2002 Croton-Catskill Blend, DEP performed biweekly limnological surveys of New Croton Reservoir. Water quality results from these limnology surveys are included in Appendix 3. The surveys were performed on September 4 (pre-blend), September 17, and October 2, 2002. Water quality was assessed at eight monitoring sites within the reservoir. These included down-reservoir sites located at the Dam (Site 1), the CLGH (Site 4), up-reservoir locations on the east side of the submerged dam (Site5), up through the Muscoot Weir (Site 8). Water column profiles of temperature, pH, dissolved oxygen, and specific conductance were obtained at each site with the use of a Hydrolab (Hydrolab Corp.).

Site 1, (the Dam), was stratified throughout the blending event with a thermocline present from 28 to 29 meters. Figures 2.1(a) and 2.2(a) show dissolved oxygen was not present between 18 and 30 meters of the water column at Site 1. The intake locations of Site 1.1 and Site 1.2 are within close proximity to Limnology Site 1 and their physical data can be approximated by reviewing the profiles from Site 1 in Figures 2.1(a) and 2.2(a) at their respective depths (Site 1.1 at 8 meters and Site 1.2 at 23 meters). The lower intake, which was utilized the majority of the year for 2002 at GH#1 (Limnology Site 1.2) was not used at this time due to the low dissolved oxygen (DO < 1.0 mg L⁻¹), which led to elevated manganese concentrations. The intake locations on New Croton Reservoir utilized during the blending operation were located at Limnology Site

1.1 (Upper intake at GH#1) and at Limnology Site 4 (upper and middle intake at the New Croton Gatehouse). Throughout the blend event, both intake sites had sufficient dissolved oxygen ($4.1 - 5.4 \text{ mg L}^{-1}$ at Site 1.1 and $4.0 - 6.3 \text{ mg L}^{-1}$ for Site 4) from September through October and are shown in Figures 2.1(a) and 2.2(a). Up-reservoir sites (Site 5 through Site 8), depicted in Figures 2.1(b) and 2.2(b), were also stratified with dissolved oxygen levels decreasing significantly at and below the thermocline at each site. The submerged dam, located between Site 5 and Site 4, likely prevented the deteriorated water quality conditions at the up-reservoir locations from affecting Site 4. Surface water flowing across the submerged dam has kept the downstream site (Site 4) isothermal, which in turn has helped to improve water quality over this time period.

Total and fecal coliform bacteria concentrations improved in October after being high at Site 4 and most of the down-reservoir (Sites 1 through 4) locations through September. Turbidity was also elevated on the September 17 sampling event and can possibly be attributed to a reservoir-wide *Fragilaria* bloom that was present at the time. The plankton bloom seemed to have subsided at most locations as of October, and, at that time, was not reservoir-wide. Subsequently, the intake sites at Site 1.1 and Site 4 showed slight improvements with turbidity by the October 2 survey. Apparent color values ranged from 12 to 50 at Site 1, and 15 to 32 color units at Site 4, with the highest color measured in the bottom water.

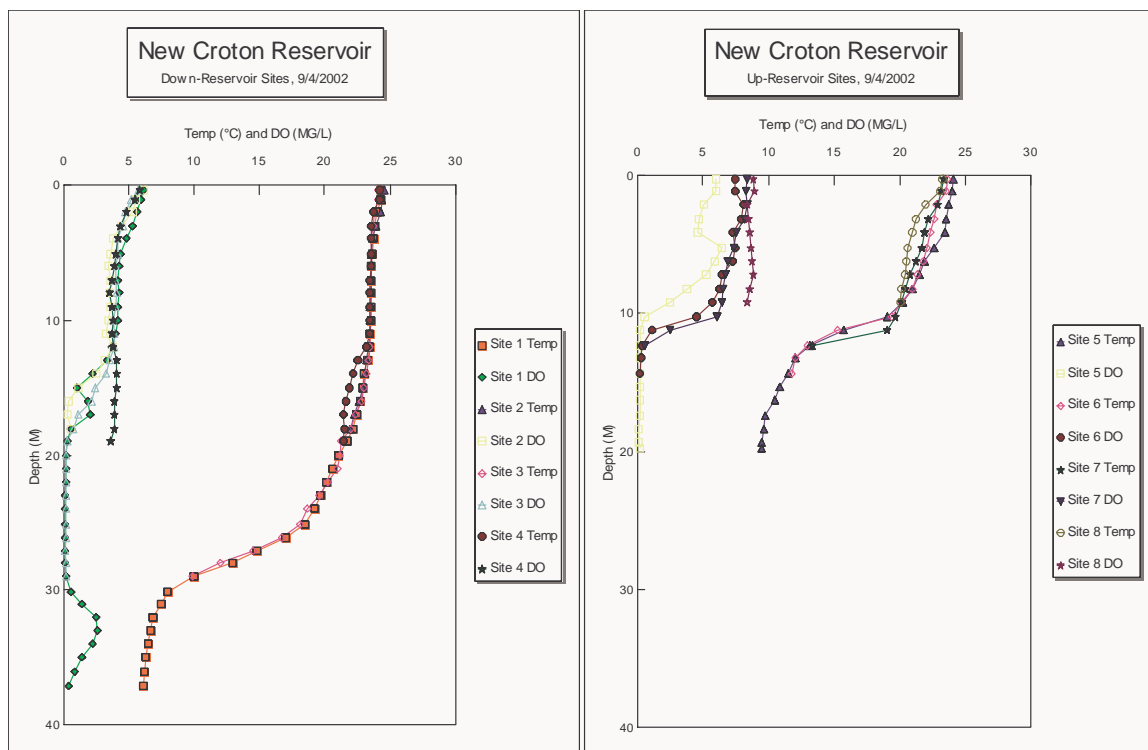


Figure 2.1 (a) and (b). New Croton Reservoir Temperature and Dissolved Oxygen {Profiles for the Down-Reservoir Site Locations 2(a) and the Up-reservoir Site Locations 2(b) for September 4, 2002.

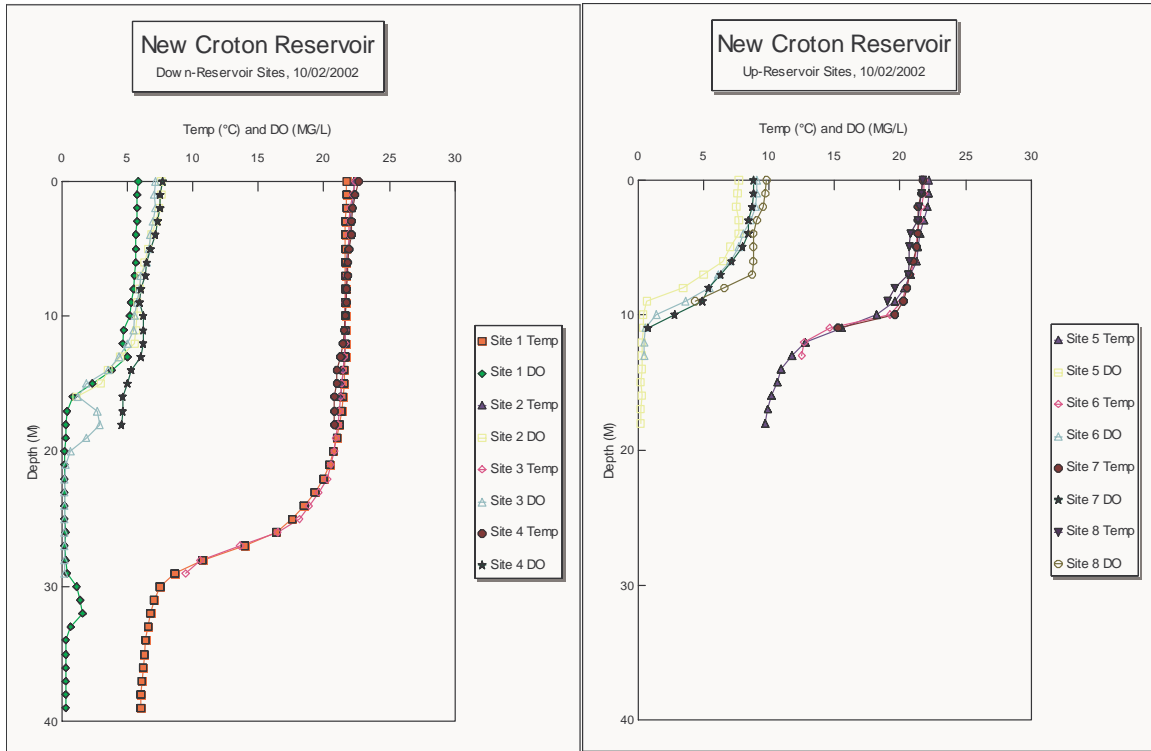
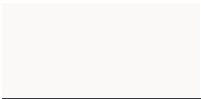


Figure 2.2 (a) and (b). New Croton Reservoir Temperature and Dissolved Oxygen {Profiles for the Down-Reservoir Site Locations 3(a) and the Up-reservoir Site Locations 3(b) for October 2, 2002.



3. Blending Operation

3.1 Pre-blending Operations

The City of New York declared a Drought Emergency Condition in March 2002, which had a significant effect on the timing and pre-blending operations that were performed for the 2002 Croton-Catskill Blend. As part of the Drought Emergency, the DEP had contracted for the installation of pumps at the CLGH to utilize the Catskill Connection pipe to deliver additional Croton water to the distribution system. These pumps were originally connected to the Catskill Connection pipe through twenty 14-inch connecting conduits installed at the CLGH. Prior to the Croton-Catskill Blend these lines were closed off and leak tested before Catskill water could be delivered to the CLGH through the Catskill Connection.

The Drought Emergency Condition also placed a greater burden on the DEP to utilize poorer quality water from the Croton System because the Croton System had greater available water storage than either the Catskill or the Delaware Systems. To maximize the use of the Croton System and to prevent the Catskill System from falling further into drought, the DEP delayed the initiation of the Croton-Catskill Blend until consumer complaints reached a significant level.

Prior to the initiation of the blending of Catskill water into the Croton System, DEP made intake changes at both Ashokan and New Croton Reservoirs to maximize the quality of both source water locations for blending. The Catskill source water was changed from the West Basin to a surface/middle elevation draw of the East Basin of the Ashokan Reservoir. Catskill Aqueduct flow was also increased from 350 to 400 MGD in anticipation of removing 35 MGD of Catskill water for the blend, and to maintain the elevation of the water in the Catskill Aqueduct downstream of the CLGH. The intakes at New Croton Reservoir were also changed to increase the percentage of water drawn from the surface/middle elevation within the reservoir (see Appendix 4).

3.2 Operations and Treatment

During the first week of September consumer complaints in the City increased (Chapter 5) and the quality of the Croton water deteriorated to the point where DEP determined it necessary to initiate the blending operation. The Croton-Catskill Blend was initiated at 1500 hours on 9/16/02 when 35 MGD of Catskill water was added to 145 MGD of Croton water at the CLGH. Appendix 4 contains the specific Delivery and Treatment Advisories issued during the Croton-Catskill Blend to notify the appropriate NYCDEP, NYSDOH, New York City Department of Health, and Westchester County Department of Health staff of flow changes made during the blend. A summary of the Croton flow and intake changes is also included in Appendix 5.

Initially on 9/16/02, the 145 MGD of Croton water was comprised of 30 MGD from Gatehouse #1 (at the Cornell Dam) and 115 MGD from the CLGH. From 9/17 – 9/20/02 the Croton source water was changed to favor Gatehouse #1 as the water quality at the dam improved.

On 9/21/02 the flows were established to draw the minimum amount possible from the CLGH and the Catskill Aqueduct, and still maintain the maximum flow in the New Croton Aqueduct. Additional flow changes from 9/21 – 9/30/02 were implemented by increasing or decreasing the flow from the CLGH intake. From 9/30/02 to the termination of the blend on 10/7/02, the Catskill flow was maintained at 35 MGD, representing 15 – 19 % of the water entering the New Croton Aqueduct at the CLGH. On 10/3/02 an intake change was implemented at the CLGH to switch the level of draw from the 183 (CRO183) to the 163 (CRO163) feet elevation. The Croton-Catskill Blend was terminated at 1200 hours on 10/7/02.

Treatment of the New Croton Aqueduct with sodium hydroxide at the Dunwoodie Fluoride facility was implemented on 9/17/02. The initial dose was set at 3 mg/L to adjust the pH in the Croton Aqueduct for corrosion control. On 9/18/02 the dose was decreased to 2 mg/L to maintain a target pH of 7.2 at Jerome Park Reservoir. Treatment of the New Croton Aqueduct with sodium hydroxide at the Dunwoodie Fluoride facility was maintained at 2 mg/L throughout the reporting period, up to the termination of the blend on 10/7/02.

4. Water Quality Monitoring Results

4.1 Croton System Source Water Quality

The effectiveness of blending the Catskill source water with the Croton source water to improve water quality is contingent upon the quality of the source waters. During the summer months New Croton Reservoir experiences anoxia in the hypolimnion, which causes a release of dissolved manganese from the sediments. The resulting increase in manganese in the Croton source water leads to discoloration in the distribution system caused by precipitation of the manganese after oxidation with chlorine. While Catskill source water is usually more turbid than Croton source water, the dissolved manganese concentrations are generally lower, allowing for an improvement in blended water quality entering the distribution system..

The water quality monitoring results for the Croton intake locations applicable to this blending operation (CRO1T, CRO1B, CRO163, CRO183), Croton raw source water (CROGH), and Croton treated source water (CROGHC) are included in Appendix 6.

Prior to the initiation of the Catskill-Croton Blend, from 9/9 – 9/16/02, the apparent color ranged from 14 to 19 units and from 10 to 19 units in the raw (CROGH) and treated (CROGHC) source waters, respectively. After the implementation of the blend, from 9/17 – 9/30/02 the apparent color ranged from 9 to 18 units and from 8 to 12 units in the raw and treated source waters, respectively. For the reporting period from 9/30 – 10/7/02 the apparent color ranged from 9 to 15 units and from 8 to 12 units in the raw and treated source waters, respectively.

Manganese concentrations in the Croton source water (CROGH, CROGHC) were approximately 100 µg/L prior to 9/16/02 and had decreased to approximately 50 µg/L after the initiation of the Croton-Catskill Blend. During the week of 9/16/02 the Croton source water intakes were also changed to favor the surface water at the dam (see Appendix 5), which also contributed to the decrease in manganese concentration in the Croton source water and to the overall improvement of the Croton water quality

4.2 Catskill System Water Quality

Catskill System source water quality (EARCM, CROC) is included in Appendix 6. Prior to the initiation of the blend, the turbidity was approximately 1.5 to 2 NTU, the apparent color approximately 7 to 10 units, and the manganese concentrations were 50 –80 µg/L. The quality of Catskill water at the CROC location (CLGH) was slightly worse than the water leaving Ashokan Reservoir (EARCM) possibly due to scouring within the Catskill Aqueduct. The flow in the Catskill Aqueduct had been 350 MGD for many months prior to being increased to 400 MGD for the Croton-Catskill blend. During the period of blending the quality of the Catskill raw source water (EARCM, CROC) declined slightly as turbidity, apparent color and manganese all increased.

4.3 Distribution System Water Quality

The quality of the Croton System water as it enters and exits Jerome Park Reservoir, and entering the City's Distribution System are included in Appendix 7. Included are results from both the compliance and surveillance samples from 9/9 – 10/7/02, analyzed at the NYCDEP Distribution Laboratory.

During August 2002, the manganese concentrations increased in the Croton source water. While the apparent color levels in the Croton treated source water (CROGHC) did not increase significantly (Figure 4.1), the apparent color levels in the water entering the distribution system on the Croton Aqueduct (Site 33150) increased sharply during the last week of August (Figure 4.2). After the initiation of the Catskill-Croton Blend on 9/16/02, the apparent color of the Croton treated source water improved. The decrease in manganese concentrations in the Croton source water as a result of the initiation of the blend most likely contributed to the improvement in Croton water quality entering the distribution system.

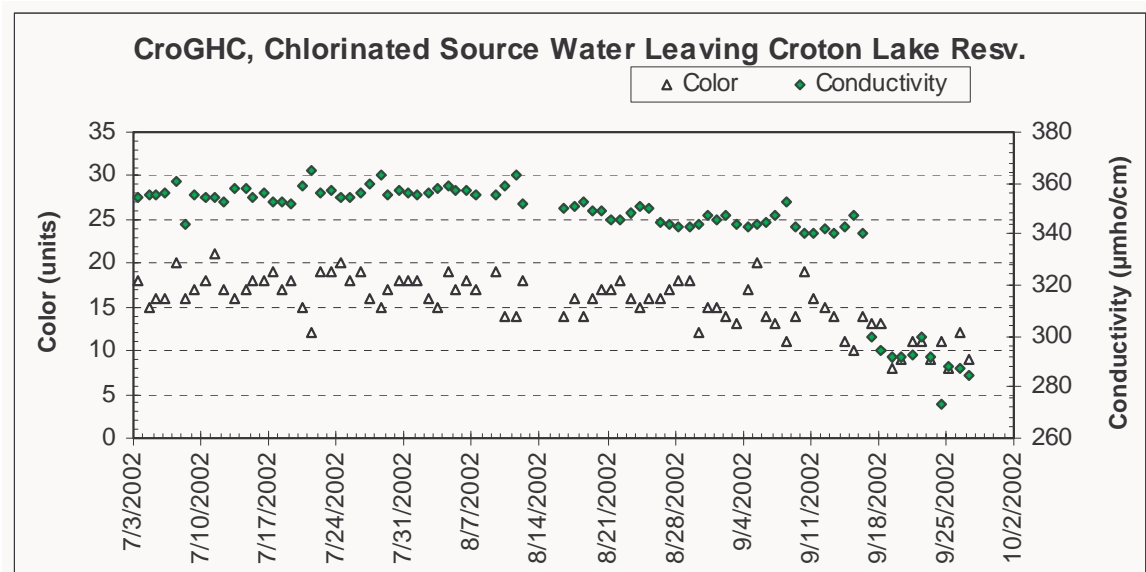


Figure 4.1 Croton Treated Source Water - Color and Conductivity, 7/3/02 – 10/2/02.

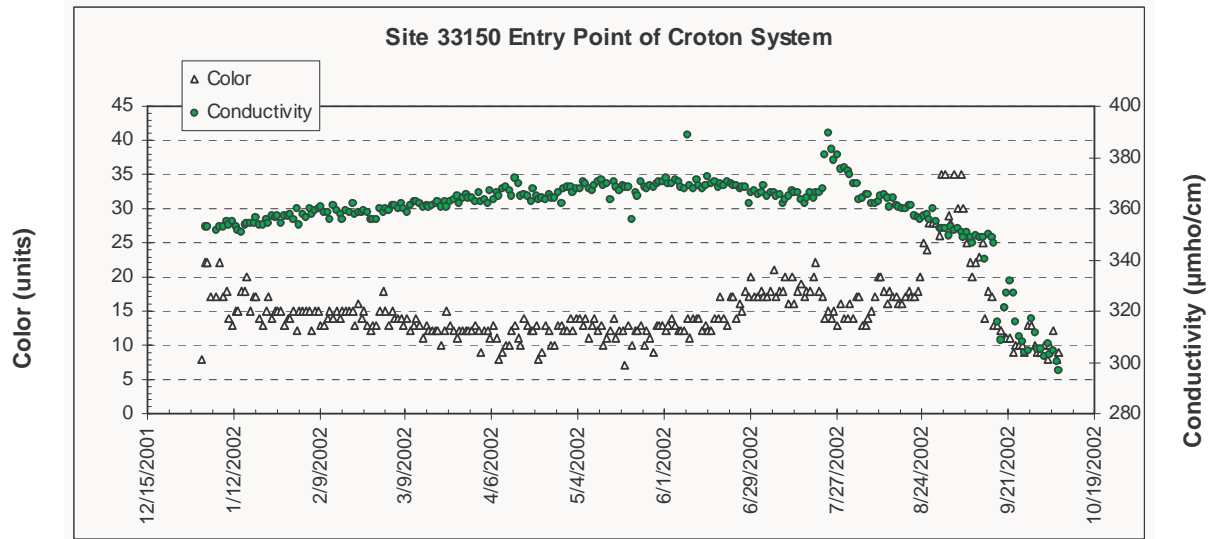
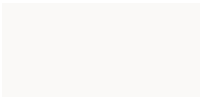


Figure 4.2 Croton Entry Point Color and Conductivity, 7/3/02 – 10/19/02.

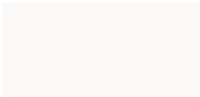
On 10/7/02 the Catskill-Croton blend was terminated due to the fact that the addition of Catskill water was no longer improving the quality of the Croton water and the manganese concentrations in Croton source water had decreased to acceptable levels.



5. Community Board Complaints Information

NYCDEP monitors the volume of consumer complaints recorded by the Community Board and investigates complaints which can neither be explained nor resolved by system adjustment in the localized area of the consumer.

The number of water quality complaints recorded by the Community Board is included in Appendix 8. The number of complaints in areas served by the Croton System for the 12 days prior to the influence of the Catskill-Croton Blend on distribution water quality (9/6 – 9/18/02) was 24. The number of complaints following the implementation of the blend decreased to 14 complaints over 11 days (9/19 – 9/30/02). The number of complaints from 10/1 – 10/7/02 were 10 complaints over 7 days, however, only 5 of these complaints were related to color.



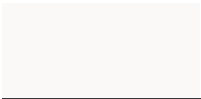
6. Conclusions/Recommendations

The timing and the length of the 2002 Croton-Catskill Blend was different than in previous years. In the past, the Croton-Catskill Blend was initiated prior to the significant deterioration of the hypolimnetic water within New Croton Reservoir in an attempt to preclude color violations and complaints within the distribution system. During the summer of 2002 the City of New York, under a Drought Emergency, was still considering pumping water from the Croton System into the Catskill Aqueduct when water quality in the Croton System began to deteriorate (July 2002). Maximizing the Croton System was paramount to maintaining the water supply within the Catskill and Delaware Systems. During August 2002, Croton water quality was clearly declining and consumer complaints were increasing. Since the drought situation had improved, the DEP began the process of preparing for a potential Croton-Catskill Blend. A request for approval was submitted to the NYSDOH on August 27, 2002 and approval was received on August 30, 2002.

During the first week of September 2002, while operational preparations were being made for the blend, intakes at the New Croton Reservoir were also changed to improve the Croton source water quality. While these changes did lower manganese concentrations and improve water quality, they also resulted in an unprecedented amount of Croton water being taken from the CLGH intakes. DEP determined that with the potential for precipitation causing a rapid deterioration in the Croton source water at the CLGH, and a continuation of the decline in the water quality at the dam location, that the initiation of the Croton-Catskill blend was warranted. This protected DEP against significant deterioration in the water quality within the New Croton Aqueduct because Croton-Catskill blend ratio changes could be made quickly if Croton source water declined rapidly.

The initial blend ratio was set to maximize the Croton System and minimize the use of the Catskill System because the quality of the Catskill water was only slightly better than that of the Croton water. During the blending operation, there was no significant deterioration of the Croton source water quality and thus there was no need to increase the percentage of Catskill water. While the water quality of the Croton water entering the distribution system improved following the initiation of the blend, some of this improvement was due to Croton source water intake changes as well as the addition of Catskill water. The Croton-Catskill Blend was terminated when the water quality in the Croton source water improved and the water quality within the Catskill System declined.

During future Croton-Catskill blending DEP recommends that consideration be given to blending earlier than we did in 2002, depending on water storage conditions. The deterioration of water quality within New Croton Reservoir is an annual occurrence without significant temporal variation. If implementation of the Croton-Catskill blend can occur prior to the decline in Croton source water quality, the deterioration of distribution water quality can be prevented.



**Appendix 1. Correspondence between NYCDEP and
NYSDOH regarding 2002 Croton/Catskill Blend**

New York
Department of
Environmental
Protection

465 Columbus Avenue
Valhalla, New York
10595-1336

Christopher O. Ward
Commissioner

Bureau of Water Supply
Michael A. Principe, Ph.D
Deputy Commissioner

Tel (914) 742-2001
Fax (914) 741-0348



August 27, 2002

James R. Covey, P.E.
NYC Watershed Unit
Bureau of Public Water Supply Protection
New York State Department of Health
Flanigan Square
547 River Street
Room 400, 4th Floor
Troy, NY 12180-2216

Dear Mr. Covey

As in past years, the color in the New York City Department of Environmental Protection's (NYCDEP) Croton system has increased as thermal stratification of the New Croton Reservoir has become more pronounced. The color within the Croton System has begun to rise and is anticipated to persist for the next few months. In addition, manganese concentrations have increased due to oxygen depletion throughout the reservoir. NYCDEP has made several operational changes to the Croton System in an attempt to improve the Croton quality (e.g., blended water from different elevations at the CLGH), but we anticipate that these changes will not be successful in preventing the further deterioration of the Croton System water quality.

In an effort to provide the highest quality water possible and to minimize the color violations in our Croton system areas, we intend to initiate a blend of water from the Catskill system with water from the Croton supply. Specifically, we will reduce the quantity of water taken from the New Croton Reservoir by blending it with Catskill system water, which will be fed via a pipeline connection into the Croton Aqueduct at the Croton Lake Gate House. Depending on the water quality results over the next week, we tentatively plan on initiating the blend with 1 part Catskill water with 2 parts Croton. The pertinent water quality data from the Croton and Catskill System is enclosed for your review. We hope to have this operation up and running within the next week or two.

As during past blend operations, we will closely monitor the water quality and report our results to your office on a bimonthly basis or as required. Bimonthly reporting of water quality and operations information during the blending operation will include chemistry, microbiological, flow and blend ratio data. If further modifications become necessary due to changes in Croton water quality, your office will be advised and consulted.

If you have questions or require further information regarding this project please contact me at (914) 773-4436. You may also contact Steve Schindler (845) 340-7558.

Sincerely,



David Lipsky, Ph.D.
Deputy Director, DWQC

Enclosures

Cc: M. Principe (w/o encs.)
T. Hook (w/o encs.)
T. Lawler (w/o encs.)
T. Tipa (w/o encs.)
S. Schindler
File: Catskill Croton Blend Letter, August 2002



STATE OF NEW YORK DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

August 30, 2002

David Lipsky, Ph.D.
Deputy Director
Division of Drinking Water Quality Control
New York City Department of Environmental Protection
465 Columbus Avenue
Valhalla, NY 10595-1336

Dear Dr. Lipsky:

We have reviewed your August 27, 2002 request, received in this office by fax, to initiate a blend of water from the Catskill System with Croton System water at an initial ratio of 1:2. We concur with your request subject to the following conditions:

1. This office and the New York City Department of Health (NYCDOH; Mr. James Luke) shall be notified of all changes in the Catskill/Croton blend ratio. The New York City Department of Environmental Protection's "Bureau of Water Supply Delivery and Treatment Advisory" report is an acceptable means of notification. The NYCDOH should be added to the FAX distribution list.
2. A bimonthly water quality and operation report shall be submitted to this office and to the NYCDOH on the 1st and 15th of each month until the blending operation is terminated. The first report is due on September 15, 2002. Each report should include: a) data on the raw (Croton and Catskill Systems) and blended water quality including Jerome Park Reservoir keypoints, b) the daily blend ratio and total flow, and c) any information on consumer complaints or comments within the City's distribution system served by the Croton System.
3. This office and the NYCDOH should be notified immediately, by phone, of any significant or unusual change in water quality in either the Croton or Catskill Systems.
4. This office and the NYCDOH shall be notified, by phone, when the blending operation is terminated. An after-action report on the blending operation shall be submitted within 30 days of the termination date. The report shall include an assessment of the current operation and recommendations for future blending operations.
5. A 48-hour advanced notification regarding the initiation and termination of the Catskill/Croton blend should be given to the Westchester County Department of Health (WCDOH) and water purveyors along the New Croton Aqueduct. In addition, any significant

changes in the blend ratio or water quality should be given to the water purveyors and WCDOH as soon as possible.

If you have any questions, feel free to contact me, or Dr. Roger Sokol, at (518) 402-7650.

Sincerely,



10 James R. Covey, P.E.
Environmental Health Program Manager
Bureau of Public Water Supply Protection

cc: Mr. Tramontano
Mr. Wakeman/Mr. Burhans
Mr. Burke/Mr. Dunn
Dr. Sokol
Mr. Devine/Mr. Philip – MARO
Dr. Principe – NYCDEP
Mr. Schindler - NYCDEP
Mr. Luke – NYCDOH
Mr. Sakala – Westchester Co. HD
Mr. McKenna –USEPA
Mr. Gratz - USEPA

DOH STATE OF NEW YORK
DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
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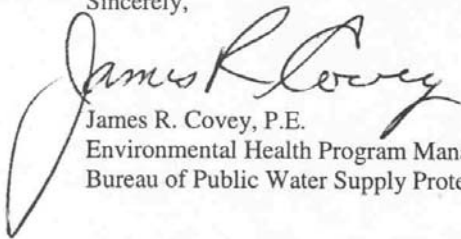
September 16, 2002

David Lipsky, Ph.D.
Deputy Director
Division of Drinking Water Quality Control
New York City Department of Environmental Protection
465 Columbus Avenue
Valhalla, NY 10595-1336

Dear Dr. Lipsky:

With the initiation of the Catskill/Croton blend today, September 16, 2002, the first water quality and operation report will be due on October 1, 2002. As per condition number two of my August 30, 2002 letter, these reports should be sent to this office and the New York City Department of Health on the 1st and 15th of each month the blend is in operation. In addition, a copy of these reports should also be sent to USEPA Region II, Mr. Jeff Gratz, and the Westchester County Department of Health, Mr. Mike Sakala.

Sincerely,



James R. Covey, P.E.
Environmental Health Program Manager
Bureau of Public Water Supply Protection

cc: Mr. Wakeman/Mr. Hotaling
Mr. Burke/Mr. Dunn
Dr. Sokol
Mr. Devine/Mr. Philip – MARO
Dr. Principe – NYCDEP
Mr. Schindler - NYCDEP
Mr. Luke – NYCDOH
Mr. Sakala – Westchester Co. HD
Mr. McKenna –USEPA
Mr. Gratz - USEPA



Department of
Environmental
Protection

71 Smith Avenue
Kingston, New York
12401

Christopher O. Ward
Commissioner

Bureau of Water Supply

Michael A. Principe, Ph.D.
Deputy Commissioner

Tel (845) 340-7500
Fax (845) 340-7504



www.nyc.gov/dep

(718) DEP-HELP

October 1, 2002

James R. Covey, P.E.
NYC Watershed Unit
Bureau of Public Water Supply Protection
New York State Department of Health
Flanigan Square
547 River Street
Room 400, 4th Floor
Troy, NY 12180-2216

Dear Mr. Covey

Enclosed is the semimonthly Catskill/Croton Water Quality and Operations Report, covering the 9/9/02 to 9/30/02 reporting period. This report includes the raw water quality data from the Catskill and Croton Systems, blended water quality data from Jerome Park Reservoir, flow and blend ratio operations data, and in City consumer complaints. This report is submitted in accordance with the conditions set forth in the August 30, 2002 approval letter issued by your office. If you have questions or require further information regarding this report please contact me at (845) 340-7558.

Sincerely,

Steven C. Schindler
Section Chief, DWQC Watershed Laboratory Operations

Enclosure

Cc: M. Principe
D. Lipsky
T. Hook
T. Lawler
T. Tipa
L. Lu
J. Luke (NYCDOH)
J. Gratz (USEPA)
M. Sakala (WCDOH)

File: Catskill Croton Blend Report Cover Letter, October 1, 2002



Department of
Environmental
Protection

71 Smith Avenue
Kingston, New York
12401

Christopher O. Ward
Commissioner

Bureau of Water Supply

Michael A. Principe, Ph.D.
Deputy Commissioner

Tel (845) 340-7500
Fax (845) 340-7504

October 15, 2002

James R. Covey, P.E.
NYC Watershed Unit
Bureau of Public Water Supply Protection
New York State Department of Health
Flanigan Square
547 River Street
Room 400, 4th Floor
Troy, NY 12180-2216

Dear Mr. Covey

Enclosed is the semimonthly Catskill-Croton Water Quality and Operations Report, covering the 10/1/02 to 10/7/02 reporting period. The Catskill-Croton blend was terminated on 10/7/02. This report includes the raw water quality data from the Catskill and Croton Systems, blended water quality data from Jerome Park Reservoir, flow and blend ratio operations data, and in City consumer complaints. This report also includes updated water quality data from September that were not included in the October 1 report. This report is submitted in accordance with the conditions set forth in the August 30, 2002 approval letter issued by your office. If you have questions or require further information regarding this report please contact me at (845) 340-7558.

Sincerely,

Steven C. Schindler
Section Chief, DWQC Watershed Laboratory Operations

Enclosure

Cc: M. Principe
D. Lipsky
T. Hook
T. Lawler
T. Tipa
L. Lu
J. Luke (NYCDOH)
J. Gratz (USEPA)
M. Sakala (WCDOH)

File: Catskill Croton Blend Report Cover Letter, October 15, 2002



WWW.NYC.GOV/DEP

311 DEP HELP

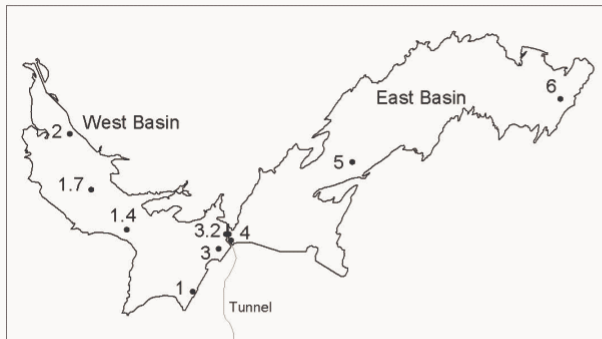
Appendix 2. Water Quality Results from Limnological Surveys of Ashokan Reservoir

**New York City Department of Environmental Protection
Bureau of Water Supply, Division of Drinking Water Quality Control**

Limnology Program - Reservoir Report

Reservoir: Ashokan - East Basin
Survey Type: Routine

Date Surveyed: 09/09/02
Date Previous Survey: 09/03/02
Date Next Survey: 09/23/02



map not to scale

DEP Fax Memo

To: D. Lipsky email
D. Smith email
B. McCann T. Echelman email
R. Corradi M. Principe email
L. Janus email
C. Nadeski email
R. Kowalczyk email
S. Schindler email
A. Bader email
A. Capetanakis email
G. Marzec hand deliver
A. Schultz hand deliver
P. Polisenio hand deliver
From: A. Bennett
Prep by: A. Bennett

Reservoir Information:	Full / Max	Current
Percent Volume (%)	100	73
Elevation (ft.)	587	573.4
Storage (BG)	81	59
Diversion (MGD)	600	
Release (MGD)		
Average Residence time (year)	0.33	
Max. surface area (acres)	5132	
Tunnel length (miles)	92	N/A

**Sample Analyses Performed at NYC DEP Ben Nesin Laboratory
ELAP I.D. # 10030**

Note: Data are Provisional unless checked here

Site (m)	Sample Depth (m)	Sample Elev. (ft)	Z _{th} (m)	DO (mg/L)	Turb (NTU)	Color (units)	Tot. Phyto (SAU/mL)	Dom. Genus (taxa)	SAU 1 (SAU/mL)	TC cfu/100mL	FC cfu/100mL		
5	0	10.4	573	539.3	10	8.6	NR	NR	1200	NR	NR		
5	3		564			8.7	0.7	6	NR	NR	20	<1	
5	7		550			8.5	NR	NR	760	<i>Synedra</i>	760	NR	NR
5	11		537			6.0	1.7	9	1300	<i>Synedra</i>	1200	16	<1
5	18		514			0.2	6.7	17	NR	NR	NR	40	2
4	0	10	573	540.6	9	8.4	NR	NR	640	<i>Synedra</i>	570	NR	NR
4	3		564			8.4	0.7	6	640	<i>Synedra</i>	570	<50	<1
4	7		550			8.2	NR	NR	590	<i>Rhizosolenia</i>	590	NR	NR
4	11		537			5.7	7.1	17	200	<i>Rhizosolenia</i>	120	80	1
4	19		511			0.4	7.2	19	<17	<i>None</i>	<17	60	<2

LE= Lab Error NO=Not Obtainable NA=Data Not Yet Available
FE= Field Error NR= Sample Not Required

Values that are **bolded** exceed DWQC internal standards

Comments:

Draw is on East Basin. Excessive winds on 9/11/02 may have impacted water quality. No sampling has been requested.
Anoxic conditions in the hypolimnion have resulted in poor water quality.
The bottom 8 to 9 meters of each site were anoxic.

Recommendations:

New York City Department of Environmental Protection
Bureau of Water Supply, Division of Drinking Water Quality Control

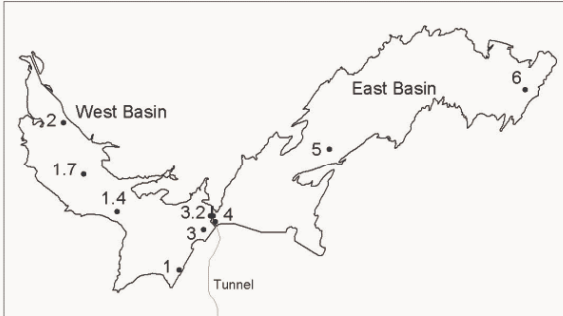
Limnology Program - Reservoir Report

Reservoir: **Ashokan - West Basin**
Survey Type: **Routine**

Date Surveyed: **09/10/02**

Date Previous Survey: 09/03/02

Date Next Survey: 09/24/02



map not to scale

DEP Fax Memo

To: D. Lipsky email
D. Smith email
B. McCann T. Echelman email
R. Corradi M. Principe email
L. Janus email
C. Nadareski email
R. Kowalczyk email
S. Schindler email
A. Bader email
A. Capetanakis email
G. Marzec hand deliver
A. Schultz hand deliver
P. Poliseño hand deliver

From: A. Bennett
Prep by: A. Bennett

Reservoir Information:	Full / Max	Current
Percent Volume (%)	100	68
Elevation (ft.)	590	573.73
Storage (BG)	47	32.16
Diversion (MGD)	600	
Release (MGD)		
Average Residence time (year)	0.21	
Max. surface area (acres)	3185	
Tunnel length (miles)	92	

Sample Analyses Performed at NYC DEP Ben Nesin Laboratory
ELAP I.D. # 10030

Note: Data are Provisional unless checked here

Site (m)	Sample Depth (m)	Sample Elev. (ft)	Z _{th} (m)	DO (mg/L)	Turb (NTU)	Color (units)	Tot. Phyto (SAU/mL)	Dom. Genus (taxa)	SAU 1 (SAU/mL)	TC cfu/100mL	FC cfu/100mL		
2	0	6.3	573	553	0	8.5	NR	NR	990	Rhizosol	570	NR	NR
2	3		564			8.5	2.2	10	870	Rhizosol	590	10	<1
2	7		551			6.7	2.5	13	NR	NR	NR	<50	<1
1.4	3		564	12		8.6	2.0	9	1600	Rhizosol	610	<10	<1
1.4	13		531			2.2	3.8	9	NR	NR	NR	33	<2
1.4	27		485			3.1	6.1	12	NR	NR	NR	60	<2
1	0	8.7	573	545	13	8.7	NR	NR	940	Rhizosol	400	NR	NR
1	3		564			8.7	1.8	8	440	Rhizosol	300	20	1
1	6		554			8.7	NR	NR	17	Synedra	<17	NR	NR
1	13		531			2.4	3.5	9	NR	NR	NR	20	<2
1	16		521			4.2	2.3	8	NR	NR	NR	<10	<1
1	38		449			4.3	5.8	12	NR	NR	NR	>=30	<2
3	0	8.5	573	546	13	8.5	NR	NR	400	Rhizosol	250	NR	NR
3	3		564			8.6	1.7	8	1000	Staurast	420	270	1
3	6		554			8.5	NR	NR	420	Rhizosol	290	NR	NR
3	14		528			2.7	4.7	12	400	Rhizosol	370	130	<1
3	21		505			3.0	14	23	100	Attheya	84	150	<4
3.2	3		564	0		8.7	2.1	8	<17	None	<17	100	4
3.2	5		557			8.6	2.6	8	NR	NR	NR	60	2

NS - No sample taken
Values that are **bolded** exceed DWQC internal standards

LE= Lab Error NO=Not Obtainable NA=Data Not Yet Available
FE= Field Error NR= Sample Not Required

Comments:

A wind event on 9/11/02 caused increased turbidity throughout the basin, the magnitude and effects on water quality are unknown since sampling was not completed.

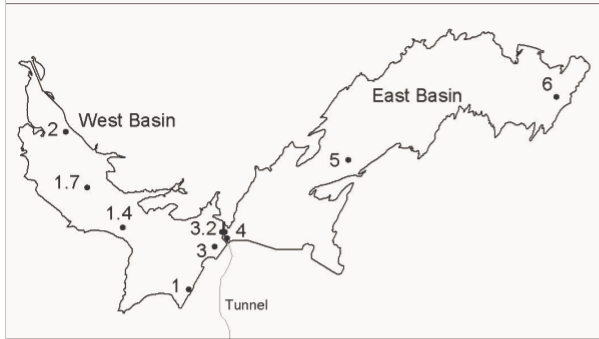
Recommendations:

**New York City Department of Environmental Protection
Bureau of Water Supply, Division of Drinking Water Quality Control**

Limnology Program - Reservoir Report

Reservoir: Ashokan - East Basin
Survey Type: Supplemental

Date Surveyed: 09/23/02
Date Previous Survey: 09/09/02
Date Next Survey: 10/07/02



map not to scale

DEP Fax Memo

To: D. Lipsky email
D. Smith email
B. McCann T. Echelman email
R. Corradi M. Principe email
L. Janus email
C. Nadareski email
R. Kowalczyk email
S. Schindler email
A. Bader email
A. Capetanakis email
G. Marzec hand deliver
A. Schultz hand deliver
P. Poliseno hand deliver
From: G. Marzec
Prep by: G. Marzec

Reservoir Information:	Full / Max	Current
Percent Volume (%)	100	67
Elevation (ft.)	587	570.0
Storage (BG)	81	54
Diversion (MGD)	600	398
Release (MGD)		
Average Residence time (year)	0.33	
Max. surface area (acres)	5132	
Tunnel length (miles)	92	N/A

**Sample Analyses Performed at NYC DEP Ben Nesin Laboratory
ELAP I.D. # 10030**

Note: Data are Provisional unless checked here

Site	Sample Depth	Sample Elev.	Z _{th}	DO	Turb	Color	Tot. Phyto	Dom. Genus	SAU 1	TC	FC
(m)	(m)	(ft)	(m)	(mg/L)	(NTU)	(units)	(SAU/mL)	(taxa)	(SAU/mL)	cfu/100mL	cfu/100mL
5	3	560	11	8.9	0.8	3	540	<i>Synedra</i>	540	12	<1
5	12	531		0.2	1.4	11	NR	NR	NR	220	<1
5	17	514		0.3	7.3	19	NR	NR	NR	4	<2
4	0-9.8	570 - 538	10	8.6	NR	NR	1200	<i>Synedra</i>	1100	NR	NR
4	3	560		8.7	1.2	6	1400	<i>Synedra</i>	1300	20	1
4	7	547		8.5	NR	NR	770	<i>Synedra</i>	610	NR	NR
4	11	534		0.4	1.3	6	1000	<i>Synedra</i>	760	90	<1
4	19	508		0.3	6.8	>40	<17	None	<17	30	<2

LE= Lab Error NO=Not Obtainable NA=Data Not Yet Available
FE= Field Error NR= Sample Not Required

Values that are **bolded** exceed DWQC internal standards

Comments:

The water column is anoxic for half of the depth at each site. Warm weather combined with low inflow has caused the development of a pronounced nepheloid layer with resultant increase in color and turbidity. Phytoplankton counts are similar to the last survey with *Synedra* being the dominant diatom.

Recommendations:

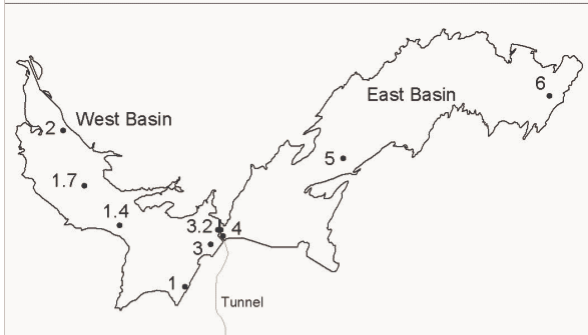
Considering the anoxic conditions at depth, the withdrawal should be limited to the upper water column.

**New York City Department of Environmental Protection
Bureau of Water Supply, Division of Drinking Water Quality Control**

Limnology Program - Reservoir Report

Reservoir: Ashokan - West Basin
Survey Type: Supplemental

Date Surveyed: 09/24/02
Date Previous Survey: 09/10/02
Date Next Survey: 10/08/02



map not to scale

DEP Fax Memo

To: D. Lipsky email
D. Smith email
B. McCann T. Echelman email
R. Corradi M. Principe email
L. Janus email
C. Nadareski email
R. Kowalczyk email
S. Schindler email
A. Bader email
A. Capetanakis email
G. Marzec hand deliver
A. Schultz hand deliver
P. Polisenno hand deliver
From: G. Marzec
Prep by: G. Marzec

Reservoir Information:	Full / Max	Current
Percent Volume (%)	100	72
Elevation (ft.)	590	576.00
Storage (BG)	47	34.00
Diversion (MGD)	600	
Release (MGD)		
Average Residence time (year)	0.21	
Max. surface area (acres)	3185	
Tunnel length (miles)	92	

**Sample Analyses Performed at NYC DEP Ben Nesin Laboratory
ELAP I.D. # 10030**

Note: Data are Provisional unless checked here

Site	Sample Depth	Sample Elev.	Z _{th}	DO	Turb	Color	Tot. Phyto.	Dom. Genus	SAU 1	TC	FC
(m)	(m)	(ft)	(m)	(mg/L)	(NTU)	(units)	(SAU/mL)	(taxa)	(SAU/mL)	cfu/100mL	cfu/100mL
2	3	566	0	8.4	2.2	11	190	<i>Rhizosol</i>	150	210	4
2	8	550		6.9	2.3	11	NR	NR	NR	66	1
1.4	3	566	13	8.5	2.0	11	<17	<i>None</i>	<17	65	5
1.4	14	530		4.7	2.6	7	NR	NR	NR	100	6
1.4	29	481		2.9	7.5	13	NR	NR	NR	550	2
1	3	566	13	8.5	2.0	10	100	<i>Rhizosol</i>	100	110	1
1	14	530		4.4	3.4	11	NR	NR	NR	270	2
1	22	504		3.3	4.7	12	NR	NR	NR	250	<4
1	42	438		3.7	9.6	14	NR	NR	NR	400	<4
3	0-7.5	576 - 551	14	8.6	NR	NR	670	<i>Rhizosol</i>	500	NR	NR
3	3	566		8.6	2.2	8	<17	<i>None</i>	<17	280	7
3	15	527		3.7	14.0	18	<17	<i>None</i>	<17	150	<4
3	22	504		3.3	20.0	19	<17	<i>None</i>	<17	500	<4
3.2	3	566	0	9.2	1.7	7	NR	NR	NR	320	8
3.2	5	560		9.3	1.9	9	NR	NR	NR	340	5

NS - No sample taken

Values that are **bolded** exceed DWQC internal standards

LE= Lab Error NO=Not Obtainable NA=Data Not Yet Available

FE= Field Error NR= Sample Not Required

Comments:

Phytoplankton counts have decreased since th last survey. Total coliform levels are elevated throughout the basin. Turbidity is elevated near the bottom of thye deeper sites.

Recommendations:

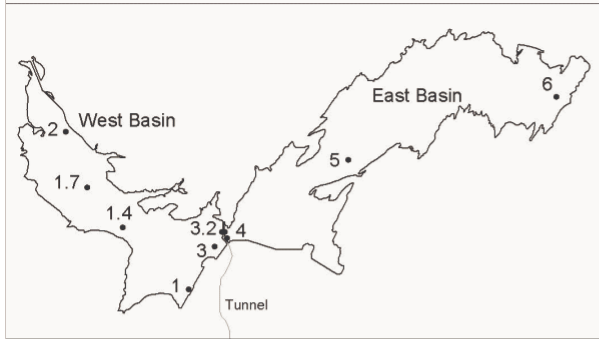
The turbidity at the Dividing Weir is low and the water column, though shallow is well oxygenated. Since there is a five foot difference in elevation between the basins, it may be beneficial to move some of this West Basin water into the East to cause mixing - before the impending storm hits.

**New York City Department of Environmental Protection
Bureau of Water Supply, Division of Drinking Water Quality Control**

Limnology Program - Reservoir Report

Reservoir: Ashokan - East Basin
Survey Type: Routine

Date Surveyed: 10/07/02
Date Previous Survey: 09/23/02
Date Next Survey: 10/21/02



map not to scale

DEP Fax Memo

To: D. Lipsky email
D. Smith email
B. McCann T. Echelman email
R. Corradi M. Principe email
L. Janus email
C. Nadareski email
R. Kowalczyk email
S. Schindler email
A. Bader email
A. Capetanakis email
G. Marzec hand deliver
A. Schultz hand deliver
P. Poliseno hand deliver
From: A. Bennett
Prep by: A. Bennett

Reservoir Information:	Full / Max	Current
Percent Volume (%)	100	66
Elevation (ft.)	587	587.1
Storage (BG)	81	53
Diversion (MGD)	600	404
Release (MGD)		
Average Residence time (year)	0.33	
Max. surface area (acres)	5132	
Tunnel length (miles)	92	N/A

**Sample Analyses Performed at NYC DEP Ben Nesin Laboratory
ELAP I.D. # 10030**

Note: Data are Provisional unless checked here

Site (m)	Sample Depth (m)	Sample Elev. (ft)	Z _{th} (m)	DO (mg/L)	Turb (NTU)	Color (units)	Tot. Phyto (SAU/mL)	Dom. Genus (taxa)	SAU 1 (SAU/mL)	TC (cfu/100mL)	FC (cfu/100mL)		
5	0	-10.8	587	552	12	8.4	NR	NR	170	<i>Synedra</i>	130	NR	NR
5	3		577			8.4	1.1	8	550	<i>Synedra</i>	420	TNTCx4	<1
5	8		561			8.3	NR	NR	890	<i>Synedra</i>	690	NR	NR
5	13		544			0.4	3.7	14	NR	NR	<10	1	
5	18		528			0.3	6.9	18	NR	NR	<10	<2	
4	0	-10.6	587	552	12	8.6	NR	NR	790	<i>Synedra</i>	200	NR	NR
4	3		577			8.6	1.4	9	290	<i>Rhizosol</i>	150	80	2
4	8		561			8.6	NR	NR	570	<i>Synedra</i>	250	NR	NR
4	13		544			0.3	3.3	13	300	<i>Synedra</i>	150	40	1
4	18		528			0.4	5.8	14	130	<i>Synedra</i>	130	<20	2

LE= Lab Error NO=Not Obtainable NA=Data Not Yet Available
FE= Field Error NR= Sample Not Required

Values that are **bolded** exceed DWQC internal standards

Comments:

The water column is anoxic for half of the depth at each site. Warm weather combined with low inflow has caused the development of a pronounced nepheloid layer with resultant increase in color and turbidity. Phytoplankton counts are similar to the last survey with *Synedra* being the dominant diatom.

Recommendations:

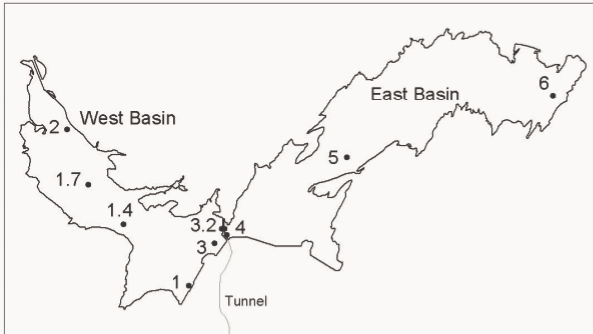
Considering the anoxic conditions at depth, the withdrawal should be limited to the upper water column.

**New York City Department of Environmental Protection
Bureau of Water Supply, Division of Drinking Water Quality Control**

Limnology Program - Reservoir Report

Reservoir: Ashokan - West Basin
Survey Type: Routine

Date Surveyed: 10/08/02
Date Previous Survey: 09/24/02
Date Next Survey: 10/22/02



map not to scale

DEP Fax Memo

To:	D. Lipsky	email
	D. Smith	email
B. McCann	T. Echelman	email
R. Corradi	M. Principe	email
	L. Janus	email
	C. Nadareski	email
	R. Kowalczyk	email
	S. Schindler	email
	A. Bader	email
	A. Capetanakis	email
	G. Marzec	hand deliver
	A. Schultz	hand deliver
	P. Polisenio	hand deliver
From:	A. Bennett	
Prep by:	A. Bennett	

Reservoir Information:	Full / Max	Current
Percent Volume (%)	100	67
Elevation (ft.)	590	573.18
Storage (BG)	47	31.71
Diversion (MGD)	600	
Release (MGD)		
Average Residence time (year)	0.21	
Max. surface area (acres)	3185	
Tunnel length (miles)	92	

**Sample Analyses Performed at NYC DEP Ben Nesin Laboratory
ELAP I.D. # 10030**

Note: Data are Provisional unless checked here

Site	Sample Depth	Sample Elev.	Z _{th}	DO	Turb	Color	Tot. Phyto	Dom. Genus	SAU 1	TC	FC
(m)	(m)	(ft)	(m)	(mg/L)	(NTU)	(units)	(SAU/mL)	(taxa)	(SAU/mL)	cfu/100mL	cfu/100mL
2	0	573	0	8.4	NR	NR	500	<i>Stauastr</i>	270	NR	NR
2	3	563		8.3	3.0	12	420	<i>Melosira</i>	150	10	2
2	8	547		7.7	3.9	12	NR	NR	NR	160	1
1.4	3	563	16	8.3	2.4	9	690	<i>Tabellar</i>	450	30	<1
1.4	17	517		2.3	8.0	14	NR	NR	NR	50	2
1.4	23	498		1.8	11	14	NR	NR	NR	50	<4
1	0	573	17	8.6	NR	NR	350	<i>Micracti</i>	270	NR	NR
1	3	563		8.6	2.5	9	290	<i>Asterion</i>	170	25	1
1	18	514		2.6	5.5	9	NR	NR	NR	30	4
1	30	475		2.5	5.5	9	NR	NR	NR	<20	<1
1	38	449		2.4	7.0	11	NR	NR	NR	40	<2
3	0	573	18	9.0	NR	NR	200	<i>Asterion</i>	170	NR	NR
3	3	563		9.0	2.2	8	100	<i>Asterion</i>	84	40	<1
3	19	511		1.6	12	14	<17	None	<17	<50	<4
3	21	504		1.3	14	14	50	<i>Asterion</i>	50	<20	<4
3.2	3	563	0	9.0	2.5	9	NR	NR	NR	<10	1
3.2	5	557		9.0	2.5	8	NR	NR	NR	20	2

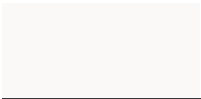
NS - No sample taken LE= Lab Error NO=Not Obtainable NA=Data Not Yet Available
Values that are **bolded** exceed DWQC internal standards FE= Field Error NR= Sample Not Required

Comments:

Total coliform levels are elevated at the bottom of site 2. Turbidity is elevated at the bottom of the intake site and further out in the basin at site 1.4.

Recommendations:

The turbidity at the Dividing Weir is low and the water column, though shallow is well oxygenated.

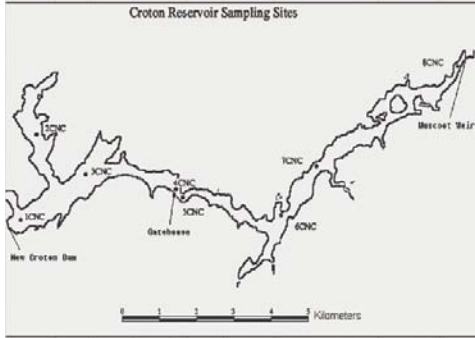


Appendix 3. Water Quality Results from Limnological Surveys of New Croton Reservoir

Limnology Program - Reservoir Report

Reservoir: **New Croton Reservoir**
 Survey Type: **Routine- Full**

Date Surveyed: **09/04/02**
 Date Previous Survey: **08/20/02**
 Date Next Survey: **09/17/02**



DEP Fax Memo

To: M.Principe e-mail
 D. Lipsky e-mail
 L. Janus e-mail
 D. Smith e-mail
 S. Schindler e-mail
 J. Hurley e-mail
 T. Echelman e-mail
 J. Morris e-mail
 A. Bader e-mail
 G. Marzec e-mail
 From: R. Kowalczyk e-mail
 Prepared by: K. Chin

Reservoir Information:	Full / Max	Current
Percent Volume (%)	100	95
Elevation (ft.)	196.00	194.26
Storage (BG)	23,782	22,592
Diversion (MGD)	317	
Release (MGD)	55	
Average Residence time (year)	0	
Max. surface area (acres)	2258	
Tunnel length (miles)	N/A	N/A

Sample Analyses Performed at NYC DEP Kensico Lab ELAP I.D. # 10771

Note: Data is Provisional unless checked here

Site	Sample Depth	Sample Elev.	Z _{th}	DO	Turb	Color	Tot. Phyto	Dom. Genus	SAU 1	TC	FC
(m)	(m)	(ft)	(m)	(mg/L)	(NTU)	(units)	(SAU/mL)	(taxa)	(SAU/mL)	(cfu/100mL)	(cfu/100mL)
1	0-6.1	194 - 174	29	5.3	NR	NR	2000	<i>Fragilaria</i>	1400	NR	NR
1	3	184	29	5.3	1.9	18	2000	<i>Fragilaria</i>	1400	>=86	2
1	30	96	29	0.6	1.7	17	61	<i>Lyngbya</i>	61	CONF	>=1
1	35	79	29	1.4	1.7	19	NR	NR	NR	>=57	<1
1.1	8	168 - 194	NR	4.1	1.9	18	1900	<i>Fragilaria</i>	1700	>=29	1
1.2	24	116	NR	0.3	1.4	19	620	<i>Fragilaria</i>	610	>=14	<1
2	0-7.2	194 - 171	0	4.2	NR	NR	1100	<i>Fragilaria</i>	430	NR	NR
2	3	184	0	4.5	1.8	18	950	<i>Fragilaria</i>	460	>=57	<1
2	10	161	0	3.4	2.0	22	310	<i>Chrysothrix</i>	120	>=86	>=4
2	16	142	0	0.4	2.7	55	NR	NR	NR	>=129	5
3	0-6.9	194 - 172	28	4.3	NR	NR	1400	<i>Microcystis</i>	570	NR	NR
3	3	184	28	4.5	1.4	17	930	<i>Fragilaria</i>	610	>=29	>=3
3	15	145	28	2.5	1.7	25	600	<i>Fragilaria</i>	350	>=1550	<1
3	27	106	28	0.2	1.9	30	NR	NR	NR	257	>=1
4	0-6.8	194 - 172	0	4.3	NR	NR	760	<i>Fragilaria</i>	200	NR	NR
4	3	184	0	4.4	1.5	17	1400	<i>Fragilaria</i>	820	CONF	>=1
4	10	161	0	3.8	1.9	19	1000	<i>Fragilaria</i>	510	>=57	CONF
4	17	139	0	3.9	2.6	32	1500	<i>Fragilaria</i>	1300	100	4
5	0-7.0	194 - 171	11	5.6	NR	NR	1100	<i>Fragilaria</i>	690	NR	NR
5	3	184	11	4.8	1.4	17	1300	<i>Fragilaria</i>	510	>=29	1
5	12	155	11	0.2	1.5	18	2300	<i>Fragilaria</i>	1700	43	15
5	18	135	11	0.2	3.4	35	NR	NR	NR	14	6
6	0-6.9	194 - 172	11	7.4	NR	NR	3100	<i>Snowella</i>	660	NR	NR
6	3	184	11	7.9	3.6	17	720	<i>Fragilaria</i>	150	29	2
6	12	155	11	0.4	11.0	120	1000	<i>Gomphosphaerium</i>	410	29	17
7	0-6.4	194 - 173	12	8.2	NR	NR	2500	<i>Fragilaria</i>	700	NR	NR
7	3	184	12	8.2	2.3	17	1500	<i>Synedra</i>	320	71	13
7	10	161	12	6.1	1.9	17	1500	<i>Fragilaria</i>	360	57	6
8	0-5.8	194 - 175	2	8.7	NR	NR	1400	<i>Anabaena</i>	300	NR	NR
8	3	184	2	8.5	2.7	19	1300	<i>Dinobryon</i>	610	>=86	<1
8	7	171	2	8.8	2.9	20	2200	<i>Microcystis</i>	51	214	4

NR - Not Required, NA - Data Not Available, CONF - Confluent Growth
 Values in bold exceed DWQC internal standards

Comments:

Total coliform exceeded the SWTR limit of 100 CFU/100ml at the middle of Site 1, the bottom of Site 2, the middle and bottom of Site 3, the top of Site 4, and the bottom of Site 8.

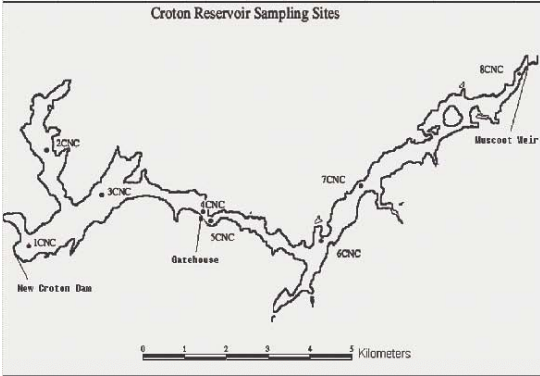
Fecal coliform was above the SWTR limit of 20 CFU/100ml at the middle of Site 4

Recommendations:

Limnology Program - Reservoir Report

Reservoir: New Croton Reservoir
Survey Type: Routine- Supplemental

Date Surveyed: 09/17/02
 Date Previous Survey: 09/04/02
 Date Next Survey: 10/02/02



map not to scale

Note: Data is Provisional unless checked here

Site	Sample Depth (m)	Sample Elev. (ft)	Z _{th} (m)	DO (mg/L)	Turb (NTU)	Color (units)	Tot. Phyto (SAU/mL)	Dom. Genus (taxa)	SAU 1 (SAU/mL)	TC (cfu/100mL)	FC (cfu/100mL)
1	0-7.6	193 - 168	29	6.7	NR	NR	3700	<i>Fragilaria</i>	2000	NR	NR
1	3	183	29	6.7	1.5	17	4800	<i>Fragilaria</i>	2800	<40	5
1	27	104	29	0.1	1.6	17	41	<i>Oscillatoria</i>	20	<40	<1
1	34	81	29	1.2	2.5	28	320	<i>Fragilaria</i>	310	>=<40	<1
1.1	8	167 - 193	NR	6.9	1.6	12	6000	<i>Fragilaria</i>	4000	<40	16
1.2	20	127	NR	0.2	1.5	29	520	<i>Fragilaria</i>	150	<40	2
2	0-8.0	193 - 167	0	5.3	NR	NR	3200	<i>Fragilaria</i>	1000	NR	NR
2	3	183	0	7.2	1.8	17	4500	<i>Fragilaria</i>	2100	<40	5
2	5	177	0	6.5	NR	NR	3900	<i>Fragilaria</i>	1800	NR	NR
2	16	140	0	0.5	1.4	18	NR	NR	NR	80	5
3	0-7.4	193 - 169	27	6.7	NR	NR	3700	<i>Fragilaria</i>	1300	NR	NR
3	3	183	27	6.8	1.3	17	4100	<i>Fragilaria</i>	1900	40	11
3	16	140	27	2.0	1.2	12	6300	<i>Fragilaria</i>	4200	80	9
3	28	101	27	0.2	1.1	12	NR	NR	NR	<40	3
4	0-7.0	193 - 170	0	7.5	NR	NR	5200	<i>Fragilaria</i>	1900	NR	NR
4	3	183	0	7.4	2.3	17	8400	<i>Fragilaria</i>	5200	160	>=10
4	10	160	0	5.4	2.5	16	7500	<i>Fragilaria</i>	6900	1000	CONF
4	16	140	0	4.1	2.7	26	3400	<i>Fragilaria</i>	2400	600	CONF
6	0-6.8	193 - 171	11	8.5	NR	NR	4200	<i>Fragilaria</i>	3000	NR	NR
6	3	183	11	8.6	2.3	11	3300	<i>Fragilaria</i>	2100	160	6
6	11	157	11	0.2	6.6	65	NR	NR	NR	<40	9
8	0-4.9	193 - 177	9	8.8	NR	NR	2600	<i>Fragilaria</i>	1200	NR	NR
8	3	183	9	8.6	3.5	16	3000	<i>Fragilaria</i>	1400	NR	NR
8	5	177	9	8.5	3.4	17	6700	<i>Fragilaria</i>	3500	NR	NR
8	7	170	9	8.1	3.4	17	NR	NR	NR	NR	NR

NR - Not Required, NA - Data Not Available, CONF - Confluent Growth
 Values in **bold** exceed DWQC internal standards

Comments:

Total coliform exceeded the SWTR limit of 100 CFU/100ml at Site 4 and the top of Site 6.
 Fecal coliform levels exceeded the SWTR limit of 20 CFU/100ml at the middle and bottom of Site 4.

Recommendation:

To:	M.Principe	e-mail
	D. Lipsky	e-mail
	L. Janus	e-mail
	D. Smith	e-mail
	S. Schindler	e-mail
	J. Hurley	e-mail
	T. Echelman	e-mail
	J. Morris	e-mail
	A. Bader	e-mail
	G. Marzec	e-mail
From:	R. Kowalczyk	e-mail
Prepared by : K. Chin		

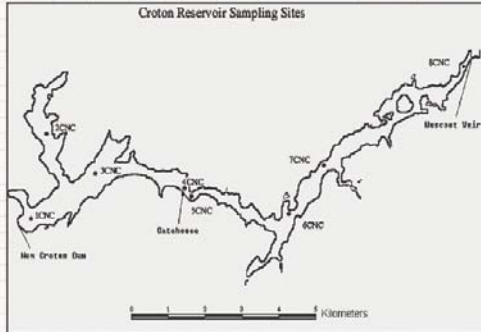
	Full / Max	Current
Percent Volume (%)	100	91
Elevation (ft.)	196	192.93
Storage (BG)	23,782	21,709
Diversion (MGD)	317	
Release (MGD)	55	
Average Residence time (year)	0	
Max. surface area (acres)	2258	
Tunnel length (miles)	N/A	N/A

Sample Analyses Performed at NYC DEP Kensico Laboratory
 ELAP I.D. # 10771

Limnology Program - Reservoir Report

Reservoir: New Croton Reservoir
Survey Type: Routine- Full

Date Surveyed: 10/02/02
 Date Previous Survey: 09/17/02
 Date Next Survey: 10/16/02



map not to scale

Note: Data is Provisional unless checked here

DEP Fax Memo		
To:	M.Principe	e-mail
	D. Lipsky	e-mail
	L. Janus	e-mail
	D. Smith	e-mail
	S. Schindler	e-mail
	V. Lomonaco	e-mail
	A. Fiore	e-mail
	T. Echelman	e-mail
	J. Morris	e-mail
	A. Bader	e-mail
	G. Marzec	e-mail
From:	R. Kowalczyk	e-mail
Prepared by: K. Chin		

Reservoir Information:	Full / Max	Current
Percent Volume (%)	100	88
Elevation (ft.)	196.00	191.78
Storage (BG)	23,782	20,958
Diversion (MGD)	317	
Release (MGD)	55	
Average Residence time (year)	0.33	
Max. surface area (acres)	2258	
Tunnel length (miles)	N/A	N/A

Sample Analyses Performed at NYCDEP Kensico Labora
 ELAP I.D. # 10771

Site	Sample Depth	Sample Elev.	Z _{th}	DO	Turb	Color	Tot. Phyto	Dom. Genus	SAU 1	TC	FC
(m)	(m)	(ft)	(m)	(mg/L)	(NTU)	(units)	(SAU/mL)	(taxa)	(SAU/mL)	(cfu/100mL)	(cfu/100mL)
1	0 - 8.5	192 - 164	28	5.7	NR	NR	5200	<i>Aphanizomenon</i>	1800	NR	NR
1	3	182	28	5.7	1.4	18	460	<i>Oscillatoria</i>	280	>=<40	2
1	6	172	28	5.7	NR	NR	2400	<i>Fragilaria</i>	1600	NR	NR
1	29	97	28	0.4	2.0	15	NR	NR	NR	>=<40	<1
1	37	70	28	0.3	7.1	50	NR	NR	NR	<40	1
1.1	8	166	NR	5.4	1.1	12	810	<i>Oscillatoria</i>	460	80	1
1.2	23	116	NR	0.3	1.4	12	150	<i>Tabellaria</i>	120	40	<1
2	0 - 8	192 - 166	0	6.9	NR	NR	1100	<i>Oscillatoria</i>	500	NR	NR
2	3	182	0	7.3	2.1	12	1600	<i>Tabellaria</i>	650	<40	3
2	5	175	0	6.6	NR	NR	880	<i>Oscillatoria</i>	280	NR	NR
2	14	146	0	3.5	1.5	15	NR	NR	NR	>=<40	<1
3	0 - 8	192 - 166	28	6.7	NR	NR	1700	<i>Fragilaria</i>	310	NR	NR
3	3	182	28	7.0	1.2	12	1500	<i>Fragilaria</i>	580	>=<40	2
3	5	175	28	6.7	NR	NR	960	<i>Oscillatoria</i>	320	NR	NR
3	10	159	28	5.5	1.3	15	NR	NR	NR	>=<40	3
3	27	103	28	0.2	3.2	45	NR	NR	NR	<40	1
4	0 - 7.9	192 - 166	0	7.1	NR	NR	2100	<i>Fragilaria</i>	660	NR	NR
4	3	182	0	7.3	1.8	15	1400	<i>Fragilaria</i>	390	40	2
4	5	175	0	6.8	NR	NR	1400	<i>Melosira</i>	370	NR	NR
4	10	159	0	6.2	1.9	20	1800	<i>Fragilaria</i>	560	<40	1
4	16	139	0	4.7	2.7	32	900	<i>Oscillatoria</i>	420	120	10
5	0 - 6.4	192 - 171	12	7.6	NR	NR	51	<i>Aphanizomenon</i>	51	NR	NR
5	3	182	12	7.7	1.7	18	1700	<i>Fragilaria</i>	610	40	<1
5	13	149	12	0.3	1.9	20	NR	NR	NR	<40	<1
5	16	139	12	0.3	2.2	22	NR	NR	NR	<40	2
6	0 - 5.6	192 - 173	11	8.7	NR	NR	2000	<i>Oscillatoria</i>	580	NR	NR
6	3	182	11	8.7	2.3	28	2100	<i>Fragilaria</i>	870	<40	1
6	7	169	11	6.1	2.5	28	NR	NR	NR	<40	2
6	11	156	11	0.6	14.0	200	NR	NR	NR	<40	11
7	0 - 5	192 - 175	11	8.6	NR	NR	2200	<i>Fragilaria</i>	1300	NR	NR
7	3	182	11	8.5	2.9	18	2600	<i>Fragilaria</i>	1200	<40	1
7	7	169	11	6.3	2.8	20	NR	NR	NR	<40	1
7	9	162	11	4.9	2.7	24	NR	NR	NR	120	<1
8	0 - 4.2	192 - 178	8	9.5	NR	NR	2200	<i>Fragilaria</i>	610	NR	NR
8	3	182	8	9.1	4.8	25	2100	<i>Fragilaria</i>	730	80	1
8	5	175	8	8.8	5.4	23	NR	NR	NR	200	3
8	7	169	8	8.7	5.7	25	NR	NR	NR	40	<1

NR - Not Required, NA - Data Not Available
 Values in bold exceed DWQC internal standards

Comments:
 Total coliform exceeded the SWTR limit of 100 CFU/100ml at the bottom of Site 4, the bottom of Site 7, and the middle of Site 8.
 Fecal coliform levels were below the SWTR limit of 20 CFU/100ml at all sites.

Recommendations:

Appendix 4. Delivery and Treatment Advisories



**BUREAU OF WATER SUPPLY
DELIVERY AND TREATMENT ADVISORY**

for change in (check one)
 flow treatment condition observed
 ASAP ROUTINE
 CROTON

STEM: (circle one)

DELAWARE

CATSKILL

FACILITY/LOCATION:

ASHOKAN RESERVOIR

OPERATIONAL ADVISORY (check one)

TREATMENT CHANGE SELECTIVE WITHDRAWAL DIVERSION OTHER

SPECIFIC DIRECTIVE: SWITCH DRAFT FROM WEST TO EAST BASIN *

ACTION LEVEL (check one)

immediately

within 24 hours

within 48 hours

REQUESTER DIVISION: (check one) Operations & Engineering DWQC

NAME:

STEVE SCHINDLER

DATE: 9/6/02

IMPLEMENTATION DATE:

9/6/02

TIME: 10:00 AM/PM

IMPLEMENTOR'S NAME:

JEFF HELMUTH

DATE: 9/6/02

IMPLEMENTOR'S SIGNATURE:

Jeff Helmuth

OPERATIONAL SECTION (check one) SYS. OP TOS DWQC OTHER

COMMENTS: * SWITCH FROM W11 @ elev. 548 TO E25 @ elev. 551

DISTRIBUTE VIA FAX TO

<input checked="" type="checkbox"/> Principe	914-741-0348
<input checked="" type="checkbox"/> Principe/Schindler	845-340-7504
<input checked="" type="checkbox"/> Hook/Erhani/Polesse	914-773-0355
<input checked="" type="checkbox"/> Lipsky/Schindler/Geriak	914-741-0431
<input checked="" type="checkbox"/> Lawler	914-232-7003
<input checked="" type="checkbox"/> Donecker (Kensico)	914-428-6106
Croton Lake Gate Hse	914-962-1048
Janus/Stern/Smith/Stepczuk/Capetanakis/Borchert/Kane	914-773-0365
<input checked="" type="checkbox"/> Morris/Robinson	914-997-2216
<input checked="" type="checkbox"/> Schultz	845-657-6067
<input checked="" type="checkbox"/> Rush	845-985-7516
<input checked="" type="checkbox"/> Poliseno	845-657-7035
Hurley	914-243-4729

<input type="checkbox"/> Tipa	718-595-6399
<input checked="" type="checkbox"/> Hurwitz	718-595-5493
Greeley	718-595-5342
Ashendorff/Freud	718-595-5355
Hadden(Hillview)	718-652-2193 914-237-7868
Bader/Mayfield/Marzec	845-657-5776
Covey (DOH)	518-402-7659
Kutzy (WCDOH)	914-637-4867
Public Affairs	718-595-3477
Central Lab	718-595-6399
A. Patrick Nucciarone	732-280-4801
Emery/Porter/Nezelek	845-985-0036
Sadosky	914-773-0355



**BUREAU OF WATER SUPPLY
DELIVERY AND TREATMENT ADVISORY**

for change in (check one)
 flow treatment condition observed
 ASAP ROUTINE
 DELAWARE CATSKILL CROTON

SYSTEM: (circle one) DELAWARE CATSKILL
 FACILITY/LOCATION: ASHOKAN RESERVOIR

OPERATIONAL ADVISORY (check one)
 TREATMENT CHANGE SELECTIVE WITHDRAWAL DIVERSION OTHER

SPECIFIC DIRECTIVE: INCREASE DRAFT FROM 350 → 400 mgd
 ACTION LEVEL (check one) immediately within 24 hours within 48 hours

REQUESTER DIVISION: (check one) Operations & Engineering DWQC
 NAME: THOM HOOK / CONF. CALL DATE: 9 / 12 / 02

IMPLEMENTATION DATE: 9 / 12 / 02 TIME: 11:00 AM/PM
 IMPLEMENTOR'S NAME: JEFF HELMUTH

IMPLEMENTOR'S SIGNATURE: [Signature] DATE: 9 / 12 / 02
 OPERATIONAL SECTION (check one) SYS. OP TOS DWQC OTHER

COMMENTS: SUPPLEMENT THRU UPPER VALVE #26 @ Elev. 528

DISTRIBUTE VIA FAX TO

<input checked="" type="checkbox"/> Principe	914-741-0348
<input checked="" type="checkbox"/> Principe/Schindler	845-340-7504
<input checked="" type="checkbox"/> Hook/Erfani/Polesse	914-773-0355
<input checked="" type="checkbox"/> Lipsky/Schindler/Geriak	914-741-0431
<input type="checkbox"/> Lawler	914-232-7003
<input checked="" type="checkbox"/> Donecker (Kensico)	914-428-6106
<input checked="" type="checkbox"/> Croton Lake Gate Hse	914-962-1048
Janus/Stern/Smith/Stepczuk/ Capetanakis/Borchert/Kane	914-773-0365
<input checked="" type="checkbox"/> Morris/Robinson	914-997-2216
<input checked="" type="checkbox"/> Schultz	845-657-6067
<input checked="" type="checkbox"/> Rush	845-985-7516
Poliseno	845-657-7055
Sturley	914-243-4729

Tipa	718-595-6399
<input checked="" type="checkbox"/> Hurwitz	718-595-5493
Greeley	718-595-5342
Ashendorf/Freud	718-595-5355
Hadden(Hillview)	718-652-2193 914-237-7868
Bader/Mayfield/Marzee	845-657-5776
Covey (DOH)	518-402-7659
Kutzy (WCDOH)	914-637-4887
Public Affairs	718-595-3477
Central Lab	718-595-6599
A. Patrick Nucciarone	732-280-4801
Emery/Porter/Nezelek	845-985-0036
Sadosky	914-773-0255



WATER SUPPLY, QUALITY & PROTECTION DELIVERY AND TREATMENT ADVISORY

for change in (check one)
 flow treatment condition observed
 ASAP ROUTINE

SYSTEM: (circle one) DELAWARE CATSKILL CROTON
 FACILITY/LOCATION: CROTON LAKE GATE HOUSE

OPERATIONAL ADVISORY (check one)
 TREATMENT CHANGE SELECTIVE WITHDRAWAL DIVERSION OTHER

SPECIFIC DIRECTIVE: Lower the Flow

ACTION LEVEL (check one) Immediately within 24 hours within 48 hours

REQUESTER DIVISION: (check one) Operations & Engineering DWQC Other

NAME: Rafine DATE: 9/14/02

IMPLEMENTATION DATE: 9/14/02 TIME: 10:30 AM

IMPLEMENTOR'S NAME: Russell Hanaburgh DATE: 9/14/02
 IMPLEMENTOR'S SIGNATURE: [Signature]

OPERATIONAL SECTION (check one) SYS. OP TOS DWQC OTHER

COMMENTS: Lowered the Flow From 190mgd to 180mgd Took 10mg From CLGH East

DISTRIBUTE VIA FAX TO

<input checked="" type="checkbox"/>	Principe	914-741-0431
<input checked="" type="checkbox"/>	Principe/Schladler	845-340-7504
<input checked="" type="checkbox"/>	Hook/Erani	914-773-0355
<input checked="" type="checkbox"/>	Lipsky/Schindler/Geriak	914-741-0431
<input checked="" type="checkbox"/>	Picha/Lawler	914-232-7003
<input checked="" type="checkbox"/>	LICART (Kensico)	914-428-6106
<input checked="" type="checkbox"/>	Croton Lake Gate House	914-962-1048
<input checked="" type="checkbox"/>	Janus/Stern/Smith	914-773-0365
<input checked="" type="checkbox"/>	Morris/Robinson	914-997-2216
<input checked="" type="checkbox"/>	Schultz	914-637-6067
<input type="checkbox"/>	Clonnan	914-985-7516
<input type="checkbox"/>	Bock	914-657-7035
<input checked="" type="checkbox"/>	Hurley	914-243-4729

<input checked="" type="checkbox"/>	Tipa	718-595-6399
<input checked="" type="checkbox"/>	Hurwitz	718-595-5493
<input checked="" type="checkbox"/>	Greeley	718-595-5342
<input checked="" type="checkbox"/>	Ashendorff	914-595-5342
<input checked="" type="checkbox"/>	Hadden(Hillview)	718-652-2193 914-237-7863
<input checked="" type="checkbox"/>	Mastronard/Daye	914-773-0365
<input checked="" type="checkbox"/>	Covey (DOH)	518-402-7655
<input checked="" type="checkbox"/>	Kutzy (WCDOH)	914-637-4887
<input type="checkbox"/>	Public Affairs	718-595-3477
<input checked="" type="checkbox"/>	Central Lab	718-595-6399
<input type="checkbox"/>	Nickols (H & S)	212-614-9044
<input type="checkbox"/>	Emery/Bader	914-985-0033
<input checked="" type="checkbox"/>	LIMNO/HYDRO Kensico	914-997-2211

09/14/02

NYC DEP SYSTEMS OPS FAX: 914-962-1048 CROTON LAKE GATE HOUSE FAX: 914-962-1048
 Sep 14 2002 10:25 P.01 Jun 7 2002 16:22 P.01



**BUREAU OF WATER SUPPLY
DELIVERY AND TREATMENT ADVISORY**

for change in (check one)

flow treatment condition observed

ASAP ROUTINE
CATSKILL CROTON

SYSTEM: (circle one) DELAWARE

FACILITY/LOCATION: CROTON LAKE Gatehouse

OPERATIONAL ADVISORY (check one)

TREATMENT CHANGE SELECTIVE WITHDRAWAL DIVERSION OTHER

SPECIFIC DIRECTIVE: Increase Catskill Blend

ACTION LEVEL (check one) immediately within 24 hours within 48 hours

REQUESTER DIVISION: (check one) Operations & Engineering DWQC

NAME: Steve Schindler DATE: 9/16/02

IMPLEMENTATION DATE: 9/16/02 TIME: 3:00 AM/PM

IMPLEMENTOR'S NAME: Bob Waterhouse

IMPLEMENTOR'S SIGNATURE: Robert Waterhouse DATE: 9/16/02

OPERATIONAL SECTION (check one) SYS. OP TOS DWQC OTHER

COMMENTS: BLEND Ratio to be: 115mgd CLGH Ent Upper Intake, 30mgd GH #1 Upper Intake; 35mgd Catskill

DISTRIBUTE VIA FAX TO

<input checked="" type="checkbox"/>	Principe	914-741-0348
<input checked="" type="checkbox"/>	Principe/Schindler	845-340-7504
<input checked="" type="checkbox"/>	Hook/Erfani/Poles	914-773-0355
<input checked="" type="checkbox"/>	Lipsky/Schindler/Cerjak	914-741-0431
<input checked="" type="checkbox"/>	Lawler/Mulroy	914-232-7003
<input checked="" type="checkbox"/>	Licari (Kensico)	914-428-6106
<input checked="" type="checkbox"/>	Croton Lake Gate House	914-962-1048
<input checked="" type="checkbox"/>	Janus/Mikol/Smith/Kane	914-773-0365
<input checked="" type="checkbox"/>	Morris/Robinson	914-997-2216
<input checked="" type="checkbox"/>	Hacker	845-657-6067
	Rush	845-985-7516
<input checked="" type="checkbox"/>	Poliseno	845-657-7035
<input checked="" type="checkbox"/>	Hurley/Fiore	914-243-4729

<input checked="" type="checkbox"/>	Tipa	718-595-6399
	Hurwitz	718-595-5493
	Grecley	718-595-5342
<input checked="" type="checkbox"/>	Ashendorff/Freud	718-595-5355
<input checked="" type="checkbox"/>	Hadden(Hillview)	718-652-2193 914-237-7868
<input checked="" type="checkbox"/>	Bader/Mayfield/Marzec	845-657-5776
<input checked="" type="checkbox"/>	Covey (NYSDOH)	518-402-7659
<input checked="" type="checkbox"/>	Kutzy (WCDOH)	914-637-4887
<input checked="" type="checkbox"/>	Public Affairs	718-595-3477
<input checked="" type="checkbox"/>	Central Lab	718-595-6399
<input checked="" type="checkbox"/>	A. Patrick Nucciarone	732-280-4801
	Emery/Porter/Nezelek	845-985-0036
	Sadosky	914-773-0355
<input checked="" type="checkbox"/>	Luke (NYCDOH)	212-676-1517



**BUREAU OF WATER SUPPLY
DELIVERY AND TREATMENT ADVISORY**

for change in (check one)

flow treatment condition observed

ASAP ROUTINE

SYSTEM: (circle one) DELAWARE CATSKILL CROTON

FACILITY/LOCATION: CROTON LAKE GATE HOUSE

OPERATIONAL ADVISORY (check one)

TREATMENT CHANGE SELECTIVE WITHDRAWAL DIVERSION OTHER

SPECIFIC DIRECTIVE: INCREASE FLOW 10 MGD.

ACTION LEVEL (check one) immediately within 24 hours within 48 hours

REQUESTER DIVISION: (check one) Operations & Engineering DWQC

NAME: CITY OPS / FRANCIA DATE: 9/17/02

IMPLEMENTATION DATE: 9/17/02 TIME: 11:30 AM

IMPLEMENTOR'S NAME: ROBERT WATERHOUSE

IMPLEMENTOR'S SIGNATURE: [Signature] DATE: / /

OPERATIONAL SECTION (check one) SYS. OP TOS DWQC OTHER

COMMENTS: Flow increase to 190 MGD 115 GLGH 40 GATE# 35 CATSKILL 145 = 35 = 190 MGD.

DISTRIBUTE VIA FAX TO

<input checked="" type="checkbox"/>	Principe	914-741-0348
<input checked="" type="checkbox"/>	Principe/Schindler	845-340-7504
<input checked="" type="checkbox"/>	Hook/Erfani/Polese	914-773-0355
<input checked="" type="checkbox"/>	Lipsky/Schindler/Geriak	914-741-0431
<input checked="" type="checkbox"/>	Lawler/Mulroy	914-232-7003
<input checked="" type="checkbox"/>	Licari (Kensico)	914-428-6106
<input checked="" type="checkbox"/>	Croton Lake Gate House	914-962-1048
<input checked="" type="checkbox"/>	Janus/Mikol/Smith/Kane	914-773-0365
<input checked="" type="checkbox"/>	Morris/Robinson	914-997-2216
<input type="checkbox"/>	Hacker	845-657-6067
<input type="checkbox"/>	Rush	845-985-7516
<input checked="" type="checkbox"/>	Poliseno	845-657-7035
<input checked="" type="checkbox"/>	Hurley/Fiore	914-243-4729

<input checked="" type="checkbox"/>	Tipa	718-595-6399
<input type="checkbox"/>	Hurwitz	718-595-5493
<input type="checkbox"/>	Greeley	718-595-5342
<input checked="" type="checkbox"/>	Ashendorff/Freud	718-595-5355
<input checked="" type="checkbox"/>	Hadden(Hillview)	718-652-2193 914-237-7868
<input checked="" type="checkbox"/>	Buder/Mayfield/Marzec	845-657-5776
<input checked="" type="checkbox"/>	Covey (NYSDOH)	518-402-7659
<input checked="" type="checkbox"/>	Kutzy (WCDOH)	914-637-4887
<input checked="" type="checkbox"/>	Public Affairs	718-595-3477
<input checked="" type="checkbox"/>	Central Lab	718-595-6399
<input checked="" type="checkbox"/>	A. Patrick Nucciarone	732-280-4801
<input type="checkbox"/>	Emery/Porter/Nezelek	845-985-0036
<input type="checkbox"/>	Sadosky	914-773-0355
<input checked="" type="checkbox"/>	Luke (NYCDOH)	212-676-1517

9/9/02

WATER SUPPLY, QUALITY & PROTECTION DELIVERY AND TREATMENT ADVISORY

For change in (check one)

flow treatment condition observed

ASAP ROUTINE

SYSTEM : (circle one) DELAWARE CATSKILL CROTON

FACILITY/LOCATION: Dunwoodie Fluoride

OPERATIONAL ADVISORY (CHECK ONE)

TREATMENT CHANGE SELECTIVE WITHDRAWAL DIVERSION OTHER

SPECIFIC DIRECTIVE: Treating with Sodium Hydroxide Croton System

ACTION LEVEL (CHECK ONE) IMMEDIATELY WITHIN 24 HOURS WITHIN 48 HOURS

REQUESTER DIVISION: OPERATIONS & ENGINEERING DWQC OTHER

NAME: S. Schindler DATE: 9/17/02

IMPLEMENTATION DATE: 9/17/02 TIME: 3:00 AM/PM

IMPLEMENTER'S NAME: Russell Haabursh

IMPLEMENTER'S SIGNATURE: R. Haabursh DATE: 9/17/02

OPERATIONAL SECTION: (CHECK ONE) SYS. OPS. T.O.S. D.W.Q.C. OTHER

COMMENTS: Catskill, Croton blend adding Sodium Hydroxide to Adjust

pH Level - 3mg per liter

<input checked="" type="checkbox"/>	PRINCIPE	914-741-0348	<input checked="" type="checkbox"/>	TIPA	718-595-6399
<input checked="" type="checkbox"/>	PRINCIPE/SCHINDLER	845-340-7504	<input checked="" type="checkbox"/>	HURWITZ	718-595-5493
<input checked="" type="checkbox"/>	HOOK/ERFANI/POLESE	914-7730355	<input checked="" type="checkbox"/>	GREELEY	718-595-5342
<input checked="" type="checkbox"/>	LIPSKY/SCHINDLER/GERIAK	914-741-0431	<input checked="" type="checkbox"/>	ASHENDORFF/ FREUD	718-595-5355
<input checked="" type="checkbox"/>	LAWLER/MULROY	914-232-7003	<input checked="" type="checkbox"/>	HADDEN (HILLVIEW)	718-652-2193 914-237-7868
<input checked="" type="checkbox"/>	LICARI (KENSICO)	914-428-6106	<input checked="" type="checkbox"/>	BADER/ MAYFIELD/ MARZEC	845-657-5776
<input checked="" type="checkbox"/>	CROTON LAKE GATE HOUSE	914-962-1048	<input checked="" type="checkbox"/>	COVEY (D.O.H.)	518-402-7659
<input checked="" type="checkbox"/>	JANAS/STERN/SMITH/STEPEZUK CAPETANAKIS/BORCHERT/KANE	914-773-0365	<input checked="" type="checkbox"/>	KUTZY (W.C.D.O.H.)	914-637-4887
<input checked="" type="checkbox"/>	MORRIS/ROBINSON	914-997-2216		PUBLIC AFFAIRS	718-595-3477
<input checked="" type="checkbox"/>	SCHULTZ	845-657-6067	<input checked="" type="checkbox"/>	CENTRAL LAB	718-595-6399
<input checked="" type="checkbox"/>	RUSH	845-985-7516		A. PATRICK NUCCIARONE	732-280-4801
<input checked="" type="checkbox"/>	POLISENO	845-657-7035		EMERY/ PORTER/ NEZELEK	845-985-0036
<input checked="" type="checkbox"/>	HURLEY	914-243-4729		SODOSKY	914-773-0355

WATER SUPPLY, QUALITY & PROTECTION DELIVERY AND TREATMENT ADVISORY

For change in (check one)

flow treatment condition observed
 ASAP ROUTINE

SYSTEM : (circle one) DELAWARE CATSKILL **CROTON**
FACILITY/LOCATION: Croton Lake Gate House
OPERATIONAL ADVISORY (CHECK ONE)

TREATMENT CHANGE SELECTIVE WITHDRAWAL DIVERSION OTHER _____
SPECIFIC DIRECTIVE: Flow change, Raised From 190 MGD to 200 MGD
ACTION LEVEL (CHECK ONE) IMMEDIATELY WITHIN 24 HOURS WITHIN 48 HOURS
REQUESTER DIVISION: OPERATIONS & ENGINEERING DWQC OTHER

NAME: Francia DATE: 9/18/02
IMPLEMENTATION DATE: 9/18/02 TIME: 8:00 AM / PM

IMPLEMENTER'S NAME: Russell Hanaburgh DATE: 9/18/02
IMPLEMENTER'S SIGNATURE: [Signature]

OPERATIONAL SECTION: (CHECK ONE) SYS. OPS. T.O.S. D.W.Q.C. OTHER _____
COMMENTS: Gate House #2 upper inlet 50 MGD, CLGH upper inlet 115 MGD
Catskill Connection 35 MGD

<input checked="" type="checkbox"/>	PRINCIPE	914-741-0348	<input checked="" type="checkbox"/>	TIPA	718-595-6399
<input checked="" type="checkbox"/>	PRINCIPE/SCHINDLER	845-340-7504	<input checked="" type="checkbox"/>	HURWITZ	718-595-5493
<input checked="" type="checkbox"/>	HOOK/ERFANI/POLESE	914-7730355	<input checked="" type="checkbox"/>	GREELEY	718-595-5342
<input checked="" type="checkbox"/>	LIPSKY/SCHINDLER/GERIAK	914-741-0431	<input checked="" type="checkbox"/>	ASHENDORFF/FREUD	718-595-5355
<input checked="" type="checkbox"/>	LAWLER/MULROY	914-232-7003	<input checked="" type="checkbox"/>	HADDEN (HILLVIEW)	718-652-2193 914-237-7868
<input checked="" type="checkbox"/>	LICARI (KENSICO)	914-428-6106	<input checked="" type="checkbox"/>	BADER/ MAYFIELD/ MARZEC	845-657-5776
<input checked="" type="checkbox"/>	CROTON LAKE GATE HOUSE	914-962-1048	<input checked="" type="checkbox"/>	COVEY (D.O.H.)	518-402-7659
<input checked="" type="checkbox"/>	JANAS/STERN/SMITH/STPEZUK	914-773-0365	<input checked="" type="checkbox"/>	KUTZY (W.C.D.O.H.)	914-637-4887
<input checked="" type="checkbox"/>	CAPETANAKIS/BORCHERT/KANE	914-997-2216	<input checked="" type="checkbox"/>	PUBLIC AFFAIRS	718-595-3477
<input checked="" type="checkbox"/>	MORRIS/ROBINSON	914-997-2216	<input checked="" type="checkbox"/>	CENTRAL LAB	718-595-6399
<input checked="" type="checkbox"/>	SCHULTZ	845-657-6067	<input checked="" type="checkbox"/>	A. PATRICK NUCCARONE	732-280-4801
<input checked="" type="checkbox"/>	RUSH	845-985-7516	<input checked="" type="checkbox"/>	EMERY/PORTER/NEZELEK	845-985-0036
<input checked="" type="checkbox"/>	POLISENO	845-657-7035	<input checked="" type="checkbox"/>	SODOSKY	914-773-0355
<input checked="" type="checkbox"/>	HURLEY	914-243-4729	<input checked="" type="checkbox"/>		

WATER SUPPLY, QUALITY & PROTECTION DELIVERY AND TREATMENT ADVISORY

For change in (check one)

flow treatment condition observed

ASAP ROUTINE

SYSTEM: (circle one) DELAWARE CATSKILL CROTON

FACILITY/LOCATION: DUNWOODIE FLUORIDE

OPERATIONAL ADVISORY (CHECK ONE)

TREATMENT CHANGE SELECTIVE WITHDRAWAL DIVERSION OTHER

SPECIFIC DIRECTIVE: DOSE CHANGE FOR SODIUM HYDROXIDE AT DUNWOODIE FLUORIDE

ACTION LEVEL (CHECK ONE) IMMEDIATELY WITHIN 24 HOURS WITHIN 48 HOURS

REQUESTER DIVISION: OPERATIONS & ENGINEERING DWQC OTHER

NAME: STEVE SCHINDLER DATE: 9/18/02

IMPLEMENTATION DATE: 9/18/02 TIME: 3:15 AM/ PM

IMPLEMENTER'S NAME: TONY PRANTI

IMPLEMENTER'S SIGNATURE: Tony Pranti DATE: 9/18/02

OPERATIONAL SECTION: (CHECK ONE) SYS. OPS. T.O.S. D.W.Q.C. OTHER

COMMENTS: DOSE CHANGE FROM 3MG/L TO 2MG/L AS PER STEVE SCHINDLER.

<input checked="" type="checkbox"/>	PRINCIPE	914-741-0348	<input type="checkbox"/>	TIPA	718-595-6399
<input checked="" type="checkbox"/>	PRINCIPE/SCHINDLER	845-340-7504	<input checked="" type="checkbox"/>	HURWITZ	718-595-5493
<input checked="" type="checkbox"/>	HOOK/ERFANI/POLESE	914-7730355	<input checked="" type="checkbox"/>	GREELEY	718-595-5342
<input checked="" type="checkbox"/>	LIPSKY/SCHINDLER/GERIAK	914-741-0431	<input checked="" type="checkbox"/>	ASHENDORFF/ FREUD	718-595-5355
<input checked="" type="checkbox"/>	LAWLER/MULROY	914-232-7003	<input checked="" type="checkbox"/>	HADDEN (HILLVIEW)	718-652-2193 914-237-7868
<input checked="" type="checkbox"/>	LICARI (KENSICO)	914-428-6106	<input checked="" type="checkbox"/>	BADER/ MAYFIELD/ MARZEC	845-657-5776
<input checked="" type="checkbox"/>	CROTON LAKE GATE HOUSE	914-962-1048	<input checked="" type="checkbox"/>	COVEY (D.O.H.)	518-402-7659
<input checked="" type="checkbox"/>	JANAS/STERN/SMITH/STPEZUK CAPETANAKIS/BORCHERT/KANE	914-773-0365	<input checked="" type="checkbox"/>	KUTZY (W.C.D.O.H.)	914-637-4887
<input checked="" type="checkbox"/>	MORRIS/ROBINSON	914-997-2216		PUBLIC AFFAIRS	718-595-3477
<input checked="" type="checkbox"/>	SCHULTZ	845-657-6067	<input checked="" type="checkbox"/>	CENTRAL LAB	718-595-6399
	RUSH	845-985-7516		A. PATRICK NUCCARONE	732-280-4801
	POLISENO	845-657-7035		EMERY/ PORTER/ NEZELEK	845-985-0036
<input checked="" type="checkbox"/>	HURLEY	914-243-4729		SODOSKY	914-773-0355



**BUREAU OF WATER SUPPLY
DELIVERY AND TREATMENT ADVISORY**

for change in (check one)

flow treatment condition observed

ASAP ROUTINE
CATSKILL CROTON

SYSTEM: (circle one) DELAWARE

FACILITY/LOCATION: CROTON Lake Gatehouse

OPERATIONAL ADVISORY (check one)

TREATMENT CHANGE SELECTIVE WITHDRAWAL DIVERSION OTHER

SPECIFIC DIRECTIVE: Change Blend Ratio in Favor of GH#1 Upper Intake

ACTION LEVEL (check one) immediately within 24 hours within 48 hours

REQUESTER DIVISION: (check one) Operations & Engineering DWQC

NAME: Steve Schindler DATE: 9/18/02

IMPLEMENTATION DATE: 9/18/02 TIME: 4:02 AM/PM

IMPLEMENTOR'S NAME: Austin Mully

IMPLEMENTOR'S SIGNATURE: Austin Mully DATE: 9/18/02

OPERATIONAL SECTION (check one) SYS. OP TOS DWQC OTHER

COMMENTS: New Blend Ratio: GH#1 Upper Intake: 100 mgd; C&GH Int Upper Intake: 65 mgd; Catskill: 35 mgd.

DISTRIBUTE VIA FAX TO

<input checked="" type="checkbox"/>	Principe	914-741-0348
<input checked="" type="checkbox"/>	Principe/Schindler	845-340-7504
<input checked="" type="checkbox"/>	Hook/Erfani/Poles	914-773-0355
<input checked="" type="checkbox"/>	Lipsky/Schindler/Geriak	914-741-0431
<input checked="" type="checkbox"/>	Lawler/Mulroy	914-232-7003
<input checked="" type="checkbox"/>	Licari (Kensico)	914-428-6106
<input checked="" type="checkbox"/>	Croton Lake Gate House	914-962-1048
<input checked="" type="checkbox"/>	Janus/Mikol/Smith/Kane	914-773-0365
<input checked="" type="checkbox"/>	Morris/Robinson	914-997-2216
	Hacker	845-657-6067
	Rush	845-985-7516
<input checked="" type="checkbox"/>	Poliseno	845-657-7035
<input checked="" type="checkbox"/>	Hurley/Fiore	914-243-4729

<input checked="" type="checkbox"/>	Tipa	718-595-6399
	Hurwitz	718-595-5493
	Greeley	718-595-5342
<input checked="" type="checkbox"/>	Ashendorff/Freud	718-595-5355
<input checked="" type="checkbox"/>	Hadden(Hillview)	718-652-2193 914-237-7868
<input checked="" type="checkbox"/>	Bader/Mayfield/Marzec	845-657-5776
<input checked="" type="checkbox"/>	Covey (NYSDOH)	518-402-7659
<input checked="" type="checkbox"/>	Kutzy (WCDOH)	914-637-4887
<input checked="" type="checkbox"/>	Public Affairs	718-595-3477
<input checked="" type="checkbox"/>	Central Lab	718-595-6399
<input checked="" type="checkbox"/>	A. Patrick Nucciarone	732-280-4801
	Emery/Porter/Nezelek	845-985-0036
	Sadosky	914-773-0355
	Luke (NYCDOH)	212-676-1517



**BUREAU OF WATER SUPPLY
DELIVERY AND TREATMENT ADVISORY**

for change in (check one)

flow treatment condition observed

ASAP ROUTINE
 CATSKILL CROTON

SYSTEM: (circle one) DELAWARE

FACILITY/LOCATION: CROTON Lake Gatehouse

OPERATIONAL ADVISORY (check one)

TREATMENT CHANGE SELECTIVE WITHDRAWAL DIVERSION OTHER

SPECIFIC DIRECTIVE: Change Blend Ratio (See Below)

ACTION LEVEL (check one) immediately within 24 hours within 48 hours

REQUESTER DIVISION: (check one) Operations & Engineering DWQC

NAME: Steve Schindler DATE: 9/20/02

IMPLEMENTATION DATE: 9/20/02 TIME: 4⁰⁰ AM/PM

IMPLEMENTOR'S NAME: Bob Waterhouse

IMPLEMENTOR'S SIGNATURE: [Signature] DATE: 9/20/02

OPERATIONAL SECTION (check one) SYS OP TOS DWQC OTHER

COMMENTS: New Blend Ratio: CLGH East Upper Intake - 30 mgd : GH#1 Upper Intake - 135 mgd : Catskill - 35 mgd.

DISTRIBUTE VIA FAX TO

<input checked="" type="checkbox"/>	Principe	914-741-0348
<input checked="" type="checkbox"/>	Principe/Schindler	845-340-7504
<input checked="" type="checkbox"/>	Hook/Erfani/Polase	914-773-0355
<input checked="" type="checkbox"/>	Lipsky/Schindler/Geriak	914-741-0431
<input checked="" type="checkbox"/>	Lawler/Mulroy	914-232-7003
<input checked="" type="checkbox"/>	Licari (Kensico)	914-428-6106
<input checked="" type="checkbox"/>	Croton Lake Gate House	914-962-1048
<input checked="" type="checkbox"/>	Janus/Mikol/Smith/Kane	914-773-0365
<input checked="" type="checkbox"/>	Morris/Robinson	914-997-2216
<input type="checkbox"/>	Hacker	845-657-6067
<input type="checkbox"/>	Rush	845-985-7516
<input checked="" type="checkbox"/>	Poliseno	845-657-7035
<input checked="" type="checkbox"/>	Hurley/Fiore	914-243-4729

<input checked="" type="checkbox"/>	Tipa	718-595-6399
<input type="checkbox"/>	Hurwitz	718-595-5493
<input type="checkbox"/>	Greeley	718-595-5342
<input checked="" type="checkbox"/>	Ashendorff/Frcud	718-595-5355
<input checked="" type="checkbox"/>	Hadden(Hillview)	718-652-2193 914-237-7868
<input checked="" type="checkbox"/>	Bader/Mayfield/Marzec	845-657-5776
<input checked="" type="checkbox"/>	Covey (NYSDOH)	518-402-7659
<input checked="" type="checkbox"/>	Kutzy (WCDOH)	914-637-4887
<input checked="" type="checkbox"/>	Public Affairs	718-595-3477
<input checked="" type="checkbox"/>	Central Lab	718-595-6399
<input checked="" type="checkbox"/>	A. Patrick Nuceiarone	732-280-4801
<input type="checkbox"/>	Emery/Porter/Nezelek	845-985-0036
<input type="checkbox"/>	Sadosky	914-773-0355
<input checked="" type="checkbox"/>	Luke (NYCDOH)	212-676-1517



**WATER SUPPLY, QUALITY & PROTECTION
DELIVERY AND TREATMENT ADVISORY**

for change in (check one)
 flow treatment condition observed
 ASAP ROUTINE

SYSTEM: (circle one) DELAWARE CATSKILL CROTON

FACILITY/LOCATION: CROTON LAKE GATE HOUSE

OPERATIONAL ADVISORY (check one)
 TREATMENT CHANGE SELECTIVE WITHDRAWAL DIVERSION OTHER

SPECIFIC DIRECTIVE: Lowered the Flow From 200MGD to 190MGD

ACTION LEVEL (check one) Immediately within 24 hours within 48 hours

REQUESTER DIVISION: (check one) Operations & Engineering DWQC Other

NAME: M. Toro DATE: 9/21/02

IMPLEMENTATION DATE: 9/21/02 TIME: 10:30 AM

IMPLEMENTOR'S NAME: B. Hanaburgh

IMPLEMENTOR'S SIGNATURE: [Signature] DATE: 9/21/02

OPERATIONAL SECTION (check one) SYS. OP TOS DWQC OTHER

COMMENTS: Took 10MGD From Gatehouse #2 upper, New Flow Rates Gate house #1 upper 125MGD, Chgd upper 30, Catskill inlet 15MGD

DISTRIBUTE VIA FAX TO

<input checked="" type="checkbox"/>	Principe	914-741-0431
<input checked="" type="checkbox"/>	Principe/Schindler	845-340-7504
<input checked="" type="checkbox"/>	Hook/Erfani	914-773-0355
<input checked="" type="checkbox"/>	Lipsky/Schindler/Ceriak	914-741-0431
<input checked="" type="checkbox"/>	Picha/Lawler	914-232-7003
<input checked="" type="checkbox"/>	LISCART (Kensico)	914-428-6106
<input checked="" type="checkbox"/>	Croton Lake Gate House	914-962-1048
<input checked="" type="checkbox"/>	Janus/Stern/Smith	914-773-0365
<input checked="" type="checkbox"/>	Morris/Robinson	914-997-2216
<input checked="" type="checkbox"/>	Schultz	914-657-6067
	Clonnan	914-985-7516
	Bock	914-657-7035
<input checked="" type="checkbox"/>	Hurley	914-243-4729

<input checked="" type="checkbox"/>	Tipa	718-595-6399
<input checked="" type="checkbox"/>	Hurwitz	718-595-5493
<input checked="" type="checkbox"/>	Greeley	718-595-5342
<input checked="" type="checkbox"/>	Ashendorff	914-595-5342
<input checked="" type="checkbox"/>	Hadden(Hillview)	718-652-2193 914-237-7868
<input checked="" type="checkbox"/>	Mastronardi/Daye	914-773-0365
<input checked="" type="checkbox"/>	Covey (DOH)	518-402-7659
<input checked="" type="checkbox"/>	Kutzy (WCDOH)	914-637-4887
	Public Affairs	718-595-3477
<input checked="" type="checkbox"/>	Central Lab	718-595-6399
	Nickols (H & S)	212-614-9049
	Emery/Bader	914-985-0036
	LIMNO/HYDRO Kensico	914-997-2216

38 10/11/00

10 P. 22:49 7007 / Jun 21 2002 10:51 P.01

NYC DEP SYSTEMS OPS FAX: 9144286106



**BUREAU OF WATER SUPPLY
DELIVERY AND TREATMENT ADVISORY**

for change in (check one)

flow treatment condition observed

ASAP ROUTINE

SYSTEM: (circle one)

DELAWARE

CATSKILL

CROTON

FACILITY/LOCATION:

CROTON LAKE GATEHOUSE

OPERATIONAL ADVISORY (check one)

TREATMENT CHANGE SELECTIVE WITHDRAWAL DIVERSION OTHER

SPECIFIC DIRECTIVE: INCREASE FLOW 10 MGD

ACTION LEVEL (check one)

immediately

within 24 hours

within 48 hours

REQUESTER DIVISION: (check one)

Operations & Engineering

DWQC

NAME:

city ops / FRANCIA

DATE:

9/23/02

IMPLEMENTATION DATE:

TIME:

9:00 AM PM

IMPLEMENTOR'S NAME:

ROBERT WATERHOUSE

IMPLEMENTOR'S SIGNATURE:

R Waterhouse

DATE:

9/23/02

OPERATIONAL SECTION (check one)

SYS. OP

TOS

DWQC

OTHER

COMMENTS:

135^{MGD} GATEHOUSE #1 30 CROTON BATHHOUSE UPPER EAST
35 CATSKILL 135+30+35= 200 MGD

DISTRIBUTE VIA FAX TO

<input type="checkbox"/> Principe	914-741-0348
<input checked="" type="checkbox"/> Principe/Schindler	845-340-7504
<input checked="" type="checkbox"/> Hook/Erfani/Poese	914-773-0355
<input checked="" type="checkbox"/> Lipsky/Schindler/Geriak	914-741-0431
<input checked="" type="checkbox"/> Lawler/Mulroy	914-232-7003
<input checked="" type="checkbox"/> Licari (Kensico)	914-428-6106
<input checked="" type="checkbox"/> Croton Lake Gate House	914-962-1048
<input checked="" type="checkbox"/> Janus/Mikol/Smith/Kane	914-773-0365
<input type="checkbox"/> Morris/Robinson	914-997-2216
<input type="checkbox"/> Hacker	845-657-6067
<input checked="" type="checkbox"/> Rush	845-985-7516
<input type="checkbox"/> Poliseno	845-657-7035
<input checked="" type="checkbox"/> Hurley/Fiore	914-243-4729

<input checked="" type="checkbox"/> Tupa	718-595-6399
<input checked="" type="checkbox"/> Hurwitz	718-595-5493
<input type="checkbox"/> Greeley	718-595-5342
<input checked="" type="checkbox"/> Ashendorff/Freud	718-595-5355
<input checked="" type="checkbox"/> Hadden (Hillview)	718-652-2193 914-237-7868
<input checked="" type="checkbox"/> Bader/Mayfield/Marzec	845-657-5776
<input checked="" type="checkbox"/> Covey (NYSDOH)	518-402-7659
<input checked="" type="checkbox"/> Kutzy (WCDOH)	914-637-4887
<input type="checkbox"/> Public Affairs	718-595-3477
<input checked="" type="checkbox"/> Central Lab	718-595-6399
<input type="checkbox"/> A. Patrick Nucciarone	732-280-4801
<input type="checkbox"/> Emery/Porter/Nezelek	845-985-0036
<input type="checkbox"/> Sadosky	914-773-0355
<input checked="" type="checkbox"/> Luke (NYCDOH)	212-676-1517

9/9/02

Sep 23 2002 9:59 P.01

CROTONLAKEGATEHOUSE Fax: 914-962-1048



**BUREAU OF WATER SUPPLY
DELIVERY AND TREATMENT ADVISORY**

for change in (check one)

- flow
 treatment
 condition observed
 ASAP
 ROUTINE
 CROTON

SYSTEM: (circle one) DELAWARE CATSKILL

FACILITY/LOCATION: Croton Gate House

OPERATIONAL ADVISORY (check one)

- TREATMENT CHANGE
 SELECTIVE WITHDRAWAL
 DIVERSION
 OTHER ^{Remove Turbidity Alert}

SPECIFIC DIRECTIVE: Remove Turbidity Alert / Reduce Cl₂ dose 26 → 25^{lb}/mb

ACTION LEVEL (check one) immediately within 24 hours within 48 hours

REQUESTER DIVISION: (check one) Operations & Engineering DWQC

NAME: Jeffrey Hurley DATE: 9/23/02

IMPLEMENTATION DATE: 9/23/02 TIME: 3:00 AM/PM

IMPLEMENTOR'S NAME: Bob Waterhouse

IMPLEMENTOR'S SIGNATURE: [Signature] DATE: 9/23/02

OPERATIONAL SECTION (check one) SYS. OP TOS DWQC OTHER

COMMENTS: Turbidity Raw water + Aqueduct < 1.5 NTU. Reduce Cl₂ to maintain target residuals.

DISTRIBUTE VIA FAX TO

Principe	914-741-0348
Principe/Schindler	845-340-7504
Hook/Erfani/Poles	914-773-0355
Lipsky/Schindler/Geriak	914-741-0431
Lawler/Mulroy	914-232-7003
Licari (Kensico)	914-428-6106
Croton Lake Gate House	914-962-1048
Janus/Mikol/Smith/Kanc	914-773-0365
Morris/Robinson	914-997-2216
Hacker	845-657-6067
Rush	845-985-7516
Poliseno	845-657-7035
Hurley/Fiore	914-243-4729

Tipa	718-595-6399
Hurwitz	718-595-5493
Greeley	718-595-5342
Ashendorf/Freud	718-595-5355
Hadden(Hillview)	718-652-2193 914-237-7868
Bader/Mayfield/Marzec	845-657-5776
Covey (NYSDOH)	518-402-7659
Kutzy (WCDOH)	914-637-4887
Public Affairs	718-595-3477
Central Lab	718-595-6399
A. Patrick Nucciarone	732-280-4801
Emery/Porter/Nezelek	845-985-0036
Sadosky	914-773-0355
Luke (NYCDOH)	212-676-1517



**BUREAU OF WATER SUPPLY
DELIVERY AND TREATMENT ADVISORY**

for change in (check one)

flow treatment condition observed

ASAP ROUTINE

SYSTEM: (circle one) DELAWARE CATSKILL CROTON

FACILITY/LOCATION: CROTON LAKE Gate House

OPERATIONAL ADVISORY (check one)

TREATMENT CHANGE SELECTIVE WITHDRAWAL DIVERSION OTHER

SPECIFIC DIRECTIVE: DECREASE Flow by 5 mgd (200 mgd → 195 mgd)

ACTION LEVEL (check one) immediately within 24 hours within 48 hours

REQUESTER DIVISION: (check one) Operations & Engineering DWQC

NAME: FRANCIA DATE: 9/26/02

IMPLEMENTATION DATE: 9/26/02 TIME: 3:30 AM/PM

IMPLEMENTOR'S NAME: Austin Melly

IMPLEMENTOR'S SIGNATURE: [Signature] DATE: 9/26/02

OPERATIONAL SECTION (check one) SYS. OP TOS DWQC OTHER

COMMENTS: New Blend Ratio: CLGH East Upper Intake - 30 mgd; GH #1 Upper Intake - 130 mgd; Catskill - 35 mgd.

DISTRIBUTE VIA FAX TO

<input checked="" type="checkbox"/>	Principe	914-741-0348
<input checked="" type="checkbox"/>	Principe/Schindler	845-340-7504
<input checked="" type="checkbox"/>	Hook/Erfani/Poles	914-773-0355
<input checked="" type="checkbox"/>	Lipaky/Schindler/Geriak	914-741-0431
<input checked="" type="checkbox"/>	Lawler/Mulroy	914-232-7003
<input checked="" type="checkbox"/>	Licari (Kensico)	914-428-6106
<input checked="" type="checkbox"/>	Croton Lake Gate House	914-962-1048
<input checked="" type="checkbox"/>	Janus/Mikol/Smith/Kanc	914-773-0365
<input checked="" type="checkbox"/>	Morris/Robinson	914-997-2216
<input type="checkbox"/>	Hacker	845-657-6067
<input type="checkbox"/>	Bush	845-985-7516
<input checked="" type="checkbox"/>	Poliacno	845-657-7035
<input checked="" type="checkbox"/>	Hurley/Fiore	914-243-4729

<input checked="" type="checkbox"/>	Tipa	718-595-6399
<input type="checkbox"/>	Hurwitz	718-595-5493
<input type="checkbox"/>	Greeley	718-595-5342
<input checked="" type="checkbox"/>	Asbendorff/Freud	718-595-5355
<input checked="" type="checkbox"/>	Hadden(Hillview)	718-652-2193 914-237-7868
<input checked="" type="checkbox"/>	Bader/Mayfield/Marzec	845-657-5776
<input checked="" type="checkbox"/>	Covey (NYSDOH)	518-402-7659
<input checked="" type="checkbox"/>	Kutzy (WCDOH)	914-637-4887
<input checked="" type="checkbox"/>	Public Affairs	718-595-3477
<input checked="" type="checkbox"/>	Central Lab	718-595-6399
<input checked="" type="checkbox"/>	A. Patrick Nucciarone	732-280-4801
<input type="checkbox"/>	Emery/Porter/Nezelek	845-985-0036
<input type="checkbox"/>	Sadosky	914-773-0355
<input checked="" type="checkbox"/>	Luke (NYCDOH)	212-676-1517



WATER SUPPLY, QUALITY & PROTECTION DELIVERY AND TREATMENT ADVISORY

for change in (check one)

- flow treatment condition observed
 ASAP ROUTINE

SYSTEM: (circle one) DELAWARE CATSKILL CROTON
 FACILITY/LOCATION: CROTON LAKE GATE HOUSE

OPERATIONAL ADVISORY (check one)
 TREATMENT CHANGE SELECTIVE WITHDRAWAL DIVERSION OTHER

SPECIFIC DIRECTIVE: Raised CLGH Flow From 195MGD to 210 MGD

ACTION LEVEL (check one) Immediately within 24 hours within 48 hours

REQUESTER DIVISION: (check one) Operations & Engineering DWQC Other

NAME: Fred Rufino DATE: 9/28/02

IMPLEMENTATION DATE: 9/28/02 TIME: 11:30 AM

IMPLEMENTOR'S NAME: Russell Hsnabysh
 IMPLEMENTOR'S SIGNATURE: [Signature] DATE: 9/28/02

OPERATIONAL SECTION (check one) SYS. OP TOS DWQC OTHER

COMMENTS: 1 Gate House #1 upper inlet 145MGD, CLGH east inlet 30MGD, Catskill com inlet 35MGD

DISTRIBUTE VIA FAX TO

<input checked="" type="checkbox"/>	Principe	914-741-0431
<input checked="" type="checkbox"/>	Principe/Schindler	845-340-7504
<input checked="" type="checkbox"/>	Hook/Erfani	914-773-0355
<input checked="" type="checkbox"/>	Lipsky/Schindler/Ceriak	914-741-0431
<input checked="" type="checkbox"/>	Picha/Lawler	914-232-7003
<input checked="" type="checkbox"/>	LIKART (Kensico)	914-428-6106
<input checked="" type="checkbox"/>	Croton Lake Gate House	914-962-1048
<input checked="" type="checkbox"/>	Janus/Storn/Smith	914-773-0365
<input checked="" type="checkbox"/>	Morris/Robinson	914-997-2216
<input checked="" type="checkbox"/>	Schultz	914-657-6067
	Clonnan	914-985-7516
	Buck	914-657-7035
<input checked="" type="checkbox"/>	Hurley	914-243-4729

<input checked="" type="checkbox"/>	Tipa	718-595-6399
<input checked="" type="checkbox"/>	Hurwitz	718-595-5493
<input checked="" type="checkbox"/>	Greeley	718-595-5347
<input checked="" type="checkbox"/>	Ashendorff	914-595-5347
<input checked="" type="checkbox"/>	Hadden(Hillview)	718-652-2199 914-237-7866
<input checked="" type="checkbox"/>	Mastronardi/Daye	914-773-0366
<input checked="" type="checkbox"/>	Covey (DOH)	518-402-7655
<input checked="" type="checkbox"/>	Kutzy (WCDOH)	914-637-4888
	Public Affairs	718-595-3477
<input checked="" type="checkbox"/>	Central Lab	718-595-6311
	Nickols (H & S)	212-614-9000
	Emery/Bader	914-985-0000
	LIMNO/HYDRO Kensico	914-997-2222

09/11/02

NYC DEP SYSTEMS OPS Fax: 914-962-1048
 CROTONLAKEGATEHOUSE Fax: 914-962-1048
 Sep 28 2002 11:45 P.01 Jun 7 2002 16:22 P.01



**BUREAU OF WATER SUPPLY
DELIVERY AND TREATMENT ADVISORY**

for change in (check one)

- flow
 treatment
 condition observed
 ASAP
 ROUTINE
 CATSKILL
 CROTON

SYSTEM: (circle one) DELAWARE

FACILITY/LOCATION: CROTON LAKE Gatehouse

OPERATIONAL ADVISORY (check one)

- TREATMENT CHANGE
 SELECTIVE WITHDRAWAL
 DIVERSION
 OTHER

SPECIFIC DIRECTIVE: Decrease Flow by 10 mgd

ACTION LEVEL (check one) Immediately
 within 24 hours
 within 48 hours

REQUESTER DIVISION: (check one) Operations & Engineering
 DWQC

NAME: FRANKLIN DATE: 9/30/02

IMPLEMENTATION DATE: 9/30/02 TIME: 4⁰⁰ AM/PM

IMPLEMENTOR'S NAME: Austin Melly

IMPLEMENTOR'S SIGNATURE: Austin Melly DATE: 9/30/02

OPERATIONAL SECTION (check one) SYS. OP
 TOS
 DWQC
 OTHER

COMMENTS: New Blend Ratio: (LGH East Upper Intake - 30mgd; GH #1 Upper Intake - 135 mgd; Catskill - 35 mgd)

DISTRIBUTE VIA FAX TO

<input checked="" type="checkbox"/>	Principe	914-741-0348
<input checked="" type="checkbox"/>	Principe/Schindler	845-340-7504
<input checked="" type="checkbox"/>	Hook/Erfani/Poiese	914-773-0355
<input checked="" type="checkbox"/>	Lipaky/Schindler/Goriak	914-741-0431
<input checked="" type="checkbox"/>	Lawler/Mulroy	914-232-7003
<input checked="" type="checkbox"/>	Licari (Kensico)	914-428-6106
<input checked="" type="checkbox"/>	Croton Lake Gate House	914-962-1048
<input checked="" type="checkbox"/>	Janus/Mikol/Smith/Kane	914-773-0365
<input checked="" type="checkbox"/>	Morrin/Robinson	914-997-2216
<input type="checkbox"/>	Hacker	845-657-6067
<input type="checkbox"/>	Rush	845-985-7516
<input checked="" type="checkbox"/>	Poliseno	845-657-7035
<input checked="" type="checkbox"/>	Hurley/Fiore	914-243-4729

<input checked="" type="checkbox"/>	Tipa	718-595-6399
<input type="checkbox"/>	Hurwitz	718-595-5493
<input type="checkbox"/>	Greeley	718-595-5342
<input checked="" type="checkbox"/>	Ashendorf/Freud	718-595-5355
<input checked="" type="checkbox"/>	Hadden(Hillview)	718-652-2193 914-237-7868
<input checked="" type="checkbox"/>	Bader/Mayfield/Marzec	845-657-5776
<input checked="" type="checkbox"/>	Covey (NYSDOH)	518-402-7659
<input checked="" type="checkbox"/>	Kutzy (WCDOH)	914-637-4887
<input checked="" type="checkbox"/>	Public Affairs	718-595-3477
<input checked="" type="checkbox"/>	Central Lab	718-595-6399
<input checked="" type="checkbox"/>	A. Patrick Nucciarone	732-280-4801
<input type="checkbox"/>	Emery/Porter/Nezelek	845-985-0036
<input type="checkbox"/>	Sadosky	914-773-0355
<input checked="" type="checkbox"/>	Luke (NYCDOH)	212-676-1517



BUREAU OF WATER SUPPLY DELIVERY AND TREATMENT ADVISORY

for change in (check one)

flow treatment condition observed

ASAP ROUTINE

CATSKILL CROTON

SYSTEM: (circle one)

DELAWARE

FACILITY/LOCATION: CROTON LAKE GATEHOUSE

OPERATIONAL ADVISORY (check one)

TREATMENT CHANGE SELECTIVE WITHDRAWAL DIVERSION OTHER

SPECIFIC DIRECTIVE: LOWER FLOW 20MGD.

ACTION LEVEL (check one) immediately within 24 hours within 48 hours

REQUESTER DIVISION: (check one) Operations & Engineering DWQC

NAME: City Ops / FRANCIA DATE: 10/3/02

IMPLEMENTATION DATE: 10/3/02 TIME: 8:00 AM

IMPLEMENTOR'S NAME: R WATERHOUSE

IMPLEMENTOR'S SIGNATURE: R Waterhouse DATE: 1/1

OPERATIONAL SECTION (check one) SYS.OP TOS DWQC OTHER

COMMENTS: NEW FLOW 180MGD RIEND GATEHOUSE #1 115MGD.
CATSKILL 35MGD UPPER INLET CLGH 30MGD.

DISTRIBUTE VIA FAX TO

<input checked="" type="checkbox"/> Principe	914-741-0348
<input checked="" type="checkbox"/> Principe/Schindler	845-340-7504
<input checked="" type="checkbox"/> Hook/Erfani/Polese	914-773-0355
<input checked="" type="checkbox"/> Lipsky/Schindler/Geriak	914-741-0431
<input checked="" type="checkbox"/> Lawler/Mulroy	914-232-7003
<input checked="" type="checkbox"/> Licari (Kensico)	914-428-6106
<input checked="" type="checkbox"/> Croton Lake Gate House	914-962-1048
<input checked="" type="checkbox"/> Janus/Mikol/Smith/Kane	914-773-0365
Morris/Robinson	914-997-2216
Hacker	845-657-6067
Rush	845-985-7516
Poliseno	845-657-7035
Hurley/Fiore	914-243-4729

<input checked="" type="checkbox"/> Tupa	718-595-6399
<input checked="" type="checkbox"/> Hurwitz	718-595-5493
<input checked="" type="checkbox"/> Greeley	718-595-5342
<input checked="" type="checkbox"/> Ashendorff/Freud	718-595-5355
<input checked="" type="checkbox"/> Hadden(Hillview)	718-652-2193 914-237-7868
<input checked="" type="checkbox"/> Bader/Mayfield/Marzec	845-657-5776
<input checked="" type="checkbox"/> Covey (NYSDOH)	518-402-7659
<input checked="" type="checkbox"/> Kutzy (WCDOH)	914-637-4887
Public Affairs	718-595-3477
<input checked="" type="checkbox"/> Central Lab	718-595-6399
A. Patrick Nucciarone	732-280-4801
Emery/Porter/Nezelek	845-985-0036
Sadosky	914-773-0355
<input checked="" type="checkbox"/> Luke (NYCDOH)	212-676-1517



**BUREAU OF WATER SUPPLY
DELIVERY AND TREATMENT ADVISORY**

for change in (check one)

flow treatment condition observed

ASAP ROUTINE

CATSKILL CROTON

SYSTEM: (circle one) DELAWARE

FACILITY/LOCATION: CROTON Lake Gatehouse

OPERATIONAL ADVISORY (check one)

TREATMENT CHANGE SELECTIVE WITHDRAWAL DIVERSION OTHER

SPECIFIC DIRECTIVE: Inlet Change (See Below)

ACTION LEVEL (check one) immediately within 24 hours within 48 hours

REQUESTER DIVISION: (check one) Operations & Engineering DWQC

NAME: Anthony J. Tocco DATE: 10/03/02

IMPLEMENTATION DATE: 10/03/02 TIME: 9:45 AM

IMPLEMENTOR'S NAME: Bob Wakehouse

IMPLEMENTOR'S SIGNATURE: ON FILE DATE: 10/03/02

OPERATIONAL SECTION (check one) SYS. OP TOS DWQC OTHER

COMMENTS: Close CLGH East Upper Intake & Open CLGH East Middle Intake. Flow unchanged (i.e. 30 mgd)

DISTRIBUTE VIA FAX TO

<input checked="" type="checkbox"/>	Principe	914-741-0348
<input checked="" type="checkbox"/>	Principe/Schindler	845-340-7504
<input checked="" type="checkbox"/>	Hook/Erfani/Polesc	914-773-0355
<input checked="" type="checkbox"/>	Lipsky/Schindler/Geriak	914-741-0431
<input checked="" type="checkbox"/>	Lawler/Mulroy	914-232-7003
<input checked="" type="checkbox"/>	Licari (Kensico)	914-428-6106
<input checked="" type="checkbox"/>	Croton Lake Gate House	914-962-1048
<input checked="" type="checkbox"/>	Janus/Mikol/Smith/Kane	914-773-0365
<input checked="" type="checkbox"/>	Morris/Robinson	914-997-2216
<input type="checkbox"/>	Hacker	845-657-6067
<input type="checkbox"/>	Rush	845-985-7516
<input checked="" type="checkbox"/>	Poliseno	845-657-7035
<input checked="" type="checkbox"/>	Hurley/Fiore	914-243-4729

<input checked="" type="checkbox"/>	Tipa	718-595-6399
<input type="checkbox"/>	Hurwitz	718-595-5493
<input type="checkbox"/>	Greeley	718-595-5342
<input checked="" type="checkbox"/>	Ashendorff/Freud	718-595-5355
<input checked="" type="checkbox"/>	Hadden(Hillview)	718-652-2193 914-237-7868
<input checked="" type="checkbox"/>	Bader/Mayfield/Marzec	845-657-5776
<input checked="" type="checkbox"/>	Covey (NYSDOH)	518-402-7659
<input checked="" type="checkbox"/>	Kutzy (WCDOH)	914-637-4887
<input checked="" type="checkbox"/>	Public Affairs	718-595-3477
<input checked="" type="checkbox"/>	Central Lab	718-595-6399
<input checked="" type="checkbox"/>	A. Patrick Nucciarone	732-280-4801
<input type="checkbox"/>	Emery/Porter/Nezelek	845-985-0036
<input type="checkbox"/>	Sadosky	914-773-0355
<input checked="" type="checkbox"/>	Luke (NYCDOH)	212-676-1517



WATER SUPPLY, QUALITY & PROTECTION DELIVERY AND TREATMENT ADVISORY

for change in (check one)

- flow
 treatment
 condition observed
 ASAP
 ROUTINE

SYSTEM: (circle one) DELAWARE CATSKILL CROTON

FACILITY/LOCATION: CROTON LAKE GATE HOUSE

OPERATIONAL ADVISORY (check one)

- TREATMENT CHANGE
 SELECTIVE WITHDRAWAL
 DIVERSION
 OTHER Flow

SPECIFIC DIRECTIVE: Raised Flow From 180 mgd to 200 mgd

ACTION LEVEL (check one) immediately
 within 24 hours
 within 48 hours

REQUESTER DIVISION: (check one) Operations & Engineering
 DWQC
 Other

NAME: Ken Franzia DATE: 10 15 102

IMPLEMENTATION DATE: 10 15 102 TIME: 1:30 AM

IMPLEMENTOR'S NAME: Russell Hangburgh

IMPLEMENTOR'S SIGNATURE: [Signature] DATE: 10 15 10

OPERATIONAL SECTION (check one) SYS. OP
 TOS
 DWQC
 OTHER

COMMENTS: Raised Gatehouse #2 Top inlet 20mg / G#1 135, CLGH East middle 30mg + Catskill mix 35 mg

DISTRIBUTE VIA FAX TO

<input checked="" type="checkbox"/> Principe	914-741-0431
<input checked="" type="checkbox"/> Principe/Schindler	845-340-7504
<input checked="" type="checkbox"/> Hook/Erfani	914-773-0355
<input checked="" type="checkbox"/> Lipsky/Schindler/Geriak	914-741-0431
<input checked="" type="checkbox"/> Picha/Lawler	914-232-7003
<input checked="" type="checkbox"/> LICARE (Kensico)	914-428-6106
Croton Lake Gate House	914-962-1048
<input checked="" type="checkbox"/> Janus/Stern/Smith	914-773-0365
<input checked="" type="checkbox"/> Morris/Robinson	914-997-2216
<input checked="" type="checkbox"/> Schultz	914-657-6067
Clonnan	914-985-7516
Bock	914-657-7035
Hurley	914-243-4729

<input checked="" type="checkbox"/> Tupa	718-595-6399
<input checked="" type="checkbox"/> Hurwitz	718-595-5495
<input checked="" type="checkbox"/> Greeley	718-595-5342
<input checked="" type="checkbox"/> Ashendorff	914-595-5342
<input checked="" type="checkbox"/> Hadden(Hillview)	718-652-2193 914-237-7868
<input checked="" type="checkbox"/> Mastronardi/Daye	914-773-0365
<input checked="" type="checkbox"/> Covey (DOH)	518-402-7659
<input checked="" type="checkbox"/> Kutzy (WCDOH)	914-637-4887
Public Affairs	718-595-3477
<input checked="" type="checkbox"/> Central Lab	718-595-6399
Nickols (H & S)	212-614-9049
Emery/Bader	914-985-0036
LIMNO/HYDRO Kensico	914-997-2216

on 10/15/10

Oct 5 2002 14:07 P.01

NYC DEP SYSTEMS OPS Fax: 914-962-1448
CROTON LAKE GATE HOUSE Fax: 914-962-1448



**BUREAU OF WATER SUPPLY
DELIVERY AND TREATMENT ADVISORY**

for change in (check one)

flow treatment condition observed

ASAP ROUTINE
CROTON

SYSTEM: (circle one) DELAWARE CATSKILL CROTON

FACILITY/LOCATION: Croton Lake Gatehouse

OPERATIONAL ADVISORY (check one)

TREATMENT CHANGE SELECTIVE WITHDRAWAL DIVERSION OTHER

SPECIFIC DIRECTIVE: Terminate Catskill Blend

ACTION LEVEL (check one) immediately within 24 hours within 48 hours

REQUESTER DIVISION: (check one) Operations & Engineering DWQC

NAME: Steve Schindler DATE: 10/17/02

IMPLEMENTATION DATE: 10/17/02 TIME: 12:00 AM/PM

IMPLEMENTOR'S NAME: Bob Watchouse

IMPLEMENTOR'S SIGNATURE: [Signature] DATE: 10/17/02

OPERATIONAL SECTION (check one) SYS. OP TOS DWQC OTHER

COMMENTS: [Handwritten mark]

DISTRIBUTE VIA FAX TO

<input checked="" type="checkbox"/>	Principe	914-741-0348
<input checked="" type="checkbox"/>	Principe/Schindler	845-340-7504
<input checked="" type="checkbox"/>	Hook/Erfani/Polese	914-773-0355
<input checked="" type="checkbox"/>	Lipsky/Schindler/Geriak	914-741-0431
<input checked="" type="checkbox"/>	Lawler/Mulroy	914-232-7003
<input checked="" type="checkbox"/>	Licari (Kensico)	914-428-6106
<input checked="" type="checkbox"/>	Croton Lake Gate House	914-962-1048
<input checked="" type="checkbox"/>	Janus/Mikol/Smith/Kane	914-773-0365
<input checked="" type="checkbox"/>	Morris/Robinson	914-997-2216
<input type="checkbox"/>	Hacker	845-657-6067
<input type="checkbox"/>	Rush	845-985-7516
<input checked="" type="checkbox"/>	Poliseno	845-657-7035
<input checked="" type="checkbox"/>	Hurley/Fiore	914-243-4729

<input checked="" type="checkbox"/>	Tipa	718-595-6399
<input type="checkbox"/>	Hurwitz	718-595-5493
<input type="checkbox"/>	Greeley	718-595-5342
<input checked="" type="checkbox"/>	Ashendorff/Frcud	718-595-5355
<input checked="" type="checkbox"/>	Hadden(Hillview)	718-652-2193 914-237-7868
<input checked="" type="checkbox"/>	Bader/Mayfield/Marzee	845-657-5776
<input checked="" type="checkbox"/>	Covey (NYSDOH)	518-402-7659
<input checked="" type="checkbox"/>	Kutzy (WCDOH)	914-637-4887
<input checked="" type="checkbox"/>	Public Affairs	718-595-3477
<input checked="" type="checkbox"/>	Central Lab	718-595-6399
<input checked="" type="checkbox"/>	A. Patrick Nucciarone	732-280-4801
<input type="checkbox"/>	Emery/Porter/Nezelek	845-985-0036
<input type="checkbox"/>	Sadosky	914-773-0355
<input checked="" type="checkbox"/>	Luke (NYCDOH)	212-676-1517

Appendix 5. Croton Blend/Flow Summary Reports

CROTON BLEND/FLOW SUMMARY

Prepared By: Anthony J. Fiore

Week Ending: 09/15/02

Report Date: 09/16/02

FLOW SUMMARY:

FLOWS (MGD)¹

Date	Action	Catskill	GH#1 ²	NCLGH ²	Total
09/09/02	Beginning Flow for week.	Off	30	160	190
09/11/02	Selective Withdrawal Change	Off	30	160	190
09/14/02	Decrease Flow	Off	30	150	180
09/15/02	Ending Flow for week.	Off	30	150	180

Source Summary:

DATES	SOURCE DRAFT OR BLEND
09/09/02 – 09/10/02	GH#1: CRO1B = Lower Intake 15.8% of Draft NCLGH: East Upper Intake 84.2% of Draft
09/11/02 – 09/13/02	GH#1: CRO1T = Upper Intake 15.8% of Draft NCLGH: East Upper Intake 84.2 % of Draft
09/14/02 – 09/15/02	GH#1: CRO1T = Upper Intake 16.7% of Draft NCLGH: East Upper Intake 83.3% of Draft

Notes: 1. Flows reported are as “target values”. Actual 24 hour flows may vary due to operational considerations.

2. NCLGH = Draft source at New Croton Lake Gate House

GH#1 = Draft source at Gate House #1, Cornell Dam.

Turbidity Alert : On 08/18/02 @ 00:30 hrs

Lake Elevation: 09/15/02 at 08:00 hrs = 192.79

CROTON BLEND/FLOW SUMMARY

Prepared By: Anthony J. Fiore

Week Ending: 09/22/02

Report Date: 09/23/02

FLOW SUMMARY:

FLOWS (MGD) ¹

Date	Action	Catskill	GH#1²	NCLGH²	Total
09/16/02	Beginning Flow for week.	Off	30	150	180
09/17/02	Catskill Blend Initiated	35	30	115	180
09/17/02	Increase Flow	35	40	115	190
09/18/02	Increase Flow.	35	50	115	200
9/18/02	Blend Ratio Change	35	100	65	200
9/20/02	Blend Ratio Change	35	135	30	200
9/21/02	Decrease Flow	35	125	30	190
9/22/02	Ending Flow for week.	35	125	30	190

Source Summary:

DATES	SOURCE DRAFT OR BLEND
09/16/02	GH#1: CRO1T = Upper Intake 16.7% of Draft NCLGH: East Upper Intake 83.3% of Draft
09/17/02	GH#1: CRO1T = Upper Intake 16.7% of Draft NCLGH: East Upper Intake 63.9% of Draft Catskill (CROC): 19.4% of Draft
09/17/02	GH#1: CRO1T = Upper Intake 21.1% of Draft NCLGH: East Upper Intake 60.5% of Draft Catskill (CROC): 18.4 % of Draft
9/18/02	GH#1: CRO1T = Upper Intake 25.0% of Draft NCLGH: East Upper Intake 57.5% of Draft Catskill (CROC): 17.5 % of Draft
9/18/02	GH#1: CRO1T = Upper Intake 50.0% of Draft NCLGH: East Upper Intake 32.5% of Draft Catskill (CROC): 17.5 % of Draft
9/20/02	GH#1: CRO1T = Upper Intake 67.5% of Draft NCLGH: East Upper Intake 15.0% of Draft Catskill (CROC): 17.5 % of Draft
9/21/02	GH#1: CRO1T = Upper Intake 65.8% of Draft NCLGH: East Upper Intake 15.8% of Draft Catskill (CROC): 18.4 % of Draft

Notes: 1. Flows reported are as “target values”. Actual 24 hour flows may vary due to operational considerations.

CROTON BLEND/FLOW SUMMARY

Prepared By: Anthony J. Fiore

Week Ending: 09/29/02

Report Date: 09/30/02

FLOW SUMMARY:

FLOWS (MGD)¹

Date	Action	Catskill	GH#1 ²	NCLGH ²	Total
09/23/02	Beginning Flow for Week.	35	125	30	190
09/23/02	Flow Increase	35	135	30	200
09/26/02	Decrease Flow	35	130	30	195
09/28/02	Increase Flow.	35	145	30	210
9/29/02	Ending Flow for Week	35	145	30	210
9/30/02	Beginning Flow for Week	35	145	30	210
9/30/02	Decrease Flow	35	135	30	200

Source Summary:

DATES	SOURCE DRAFT OR BLEND
09/23/02	GH#1: CRO1T = Upper Intake 65.8% of Draft NCLGH: East Upper Intake 15.8% of Draft Catskill (CROC): 18.4% of Draft
09/23/02 – 9/26/02	GH#1: CRO1T = Upper Intake 67.5% of Draft NCLGH: East Upper Intake 15.0% of Draft Catskill (CROC): 17.5% of Draft
09/26/02 – 9/28/02	GH#1: CRO1T = Upper Intake 66.7% of Draft NCLGH: East Upper Intake 15.4% of Draft Catskill (CROC): 17.9 % of Draft
9/28/02 – 9/30/02	GH#1: CRO1T = Upper Intake 69.0% of Draft NCLGH: East Upper Intake 14.3% of Draft Catskill (CROC): 16.7 % of Draft
9/30/02	GH#1: CRO1T = Upper Intake 67.5% of Draft NCLGH: East Upper Intake 15.0% of Draft Catskill (CROC): 17.5% of Draft

Notes: 1. Flows reported are as “target values”. Actual 24 hour flows may vary due to operational considerations.

2. NCLGH = Draft source at New Croton Lake Gate House

GH#1 = Draft source at Gate House #1, Cornell Dam.

Turbidity Alert : Off 09/23/02 @ 15:00 hrs

Lake Elevation: 09/29/02 at 08:00 hrs = 192.09

CROTON BLEND/FLOW SUMMARY

Prepared By: Anthony J. Fiore

Week Ending: 10/06/02

Report Date: 10/17/02

FLOW SUMMARY: **FLOWS (MGD) ¹**

Date	Action	Catskill	GH#1²	NCLGH²	Total
09/30/02	Beginning flow for the week	35	145	30	210
10/01/02	Decrease flow	35	135	30	200
10/03/02	Decrease flow	35	115	30	180
10/03/02	Inlet change to East Middle (163E)	35	115	30	180
10/05/02	Increase flow	35	135	30	200
10/06/02	Ending flow for the week	35	135	30	200

Source Summary:

DATES	SOURCE DRAFT OR BLEND
09/30/02	GH#1: CRO1T = Upper Intake 69.0% of Draft NCLGH: East Upper Intake 14.3% of Draft Catskill (CROC): 16.7% of Draft
9/30/02 – 10/03/02	GH#1: CRO1T = Upper Intake 67.5% of Draft NCLGH: East Upper Intake 15.0% of Draft Catskill (CROC): 17.5% of Draft
10/03/02 - 10/05/02	GH#1: CRO1T= Upper Intake 63.9% of Draft NLGH: East Middle Intake 16.7% of Draft Catskill (CROC): 19.4 % of Draft
10/05/02 – 10/06/02	GH#1: CRO1T = Upper Intake 67.5% of Draft NCLGH: East Middle Intake 15.0% of Draft Catskill (CROC): 17.5 % of Draft

Notes: 1. Flows reported are as “target values”. Actual 24 hour flows may vary due to operational considerations.

2. NCLGH = Draft source at New Croton Lake Gate House
GH#1 = Draft source at Gate House #1, Cornell Dam.

Turbidity Alert : Off 09/23/02 @ 15:00 hrs
Lake Elevation: 10/06/02 at 08:00 hrs = 191.51

CROTON BLEND/FLOW SUMMARY

Prepared By: Anthony J. Fiore

Week Ending: 10/13/02

Report Date: 10/17/02

FLOW SUMMARY:

FLOWS (MGD) ¹

Date	Action	Catskill	GH#1²	NCLGH²	Total
10/07/02	Beginning Flow for the Week	35	135	30	200
10/07/02	Catskill Blend Terminated	0	160	40	200
10/11/02	Blend Ratio Changed	0	100	100	200
10/11/02	Decreased Flow	0	95	100	195
10/12/02	Decreased Flow	0	85	100	185
10/13/02	Ending Flow for the Week	0	85	100	185

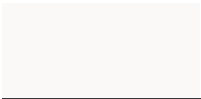
Source Summary:

DATES	SOURCE DRAFT OR BLEND
10/07/02	GH#1: CRO1T = Upper Intake 67.5% of Draft NCLGH: East Middle Intake 15.0% of Draft Catskill (CROC): 17.5% of Draft
10/07/02 – 10/11/02	GH#1: CRO1T = Upper Intake 80.0% of Draft NCLGH: East Middle Intake 20.0% of Draft Catskill (CROC): 0% of Draft
10/11/02	GH#1: CRO1T = Upper Intake 50.0% of Draft NCLGH: East Middle Intake 50.0% of Draft
10/11/02 – 10/12/02	GH#1: CRO1T = Upper Intake 48.7% of Draft NCLGH: East Middle Intake 51.3% of Draft
10/12/02 – 10/13/02	GH#1: CRO1T = Upper Intake 46.0% of Draft NCLGH: East Middle Intake 54.0% of Draft

Notes: 1. Flows reported are as “target values”. Actual 24 hour flows may vary due to operational considerations.

2. NCLGH = Draft source at New Croton Lake Gate House
GH#1 = Draft source at Gate House #1, Cornell Dam.

Turbidity Alert : On 10/11/02 @ 16:45 hrs
Lake Elevation: 10/14/02 at 08:00 hrs = 191.41



**Appendix 6. Croton Source Water Quality Monitoring
Results 9/9/02 - 10/7/02**

NYC-DEP Bureau of Water Supply
Ben Nesin Laboratory, ELAP ID Number 10030
2002 Catskill District Keypoint Data

-----Site=EARCM-----											
Apparent Date Collected	Specific			Digested		Undigested		pH (Units)	Alkalinity (mg/l)	Manganese (mg/l)	Mananese (mg/l)
	Grab Time	Temperature (degrees C)	Turbidity (NTU)	Color (Units)	Odor	Conductivity (umhos/cm)					
09SEP2002	7:55	20.0	1.1	7	2V	70	6.89	11.50	.	0.048	
10SEP2002	7:52	22.0	1.2	7	2V	70	7.02	.	.	.	
11SEP2002	7:49	22.0	1.2	7	2V	70	6.94	.	.	.	
12SEP2002	9:08	21.0	1.6	6	2V	67	6.71	.	.	.	
13SEP2002	7:48	20.5	1.7	7	2V	70	6.93	.	.	0.062	
13SEP2002	7:48	20.5	1.7	7	2V	70	6.93	.	.	0.06	
14SEP2002	7:58	20.5	1.6	7	2V	70	6.92	.	.	0.036	
16SEP2002	7:50	21.0	1.4	7	2V	70	6.81	11.50	0.038	.	
17SEP2002	7:46	21.0	1.6	8	2V	70	6.89	.	.	.	
18SEP2002	7:49	21.0	1.5	7	2V	70	6.90	.	.	.	
19SEP2002	7:38	21.0	1.6	8	2V	70	6.89	.	.	.	
20SEP2002	8:10	21.0	1.6	8	2V	70	6.92	.	.	.	
21SEP2002	11:40	22.0	1.6	9	2V	68	6.49	.	.	.	
22SEP2002	12:36	22.0	1.6	9	2V	69	6.61	.	.	.	
23SEP2002	7:56	21.0	1.7	6	2V	69	6.57	11.80	.	.	
23SEP2002	.	.	.	.	.	.	.	.	0.042	.
24SEP2002	7:41	20.5	1.6	8	2V	70	6.93	.	.	.	
25SEP2002	7:47	20.5	1.7	7	2V	70	6.71	.	.	.	
26SEP2002	7:55	21.0	1.7	7	2V	71	6.96	.	.	.	
27SEP2002	7:55	20.5	1.6	8	2V	71	6.96	.	.	.	
28SEP2002	12:15	20.5	1.7	11	1V	71	6.40	.	.	.	
29SEP2002	12:55	20.0	1.9	11	1V	70	6.40	.	.	.	
30SEP2002	7:54	19.5	2.0	8	2V	72	6.89	12.70	0.051	.	
01OCT2002	7:58	19.5	1.8	8	2V	73	7.01	.	.	.	
02OCT2002	8:00	19.5	1.8	8	2DF	73	6.92	.	.	.	
03OCT2002	7:54	20.0	1.8	8	2DF	73	6.95	.	.	.	
04OCT2002	8:02	19.5	1.8	7	2DF	71	6.87	.	.	.	
05OCT2002	11:40	20.0	2.0	11	1V	72	6.38	.	.	.	
06OCT2002	11:30	19.0	1.7	6	0	71	6.40	.	.	.	
07OCT2002	7:55	19.0	1.8	7	0	72	6.51	13.40	.	.	

Date Collected	Total Coli Code	Total Coliforms (CFU/100ml)	Fecal Coli Code	Fecal Coliforms (CFU/100ml)	Total Plankton (sau)	Genus Plankton (sau)	Dominant Genus	Sample Type	Sample Number
09SEP2002		150		1	870	840	SYNEDRA		022739
10SEP2002		50		<1	1400	1200	SYNEDRA		022774
11SEP2002		43		4	670	640	SYNEDRA		022804
12SEP2002		580		2	870	840	SYNEDRA		022830
13SEP2002		310		1	.	.			022836
13SEP2002		310		1	.	.			022836
14SEP2002				022845
16SEP2002		20		11	2000	1500	SYNEDRA		022846
17SEP2002		110		5	1700	1400	SYNEDRA		022918
18SEP2002		240		2	1300	910	SYNEDRA		022921
19SEP2002	>=	110		<1	2100	1600	SYNEDRA		022940
20SEP2002	>=	320		<1	1600	1200	SYNEDRA		022945
21SEP2002		190		<1	1900	1800	SYNEDRA		022948
22SEP2002		100		<1	840	810	SYNEDRA		022949
23SEP2002		130		2	1200	940	SYNEDRA		022950
23SEP2002				023029
24SEP2002		310		3	350	290	SYNEDRA		023030
25SEP2002		110		<1	560	370	SYNEDRA		023052
26SEP2002		180		<1	300	270	SYNEDRA		023066
27SEP2002		200		1	740	400	SYNEDRA		023070
28SEP2002		330		8	520	320	SYNEDRA		023113
29SEP2002		320		2	500	350	SYNEDRA		023186
30SEP2002		160		1	500	200	SYNEDRA		023197
01OCT2002		250		3	500	340	SYNEDRA		023221
02OCT2002		110		1	790	350	CERATIUM		023229
03OCT2002		60		1	320	130	SYNEDRA		023248
04OCT2002		220		1	570	340	SYNEDRA		023251
05OCT2002		300		<1	690	270	SYNEDRA		023254
06OCT2002		340		<1	270	170	SYNEDRA		023255
07OCT2002		60		2	610	320	SYNEDRA		023256

Inclusion of results does not explicitly imply certification for all analytes by NYS DOH ELAP.
 NYC-DEP Bureau of Water Supply
 Kensico Laboratory, ELAP ID Number 10771
 Croton Gatehouse Laboratory, ELAP ID Number 11669
 2002 East of Hudson District Keypoint Data

----- Site=CRO163E -----										
Date Collected	Grab Time	Temperature (degrees C)	Turbidity (NTU)	Apparent Color (Units)	Specific Conductivity (umhos/cm)	pH (Units)	Alkalinity (mg/l)	Digested Manganese (mg/l)	Undigested Mananese (mg/l)	
10SEP2002	9:50	.	.	.	.	.	.	.	.	.
10SEP2002	9:50	23.0	1.7	16	1D	332	7.87	.	.	.
17SEP2002	11:19	.	.	.	.	.	67.0	.	.	.
17SEP2002	11:19	22.5	2.4	19	2E	331	8.06	.	.	.
24SEP2002	10:12	.	.	.	.	.	67.5	0.05	.	.
24SEP2002	10:12	22.0	1.4	18	1E	328	7.55	.	.	.
30SEP2002	.	.	.	.	.	.	.	.	.	.
01OCT2002	10:40	.	.	.	.	.	.	.	.	<0.040
01OCT2002	10:40	22.0	1.3	14	2M	319	8.04	.	.	.
03OCT2002	11:21	22.0	1.1	13	2M	338	7.78	.	.	.
04OCT2002	9:28	.	.	.	.	.	.	.	.	.
04OCT2002	9:28	22.0	1.2	14	2M	331	7.80	.	.	.
05OCT2002	9:12	21.6	1.1	14	2D	338	7.69	.	.	.
06OCT2002	10:50	21.5	1.2	12	2M	349	7.88	.	.	.
07OCT2002	9:45	.	.	.	.	.	.	.	.	.
07OCT2002	9:45	21.0	1.3	15	2M	332	8.11	.	.	.
07OCT2002	.	.	.	.	.	.	.	.	.	.

HACH										
Date Collected	Undigested Manganese (mg/l)	Total Coli Code	Total Coliforms (CFU/100ml)	Fecal Coli Code	Fecal Coliforms (CFU/100ml)	Total Plankton (sau)	Genus Plankton (sau)	Dominant Genus	Sample Type	Sample Number
10SEP2002	.	.	<33	.	<1	2300	1600	FRAGILAR	.	0206572
10SEP2002	020878
17SEP2002	.	>=	500	+	CONF	3300	2800	FRAGILAR	.	0206765
17SEP2002	020939
24SEP2002	.	.	<67	.	2	1000	370	GOMPHOSP	.	0206919
24SEP2002	020968
30SEP2002	0.04	.	.	.	.	.	.	.	.	020992
01OCT2002	.	.	133	.	1	1100	390	PEDIASTR	.	0207105
01OCT2002	021000
03OCT2002	021017
04OCT2002	.	.	33	.	1	.	.	.	.	0207209
04OCT2002	021020
05OCT2002	.	.	33	.	5	.	.	.	.	0207220
06OCT2002	.	.	67	.	3	.	.	.	.	0207247
07OCT2002	.	.	<33	.	2	.	.	.	.	0207266
07OCT2002	021026
07OCT2002	0.03	.	.	.	.	.	.	.	.	21026

Inclusion of results does not explicitly imply certification for all analytes by NYS DOH ELAP.

NYC-DEP Bureau of Water Supply
 Kensico Laboratory, ELAP ID Number 10771
 Croton Gatehouse Laboratory, ELAP ID Number 11669
 2002 East of Hudson District Keypoint Data

----- Site=CRO183E -----										
Date Collected	Grab Time	Temperature (degrees C)	Turbidity (NTU)	Apparent Color (Units)	Odor	Specific Conductivity (umhos/cm)	pH (Units)	Alkalinity (mg/l)	Digested Manganese (mg/l)	Undigested Manganese (mg/l)
09SEP2002	8:57	.	.	.	.	.	.	.	.	.
09SEP2002	8:57	24.0	1.1	14	2MM	341	7.99	.	.	.
10SEP2002	9:55	.	.	.	.	.	.	.	<0.040	.
10SEP2002	9:55	24.0	1.1	18	3G	339	7.79	.	.	.
11SEP2002	7:07	.	.	.	.	.	.	.	.	.
11SEP2002	7:07	24.0	1.3	15	2M	340	8.09	.	.	.
12SEP2002	9:38	.	.	.	.	.	.	.	.	.
12SEP2002	9:38	23.0	1.3	15	2M	341	8.22	.	.	.
13SEP2002	7:49	.	.	.	.	.	.	.	.	.
13SEP2002	7:49	23.0	1.4	15	2E	338	8.22	.	.	.
14SEP2002	10:18	23.2	1.3	11	1DS	341	8.15	.	.	.
15SEP2002	10:40	23.9	1.3	14	3MM	344	8.35	.	.	.
16SEP2002	8:42	.	.	.	.	.	.	.	.	.
16SEP2002	8:42	23.5	1.3	14	3MM	339	8.24	.	.	.
17SEP2002	11:23	.	.	.	.	.	.	65.7	.	0.03
17SEP2002	11:23	23.5	1.2	14	3M	339	8.38	.	.	.
18SEP2002	8:16	.	.	.	.	.	.	.	.	.
18SEP2002	8:16	23.0	1.5	15	2M	335	8.53	.	.	.
19SEP2002	8:58	.	.	.	.	.	.	.	.	.
19SEP2002	8:58	23.5	1.3	13	2E	336	8.55	.	.	.
20SEP2002	9:09	.	.	.	.	.	.	.	.	.
20SEP2002	9:09	23.5	1.2	13	2M	339	8.52	.	.	.
21SEP2002	10:08	23.0	1.1	18	3DS	343	8.52	.	.	.
22SEP2002	8:45	23.3	1.4	19	2DS	353	8.43	.	.	.
23SEP2002	10:53	.	.	.	.	.	.	.	.	.
23SEP2002	10:53	24.0	1.1	11	2M	337	8.76	.	.	.
24SEP2002	10:26	.	.	.	.	.	.	65.9	.	<0.040
24SEP2002	10:26	23.0	1.3	15	2MM	330	8.62	.	.	.
25SEP2002	8:16	.	.	.	.	.	.	.	.	.
25SEP2002	8:16	23.0	1.5	15	2E	334	8.57	.	.	.
26SEP2002	10:35	.	.	.	.	.	.	.	.	.
26SEP2002	10:35	23.0	1.5	18	2M	339	8.46	.	.	.

Date Collected	HACH										
	Undigested Manganese (mg/l)	Total Coli Code	Total Coliforms (CFU/100ml)	Fecal Coli Code	Fecal Coliforms (CFU/100ml)	Total Plankton (sau)	Genus Plankton (sau)	Dominant Genus	Sample Type	Sample Number	
09SEP2002	.	.	500	.	1	.	.	.	.	0206508
09SEP2002	0.03	.	.	.	.	.	.	.	.	020870
10SEP2002	.	.	<33	.	3	1300	930	FRAGILAR	.	0206573	
10SEP2002	020879	
11SEP2002	.	.	67	.	2	.	.	.	.	0206599
11SEP2002	020889	
12SEP2002	.	>=	14	.	3	.	.	.	.	0206641
12SEP2002	0.03	.	.	.	.	.	.	.	.	020914
13SEP2002	.	.	33	.	3	.	.	.	.	0206655
13SEP2002	020925	
14SEP2002	.	.	14	.	1	.	.	.	.	0206664
15SEP2002	.	>=	272	.	2	.	.	.	.	0206672
16SEP2002	.	.	<83	.	7	.	.	.	.	0206708
16SEP2002	020930	
17SEP2002	.	.	33	.	6	1600	600	FRAGILAR	.	0206766	
17SEP2002	020940	
18SEP2002	.	.	83	.	9	.	.	.	.	0206805
18SEP2002	0.03	.	.	.	.	.	.	.	.	020947
19SEP2002	.	.	160	.	1	.	.	.	.	0206837
19SEP2002	020952	
20SEP2002	.	.	<333	.	<1	.	.	.	.	0206849
20SEP2002	0.02	.	.	.	.	.	.	.	.	020957
21SEP2002	.	.	<67	.	1	.	.	.	.	0206860
22SEP2002	.	.	<33	.	<1	.	.	.	.	0206869
23SEP2002	.	.	<33	.	1	.	.	.	.	0206881
23SEP2002	0.019	.	.	.	.	.	.	.	.	020962
24SEP2002	.	.	<33	.	2	2100	510	LYNGBYA	.	0206920	
24SEP2002	020969	
25SEP2002	.	.	33	.	2	.	.	.	.	0206943
25SEP2002	0.03	.	.	.	.	.	.	.	.	020976
26SEP2002	.	.	<33	.	1	.	.	.	.	0206975
26SEP2002	020981	

Inclusion of results does not explicitly imply certification for all analytes by NYS DOH ELAP.
 NYC-DEP Bureau of Water Supply
 Kensico Laboratory, ELAP ID Number 10771
 Croton Gatehouse Laboratory, ELAP ID Number 11669
 2002 East of Hudson District Keypoint Data

----- Site=CRO183E -----
 (continued)

Date Collected	Grab Time	Temperature (degrees C)	Turbidity (NTU)	Apparent Color (Units)	Specific Conductivity (umhos/cm)	pH (Units)	Alkalinity (mg/l)	Digested Manganese (mg/l)	Undigested Manganese (mg/l)
27SEP2002	9:10	.	.	.	.	.	.	.	.
27SEP2002	9:10	22.5	1.5	16	2M	332	8.06	.	.
28SEP2002	10:19	22.3	1.4	16	3E	339	8.21	.	.
29SEP2002	10:15	22.2	1.2	16	3V	337	7.96	.	.
30SEP2002	10:08	.	.	.	.	.	.	.	.
30SEP2002	10:08	22.0	1.2	20	2V	335	7.92	.	.
01OCT2002	10:50	.	.	.	.	.	67.0	.	.
01OCT2002	10:50	.	.	.	.	.	.	.	<0.040
01OCT2002	10:50	22.0	1.2	14	2V	336	7.97	.	.
02OCT2002	9:33	.	.	.	.	.	.	.	.
02OCT2002	9:33	22.5	1.1	13	2V	334	8.07	.	.
03OCT2002	10:11	.	.	.	.	.	.	.	.
03OCT2002	10:11	22.5	1.3	14	2M	335	8.22	.	.

Date Collected	HACH		Total Coliforms (CFU/100ml)	Fecal Coli Code	Fecal Coliforms (CFU/100ml)	Total Plankton (sau)	Genus Plankton (sau)	Dominant Genus	Sample Type	Sample Number
	Undigested Manganese (mg/l)	Total Coli Code								
27SEP2002	.	.	33	.	13	.	.	.	.	0207008
27SEP2002	020986
28SEP2002	.	.	33	.	8	.	.	.	.	0207026
29SEP2002	.	.	67	.	5	.	.	.	.	0207036
30SEP2002	.	.	<33	.	3	.	.	.	.	0207074
30SEP2002	0.03	.	.	.	.	.	.	.	.	020991
01OCT2002	0207105
01OCT2002	.	.	100	.	5	1200	820	LYNGBYA	.	0207106
01OCT2002	020999
02OCT2002	.	.	<33	.	1	0207173
02OCT2002	021008
03OCT2002	.	.	<33	.	<1	0207185
03OCT2002	021014

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 NYC-DEP Bureau of Water Supply
 Kensico Laboratory, ELAP ID Number 10771
 Croton Gatehouse Laboratory, ELAP ID Number 11669
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----- Site=CRO1B -----										
Date Collected	Grab Time	Temperature (degrees C)	Turbidity (NTU)	Apparent Color (Units)	Odor	Specific Conductivity (umhos/cm)	pH (Units)	Alkalinity (mg/l)	Digested Manganese (mg/l)	Undigested Mananese (mg/l)
09SEP2002	8:35	.	.	.	.	.	.	.	.	.
09SEP2002	8:35	22.0	1.6	26	3D	344	7.25	.	.	.
10SEP2002	10:55	.	.	.	.	.	.	.	.	0.67
10SEP2002	10:55	23.0	1.2	24	1MM	337	7.26	.	.	.
11SEP2002	9:57	.	.	.	.	.	.	.	.	.
11SEP2002	9:57	23.0	1.8	25	3D	344	7.39	.	.	.
17SEP2002	9:58	.	.	.	.	.	.	70.1	.	.
17SEP2002	9:58	20.5	3.1	22	3M	358	7.17	.	.	.
24SEP2002	9:38	.	.	.	.	.	.	70.8	.	0.72
24SEP2002	9:38	21.0	3.2	23	2CS	358	7.15	.	.	.
26SEP2002	10:20	.	.	.	.	.	.	.	.	.
30SEP2002	.	.	.	.	.	.	.	.	.	.
01OCT2002	11:45	.	.	.	.	.	.	72.2	0.89	.
01OCT2002	11:45	22.0	4.3	32	2CS	355	7.13	.	.	.

HACH										
Date Collected	Undigested Manganese (mg/l)	Total Coli Code	Total Coliforms (CFU/100ml)	Fecal Coli Code	Fecal Coliforms (CFU/100ml)	Total Plankton (sau)	Genus Plankton (sau)	Dominant Genus	Sample Type	Sample Number
09SEP2002	.	.	33	.	1	.	.	.	.	0206509
09SEP2002	0.68	.	.	.	.	.	.	.	.	020871
10SEP2002	.	.	<33	.	<1	40	20	SYNEDRA	.	0206575
10SEP2002	020881
11SEP2002	.	.	33	.	1	.	.	.	.	0206601
11SEP2002	020891
17SEP2002	.	.	<14	.	<1	<10	.	.	.	0206769
17SEP2002	020942
24SEP2002	.	.	<143	.	1	250	220	FRAGILAR	.	0206923
24SEP2002	020971
26SEP2002	.	.	10	.	<1	.	.	.	.	0206976
30SEP2002	020995
01OCT2002	>0.70	.	<67	.	<1	100	41	FRAGILAR	.	0207109
01OCT2002	021003

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 Croton Gatehouse Laboratory, ELAP ID Number 11669
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----- Site=CRO1T -----

Date Collected	Grab Time	Temperature (degrees C)	Turbidity (NTU)	Apparent Color (Units)	Odor	Specific Conductivity (umhos/cm)	pH (Units)	Alkalinity (mg/l)	Digested Manganese (mg/l)	Undigested Manganese (mg/l)
09SEP2002	.	.	.	.	.	.	.	.	.	.
10SEP2002	10:58	.	.	.	.	.	.	.	.	0.11
10SEP2002	10:58	23.5	0.9	20	1MM	340	7.54	.	.	.
11SEP2002	10:00	.	.	.	.	.	.	.	.	.
11SEP2002	10:00	23.5	1.1	23	2E	342	7.58	.	.	.
12SEP2002	10:46	.	.	.	.	.	.	.	.	.
12SEP2002	10:46	23.5	1.1	19	2M	341	7.63	.	.	.
13SEP2002	8:47	.	.	.	.	.	.	.	.	.
13SEP2002	8:47	23.0	1.1	19	2M	338	7.63	.	.	.
14SEP2002	9:53	22.9	1.1	14	1DF	337	7.81	.	.	.
15SEP2002	10:00	22.8	1.0	22	3E	342	7.34	.	.	.
16SEP2002	8:25	.	.	.	.	.	.	.	.	.
16SEP2002	8:25	23.0	0.9	14	2MM	338	7.58	.	.	.
17SEP2002	9:56	.	.	.	.	.	.	66.5	.	0.04
17SEP2002	9:56	23.0	1.1	14	3E	338	8.03	.	.	.
18SEP2002	9:52	.	.	.	.	.	.	.	.	.
18SEP2002	9:52	23.0	0.9	16	2M	337	7.66	.	.	.
19SEP2002	9:56	.	.	.	.	.	.	.	.	.
19SEP2002	9:56	23.5	1.0	14	2M	338	7.78	.	.	.
20SEP2002	10:12	.	.	.	.	.	.	.	.	.
20SEP2002	10:12	23.0	1.0	14	2E	340	7.82	.	.	.
21SEP2002	9:49	23.0	1.0	17	2DS	340	7.56	.	.	.
22SEP2002	7:50	22.4	1.1	16	1DS	352	7.44	1.1	1DS	.
23SEP2002	10:00	.	.	.	.	.	.	.	.	.
23SEP2002	10:00	23.0	1.0	13	2MM	338	7.69	.	.	.
24SEP2002	9:36	.	.	.	.	.	.	66.5	.	<0.040
24SEP2002	9:36	23.0	0.7	13	1E	338	7.73	.	.	.
25SEP2002	9:21	.	.	.	.	.	.	.	.	.
25SEP2002	9:21	23.0	0.7	12	2E	336	7.65	.	.	.
26SEP2002	10:47	.	.	.	.	.	.	.	.	.
26SEP2002	10:47	22.5	0.9	14	2E	338	7.96	.	.	.
27SEP2002	10:00	.	.	.	.	.	.	.	.	.

Date Collected	HACH		Total Coliforms (CFU/100ml)	Fecal Coli Code	Fecal Coliforms (CFU/100ml)	Total Plankton (sau)	Genus Plankton (sau)	Dominant Genus	Sample Type	Sample Number
	Undigested Manganese (mg/l)	Total Coli Code								
09SEP2002	0.1	.	.	.	.	.	.	.	.	020872
10SEP2002	.	.	333	.	1	120	82	MELOSIRA	.	0206574
10SEP2002	020880
11SEP2002	.	.	200	.	<1	.	.	.	.	0206600
11SEP2002	020890
12SEP2002	.	>=	29	.	<1	.	.	.	.	0206642
12SEP2002	0.06	.	.	.	.	.	.	.	.	020915
13SEP2002	.	.	800	.	1	.	.	.	.	0206654
13SEP2002	020926
14SEP2002	.	.	1250	.	2	.	.	.	.	0206663
15SEP2002	.	>=	214	.	<1	.	.	.	.	0206673
16SEP2002	.	.	<83	.	2	.	.	.	.	0206709
16SEP2002	020931
17SEP2002	.	.	33	.	5	3600	2400	FRAGILAR	.	0206768
17SEP2002	020941
18SEP2002	.	>=	83	.	2	.	.	.	.	0206806
18SEP2002	0.04	.	.	.	.	.	.	.	.	020949
19SEP2002	.	.	<333	.	1	.	.	.	.	0206839
19SEP2002	020954
20SEP2002	.	.	<333	.	2	.	.	.	.	0206850
20SEP2002	0.03	.	.	.	.	.	.	.	.	020958
21SEP2002	.	.	<333	.	<1	.	.	.	.	0206858
22SEP2002	.	.	<67	.	<1	.	.	.	.	0206868
23SEP2002	.	.	67	.	<1	.	.	.	.	0206882
23SEP2002	0.024	.	.	.	.	.	.	.	.	020963
24SEP2002	.	.	571	.	<1	1700	910	FRAGILAR	.	0206922
24SEP2002	020970
25SEP2002	.	.	<33	.	<1	.	.	.	.	0206944
25SEP2002	0.026	020977
26SEP2002	.	>=	33	.	1	0206977
26SEP2002	020982
27SEP2002	.	.	<67	.	<1	0207009

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----- Site=CRO1T -----
 (continued)

Date Collected	Grab Time	Temperature (degrees C)	Turbidity (NTU)	Apparent Color (Units)	Specific Conductivity (umhos/cm)	pH (Units)	Alkalinity (mg/l)	Digested Manganese (mg/l)	Undigested Mananese (mg/l)
27SEP2002	10:00	22.5	1.1	13	2E	332	8.15	.	.
28SEP2002	9:55	22.4	0.9	16	2D	342	7.86	.	.
29SEP2002	9:50	22.2	1.0	17	2E	339	7.88	.	.
30SEP2002	9:17	.	.	.	.	.	.	.	.
30SEP2002	9:17	22.0	0.9	17	2E	337	7.68	.	.
01OCT2002	11:43	.	.	.	.	.	68.0	.	<0.040
01OCT2002	11:43	22.0	1.0	13	1E	332	7.78	.	.
02OCT2002	9:05	.	.	.	.	.	.	.	.
02OCT2002	9:05	22.0	0.8	14	2E	334	7.78	.	.
03OCT2002	10:00	.	.	.	.	.	.	.	.
03OCT2002	10:00	22.0	1.0	14	2MM	337	7.89	.	.
04OCT2002	11:05	.	.	.	.	.	.	.	.
04OCT2002	11:05	22.0	1.1	12	2M	334	8.05	.	.
05OCT2002	8:50	22.0	0.8	15	1D	338	7.43	.	.
06OCT2002	10:15	21.5	1.3	15	2E	345	7.72	.	.
07OCT2002	11:20	.	.	.	.	.	.	.	.
07OCT2002	11:20	22.0	0.9	12	1E	333	7.78	.	.
07OCT2002	.	.	.	.	.	.	.	.	.

Date Collected	HACH		Total Coliforms (CFU/100ml)	Fecal Coli Code	Fecal Coliforms (CFU/100ml)	Total Plankton (sau)	Genus Plankton (sau)	Dominant Genus	Sample Type	Sample Number
	Undigested Manganese (mg/l)	Total Coli Code								
27SEP2002	020987
28SEP2002	.	.	67	.	<1	.	.	.	.	0207024
29SEP2002	.	.	<67	.	1	.	.	.	.	0207034
30SEP2002	.	.	33	.	<1	.	.	.	.	0207075
30SEP2002	0.02	.	.	.	.	.	.	.	.	020994
01OCT2002	.	>=	<33	.	1	670	390	FRAGILAR	.	0207108
01OCT2002	021002
02OCT2002	.	.	143	.	5	.	.	.	.	0207174
02OCT2002	021009
03OCT2002	.	.	<33	.	2	.	.	.	.	0207186
03OCT2002	021015
04OCT2002	.	.	<33	.	1	.	.	.	.	0207210
04OCT2002	021021
05OCT2002	.	.	<33	.	<1	.	.	.	.	0207218
06OCT2002	.	.	67	.	1	0207248
07OCT2002	.	.	33	.	<1	0207267
07OCT2002	021028
07OCT2002	0.03	21028

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----- Site=CRO9 -----

Date Collected	Grab Time	Temperature (degrees C)	Turbidity (NTU)	Apparent Color (Units)	Specific Conductivity (umhos/cm)	pH (Units)	Alkalinity (mg/l)	Digested Manganese (mg/l)	Undigested Mananese (mg/l)
09SEP2002	9:50	21.8	1.6	19	3CC	346	7.26	.	.
10SEP2002	8:30	22.6	1.9	21	3CC	344	7.24	.	.
11SEP2002	10:40	23.1	1.7	20	3CC	325	7.33	.	.
12SEP2002	11:38	23.2	1.9	13	3CC	343	7.41	.	.
13SEP2002	10:45	22.7	1.8	10	3CC	346	7.46	.	.
14SEP2002	8:20	22.1	1.8	10	3CC	345	7.36	.	.
15SEP2002	8:20	22.6	1.8	10	3CC	343	7.49	.	.
16SEP2002	9:30	22.6	1.9	9	3CC	341	7.46	.	.
17SEP2002	8:05	22.3	1.9	13	3CC	303	7.37	55.0	.
18SEP2002	9:50	22.5	1.9	12	3CC	293	7.44	.	.
19SEP2002	10:45	22.0	1.5	9	3CC	282	7.22	.	.
20SEP2002	9:10	22.4	1.5	11	3CC	297	7.22	.	.
21SEP2002	8:44	22.5	1.4	10	2CC	292	7.27	.	.
22SEP2002	7:05	22.3	1.4	12	3CC	300	7.20	.	.
23SEP2002	9:10	22.2	1.4	12	3CC	289	7.20	.	.
24SEP2002	9:10	22.0	1.2	10	3CC	291	7.22	53.2	.
25SEP2002	9:51	22.3	1.3	11	3CC	290	7.43	.	.
26SEP2002	10:13	22.1	1.2	10	3CC	293	7.27	.	.
27SEP2002	8:20	21.5	1.4	14	3CC	290	7.44	.	.
28SEP2002	8:47	21.8	1.4	11	2CC	289	7.32	.	.
29SEP2002	8:37	21.7	1.4	10	2CC	289	7.34	.	.
30SEP2002	8:15	21.1	1.3	10	3CC	291	7.32	.	.
01OCT2002	8:31	21.4	1.3	10	3CC	286	7.30	.	0.06
02OCT2002	9:55	21.5	1.3	11	3CC	286	7.30	.	.
03OCT2002	10:10	21.6	1.4	12	3CC	284	7.33	.	.
04OCT2002	8:41	21.2	1.4	12	3CC	280	7.35	.	.
05OCT2002	7:46	21.3	1.3	12	3CC	278	7.24	.	.
06OCT2002	8:35	20.4	1.4	9	3CC	287	7.31	.	.
07OCT2002	10:20	20.9	1.5	10	3CC	286	7.35	.	.

Date Collected	HACH		Total Coliforms (CFU/100ml)	Fecal Coli Code	Fecal Coliforms (CFU/100ml)	Total Plankton (sau)	Genus Plankton (sau)	Dominant Genus	Sample Type	Sample Number
	Undigested Manganese (mg/l)	Total Coli Code								
09SEP2002	.		<1		<1	.	.			0206512
10SEP2002	.		<1		<1	.	.			0206557
11SEP2002	.		<1		<1	.	.			0206596
12SEP2002	.		<1		<1	.	.			0206638
13SEP2002	.		<1		<1	.	.			0206651
14SEP2002	.		<1		<1	.	.			0206660
15SEP2002	.		<1		<1	.	.			0206669
16SEP2002	.		<1		<1	.	.			0206680
17SEP2002	.		<1		<1	.	.			0206746
18SEP2002	.		<1		<1	.	.			0206802
19SEP2002	.		<1		<1	.	.			0206834
20SEP2002	.	>=	<1		<1	.	.			0206846
21SEP2002	.		<1		<1	.	.			0206859
22SEP2002	.		<1		<1	.	.			0206870
23SEP2002	.		<1		<1	.	.			0206878
24SEP2002	.		<1		<1	.	.			0206913
25SEP2002	.		<1		<1	.	.			0206940
26SEP2002	.		<1		<1	.	.			0206972
27SEP2002	.		<1		<1	.	.			0206999
28SEP2002	.		<1		<1	.	.			0207025
29SEP2002	.		<1		<1	.	.			0207035
30SEP2002	.		<1		<1	.	.			0207042
01OCT2002	.		<1		<1	.	.			0207086
02OCT2002	.		<1		<1	.	.			0207118
03OCT2002	.		<1		<1	.	.			0207182
04OCT2002	.		<1		<1	.	.			0207206
05OCT2002	.		<1		<1	.	.			0207219
06OCT2002	.		<1		<1	.	.			0207226
07OCT2002	.		<1		<1	.	.			0207256

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----- Site=CROC -----

Date Collected	Grab Time	Temperature (degrees C)	Turbidity (NTU)	Apparent Color (Units)	Odor	Specific Conductivity (umhos/cm)	pH (Units)	Alkalinity (mg/l)	Digested Manganese (mg/l)	Undigested Mananese (mg/l)
12SEP2002	12:42	22.0	6.6	13	3CH	72	7.35	.	.	.
12SEP2002	13:35	21.5	2.0	8	2CH	72	7.34	.	.	.
12SEP2002	15:17	21.5	1.8	7	3M	72	7.32	.	.	.
12SEP2002	16:19	21.5	1.9	7	2M	71	7.32	.	.	.
16SEP2002	12:11	20.5	1.9	8	2E	71	7.18	.	.	.
16SEP2002	13:13	20.5	1.9	7	2E	71	7.22	.	.	.
16SEP2002	15:15	21.0	2.1	9	2E	71	7.17	.	.	.
17SEP2002	11:28	.	.	.	.	.	.	.	0.09	.
17SEP2002	11:28	20.5	1.8	8	2M	70	7.35	.	.	.
18SEP2002	8:10	.	.	.	.	.	.	.	.	.
18SEP2002	8:10	20.5	2.0	13	1M	70	7.37	.	.	.
19SEP2002	8:59	.	.	.	.	.	.	.	.	.
19SEP2002	8:59	20.5	2.0	8	2MM	70	7.33	.	.	.
20SEP2002	9:07	.	.	.	.	.	.	.	.	.
20SEP2002	9:07	20.5	2.0	8	1V	71	7.39	.	.	.
21SEP2002	10:12	20.6	1.9	13	3M	71	7.18	.	.	.
22SEP2002	8:15	20.8	2.0	17	2M	74	7.15	.	.	.
23SEP2002	11:00	.	.	.	.	.	.	.	.	.
23SEP2002	11:00	21.0	2.0	11	1E	70	7.27	.	.	.
24SEP2002	9:45	.	.	.	.	.	.	.	0.09	.
24SEP2002	9:45	21.5	1.8	10	1E	70	7.25	.	.	.
25SEP2002	8:18	.	.	.	.	.	.	.	.	.
25SEP2002	8:18	20.5	2.0	10	1V	70	7.38	.	.	.
26SEP2002	10:20	21.0	2.2	11	1M	70	7.27	.	.	.
27SEP2002	9:07	.	.	.	.	.	.	.	.	.
27SEP2002	9:07	20.5	2.1	10	1E	71	7.33	.	.	.
28SEP2002	10:21	20.5	1.8	12	1E	72	7.26	.	.	.
29SEP2002	10:13	20.1	2.0	12	2M	72	7.26	.	.	.
30SEP2002	10:23	.	.	.	.	.	.	.	.	.
30SEP2002	10:03	19.5	2.2	9	1E	70	7.26	.	.	.
01OCT2002	10:25	.	.	.	.	.	.	12.5	0.08	.
01OCT2002	10:25	19.0	2.2	10	3DF	70	7.26	.	.	.

Date Collected	HACH		Total Coliforms (CFU/100ml)	Fecal Coli Code	Fecal Coliforms (CFU/100ml)	Total Plankton (sau)	Genus Plankton (sau)	Dominant Genus	Sample Type	Sample Number
	Undigested Manganese (mg/l)	Total Coli Code								
12SEP2002	020919
12SEP2002	020920
12SEP2002	020921
12SEP2002	020922
16SEP2002	SI	020933
16SEP2002	SI	020934
16SEP2002	SI	020935
17SEP2002	.	.	7	.	3	190	130	SYNEDRA	.	0206767
17SEP2002	020944
18SEP2002	.	.	23	.	<1	.	.	.	.	0206807
18SEP2002	0.07	.	.	.	.	.	.	.	.	020948
19SEP2002	.	.	40	.	1	.	.	.	.	0206838
19SEP2002	020953
20SEP2002	.	.	<3	.	1	.	.	.	.	0206851
20SEP2002	0.06	.	.	.	.	.	.	.	.	020959
21SEP2002	.	.	<3	.	<1	.	.	.	.	0206861
22SEP2002	.	.	7	.	<1	.	.	.	.	0206871
23SEP2002	.	.	17	.	<1	.	.	.	.	0206880
23SEP2002	0.078	.	.	.	.	.	.	.	.	020964
24SEP2002	410	190	SYNEDRA	.	0206921
24SEP2002	020973
25SEP2002	.	.	10	.	3	.	.	.	.	0206945
25SEP2002	0.075	.	.	.	.	.	.	.	.	020978
26SEP2002	020983
27SEP2002	.	.	3	.	<1	.	.	.	.	0207010
27SEP2002	020988
28SEP2002	.	.	53	.	<1	.	.	.	.	0207027
29SEP2002	.	.	133	.	<1	.	.	.	.	0207037
30SEP2002	.	>=	3	.	<1	.	.	.	.	0207076
30SEP2002	0.07	020996
01OCT2002	.	.	10	.	<1	170	61	SYNEDRA	.	0207107
01OCT2002	021004	.

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----- Site=CROC -----
 (continued)

Date Collected	Grab Time	Temperature (degrees C)	Turbidity (NTU)	Apparent Color (Units)	Odor	Specific Conductivity (umhos/cm)	pH (Units)	Alkalinity (mg/l)	Digested Manganese (mg/l)	Undigested Mananese (mg/l)
02OCT2002	9:30	.	.	.	.	.	.	.	.	.
02OCT2002	9:30	19.0	2.3	8	2E	72	7.34	.	.	.
03OCT2002	10:13	.	.	.	.	.	.	.	.	.
03OCT2002	10:13	19.5	2.1	11	1E	72	7.30	.	.	.
04OCT2002	8:50	.	.	.	.	.	.	.	.	.
04OCT2002	8:50	19.5	2.1	13	1E	72	7.21	.	.	.
05OCT2002	9:14	19.5	2.3	13	1M	73	7.26	.	.	.
06OCT2002	11:00	18.7	2.1	12	2E	76	7.19	.	.	.
07OCT2002	9:40	.	.	.	.	.	.	.	.	.
07OCT2002	9:40	19.0	2.1	10	1DF	72	7.33	.	.	.
07OCT2002	.	.	.	.	.	.	.	.	.	.

HACH											
Date Collected	Undigested Manganese (mg/l)	Total Coli Code	Total Coliforms (CFU/100ml)	Fecal Coli Code	Fecal Coliforms (CFU/100ml)	Total Plankton (sau)	Genus Plankton (sau)	Dominant Genus	Sample Type	Sample Number	
02OCT2002	.	.	10	.	<1	.	.	.	.	0207175
02OCT2002	021010	
03OCT2002	.	.	7	.	<1	.	.	.	.	0207187
03OCT2002	021016	
04OCT2002	.	.	7	.	1	.	.	.	.	0207211
04OCT2002	021022	
05OCT2002	.	.	3	.	<1	.	.	.	.	0207221
06OCT2002	.	.	70	.	<1	0207249	
07OCT2002	.	.	7	.	<1	0207268	
07OCT2002	021031	
07OCT2002	0.06	21031	

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NYC-DEP Bureau of Water Supply
 Kensico Laboratory, ELAP ID Number 10771
 Croton Gatehouse Laboratory, ELAP ID Number 11669
 2002 East of Hudson District Keypoint Data

----- Site=CROGH -----

Date Collected	Grab Time	Temperature (degrees C)	Turbidity (NTU)	Apparent Color (Units)	Odor	Specific Conductivity (umhos/cm)	pH (Units)	Alkalinity (mg/l)	Digested Manganese (mg/l)	Undigested Mananese (mg/l)
09SEP2002	8:51	.	.	.	.	.	.	.	.	.
09SEP2002	8:51	23.0	1.1	14	2E	339	7.56	.	.	.
10SEP2002	9:40	.	.	.	.	.	.	.	.	0.08
10SEP2002	9:40	23.0	1.1	19	1E	338	7.65	.	.	.
11SEP2002	7:04	.	.	.	.	.	.	.	.	.
11SEP2002	7:04	23.5	1.3	15	2MM	338	7.83	.	.	.
12SEP2002	9:36	.	.	.	.	.	.	.	.	.
12SEP2002	9:36	23.5	1.2	18	2E	342	7.98	.	.	.
13SEP2002	7:46	.	.	.	.	.	.	.	.	.
13SEP2002	7:46	23.0	1.4	14	2E	338	7.91	.	.	.
14SEP2002	10:10	23.0	1.4	14	1DF	339	7.76	.	.	.
15SEP2002	10:30	23.7	1.3	14	3MM	345	8.04	.	.	.
16SEP2002	8:40	.	.	.	.	.	.	.	.	.
16SEP2002	8:40	23.5	1.6	14	3MM	338	8.01	.	.	.
17SEP2002	11:11	.	.	.	.	.	.	57.7	0.05	.
17SEP2002	11:11	23.0	1.4	14	3E	292	8.02	.	.	.
18SEP2002	8:03	.	.	.	.	.	.	.	.	.
18SEP2002	8:03	23.0	1.3	16	2E	292	7.82	.	.	.
19SEP2002	8:56	.	.	.	.	.	.	.	.	.
19SEP2002	8:56	23.0	1.1	14	2E	288	7.74	.	.	.
20SEP2002	9:06	.	.	.	.	.	.	.	.	.
20SEP2002	9:06	23.0	1.1	14	1E	290	7.77	.	.	.
21SEP2002	10:09	22.9	1.1	17	3M	291	7.58	.	.	.
22SEP2002	8:05	22.6	1.1	18	2M	297	7.40	.	.	.
23SEP2002	10:45	.	.	.	.	.	.	.	.	.
23SEP2002	10:45	23.0	1.0	12	2M	288	7.63	.	.	.
24SEP2002	9:36	.	.	.	.	.	.	57.4	.	<0.040
24SEP2002	9:36	22.5	0.8	13	2E	286	7.66	.	.	.
25SEP2002	8:14	.	.	.	.	.	.	.	.	.
25SEP2002	8:14	23.0	0.9	13	2M	285	7.63	.	.	.
26SEP2002	10:15	.	.	.	.	.	.	.	.	.
26SEP2002	10:15	22.0	1.0	14	2M	287	7.73	.	.	.

Date Collected	HACH		Total Coliforms (CFU/100ml)	Fecal Coli Code	Fecal Coliforms (CFU/100ml)	Total Plankton (sau)	Genus Plankton (sau)	Dominant Genus	Sample Type	Sample Number
	Undigested Manganese (mg/l)	Total Coli Code								
09SEP2002	.	.	43	.	2	1600	970	FRAGILAR	.	0206506
09SEP2002	0.12	.	.	.	.	.	.	.	.	020868
10SEP2002	.	.	<14	.	1	.	.	.	.	0206569
10SEP2002	020875
11SEP2002	.	.	<14	.	<1	680	340	GOMPHOSP	.	0206597
11SEP2002	020887
12SEP2002	.	.	29	.	5	.	.	.	.	0206639
12SEP2002	0.04	.	.	.	.	.	.	.	.	020912
13SEP2002	.	>=	57	.	2	2100	550	FRAGILAR	.	0206652
13SEP2002	020923
14SEP2002	.	.	29	.	2	.	.	.	.	0206661
15SEP2002	.	>=	14	.	1	.	.	.	.	0206670
16SEP2002	.	.	167	>=	16	2700	1100	FRAGILAR	.	0206706
16SEP2002	020928
17SEP2002	.	>=	67	>=	28	.	.	.	.	0206762
17SEP2002	020936
18SEP2002	.	>=	83	.	5	2100	1200	FRAGILAR	.	0206803
18SEP2002	0.04	.	.	.	.	.	.	.	.	020945
19SEP2002	.	.	<143	.	5	.	.	.	.	0206835
19SEP2002	020950
20SEP2002	.	>=	143	.	3	1800	1300	FRAGILAR	.	0206847
20SEP2002	0.03	.	.	.	.	.	.	.	.	020955
21SEP2002	.	.	<143	.	1	.	.	.	.	0206856
22SEP2002	.	.	<143	.	2	.	.	.	.	0206866
23SEP2002	.	.	<143	.	<1	470	120	FRAGILAR	.	0206879
23SEP2002	0.04	.	.	.	.	.	.	.	.	020960
24SEP2002	.	.	<333	.	1	.	.	.	.	0206916
24SEP2002	020965
25SEP2002	.	.	<143	.	1	1300	630	LYNGBYA	.	0206941
25SEP2002	0.038	020974
26SEP2002	.	.	<143	.	<1	0206973
26SEP2002	020979

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 NYC-DEP Bureau of Water Supply
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 (continued)

Date Collected	Grab Time	Temperature (degrees C)	Turbidity (NTU)	Apparent Color (Units)	Specific Conductivity (umhos/cm)	pH (Units)	Alkalinity (mg/l)	Digested Manganese (mg/l)	Undigested Manganese (mg/l)
27SEP2002	9:04	.	.	.	.	.	.	.	.
27SEP2002	9:04	22.0	1.0	12	2V	283	7.87	.	.
28SEP2002	10:16	22.1	0.8	13	2EP	287	7.69	.	.
29SEP2002	10:11	21.9	0.7	14	3E	289	7.69	.	.
30SEP2002	10:01	.	.	.	.	.	.	.	.
30SEP2002	10:01	22.0	1.0	9	2E	283	7.48	.	.
01OCT2002	10:20	.	.	.	.	.	57.8	0.07	.
01OCT2002	10:20	21.5	1.1	11	2MM	281	7.69	.	.
02OCT2002	9:07	.	.	.	.	.	.	.	.
02OCT2002	9:07	21.5	1.0	15	2M	281	7.65	.	.
03OCT2002	10:09	.	.	.	.	.	.	.	.
03OCT2002	10:09	21.5	1.5	12	2E	270	7.68	.	.
04OCT2002	8:43	.	.	.	.	.	.	.	.
04OCT2002	8:43	22.0	1.3	14	2M	272	7.77	.	.
05OCT2002	9:10	21.1	1.1	13	2D	274	7.51	.	.
06OCT2002	10:45	21.0	1.1	14	2MM	289	7.60	.	.
07OCT2002	11:55	.	.	.	.	.	.	.	.
07OCT2002	9:32	21.0	1.1	14	2E	276	7.80	.	.
07OCT2002	.	.	.	.	.	.	.	.	.

Date Collected	HACH		Total Coliforms (CFU/100ml)	Fecal Coli Code	Fecal Coliforms (CFU/100ml)	Total Plankton (sau)	Genus Plankton (sau)	Dominant Genus	Sample Type	Sample Number
	Undigested Manganese (mg/l)	Total Coli Code								
27SEP2002	.	.	<143	.	4	650	160	MICROCYS	.	0207006
27SEP2002	020984
28SEP2002	.	.	<143	.	2	.	.	.	.	0207022
29SEP2002	.	.	<143	.	1	.	.	.	.	0207032
30SEP2002	.	>=	<67	.	1	990	460	LYNGBYA	.	0207072
30SEP2002	0.07	.	.	.	.	.	.	.	.	020989
01OCT2002	.	.	<143	.	4	.	.	.	.	0207103
01OCT2002	020997
02OCT2002	.	.	143	.	<1	600	370	OSCILLAT	.	0207171
02OCT2002	021011
03OCT2002	.	>=	<14	.	<1	.	.	.	.	0207183
03OCT2002	021012
04OCT2002	.	.	<67	.	<1	1100	530	OSCILLAT	.	0207207
04OCT2002	021018
05OCT2002	.	>=	<33	.	<1	.	.	.	.	0207216
06OCT2002	.	.	<67	.	1	.	.	.	.	0207245
07OCT2002	.	.	67	.	2	660	290	FRAGILAR	.	0207264
07OCT2002	021023
07OCT2002	0.04	21023

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NYC-DEP Bureau of Water Supply
 Kensico Laboratory, ELAP ID Number 10771
 Croton Gatehouse Laboratory, ELAP ID Number 11669
 2002 East of Hudson District Keypoint Data

----- Site=CROGHC -----

Date Collected	Grab Time	Temperature (degrees C)	Turbidity (NTU)	Apparent Color (Units)	Odor	Specific Conductivity (umhos/cm)	pH (Units)	Alkalinity (mg/l)	Digested Manganese (mg/l)	Undigested Mananese (mg/l)
09SEP2002	9:20	.	.	.	.	.	.	.	.	.
09SEP2002	9:20	23.0	1.5	14	4CC	343	7.32	.	.	.
10SEP2002	9:15	.	.	.	.	.	.	0.08	.	.
10SEP2002	9:15	23.0	1.6	19	3CC	340	7.43	.	.	.
11SEP2002	7:16	.	.	.	.	.	.	.	.	.
11SEP2002	7:16	23.0	1.8	16	4CC	340	7.49	.	.	.
12SEP2002	10:07	.	.	.	.	.	.	.	.	.
12SEP2002	10:07	23.5	2.1	15	4CC	342	7.66	.	.	.
13SEP2002	8:07	.	.	.	.	.	.	.	.	.
13SEP2002	8:07	23.5	1.8	14	4CC	340	7.48	.	.	.
14SEP2002	10:24	22.7	2.0	11	2CC	343	7.38	.	.	.
15SEP2002	10:50	23.4	1.6	10	4CC	347	7.54	.	.	.
16SEP2002	8:56	.	.	.	.	.	.	.	.	.
16SEP2002	8:56	23.5	2.1	14	4CC	340	7.60	.	.	.
17SEP2002	7:43	.	.	.	.	.	.	54.7	0.07	.
17SEP2002	7:43	23.0	1.8	13	3CC	300	7.54	.	.	.
18SEP2002	8:26	.	.	.	.	.	.	.	.	.
18SEP2002	8:26	23.0	1.7	13	3CC	294	7.50	.	.	.
19SEP2002	9:12	.	.	.	.	.	.	.	.	.
19SEP2002	9:12	23.0	1.5	8	4CC	292	7.42	.	.	.
20SEP2002	9:38	.	.	.	.	.	.	.	.	.
20SEP2002	9:38	23.0	1.5	9	3CC	292	7.52	.	.	.
21SEP2002	10:35	22.5	1.5	11	2CC	293	7.30	.	.	.
22SEP2002	8:25	22.6	1.6	11	3CC	300	7.22	.	.	.
23SEP2002	10:15	.	.	.	.	.	.	.	.	.
23SEP2002	10:25	23.0	1.4	9	3CC	292	7.40	.	.	.
24SEP2002	10:42	.	.	.	.	.	.	53.7	.	0.05
24SEP2002	10:42	23.0	1.3	11	4CC	273	7.42	.	.	.
25SEP2002	8:43	.	.	.	.	.	.	.	.	.
25SEP2002	8:43	22.5	1.3	8	3CC	288	7.49	.	.	.
26SEP2002	10:00	.	.	.	.	.	.	.	.	.
26SEP2002	10:00	23.0	1.3	12	4CC	287	7.46	.	.	.

Date Collected	HACH		Total Coliforms (CFU/100ml)	Fecal Coli Code	Fecal Coliforms (CFU/100ml)	Total Plankton (sau)	Genus Plankton (sau)	Dominant Genus	Sample Type	Sample Number
	Undigested Manganese (mg/l)	Total Coli Code								
09SEP2002	.	.	<1	.	<1	.	.	.	.	0206507
09SEP2002	0.11	.	<1	.	<1	.	.	.	.	020869
10SEP2002	.	.	<1	.	<1	.	.	.	.	0206570
10SEP2002	.	.	<1	.	<1	.	.	.	.	020876
11SEP2002	.	.	<1	.	<1	.	.	.	.	0206598
11SEP2002	.	.	<1	.	<1	.	.	.	.	020888
12SEP2002	.	.	<1	.	<1	.	.	.	.	0206640
12SEP2002	0.09	.	<1	.	<1	.	.	.	.	020913
13SEP2002	.	.	<1	.	<1	.	.	.	.	0206653
13SEP2002	.	.	<1	.	<1	.	.	.	.	020924
14SEP2002	.	.	<1	.	<1	.	.	.	.	0206662
15SEP2002	.	.	<1	.	<1	.	.	.	.	0206671
16SEP2002	.	.	<1	.	<1	.	.	.	.	0206707
16SEP2002	.	.	<1	.	<1	.	.	.	.	020929
17SEP2002	.	.	<1	.	<1	.	.	.	.	0206763
17SEP2002	.	.	<1	.	<1	.	.	.	.	020937
18SEP2002	.	.	<1	.	<1	.	.	.	.	0206804
18SEP2002	0.05	.	<1	.	<1	.	.	.	.	020946
19SEP2002	.	.	<1	.	<1	.	.	.	.	0206836
19SEP2002	.	.	<1	.	<1	.	.	.	.	020951
20SEP2002	.	.	<1	.	<1	.	.	.	.	0206848
20SEP2002	0.05	.	<1	.	<1	.	.	.	.	020956
21SEP2002	.	.	<1	.	<1	.	.	.	.	0206857
22SEP2002	.	.	<1	.	<1	.	.	.	.	0206867
23SEP2002	.	.	<1	.	<1	.	.	.	.	0206883
23SEP2002	0.046	.	<1	.	<1	.	.	.	.	020961
24SEP2002	.	.	<1	.	<1	.	.	.	.	0206917
24SEP2002	.	.	<1	.	<1	.	.	.	.	020966
25SEP2002	.	.	<1	.	<1	0206942
25SEP2002	0.045	.	<1	.	<1	020975
26SEP2002	.	.	<1	.	<1	0206974
26SEP2002	.	.	<1	.	<1	020980

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----- Site=CROGHC -----
 (continued)

Date Collected	Grab Time	Temperature (degrees C)	Turbidity (NTU)	Apparent Color (Units)	Odor	Specific Conductivity (umhos/cm)	pH (Units)	Alkalinity (mg/l)	Digested Manganese (mg/l)	Undigested Mananese (mg/l)
27SEP2002	9:26	.	.	.	.	.	.	.	.	.
27SEP2002	9:26	22.5	1.5	9	3CC	285	7.59	.	.	.
28SEP2002	10:40	22.0	1.4	11	3CC	291	7.40	.	.	.
29SEP2002	10:33	21.8	1.5	10	3CC	291	7.39	.	.	.
30SEP2002	10:25	.	.	.	.	.	.	.	.	.
30SEP2002	10:25	22.0	1.4	10	4CC	283	7.32	.	.	.
01OCT2002	11:25	.	.	.	.	.	.	53.4	0.08	.
01OCT2002	11:25	22.0	1.3	8	4CC	283	7.43	.	.	.
02OCT2002	10:05	.	.	.	.	.	.	.	.	.
02OCT2002	10:05	22.0	1.3	9	4CC	284	7.42	.	.	.
03OCT2002	10:31	.	.	.	.	.	.	.	.	.
03OCT2002	10:31	22.0	1.4	9	3CC	277	7.44	.	.	.
04OCT2002	9:18	.	.	.	.	.	.	.	.	.
04OCT2002	9:18	22.0	1.4	10	3CC	273	7.53	.	.	.
05OCT2002	9:31	21.3	1.3	12	3CC	279	7.26	.	.	.
06OCT2002	11:05	21.0	1.7	10	4CC	292	7.35	.	.	.
07OCT2002	11:25	.	.	.	.	.	.	.	.	.
07OCT2002	11:25	21.5	1.4	12	3CC	280	7.46	.	.	.
07OCT2002	.	.	.	.	.	.	.	.	.	.

Date Collected	HACH										
	Undigested Manganese (mg/l)	Total Coli Code	Total Coliforms (CFU/100ml)	Fecal Coli Code	Fecal Coliforms (CFU/100ml)	Total Plankton (sau)	Genus Plankton (sau)	Dominant Genus	Sample Type	Sample Number	
27SEP2002	.	.	<1	.	<1	.	.	.	.	0207007
27SEP2002	.	.	<1	.	<1	.	.	.	.	020985
28SEP2002	.	.	<1	.	<1	.	.	.	.	0207023
29SEP2002	.	.	<1	.	<1	.	.	.	.	0207033
30SEP2002	.	>=	<1	.	<1	.	.	.	.	0207073
30SEP2002	0.05	.	<1	.	<1	.	.	.	.	020990
01OCT2002	.	.	<1	.	<1	.	.	.	.	0207111
01OCT2002	020998	
02OCT2002	.	.	<1	.	<1	.	.	.	.	0207172
02OCT2002	021007	
03OCT2002	.	.	<1	.	<1	.	.	.	.	0207184
03OCT2002	021013	
04OCT2002	.	.	<1	.	<1	.	.	.	.	0207208
04OCT2002	021019	
05OCT2002	.	.	<1	.	<1	.	.	.	.	0207217
06OCT2002	.	>=	<1	.	<1	0207246	
07OCT2002	.	.	<1	.	<1	0207265	
07OCT2002	021024	
07OCT2002	0.05	21024	

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LABORATORY METHODS: 2002
BEN NESIN LABORATORY, ELAP ID NO. 10030

Variable	Date	Certification	Samples	Instrument	Reference / Procedure Change	Method
Alkalinity	20FEB01	Non-Potable Y Potable NP S & H Waste NP	Keypoint	Brinkmann Autotitrator, Model 748, 751	SM18; 2320B	Automated Titration
Apparent Color	01JAN93	Non-Potable NA Potable NP S & H Waste NP	Keypoint	Matched Nessler Tubes, 100ml	SM18; 2120B	Visual Comparison Method
Dominant Genus	27SEP99	Non-Potable NA Potable NP S & H Waste NP	Keypoint	Nikon Microscope	SM18; 10900C Samples are not preserved.	
Dominant Genus	01JAN02	Non-Potable NA Potable NP S & H Waste NP	Keypoint	Nikon Microscope	SM18; 10900C	
Dominant Genus	13MAY02	Non-Potable NA Potable NP S & H Waste NP	Keypoint	Nikon Microscope	SM18; 10900C All samples are preserved with Lugol's solution.	
Fecal Coliforms	02APR97	Non-Potable Y Potable Y S & H Waste NP	Keypoint	Millipore Membrane Filter Apparatus	SM18; 9222D	
Genus Plankton	27SEP99	Non-Potable NA Potable NP S & H Waste NP	Keypoint	Nikon Microscope	SM18; 10200F Samples are not preserved.	
Genus Plankton	01JAN02	Non-Potable NA Potable NP S & H Waste NP	Keypoint	Nikon Microscope	SM18; 10200F	
Genus Plankton	13MAY02	Non-Potable NA Potable NP S & H Waste NP	Keypoint	Nikon Microscope	SM18; 10200F All samples are preserved with Lugol's solution.	
Undigested Mn	01JAN01	Non-Potable Y Potable NP S & H Waste NP	Keypoint	Perkin Elmer Plasma 400	EPA 200.7	ICP
Odor	01JAN87	Non-Potable NA Potable NP S & H Waste NP	Keypoint	Organoleptic	SM12; page 304 Table 18	
pH	01JAN98	Non-Potable Y Potable Y S & H Waste NP	Keypoint	Orion 720A	SM18; 4500-H+,B	
pH	10MAY02	Non-Potable Y Potable Y S & H Waste NP	Keypoint	Brinkmann Model 692	SM18; 4500-H+,B Either unit 1 or unit 2 may be used for analyses.	
Specific Cond.	08OCT97	Non-Potable Y Potable NP S & H Waste NP	Keypoint	YSI Model 3200	SM18; 2510B	

Certification Codes: Y = Yes, N = No, NA = Not Available, NP = Not Performed

LABORATORY METHODS: 2002
 BEN NESIN LABORATORY, ELAP ID NO. 10030

Variable	Date	Certification	Samples	Instrument	Reference / Procedure Change	Method
Total Coliforms	02APR97	Non-Potable Y Potable Y S & H Waste NP	Keypoint	Millipore Membrane Filter Apparatus	SM18; 9222B	
Temperature	01JAN91	Non-Potable NA Potable NP S & H Waste NP	Keypoint	Dial type metal stem therm. in 1C grad.	SM17; 2550B	
Total Plankton	08MAY00	Non-Potable NA Potable NP S & H Waste NP	Keypoint	Nikon Microscope	SM18; 10200F Samples are not preserved.	
Total Plankton	01JAN02	Non-Potable NA Potable NP S & H Waste NP	Keypoint	Nikon Microscope	SM18; 10200F	
Total Plankton	13MAY02	Non-Potable NA Potable NP S & H Waste NP	Keypoint	Nikon Microscope	SM18; 10200F All samples are preserved with Lugol's solution.	
Turbidity	27AUG01	Non-Potable NA Potable NP S & H Waste NP	Keypoint	Hach 2100 AN Turbidimeter	SM19; 2130B	Nephelometric Method

Certification Codes: Y = Yes, N = No, NA = Not Available, NP = Not Performed

LABORATORY METHODS: 2002
KENSICO LABORATORY, ELAP ID NO. 10771

Variable	Date	Certification	Samples	Instrument	Reference / Procedure Change	Method
Alkalinity	04NOV96	Non-Potable Y Potable Y S & H Waste NP	Keypoint	Brinkmann Autotitrator	SM19; 2320B All samples collected without headspace as per ELAP.	Titration Method
Alkalinity	08JUL02	Non-Potable Y Potable Y S & H Waste NP	Keypoint	Brinkmann 751 Titrino/748 Sample Changer	SM20; 2320B	Potentiometric Titration Method
Apparent Color	01AUG93	Non-Potable Y Potable Y S & H Waste NP	Keypoint	Nessler Tubes	SM18; 2120B	Visual Comparison Method
Dominant Genus	13APR98	Non-Potable NA Potable NA S & H Waste NP	Keypoint	Nikon Microscope Labophot	SM12 & SM18; 10200F Co-dominance of second dominant genus will be reported in comments database.	
Dominant Genus	25APR02	Non-Potable NA Potable NA S & H Waste NP	Keypoint	Nikon Microscope Labophot	SM19; 10200B.2 All samples are preserved with Lugol's solution.	
Fecal Coliforms	18SEP97	Non-Potable Y Potable Y S & H Waste NP	Keypoint	Millipore Membrane Filter Apparatus	SM18; 9222D SPR code used to describe suppression of coli caused by >50% spreader growth.	
Genus Plankton	12MAR97	Non-Potable NA Potable NA S & H Waste NP	Keypoint	Nikon Microscope Labophot	SM12 & SM18; 10200F	
Genus Plankton	25APR02	Non-Potable NA Potable NA S & H Waste NP	Keypoint	Nikon Microscope Labophot	SM19; 10200B.2 All samples are preserved with Lugol's solution.	
Digested Mn	07MAR01	Non-Potable Y Potable Y S & H Waste NP	Keypoint	Perkin Elmer AA 800	EPA 200.2, SM18; 3111B	Hot Plate Digestion followed by Flame
Undigested Mn	01JAN01	Non-Potable Y Potable Y S & H Waste NP	Keypoint	Perkin Elmer AA 800	SM18; 3111B	Flame AA
Odor	01JAN95	Non-Potable NA Potable NA S & H Waste NP	Keypoint	Organoleptic	SM12; page 304 Table 18	Subjective classification
pH	03APR01	Non-Potable Y Potable Y S & H Waste NP	Keypoint	Brinkmann 672 OR Orion pH Meter 290A	SM18; 4500-H+,B	
Specific Cond.	18DEC01	Non-Potable Y Potable N S & H Waste NP	Keypoint	YSI Conductivity Meter Model 32	SM18; 2510B For hydrology samples: SAMPNOS 0109192-0109204.	
Total Coliforms	18SEP97	Non-Potable Y Potable Y S & H Waste NP	Keypoint	Millipore Membrane Filter Apparatus	SM18; 9222B SPR code used to describe suppression of coli caused by >50% spreader growth.	

Certification Codes: Y = Yes, N = No, NA = Not Available, NP = Not Performed

LABORATORY METHODS: 2002
KENSICO LABORATORY, ELAP ID NO. 10771

Variable	Date	Certification	Samples	Instrument	Reference / Procedure Change	Method
Temperature	12MAR97	Non-Potable N Potable NA S & H Waste NP	Keypoint	Thermometer	SM18; 2550B	
Total Plankton	12MAR97	Non-Potable NA Potable NA S & H Waste NP	Keypoint	Nikon Microscope Labophot	SM12 & SM18; 10200F	
Total Plankton	25APR02	Non-Potable NA Potable NA S & H Waste NP	Keypoint	Nikon Microscope Labophot	SM19; 10200B.2 All samples are preserved with Lugol's solution.	
Turbidity	12JUL97	Non-Potable NA Potable NA S & H Waste NP	Keypoint	Great Lakes Continuous Monit/Hach 2100AN	SM19; 2130B Change from AMCO-AEPA1 to Stablcal(formazin solution) calibration standards.	Nephelometric Method

Certification Codes: Y = Yes, N = No, NA = Not Available, NP = Not Performed

LABORATORY METHODS: 2002
CROTON LABORATORY, ELAP ID NO. 11669

Variable	Date	Certification	Samples	Instrument	Reference / Procedure Change	Method
Alkalinity	25JUN98	Non-Potable Y Potable Y S & H Waste NP	Keypoint	Orion 620A pH Meter	SM18; 2320B	Electometric Titration
Undigested Mn	01JAN01	Non-Potable N Potable N S & H Waste NP	Keypoint	HACH DR 4000U Spectrophotometer	HACH DR 4000 Handbook	Low range colorimetric using PAN
Apparent Color	25JUN98	Non-Potable Y Potable Y S & H Waste NP	Keypoint	Matched Nessler Tubes, 100ml	SM18; 2120B	Visual Comparison Method
Fecal Coliforms	08NOV99	Non-Potable Y Potable Y S & H Waste NP	Keypoint	Millipore Membrane Filter Apparatus	SM20; 9222D	Membrane Filtration
Odor	21NOV95	Non-Potable NA Potable NA S & H Waste NA	Keypoint	Manual	SM19; 2150A	
pH	25JUN98	Non-Potable Y Potable Y S & H Waste NP	Keypoint	Orion 720A, Ross electrode	SM18; 4500-H+,B	Electrometric measurement
Specific Cond.	16JAN01	Non-Potable Y Potable Y S & H Waste NP	Keypoint	YSI 32 Meter	SM18; 2510B	Platinum Electrode
Total Coliforms	08NOV99	Non-Potable Y Potable Y S & H Waste NP	Keypoint	Millipore Membrane Filter Apparatus	SM20; 9222B	Membrane Filtration
Temperature	26JUL99	Non-Potable Y Potable NA S & H Waste NP	Keypoint	Thermometer	SM18; 2550B Change from mercury to alcohol thermometer in field. Accuracy is +/- 0.5 deg C.	
Turbidity	11SEP97	Non-Potable NA Potable NA S & H Waste NA	Keypoint	Hach 2100AN	SM18; 2130B Change in primary calibration standard from APHA to StableCal.	Nephelometric Method

Certification Codes: Y = Yes, N = No, NA = Not Available, NP = Not Performed

Catskill District Comments Data
for KEYPOINT Data

----- Year=2002 -----

Variable	Beginning Date	End Date	Comments
ALL	01JAN2002	.	Sample results of less than ten times the limit of detection may be associated with a blank that is more than one tenth the sample level.

East of Hudson District Comments Data
for KEYPOINT Data, Kensico Laboratory, ELAP ID Number 10771

----- Year=2002 -----

Variable	Beginning Date	End Date	Comments
ALL	01JAN2002	.	Sample results of less than ten times the limit of detection may be associated with a blank that is more than one tenth the sample level.
MND	10SEP2002	10SEP2002	SAMPNOs 6569, 6570, 6573-6575: These samples are associated with an out of control spike QC sample. Recovery=66%, UCL=115%, LCL=85%.

East of Hudson District Comments Data
for KEYPOINT Data, Croton Laboratory, ELAP ID Number 11669

----- Year=2002 -----

Variable	Beginning Date	End Date	Comments
ALL	01JAN2002	.	Sample results of less than ten times the limit of detection may be associated with a blank that is more than one tenth the sample level.
PH	10SEP2002	10SEP2002	SAMPNOs 020875-020882: These samples are associated with an out of control duplicate QC sample. Dup difference=0.10, UCL=0.05.
PH	11SEP2002	11SEP2002	SAMPNOs 020887-020891: These samples are associated with an out of control duplicate QC sample. Dup difference=0.09, UCL=0.05.
PH	24SEP2002	24SEP2002	SAMPNOs 020965-020972: These samples are associated with an out of control duplicate QC sample. Dup difference=0.07, UCL=0.05.
PH	01OCT2002	01OCT2002	SAMPNOs 020997-021005: These samples are associated with an out of control duplicate QC sample. Dup difference=0.09, UCL=0.05.
PH	11OCT2002	11OCT2002	SAMPNOs 021051-021054: These samples are associated with an out of control duplicate QC sample. Dup difference=0.07, UCL=0.05.
PH	17OCT2002	17OCT2002	SAMPNOs 021067-021070: These samples are associated with an out of control duplicate QC sample. Dup difference=0.06, UCL=0.05.
PH	23OCT2002	23OCT2002	SAMPNO 021092: This sample is associated with an out of control duplicate QC sample. Dup difference=0.06, UCL=0.05.
TURB	03OCT2002	03OCT2002	SAMPNO 021012: Sample may be contaminated from biotic growth in sample line based on source values.
TURB	07OCT2002	07OCT2002	SAMPNOs 021023-021031: These samples are associated with an out of control duplicate QC sample. Dup difference=0.11NTU, UCL=0.08NTU.

KEY TO SAMPLING LOCATIONS – 2002

CATSKILL WATERSHED
BEN NESIN LABORATORY, ELAP ID NO. 10030

SITE	DESCRIPTION
EARCM.....	Ashokan Reservoir, continuous monitoring, raw effluent (offline this name now refers to Ashokan Reservoir pump house raw effluent as of 4/1/97).

EAST OF HUDSON DISTRICT
CROTON LABORATORY, ELAP ID NO. 11669

Croton Lake Gate House:

CROGH.....	Raw (untreated) effluent from Croton Reservoir selective withdrawal blend. Sample tap located in Croton GateHouse Lab at level 213.
CROGHC.....	Chlorinated (treated) effluent from Croton Reservoir selective withdrawal blend. Sample tap located in Croton GateHouse Lab at level 210.
CRO163.....	Croton Reservoir selective withdrawal intakes located at elevation 163 feet above sea level. Operational intake bays are capable of drafting water from points East, Center and West in the building. However only one sample tap, located in Croton GateHouse Lab at level 213, exists which can provide sample from the East or the West intake at this elevation. Therefore, the sample is further designated E or W to indicate the sample draft.
CRO183.....	Croton Reservoir selective withdrawal intakes located at elevation 183 feet above sea level. Operational intake bays are capable of drafting water from points East, Center and West in the building. However only one sample tap, located in Croton GateHouse Lab at level 213, exists which can provide sample from the East or the West intake at this elevation. Therefore, the sample is further designated E or W to indicate the sample draft.

Gate House No. 1:

CRO IT.....	Croton Reservoir selective withdrawal intake at elevation 166 feet above sea level. Located at Cornell Dam, west of Croton GateHouse. Sample tap is located in GateHouse No. 1 at elevation 152.
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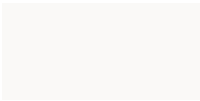
CRO1B..... Croton Reservoir selective withdrawal intake at elevation 116 feet above sea level. Located at Cornell Dam, west of Croton GateHouse. Sample tap is located in GateHouse No.1 at elevation 152.

Connections and By Pass sample points:

CROC.....Catskill Aqueduct Connection. Pressurized Catskill Aqueduct supply line for blend with Croton Water. Sample is taken at tap located at level 213 in Croton GateHouse Lab (alternate with CRO(BP) tap).

Aqueduct Key Points:

CRO9.....Croton Aqueduct treated supply. Sample tap located at NCA Shaft 9 Water Quality Monitoring Station in North Tarrytown.



**Appendix 7. Croton Distribution Water Quality Monitoring
Results, 9/9/02 - 10/7/02**

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
27918	09/09/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	73.0	0.00	-	7.76	349	1.47	20	-	-	-	-	-	3	1	P	P
27919	09/09/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	70.0	0.52	-	7.32	347	1.82	20	0.98	-	-	-	-	<1	-	N	N
27920	09/09/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.24	-	7.21	348	1.71	17	-	-	-	-	-	<1	-	N	N
27921	09/09/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	68.0	0.52	-	7.28	347	1.81	20	-	-	-	-	-	<1	-	N	N
27922	09/09/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	68.0	0.83	-	7.27	348	1.76	21	-	-	-	-	-	<1	-	N	N
27960	09/09/02	1101	13700	Surveillance	SS - W/S Southern Blvd, btw Garden & E 182nd Sts, 48 inch	74.0	1.02	2.30	7.16	347	1.64	20	-	-	-	-	-	<1	-	N	N
27974	09/09/02	1013	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	71.0	0.67	2.36	7.21	347	1.95	20	0.99	0.12	0.03	0.08	0.02	<1	-	-	-
27978	09/09/02	1159	36350	Compliance	SS - IFO 165 N/S E 112th St, 1st SS E/O Lexington Ave, 12 inch	73.0	0.59	2.29	7.14	347	2.25	25	-	0.19	0.02	0.12	0.02	<1	-	-	-
27980	09/09/02	1102	38400	Surveillance	Shaft 26 New Croton Aqdc @ 179 St Pump Stn-Amstrm Av & W 179 St, Croton Tap	75.0	0.97	2.17	7.20	348	1.75	20	-	0.11	0.03	0.08	0.02	<1	-	N	N
27998	09/09/02	1000	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	73.0	0.54	0.23	7.24	347	1.76	20	-	0.12	0.03	0.09	0.03	<1	-	N	N
27999	09/09/02	1013	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.49	2.18	7.16	348	1.65	20	-	0.11	0.03	0.08	0.02	<1	-	N	N
28034	09/10/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	73.0	0.00	-	7.71	352	1.39	18	-	-	-	-	-	<1	-	P	P
28035	09/10/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	71.0	0.42	-	7.20	350	1.66	22	1.01	-	-	-	-	<1	-	N	N
28036	09/10/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.25	-	7.14	349	1.65	22	-	-	-	-	-	<1	-	N	N
28037	09/10/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	69.0	0.40	-	7.18	349	1.74	22	-	-	-	-	-	<1	-	P	N
28038	09/10/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	69.0	0.78	-	7.16	351	1.75	23	-	-	-	-	-	<1	-	N	N
28088	09/10/02	1000	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.37	2.16	7.14	348	1.57	18	0.97	0.10	-	0.09	-	<1	-	N	N

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
28089	09/10/02	1106	38400	Surveillance	Shaft 26 New Croton Aqdcct @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	73.0	0.65	2.52	7.14	349	1.71	22	0.99	0.10	-	0.10	-	<1	-	N	N
28090	09/10/02	1149	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	73.0	0.73	1.97	7.18	350	1.49	22	0.99	0.10	-	0.10	-	<1	-	-	-
28091	09/10/02	1013	33950	Compliance	SS - N/S E 104th Street, 2nd SS E/O 3rd Avenue, 12 inch	71.0	0.79	2.07	7.16	347	2.16	24	0.96	-	-	-	-	<1	-	-	-
28092	09/10/02	1036	31550	Compliance	SS - S/S W 18th St, 2nd SS E/O 9th Ave (opposite 329), 12 inch	72.0	0.36	2.46	7.14	250	1.21	17	1.01	0.09	0.01	0.06	0.01	<1	-	-	-
28099	09/10/02	0907	14350	Compliance	SS - W/S Third Ave, 1st SS N/O St Paul's Pl (opposite 3748), 20 inch	71.0	0.90	2.40	7.17	276	1.52	18	-	-	-	-	-	<1	-	-	-
28111	09/10/02	1013	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	74.0	0.54	0.20	7.21	348	1.43	19	-	0.10	0.03	0.11	0.03	<1	-	N	N
28181	09/11/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	74.0	0.00	-	7.75	351	1.42	18	-	-	-	-	-	3	3	P	P
28182	09/11/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	71.0	0.43	-	7.27	349	1.66	22	1.01	-	-	-	-	-	-	N	N
28183	09/11/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	74.0	1.15	-	7.16	350	1.67	20	-	-	-	-	-	-	-	N	N
28184	09/11/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	69.0	0.40	-	7.23	350	1.70	22	-	-	-	-	-	-	-	N	N
28185	09/11/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	69.0	0.79	-	7.16	351	1.84	24	-	-	-	-	-	-	-	N	N
28240	09/11/02	1113	31750	Compliance	SS - IFO 427 N/S W 26th St, 2nd SS W/O 9th Ave, 12 inch	72.0	0.32	2.20	7.12	324	1.15	17	-	0.12	0.02	0.08	0.02	<1	-	-	-
28241	09/11/02	1001	32550	Compliance	SS - IFO 271 W/S Ave C, 1st SS S/O E 16th St, 20 inch	71.0	0.64	2.53	7.15	238	2.76	22	-	-	-	-	-	<1	-	-	-
28242	09/11/02	0924	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	72.0	0.95	2.11	7.14	349	1.75	23	0.96	0.09	0.02	0.10	0.02	<1	-	-	-
28247	09/11/02	1001	38400	Surveillance	Shaft 26 New Croton Aqdcct @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	74.0	0.90	1.79	7.15	349	2.17	22	-	0.10	0.02	0.10	0.02	-	-	-	-
28273	09/11/02	0922	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	74.0	0.47	0.22	7.24	348	1.78	22	-	0.10	0.03	0.11	0.03	-	-	-	-
28274	09/11/02	0938	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	74.0	1.55	2.19	7.15	346	1.50	21	-	0.09	0.01	0.10	0.03	<1	-	P	N

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
28327	09/12/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	72.0	0.00	-	7.64	352	1.37	16	-	-	-	-	-	2	1	P	N
28328	09/12/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	71.0	0.43	-	7.38	349	1.51	26	0.96	-	-	-	-	<1	-	N	N
28329	09/12/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	72.0	1.18	-	7.24	349	1.49	24	-	-	-	-	-	<1	-	N	N
28330	09/12/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	68.0	0.38	-	7.32	347	1.53	26	-	-	-	-	-	<1	-	N	N
28331	09/12/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	68.0	0.86	-	7.30	348	1.58	26	-	-	-	-	-	<1	-	N	N
28366	09/12/02	0924	13850	Compliance	SS - IFO 1778 E/S Jerome Ave, 1st SS S/O E 176th St, 12 inch	72.0	0.78	2.44	7.25	330	1.69	25	-	-	-	-	-	<1	-	-	-
28370	09/12/02	0836	16150	Compliance	SS - W/S Bronxdale Ave, 2nd SS S/O Rhineland Ave, 12 inch	73.0	0.59	2.70	7.17	345	2.18	28	-	-	-	-	-	<1	-	-	-
28383	09/12/02	0938	30150	Compliance	SS - E/S 1st Ave, 1st SS S/O E 3rd St, 12 inch	70.0	0.41	2.23	7.15	258	1.01	16	-	0.07	0.01	0.07	0.01	<1	-	-	-
28385	09/12/02	1102	32150	Compliance	SS - W/S St Nicholas Ave, 1st SS N/O 174th St, 12 inch	73.0	0.95	2.55	7.33	307	1.49	21	-	-	-	-	-	<1	-	-	-
28387	09/12/02	1007	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	72.0	0.85	2.04	7.25	349	1.43	25	0.97	0.11	0.02	0.12	0.02	<1	-	-	-
28390	09/12/02	1045	38400	Surveillance	Shaft 26 New Croton Aqdc @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	72.0	1.11	1.72	7.21	348	1.45	27	-	0.12	0.01	0.13	0.02	<1	-	N	N
28417	09/12/02	1003	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	73.0	0.65	0.24	7.35	345	1.28	12	-	0.07	0.01	0.08	<0.01	<1	-	N	N
28418	09/12/02	1019	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.32	1.89	7.24	340	1.41	13	-	0.10	0.01	0.09	0.01	<1	-	P	N
28471	09/13/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	73.0	0.00	-	7.73	348	1.48	17	-	-	-	-	-	1	1	P	N
28472	09/13/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	71.0	0.61	-	7.42	342	1.92	10	0.97	-	-	-	-	<1	-	N	N
28473	09/13/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.30	-	7.26	342	1.97	12	-	-	-	-	-	<1	-	N	N
28474	09/13/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	68.0	0.61	-	7.36	338	1.84	11	-	-	-	-	-	5	<1	P	P

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
28475	09/13/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	68.0	0.74	-	7.34	336	1.87	11	-	-	-	-	-	<1	-	N	N
28529	09/13/02	1129	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	73.0	1.29	2.66	7.30	340	2.26	14	1.00	0.09	0.01	0.08	<0.01	<1	-	-	-
28530	09/13/02	0918	33300	Surveillance	SS - S/S W 125th St, btw 7th & 8th Aves (IFO Lane Bryant Store), 48 inch	73.0	1.16	2.52	7.26	345	1.85	13	-	-	-	-	-	<1	-	P	N
28531	09/13/02	1049	33950	Compliance	SS - N/S E 104th Street, 2nd SS E/O 3rd Avenue, 12 inch	71.0	0.87	2.29	7.17	346	1.90	13	-	0.10	0.01	0.08	<0.01	<1	-	-	-
28534	09/13/02	1045	38400	Surveillance	Shaft 26 New Croton Aqdc @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	74.0	1.45	1.45	7.23	338	2.38	13	-	0.08	0.01	0.07	<0.01	<1	-	P	N
28554	09/13/02	1012	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	73.0	0.57	0.27	7.39	344	1.89	12	-	0.08	0.01	0.07	<0.01	<1	-	N	N
28555	09/13/02	1022	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.45	2.11	7.27	341	1.76	12	-	0.08	0.01	0.07	<0.01	<1	-	P	N
28567	09/13/02	0300	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	71.0	0.65	-	7.35	344	1.94	11	-	-	-	-	-	-	-	-	-
28568	09/13/02	0300	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.23	-	7.39	342	1.95	13	-	-	-	-	-	-	-	-	-
28569	09/13/02	0300	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	68.0	0.63	-	7.29	345	1.82	10	-	-	-	-	-	-	-	P	N
28570	09/13/02	0300	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	68.0	0.82	-	7.33	345	1.72	12	-	-	-	-	-	-	-	P	N
28678	09/13/02	1100	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	69.0	0.49	-	7.42	348	1.28	11	-	-	-	-	-	-	-	-	-
28596	09/14/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	73.0	0.00	-	7.80	352	1.32	17	-	-	-	-	-	1	1	P	P
28597	09/14/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	71.0	0.58	-	7.47	348	1.46	12	0.95	-	-	-	-	<1	-	N	N
28598	09/14/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.17	-	7.28	348	1.44	12	-	-	-	-	-	<1	-	N	N
28599	09/14/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	68.0	0.48	-	7.40	348	1.28	13	-	-	-	-	-	<1	-	N	N
28600	09/14/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	68.0	0.81	-	7.36	349	1.45	13	-	-	-	-	-	<1	-	N	N

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
28650	09/14/02	1210	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	72.0	1.19	2.06	7.35	350	1.69	18	0.96	0.10	0.01	0.06	<0.01	<1	-	-	-
28651	09/14/02	0957	35050	Compliance	SS - IFO 569 E/S W 125th St, 1st SS N/O Old Broadway, 20 inch	71.0	1.11	2.56	7.25	344	1.30	13	-	-	-	-	-	<1	-	-	-
28653	09/14/02	1145	38400	Surveillance	Shaft 26 New Croton Aqdct @ 179 St Pump Strn-Armstrm Av & W 179 St, Croton Tap	73.0	1.35	2.30	7.25	351	1.49	14	-	0.08	0.01	0.06	<0.01	-	-	-	-
28671	09/14/02	0935	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	74.0	0.53	0.19	7.40	350	1.19	10	-	0.07	0.01	0.04	<0.01	-	-	-	-
28672	09/14/02	0949	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	74.0	1.25	1.58	7.27	350	1.38	12	-	0.07	0.01	0.05	<0.01	-	-	-	-
28677	09/14/02	0200	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	68.0	0.48	-	7.41	347	1.38	12	-	-	-	-	-	-	-	-	-
28684	09/15/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	73.0	0.00	-	7.77	351	1.28	17	-	-	-	-	-	2	2	P	P
28685	09/15/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	71.0	0.49	-	7.42	348	1.31	12	0.96	-	-	-	-	<1	-	N	N
28686	09/15/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.18	-	7.26	346	1.24	13	-	-	-	-	-	<1	-	N	N
28687	09/15/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	69.0	0.40	-	7.37	347	1.41	14	-	-	-	-	-	<1	-	P	N
28688	09/15/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	69.0	0.96	-	7.35	348	1.81	20	-	-	-	-	-	<1	-	N	N
28726	09/15/02	1103	14350	Compliance	SS - W/S Third Ave, 1st SS N/O St Paul's PI (opposite 3748), 20 inch	72.0	1.00	2.43	7.20	279	1.44	12	-	-	-	-	-	<1	-	-	-
28736	09/15/02	0814	31050	Compliance	SS - IFO 370 W/S Greenwich St, 1st SS N/O Franklin St, 20 inch	73.0	0.24	1.99	7.23	280	0.83	9	-	-	-	-	-	<1	-	-	-
28737	09/15/02	0835	31550	Compliance	SS - S/S W 18th St, 2nd SS E/O 9th Ave (opposite 329), 12 inch	74.0	0.14	2.00	7.26	257	0.95	9	-	-	-	-	-	<1	-	-	-
28738	09/15/02	0959	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	72.0	0.86	1.92	7.22	349	1.52	17	0.95	0.09	0.01	0.07	<0.01	<1	-	-	-
28739	09/15/02	0936	34550	Compliance	SS - IFO 133 N/S 128th St, 2nd SS W/O Lenox Ave, 12 inch	72.0	0.95	2.15	7.24	348	1.81	18	-	0.08	0.01	0.07	<0.01	<1	-	-	-

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
28741	09/15/02	1017	38400	Surveillance	Shaft 26 New Croton Aqdct @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	74.0	0.99	2.21	7.28	350	1.36	15	-	0.08	0.01	0.05	<0.01	<1	-	P	N
28756	09/15/02	1024	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	73.0	0.50	0.25	7.43	350	1.33	13	-	0.08	0.01	0.05	<0.01	<1	-	N	N
28757	09/15/02	1039	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	74.0	1.13	1.90	7.11	350	1.32	13	-	0.07	0.01	0.05	<0.01	<1	-	N	N
28767	09/16/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	73.0	0.00	-	7.73	344	1.32	14	-	-	-	-	-	6	<1	P	P
28768	09/16/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	71.0	0.52	-	7.43	345	1.54	12	0.94	-	-	-	-	<1	-	N	N
28769	09/16/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.21	-	7.29	346	1.52	13	-	-	-	-	-	<1	-	N	N
28770	09/16/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	69.0	0.33	-	7.41	346	1.52	12	-	-	-	-	-	<1	-	N	N
28771	09/16/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	69.0	0.73	-	7.36	348	1.62	12	-	-	-	-	-	<1	-	N	N
28825	09/16/02	1148	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	73.0	1.02	1.86	7.23	347	1.73	13	0.95	0.09	0.01	0.06	<0.01	<1	-	-	-
28826	09/16/02	1056	35450	Compliance	SS - IFO 500 N/S E 76th St, 2nd SS E/O York Ave, 12 inch	72.0	0.79	2.21	7.26	303	1.44	13	-	0.07	0.01	0.06	<0.01	<1	-	-	-
28830	09/16/02	1223	38400	Surveillance	Shaft 26 New Croton Aqdct @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	74.0	1.06	1.89	7.32	346	1.79	12	-	0.07	0.01	0.06	<0.01	<1	-	N	N
28849	09/16/02	1129	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	74.0	0.45	0.21	7.39	347	1.45	11	-	0.06	0.01	0.04	<0.01	<1	-	N	N
28850	09/16/02	1150	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.30	1.96	7.27	346	1.47	12	-	0.07	0.01	0.05	<0.01	<1	-	N	N
28884	09/17/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	73.0	0.00	-	7.68	350	1.02	11	-	-	-	-	-	9	5	P	P
28885	09/17/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	71.0	0.39	-	7.39	340	2.32	12	0.99	-	-	-	-	<1	-	N	N
28886	09/17/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.38	-	7.29	337	2.33	14	-	-	-	-	-	<1	-	N	N
28887	09/17/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	68.0	0.60	-	7.35	309	2.26	12	-	-	-	-	-	<1	-	N	N

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
28888	09/17/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	68.0	1.12	-	7.28	315	2.36	14	-	-	-	-	-	<1	-	N	N
28926	09/17/02	1219	14100	Surveillance	SS - IFO 1335 W/S Jerome Ave, 2nd SS S/O Goble Pl, 48 inch	73.0	0.72	1.82	7.24	317	1.96	13	-	-	-	-	-	<1	-	N	N
28927	09/17/02	0905	15250	Compliance	SS - IFO 4315 W/S Third Ave, 1st SS N/O E 179th St, 20 inch	71.0	1.00	1.86	7.26	250	1.91	12	-	-	-	-	-	<1	-	N	N
28940	09/17/02	1045	31550	Compliance	SS - S/S W 18th St, 2nd SS E/O 9th Ave (opposite 329), 12 inch	73.0	0.23	2.07	7.25	272	1.10	9	-	-	-	-	-	<1	-	N	N
28941	09/17/02	1158	32400	2Surveillance	48" Hydrant - E/S 1st Ave, btw E 29th & E 30th Sts	72.0	0.65	2.02	7.23	254	1.54	14	-	-	-	-	-	<1	-	N	N
28942	09/17/02	1141	32950	Compliance	SS - W/S 1st Ave, 1st SS S/O E 25th St, 12 inch	73.0	0.27	1.80	7.23	320	2.09	17	-	0.21	0.05	0.08	<0.01	<1	-	N	N
28944	09/17/02	1105	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	72.0	1.01	2.02	7.24	316	1.79	13	1.01	0.10	0.01	0.06	<0.01	<1	-	N	N
28946	09/17/02	1032	33300	2Surveillance	SS - S/S W 125th St, btw 7th & 8th Aves (IFO Lane Bryant Store), 48 inch	70.0	0.86	1.99	7.30	343	1.89	12	-	-	-	-	-	<1	-	N	N
28951	09/17/02	1157	38400	Surveillance	Shaft 26 New Croton Aqdc @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	72.0	1.26	1.98	7.24	314	1.44	12	-	0.08	0.01	0.05	0.01	<1	-	N	N
28979	09/17/02	1027	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	73.0	0.65	0.24	7.40	305	1.50	11	-	0.08	0.01	0.05	<0.01	<1	-	N	N
28980	09/17/02	1041	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.29	2.00	7.25	316	1.48	10	-	0.07	0.01	0.05	<0.01	<1	-	P	N
29005	09/17/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.38	-	7.64	326	2.63	18	-	-	-	-	-	-	-	-	-
29006	09/17/02	0100	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	68.0	0.38	-	7.38	346	1.62	9	-	-	-	-	-	-	-	-	-
29020	09/18/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	72.0	0.00	-	7.69	347	0.69	7	-	-	-	-	-	9	9	P	P
29021	09/18/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	70.0	0.45	-	7.53	302	1.85	8	1.02	-	-	-	-	<1	-	N	N
29022	09/18/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	72.0	1.18	-	7.30	310	1.66	9	-	-	-	-	-	<1	-	N	N
29023	09/18/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	67.0	0.47	-	7.56	301	1.79	12	-	-	-	-	-	<1	-	N	N

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
29024	09/18/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	67.0	0.92	-	7.48	303	1.76	11	-	-	-	-	-	<1	-	N	N
29065	09/18/02	0854	17650	Compliance	SS - IFO 1871 N/S Lafayette Ave, 1st SS W/O Underhill Ave, 12 inch	71.0	0.89	2.23	7.24	253	1.30	12	-	-	-	-	-	<1	-	-	-
29076	09/18/02	1218	31350	Compliance	SS - E/S Bedford St, 1st SS S/O Grove St, 12 inch	71.0	0.53	2.01	7.19	242	1.66	13	-	-	-	-	-	<1	-	-	-
29077	09/18/02	1302	32350	Compliance	SS - IFO 116 E/S Ave C, 2nd SS N/O E 7th St, 12 inch	73.0	0.10	2.05	7.20	258	1.61	12	-	-	-	-	-	<1	-	-	-
29078	09/18/02	1024	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	72.0	1.03	2.16	7.29	309	1.81	12	0.99	0.09	0.01	0.06	<0.01	<1	-	-	-
29079	09/18/02	1055	33450	Compliance	SS - IFO 135 N/S W 112th St, 2nd SS W/O St Nicholas Ave, 12 inch	72.0	0.89	2.13	7.20	313	1.60	8	-	0.09	0.01	0.05	0.01	<1	-	-	-
29084	09/18/02	0950	38400	Surveillance	Shaft 26 New Croton Aqduct @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	72.0	1.25	1.73	7.34	312	1.74	13	-	0.09	0.01	0.05	<0.01	<1	-	N	N
29112	09/18/02	1055	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	73.0	0.58	0.04	7.46	304	1.52	9	-	0.09	0.01	0.05	<0.01	<1	-	N	N
29113	09/18/02	1109	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.30	1.71	7.32	312	1.47	12	-	0.08	0.01	0.04	<0.01	<1	-	N	N
29160	09/18/02	0700	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	67.0	0.49	-	7.57	302	2.44	11	-	-	-	-	-	-	-	-	-
29173	09/19/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	73.0	0.00	-	7.64	345	0.62	9	-	-	-	-	-	6	5	P	P
29174	09/19/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	70.0	0.63	-	7.41	305	1.65	10	1.01	-	-	-	-	<1	-	N	N
29175	09/19/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.17	-	7.24	322	1.08	9	-	-	-	-	-	<1	-	N	N
29176	09/19/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	67.0	0.53	-	7.36	304	1.56	10	-	-	-	-	-	<1	-	N	N
29177	09/19/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	67.0	0.90	-	7.37	305	1.57	9	-	-	-	-	-	<1	-	N	N
29213	09/19/02	0920	13350	Compliance	SS - N/S E Fordham Rd, 1st SS E/O Washington Ave, 20 inch	72.0	0.86	2.01	7.33	309	1.75	14	-	-	-	-	-	<1	-		
29214	09/19/02	0957	14100	Surveillance	SS - IFO 1335 W/S Jerome Ave, 2nd SS S/O Goble Pl, 48 inch	72.0	0.53	1.81	7.30	303	1.48	9	-	-	-	-	-	<1	-	N	N

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
29230	09/19/02	1123	30850	Compliance	SS - IFO 230 S/S E 125th St, 2nd SS E/O 3rd Ave, 12 inch	73.0	0.85	2.16	7.31	318	1.56	11	-	-	-	-	-	<1	-	-	-
29231	09/19/02	0944	32650	Compliance	SS - IFO 14 S/S E 18th St, 2nd SS W/O 5th Ave, 12 inch	72.0	0.55	1.97	7.31	300	1.39	12	-	0.10	0.02	0.05	<0.01	<1	-	-	-
29232	09/19/02	1101	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	72.0	0.90	2.19	7.33	321	1.51	11	0.97	0.07	0.01	0.04	0.01	<1	-	-	-
29235	09/19/02	1037	38400	Surveillance	Shaft 26 New Croton Aqdc @ 179 St Pump Stn-Amstrm Av & W 179 St, Croton Tap	72.0	1.03	1.62	7.32	323	1.96	12	-	0.09	0.01	0.06	0.01	<1	-	N	N
29236	09/19/02	1204	39200	Surveillance	SS - E/S Amsterdam Ave, btw W 61st & W 62nd Sts, 48 inch	72.0	0.49	2.04	7.29	308	1.45	13	-	-	-	-	-	<1	-	N	N
29254	09/19/02	1000	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	73.0	0.75	0.13	7.35	303	1.57	10	-	0.08	0.01	0.04	<0.01	<1	-	N	N
29255	09/19/02	1009	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	0.98	1.67	7.28	320	1.34	12	-	0.07	0.01	0.05	0.01	<1	-	N	N
29274	09/19/02	0700	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	67.0	0.52	-	7.39	303	2.30	17	-	-	-	-	-	-	-	-	-
29295	09/20/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	72.0	0.00	-	7.58	342	0.62	7	-	-	-	-	-	1	<1	P	P
29296	09/20/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	70.0	0.72	-	7.34	302	1.18	11	1.02	-	-	-	-	<1	-	N	N
29297	09/20/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	72.0	1.18	-	7.29	329	0.76	8	-	-	-	-	-	<1	-	N	N
29298	09/20/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	67.0	0.65	-	7.31	302	1.34	9	-	-	-	-	-	<1	-	N	N
29299	09/20/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	67.0	0.92	-	7.29	302	1.30	9	-	-	-	-	-	<1	-	N	N
29337	09/20/02	0914	13700	Surveillance	SS - W/S Southern Blvd, btw Garden & E 182nd Sts, 48 inch	72.0	0.85	1.80	7.32	324	0.94	7	-	-	-	-	-	<1	-	N	N
29349	09/20/02	0900	31750	Compliance	SS - IFO 427 N/S W 26th St, 2nd SS W/O 9th Ave, 12 inch	73.0	0.06	1.70	7.24	302	0.84	8	-	0.09	0.03	0.08	0.05	<1	-	-	-
29350	09/20/02	1009	31850	Compliance	SS - IFO 82 S/S Warren St, 2nd SS E/O Greenwich St, 12 inch	73.0	0.27	2.00	7.22	230	1.19	12	-	-	-	-	-	<1	-	-	-
29352	09/20/02	1055	32350	Compliance	SS - IFO 116 E/S Ave C, 2nd SS N/O E 7th St, 12 inch	73.0	0.08	2.10	7.25	269	0.92	7	-	-	-	-	-	<1	-	-	-

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
29353	09/20/02	0938	33100	Surveillance	SS - E/S Dyckman St, 1st SS S/O 10th Ave (IFO PS #5), 30 inch	70.0	1.01	2.43	7.28	328	0.87	12	-	-	-	-	-	<1	-	N	N
29354	09/20/02	1002	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	71.0	0.98	2.38	7.31	327	0.84	11	0.96	0.05	0.01	0.06	0.02	<1	-	-	-
29357	09/20/02	0930	36200	Surveillance	SS - W/S 5th Ave, btw W 8th St & Washington Square N, 48 inch	71.0	0.47	2.04	7.26	271	1.02	9	-	-	-	-	-	<1	-	P	N
29358	09/20/02	1034	38400	Surveillance	Shaft 26 New Croton Aqdcct @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	71.0	1.14	1.98	7.30	328	0.90	12	-	0.05	0.01	0.08	0.04	<1	-	N	N
29376	09/20/02	1015	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	73.0	0.71	1.21	7.30	301	1.15	11	-	0.07	0.01	0.05	<0.01	<1	-	N	N
29377	09/20/02	1024	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.26	1.87	7.25	340	0.66	10	-	0.05	0.01	0.06	0.04	<1	-	N	N
29423	09/21/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	73.0	0.00	-	7.54	336	0.66	8	-	-	-	-	-	3	2	P	P
29424	09/21/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	70.0	0.61	-	7.43	301	1.37	9	1.03	-	-	-	-	<1	-	N	N
29425	09/21/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.63	-	7.22	332	0.71	12	-	-	-	-	-	<1	-	N	N
29426	09/21/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	68.0	0.50	-	7.33	301	1.45	10	-	-	-	-	-	<1	-	N	N
29427	09/21/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	68.0	0.84	-	7.28	301	1.35	9	-	-	-	-	-	<1	-	N	N
29462	09/21/02	1051	13850	Compliance	SS - IFO 1778 E/S Jerome Ave, 1st SS S/O E 176th St, 12 inch	72.0	0.49	1.78	7.30	310	1.14	11	-	0.09	0.02	0.06	0.03	<1	-	N	N
29466	09/21/02	0805	16150	Compliance	SS - W/S Bronxdale Ave, 2nd SS S/O Rhinelander Ave, 12 inch	73.0	0.42	1.73	7.32	325	0.81	9	-	-	-	-	-	<1	-	N	N
29477	09/21/02	1005	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	72.0	1.05	2.15	7.24	332	0.73	11	0.97	0.05	0.01	0.07	0.05	<1	-	N	N
29481	09/21/02	0940	38400	Surveillance	Shaft 26 New Croton Aqdcct @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	72.0	1.17	2.18	7.21	333	0.74	9	-	0.05	0.01	0.08	0.07	<1	-	N	N
29482	09/21/02	0848	39200	Surveillance	SS - E/S Amsterdam Ave, btw W 61st & W 62nd Sts, 48 inch	72.0	0.43	1.97	7.27	325	0.61	10	-	-	-	-	-	<1	-	N	N

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
29494	09/21/02	0920	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	73.0	0.67	0.24	7.31	302	1.14	14	-	0.08	0.01	0.04	<0.01	<1	-	N	N
29495	09/21/02	0914	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.42	1.85	7.21	334	0.73	11	-	0.05	0.01	0.07	0.06	<1	-	N	N
29505	09/22/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	73.0	0.00	-	7.47	326	0.75	7	-	-	-	-	-	<1	-	P	N
29506	09/22/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	70.0	0.65	-	7.31	297	1.51	8	0.98	-	-	-	-	<1	-	N	N
29507	09/22/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.36	-	7.23	325	0.76	8	-	-	-	-	-	<1	-	P	N
29508	09/22/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	68.0	0.54	-	7.26	297	1.38	8	-	-	-	-	-	<1	-	N	N
29509	09/22/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	68.0	0.79	-	7.23	297	1.58	9	-	-	-	-	-	<1	-	N	N
29558	09/22/02	0855	30750	Compliance	SS - IFO 269 N/S W 140th St, 2nd SS E/O 8th Ave, 12 inch	72.0	0.61	1.79	7.20	329	0.62	9	-	0.04	0.01	0.06	0.04	<1	-	-	-
29559	09/22/02	0735	32550	Compliance	SS - IFO 271 W/S Ave C, 1st SS S/O E 16th St, 20 inch	72.0	0.29	1.87	7.28	241	0.60	6	-	-	-	-	-	<1	-	-	-
29560	09/22/02	0933	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	72.0	0.92	2.09	7.21	327	0.77	9	0.96	0.04	0.01	0.06	0.04	<1	-	-	-
29561	09/22/02	0917	35350	Compliance	SS - IFO 541 E/S W 207th (Emerson) St, 1st SS S/O Sherman Ave, 12 inch	72.0	0.57	1.93	7.27	330	0.70	12	-	-	-	-	-	<1	-	-	-
29564	09/22/02	0957	38400	Surveillance	Shaft 26 New Croton Aqdc @ 179 St Pump Stn-Amstrm Av & W 179 St, Croton Tap	72.0	1.07	2.17	7.23	327	0.80	12	-	0.03	0.01	0.07	0.06	<1	-	N	N
29577	09/22/02	1020	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	72.0	0.13	0.61	7.36	297	1.40	8	-	0.05	<0.01	0.04	<0.01	<1	-	N	N
29578	09/22/02	1032	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	74.0	1.64	1.23	7.31	325	0.82	6	-	0.04	0.01	0.06	0.04	<1	-	N	N
29583	09/22/02	0810	31750	Compliance	SS - IFO 427 N/S W 26th St, 2nd SS W/O 9th Ave, 12 inch	72.0	0.27	1.72	7.23	236	0.66	6	-	-	-	-	-	-	-	-	-
29584	09/22/02	0753	36200	Surveillance	SS - W/S 5th Ave, btw W 8th St & Washington Square N, 48 inch	71.0	0.58	1.78	7.25	280	0.66	8	-	-	-	-	-	-	-	-	-
29590	09/23/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	74.0	0.00	-	7.45	317	0.80	8	-	-	-	-	-	6	3	P	P

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
29591	09/23/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	70.0	0.69	-	7.30	296	1.66	10	1.01	-	-	-	-	<1	-	N	N
29592	09/23/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	74.0	1.41	-	7.22	319	0.78	8	-	-	-	-	-	<1	-	N	N
29593	09/23/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	68.0	0.53	-	7.27	297	1.74	9	-	-	-	-	-	<1	-	N	N
29594	09/23/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	68.0	0.79	-	7.29	297	1.53	12	-	-	-	-	-	<1	-	N	N
29648	09/23/02	1033	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	72.0	0.89	2.03	7.24	316	0.94	10	0.97	0.04	0.01	0.06	0.04	<1	-	-	-
29652	09/23/02	1135	36350	Compliance	SS - IFO 165 N/S E 112th St, 1st SS E/O Lexington Ave, 12 inch	74.0	0.44	1.99	7.26	318	1.21	14	-	0.09	0.02	0.06	0.02	<1	-	-	-
29654	09/23/02	0957	38400	Surveillance	Shaft 26 New Croton Aqdc @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	72.0	0.93	1.71	7.19	313	0.92	12	-	0.04	0.01	0.08	0.05	<1	-	N	N
29655	09/23/02	1041	39200	Surveillance	SS - E/S Amsterdam Ave, btw W 61st & W 62nd Sts, 48 inch	73.0	0.56	1.98	7.21	313	0.95	12	-	-	-	-	-	<1	-	N	N
29674	09/23/02	1042	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	72.0	0.66	0.18	7.28	295	1.30	9	-	0.04	<0.01	0.04	<0.01	<1	-	N	N
29675	09/23/02	1052	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.41	2.21	7.16	315	1.31	14	-	0.07	0.01	0.08	0.04	<1	-	N	N
29704	09/24/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	71.0	0.00	-	7.37	308	0.95	8	-	-	-	-	-	1	<1	P	N
29705	09/24/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	70.0	-	-	7.39	300	1.32	9	1.03	-	-	-	-	<1	-	N	N
29706	09/24/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	71.0	1.42	-	7.13	311	0.90	10	-	-	-	-	-	<1	-	N	N
29707	09/24/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	67.0	0.55	-	7.36	299	1.40	9	-	-	-	-	-	<1	-	N	N
29708	09/24/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	67.0	0.87	-	7.35	299	1.46	10	-	-	-	-	-	<1	-	N	N
29744	09/24/02	0940	11750	Compliance	SS - IFO 250 E/S City Island Ave, btw Carroll & Schofield Sts, 20 inch	71.0	0.40	1.91	7.21	314	0.84	8	-	0.11	0.01	0.03	0.01	<1	-	N	N
29747	09/24/02	1100	14350	Compliance	SS - W/S Third Ave, 1st SS N/O St Paul's Pl (opposite 3748), 20 inch	72.0	0.40	1.56	7.24	243	0.93	9	-	-	-	-	-	<1	-	N	N

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
29762	09/24/02	0904	31350	Compliance	SS - E/S Bedford St, 1st SS S/O Grove St, 12 inch	71.0	0.61	2.35	7.16	235	0.96	11	-	-	-	-	-	<1	-	N	N
29764	09/24/02	0953	32150	Compliance	SS - W/S St Nicholas Ave, 1st SS N/O 174th St, 12 inch	70.0	1.01	2.34	7.17	256	1.06	10	-	-	-	-	-	<1	-	N	N
29765	09/24/02	1034	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	72.0	1.10	2.23	7.16	310	0.96	10	0.99	0.07	0.01	0.06	0.04	<1	-	N	N
29767	09/24/02	1013	38400	Surveillance	Shaft 26 New Croton Aqdcct @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	71.0	0.75	1.83	7.19	309	1.13	10	0.99	0.07	0.02	0.07	0.06	<1	-	N	N
29793	09/24/02	1048	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	73.0	0.55	0.19	7.37	299	1.49	9	-	0.07	0.01	0.03	<0.01	<1	-	N	N
29794	09/24/02	1112	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	73.0	1.50	1.68	7.15	312	0.96	10	-	0.07	0.01	0.05	0.04	<1	-	N	N
29842	09/25/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	72.0	0.00	-	7.45	307	0.92	9	-	-	-	-	-	2	2	P	P
29843	09/25/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	70.0	0.58	-	7.34	297	1.21	8	1.04	-	-	-	-	<1	-	N	N
29844	09/25/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	72.0	1.38	-	7.20	308	0.84	9	-	-	-	-	-	<1	-	N	N
29845	09/25/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	67.0	0.58	-	7.30	298	1.06	8	-	-	-	-	-	<1	-	N	N
29846	09/25/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	67.0	0.83	-	7.29	299	1.09	8	-	-	-	-	-	<1	-	N	N
29900	09/25/02	0959	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	71.0	1.06	2.27	7.20	308	0.96	10	1.01	0.07	0.01	0.06	0.03	<1	-	-	-
29901	09/25/02	1021	33300	Surveillance	SS - S/S W 125th St, btw 7th & 8th Aves (IFO Lane Bryant Store), 48 inch	71.0	1.06	2.29	7.14	308	1.32	15	-	-	-	-	-	<1	-	P	N
29902	09/25/02	1125	33950	Compliance	SS - N/S E 104th Street, 2nd SS E/O 3rd Avenue, 12 inch	72.0	0.96	2.35	7.21	308	1.00	12	-	0.08	0.02	0.05	0.02	<1	-	-	-
29906	09/25/02	0932	38400	Surveillance	Shaft 26 New Croton Aqdcct @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	71.0	1.00	1.96	7.18	309	0.96	10	-	0.07	0.01	0.07	0.04	<1	-	N	N
29925	09/25/02	1050	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	73.0	0.38	0.18	7.37	298	1.17	9	-	0.07	0.01	0.04	<0.01	<1	-	N	N
29926	09/25/02	1108	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	72.0	1.62	1.45	7.16	310	0.96	8	-	0.07	0.01	0.05	0.03	<1	-	N	N

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
29952	09/25/02	1138	36350	Compliance	SS - IFO 165 N/S E 112th St, 1st SS E/O Lexington Ave, 12 inch	73.0	0.62	2.20	7.19	309	1.03	13	-	-	-	-	-	<1	-	-	-
29961	09/25/02	0930	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	69.0	0.58	-	7.41	297	1.57	10	-	-	-	-	-	<1	-	-	-
29982	09/26/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	71.0	0.00	-	7.43	306	0.78	7	-	-	-	-	-	1	<1	P	P
29983	09/26/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	70.0	0.30	-	7.41	297	1.27	9	0.99	-	-	-	-	<1	-	N	N
29984	09/26/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	71.0	1.46	-	7.17	306	0.94	8	-	-	-	-	-	<1	-	N	N
29985	09/26/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	67.0	0.48	-	7.36	297	1.47	9	-	-	-	-	-	<1	-	N	N
29986	09/26/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	67.0	0.80	-	7.34	297	1.41	9	-	-	-	-	-	<1	-	N	N
30025	09/26/02	0827	15250	Compliance	SS - IFO 4315 W/S Third Ave, 1st SS N/O E 179th St, 20 inch	70.0	0.55	1.69	7.22	240	0.96	9	-	-	-	-	-	<1	-	-	-
30027	09/26/02	0909	18000	Surveillance	SS - N/S Westbound of Pelham Pkwy, W/O Eastchester Rd, 36 inch	71.0	0.58	1.93	7.21	304	1.19	9	-	-	-	-	-	<1	-	N	N
30039	09/26/02	0946	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	71.0	1.09	2.12	7.15	304	0.86	9	0.97	0.07	0.01	0.05	0.03	<1	-	-	-
30040	09/26/02	1032	33600	Surveillance	SS - W/S 2nd Ave, btw E 42nd St & 43rd Sts, 48 inch	71.0	0.94	2.10	7.17	290	1.28	12	-	-	-	-	-	<1	-	N	N
30041	09/26/02	1000	35050	Compliance	SS - IFO 569 E/S W 125th St, 1st SS N/O Old Broadway, 20 inch	71.0	1.20	2.03	7.13	303	0.89	9	-	-	-	-	-	1	<1	-	-
30042	09/26/02	1058	35900	Surveillance	SS - IFO 168 W/S 5th Ave, btw E 21st & E 22nd Sts, 48 inch	72.0	0.92	2.07	7.13	288	0.99	11	-	-	-	-	-	<1	-	N	N
30045	09/26/02	0926	38400	Surveillance	Shaft 26 New Croton Aqduct @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	70.0	1.16	2.19	7.14	306	1.09	10	-	0.07	0.01	0.05	0.03	1	<1	N	N
30073	09/26/02	1118	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	71.0	0.35	0.20	7.37	296	1.24	8	-	0.07	0.01	0.04	<0.01	1	<1	N	N
30074	09/26/02	1133	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	71.0	1.48	1.18	7.14	305	0.87	7	-	0.07	0.01	0.04	0.02	<1	-	N	N
30120	09/27/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	69.0	0.00	-	7.44	302	1.11	8	-	-	-	-	-	7	4	P	N

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
30121	09/27/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	69.0	0.46	-	7.43	297	1.35	9	1.05	-	-	-	-	7	4	P	N
30122	09/27/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	69.0	1.37	-	7.32	302	0.90	8	-	-	-	-	-	<1	-	N	N
30123	09/27/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	66.0	0.50	-	7.36	297	1.39	9	-	-	-	-	-	<1	-	N	N
30124	09/27/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	66.0	0.85	-	7.36	297	1.33	9	-	-	-	-	-	<1	-	N	N
30164	09/27/02	0907	17650	Compliance	SS - IFO 1871 N/S Lafayette Ave, 1st SS W/O Underhill Ave, 12 inch	70.0	0.59	2.22	7.17	261	1.03	10	-	-	-	-	-	<1	-	-	-
30172	09/27/02	0903	31050	Compliance	SS - IFO 370 W/S Greenwich St, 1st SS N/O Franklin St, 20 inch	70.0	0.38	2.09	7.16	221	0.68	5	-	0.08	0.02	0.02	0.01	<1	-	-	-
30173	09/27/02	0930	31550	Compliance	SS - S/S W 18th St, 2nd SS E/O 9th Ave (opposite 329), 12 inch	72.0	0.40	2.08	7.22	230	0.78	9	-	-	-	-	-	<1	-	-	-
30174	09/27/02	1144	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	70.0	0.94	2.21	7.21	305	0.91	13	1.01	0.07	0.01	0.04	0.02	<1	-	-	-
30175	09/27/02	1051	33300	Surveillance	SS - S/S W 125th St, btw 7th & 8th Aves (IFO Lane Bryant Store), 48 inch	70.0	0.94	2.12	7.21	302	0.99	9	-	-	-	-	-	<1	-	-	-
30176	09/27/02	1109	34550	Compliance	SS - IFO 133 N/S 128th St, 2nd SS W/O Lenox Ave, 12 inch	71.0	0.98	2.09	7.21	303	0.82	10	-	-	-	-	-	<1	-	-	-
30178	09/27/02	1219	38400	Surveillance	Shaft 26 New Croton Aqdcct @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	70.0	1.16	1.95	7.16	303	1.37	11	1.02	0.07	0.01	0.04	0.02	<1	-	N	N
30197	09/27/02	1120	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	69.0	1.51	1.70	7.18	313	0.97	8	-	0.10	0.01	0.08	0.05	<1	-	N	N
30220	09/28/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	70.0	0.00	-	7.40	301	0.91	8	-	-	-	-	-	<1	-	N	N
30221	09/28/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	69.0	0.58	-	7.38	295	1.24	10	1.03	-	-	-	-	8	8	P	P
30222	09/28/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	70.0	1.51	-	7.16	314	0.75	8	-	-	-	-	-	<1	-	N	N
30223	09/28/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	66.0	0.47	-	7.35	295	1.20	8	-	-	-	-	-	<1	-	P	N
30224	09/28/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	66.0	0.84	-	7.35	295	1.34	8	-	-	-	-	-	<1	-		

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
30259	09/28/02	1002	13350	Compliance	SS - N/S E Fordham Rd, 1st SS E/O Washington Ave, 20 inch	70.0	0.65	1.25	7.21	307	1.08	7	-	-	-	-	-	<1	-	-	-
30272	09/28/02	1257	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	71.0	1.00	1.45	7.19	317	1.13	13	0.97	0.09	0.02	0.14	0.06	<1	-	-	-
30273	09/28/02	1126	35050	Re-compliance	SS - E/S W 125th St, 1st SS S/O Old Broadway	71.0	0.93	2.17	7.18	312	0.81	10	-	-	-	-	-	<1	-	-	-
30274	09/28/02	1137	35050	Re-compliance	SS - IFO 569 E/S W 125th St, 1st SS N/O Old Broadway, 20 inch	71.0	1.00	2.23	7.15	311	0.85	10	-	-	-	-	-	<1	-	-	-
30275	09/28/02	1147	35050	Re-compliance	SS - E/S W 125th St, 1st SS SE/O Amsterdam Ave	71.0	1.04	2.21	7.17	313	0.88	12	-	-	-	-	-	<1	-	-	-
30276	09/28/02	1202	35050	Re-compliance	Hydt - N/S 125th St, 1st hydt E/O Broadway	71.0	1.10	2.19	7.12	312	0.93	12	-	-	-	-	-	<1	-	-	-
30279	09/28/02	1233	38400	Surveillance	Shaft 26 New Croton Aqdc @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	71.0	0.98	1.43	7.22	318	0.87	10	-	0.06	0.02	0.11	0.08	<1	-	N	N
30292	09/28/02	1035	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	71.0	0.58	0.02	7.33	297	1.25	8	-	0.06	0.01	0.05	<0.01	<1	-	-	-
30293	09/28/02	1050	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	70.0	1.36	1.78	7.11	316	0.75	8	-	0.07	0.02	0.09	0.06	<1	-	-	-
30304	09/29/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	70.0	0.00	-	7.42	298	0.77	7	-	-	-	-	-	3	2	P	N
30305	09/29/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	68.0	0.59	-	7.36	310	1.04	8	1.04	-	-	-	-	<1	-	N	N
30306	09/29/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	70.0	1.43	-	7.22	297	0.82	7	-	-	-	-	-	<1	-	N	N
30307	09/29/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	65.0	0.55	-	7.31	298	1.03	7	-	-	-	-	-	<1	-	N	N
30308	09/29/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	65.0	0.89	-	7.28	297	1.11	8	-	-	-	-	-	<1	-	N	N
30355	09/29/02	0738	32950	Compliance	SS - W/S 1st Ave, 1st SS S/O E 25th St, 12 inch	69.0	0.52	1.97	7.22	276	0.76	7	-	0.06	0.02	0.04	0.02	<1	-	-	-
30357	09/29/02	1010	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	70.0	0.94	2.34	7.17	311	0.93	10	0.98	0.05	0.02	0.08	0.05	<1	-	-	-
30359	09/29/02	0951	34950	Compliance	SS - IFO 674 W/S Academy St, 1st SS S/O Cooper St, 12 inch	68.0	0.73	2.25	7.24	224	0.71	7	-	-	-	-	-	<1	-	-	-

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
30361	09/29/02	0931	38400	Surveillance	Shaft 26 New Croton Aqdcct @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	69.0	1.01	2.16	7.17	312	0.84	8	-	0.05	0.02	0.09	0.06	<1	-	N	N
30375	09/29/02	0925	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	71.0	0.60	0.26	7.31	298	1.37	10	-	0.06	0.01	0.05	<0.01	<1	-	N	N
30376	09/29/02	1015	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	70.0	1.36	1.64	7.20	309	1.04	9	-	0.05	0.02	0.08	0.06	<1	-	N	N
30386	09/30/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	70.0	-	-	7.46	299	0.82	8	-	-	-	-	-	4	4	P	P
30387	09/30/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	68.0	0.60	-	7.39	297	1.32	10	-	-	-	-	-	<1	-	N	N
30388	09/30/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	70.0	1.41	-	7.29	306	0.81	9	-	-	-	-	-	<1	-	N	N
30389	09/30/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	65.0	0.56	-	7.35	297	1.21	9	-	-	-	-	-	<1	-	N	N
30390	09/30/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	65.0	0.87	-	7.34	297	1.20	9	-	-	-	-	-	<1	-	N	N
30425	09/30/02	1116	13850	Compliance	SS - IFO 1778 E/S Jerome Ave, 1st SS S/O E 176th St, 12 inch	71.0	0.58	1.56	7.22	283	1.14	8	-	-	-	-	-	<1	-	-	-
30429	09/30/02	0908	16150	Compliance	SS - W/S Bronxdale Ave, 2nd SS S/O Rhinelander Ave, 12 inch	71.0	0.44	1.59	7.19	300	1.41	12	-	-	-	-	-	<1	-	-	-
30442	09/30/02	1011	31350	Compliance	SS - E/S Bedford St, 1st SS S/O Grove St, 12 inch	69.0	0.73	2.24	7.19	241	1.04	12	-	-	-	-	-	<1	-	-	-
30443	09/30/02	0946	32350	Compliance	SS - IFO 116 E/S Ave C, 2nd SS N/O E 7th St, 12 inch	69.0	0.34	2.28	7.23	263	1.35	13	-	0.17	0.04	0.08	0.01	<1	-	-	-
30444	09/30/02	1237	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	70.0	0.98	1.95	7.25	306	0.90	9	-	0.05	0.02	0.07	0.04	<1	-	-	-
30445	09/30/02	1001	33450	Compliance	SS - IFO 135 N/S W 112th St, 2nd SS W/O St Nicholas Ave, 12 inch	70.0	0.80	1.91	7.18	309	0.88	12	-	-	-	-	-	<1	-	-	-
30450	09/30/02	1313	38400	Surveillance	Shaft 26 New Croton Aqdcct @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	70.0	1.24	2.36	7.16	308	0.80	8	-	0.05	0.02	0.07	0.04	<1	-	N	N
30468	09/30/02	1040	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	71.0	0.61	0.21	7.34	294	1.72	12	-	0.07	0.01	0.08	<0.01	<1	-	P	N
30469	09/30/02	1055	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	71.0	1.66	2.37	7.18	307	0.73	9	-	0.05	0.02	0.05	0.04	<1	-	N	N

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
30500	10/01/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	70.0	-	-	7.51	298	0.83	8	-	-	-	-	-	12	12	P	P
30501	10/01/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	68.0	0.60	-	7.36	295	1.18	8	1.01	-	-	-	-	<1	-	N	N
30502	10/01/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	70.0	1.50	-	7.25	306	0.71	9	-	-	-	-	-	<1	-	N	N
30503	10/01/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	65.0	0.62	-	7.32	294	1.22	8	-	-	-	-	-	<1	-	N	N
30504	10/01/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	65.0	0.78	-	7.29	295	1.23	9	-	-	-	-	-	<1	-	N	N
30542	10/01/02	1159	14950	Compliance	SS - N/S E 135th St, 2nd SS W/O Willis Ave, 12 inch	68.0	0.68	2.27	7.29	253	0.78	9	-	-	-	-	-	<1	-	-	-
30556	10/01/02	1047	30850	Compliance	SS - IFO 230 S/S E 125th St, 2nd SS E/O 3rd Ave, 12 inch	70.0	0.97	2.43	7.22	304	0.84	8	-	-	-	-	-	<1	-	-	-
30557	10/01/02	0944	32650	Compliance	SS - IFO 14 S/S E 18th St, 2nd SS W/O 5th Ave, 12 inch	70.0	0.68	2.21	7.24	290	0.98	9	-	0.07	0.03	0.04	0.01	<1	-	-	-
30558	10/01/02	1003	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	70.0	1.07	2.34	7.26	305	0.78	9	1.01	0.06	0.02	0.05	0.03	<1	-	-	-
30561	10/01/02	1031	38400	Surveillance	Shaft 26 New Croton Aqdc @ 179 St Pump Stn-Amstrm Av & W 179 St, Croton Tap	70.0	1.08	1.84	7.25	306	0.90	10	-	0.06	0.02	0.06	0.04	<1	-	N	N
30562	10/01/02	0839	39200	Surveillance	SS - E/S Amsterdam Ave, btw W 61st & W 62nd Sts, 48 inch	70.0	0.52	2.02	7.32	294	0.74	8	-	-	-	-	-	<1	-	N	N
30592	10/01/02	1055	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	71.0	0.65	0.20	7.33	291	1.08	8	-	0.06	0.01	0.03	<0.01	<1	-	N	N
30593	10/01/02	1113	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	71.0	1.60	2.10	7.17	304	0.77	6	-	0.06	0.02	0.04	0.04	<1	-	N	N
30632	10/02/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	71.0	0.00	-	7.40	298	0.93	8	-	-	-	-	-	10	10	P	P
30633	10/02/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	68.0	0.57	-	7.36	293	1.34	7	1.00	-	-	-	-	<1	-	P	N
30634	10/02/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	71.0	1.47	-	7.20	306	0.73	7	-	-	-	-	-	<1	-	P	N
30635	10/02/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	66.0	0.61	-	7.27	293	1.48	8	-	-	-	-	-	<1	-	N	N

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
30636	10/02/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	66.0	0.84	-	7.29	292	1.26	9	-	-	-	-	-	<1	-	N	N
30670	10/02/02	0956	10003	Surveillance	SS - Wards Island - N/O DEP Water Pollution Control Plant, Administration	72.0	0.70	2.11	7.21	301	1.64	11	-	-	-	-	-	<1	-	P	N
30671	10/02/02	0933	10004	Surveillance	SS - Randalls Island - S/O Police Launch Preparty Shop, S/O Roadway to	71.0	0.85	2.22	7.21	302	1.21	10	-	-	-	-	-	<1	-	N	N
30674	10/02/02	0849	10550	Compliance	SS - W/S Stadium Ave, 1st SS N/O Randolph Pl, 12 inch	72.0	0.24	2.06	7.24	248	0.75	6	-	-	-	-	-	<1	-	-	-
30693	10/02/02	1118	31750	Compliance	SS - IFO 427 N/S W 26th St, 2nd SS W/O 9th Ave, 12 inch	71.0	0.38	2.11	7.17	265	0.77	7	-	-	-	-	-	<1	-	-	-
30694	10/02/02	0947	31850	Compliance	SS - IFO 82 S/S Warren St, 2nd SS E/O Greenwich St, 12 inch	70.0	0.51	2.13	7.18	235	1.10	9	-	0.12	0.05	0.04	0.01	<1	-	-	-
30696	10/02/02	1013	32350	Compliance	SS - IFO 116 E/S Ave C, 2nd SS N/O E 7th St, 12 inch	71.0	0.39	2.16	7.18	257	1.64	11	-	-	-	-	-	<1	-	-	-
30697	10/02/02	1040	33100	Surveillance	SS - E/S Dyckman St, 1st SS S/O 10th Ave (IFO PS #5), 30 inch	70.0	0.91	2.56	7.21	305	1.10	9	-	-	-	-	-	<1	-	N	N
30698	10/02/02	1024	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	71.0	0.95	2.70	7.20	302	0.92	10	1.02	0.06	0.02	0.05	0.03	<1	-	-	-
30701	10/02/02	1043	36200	Surveillance	SS - W/S 5th Ave, btw W 8th St & Washington Square N, 48 inch	70.0	0.77	2.15	7.18	265	0.88	10	-	-	-	-	-	<1	-	-	-
30703	10/02/02	1001	38400	Surveillance	Shaft 26 New Croton Aqdc @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	70.0	0.99	2.35	7.16	303	1.32	9	-	0.06	0.01	0.06	0.03	<1	-	N	N
30721	10/02/02	1100	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	71.0	0.64	0.32	7.30	291	1.22	8	-	0.06	0.01	0.04	<0.01	<1	-	N	N
30722	10/02/02	1115	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	71.0	1.28	2.30	7.17	302	0.77	8	-	0.06	0.01	0.04	0.03	<1	-	N	N
30781	10/03/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	71.0	0.00	-	7.39	301	0.79	7	-	-	-	-	-	8	8	P	P
30782	10/03/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	71.0	0.50	-	7.33	292	1.17	8	1.01	-	-	-	-	<1	-	N	N
30783	10/03/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	71.0	1.82	-	7.15	305	0.75	8	-	-	-	-	-	<1	-	N	N
30784	10/03/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	66.0	0.58	-	7.27	293	1.30	8	-	-	-	-	-	<1	-	N	N

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
30785	10/03/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	66.0	0.87	-	7.29	292	1.23	10	-	-	-	-	-	<1	-	P	N
30820	10/03/02	0858	11750	Compliance	SS - IFO 250 E/S City Island Ave, btw Carroll & Schofield Sts, 20 inch	70.0	0.41	1.85	7.17	300	0.63	7	-	0.08	0.02	0.02	0.01	<1	-	-	-
30824	10/03/02	1132	14350	Compliance	SS - W/S Third Ave, 1st SS N/O St Paul's PI (opposite 3748), 20 inch	71.0	0.74	1.69	7.16	241	0.85	10	-	-	-	-	-	<1	-	-	-
30827	10/03/02	0914	18000	Surveillance	SS - N/S Westbound of Pelham Pkwy, W/O Eastchester Rd, 36 inch	71.0	0.80	2.40	7.19	299	1.05	10	-	-	-	-	-	<1	-	N	N
30836	10/03/02	0938	30950	Compliance	SS - W/S South End Ave, 2nd SS S/O Albany St, 20 inch	70.0	0.34	2.21	7.14	211	0.97	8	-	-	-	-	-	<1	-	-	-
30839	10/03/02	1220	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	72.0	0.97	1.80	7.20	307	0.76	8	0.99	0.04	0.02	0.04	0.02	<1	-	-	-
30841	10/03/02	0918	33700	Surveillance	SS - IFO 69 W/S St Nicholas Ave, btw W 113th & W 114th Sts, 48 inch	71.0	0.94	2.67	7.12	307	0.95	12	-	-	-	-	-	<1	-	N	N
30844	10/03/02	1144	38400	Surveillance	Shaft 26 New Croton Aqdc @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	72.0	1.20	2.09	7.15	307	0.78	8	-	0.05	0.02	0.04	0.03	<1	-	N	N
30862	10/03/02	1045	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	71.0	0.46	0.10	7.32	294	1.23	10	-	0.06	0.02	0.03	<0.01	<1	-	P	N
30863	10/03/02	1100	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	72.0	1.50	1.86	7.12	306	0.72	7	-	0.04	0.01	0.03	0.02	<1	-	N	N
30905	10/04/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	70.0	0.00	-	7.44	296	1.00	8	-	-	-	-	-	2	1	P	P
30906	10/04/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	68.0	0.56	-	7.46	285	1.46	9	0.98	-	-	-	-	<1	-	P	N
30907	10/04/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	70.0	1.40	-	7.34	302	0.87	9	-	-	-	-	-	<1	-	N	N
30908	10/04/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	65.0	0.48	-	7.37	286	1.46	9	-	-	-	-	-	<1	-	N	N
30909	10/04/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	65.0	0.86	-	7.39	286	1.36	9	-	-	-	-	-	<1	-	N	N
30942	10/04/02	0845	10003	Surveillance	SS - Wards Island - N/O DEP Water Pollution Control Plant, Administration	72.0	0.84	2.20	7.23	298	1.04	12	1.00	-	-	-	-	<1	-	N	N

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
30968	10/04/02	1032	30750	Compliance	SS - IFO 269 N/S W 140th St, 2nd SS E/O 8th Ave, 12 inch	70.0	0.68	2.34	7.21	302	0.79	11	-	-	-	-	-	<1	-	-	-
30969	10/04/02	0832	32550	Compliance	SS - IFO 271 W/S Ave C, 1st SS S/O E 16th St, 20 inch	72.0	0.44	2.13	7.25	254	1.09	10	-	0.13	0.02	0.04	<0.01	<1	-	-	-
30970	10/04/02	1226	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	70.0	0.99	1.77	7.26	303	0.79	10	1.00	0.06	0.02	0.04	0.02	<1	-	-	-
30971	10/04/02	1208	35350	Compliance	SS - IFO 541 E/S W 207th (Emerson) St, 1st SS S/O Sherman Ave, 12 inch	70.0	0.74	2.02	7.25	302	0.79	9	-	-	-	-	-	<1	-	-	-
30975	10/04/02	1257	38400	Surveillance	Shaft 26 New Croton Aqdc @ 179 St Pump Stn-Armstm Av & W 179 St, Croton Tap	69.0	1.18	2.28	7.22	303	0.84	8	0.99	0.05	0.01	0.04	0.02	<1	-	N	N
30994	10/04/02	1050	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	71.0	0.45	0.22	7.43	285	1.42	9	-	0.07	0.01	0.03	<0.01	<1	-	P	N
30995	10/04/02	1100	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	70.0	1.53	2.20	7.25	299	0.81	9	-	0.04	0.01	0.03	0.02	<1	-	N	N
31033	10/05/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	70.0	0.00	-	7.41	294	0.88	8	-	-	-	-	-	8	8	P	P
31034	10/05/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	68.0	0.55	-	7.33	287	1.37	10	0.97	-	-	-	-	<1	-	P	N
31035	10/05/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	70.0	1.40	-	7.16	301	0.85	10	-	-	-	-	-	<1	-	N	N
31036	10/05/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	66.0	0.48	-	7.29	287	1.47	10	-	-	-	-	-	<1	-	P	N
31037	10/05/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	66.0	0.83	-	7.30	288	1.48	10	-	-	-	-	-	<1	-	N	N
31075	10/05/02	0945	15250	Compliance	SS - IFO 4315 W/S Third Ave, 1st SS N/O E 179th St, 20 inch	70.0	0.85	1.89	7.16	245	1.18	12	-	-	-	-	-	<1	-	-	-
31087	10/05/02	0844	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	71.0	1.20	2.50	7.15	304	0.84	12	0.98	0.04	0.02	0.04	0.02	<1	-	-	-
31090	10/05/02	0818	36350	Compliance	SS - IFO 165 N/S E 112th St, 1st SS E/O Lexington Ave, 12 inch	72.0	0.55	1.99	7.12	305	0.70	10	-	0.05	0.02	0.03	0.01	<1	-	-	-
31091	10/05/02	0911	38400	Surveillance	Shaft 26 New Croton Aqdc @ 179 St Pump Stn-Armstm Av & W 179 St, Croton Tap	71.0	0.97	2.02	7.11	303	0.87	10	-	0.04	0.01	0.04	0.02	<1	-	N	N
31105	10/05/02	0900	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	71.0	0.38	0.51	7.40	288	1.41	10	-	0.06	0.01	0.03	<0.01	<1	-	N	N

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
31106	10/05/02	0905	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	71.0	0.99	2.41	7.16	301	0.79	8	-	0.04	0.01	0.03	0.02	<1	-	N	N
31116	10/06/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	70.0	0.00	-	7.39	290	0.92	8	-	-	-	-	-	10	10	P	P
31117	10/06/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	67.0	0.49	-	7.21	289	1.16	8	1.04	-	-	-	-	<1	-	N	N
31118	10/06/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	70.0	1.53	-	7.11	298	1.10	9	-	-	-	-	-	<1	-	N	N
31119	10/06/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	64.0	0.39	-	7.12	286	1.33	10	-	-	-	-	-	<1	-	N	N
31120	10/06/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	64.0	0.98	-	7.22	286	1.16	10	-	-	-	-	-	<1	-	P	N
31160	10/06/02	0857	17650	Compliance	SS - IFO 1871 N/S Lafayette Ave, 1st SS W/O Underhill Ave, 12 inch	68.0	0.68	2.40	7.17	228	0.73	6	-	-	-	-	-	<1	-	-	-
31168	10/06/02	0755	30150	Compliance	SS - E/S 1st Ave, 1st SS S/O E 3rd St, 12 inch	70.0	0.37	2.36	7.14	256	0.98	8	-	-	-	-	-	<1	-	-	-
31170	10/06/02	0917	32150	Compliance	SS - W/S St Nicholas Ave, 1st SS N/O 174th St, 12 inch	69.0	1.02	2.42	7.18	283	0.86	7	-	0.05	0.01	0.03	0.01	<1	-	-	-
31171	10/06/02	1024	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	69.0	1.05	2.20	7.13	300	1.01	8	0.99	0.07	0.01	0.04	0.02	<1	-	-	-
31172	10/06/02	0931	38400	Surveillance	Shaft 26 New Croton Aqdc @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	70.0	1.10	2.28	7.18	301	0.96	9	-	0.05	0.01	0.05	0.02	<1	-	N	N
31187	10/06/02	0932	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	69.0	0.43	0.60	7.23	290	1.20	10	-	0.07	0.01	0.04	<0.01	<1	-	N	N
31188	10/06/02	0956	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	70.0	1.50	2.17	7.08	297	0.93	8	-	0.05	0.01	0.03	0.01	<1	-	P	N
31193	10/06/02	0808	32550	Compliance	SS - IFO 271 W/S Ave C, 1st SS S/O E 16th St, 20 inch	74.0	0.42	2.20	7.22	257	0.92	6	-	-	-	-	-	-	-	-	-
31195	10/06/02	0100	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	65.0	0.40	-	7.24	283	1.53	10	-	-	-	-	-	-	-	-	-
31202	10/07/02	0600	30	Prefinished	Jerome Park Reservoir - Gatehouse #3 Tap in Gatehouse #5	69.0	0.00	-	7.52	292	0.82	9	-	-	-	-	-	20	20	P	P
31203	10/07/02	0600	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	67.0	0.46	-	7.48	290	1.40	12	1.03	-	-	-	-	<1	-	N	N
31204	10/07/02	0600	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	69.0	1.42	-	7.21	298	0.81	9	-	-	-	-	-	<1	-	N	N

Samp num	Samp date	Samp time	Samp site	Samp clas	Location	Temp (oC)	Res. Chlorine (mg/L)	Ortho-Phosphate (mg/L)	pH Lab (Unit)	Spe. Cond. Lab (umho/cm)	Turb (NTU)	Color (U)	F - (mg/L)	T-Fe (mg/L)	D-Fe (mg/L)	T-Mn (mg/L)	D-Mn (mg/L)	Coliform M-endo	E.coli	Colilert	E.coli
31205	10/07/02	0600	36	Prefinished	Jerome Park Reservoir - Gatehouse #7 (Raw).	64.0	0.49	-	7.40	290	1.40	11	-	-	-	-	-	<1	-	N	N
31206	10/07/02	0600	37	Surveillance	Jerome Park Reservoir - Gatehouse #7 - Mosholu Pump Station.	64.0	0.96	-	7.40	290	1.46	12	-	-	-	-	-	<1	-	N	N
31242	10/07/02	0939	13350	Compliance	SS - N/S E Fordham Rd, 1st SS E/O Washington Ave, 20 inch	70.0	0.90	1.63	7.31	294	1.01	9	-	0.07	0.01	0.04	0.01	<1	-	-	-
31259	10/07/02	1009	33150	Compliance	SS - IFO 200 N/S Nagle Ave, 2nd SS E/O Dyckman St, 12 inch	69.0	1.28	2.78	7.23	297	0.94	9	1.01	0.06	0.02	0.04	0.02	<1	-	-	-
31260	10/07/02	1130	33300	Surveillance	SS - S/S W 125th St, btw 7th & 8th Aves (IFO Lane Bryant Store), 48 inch	69.0	1.19	2.60	7.21	296	0.75	11	-	-	-	-	-	<1	-	N	N
31261	10/07/02	0949	33950	Compliance	SS - N/S E 104th Street, 2nd SS E/O 3rd Avenue, 12 inch	70.0	0.96	2.02	7.21	296	1.12	13	-	-	-	-	-	<1	-	-	-
31264	10/07/02	0947	38400	Surveillance	Shaft 26 New Croton Aqduct @ 179 St Pump Stn-Amstm Av & W 179 St, Croton Tap	69.0	1.12	2.12	7.30	296	1.34	12	1.01	0.06	0.01	0.05	0.02	<1	-	N	N
31283	10/07/02	1035	32	Prefinished	Jerome Park Reservoir - Gatehouse #5 (Raw).	70.0	0.55	0.22	7.46	289	1.22	10	-	0.07	0.01	0.04	<0.01	<1	-	N	N
31284	10/07/02	1056	33	Surveillance	Jerome Park Reservoir - Gatehouse #5 (Chlorinated).	70.0	1.50	1.64	7.30	296	0.87	9	-	0.05	0.01	0.03	0.01	<1	-	N	N

**Appendix 8. New York City Community Board Water
Complaint Reports, 9/6/02 - 10/10/02**

Number of Water Quality Complaints (Q-Code) by Community Board from 9/6/02-9/12/02

* - Denotes Croton ** - Denotes mix Cat/Del-Croton

BRONX

	COMMUNITY BOARD											
DATE	1*	2*	3**	4**	5	6	7	8	9*	10*	11*	12
9/6										1	4	
9/7												
9/8												
9/9						1				1	2	
9/10					1							
9/11												
9/12									1			
Total	0	0	0	0	1	1	0	0	1	2	6	0

MANHATTAN

	COMMUNITY BOARD											
DATE	1**	2**	3**	4*	5**	6*	7	8	9	10*	11*	12*
9/6		1							1	2	1	1
9/7		1										
9/8												
9/9	1											
9/10				1								
9/11												
9/12				1						1		1
Total	1	2	0	2	0	0	0	0	1	3	1	2

Number of Water Quality Complaints (Q-Code) by Community Board from 9/13/02-9/19/02
 * - Denotes Croton ** - Denotes mix Cat/Del-Croton
 BRONX

COMMUNITY BOARD												
DATE	1*	2*	3**	4**	5	6	7	8	9*	10*	11*	12
9/13							1					
9/14												
9/15												
9/16												
9/17												
9/18					1						1	
9/19												
Total	0	0	0	0	1	0	1	0	0	0	1	0

MANHATTAN

COMMUNITY BOARD												
DATE	1**	2**	3**	4*	5**	6*	7	8	9	10*	11*	12*
9/13					1					1		1
9/14												
9/15							1					
9/16										1		
9/17		1					1					
9/18						1				1		1
9/19									1			
Total	0	1	0	0	1	1	2	0	1	3	0	2

Number of Water Quality Complaints (Q-Code) by Community Board from 9/20/02-9/30/02 (1500hrs)
 * - Denotes Croton ** - Denotes mix Cat/Del-Croton
 BRONX

COMMUNITY BOARD													
DATE	1*	2*	3**	4**	5	6	7	8	9*	10*	11*	12	
9/20										1			Other
9/21													
9/22					1								Taste/Odor
9/23				1									Black Particles (sample)
9/24										1			Other
9/25								1					Other
9/26													
9/27													
9/28													
9/29													
9/30									2				Cloudy/Milky (sample)
Total	0	0	0	0	1	1	0	0	3	0	2	0	

MANHATTAN

COMMUNITY BOARD													
DATE	1**	2**	3**	4*	5**	6*	7	8	9	10*	11*	12*	
9/20													
9/21										1			Taste/Odor (sample)
9/22													
9/23				1									Brown Water (sample)
9/24		1					1						both Taste/Odor (CB 02 - sample)
9/25			1										Taste/Odor
9/26							1						Cloudy/Milky (sample)
9/27						1							Other
9/28													
9/29													
9/30										1			Cloudy/Milky
Total	0	1	1	1	0	1	2	0	0	1	1	0	

Number of Water Quality Complaints (Q-Code) by Community Board from 10/1/02-10/3/02

* - Denotes Croton ** - Denotes mix Cat/Del-Croton
BRONX

COMMUNITY BOARD													
DATE	1*	2*	3**	4**	5	6	7	8	9*	10*	11*	12	
10/1											1		Tast/Odor
10/2										1			Taste/Odor
10/3										1			Taste/Odor
Total	0	0	0	0	0	0	0	0	0	2	1	0	

MANHATTAN

COMMUNITY BOARD													
DATE	1**	2**	3**	4*	5**	6*	7	8	9	10*	11*	12*	
10/1	1						1						both Other
10/2													
10/3													
Total	1	0	0	0	0	0	1	0	0	0	0	0	

Number of Water Quality Complaints (Q-Code) by Community Board from 10/4/02-10/10/02

* - Denotes Croton ** - Denotes mix Cat/Del-Croton
BRONX

COMMUNITY BOARD													
DATE	1*	2*	3**	4**	5	6	7	8	9*	10*	11*	12	
10/4										1			Taste/Odor
10/5													
10/6													
10/7											2		Cloudy Water/Other
10/8													
10/9													
10/10													
Total	0	0	0	0	0	0	0	0	0	1	2	0	

MANHATTAN

COMMUNITY BOARD													
DATE	1**	2**	3**	4*	5**	6*	7	8	9	10*	11*	12*	
10/4													
10/5												1	Other
10/6													
10/7		1			1	2				1			CB05 Cloudy Water/ Other CB's - Other
10/8													
10/9													
10/10								1					Taste/Odor
Total	0	1	0	0	1	2	0	1	0	1	0	1	