VILLAGE OF MILLBROOK, NEW YORK

WATER SYSTEM IMPROVEMENTS

PRELIMINARY ENGINEERING REPORT

Prepared for:

The Village of Millbrook
35 Merritt Avenue
PO Box 349
Millbrook, New York 12545

Prepared by:

Delaware Engineering, D.P.C.
8-12 Dietz Street, Suite 303
Oneonta, New York 13820

February 2014

TABLE OF CONTENTS

Contents

1.0 INTRODUCTION

The Village of Millbrook located in Dutchess County, New York owns and maintains a water supply and distribution system that delivers potable water to approximately 1,400 customers within the Village of Millbrook and the Town of Washington. Raw water to the Village water supply system is provided by a series of infiltration galleries installed within a gravel aquifer adjacent to Shaw Brook and Mill Brook. Based on microscopic particulate analysis (MPA) testing, it has been determined that by the Dutchess County Health Department that source water from these infiltration galleries is under the influence of surface water. As a result, the Village intends undertake a project to construct a new water treatment facility to provide the level of treatment required, as well as address other existing deficiencies within the water supply, treatment, and storage system.

It is the intent of this document to serve as an Engineering Report detailing both the existing conditions of the Village of Millbrook water supply, treatment, and distribution system and make recommendations for needed improvements.

2.0 REGULATORY STANDARDS

This Engineering Report is prepared in conformance with *Recommended Standards for Water Works - Great Lakes Upper Mississippi River Board of State Public Health & Environmental Managers*, dated 2007 and commonly referred to as the Ten States Standards, and applicable NYSDEC Design Standards. Additional site-specific standards specified and recommended by applicable reviewing agencies will be utilized as necessary.

The project described in this Engineering Report was developed in accordance with all applicable state and federal requirements and the project is sufficiently complete in accordance with all project contracts and the project can be utilized for its intended purpose.

3.0 EXISTING FACILITIES

The Village of Millbrook water treatment and distribution system serves approximately 1,400 customers through approximately 720 service connections in the Village of Millbrook and the Town of Washington. The system was originally constructed in approximately 1931, though many expansions and improvements have been made to the system since that time. As specified in the Water Supply Permits for the system (Appendix A), the supply capacity of the system is 374,400 gallons per day (gpd). Average and peak day demands within the system for 2011 and 2012 are as summarized below (for additional usage information, see Appendix B):

Year	Avg. Daily Demand (gpd)	Peak Daily Demand (gpd)
2011	196,000	445,000
2012	215,000	370,000

Source water for the Village of Millbrook water system is provided by a series of infiltration galleries located in the Town of Washington on Route 44. These infiltration galleries are approximately 12 to 15 feet deep and are located within a gravel aquifer adjacent to Shaw Brook and Mill Brook. Raw water from the galleries is collected by 12-inch diameter clay tile pipe and flows via gravity through a series of concrete block bunkers before flowing to a 45,000 gallon clear well located beneath the existing treatment building. The conditions of these bunkers vary, with some being replaced within recent years, and others remaining in need of replacement or repair. The high water level in the clear well is at the same elevation as the static hydraulic grade of the infiltration galleries; when the clear well is full, flow from the galleries ceases, and no overflow line is provided or necessary.

Treatment to raw water from the infiltration galleries is provided by the injection of sodium hypochlorite for disinfection (contact time is provided by the 45,000 clear well), caustic soda for pH control, and zinc orthophosphate for corrosion control, as per the Water Supply Permit and Corrosion Control Plan for the facility. Following contact time in the clear well, finished water is pumped by two vertical turbine booster pumps into the distribution system. Storage volume and distribution system head is provided by a 90-foot tall, 500,000 gallon steel water storage tank constructed in approximately 1930 and located on Haight Avenue in the Village of Millbrook. The booster pumps are started and stopped based on water levels within the 500,000 gallon storage tank. An inspection of the tank performed in 2010 recommended sandblasting, spot rust repair, and painting of both the internal and external surfaces of the tank (See Appendix C). An emergency generator is provided at the existing facility to allow operation during periods of interruption of electrical service, though this generator is approaching the end of its service life and requires replacement.

The distribution system is comprised of mains between 4-inches and 12-inches in diameter, and consists of a variety of piping materials, including cast iron, ductile iron, PVC, and asbestos cement pipe, as well as copper service lines. The distribution system undergoes regular flushing and deficient line valves and hydrants are replaced in conjunction with local paving work on an as needed basis.

As a result of MPA sampling and site inspections, the Dutchess County Health Department has determined that the infiltration galleries are under the influence of surface water and, in addition, are at risk of contamination from flooding of the adjacent streams. As such, the Department has directed the Village of Millbrook to install filtration equipment in accordance with the Long Term 2 Enhanced Surface Water Treatment Rule (ESWTR). For correspondence between the Village of Millbrook and the Dutchess County Health Department, please see Appendix D.

There are no redundant water sources in addition to the infiltration galleries. The Village has investigated the feasibility of incorporating two existing wells at the former Bennett College site (which have been pump tested and had water quality testing performed upon the raw water) but more analysis is necessary before these wells could be considered as acceptable additional sources.

4.0 PROPOSED IMPROVEMENTS

In order to provide the treatment required, it is recommended that new water treatment facility be constructed. The proposed building will be located at the site of the existing water supply and treatment facility, northeast of the existing fenced-in area on the east side of the entrance road. The building will be constructed at an elevation necessary to prevent flooding from the adjacent streams during extreme wet weather. The treatment building will include filtration equipment, a chemical storage and feed room, a loading dock for delivery of chemicals and process equipment, and a new emergency generator to allow complete operation of the water supply and treatment system during periods of loss of electrical service.

Raw water will be pumped from the existing infiltration galleries bunker system through the new filtration system via low-head pumps. As raw water enters the treatment building, it will flow successively through a 25 micron bag filter, a 5 micron cartridge filter, and a 1 micron absolute cartridge filter, as manufactured by Harmsco Industrial Filters, Inc. The proposed filtration sample will provide 4-log inactivation of Cryptosporidium (3.2-log removal by filtration and a 2-log credit for chlorination see Appendix E) in accordance with the Long Term 2 Enhanced Surface Water Treatment Rule and Part 5 of the New York State Sanitary Code. To provide redundancy, two filtration trains will be installed at the proposed facility; each sized to handle 100% of the permitted capacity. Filtered water will be injected with sodium hypochlorite via a new chemical feed system which will be based on maintaining a set residual as determined by a probe downstream of the booster pumps. Caustic soda and zinc orthophosphate will be added to finished water by means of a new flow-paced chemical feed system. A new 150,000 gallon baffled and or mixed contact/storage tank will be constructed adjacent to the proposed filtration building, and new booster pumps controlled by water levels in the 500,000 gallon storage tank will pump water into the distribution system as needed. The proposed storage/contact tank will provide the required contact time for the first users in the distribution system and will provide additional storage capacity for the system. As part of the work performed at the water treatment facility, existing infiltration bunkers which have been observed to be deficient will be repaired or replaced. A proposed site plan, proposed water treatment facility plan, and site location map have been attached in Figures 1, 2, and 3 respectively.

In addition to the construction of the above detailed water treatment facility, the Village is reviewing the cost and feasibility of cleaning and painting the existing 500,000 gallon storage tank. Construction of the proposed 150,000 gallon contact/storage tank will allow the 500,000 gallon tank to be taken offline while this work is performed at a future date.

5.0 PROJECTED PROJECT COSTS

Preliminary construction costs, including all material, labor, engineering, legal, and administration costs for the proposed improvements to the Village of Millbrook water supply and treatment system have been estimated and are as given below:

New Water Treatment Facility - Construction	$ 1,373,000
Rehabilitation of Collection Bunker	$ 45,000
Engineering Services	$ 287,900
Legal Fees	$ 25,000
Financing Costs	$ 35,000
Village Administration Costs	$ 10,000
Contingency (10%)	$ 177,590
Total Project Cost	**$ 1,953,490**

Detailed costs estimates for each of the items listed above have been attached to this report in Table 1.

6.0 PLANNING CONSIDERATIONS

In addition to project funding and financing considerations, the following is a summary of steps, in approximate chronological order, necessary to bring the proposed Village of Millbrook water filtration facility into operation:

- Seek and secure project financing
- Conduct SEQRA review
- Site studies to address wetlands, archeology, and other environmental considerations, as necessary
- Prepare and submit Water Supply Application
- Final Facility Plan and Design for NYSDEC and Dutchess County Health Department review
- Bid and award construction contracts
- Employee training and licensing or contract operation procurement
- System start-up.

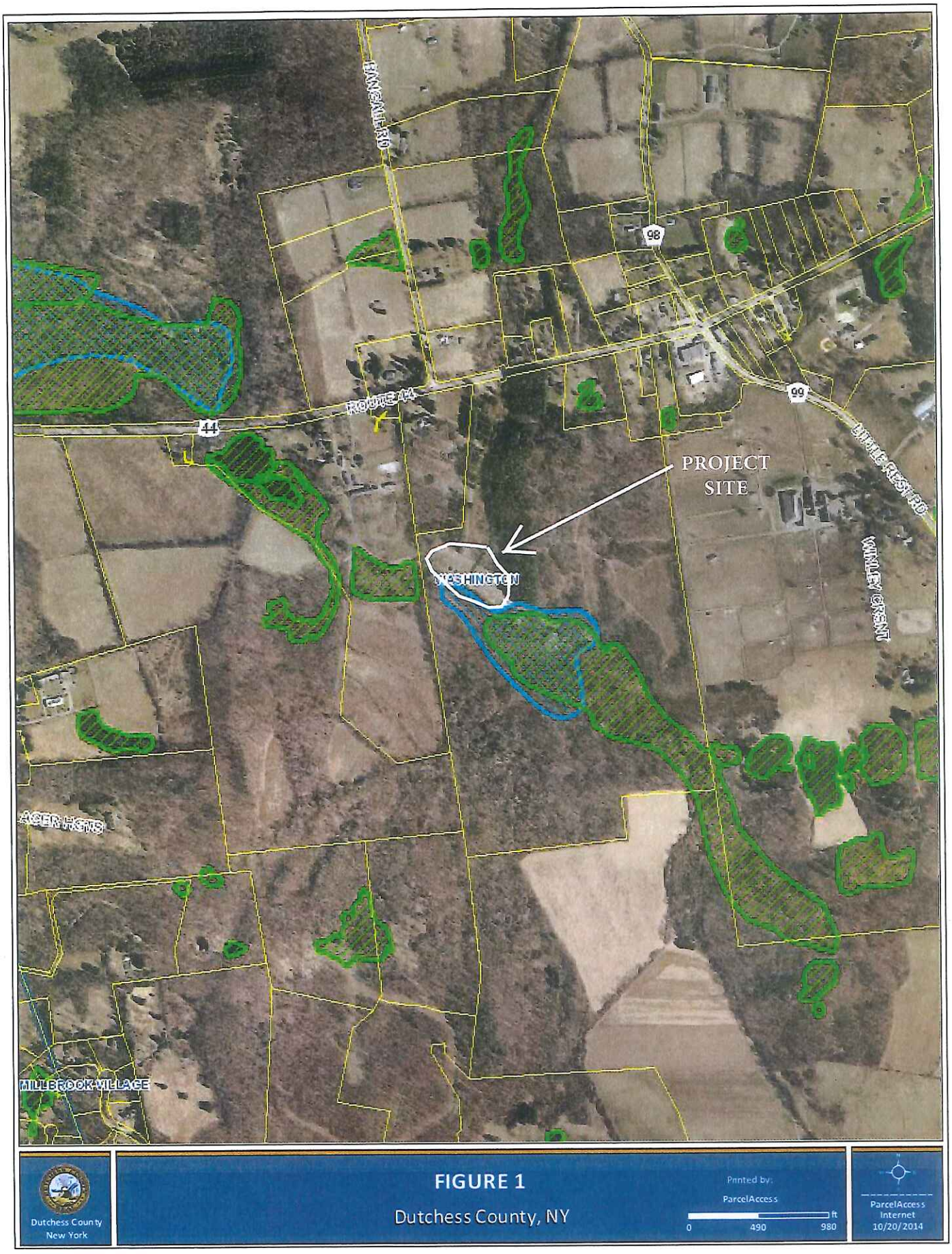
Considering the scope of the project, it is estimated that construction of the proposed work could begin in May 2015, with substantial completion and system start-up scheduled for Fall 2015.

7.0 SUMMARY

In conclusion, it has been determined that the construction of a new water treatment facility, along with improvements to the existing raw water supply system, would allow the Village of Millbrook to comply with both the requirements of the Dutchess County Health Depart and the Long Term 2 Enhanced Surface Water Treatment Rule, as well as provide quality water to the users within the distribution system. Furthermore, when the Village conducts cleaning and repainting the existing 500,000 gallon water storage tank will help provide water of acceptable quality to users as well as extend the service life of the tank. While a determination of available funding needs to be conducted to fully assess the financial impact of the proposed improvements

upon water user rates, low-interest financing and grants are available to help minimize any potential rate increases.

FIGURES


PROJECT SITE
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MILLBROOK VILLAGE
Dutchess County
New York
FIGURE 1
Dutchess County, NY
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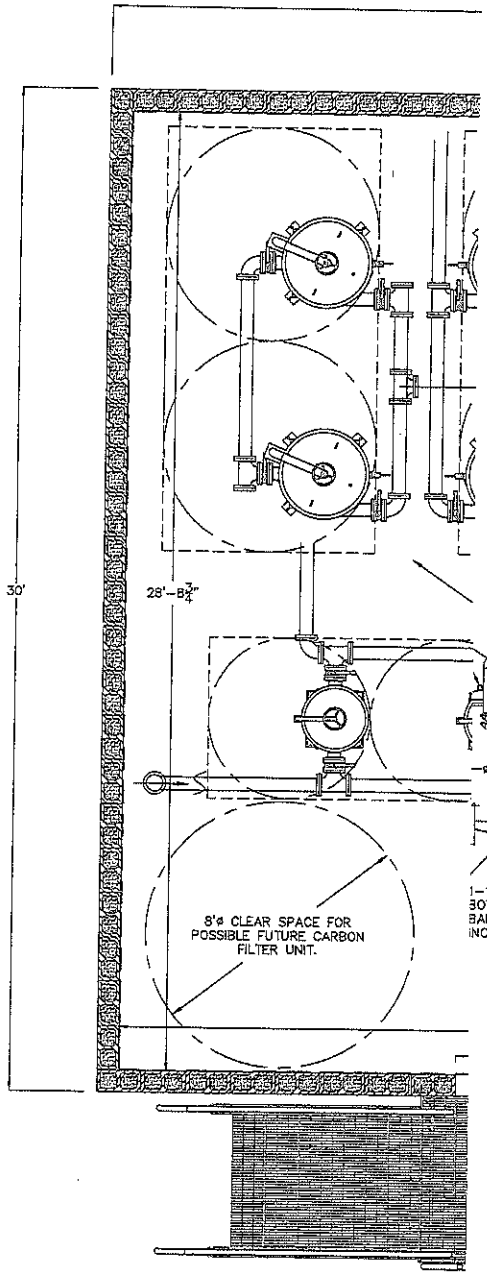
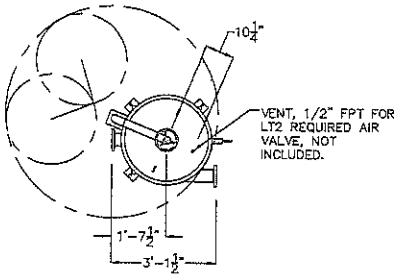
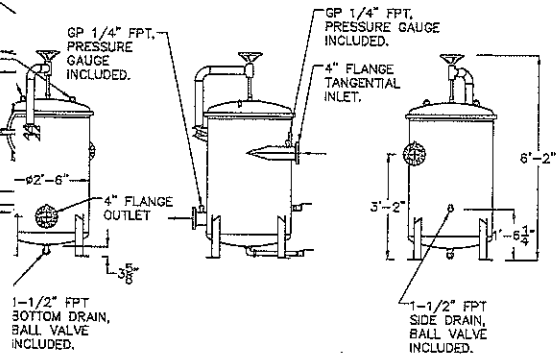




MUNI-5-4FL-304 PLAN VIEW



MUNI-5-4FL-304 PROFILE VIEWS

FILTER HOUSING DETAIL

SCALE: 3/8" = 1'

ONS

DRAWING TITLE:

FLOOR PLAN

CLIENT:

VILLAGE OF MILLBROOK
WTP UPGRADE - GWUDI AND TANK

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IG. D.P.C.
AL ENGINEERING
13820 - 607.432.9070
NY 12203 - 518.452.1290
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DESIGNED BY:	APPROVED BY:	GRAPHIC SCALE
DPW/JEF		0
DRAWN BY: JDG		SCALE: 3/8" = 1'-0"
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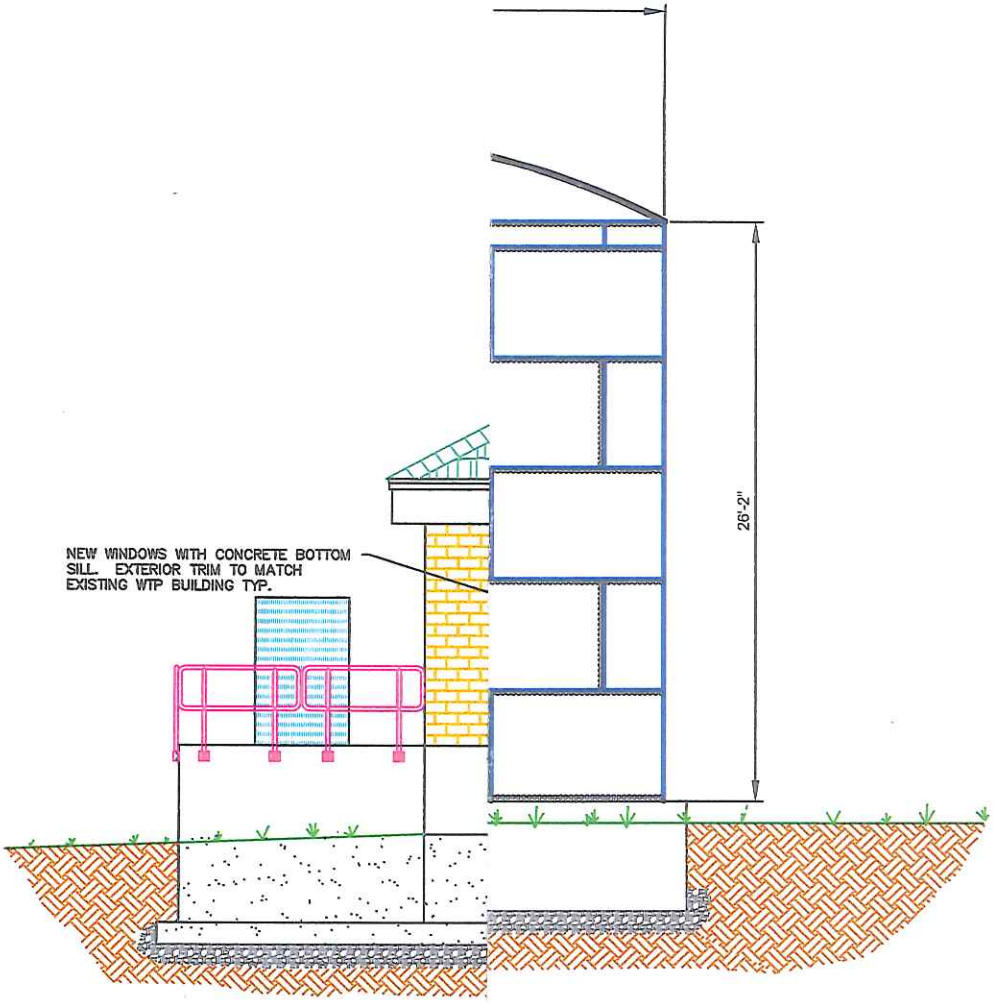

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AL ENGINEERING
Y 13820 - 607.432.6073
Y 12203 - 518.452.1290
607.865.0235

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EAST ELEVATIONS

CLIENT:

VILLAGE OF MILLBROOK
WATER TREATMENT PLANT UPGRADE

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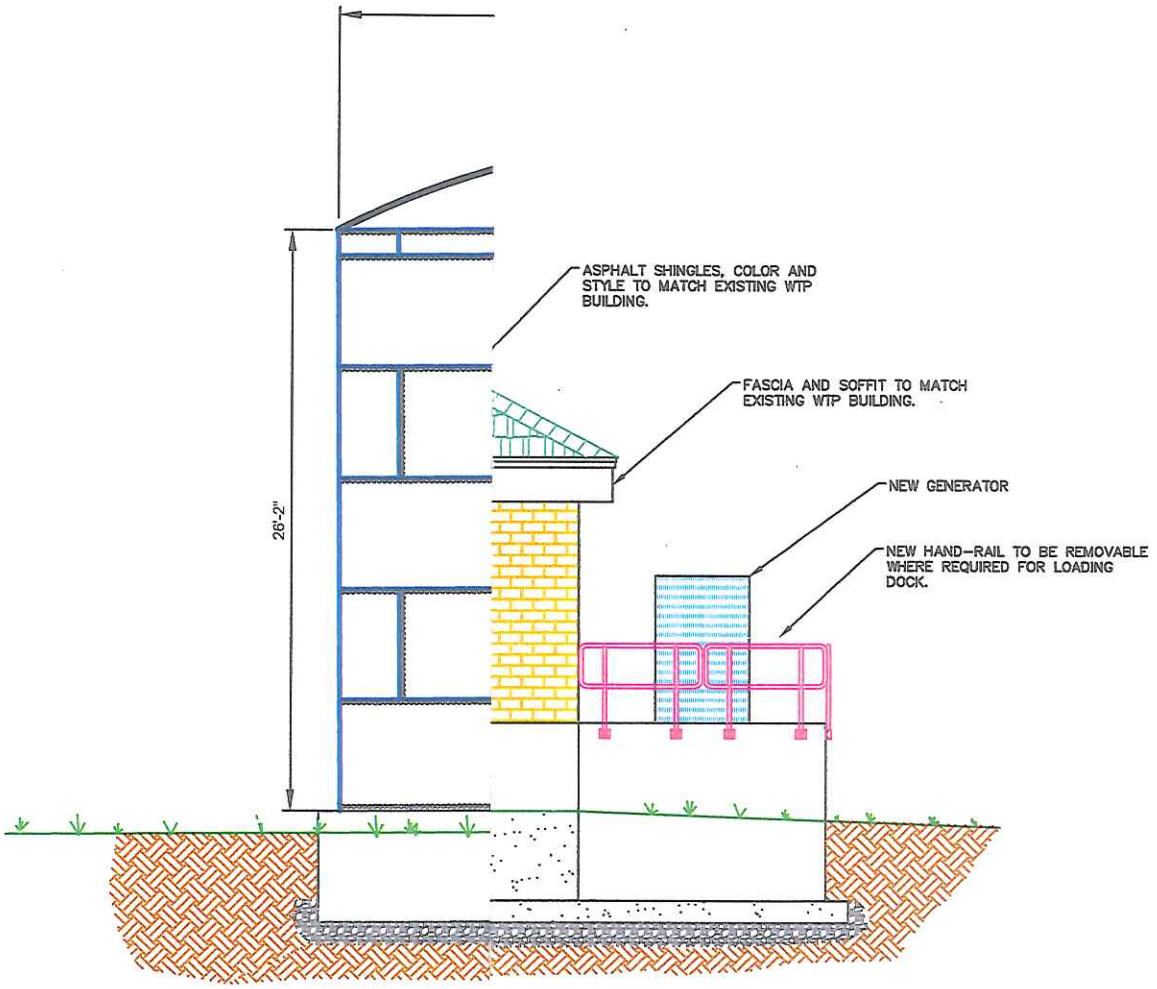

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DRAWING TITLE:

WEST ELEVATIONS

CLIENT:

VILLAGE OF MILLBROOK
WTP UPGRADE - GWUDI AND TANK

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FG-4

SED NEW 150,000 GAL
WATER STORAGE TANK

NEW FILTER BUILDING

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DRAWING TITLE:
PROPOSED SITE PLAN

CLIENT:
VILLAGE OF MILLBROOK
WTP UPGRADE - GWUDI AND TANK

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CHECKED BY: DRO		FILENAME: Village of Millbrook Water Plant Drawings.dwg	

TABLES

Table 1
Millbrook, NY
Water System Upgrade Project
Project Cost Estimate - February 2015

Item	Unit	12/3/2014 PER Est. Cost	Comments
A. Construction			
1. GENERAL CONTRACT			
Sitework:	lump sum	$ 50,000	Includes tank sitework & restoration
Yard Piping:	lump sum	$ 30,000	
Excavation & Backfill:	lump sum	$ 45,000	
150,000 gallon Water Storage Tank Construction/Installation:	lump sum	$ 250,000	Est. $158,011, tank and coating only
Accessories:	lump sum	$ 20,000	
Site Restoration:	lump sum	$ 20,000	
Stormwater Facilities (per NYSDEC General Permit):	lump sum	$ 5,000	
Mobilization/Demob/Bonds/insurance:	lump sum	$ 20,000	
New Water Treatment Building:	sq ft	$ 300,000	1,200 sq.ft. - @ $250/sqft
Filtration Equipment (Filters):	lump sum	$ 200,000	
Chemical Feed Equipment:	lump sum	$ 20,000	
New WTP Pumps:	lump sum	$ 50,000	
Process Piping and Valves:	lump sum	$ 40,000	
Existing Retrofit WTP Pumps:	lump sum	$ 50,000	
SUBTOTAL GENERAL CONSTRUCTION:		$ 1,100,000	
2. ELECTRICAL CONTRACT - Water Treatment Plant			
Mobilization/Demob/Bonds/insurance:	lump sum	$ 15,000	
Sitework (New Service, etc.):	lump sum	$ 15,000	
Site Restoration:	lump sum	$ -	
Electrical Work:	lump sum	$ 50,000	
SCADA System Work:	lump sum	$ 40,000	
New Emergency Generator:	lump sum	$ 100,000	Generator
SUBTOTAL ELECTRICAL CONSTRUCTION:		$ 220,000	
3. HVAC CONTRACT - Water Treatment Plant			
Mobilization/Demob/Bonds/insurance:	lump sum	$ 3,000	
Sitework (New Service, etc.):	lump sum	$ -	
Site Restoration:	lump sum	$ -	
HVAC Work:	lump sum	$ 50,000	
SUBTOTAL HVAC CONSTRUCTION:		$ 53,000	
4. EXISTING WATER STORAGE TANK REHABILITATION CONTRACT NOT IN THIS PROJECT			
Mobilization/Demob/Bonds/insurance:	lump sum	$ 20,000	
Sitework (Scaffolding, Tenting, etc.):	lump sum	$ 100,000	
Site Restoration:	lump sum	$ 20,000	
Tank Recoating Work:	lump sum	$ 600,000	Includes Lead Remediation Standard Coating System
5. REHABLITAION OF THE TWO EXISTING BUNKERS ON THE EAST SIDE OF THE STREAM			
Cost Based on previuos bunker rehab cost plus a access bridge:		$ 45,000.00	
SUBTOTAL TANK REHABILITATION WORK:		$ -	
SUBTOTAL CONSTRUCTION (1+2+3+5):		$ 1,418,000	

Table 1
Millbrook, NY
Water System Upgrade Project
Project Cost Estimate - February 2015

Item	Unit	12/3/2014 PER Est. Cost	Comments
B. Other Costs			
1) Professional Services			
a. Site Surveying:			
- Topo Survey		$ 8,000	
- Construction Layout & As-Built Survey		$ 3,500	
b. Geotechnical Investigation:		$ 9,500	
c. Engineering			
-Preliminary Engineering Report:		$ 40,000	
-Preliminary Design:		$ 10,000	
-Stormwater Pollution Prevention Plan (SWPPP):		$ 20,000	
-Final Design:		$ 80,000	
-Bidding/Award:		$ 8,000	
-Construction Administration:		$ 50,000	Based on 6 months construction
-On-Site Inspection (2 months full time		$ 45,900	
2 months part time)			
-As-Built Drawings:		$ 3,000	
d. SEQR/Environmental Review		$ 10,000	Uncoordinated review
			Short EAF no SHPO
SUBTOTAL PROFESSIONAL SERVICES:		$ 287,900	
2) Legal & Misc.			
-Legal:		$ 15,000	
-Financing Cons./Bookkeeping & Reporting Admin.:		$ 10,000	
-Single Audits:		$ -	
SUBTOTAL LEGAL & MISC.:		$ 25,000	
3) Project Financing			
-Bond Counsel		$ 15,000	TBD
-Short Term Financing/Net Interest		$ 20,000	TBD
SUBTOTAL PROJECT FINANCING:		$ 35,000	
4) Village Administration Costs		$ 10,000	
SUBTOTAL VILLAGE ADMINISTRATION COSTS:		$ 10,000	
SUBTOTAL OTHER COSTS:		$ 357,900	
C. Contingency (10%)			
Contingency (10%):		$ 177,590	
Village of Millbrook Water System Rehabilitation Estimated Project Budget Cost:		**$ 1,953,490**	

APPENDIX - A

State of New York

Department of Conservation

WATER POWER AND CONTROL COMMISSION

Water Supply Application No. 592

In the Matter of the Application

- of the -

VILLAGE OF MILLBROOK

for approval of its acquisition

of a source of water supply and

of its financial and engineering

plans for the construction of a

water supply system.

D E C I S I O N

Application filed December 18, 1930

Hearing held in Millbrook,
February 13, 1931

Decision February 19, 1931

APPROVED

DECISION ON WATER SUPPLY APPLICATION NO. 592

Elbert A. Burch, Mayor of the incorporated village of Millbrook, acting on behalf and in the name of said municipality, on December 17, 1930, made application to the Water Power and Control Commission for approval of the plans of said village for the acquisition or taking of a water supply, the taking or condemnation of lands for a new or additional source of water supply and of the construction of a water works system in said municipality. This application was filed in the office of the Commission on December 18, 1930.

After due notice, published in the Millbrook Mirror and Round Table, the hearing on this application was held in the Village Hall in said village of Millbrook on February 13, 1931, at one o'clock in the afternoon. At this hearing the Commission considered the petition, maps and plans submitted, examined witnesses and heard arguments for and against the project. The petitioner was represented by Messrs. Russell, Jacobs and Brevoort, its attorneys (Elijah T. Russell, Esq., of counsel). Objections were filed by Silas Wodell, who appeared at the hearing in person, and was represented by R. A. Wodell, Esq.; by Katharine Lanier Standish, who was represented at the hearing by Harlan S. Perrigo, Esq. (Walter J. McNichols, Esq., of counsel); and by Andrew Haight and others, who did not appear at the hearing.

On February 13, 1931, the Commission caused an engineering inspection to be made of the sites of the proposed works and of the proposed source of water supply.

It is proposed to install a publicly owned water works system in the village of Millbrook, which is to supply water for domestic use and fire protection to the more thickly populated section of that village. This system is to consist of 11,100 feet of 6-inch, 12,500 feet of 8-inch, 12,300 feet of 10-inch cast iron pipe, 40 fire hydrants, a 500,000 gallon steel standpipe, 31 feet in diameter by 90 feet high, and the other usual accessories. Water is to be obtained from a well and infiltration galleries to be constructed at a point about 1.5 miles east of the center of the village and about 1,000 feet south of the highway, running from Millbrook to Mabbettsville. The well is to be 19 feet deep, formed by a reinforced concrete caisson, 20 feet 6 inches square in outside dimensions. This caisson is to have a reinforced concrete floor, in which seven 4 foot by 4 foot and two 4 foot by 2 foot 6 inch holes are to be left to allow the ground water to enter the well. A fire-proof pumping station is to be constructed on top of this well. In this station are to be installed two electric motor operated 250 gallons per minute pumps, which are to lift water from the well and force it into the village distribution system and standpipe. Provision is to be made for the installation of apparatus for sterilizing this water with liquid chlorine, but such installation is not to be made unless it is found to be necessary. In the event that sufficient water is not obtained from this well, it is proposed to construct two infiltration galleries, running respectively north and west

from it. These are to consist of trenches about 12 feet deep and as long as may be found to be necessary. In each trench three lines of collecting pipe are to be laid. These are to be of 18 inch vitrified tile with open joints or 15 inch porous wall pipe. The trenches are to be backfilled with sand and gravel to the level of the water table. The last three feet of fill is to be made of clay and sod. These underdrains are to discharge into a 7 foot by 7 foot reinforced concrete sand trap, to be constructed adjacent to the above mentioned well. The total cost of this project is estimated at $160,000.

Mr. Wodell stated that he is the owner of the land immediately west of and downstream from the property proposed to be acquired by the village. On this land is an artificial pond formerly used to operate a mill. He stated that the pumping of water as proposed by the village would divert water from his property and pond and in the event that this diversion should be found seriously to affect his property, his claim for resultant damages would be large. He also called attention to the fact that the force main to be laid in the highway in front of his dam, unless properly located, may jeopardize the safety of that structure.

Mrs. Standish objected on the grounds that as a large proportion of the taxpayers and residents of Millbrook now have a satisfactory water supply, the project is not justified by public necessity and that the project is unjust,

There is no public water supply system of any sort in the village of Millbrook. Water for all purposes is obtained from individually owned dug and driven wells of the ordinary types. There is no sewerage system in the village. From this it follows that in the congested areas wells and cesspools are near together and the quality of the well water is doubtful. In addition, practically no water is available for fire fighting purposes, with the result that the fire hazard is great and insurance rates high. The question of installing a water supply system in this village has been under discussion for many years. On February 21, 1906, a water supply application was made to our predecessor, the State Water Supply Commission, (Water Supply Application No. 7) but this was withdrawn on the 5th of March following. At the request of the village authorities, the Conservation Commission investigated various prospective sources of supply for this village in 1912. On December 20, 1929, another water supply application was made to us (Water Supply Application No. 543) but upon examination it was found that this project had not been authorized and it was, therefore, dismissed on January 24, 1930. The installation of a sanitary sewerage system in the thickly built up part of this village has been authorized; such system cannot be fully effective without a water supply system. We are of the opinion that urgent public necessity exists for the installation of a suitable water supply system in this village.

inequitable and in violation of constitutional rights in that it would place an unreasonable burden of the cost of the project on certain taxpayers without any corresponding benefits to them.

Mr. Haight and his associates state that they are owners of property upstream from the proposed well and objected to the restriction of the use of their property without due compensation.

After due study of the petition and its exhibits, the evidence and arguments given at the hearing and the report of the engineer of the Commission on this application, it appears as follows:

Millbrook is an incorporated village, situated in the town of Washington, Dutchess county, about 13 miles east of Hudson river and in a latitude slightly north of that of Poughkeepsie. It is served by that branch of the New York, New Haven and Hartford railroad, which runs from Beacon to Pine Plains. This is almost entirely a residence community. It is surrounded by large estates and has an irregular outline, so drawn as to include certain houses on the estates but not the estates themselves. In this village is the Bennett School, a boarding school for girls with 190 pupils. The population of Millbrook by the last census was 1,295. This is said to be increased by perhaps 200 during the summer. The total assessed valuation of all taxable property in the village was shown by the last roll to be $1,177,512. The village has no bonded indebtedness.

The Board of Trustees of the village of Millbrook by resolution adopted November 21, 1930, appropriated the sum of $160,000 (of which amount the sum of $150,000 is to be raised by a bond issue) to defray the cost thereof and submitted all these matters to vote at a referendum election. This election was held on December 12, 1930 and carried in the affirmative by a vote of 144 to 6. The making of this petition to us was authorized by resolution of said Board of Trustees, adopted at a meeting held December 16, 1930.

Messrs. Sanborn and Bogert, civil engineers, with an office in the city of New York, have prepared the plans, reports and estimates submitted with this application and are to have charge of the construction of this system, if it is built.

The proposed source of water supply, as above stated, is to consist of a well and infiltration galleries. These are to be put down in a water-bearing deposit of coarse sand and gravel. The surface drainage basin tributary to the stream nearest to the site of this well has an area of 11.5 square miles. The present demands of the village are estimated as between 60,000 and 110,000 gallons per day, depending on whether or not the Bennett School is supplied. A test pit was put down at the site of the proposed well and a pumping test made on it during the extreme dry weather of the past summer. Although it is impossible to make confident prediction of the amount of water obtainable

from any unused subterranean source of water supply, there seems reasonable assurance that sufficient water will be made available by the proposed development to meet the present needs of this village.

There are now no dangerous sources of pollution near the proposed well and the village proposes to maintain this condition. Results of analyses of water taken from the above mentioned test pit are not entirely favorable, but we believe that the sample analyzed was not representative of the water as it will be collected by the proposed works. It is probable that this water will be of good sanitary quality without treatment, but in order to assure that quality we should reserve the right to require purification or additional precautions, if future developments show need for so doing. The village authorities propose to erect a manproof fence about all land within 100 feet of the well or any infiltration gallery; this should be required. In addition, a further strip of 100 feet should be protected by restrictions which will prevent pollution of the soil or ground water.

At this time we should authorize the village to sink the proposed well and to construct such infiltration galleries as it may find to be advisable, provided that these galleries be not extended beyond the limits of the land now proposed to be purchased and subject to the restrictions here imposed for the sanitary protection of the surroundings thereof.

We are of the opinion that sufficient funds are available to meet the probable cost of constructing these works and the purchase of the necessary land. It is our opinion that the total cost of the project should not exceed the appropriation. This total cost cannot confidently be predicted, as it includes compensation for damages which may hereafter be determined by the courts.

As the plans filed with the application are not complete as to all details, we cannot now make final determination as to the safety and suitability of the proposed structures. We should require that completed plans be filed for approval and that work be done only in conformity with approved plans.

The village of Millbrook is to acquire the entire area of the so-called Merritt farm, which contains 101.25 acres. The well and infiltration galleries are to be constructed on this property. In addition it will be necessary for the village to acquire certain rights of way for pipe line and a plot on which to erect the standpipe.

This Commission lacks power in any way to change the legal rights of the objectors or to authorize the village of Millbrook to infringe upon such rights except by due process of law and with just compensation. The objections of Mrs. Standish appear to be based on the fact that the proposed water works system is not to cover or to serve the entire area of this village. It was admitted by the applicant

that due to high elevation and scattered settlement, no attempt was to be made to supply some 25 dwellings in the village. Some of these houses, being those connected with neighboring estates, have satisfactory water supplies at present. It also appears that if such work is authorized, the proposed system readily can be extended to supply these other dwellings, although additional pumping may be needed. We believe that this is a question to be decided by the people of the village and they seem to have authorized this project by an overwhelming majority. The other point raised, that of taxation of property not directly supplied with water, appears to be a matter treated in the village and other laws not directly under our jurisdiction. The question of damages must be considered by us, but it is not within our power to decide specifically who are damaged or the amount of such damages. That being the case, it is impossible for us now to make definite determination of the total cost of this project. We can only be guided by our experience with similar cases, and this experience leads us to believe that the appropriation for this work is reasonably adequate and that the applicant is in financial condition such that it can pay such awards for damages as may reasonably be expected.

Numerous alternative sources of water supply for the village of Millbrook exist. These have been studied. We know of none of these that offer advantages superior to

that now proposed to be used.

The carrying out of this project will have no effect on the water supply interests of any other municipality or civil division of the state.

The legal damages which may be caused by the execution of the plans of the petitioner do not appear to be such as to require any special consideration or legislative enactment in order that they may be equitably determined and paid.

The Commission finds it to be necessary to protect the water supply and the interests of the applicant and of the inhabitants of the territory to be supplied by it with water and to protect the water supply and interests of other municipal corporations and other civil divisions of the State and the inhabitants thereof and to make safe all dams or reservoirs to be constructed by said plans, that the application, maps and plans submitted should be modified to conform to the following:

1. All land within 100 feet of any well or infiltration gallery constructed by authority of this decision shall be used solely for water supply purposes, shall be securely fenced and the entrance of animals and unauthorized persons within the enclosure prevented as far as possible. All land within 200 feet of such well or galleries shall be kept free from pollution of the soil or ground water. Any sources of pollution which may exist or be installed outside of the fence but within the 200 foot area shall be so equipped that all

polluting material will be removed therefrom in tight containers or by cast iron sewers or drains with tight lead joints.

2. This Commission reserves the right to require the taking of additional precautions to preserve the purity of this water, the enactment of sanitary rules and regulations for that purpose by the State Commissioner of Health or the sterilization or other treatment of all water pumped, if future analyses or inspections shall show necessity for so doing.

3. Under authority of this decision and approval the proposed infiltration galleries may now or later be extended to whatever length may be required; provided that these extensions are confined to the Merritt farm and subject to compliance with conditions 1 and 2 above.

4. The proposed works shall be completely constructed in strict accordance with plans thereof and specifications therefor which have previously been submitted and approved by this Commission.

5. These works shall be completely constructed within three years of the date of this decision.

The Water Power and Control Commission, having given due consideration to the said petition and its exhibits, the proofs and arguments submitted at the hearing and the reports of its engineers thereon, determines and decides as follows:

First. That the application, maps and plans submitted are modified as set forth above and, as so modified,

are the plans hereinafter mentioned.

Second. That the plans proposed are justified by public necessity.

Third. That said plans provide for the proper and safe construction of all work connected therewith.

Fourth. That said plans provide for the proper protection of the supply and the watershed from contamination and that filtration is at the present time unnecessary.

Fifth. That said plans are just and equitable to the other municipalities and civil divisions of the State affected thereby and to the inhabitants thereof, particular consideration being given to their present and future necessities for sources of water supply.

Sixth. That said plans make fair and equitable provisions for the determination and payment of any and all legal damages to persons and property, both direct and indirect, which will result from the execution of said plans or the acquiring of said lands.

State of New York

Department of Conservation

WATER POWER AND CONTROL COMMISSION

Water Supply Application No. 1405

In the Matter of the Application

- of the -

VILLAGE OF MILLBROOK

for the approval of the extension of its water supply and of the engineering plans for the construction of the works necessary to effect such extension.

Fourth Application

D E C I S I O N

Application filed February 15, 1940

Hearing held in Millbrook, March 5, 1940

Decision March 26, 1940

APPROVED

DECISION ON WATER SUPPLY APPLICATION NO. 1405

Irving J. Hicks, Mayor of the incorporated village of Millbrook, in the town of Washington, Dutchess county, acting on behalf and in the name of said village, on February 14, 1940, made application to the Water Power and Control Commission for approval of the plans of said village for the acquisition or taking of an additional water supply and of the construction proposed in connection therewith. This application was filed in the office of the Commission February 15, 1940.

After due notice, published in the Millbrook Mirror and Round Table, the hearing on this application was held in the Village Hall in the village of Millbrook, on March 5, 1940, at 1:00 o'clock in the afternoon. At this hearing the Commission considered the petition, maps and plans submitted, examined witnesses and heard arguments in favor of the project. The petitioner was represented by Messrs. William P. Talbot and Vincent Sepe, Village Trustees. No objections were filed and no one appeared in opposition.

On March 5, 1940, the Commission caused an engineering inspection to be made of the site of the proposed works and of the proposed additional sources of water supply.

Millbrook now proposes to augment its water supply collecting system by the construction of additional infiltration lines in an area east of its existing similar development. These new lines are to consist of over 1,000 feet of

15-inch "Poroswall" pipe, which are designed to collect water throughout the extended area and to transport the water thus collected to the main collecting well at the existing pumping station. At this point the water is to be chlorinated and is then to be pumped by means of existing pumping equipment to the distribution system and to storage. Where this line from the new collecting area to the pumping station crosses Shaw's Pond stream, a small brook passing through this area, it is to be constructed for a distance about 50 feet either side of the stream of tight joint vitrified tile pipe. For the most part the work contemplated under this project has already been completed, having been undertaken during the late fall of 1939. In addition, at the hearing the Commission was asked to ratify the sale of water to certain present consumers located outside of the village limits but now being supplied with water by the village. This includes service to the County Welfare Home, which is located about 1.25 miles from the village. The project involving the construction of the new collecting lines has been carried out at no cost to the village, having been entirely paid for by one of the local residents.

After due study of the petition and its exhibits, the evidence and arguments given at the hearing and the report of its engineers on this application, the Commission finds as follows:

Millbrook is an incorporated village situated in the town of Washington, Dutchess county, about 13 miles east of the Hudson river and slightly north and east of the city of Poughkeepsie. It is served by a branch of the New York, New Haven and Hartford railroad, running from Beacon to Pine Plains. It is almost entirely a residential community and has within its limits the Bennett School, a large private boarding school. The village is surrounded by large estates and its boundaries are so drawn as to include some of the houses on the estates but not the estates themselves. According to the 1930 census, the population of the village of Millbrook was 1296 and it is estimated that its present population is in the neighborhood of 1500. The total assessed valuation of all taxable real property located within the village is $1,189,937.00 and the village has bonded indebtedness to the extent of $164,000, of which approximately $126,000 was issued for water supply purposes.

A public water supply system was first installed in the village of Millbrook about 1931. Water for this system is obtained from a large collecting well and a series of tile infiltration lines running north and west of this well. This source of water supply is located about 1,000 feet south of the road leading from Millbrook to Amenia at a point about 1.5 miles east of the center of the village. The acquisition of such a source of water supply by the village was

authorized by a decision of this Commission dated February 19, 1931 (Water Supply Application No. 592; completed works approved August 30, 1937).

Originally, the water supplied from this source was ample for the needs of the community, but during the summer of 1939 the Bennett School requested that water from the village system be supplied to that institution. Although it appeared that more than sufficient water was available, the village authorities, fearing that this demand which might be quite considerable might cause a shortage in the village supply, caused an investigation to be made of its water supply requirements and of its facilities for meeting this new demand. As a result of this investigation the present project was recommended to insure an adequate supply.

The making of an application to this Commission for approval of this project was authorized by a resolution of the Village Board adopted on January 4, 1940.

Sanborn and Bogert, Consulting Engineers with an office in the city of New York, have been retained by the village as its engineers in connection with this project and the construction work has been carried out under the supervision and direction of this firm of engineers.

It is estimated that the additional supply now proposed to be taken by the village will augment the yield of the village waterworks system by more than 200,000 gallons

per day. As the present average demand in the village excluding the water sold to the Bennett School is not over 150,000 gallons per day, the project as now contemplated should make available sufficient water for the village for some time to come.

The quality of the water from the new development, as indicated by analyses filed, is very similar to that from the existing supply and this in the past has always been satisfactory. Although the quality generally is excellent even without treatment, all of the water now used is chlorinated and water from the new infiltration lines will also be so treated. The village now owns all of the land surrounding this development for a considerable distance and a great part of that area has been securely fenced. It should be required that the village continue to own and use for water supply purposes only all of the land within 200 feet of these lines. There is some potential danger of pollution of the water in this collecting system by surface water in the stream passing through the area and adjacent to it and the Commission, therefore, should require that none of the porous pipe lines be at any point closer than 50 feet to any of these streams and that the village shall provide sufficient fill over these lines so that the final elevation of this area will be at least as high as that at the existing station. Although the treatment now proposed should be sufficient to insure a water

satisfactory in quality, the Commission reserves the right to require the taking of additional sanitary precautions or the further treatment or purification of all water derived from this source of supply if in the future analyses or inspections shall show a need for such action.

Such plans and specifications as have been submitted have provided for satisfactory construction and for the most part the work covered by them has been fully completed. Final approval, however, cannot yet be given pending the completion of the grading of the area surrounding the tile lines and the village must secure such final approval when the work is finally completed.

The carrying out of these plans will have no adverse effect on the water supply interests of any other municipality or civil division of the State.

The legal damages which may be caused by the execution of the plans of the petitioner are not such as to require any special consideration or legislative enactment in order that they may be equitably determined and paid.

The Commission finds it to be necessary to protect the water supply and the interests of the applicant and of the inhabitants of the territory supplied by it with water that the application, maps and plans submitted should be modified to conform to the following:

1. The village of Millbrook must continue to own and use for

water supply purposes only all of the land within 200 feet of any of its water supply collecting lines used in connection with its public water supply system.

2. Nothing in this decision and approval contained shall be held to authorize applicant to supply, sell or distribute water from this source of supply for any purposes unless all such water shall first have been treated by sterilization in a manner satisfactory to this Commission.

3. Satisfactory precautions must be taken to keep the surface streams passing through or adjacent to this area at least 50 feet from any of the porous collecting lines and the entire area within such distance of these lines must be so graded as to facilitate surface drainage away from these lines and so as to prevent any surface water collecting on the ground above them.

4. The Commission reserves the right to require the taking of further sanitary precautions or the treatment or purification of the water from this source should future analyses or inspections show a need for so doing.

5. Unless the works authorized by this decision shall have been fully completed by April 1, 1942, or within such extended time as may have been applied for and granted by the Commission, then and on that date this decision shall be deemed to have lapsed and to be of no further force and effect.

6. Nothing in this decision and approval contained shall be held to abrogate the provisions of Section 524 of the Conservation Law, which forbid the operation of any of these works until as constructed they have been approved by the Commission. Such final approval will be given only on due petition therefor. In general such approval will not be given except for a fully completed system, and it will never be given until all provisions affecting the quality of the water and the safety of the works have been fully complied with.

The Water Power and Control Commission, having given due consideration to the said petition and its exhibits, the proofs and arguments submitted at the hearing and the reports of its engineers thereon, determines and decides as follows:

First. That the application, maps and plans submitted are modified as set forth above and, as so modified, are the plans hereinafter mentioned.

Second. That the plans proposed are justified by public necessity.

Third. That said plans provide for the proper and safe construction of all work connected therewith.

Fourth. That said plans provide for the proper protection of the supply and the watershed from contamination and that filtration is at the present time unnecessary.

Fifth. That said plans are just and equitable to the other municipalities and civil divisions of the State

affected thereby and to the inhabitants thereof, particular consideration being given to their present and future necessities for sources of water supply.

Sixth. That said plans make fair and equitable provisions for the determination and payment of any and all legal damages to persons and property, both direct and indirect, which will result from the execution of said plans or the acquiring of said lands.

9 :0-5 (2/81)1

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

PERMIT NO.

WSA No. 7715

DEC No. 3086-0369

Filed Date April 17, 1986

PERMIT

REC'D DEC 31 1986 WATER RESOURCES

UNDER THE ENVIRONMENTAL CONSERVATION LAW
ARTICLE 15, TITLE 15 (WATER SUPPLY)

PERMIT ISSUED TO

Village of Millbrook - 5th Application

ADDRESS OF PERMITTEE

Washington Avenue, P.O. Box 349, Millbrook, N.Y. Attn: Michael P. Murphy, Mayor

LOCATION OF PROJECT

New well located 1500 feet south of the intersection of Bangall Road and U.S. Route 44

DESCRIPTION OF PROJECT

Take a supply of water for use in the existing system by the installation of one (1) shallow dug well having a capacity of 25 GPM, to supplement the Village's existing three bunkers system. (Bunkers are structures located from 9 to 11.5 feet below ground that collect water which is fed by gravity to the main gallery in the pump house.) The new well will serve to alleviate the Village from shortages which have been experienced during drought conditions.

COMMUNITY NAME (City, Town, Village)	TOWN		
Village of Millbrook	Washington		
COUNTY	FIA COMMUNITY NO.	DAM NO.	PERMIT ISSUE DATE
Dutchess			November 20, 1986

GENERAL CONDITIONS

1. Prior to starting work on any construction authorized herein, detailed plans of the structures proposed to be built and specifications for such work shall have been submitted to and approved by the Department. Thereafter such construction work shall be entirely completed in full accordance with the plans and specifications which have been so submitted and approved.

2. The Department reserves the right to rescind this permit or to take whatever action it may deem suitable and proper if the works authorized to be constructed herein are not initiated by November 30, 1988

3. Section 15-1529 of the Environmental Conservation Law forbids the operation of any of these works until, as constructed, they have been approved by the Department. Such final approval will be given only on written request. In general, such approval will not be given until all provisions affecting quality of the water and safety of the works have been complied with in full.

4. The Department reserves the right to reconsider this permit at any time and after due notice and hearing at that time to continue, rescind or modify this permit in such a manner as may be found to be just and equitable.

5. Granting of this permit does not relieve the applicant of the responsibility of obtaining any other permission, consent or approval which may be required.

6. As a condition of the issuance of this permit, the applicant has accepted expressly, by the execution of the application, the full legal responsibility for all damages, direct or indirect, of whatever nature, and by whomever suffered, arising out of the project described herein and has agreed to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from the said project.

7. By acceptance of this permit the permittee agrees that the permit is contingent upon strict compliance with the special conditions following.

NOTE: Only those special conditions following which have been marked [X] apply.

SPECIAL CONDITIONS

[X] 8. All land within 200 feet of any well shall be protected and controlled in order to prevent pollution of the ground or groundwater by direct ownership of the land or by the acquisition of protective easements or other appropriate measures.

[X] 9. This area shall further be protected from pollution by surface waters originating outside thereof by the construction of suitable diversion ditches or embankments and the development of the water sources shall be so carried out that there shall be no opportunity for pollution entering the water sources.

[X] 10. The physical pumping facilities and controls shall be protected against damage or tampering either by a fence of other suitable enclosure or by their manner of construction and installation.

[X] 11. Before any water from the well(s) may be used for any purpose, after prolonged pumping test(s), the applicant shall have caused a sample of the water from each to be collected and analyzed, shall have submitted the results of such analyses to the Department and shall have been advised by the Department either that the water is of a satisfactory sanitary quality or that certain specified treatment or purification thereof is necessary. In this last case such water shall be used only after full compliance with all of the requirements of the Department.

[X] 12. Nothing contained in this permit and approval shall be held to authorize the applicant to supply, sell or distribute water from this source of supply for any purpose unless all such water shall first have been treated and purified by disinfection (and filtration) in a manner satisfactory to the Department.

(SEE REVERSE SIDE)

95-20-6 (9/85) NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

WATER RESOURCES
RECEIVED
JUL 28 1987

DEC PERMIT NUMBER	EFFECTIVE DATE
1358-44-1	JULY 23, 1987
FACILITY/PROGRAM NUMBER(s) WSA # 7876 6th Application	EXPIRATION DATE(s) SEE CONDITION NO. 12

PERMIT

Under the Environmental Conservation Law

- ☐ Article 15, Title 5: Protection of Water
- ☒ Article 15, Title 15: Water Supply
- ☐ Article 15, Title 15: Water Transport
- ☐ Article 15, Title 15: Long Island Wells
- ☐ Article 15, Title 27: Wild, Scenic and Recreational Rivers
- ☐ 6NYCRR 608: Water Quality Certification
- ☐ Article 17, Titles 7, 8: SPDES
- ☐ Article 19: Air Pollution Control
- ☐ Article 23, Title 27: Mined Land Reclamation
- ☐ Article 24: Freshwater Wetlands
- ☐ Article 25: Tidal Wetlands

N—New, R—Renewal, M—Modification
C—Construction, O—Operation, (If Applicable)

- ☐ Article 27, Title 7: Solid Waste Management
- ☐ Article 27, Title 9: Hazardous Waste Management
- ☐ Article 34: Coastal Erosion Management
- ☐ Article 36: Floodplain Management
- ☐ Articles 1, 3, 37; 6NYCRR 380: Radiation Control

PERMIT ISSUED TO: Village of Millbrook			
ADDRESS OF PERMITTEE: Merritt Avenue, Millbrook, NY 12545			
AGENT FOR PERMITTEE/CONTACT PERSON: Michael Murphy, Mayor			TELEPHONE NUMBER: (914)677-3939
NAME AND ADDRESS OF FACILITY (If different from Permittee)			
LOCATION OF PROJECT	COUNTY: Dutchess	TOWN/CITY/VILLAGE: T-Washington/V-Millbrook	UTM COORDINATES

DESCRIPTION OF PROJECT/FACILITY:
Extend existing water supply and distribution mains of the village of Millbrook 1,500 feet into a new service area and to take a supply of water for use in 7 single family homes in amounts up to 4,320 gallons per day from existing sources.

GENERAL CONDITIONS

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations and the conditions specified herein or attached hereto.

1. The permittee shall file in the office of the appropriate regional permit administrator, or other office designated in the special conditions, a notice of intention to commence work at least 48 hours in advance of the time of commencement and shall also notify him/her promptly in writing of the completion of the work.
2. The permitted work shall be subject to inspection by an authorized representative of the Department of Environmental Conservation which may order the work suspended if the public interest so requires.
3. The permittee has accepted expressly, by the execution of the application, the full legal responsibility for all damages, direct or indirect, of whatever nature, and by whomever suffered, arising out of the project described herein and has agreed to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from the said project.
4. The Department reserves the right to modify, suspend or revoke this permit at any time after due notice, and, if requested, hold a hearing when:
   a) the scope of the project is exceeded or a violation of any condition of the permit or provisions of the ECL and pertinent regulations are found; or
   b) the permit was obtained by misrepresentation or failure to disclose relevent facts; or
   c) newly discovered information or significant physical changes are discovered since the permit was issued.
5. The permittee is responsible for keeping the permit active by submitting a renewal application, including any forms, fees or supplemental information which may be required by the Department, no later than 30 days (180 days for SPDES or Solid or Hazarduous Waste Management permits) prior to the expiration date.
6. This permit shall not be construed as conveying to the applicant any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work or as authorizing the impairment of any rights, title or interest in real or personal property held or vested in a person not a party to the permit.
7. The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of way which may be required for this project.
8. Issuance of this permit by the Department does not, unless expressly provided for, modify, supersede or rescind an order on consent or determination by the Commissioner issued heretofore by the Department or any of the terms, conditions, or requirements contained in such order or determination.
9. Any modification of this permit granted by the Department must be in writing and attached hereto.

PERMIT ISSUANCE DATE	PERMIT ADMINISTRATOR	ADDRESS
JULY 23, 1987	William E. Steidle	21 South Putt Corners Road New Paltz, New York 12561
AUTHORIZED SIGNATURE X William E. Steidle		Page 1 of 2

95-20-6(10/90)-25c R3

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DEC PERMIT NUMBER
3-1358-00032/00002

FACILITY/PROGRAM NUMBER(s)
WSA# 9675

PERMIT
Under the Environmental Conservation Law (ECL)

EFFECTIVE DATE
September 9 , 1999

EXPIRATION DATE
None

TYPE OF PERMIT (Check All Applicable Boxes)
☒ New ☐ Renewal ☐ Modification ☐ Permit to Construct ☐ Permit to Operate

☐	Article 15, Title 5: Protection of Waters	☐	Article 17, Titles 7, 8: SPDES	☐	Article 27, Title 9; 6NYCRR 373: Hazardous Waste Management
X	Article 15, Title 15: Water Supply	☐	Article 19: Air Pollution Control	☐	Article 34: Coastal Erosion Management
☐	Article 15, Title 15: Water Transport	☐	Article 23, Title 27: Mined Land Reclamation	☐	Article 36: Floodplain Management
☐	Article 15, Title 15: Long Island Wells	☐	Article 24: Freshwater Wetlands	☐	Articles 1, 3, 17, 19, 27, 37; 6NYCRR 380: Radiation Control
☐	Article 15, Title 27: Wild, Scenic & Recreational Rivers	☐	Article 25: Tidal Wetlands	☐	Other _____
☐	6NYCRR 608: Water Quality Certification	☐	Article 27, Title 7; 6NYCRR 360: Solid Waste Management		

PERMIT ISSUED TO
Village of Millbrook

TELEPHONE NUMBER
(914) 677-3939

ADDRESS OF PERMITTEE
Merritt Avenue, Millbrook NY 12545

CONTACT PERSON FOR PERMITTED WORK
Mayor Gary Ciferri

TELEPHONE NUMBER

NAME AND ADDRESS OF PROJECT/FACILITY
Village Water Supply - infiltration gallery

LOCATION OF PROJECT/FACILITY
NYS Route 44 near Bangall Road and the Mill Brook

COUNTY	TOWN	WATERCOURSE/WETLAND NO.	NYTM COORDINATES
Dutchess	Washington/V/Millbrook	H-101-21-9 MB-44	E: N: 4

DESCRIPTION OF AUTHORIZED ACTIVITY
Take an additional supply of water for use by the connection of a new infiltration gallery which will increase the capacity of the system by up to 58 gpm to supplement the existing system whose capacity has diminished.

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

DEPUTY PERMIT ADMINISTRATOR	ADDRESS	
Alexander F. Ciesluk, Jr.	21 South Putt Corners Rd., New Paltz NY 12561	☞ afc
AUTHORIZED SIGNATURE: Alexander F. Ciesluk, Jr.	Date 9/8/99	Page 1 of 5

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, agents, and assigns for all claims, suits, actions, damages, and costs of every name and description, arising out of or resulting from the permittee's undertaking of activities or operation and maintenance of the facility or facilities authorized by the permit in compliance or non-compliance with the terms and conditions of the permit.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

GENERAL CONDITIONS

General Condition 1: Facility Inspection by the Department

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

General Condition 2: Relationship of this Permit to Other Department Orders and Determinations

Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

General Condition 3: Applications for Permit Renewals or Modifications

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

The permittee must submit a renewal application at least:

a) 180 days before expiration of permits for State Pollutant Discharge Elimination System (SPDES), Hazardous Waste Management Facilities (HWMF), major Air Pollution Control (APC) and Solid Waste Management Facilities (SWMF); and

b) 30 days before expiration of all other permit types.

Submission of applications for permit renewal or modification are to be submitted to:

NYSDEC Regional Permit Administrator, Region 3

21 South Putt Corners Rd., New Paltz, NY 12561, telephone: (914) 256-3042

General Condition 4: Permit Modifications, Suspensions and Revocations by the Department

The Department reserves the right to modify, suspend or revoke this permit. The grounds for modification, suspension or revocation include:

a) the scope of the permitted activity is exceeded or a violation of any condition of the permit or provisions of the ECL and pertinent regulations is found;

b) the permit was obtained by misrepresentation or failure to disclose relevant facts;

c) new material information is discovered; or

d) environmental conditions, relevant technology, or applicable law or regulation have materially changed since the permit was issued.

ADDITIONAL GENERAL CONDITIONS FOR ARTICLE 15, TITLE 15 (Water Supply)

9. Prior to starting work on any construction authorized herein, detailed plans of the structures proposed to be built and specifications for such work shall have been submitted to and approved by the Department. Thereafter such construction work shall be entirely completed in full accordance with the plans and specifications which have been submitted and approved.
   NOTE: Approval by this Department of final plans and specifications, and of completed works, will not be issued until equivalent approvals have been issued by the NYS Department of Health.
10. Section 15-1529 of the Environmental Conservation Law forbids the operation of any of these works until, as constructed, they have been approved by the Department. Such final approval will be given only on written request. In general, such approval will not be given until all provisions affecting quality of the water and safety of the works have been complied with in full.
11. The Department reserves the right to rescind this permit or to take whatever action it may deem suitable and proper if the works authorized to be constructed herein are not initiated by 09/30/00.

SPECIAL CONDITIONS

1. The taking of water by the village from the infiltration gallery approved under this permit is limited to a maximum of 83,520 gallons per day.

2. The construction of the infiltration gallery system and connecting water line shall be done in accordance with the plans, sheets 1 and 2 prepared by The Chazen Companies and dated March 9, 1998 and June 22, 1999, and last revised August 6, 1999.

3. All the property owned by the permittee that is associated with this water supply shall be protected and controlled in order to prevent pollution of the ground or groundwater.

4. This area shall further be protected from pollution by surface waters originating outside thereof by the construction of suitable diversion ditches or embankments and the development of the water sources shall be so carried out that there shall be no opportunity for pollution entering the water sources.

5. The physical pumping facilities and controls shall be protected against damage or tampering either by a fence or other suitable enclosure or by their manner of construction and installation.

6. Before any water from the infiltration gallery authorized under this permit may be used for any purpose, the applicant shall have caused a sample of the water from this source to be collected and analyzed, shall have submitted the results of such analyses to the New York State Department of Health in Albany and shall have been advised by that Department either that the water is of a satisfactory sanitary quality or that certain specified treatment or purification thereof is necessary. In this last case such water shall be used only after full compliance with all of the requirements of that Department.

7. The Department reserves the right to require the taking of further sanitary precautions or the further treatment or purification of the water from this source should conditions in the future indicate a need for such action.

8. Nothing contained herein shall be held to authorize the permittee to distribute water to any other district or service area which has not already been approved by the Department or its predecessors without having received a further permit from the Department.

9. Provisions shall be made to minimize erosion during the construction of the project and to prevent increased sedimentation in any water body on or adjacent to the project.

DEC PERMIT NUMBER		
3-1358-00032/00002		
PROGRAM/FACILITY NUMBER	9/8/99	
WSA# 9675		PAGE 3 OF 5

SPECIAL CONDITIONS

For Article 15 (Water Supply)

10. Water used for disinfecting mains, if discharged to area streams, must have a chlorine residual not exceeding 0.05 mg/l at point of discharge.

11. The permittee is hereby prohibited from developing any new sources of water, replacement sources of water, or increasing the pumping rate from existing sources above the levels approved in this permit, without first obtaining a Water Supply permit from this Department.

12. The permittee must install a water meter on any new service connection prior to supplying water to that connection. A new service connection means a permanent water service drawing from the permittee's water distribution system, after the issuance date of this permit, and which has had no previous water service from a water purveyor.

13. By no later than five years from the issuance date of this permit, the permittee must have meters installed on all existing and new service connections.

14. At least once every ten years, the permittee must have all its water meters calibrated for accuracy according to AWWA standards.

15. At least once every three years, the permittee must conduct a leak detection program that covers the permittee's entire water distribution system.

16. The permittee must repair each leak within one month of the leak having been detected.

17. The permittee must maintain records of annual metered water production and consumption. The data in these records must be tabulated according to a system that can be used to identify the water demand by consumption category. Consumption category includes residential, commercial, industrial, public/governmental and institutional accounts. The records must be maintained for at least ten years.

18. Prior to water service for a newly constructed building, the permittee must obtain proof that only approved plumbing fixtures, defined in ECL 15-0314, were used. Such proof must be in the form of a building inspector report.

19. A minimum water pressure of 20 pounds per square inch shall be provided to customers at all times. An auxiliary source of power shall be provided to assure continued operation of the water supply during periods of electrical power failure.

SPECIAL CONDITIONS

For Article 15 (Water Supply)

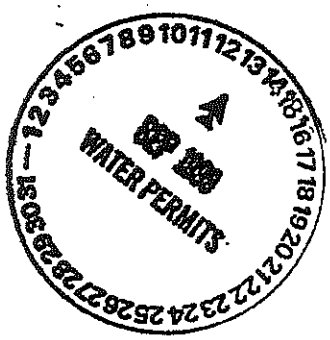
20. An alarm system shall be provided with automatic signaling apparatus which will report when primary source equipment malfunctions

21. The permittee must provide the Department with any records required by this permit within two weeks of a written request for such records by this Department.

STATE ENVIRONMENTAL QUALITY REVIEW

Under the State Environmental Quality Review Act (SEQR), the project associated with this permit is classified as an Unlisted Action and the Department of Environmental Conservation (DEC) has determined that it will not have a significant effect on the environment. Other involved agencies may reach an independent determination of environmental significance for this project.

Distribution:
J. Marcogliese/D. Iyekekpolor
G. Behn (3504)
J. Dunn, NYSDOH
Dutchess Co. Health Dept.
J. Bodendorf, Chazen Companies



DEC PERMIT NUMBER		
3-1358-00032/00002 9/8/99		
FACILITY ID NUMBER	PROGRAM NUMBER	Page 5 of 5
WSA# 9675		

APPENDIX – B

APPENDIX – B

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	0 1 / 2 0 1 1 (M M Y Y Y Y)	0 2 / 0 9 / 2 0 1 1 (M M D D Y Y Y Y)	☐ Surface ☑ Ground ☐ GWUDI ☐ Purchase with subsequent chlorination ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination				Ultraviolet Radiation / Other Treatment					
			Gaseous		Liquid	Free Chlorine Residual (mg/l)	UV Unit Active (Yes/No)	Intensity Meter >70%	Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
			Cylinder Weight	Chlorine Use (Lbs. /Day)	Hypochlorite added to crock (Gallons)							
1		150.0				1.2			3.0	7.8	1.5	
2		295.0				1.1			5.3	7.8	1.8	
3		145.0			10.0	1.1			3.0	7.6	1.8	
4		170.0				1.7			6.8	7.8	1.8	
5		250.0				1.0			5.3	7.3	2.4	
6		150.0			20.0	1.8			2.6	7.9	1.8	
7		305.0				1.9			2.6	7.6	3	
8		115.0				2.0			3.8	7.4	2.4	
9		145.0				2.0			3.0	7.8	1.8	
10		175.0				1.0			3.8	7.4	2.4	
11		240.0				0.9			5.3	7.5	3	
12		145.0				1.0			3.0	7.8	0.6	
13		180.0			15.0	0.5			4.5	7.7	2.1	
14		240.0				1.6			4.1	7.7	1.5	
15		220.0				1.4			5.6	7.4	2.4	
16		235.0				1.0			4.6	7.7	1.8	
17		230.0				0.8			3.8	7.8	1.2	
18		265.0			10.0	0.6			7.1	7.8	3	
19		160.0				2.0			3.9	7.9	1.2	
20		250.0				1.8			3.3	8.0	2.4	
21		190.0			12.0	1.0			7.1	7.7	2.1	
22		165.0				0.9			4.5	7.3	2.1	
23		250.0				1.0			4.6	7.7	3.6	
24		225.0				1.3			4.6	8.0	2.4	
25		215.0				1.4			4.6	7.9	2.1	
26		320.0				0.9			7.5	7.7	3.3	
27		215.0				0.8			3.9	7.6	2.4	
28		230.0				1.9			5.6	7.3	2.4	
29		225.0				0.9			5.6	7.8	2.1	
30		310.0				0.9			5.2	7.9	3.3	
31		195.0			15.0	0.7			3.9	7.8	1.8	
Total		6645.0			82.0				141.5		67.5	
Aver.		214.4				1.2			4.72		2.25	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: _____ Date 2/9/2011 Operator Grade Level: IIA

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
Stewarts	1/19/2011	1	☐Yes ☑No	☐Yes ☑No	0.8
Highway Garage	1/24/2011	1	☐Yes ☑No	☐Yes ☑No	1.3
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 2,100

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.

_____ Did not collect/analyze repeat sample.

_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Doug Bright

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

No

Comments: GWUDI testing ongoing. Shoveled snow from fire hydrants throughout system.

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	0 2 / 2 0 1 1 (M M Y Y Y Y)	0 3 / 0 9 / 2 0 1 1 (M M D D Y Y Y Y)	☐ Surface ☑ Ground ☐ GWUDI ☐ Purchase with subsequent chlorination ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination				Ultraviolet Radiation / Other Treatment					
			Gaseous		Liquid							
			Cylinder Weight	Chlorine Use (Lbs. /Day)	Hypochlorite added to crock (Gallons)	Free Chlorine Residual (mg/l)	UV Unit Active (Yes/No)	Intensity Meter >70%	Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
1		145.0				1.2			3.3	7.6	1.5	
2		320.0				1.1			8.3	7.4	3.3	
3		115.0				1.1			2.3	7.6	1.2	
4		265.0			10.0	1.5			3.8	7.6	3	
5		250.0				1.2			6.5	7.9	3	
6		190.0				1.5			2.3	8.2	1.8	
7		160.0			10.0	1.1			2.6	7.8	1.8	
8		270.0				1.2			7.5	7.1	4.2	
9		270.0				1.7			3.9	8.0	1.8	
10		175.0				1.8			3.3	8.0	1.8	
11		320.0			20.0	1.7			9.8	8.1	3	
12		125.0				1.5			0.3	7.8	1.2	
13		330.0				1.5			4.6	7.9	3.3	
14		125.0				1.4			4.6	6.7	2.1	
15		260.0				1.0			4.6	8.0	1.8	
16		160.0				1.2			2.6	8.0	2.4	
17		220.0				1.0			3.3	7.9	1.8	
18		205.0			15.0	1.0			4.6	7.3	2.4	
19		200.0				1.0			3.4	7.2	2.4	
20		195.0				1.4			4.1	7.7	1.8	
21		175.0				1.1			4.2	7.8	2.4	
22		175.0				0.8			3.9	7.9	1.2	
23		270.0			15.0	0.6			6.8	7.6	3	
24		155.0				1.7			3.8	8.0	1.8	
25		255.0				1.4			5.6	8.0	2.4	
26		195.0				1.1			4.1	7.9	1.8	
27		335.0				1.0			7.1	7.8	3.6	
28		125.0			15.0	0.5			2.3	7.7	1.8	
29												
30												
31												
Total		6005.0			85.0				123.5		63.6	
Aver.		214.5				1.2			4.12		2.12	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: _____ Date 3/9/2011 Operator Grade Level: IIA

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
15 Alden Acres	2/9/2011	1	☐Yes ☑No	☐Yes ☑No	1.0
Library	2/15/2011	1	☐Yes ☑No	☐Yes ☑No	0.9
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 2,100

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.

_____ Did not collect/analyze repeat sample.

_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli posilive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Scott Osborn and Doug Bright

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

No

Comments: GWUDI testing ongoing. Shoveled snow from fire hydrants throughout system. Repaired water break on 2/24.

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	0 3 / 2 0 1 1 (M M Y Y Y Y)	0 4 / 0 7 / 2 0 1 1 (M M D D Y Y Y Y)	☐ Surface ☑ Ground ☐ GWUDI ☐ Purchase with subsequent chlorination ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination				Ultraviolet Radiation / Other Treatment					
			Gaseous		Liquid	Free Chlorine Residual (mg/l)	UV Unit Active (Yes/No)	Intensity Meter >70%	Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
			Cylinder Weight	Chlorine Use (Lbs. /Day)	Hypochlorite added to crock (Gallons)							
1		300.0				1.5			4.1	7.9	2.4	
2		140.0				1.6			3.8	7.3	1.2	
3		130.0				1.5			2.9	8.0	0.9	
4		205.0			12.5	1.5			4.6	8.0	1.2	
5		155.0				1.3			3.3	7.9	1.2	
6		120.0				1.2			1.3	7.9	0.6	
7		390.0				0.7			1.5	7.8	3.6	
8		150.0			12.0	1.0			1.9	8.4	2.1	
9		125.0				1.3			4.1	8.2	2.1	
10		315.0				1.0			6.2	7.2	2.7	
11		165.0				1.1			2.3	8.4	1.8	
12		245.0				1.0			3.9	8.0	2.4	
13		170.0				1.0			2.9	7.9	1.8	
14		150.0			4.0	1.1			3.3	7.8	1.5	
15		270.0			10.0	1.3			4.6	8.2	3	
16		160.0			20.0	1.4			2.9	8.1	1.5	
17		150.0				2.0			2.6	8.0	1.5	
18		285.0				0.6			5.9	6.9	3	
19		110.0				0.9			1.6	7.4	1.2	
20		145.0				0.9			2.3	7.5	1.8	
21		90.0				1.4			2.9	7.7	2.4	
22		325.0				0.5			6.5	7.8	3.6	
23		125.0			20.0	1.4			2.0	8.0	1.8	
24		140.0				1.9			2.6	7.9	2.4	
25		260.0				2.0			4.2	7.9	1.8	
26		155.0				1.7			2.9	7.9	1.8	
27		145.0				1.5			2.6	7.9	1.8	
28		290.0				1.0			4.6	7.2	3	
29		120.0				0.9			1.3	7.6	1.2	
30		255.0			20.0	0.9			4.6	7.9	2.4	
31		100.0				2.0			2.0	7.9	1.2	
Total		5995.0			98.5				102.15		60.9	
Aver.		190.2				1.3			3.41		2.03	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: Date 4/7/2011 Operator Grade Level: IIA

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
Stewarts	3/9/2011	1	☐Yes ☑No	☐Yes ☑No	0.7
WWTP Lab	3/14/2011	1	☐Yes ☑No	☐Yes ☑No	0.5
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 2,100

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

- Actual number of samples is fewer than required.
- Did not collect/analyze repeat sample.
- Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

- For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).
- The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Scott Osborn and Doug Bright

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

No

Comments: GWUDI testing ongoing. Repaired water break on 3/15.

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	0 4 / 2 0 1 1 (M M Y Y Y Y)	0 5 / 0 9 / 2 0 1 1 (M M D D Y Y Y Y)	☐ Surface ☑ Ground ☐ GWUDI ☐ Purchase with subsequent chlorination ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination				Ultraviolet Radiation / Other Treatment					
			Gaseous		Liquid							
			Cylinder Weight	Chlorine Use (Lbs. /Day)	Hypochlorite added to crock (Gallons)	Free Chlorine Residual (mg/l)	UV Unit Active (Yes/No)	Intensity Meter >70%	Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
1		225.0				1.5			3.6	7.7	1.8	
2		135.0				1.3			2.3	7.7	1.8	
3		175.0				1.3			2.0	7.7	1.2	
4		260.0				0.7			2.0	7.2	3	
5		120.0				0.9			3.9	7.5	1.2	
6		150.0			8.0	0.6			3.3	7.5	1.8	
7		255.0				0.7			4.6	7.6	1.8	
8		145.0				1.3			2.6	7.8	1.8	
9		155.0				1.2			2.6	7.7	1.8	
10		285.0				1.2			4.9	7.7	3	
11		130.0			23.0	1.1			2.6	7.5	1.8	
12		200.0				1.5			3.6	7.8	1.8	
13		230.0				1.9			3.6	7.7	3	
14		145.0				1.7			2.3	7.8	1.2	
15		195.0				1.4			2.9	7.8	2.4	
16		245.0				1.3			5.2	7.7	2.4	
17		125.0				1.2			3.4	7.7	1.2	
18		225.0			14.0	0.8			0.8	7.4	3	
19		140.0				1.6			1.1	7.7	1.2	
20		200.0				1.5			6.3	7.4	2.4	
21		215.0				1.8			4.2	7.6	1.8	
22		220.0			14.0	1.6			3.8	7.8	3.6	
23		200.0				1.4			3.4	7.7	2.4	
24		120.0				1.4			1.9	7.8	1.2	
25		240.0				1.1			3.8	7.9	2.7	
26		145.0				1.5			3.0	7.5	1.2	
27		210.0				1.4			4.1	7.7	2.4	
28		205.0			15.0	1.5			3.4	7.6	2.4	
29		275.0				2.0			4.9	7.9	2.4	
30		180.0				1.6			1.9	7.8	1.8	
31												
Total		5760.0			74.0				97.49		61.5	
Aver.		192.0				1.3			3.25		2.05	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: _____ Date 5/9/2011 Operator Grade Level: IIA

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
Library	4/5/2011	1	☐Yes ☑No	☐Yes ☑No	0.7
Highway garage	4/12/2011	1	☐Yes ☑No	☐Yes ☑No	0.5
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 2,100

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.

_____ Did not collect/analyze repeat sample.

_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur? ☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Mike Ryan and Doug Bright

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

No

Comments: GWUDI testing ongoing.

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	0 5 / 2 0 1 1 (M M Y Y Y Y)	0 6 / 0 9 / 2 0 1 1 (M M D D Y Y Y Y)	☐ Surface ☑ Ground ☐ SWUDI; ☐ Purchase with subsequent chlorination; ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination: Gaseous: Cylinder Weight	Chlorination: Gaseous: Chlorine Use (Lbs. /Day)	Chlorination: Liquid: Hypochlorite added to crock (Gallons)	Free Chlorine Residual (mg/l)	Ultraviolet Radiation / Other Treatment: UV Unit Active (Yes/No)	Intensity Meter >70%	Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
1		155.0				1.5			1.5	7.7	1.8	
2		170.0				0.9			3.8	7.3	1.8	
3		245.0			10.0	0.8			4.1	7.5	1.8	
4		160.0				1.0			0.8	7.5	1.8	
5		295.0				0.6			3.8	7.3	3.6	
6		215.0				0.7			4.5	7.0	2.4	
7		75.0				1.0			0.4	7.0	1.2	
8		225.0				0.9			4.9	7.2	3.6	
9		225.0			20.0	1.0			2.6	7.2	1.2	
10		230.0				2.0			3.8	7.5	3	
11		270.0				2.0			5.3	7.3	2.4	
12		170.0				2.0			2.3	7.8	1.8	
13		315.0				1.0			4.6	7.6	3	
14		125.0				1.0			2.6	7.5	1.8	
15		235.0				1.0			3.4	7.8	2.4	
16		220.0			8.0	0.7			3.8	7.2	2.4	
17		135.0				0.9			2.3	7.1	0.6	
18		295.0				0.8			5.6	7.5	1.8	
19		160.0				1.0			2.6	7.3	3.6	
20		320.0			20.0	0.6			0.8	7.2	2.4	
21		130.0				1.0			1.9	7.5	1.2	
22		275.0				1.0			4.1	7.7	3	
23		130.0			16.0	1.4			2.6	7.2	1.8	
24		240.0				1.5			4.9	7.5	3	
25		205.0				1.8			3.0	7.3	1.8	
26		175.0				1.0			5.3	7.3	3.6	
27		445.0			10.0	2.0			8.3	7.8	4.8	
28		130.0				1.5			2.3	7.6	1.2	
29		215.0				1.3			3.8	7.7	3	
30		285.0				0.9			6.8	7.0	2.4	
31		250.0				0.6			5.3	7.1	0.3	
Total		6690.0			86.0				111.1		70.5	
Aver.		215.8				1.1			3.70		2.35	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: Date 6/9/2011 Operator Grade Level: IIA

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
WWTP Bfhrm	5/9/2011	1	☐Yes ☑No	☐Yes ☑No	0.3
Stewart's	5/24/2011	1	☐Yes ☑No	☐Yes ☑No	0.9
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.

_____ Did not collect/analyze repeat sample.

_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Scott Osborn and Doug Bright

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

No

Comments: Finished GWUDI testing on 5/9/11. Installed 2 new gate valves on Front St. Flushed hydrants in system.

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	0 6 / 2 0 1 1 (M M Y Y Y Y)	0 7 / 0 7 / 2 0 1 1 (M M D D Y Y Y Y)	☐ Surface ☑ Ground ☐ GWUDI ☐ Purchase with subsequent chlorination ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination				Ultraviolet Radiation / Other Treatment					
			Gaseous		Liquid							
			Cylinder Weight	Chlorine Use (Lbs. /Day)	Hypochlorite added to crock (Gallons)	Free Chlorine Residual (mg/l)	UV Unit Active (Yes/No)	Intensity Meter >70%	Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
1		230.0			10.0	0.7			0.8	7.4	3	
2		315.0				1.0			3.8	7.2	4.2	
3		150.0				1.0			3.3	6.8	1.8	
4		320.0				1.0			5.9	7.4	4.2	
5		150.0				1.0			1.3	7.6	1.8	
6		325.0			4.0	0.9			4.5	7.2	4.8	
7		190.0				1.1			3.9	7.0	1.8	
8		285.0				0.6			6.0	7.2	3.6	
9		10.0			15.0	1.4			6.0	7.3	3.6	
10		355.0				2.5			3.6	8.0	1.2	
11		235.0				2.0			2.3	7.8	1.8	
12		170.0				0.5			2.6	7.6	1.2	
13		230.0				0.3			3.9	7.0	3.6	
14		220.0			10.0	0.3			2.6	6.9	4.8	
15		185.0				0.2			3.8	6.8	1.8	
16		260.0				1.0			4.5	7.2	2.4	
17		215.0				1.0			2.3	7.2	2.4	
18		235.0				1.1			2.3	7.4	2.4	
19		285.0				1.2			2.6	7.4	3	
20		180.0			10.0	1.0			4.5	6.5	1.2	
21		310.0				1.4			4.6	7.0	4.2	
22		135.0			9.0	1.0			0.8	7.6	2.4	
23		200.0			5.0	1.4			5.3	7.0	2.4	
24		230.0				1.3			4.9	7.2	2.4	
25		245.0				1.6			4.2	7.5	2.4	
26		200.0				1.4			2.9	7.7	2.4	
27		155.0			15.0	1.2			2.0	7.2	1.2	
28		305.0				1.0			6.4	7.0	4.2	
29		150.0				1.1			3.4	7.0	1.2	
30		290.0				1.0			4.5	7.0	1.8	
31												
Total		6765.0			78.0				109		79.2	
Aver.		225.5				1.1			3.63		2.64	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: _____ Date 7/7/2011 Operator Grade Level: IIA

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
Highway Garage	6/7/2011	1	☐Yes ☑No	☐Yes ☑No	0.3
Stewart's	6/21/2011	1	☐Yes ☑No	☐Yes ☑No	0.6
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.

_____ Did not collect/analyze repeat sample.

_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Scott Osborn and Doug Bright

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

No

Comments: Installed new chlorine pump.

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	0 7 / 2 0 1 1 (M M Y Y Y Y)	0 8 / 0 8 / 2 0 1 1 (M M D D Y Y Y Y)	☐ Surface ☑ Ground ☐ SWUDI ☐ Purchase with subsequent chlorination ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination				Ultraviolet Radiation / Other Treatment					
			Gaseous		Liquid							
			Cylinder Weight	Chlorine Use (Lbs. /Day)	Hypochlorite added to crock (Gallons)	Free Chlorine Residual (mg/l)	UV Unit Active (Yes/No)	Intensity Meter >70%	Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
1		330.0			10.0	1.3			7.5	6.9	3.6	
2		120.0				1.4			2.3	7.2	1.2	
3		150.0				1.4			4.5	7.4	3	
4		285.0				1.5			9.0	7.0	7.2	
5		155.0			10.0	1.0			2.3	7.1	1.2	
6		300.0				1.6			5.3	7.0	3	
7		170.0				1.3			4.8	6.5	0.8	
8		325.0			10.0	1.0			8.1	6.9	3.6	
9		295.0				1.2			2.3	7.2	2.5	
10		130.0			14.0	1.0			3.9	7.0	1.2	
11		300.0				0.8			5.2	7.3	3.6	
12		165.0				1.0			2.9	7.5	1.8	
13		215.0				1.3			7.2	6.7	2.4	
14		255.0				1.2			7.2	7.4	3	
15		295.0			10.0	0.9			9.8	7.5	2.4	
16		275.0				1.2			6.0	7.3	0	
17		220.0				1.4			6.8	7.4	0	
18		320.0				1.2			7.5	7.3	2.4	
19		195.0				1.2			3.0	7.4	1.8	
20		320.0			18.0	1.5			9.4	6.7	1.2	
21		200.0				1.6			4.6	7.1	1.8	
22		240.0				1.2			1.9	7.2	4.8	
23		400.0			5.0	1.5			12.0	6.9	4.2	
24		150.0				1.2			3.0	7.3	0.9	
25		290.0			15.0	1.0			5.9	7.3	0.9	
26		155.0				2.0			3.8	6.7	1.8	
27		320.0				1.2			6.8	7.4	3	
28		145.0				1.0			3.8	7.3	1.2	
29		310.0			10.0	1.0			8.3	7.5	3.6	
30		205.0				0.8			5.3	7.7	1.2	
31		265.0				1.0			7.8	7.2	2.4	
Total		7510.0			102.0				178.2		71.7	
Aver.		242.3				1.2			5.94		2.39	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: _____ Date 8/8/2011 Operator Grade Level: IIA

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
Millbrook Golf & Tennis Clubhouse	7/1/2011	1	☐Yes ☑No	☐Yes ☑No	0.1
Highway Garage	7/12/2011	1	☐Yes ☑No	☐Yes ☑No	1.0
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.

_____ Did not collect/analyze repeat sample.

_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Mike Ryan and Doug Bright

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

No

Comments: Generator serviced.

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	0 8 / 2 0 1 1 (M M Y Y Y Y)	0 9 / 0 8 / 2 0 1 1 (M M D D Y Y Y Y)	☐ Surface ☑ Ground ☐ GWUDI; ☐ Purchase with subsequent chlorination; ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination: Gaseous: Cylinder Weight	Chlorination: Gaseous: Chlorine Use (Lbs. /Day)	Chlorination: Liquid: Hypochlorite added to crock (Gallons)	Chlorination: Free Chlorine Residual (mg/l)	Ultraviolet Radiation / Other Treatment: UV Unit Active (Yes/No)	Intensity Meter >70%	Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
1		175.0				0.7			3.6	7.7	1.2	
2		305.0				0.5			3.4	6.8	3.6	
3		160.0				0.6			4.6	6.8	1.2	
4		300.0			10.0	0.5			7.5	7.0	3	
5		275.0				1.5			2.0	7.7	2.4	
6		265.0				0.9			8.1	6.7	3	
7		195.0			10.0	1.4			5.5	7.6	2.4	
8		190.0				1.6			1.3	7.8	1.2	
9		160.0				1.0			4.9	7.2	1.8	
10		285.0			10.0	0.5			7.1	7.1	3	
11		280.0				1.0			1.5	7.8	2.4	
12		265.0				1.0			7.5	7.1	1.2	
13		200.0				1.0			5.5	6.8	1.8	
14		210.0				1.0			6.4	7.2	2.4	
15		225.0			20.0	0.3			5.2	7.7	2.4	
16		215.0				1.2			2.6	7.8	1.8	
17		160.0				1.2			6.8	7.0	1.8	
18		150.0				0.8			3.4	7.7	1.2	
19		365.0			10.0	0.9			4.5	7.7	3	
20		155.0				0.9			3.3	7.7	1.2	
21		220.0				0.9			10.4	7.7	5.4	
22		150.0				0.7			4.9	7.2	1.2	
23		300.0				0.5			7.5	7.2	3	
24		160.0			10.0	0.7			2.6	7.5	1.8	
25		280.0				0.7			9.1	7.5	2.4	
26		200.0			10.0	0.9			5.2	7.7	1.2	
27		0.0				1.0				7.6		
28		295.0							9.1		3	
29		340.0				0.5			5.9	7.0	3.6	
30		155.0				0.8			4.9	7.1	1.2	
31		288.0			10.0	0.5			4.9	7.2	3	
Total		6923.0			90.0				158.91		67.8	
Aver.		223.3				0.9			5.30		2.26	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: _____ Date 9/8/2011 Operator Grade Level: IIA

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
2 Front St.	8/2/2011	1	☐Yes ☑No	☐Yes ☑No	0.4
52 County House Rd	8/17/2011	1	☐Yes ☑No	☐Yes ☑No	0.4
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.

_____ Did not collect/analyze repeat sample.

_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Doug and Mike Paolucci

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

No

Comments: Could not access plant on 8/28 due to flooding from the Hurricane.

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	0 9 / 2 0 1 1 (M M Y Y Y Y)	1 0 / 0 7 / 2 0 1 1 (M M D D Y Y Y Y)	☐ Surface ☑ Ground ☐ GWUDI; ☐ Purchase with subsequent chlorination; ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination: Gaseous: Cylinder Weight	Chlorination: Gaseous: Chlorine Use (Lbs. /Day)	Chlorination: Liquid: Hypochlorite added to crock (Gallons)	Chlorination: Free Chlorine Residual (mg/l)	Ultraviolet Radiation / Other Treatment: UV Unit Active (Yes/No)	Intensity Meter >70%	Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
1		215.0				1.0			3.3	6.7	1.2	
2		250.0				1.1			2.0	6.9	2.4	
3		330.0				1.0			0.0	6.5	3	
4		130.0				0.9			0.0	6.5	2.8	
5		200.0			15.0	0.7			0.0	6.6	1.2	
6		240.0				0.8			0.0	6.5	3	
7		235.0			10.0	0.7			0.0	6.5	1.8	
8		210.0				0.9			0.0	6.7	0	
9		210.0			10.0	1.2			0.0	6.6	0	
10		240.0				1.3			0.0	6.6	0	
11		240.0				1.2			0.0	6.5	0	
12		220.0				1.7			5.3	7.5	1.8	
13		220.0			15.0	1.5			4.9	7.3	1.8	
14		240.0				1.7			4.9	6.8	1.8	
15		195.0				1.4			6.2	7.3	1.8	
16		265.0				1.6			5.5	6.8	2.4	
17		290.0				1.4			2.6	7.3	2.4	
18		180.0				1.2			4.5	7.4	2.4	
19		240.0			20.0	1.2			6.0	7.1	2.4	
20		215.0				2.0			3.8	7.5	2.4	
21		205.0				2.0			6.2	7.5	1.2	
22		240.0				1.5			5.5	6.7	2.4	
23		215.0			15.0	1.0			3.3	7.3	2.4	
24		230.0				1.8			6.8	7.6	1.2	
25		165.0				1.6			4.5	6.7	2.4	
26		300.0				1.1			3.8	7.4	1.8	
27		280.0				1.0			0.0	6.9	4.2	
28		255.0			15.0	1.4			6.6	6.7	2.4	
29		295.0				1.8			8.3	6.7	2.4	
30		240.0			20.0	1.6			6.2	7.4	1.8	
31												
Total		6990.0			120.0				100.4		56.8	
Aver.		233.0				1.3			3.35		1.89	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: _____ Date 10/26/2011 Operator Grade Level: IIA

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
17 Russell Knolls	9/7/2011	1	☐Yes ☑No	☐Yes ☑No	0.4
15 Alden Acres	9/14/2011	1	☐Yes ☑No	☐Yes ☑No	0.7
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.

_____ Did not collect/analyze repeat sample.

_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Mike Paolucci and Scott Osborn

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

No

Comments:

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	10 / 2011 (MM / YYYY)	11 / 07 / 2011 (MM / DD / YYYY)	☐ Surface ☑ Ground ☐ GWUDI ☐ Purchase with subsequent chlorination ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination				Ultraviolet Radiation / Other Treatment					
			Gaseous		Liquid	Free Chlorine Residual (mg/l)	UV Unit Active (Yes/No)	Intensity Meter >70%	Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
			Cylinder Weight	Chlorine Use (Lbs. /Day)	Hypochlorite added to crock (Gallons)							
1		255.0				1.4			6.4	7.2	2.4	
2		265.0				1.5			3.3	7.2	3	
3		330.0				1.4			9.0	6.5	3	
4		220.0			20.0	1.8			6.0	7.0	2.4	
5		365.0				1.8			9.8	6.9	3	
6		170.0			20.0	1.2			3.3	7.4	2.4	
7		200.0				1.2			1.6	7.4	0.6	
8		255.0				1.2			6.5	7.3	2.4	
9		190.0				1.2			5.2	7.5	3	
10		265.0			20.0	1.7			3.3	7.0	1.2	
11		155.0				2.0			4.6	6.5	1.8	
12		275.0				1.8			6.5	7.4	2.4	
13		155.0				1.8			3.3	7.3	1.2	
14		315.0			10.0	1.7			8.8	7.2	2.4	
15		125.0				1.6			2.6	7.4	1.8	
16		170.0				1.6			3.6	7.5	1.8	
17		270.0				1.2			6.5	6.7	2.4	
18		155.0			15.0	1.8			4.6	7.4	1.8	
19		460.0				2.2			3.9	7.3	4.2	
20		140.0				1.8			4.2	6.6	1.2	
21		210.0			15.0	1.7			5.5	7.1	1.8	
22		240.0				1.8			5.6	7.3	2.4	
23		170.0				1.2			4.6	6.5	1.2	
24		245.0				1.3			6.2	6.6	2.4	
25		230.0				1.6			2.9	7.3	2.4	
26		150.0			20.0	1.8			5.2	6.9	1.8	
27		210.0				2.0			4.6	7.2	1.2	
28		220.0				1.6			4.9	7.2	2.4	
29		55.0				1.4			3.9	7.2	0.9	
30		270.0				1.2			6.2	7.2	2.7	
31		260.0			10.0	0.6			4.9	6.8	3	
Total		6985.0			130.0				157.5		66.6	
Aver.		225.3				1.6			5.25		2.22	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: _____ Date 11/7/2011 Operator Grade Level: IIA

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
39 North Ave	10/11/2011	1	☐Yes ☑No	☐Yes ☑No	0.4
3272 Franklin Ave	10/18/2011	1	☐Yes ☑No	☐Yes ☑No	1.1
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

- Actual number of samples is fewer than required.
- Did not collect/analyze repeat sample.
- Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

- For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).
- The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Mike Paolucci and Doug Bright

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

No

Comments: Power outage during heavy snowstorm. Generator ran plant for 2 days with no problems.

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	11 / 2011 (MM / YYYY)	12 / 09 / 2011 (MM / DD / YYYY)	☐ Surface ☑ Ground ☐ GWUDI ☐ Purchase with subsequent chlorination ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination				Ultraviolet Radiation / Other Treatment					
			Gaseous		Liquid	Free Chlorine Residual (mg/l)	UV Unit Active (Yes/No)	Intensity Meter >70%	Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
			Cylinder Weight	Chlorine Use (Lbs. /Day)	Hypochlorite added to crock (Gallons)							
1		195.0				2.0			5.2	6.7	1	
2		155.0				1.7			5.5	7.2	1.5	
3		260.0			10.0	1.8			9.5	7.5	2	
4		180.0				2.0			6.8	6.9	1	
5		150.0				1.8			3.5	7.2	1	
6		270.0				1.6			7.5	7.4	2.5	
7		175.0			15.0	1.6			5.3	6.9	1.5	
8		145.0				1.8			5.5	7.2	1.5	
9		290.0				1.5			7.5	7.0	1.5	
10		150.0				1.7			4.5	6.9	1.8	
11		295.0			15.0	1.7			0.5	7.5	2	
12		160.0				1.6			13.5	7.5	1.5	
13		185.0				1.6			6.8	7.4	1.5	
14		255.0				1.3			7.0	7.3	2.5	
15		150.0				1.5			3.0	7.5	1	
16		265.0				1.5			7.5	6.8	2	
17		170.0			20.0	1.3			6.0	7.5	1	
18		200.0				1.6			3.5	7.7	1.5	
19		190.0				1.4			5.2	7.6	1.5	
20		265.0				1.4			10.0	7.7	2	
21		175.0				1.0			4.0	7.2	1.25	
22		150.0			15.0	0.9			4.9	6.6	1.25	
23		260.0				0.8			11.5	7.0	2.5	
24		145.0				1.3			4.0	7.5	2	
25		195.0				1.2			6.5	6.6	1.8	
26		240.0				1.2			10.0	7.2	1.5	
27		205.0				1.0			3.0	7.6	2.5	
28		255.0				1.1			7.5	6.5	2.5	
29		35.0			15.0	1.3			11.5	7.8	2.5	
30		205.0				2.0			0.0	8.5	0	
31												
Total		5970.0			90.0				186.53		49.6	
Aver.		199.0				1.5			6.22		1.65	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: _____ Date 12/9/2011 Operator Grade Level: IIA

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
3424 Franklin Ave	11/3/2011	1	☐Yes ☑No	☐Yes ☑No	1.7
10 Reservoir Dr	11/9/2011	1	☐Yes ☑No	☐Yes ☑No	0.8
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.
_____ Did not collect/analyze repeat sample.
_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Mike Paolucci

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

No

Comments:

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	12 / 2011 (MM / YYYY)	01 / 09 / 2012 (MM / DD / YYYY)	☐ Surface ☑ Ground ☐ GWUDI ☐ Purchase with subsequent chlorination ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination				Ultraviolet Radiation / Other Treatment					
			Gaseous		Liquid	Free Chlorine Residual (mg/l)	UV Unit Active (Yes/No)	Intensity Meter >70%	Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
			Cylinder Weight	Chlorine Use (Lbs. /Day)	Hypochlorite added to crock (Gallons)							
1		320.0				0.4			15.0	6.7	4.8	
2		295.0			10.0	1.6			9.1	6.7	2.4	
3		10.0				1.4			0.5	7.2	0.2	
4		260.0				1.4			5.5	7.2	2.7	
5		215.0				1.1			7.1	6.6	1.8	
6		230.0				1.2			7.9	7.0	2.4	
7		130.0				1.2			4.5	7.6	1.2	
8		140.0			10.0	1.0			3.8	7.6	2.4	
9		260.0				0.8			6.4	7.6	2.4	
10		230.0				0.9			6.2	7.6	1.8	
11		215.0				0.9			7.5	7.6	3	
12		240.0				1.2			7.8	7.1	2.4	
13		50.0				1.2			1.3	7.6	0.6	
14		220.0				1.0			5.9	7.1	1.8	
15		250.0			15.0	0.9			8.5	7.0	2.1	
16		220.0				1.0			6.8	7.7	2.1	
17		220.0				1.3			8.3	7.4	2.4	
18		135.0				1.0			4.6	7.8	0.6	
19		140.0				1.2			3.3	7.7	1.8	
20		265.0				0.9			8.6	7.0	2.4	
21		230.0				1.0			6.4	7.7	1.8	
22		220.0			15.0	1.2			8.3	7.5	2.4	
23		225.0				1.5			6.0	7.9	2.4	
24		240.0				1.4			8.3	7.7	1.2	
25		55.0				1.0			2.3	7.9	0.6	
26		215.0				1.1			3.8	7.9	2.1	
27		190.0				0.9			14.3	7.0	3.8	
28		275.0				2.0			0.7	8.5	1.2	
29		185.0				0.3			2.1	6.5	1.2	
30		195.0				0.8			2.6	7.8	1.2	
31		250.0				0.7			2.6	7.6	2.4	
Total		6325.0			50.0				185.95		61.6	
Aver.		204.0				1.1			6.20		2.05	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: _____ Date 1/9/2012 Operator Grade Level: IIA, C, D

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
3374 Franklin Ave	12/6/2011	1	☐Yes ☑No	☐Yes ☑No	1.2
3265 Franklin	12/13/2011	1	☐Yes ☑No	☐Yes ☑No	0.4
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.

_____ Did not collect/analyze repeat sample.

_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and for repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Mike Paolucci

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

No

Comments:

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	0 1 / 2 0 1 2 (M M Y Y Y Y)	0 2 / 0 6 / 2 0 1 2 (M M D D Y Y Y Y)	☐ Surface ☑ Ground ☐ GWUDI ☐ Purchase with subsequent chlorination ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination				Ultraviolet Radiation / Other Treatment					
			Gaseous		Liquid							
			Cylinder Weight	Chlorine Use (Lbs. /Day)	Hypochlorite added to crock (Gallons)	Free Chlorine Residual (mg/l)	UV Unit Active (Yes/No)	Intensity Meter >70%	Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
1		170.0			10.0	0.8			9.1	6.8	1.2	
2		230.0				1.0			6.2	7.6	2.4	
3		165.0				1.0			2.6	7.8	1.2	
4		190.0				1.2			5.3	6.5	1.8	
5		240.0			15.0	0.8			6.8	7.2	2.4	
6		160.0				1.2			1.5	8.0	0.6	
7		260.0				1.0			1.5	7.8	2.4	
8		150.0				1.2			1.5	7.6	2.4	
9		265.0				1.2			8.3	7.7	1.2	
10		280.0				1.1			9.8	7.4	2.7	
11		100.0				1.0			1.5	7.9	0.9	
12		220.0				0.9			1.9	7.7	2.4	
13		170.0			15.0	0.7			3.8	6.5	2.4	
14		275.0				0.6			11.3	6.5	2.4	
15		150.0				0.9			5.2	6.9	0.6	
16		260.0				0.5			7.2	7.0	2.7	
17		220.0				1.1			2.6	7.9	2.7	
18		190.0				1.1			5.9	6.5	1.2	
19		210.0				1.0			6.2	7.7	2.4	
20		150.0			15.0	1.1			3.4	7.0	1.2	
21		275.0				0.9			6.8	7.2	3	
22		190.0				1.1			4.2	7.0	1.2	
23		270.0				1.0			8.1	7.5	3.6	
24		135.0				1.2			4.2	8.0	1.2	
25		295.0				0.9			2.6	7.9	3	
26		150.0				1.2			5.2	6.6	1.8	
27		205.0			15.0	0.8			3.0	7.1	2.4	
28		230.0				1.0			4.5	7.1	2.4	
29		225.0				1.0			3.3	6.8	2.1	
30		225.0				1.1			6.1	6.8	2.1	
31		150.0				1.2			3.3	7.7	1.2	
Total		6425.0			70.0				152.51		61.2	
Aver.		207.3				1.0			5.08		2.04	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: _____ Date 2/6/2012 Operator Grade Level: IIA, C, D

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
34 Russell Knolls	1/4/2012	1	☐Yes ☑No	☐Yes ☑No	0.7
3292 Franklin	1/12/2012	1	☐Yes ☑No	☐Yes ☑No	1.0
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

- Actual number of samples is fewer than required.
- Did not collect/analyze repeat sample.
- Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur? ☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

- For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).
- The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Mike Paolucci & Doug Bright

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

No

Comments: Installed walkway over stream to access bunkers.

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	0 2 / 2 0 1 2 (M M Y Y Y Y)	0 3 / 0 8 / 2 0 1 2 (M M D D Y Y Y Y)	☐ Surface ☑ Ground ☐ GWUDI ☐ Purchase with subsequent chlorination ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination				Ultraviolet Radiation / Other Treatment					
			Gaseous		Liquid							
			Cylinder Weight	Chlorine Use (Lbs. /Day)	Hypochlorite added to crock (Gallons)	Free Chlorine Residual (mg/l)			Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
1		305.0				0.9			4.9	7.7	3	
2		140.0				1.0			4.1	7.2	1.8	
3		215.0				0.8			4.5	7.8	1.2	
4		225.0				0.6			3.8	7.1	2.4	
5		225.0				0.5			2.3	7.0	2.7	
6		215.0			15.0	0.6			5.9	6.7	1.5	
7		245.0				0.7			4.9	7.4	1.8	
8		175.0				1.0			3.6	8.0	1.5	
9		200.0			15.0	1.1			5.2	7.0	2.7	
10		205.0				0.9			3.3	7.6	0.9	
11		175.0				1.2			5.3	7.8	2.4	
12		210.0				1.0			2.0	7.3	1.5	
13		220.0				1.3			8.1	7.0	3	
14		245.0				1.2			4.9	7.7	1.8	
15		180.0				1.5			6.5	7.9	1.5	
16		205.0				1.3			8.0	7.9	1.75	
17		250.0			8.0	0.8			6.1	7.3	2.4	
18		140.0				1.0			1.1	7.2	1.2	
19		275.0				0.4			2.6	7.3	2.1	
20		205.0				0.7			6.0	6.5	1.8	
21		130.0				0.8			3.0	7.2	9	
22		245.0				0.2			6.0	7.0	1.5	
23		190.0				0.5			1.5	7.7	1.8	
24		230.0			10.0	0.5			3.8	7.0	2.4	
25		150.0				0.7			5.3	6.5	2.4	
26		310.0				0.5			7.5	7.5	3	
27		140.0				0.7			2.0	6.6	3.6	
28		300.0				0.8			8.1	7.0	0.6	
29		120.0				0.7			2.9	7.5	0.6	
30												
31												
Total		6070.0			48.0				133.05		63.85	
Aver.		209.3				0.8			4.44		2.13	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: Date 3/8/2012 Operator Grade Level: IIA

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
39 North Ave	2/1/2012	1	☐Yes ☑No	☐Yes ☑No	0.4
Library	2/8/2012	1	☐Yes ☑No	☐Yes ☑No	0.2
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.

_____ Did not collect/analyze repeat sample.

_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Doug Bright

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

No

Comments:

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	0 3 / 2 0 1 2 (M M Y Y Y Y)	0 4 / 1 0 / 2 0 1 2 (M M D D Y Y Y Y)	☐ Surface ☑ Ground ☐ GWUDI ☐ Purchase with subsequent chlorination ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination				Ultraviolet Radiation / Other Treatment					
			Gaseous		Liquid							
			Cylinder Weight	Chlorine Use (Lbs. /Day)	Hypochlorite added to crock (Gallons)	Free Chlorine Residual (mg/l)			Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
1		200.0				0.6			5.2	7.8	1.5	
2		230.0				0.6			3.7	7.7	1.8	
3		150.0				0.5			2.3	7.8	1.2	
4		310.0				0.5			3.9	7.1	2.4	
5		135.0			19.0	0.7			3.8	6.9	1.2	
6		230.0				0.8			5.6	7.8	1.8	
7		200.0				1.2			3.8	8.2	1.8	
8		205.0				0.9			5.3	7.9	2.4	
9		220.0				1.0			4.5	7.8	1.2	
10		145.0				0.9			2.2	7.9	1.2	
11		255.0				0.6			4.9	7.9	3	
12		190.0				0.8			3.9	7.7	2.4	
13		210.0				0.7			4.5	7.9	1.5	
14		240.0				0.9			3.8	7.9	2.1	
15		300.0				0.8			3.0	8.0	2.4	
16		115.0			5.0	0.7			3.0	7.0	1.2	
17		160.0				0.6			2.2	7.2	1.2	
18		370.0				0.6			8.3	7.2	3.6	
19		130.0				1.0			3.0	7.9	1.2	
20		180.0				0.8			7.5	8.0	2.4	
21		280.0			10.0	0.9			0.0	7.9	1.2	
22		305.0				0.7			4.5	8.0	2.4	
23		130.0				0.7			3.0	7.4	1.2	
24		150.0				0.8			3.0	7.4	1.2	
25		320.0				0.6			7.5	7.7	3	
26		140.0				0.7			1.5	7.9	1.2	
27		270.0				0.7			6.2	7.3	1.8	
28		170.0				0.7			3.6	7.8	1.8	
29		190.0			22.0	0.5			3.3	7.9	2.4	
30		245.0				1.2			1.5	7.8	1.2	
31		190.0				1.0			4.5	6.8	2.4	
Total		6565.0			56.0				123		57.3	
Aver.		211.8				0.8			4.10		1.91	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: Date 4/10/2012 Operator Grade Level: IIA

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
Stewart's	3/6/2012	1	☐Yes ☑No	☐Yes ☑No	0.2
63 Old Rt 82	3/7/2012	1	☐Yes ☑No	☐Yes ☑No	0.7
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.

_____ Did not collect/analyze repeat sample.

_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Doug Bright & Mike Paolucci

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

No

Comments:

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	0 4 / 2 0 1 2 (M M Y Y Y Y)	0 5 / 0 8 / 2 0 1 2 (M M D D Y Y Y Y)	☐ Surface ☑ Ground ☐ GWUDI ☐ Purchase with subsequent chlorination ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) in Use	Treated Water Volume (1,000 gallons/day)	Chlorination				Ultraviolet Radiation / Other Treatment					
			Gaseous		Liquid							
			Cylinder Weight	Chlorine Use (Lbs. /Day)	Hypochlorite added to crock (Gallons)	Free Chlorine Residual (mg/l)			Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
1		260.0				0.5			7.5	7.7	3	
2		150.0				6.0			3.0	7.7	1.2	
3		245.0				0.8			2.0	7.5	1.8	
4		190.0				0.9			4.6	7.8	1.8	
5		160.0				0.8			3.3	7.8	1.2	
6		165.0			10.0	0.7			3.8	7.6	2.4	
7		280.0				0.5			4.5	7.2	3.6	
8		320.0				0.6			8.8	7.3	2.4	
9		255.0				0.7			2.3	7.6	2.4	
10		205.0				0.8			6.2	7.2	1.8	
11		195.0				0.7			2.6	7.7	2.4	
12		240.0				0.7			3.3	8.0	1.2	
13		185.0				0.8			1.5	7.8	2.4	
14		305.0				0.7			1.8	7.2	2.4	
15		265.0				0.8			7.5	7.3	3	
16		230.0			15.0	0.9			4.2	7.8	1.8	
17		130.0				1.1			2.3	7.5	0.6	
18		255.0				0.9			2.3	7.9	2.1	
19		175.0				1.0			5.5	7.2	1.5	
20		155.0				0.9			2.3	7.9	3.6	
21		300.0				0.5			3.8	7.6	1.2	
22		125.0				0.6			2.6	7.5	0.6	
23		230.0				0.5			1.6	7.4	2.1	
24		170.0				0.9			3.0	7.3	1.2	
25		145.0				0.7			4.2	7.1	1.5	
26		300.0				0.6			6.4	7.8	3	
27		110.0			15.0	0.7			3.0	7.6	1.2	
28		145.0				0.8			5.6	7.5	1.2	
29		320.0				0.7			6.5	7.6	3	
30		115.0				0.6			2.0	7.9	1.2	
31												
Total		6335.0			40.0				117.95		58.8	
Aver.		211.2				0.9			3.93		1.96	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: Date 5/8/2012 Operator Grade Level: IIA, C, D

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
42 North Ave	4/11/2012	1	☐Yes ☑No	☐Yes ☑No	0.8
32 Front St	4/17/2012	1	☐Yes ☑No	☐Yes ☑No	0.7
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.

_____ Did not collect/analyze repeat sample.

_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur? ☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Mike Paolucci

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

Water leak repaired on 4/13/12.

Comments:

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	0 5 / 2 0 1 2 (M M Y Y Y Y)	0 6 / 0 6 / 2 0 1 2 (M M D D Y Y Y Y)	☐ Surface ☑ Ground ☐ GWUDI; ☐ Purchase with subsequent chlorination; ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination: Gaseous – Cylinder Weight	Chlorination: Gaseous – Chlorine Use (Lbs. /Day)	Chlorination: Liquid – Hypochlorite added to crock (Gallons)	Free Chlorine Residual (mg/l)	Ultraviolet Radiation / Other Treatment		Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
1		180.0				0.9			3.8	7.7	1.8	
2		265.0				0.6			5.2	7.4	2.4	
3		115.0				0.8			2.0	7.7	0.6	
4		160.0				0.7			3.0	7.7	1.2	
5		270.0				0.5			3.8	7.4	2.4	
6		145.0				0.6			2.0	7.3	1.2	
7		260.0				0.8			5.2	7.0	2.4	
8		150.0				0.7			2.3	7.8	1.2	
9		150.0				0.7			3.0	7.7	0.6	
10		290.0				1.4			3.8	7.5	2.4	
11		130.0			22.0	1.5			3.0	7.7	0.6	
12		185.0				2.0			4.6	7.2	1.8	
13		250.0				1.7			4.2	7.5	1.8	
14		185.0				1.2			2.9	7.6	2.4	
15		125.0				2.5			1.3	7.8	3.6	
16		270.0				0.2			0.0	7.3	0	
17		300.0				0.6			6.4	6.7	2.1	
18		120.0			15.0	1.0			1.1	7.5	1.2	
19		240.0				1.2			3.0	7.3	2.4	
20		310.0				0.8			4.5	7.2	2.4	
21		150.0				1.0			3.8	7.0	1.2	
22		75.0				0.6			0.8	7.6	0.3	
23		285.0				0.7			5.2	7.2	2.1	
24		210.0				1.0			3.4	7.7	1.8	
25		195.0			15.0	1.0			1.9	7.6	1.2	
26		160.0				1.2			3.0	7.4	1.8	
27		285.0				1.0			6.8	7.2	2.4	
28		190.0				1.0			3.9	7.2	1.2	
29		315.0				1.4			3.9	7.5	2.4	
30		155.0				1.0			3.0	6.9	1.8	
31		195.0			15.0	1.0			3.8	7.5	1.8	
Total		6335.0			67.0				104.6		52.5	
Aver.		204.4				1.0			3.49		1.75	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: Date 6/6/2012 Operator Grade Level: IIA, C, D

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
Highway Dept	5/1/2012	1	☐Yes ☑No	☐Yes ☑No	0.3
15 Alden Acres	5/8/2012	1	☐Yes ☑No	☐Yes ☑No	0.3
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

- Actual number of samples is fewer than required.
- Did not collect/analyze repeat sample.
- Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

- For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).
- The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Doug Bright and Scott Osborn

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

Comments:

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	0 6 / 2 0 1 2 (M M Y Y Y Y)	0 7 / 0 5 / 2 0 1 2 (M M D D Y Y Y Y)	☐ Surface ☑ Ground ☐ SWUDI ☐ Purchase with subsequent chlorination ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination				Ultraviolet Radiation / Other Treatment					
			Gaseous		Liquid							
			Cylinder Weight	Chlorine Use (Lbs. /Day)	Hypochlorite added to crock (Gallons)	Free Chlorine Residual (mg/l)			Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
1		214.0				1.0			2.3	7.5	1.2	
2		201.0				1.0			3.0	7.1	1.8	
3		165.0				1.2			2.6	7.3	1.2	
4		240.0				0.5			5.3	6.7	1.8	
5		185.0				1.0			3.4	7.6	1.2	
6		270.0				0.8			4.5	7.3	2.4	
7		170.0				0.9			1.2	7.5	1.2	
8		150.0				0.8			3.0	6.5	1.2	
9		275.0				1.2			4.5	6.6	2.4	
10		185.0				1.0			3.0	6.9	1.2	
11		310.0				1.0			4.5	7.4	2.4	
12		5.0				0.8			4.5	6.9	1.8	
13		260.0				3.3			0.7	8.5	0.6	
14		275.0				0.2			1.1	8.5	1.8	
15		160.0			15.0	0.7			1.9	6.8	0.6	
16		290.0				1.3			1.1	6.7	1.8	
17		240.0				1.2			3.0	6.6	1.8	
18		205.0				1.0			0.4	7.0	1.2	
19		265.0				0.9			2.1	7.0	1.8	
20		215.0				1.0			2.3	7.0	1.2	
21		285.0				0.9			7.1	7.0	2.4	
22		160.0			15.0	0.9			2.3	7.0	0.6	
23		220.0				1.1			1.5	6.6	1.2	
24		225.0				1.0			1.9	7.5	1.2	
25		160.0				1.3			1.1	7.0	1.2	
26		265.0				0.9			0.8	7.0	2.4	
27		210.0				0.8			2.3	7.0	1.2	
28		190.0				0.7			9.1	6.9	1.2	
29		250.0			15.0	1.8			7.5	8.5	0	
30		230.0				1.5			3.0	6.8	0	
31												
Total		6465.0			45.0				91		42	
Aver.		215.5				1.1			3.03		1.40	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: _____ Date 7/5/2012 Operator Grade Level: IIA, C, D

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
Stewart's	6/13/2012	1	☐Yes ☑No	☐Yes ☑No	0.3
Highway garage	6/20/2012	1	☐Yes ☑No	☐Yes ☑No	0.3
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.

_____ Did not collect/analyze repeat sample.

_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Doug Bright

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

Comments: Pump #1 failed to run on 6/13 causing low storage alarm. Reset pump controls and all systems running normal. Collected POC samples.

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	0 7 / 2 0 1 2 (M M Y- Y Y Y Y)	0 8 / 0 7 / 2 0 1 2 (M M D D Y Y Y Y)	☐ Surface ☑ Ground ☐ GWUDI ☐ Purchase with subsequent chlorination ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination: Gaseous: Cylinder Weight	Chlorination: Gaseous: Chlorine Use (Lbs. /Day)	Chlorination: Liquid: Hypochlorite added to crock (Gallons)	Free Chlorine Residual (mg/l)	Ultraviolet Radiation / Other Treatment		Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
1		300.0				0.5			2.3	6.8	3	
2		205.0				0.9			1.0	6.8	1.2	
3		270.0				0.7			1.3	6.9	1.8	
4		175.0				0.6			0.7	6.8	1.2	
5		280.0				0.7			4.9	6.8	2.4	
6		185.0				0.7			2.3	7.1	1.2	
7		260.0				0.7			3.8	7.0	3	
8		295.0				1.0			4.9	6.8	1.2	
9		280.0				1.0			5.2	7.0	2.4	
10		205.0				0.7			2.9	7.1	1.2	
11		285.0				0.5			5.2	7.1	2.4	
12		200.0				0.5			4.9	7.2	1.2	
13		320.0				0.5			5.3	7.4	1.8	
14		275.0				0.5			3.0	7.1	1.2	
15		225.0				0.6			2.6	6.5	2.4	
16		285.0				0.5			6.5	7.4	2.1	
17		205.0				0.7			3.9	7.4	1.5	
18		220.0				0.8			3.9	7.5	2.4	
19		285.0				0.2			6.2	6.5	1.8	
20		150.0				0.5			6.5	7.4	3	
21		205.0				0.7			2.9	7.6	1.5	
22		335.0				0.4			6.8	6.5	2.1	
23		135.0				0.5			1.5	6.7	1.2	
24		235.0				0.6			4.5	7.4	1.2	
25		165.0				0.8			1.9	7.5	1.8	
26		190.0				0.4			5.3	7.0	1.8	
27		220.0				1.2			4.1	7.5	0.6	
28		290.0				1.3			5.3	7.5	2.4	
29		145.0				1.1			4.5	7.0	1.2	
30		165.0				1.0			1.9	7.5	1.2	
31		330.0				1.0			5.6	7.5	1.8	
Total		7330.0							121.6		55.2	
Aver.		236.5				0.7			4.05		1.84	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: _____ Date 8/7/2012 Operator Grade Level: IIA, C, D

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
Library	7/11/2012	1	☐Yes ☑No	☐Yes ☑No	0.2
Garden Center	7/25/2012	1	☐Yes ☑No	☐Yes ☑No	0.4
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.

_____ Did not collect/analyze repeat sample.

_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by S-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Doug Bright

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

Comments: Bunker repair work in progess.

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	0 8 / 2 0 1 2 (M M Y Y Y Y)	0 9 / 0 6 / 2 0 1 2 (M M D D Y Y Y Y)	☐ Surface ☑ Ground ☐ GWUDI ☐ Purchase with subsequent chlorination ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) in Use	Treated Water Volume (1,000 gallons/day)	Chlorination				Ultraviolet Radiation / Other Treatment					
			Gaseous		Liquid	Free Chlorine Residual (mg/l)			Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
			Cylinder Weight	Chlorine Use (Lbs. /Day)	Hypochlorite added to crock (Gallons)							
1		180.0				1.7			1.0	7.5	1.2	
2		225.0				1.3			5.3	6.9	2.4	
3		280.0			15.0	1.1			6.0	7.5	1.2	
4		165.0				2.0			4.0	7.2	2.4	
5		295.0				2.0			8.3	7.0	2.4	
6		315.0				1.1			6.0	7.4	2.4	
7		215.0			5.0	1.4			3.8	7.2	1.5	
8		200.0			15.0	1.8			3.9	7.7	1.2	
9		200.0				1.4			4.5	7.2	0.6	
10		295.0				1.2			4.5	7.1	2.4	
11		170.0				1.2			4.1	6.7	1.2	
12		345.0				1.6			8.1	6.6	2.4	
13		175.0			15.0	1.5			4.2	7.0	1.2	
14		255.0				2.2			2.6	7.1	1.8	
15		265.0				1.5			5.9	7.0	1.8	
16		150.0				1.5			3.3	7.0	1.2	
17		175.0			15.0	1.5			2.3	7.2	1.2	
18		280.0				1.5			2.3	7.2	1.2	
19		215.0				1.8			1.6	6.5	2.4	
20		230.0				1.4			5.2	6.5	2.4	
21		285.0				1.1			6.5	7.0	2.4	
22		265.0				1.0			2.6	7.2	1.8	
23		205.0			15.0	1.0			5.9	6.5	1.8	
24		232.0				2.1			3.0	7.3	1.2	
25		193.0				1.9			3.0	7.2	1.2	
26		365.0				1.5			2.6	7.4	3.6	
27		175.0				0.5			4.6	6.6	1.2	
28		185.0			15.0	0.5			5.2	7.2	0.6	
29		315.0				1.2			5.2	7.1	2.1	
30		270.0				1.1			8.3	6.7	1.5	
31		270.0			12.0	1.9			2.3	7.3	1.8	
Total		7380.0			107.0				136.1		53.7	
Aver.		238.1				1.4			4.54		1.79	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: _____ Date 9/6/2012 Operator Grade Level: IIA, C, D

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
3278 Franklin Ave	8/2/2012	1	☐Yes ☑No	☐Yes ☑No	0.6
Stewart's	8/9/2012	1	☐Yes ☑No	☐Yes ☑No	0.6
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.
_____ Did not collect/analyze repeat sample.
_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Doug Bright

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

No

Comments: Bunker repair work in progess. DOH inspection on 8/29.

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	0 9 / 2 0 1 2 (M M Y Y Y Y)	1 0 / 0 9 / 2 0 1 2 (M M D D Y Y Y Y)	☐ Surface ☑ Ground ☐ GWUDI; ☐ Purchase with subsequent chlorination; ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination: Gaseous: Cylinder Weight	Chlorination: Gaseous: Chlorine Use (Lbs. /Day)	Chlorination: Liquid: Hypochlorite added to crock (Gallons)	Chlorination: Free Chlorine Residual (mg/l)	Ultraviolet Radiation / Other Treatment		Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
1		210.0				1.0			2.3	7.2	2.4	
2		295.0				0.6			1.5	7.5	1.8	
3		235.0				0.7			2.0	6.5	0.9	
4		220.0				0.5			5.9	6.6	1.5	
5		285.0				0.7			8.5	7.3	3.6	
6		220.0			15.0	1.7			5.2	7.5	0.3	
7		235.0				0.5			3.8	6.9	2.4	
8		210.0				1.0			4.5	6.7	2.4	
9		260.0				1.0			2.6	7.2	0.6	
10		295.0				0.9			7.1	6.8	1.8	
11		175.0				1.2			4.1	7.4	1.2	
12		290.0			15.0	0.8			8.5	6.9	1.8	
13		340.0				0.7			7.0	7.8	2.4	
14		140.0				0.6			4.5	6.6	1.8	
15		305.0				0.5			6.0	7.3	1.2	
16		225.0			15.0	0.5			6.0	7.7	1.5	
17		245.0				0.8			8.3	7.0	1.5	
18		125.0				0.7			3.8	7.8	0.3	
19		295.0				0.5			3.0	7.0	2.1	
20		260.0				0.7			10.0	6.5	1.2	
21		265.0				0.6			2.6	7.3	1.2	
22		310.0				0.5			3.0	7.2	2.4	
23		150.0				0.5			6.1	7.1	0.3	
24		290.0				0.6			5.9	7.9	2.4	
25		330.0				1.3			1.5	7.8	2.4	
26		130.0				1.1			3.3	8.1	3	
27		265.0				0.8			11.0	7.7	0.6	
28		250.0			15.0	2.5			7.5	7.0	2.4	
29		165.0				1.5			4.5	7.5	0.3	
30		220.0				1.4			4.5	7.5	1.2	
31												
Total		7160.0			60.0				154.5		48.9	
Aver.		238.7				0.9			5.15		1.63	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: _____ Date 10/9/2012 Operator Grade Level: IIA, C, D

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
Highway garage	9/6/2012	1	☐Yes ☑No	☐Yes ☑No	2.2
Library	9/11/2012	1	☐Yes ☑No	☐Yes ☑No	0.2
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.

_____ Did not collect/analyze repeat sample.

_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur? ☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Doug Bright

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

No

Comments: Bunker repair work in progess. Replaced eyewash bottles at plant with new ones. Chlorine crock has been covered.

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	10 / 2012 (MM / YYYY)	11 / 08 / 2012 (MM / DD / YYYY)	☐ Surface ☑ Ground ☐ GWUDI ☐ Purchase with subsequent chlorination ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination				Ultraviolet Radiation / Other Treatment					
			Gaseous		Liquid	Free Chlorine Residual (mg/l)			Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
			Cylinder Weight	Chlorine Use (Lbs. /Day)	Hypochlorite added to crock (Gallons)							
1		240.0				1.0			6.5		1.2	
2		270.0				0.9			6.5		1.2	
3		180.0			15.0	0.8			5.3		1.8	
4		250.0				0.9			6.0		1.5	
5		205.0				0.7			5.3		1.8	
6		175.0				0.6			6.8		0.6	
7		275.0				0.5			4.9		2.1	
8		215.0				0.7			4.1		1.5	
9		245.0				0.7			5.3		1.5	
10		310.0			15.0	0.6			5.6		2.1	
11		160.0				1.0			2.6		0.6	
12		265.0				0.8			4.5		1.8	
13		185.0				1.0			4.5		1.2	
14		230.0				1.0			3.9		1.8	
15		225.0			15.0	1.1			1.3		1.2	
16		185.0				0.8			1.5		0.6	
17		235.0				1.0			6.4		3	
18		150.0				1.1			1.5		1.2	
19		220.0				0.9			1.9		1.8	
20		205.0				0.5			2.3		1.2	
21		150.0				0.6			2.3		1.2	
22		285.0				0.8			6.2		1.8	
23		130.0				1.0			2.9		0.6	
24		215.0				0.6			2.3		1.8	
25		215.0			15.0	1.0			3.3		1.2	
26		135.0				1.5			4.5		1.2	
27		150.0				1.0			3.0		1.2	
28		260.0				0.5			6.0		1.5	
29		115.0				0.9			0.7		0.9	
30		230.0				0.6			2.6		1.2	
31		225.0				0.7			6.0		1.2	
Total		6535.0			60.0				126.5		43.5	
Aver.		210.8				0.8			4.22		1.45	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: Date 11/8/2012 Operator Grade Level: IIA, C, D

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
3285 Franklin Ave	10/3/2012	1	☐Yes ☑No	☐Yes ☑No	0.5
5 Washington Ave	10/10/2012	1	☐Yes ☑No	☐Yes ☑No	0.4
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.

_____ Did not collect/analyze repeat sample.

_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Mike Paolucci

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

No

Comments: Bunker repair work in progess. Repaired water leak at 29 Alden Place.

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	1 1 / 2 0 1 2 M M Y Y Y Y	1 2 / 1 0 / 2 0 1 2 M M D D Y Y Y Y	☐ Surface ☑ Ground ☐ SWUDI ☐ Purchase with subsequent chlorination ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination				Ultraviolet Radiation / Other Treatment					
			Gaseous		Liquid							
			Cylinder Weight	Chlorine Use (Lbs. /Day)	Hypochlorite added to crock (Gallons)	Free Chlorine Residual (mg/l)			Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
1		140.0				0.8			2.6	7.5	1.8	
2		160.0			10.0	0.5			0.7	7.4	0.6	
3		245.0				0.5			3.8	7.0	1.8	
4		145.0				0.5			3.6	7.4	1.2	
5		280.0				0.4			7.2	7.0	1.8	
6		245.0				0.5			2.9	7.5	1.2	
7		75.0				0.7			1.5	7.5	0.6	
8		230.0				0.6			2.6	7.6	2.4	
9		135.0				0.8			4.5	7.3	2.4	
10		215.0				0.5			0.8	7.0	1.2	
11		205.0				0.5			5.2	7.3	2.4	
12		200.0			8.0	0.5			3.9	7.5	1.2	
13		240.0				0.6			1.3	7.5	2.4	
14		115.0				0.9			2.9	7.0	0.3	
15		265.0			15.0	0.8			2.9	7.4	2.1	
16		150.0				1.0			3.8	7.6	1.2	
17		145.0				1.2			2.3	7.1	1.2	
18		265.0				1.4			3.3	7.2	0.9	
19		160.0				1.3			4.5	6.9	1.5	
20		270.0				0.8			4.5	7.5	2.4	
21		140.0			10.0	0.8			2.3	7.4	0.6	
22		135.0				0.5			2.3	7.2	0.6	
23		240.0				0.5			4.5	7.3	1.8	
24		190.0				1.0			3.0	7.1	1.2	
25		160.0				0.9			4.2	7.4	0.6	
26		285.0				0.7			3.9	7.6	1.8	
27		145.0				0.7			2.3	7.0	1.2	
28		230.0				0.6			4.9	7.7	1.2	
29		175.0				1.1			2.9	7.8	0.9	
30		145.0			19.0	0.7			2.6	7.6	0.9	
31												
Total		5750.0			60.0				97.7		41.4	
Aver.		191.7				0.7			3.26		1.38	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: _____ Date 12/10/2012 Operator Grade Level: IIA, C, D

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
Highway garage	11/2/2012	1	☐Yes ☑No	☐Yes ☑No	0.3
3274 Franklin	11/6/2012	1	☐Yes ☑No	☐Yes ☑No	0.6
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.
_____ Did not collect/analyze repeat sample.
_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Doug Bright & Mike Paolucci

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

No

Comments: Installed new precast concrete tops for West Side bunkers.

NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Public Water Supply Protection

Water Systems Operation Report

For Systems that Treat with Chlorine and/ or Ultraviolet Radiation

Public Water System Name	Reporting Month/Year	Date Report Submitted	Source Type (s)
Village of Millbrook	12 / 2012 (M M Y Y Y Y)	01 / 07 / 2013 (M M D D Y Y Y Y)	☐ Surface ☑ Ground ☐ GWUDI ☐ Purchase with subsequent chlorination ☐ Purchase w/out subsequent chlorination

Public Water System ID	County	Town, Village or City
NY 1 3 0 2 7 7 0	Dutchess	Millbrook

DATE	Source (s) In Use	Treated Water Volume (1,000 gallons/day)	Chlorination				Ultraviolet Radiation / Other Treatment					
			Gaseous		Liquid							
			Cylinder Weight	Chlorine Use (Lbs. /Day)	Hypochlorite added to crock (Gallons)	Free Chlorine Residual (mg/l)			Sodium Hydroxide used (gallons)	pH	C-9 used (gallons)	
1		215.0				0.6			1.5	7.2	1.2	
2		210.0				0.9			2.0	6.8	1.8	
3		155.0				1.0			3.6	7.4	0.9	
4		185.0				0.7			2.9	7.0	1.5	
5		225.0				0.9			3.9	7.3	1.5	
6		195.0				1.0			3.9	7.3	2.1	
7		220.0				0.8			3.0	7.1	1.2	
8		145.0				0.8			4.5	6.8	1.2	
9		275.0				0.5			5.2	6.9	1.8	
10		150.0				1.0			3.3	7.4	1.2	
11		270.0				1.0			5.5	7.4	1.2	
12		160.0				0.8			2.9	7.4	1.2	
13		220.0				0.8			3.3	7.4	1.8	
14		210.0			19.0	0.8			1.5	7.0	1.2	
15		145.0				1.0			1.5	7.0	0.6	
16		235.0				1.1			2.0	7.0	1.8	
17		180.0				1.0			3.5	6.7	1.2	
18		180.0				0.9			3.3	7.4	1.2	
19		265.0				0.9			4.2	7.4	1.2	
20		135.0				0.9			3.2	7.4	1.2	
21		215.0				0.8			3.0	6.9	1.2	
22		215.0				0.7			5.3	6.9	1.2	
23		140.0				0.7			2.9	7.6	1.2	
24		315.0			15.0	0.6			3.8	7.7	2.4	
25		125.0				0.6			2.0	6.9	0.3	
26		150.0				0.8			3.3	7.3	0.9	
27		285.0				0.9			4.6	7.3	1.8	
28		135.0				0.8			2.3	7.0	1.2	
29		305.0				0.7			3.8	7.0	2.4	
30		345.0				1.5			6.5	7.0	2.4	
31		160.0				1.0			2.3	7.4	1.2	
Total		6365.0			34.0				104.5		43.2	
Aver.		205.3				0.8			3.46		1.44	

Chlorine Mix Ratio = 30 Gallons/ of 12 % chlorine added to 30 gallons of water in crock

Reported by: Scott E. Osborn Title Area Coordinator Certification Number: NY0034351

Signature: Date 1/7/2013 Operator Grade Level: IIA, C, D

Microbiological Samples and Free Chlorine Residual

Sample Location	Date of Sample	Sample Type 1.Routine 2.Repeat	Total Coliform Positive	E.coli Positive	Free Chlorine Residual (mg/l)
Library	12/6/2013	1	☐Yes ☑No	☐Yes ☑No	0.2
32 Front Street	12/12/2013	1	☐Yes ☑No	☐Yes ☑No	0.5
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	
			☐Yes ☐No	☐Yes ☐No	

Population Served: 1,450

Number of microbiological monitoring samples required: 2

Number of microbiological monitoring samples taken: 2

Did an M&R violation occur? ☐Yes ☑No

If "Yes," check reason (s) below:

_____ Actual number of samples is fewer than required.

_____ Did not collect/analyze repeat sample.

_____ Did not collect/analyze for E. coli for positive total coliform from routine/repeat sample.

Did an MCL violation occur?

☐Yes ☑No

If "Yes," check reason(s) below (see also Part 5, Table 6 for additional information).

_____ For systems collecting less than 40 samples per month: two or more of the samples (routine and /or repeat) are positive for total coliform (= total coliform MCL violation).

_____

_____ The original sample was E.coli positive and at least 1 repeat sample was positive for total coliform (= E.coli MCL violation).

Reminder: System must collect a minimum of five (5) routine microbiological monitoring samples during the month following a repeat sample collection.

As required by 5-1.72, "Operation of a Public Water System," a copy of this form shall be sent to your local health department by the 10th calendar day of the next reporting period.

Sample Collector(s): Doug Bright & Mike Paolucci

Name of NYSDOH Certified Laboratory: Smith Laboratory

Did any MCL violation occur? If so, please describe: No

Did an emergency or low pressure problem occur? Did source water bypass an existing treatment process in the system? If so, please explain.

Yes, water main break at 34 Old Route 82 on 12/31. Made repair to main.

Comments: Bunker repair work in progess. Exhaust fan in chlorine room installed. Painting of water pipes inside building in progress.

APPENDIX – C

UNDERWATER SOLUTIONS INC.

INSPECTION AND CLEANING OF THE 500,000-GALLON STEEL WATER STORAGE TANK

VILLAGE OF MILLBROOK
MILLBROOK, NEW YORK

APRIL 20, 2010

MUNICIPAL DIVING SERVICES • P.O. Box 208 • Mattapoisett, MA 02739 • Tel: (508) 758-6126 • Fax: (508) 758-6128 •
• E-Mail: uws@underwatersolutionsinc.com • Web Address: www.underwatersolutionsinc.com •

INSPECTION AND CLEANING OF THE 500,000-GALLON RIVETED STEEL WATER STORAGE TANK

VILLAGE OF MILLBROOK
MILLBROOK, NEW YORK

APRIL 20, 2010

SCOPE:

On April 20, 2010, Underwater Solutions Inc. completed an inspection of the 500,000-gallon riveted steel water storage tank to provide information regarding the overall condition and integrity and removed the sediment accumulation found on the floor of this structure.

EXTERIOR INSPECTION:

The entire exterior of this water storage tank (and all components) was inspected to include walls and coating, concrete foundation, anchor bolts, manway, ladders, roof and hatch.

Walls and Coating

The exterior wall panels, rivets and lap joints were inspected and appeared mostly sound, yet numerous coating chips, ranging from 1/8" to 1/2" in diameter, exist throughout approximately 5% of the lowest 20' of the tank.

These coating chips appear to be the result of objects striking the tank and expose the underlying steel while causing mild surface corrosion.

No fatigue, (pitting) of the steel was found within these areas having steel exposure at the time this project was completed.

The protective coating applied to these wall panel, rivet and lap joint surfaces shows decline in film thickness (nearly expired) due to weathering, resulting in blotch rusting showing through the coating throughout approximately 5% of all surfaces and all elevations of the tank.

MUNICIPAL DIVING SERVICES • P.O. Box 208 • Mattapoisett, MA 02739 • Tel: (508) 758-6126 • Fax: (508) 758-6128 • • E-Mail: uws@underwatersolutionsinc.com • Web Address: www.underwatersolutionsinc.com •

Moderate mildew has accumulated throughout the lowest 20' of the tank, causing decline in the aesthetic value of the structure.

Concrete Foundation

A 15" wide by 5" tall concrete foundation was inspected and found sound and without obvious concrete fatigue throughout the circumference of the tank.

Anchor Bolts

Ten, 1-1/2" diameter anchor bolts extend up from the concrete foundation through chairs, riveted to the lowest row of wall panels located approximately 17" above the base of the tank.

Each anchor bolt has a nut properly secured in place while the protective coating applied to all chair, nut and bolt surfaces shows decline in film thickness, causing blotch rusting to show through the coating.

Manway

One, 24" by 18" inside diameter manway was inspected, penetrating the lowest wall panel, located approximately 31" above the ground.

The protective coating applied to this manway yields reduced film thickness (nearly expired) due to weathering, causing mild surface corrosion of all hardware.

This manway was found properly and securely bolted in place and was free of obvious leakage.

Ladders

A ladder extends from 14' above the ground up to the roof dome, supported to the tank wall with thirteen sets of riveted standoffs.

A fall prevention device is securely bolted to this ladder, remaining in good working condition at this time.

A second (rotating) ladder extends from the edge of the roof dome up to the center of the roof, supported to a phinial ball with one bolted bracket.

Each structure provides good safe access to the roof and is properly secured in place at this time.

Roof

All steel roof panels and rivets between panels were inspected and appeared sound, as no obvious metal fatigue, (pitting) was found.

The protective coating applied to these roof panel and riveted surfaces shows decline in film thickness (nearly expired) and poor adhesion value due to weathering. This condition has caused the primer and blotch rusting to show through the coating throughout approximately 10% of the roof dome surfaces.

Hatch

One, 24" by 24" inside diameter hatch provides access to the tank interior through the roof dome.

This hatch was found in good working condition and is properly secured with a lock, preventing unwanted access.

INTERIOR INSPECTION:

The entire interior of this water storage tank (and components) was inspected to include sediment accumulations, floor, manway, piping, walls and coating, overhead and aesthetic water quality.

Sediment Accumulations

A uniform layer of accumulated precipitate was found on all floor surfaces, averaging 1" in depth.

Upon completing this inspection, all floor surfaces were vacuumed.

Floor

After removing all accumulated precipitate, these steel floor panel and riveted surfaces were inspected and found appearing sound and free of obvious fatigue (pitting) of the steel.

The protective coating applied to these surfaces was found with good adhesion value, while heavy staining exists on all floor surfaces due to the accumulation of precipitate.

Manway

One, 26" by 21" outside diameter manway was inspected from the interior of the tank, penetrating the lowest wall panel located approximately 30" above the floor.

This manway is properly and securely bolted in place and without obvious leakage at this time.

Piping

Three pipes were inspected within this structure.

The first pipe inspected, penetrates the floor located approximately 16" in from the tank wall, having a 12" inside diameter and stands 6" tall.

Flow was entering the tank through this pipe at the time of this inspection.

The second pipe inspected, penetrates the floor located approximately 15" in from the tank wall, having a 6" inside diameter. This pipe extends up, supported to the wall with two sets of riveted brackets, prior to terminating approximately 20' above the floor.

The third pipe inspected, penetrates the tank floor located approximately 15" in from the wall, having a 6" inside diameter and stands 4" tall.

No flow was detected within the second or third pipe at the time this project was completed.

All piping was found without obvious obstructions at the time of this inspection.

Walls and Coating

All interior wall panel and riveted surfaces were inspected beginning at the floor and by spiraling the circumference of the tank up to the water surface.

These interior wall panels and rivets are sound, yet the protective coating applied to these surfaces has failed (expired) throughout all elevations of the walls.

Coating blisters, found throughout approximately 20% of all wall panel and riveted surfaces, exist due to adhesion loss, while approximately 25% of these coating blisters have ruptured, exposing the underlying steel and causing mild surface corrosion at this time.

No obvious metal fatigue (pitting) of the steel was witnessed, while mild staining exists on all wall surfaces extending from approximately 8' below the junction where the roof and walls meet.

Overhead

All overhead panels and rivets were inspected from the water surface.

These overhead panels and rivets appeared sound, as no obvious metal fatigue, (pitting) of the steel was seen at the time of this inspection.

The protective coating applied to these overhead surfaces was found with reduced film thickness, (expiration), resulting in blotch rusting showing through the coating throughout approximately 20% of these surfaces.

Aesthetic Water Quality

The aesthetic water quality within this tank was found to be good.

This condition allowed our visibility during this inspection to be unlimited.

CONCLUSION:

It is the opinion of Underwater Solutions Inc. that that although this riveted steel water storage tank appears mostly sound and free of obvious leakage, it requires rehabilitation within the near future, as the exterior and interior coating systems have failed (expired).

The exterior wall panels, rivets and lap joints appear sound and without obvious fatigue, (pitting) of the steel, yet the protective coating applied to these surfaces was found with decline in film thickness (nearly expired) due to weathering. This condition has resulted in blotch rusting showing through the coating throughout approximately 5% of these wall panel and riveted surfaces and all elevations of the tank.

A moderate mildew accumulation exists throughout the lowest 20' of the tank, causing decline in the aesthetic value of the structure.

Numerous coating chips, ranging from 1/8" to 1/2" in diameter exist throughout approximately 5% of the lowest 20' of the tank and exposes the underlying steel due to objects striking these surfaces.

All roof dome panels and rivets were found without fatigue (pitting) of the steel at the time this project was completed.

The protective coating applied to these roof panels and rivets shows decline in film thickness (nearly expired) and poor adhesion value due to weathering. This condition has caused the primer and blotch rusting to show through the coating throughout approximately 10% of the roof dome.

We recommend re-coating all exterior wall and roof panel and riveted surfaces in an effort to protect and maintain the integrity of the steel and improve the overall aesthetic value of the tank.

All components affixed to this structure are properly installed, yet the tank was found without a vent or an overflow.

We recommend installing a vent and an overflow in an effort to allow proper ventilation and direct water away from the tank should the water level exceed the tank's capacity.

All interior floor panels and rivets appear sound and remain with good adhesion value of the protective coating at this time.

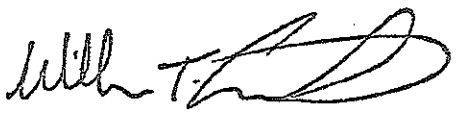
The coating applied to all interior wall and overhead surfaces of this structure has failed (expired). Numerous coating blisters have ruptured, exposing the underlying steel and causing mild surface corrosion due to adhesion loss. No obvious fatigue, (pitting) of the steel was seen at the time of this inspection.

We recommend removing the existing coating and re-coating all interior surfaces of this structure using an A.N.S.I. / N.S.F.61 approved coating for use in structures containing potable water. This rehabilitation should be completed within the immediate future, as continued exposure of the steel will result in metal fatigue, (pitting) and eventually result in failure.

All piping within this structure remained securely in place and free of obvious obstructions at the time this project was completed.

Upon completing this inspection, all floor surfaces were vacuumed.

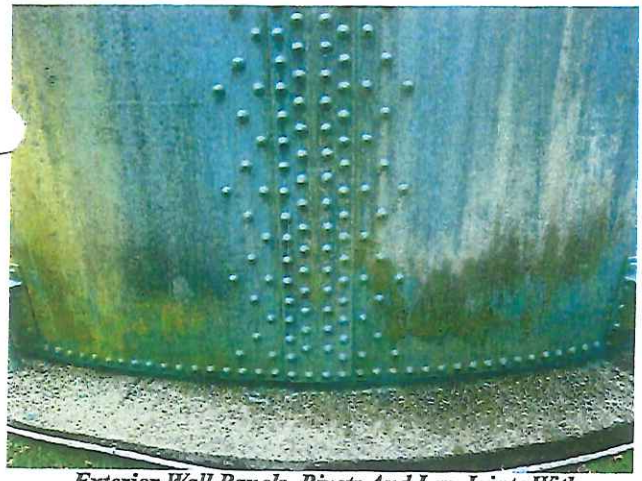
As always, we recommend re-inspection and cleaning of all water storage facilities in accordance with A.W.W.A. Standards and local guidelines.



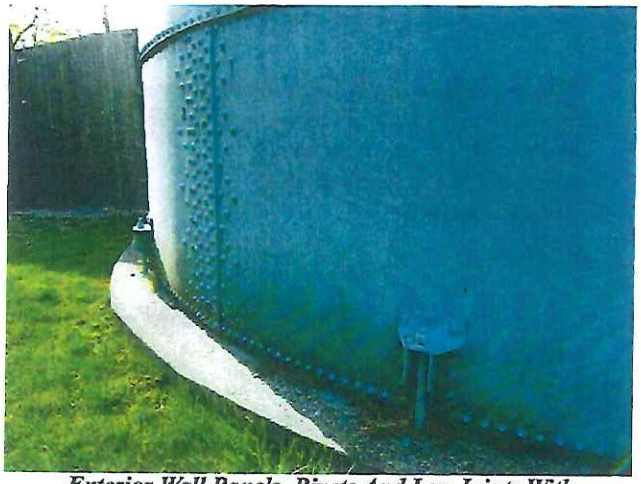
UNDERWATER SOLUTIONS INC.
William T. Cornish, President

This report, the conclusions, recommendations and comments prepared by Underwater Solutions Inc. are based upon spot examination from readily accessible parts of the tank. Should latent defects or conditions which vary significantly from those described in the report be discovered at a later date, these should be brought to the attention of a qualified individual at that time. These comments and recommendations should be viewed as information to be used by the Owner in determining the proper course of action and not to replace a complete set of specifications. All repairs should be done in accordance with A.W.W.A. and/or other applicable standards.

WTC/rad



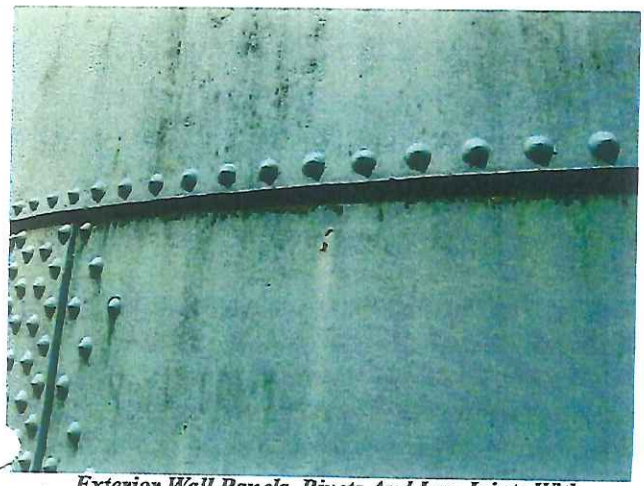
1 *Exterior Wall Panels, Rivets And Lap Joints With Coating Failure, Blotch Rusting And Mildew*



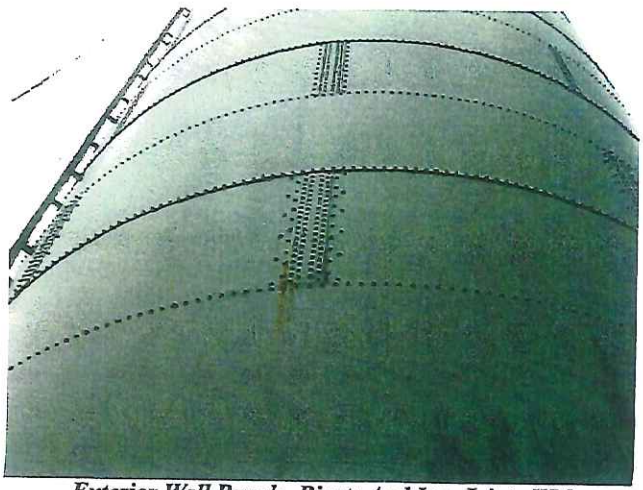
2 *Exterior Wall Panels, Rivets And Lap Joints With Coating Failure, Blotch Rusting And Mildew*

3 *Exterior Wall Panels, Rivets And Lap Joints With Coating Failure, Blotch Rusting And Mildew*

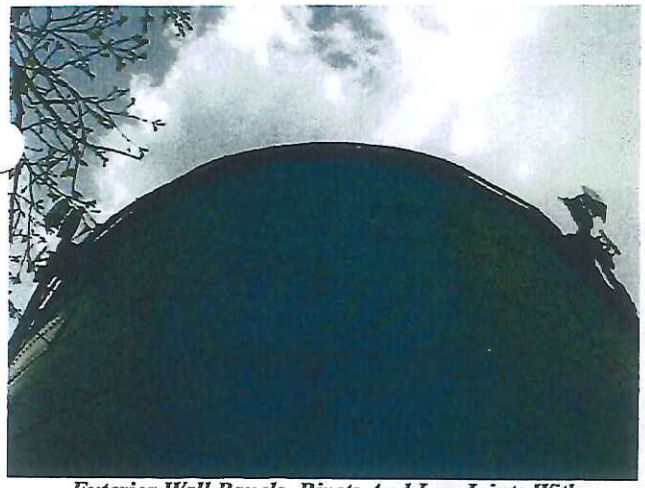
4 *Exterior Wall Panels, Rivets And Lap Joints With Coating Failure, Blotch Rusting And Mildew*



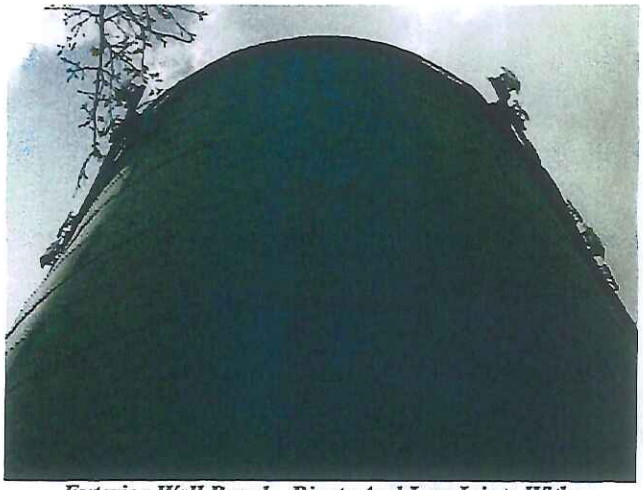
5 *Exterior Wall Panels, Rivets And Lap Joints With Coating Failure, Blotch Rusting And Mildew*



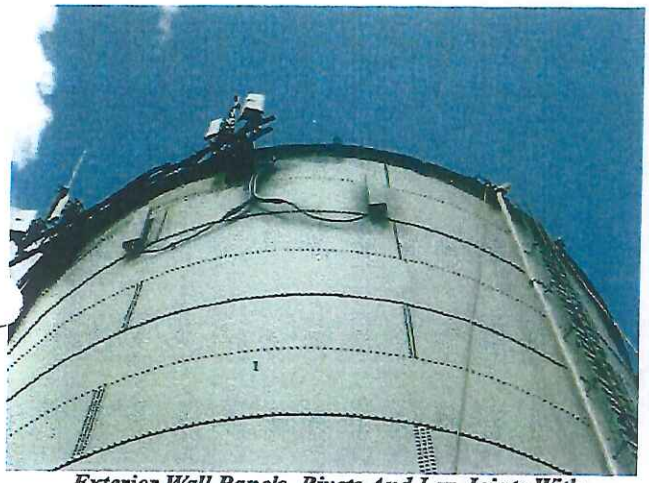
6 *Exterior Wall Panels, Rivets And Lap Joints With Coating Failure And Blotch Rusting*



7 *Exterior Wall Panels, Rivets And Lap Joints With Coating Failure And Blotch Rusting*



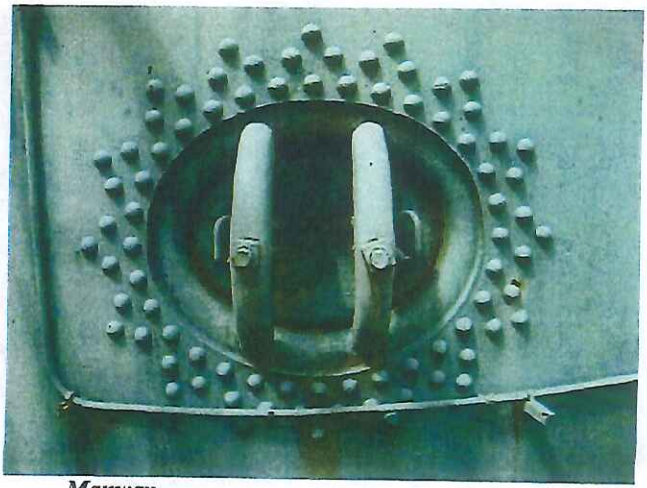
8 *Exterior Wall Panels, Rivets And Lap Joints With Coating Failure And Blotch Rusting*



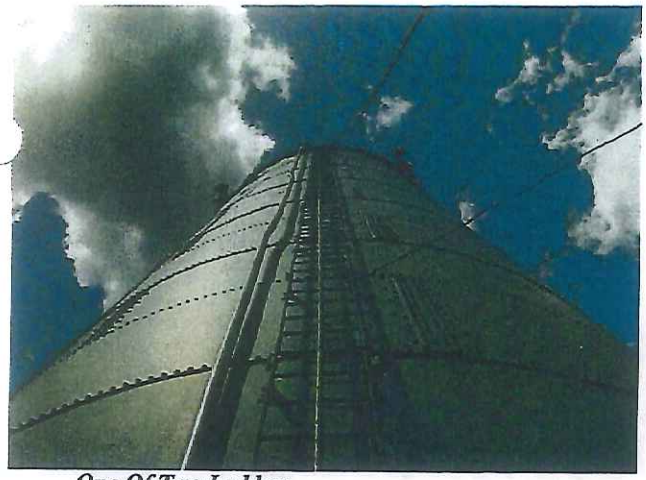
9 *Exterior Wall Panels, Rivets And Lap Joints With Coating Failure And Blotch Rusting*

10 *Concrete Foundation Found Sound*

11 *One Of Ten Anchor Bolts With Blotch Rusting*

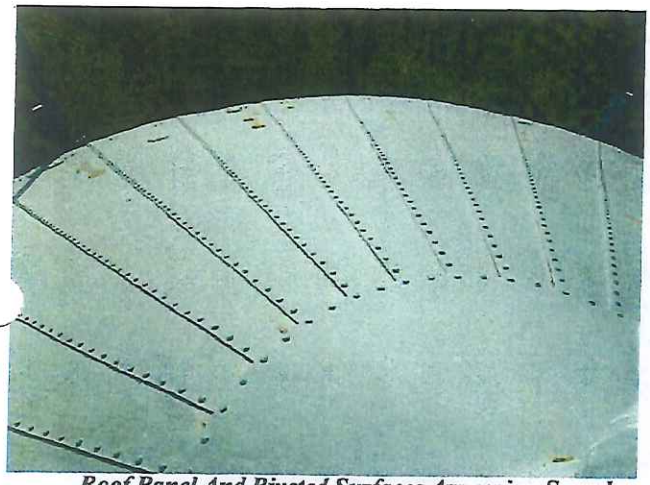


12 *Manway*

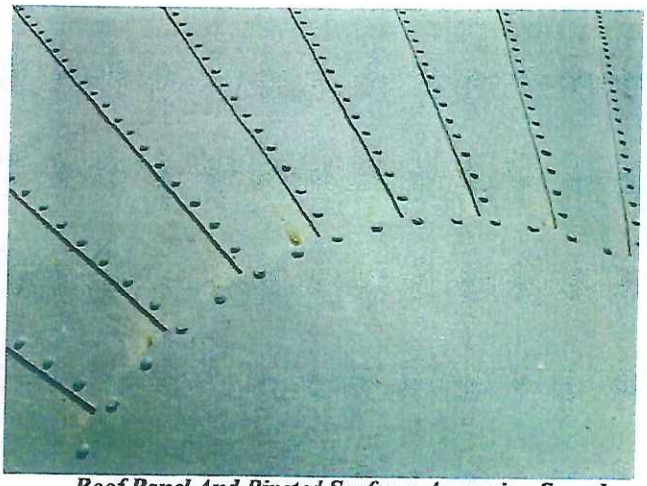


13 *One Of Two Ladders*

14 *One Of Two Ladders*

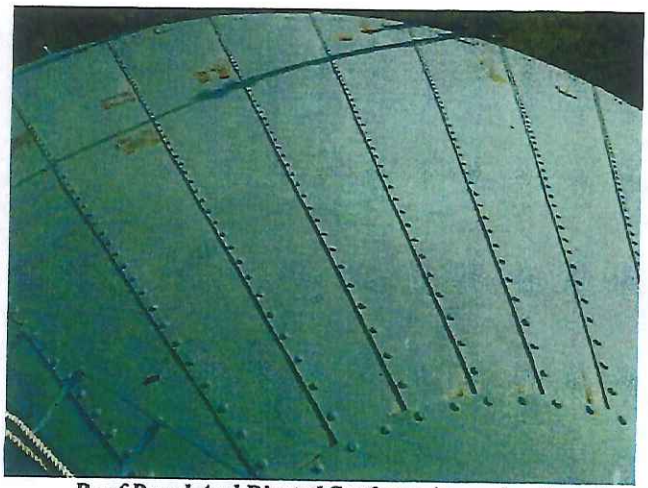


15 *Roof Panel And Riveted Surfaces Appearing Sound, Yet With Coating Failure And Blotch Rusting*



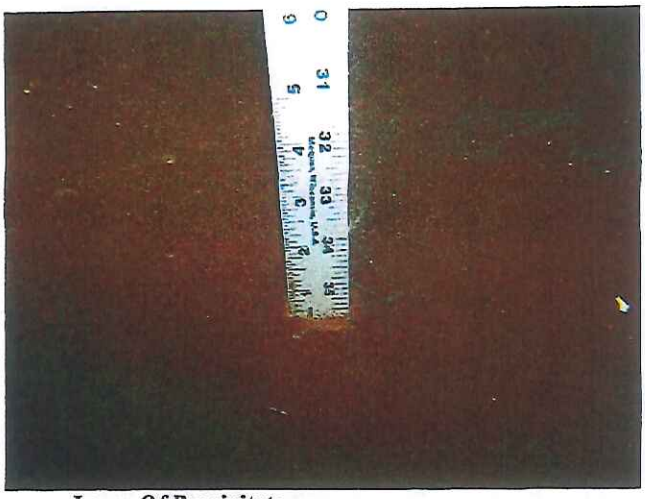
16 *Roof Panel And Riveted Surfaces Appearing Sound, Yet With Coating Failure And Blotch Rusting*

17 *Roof Panel And Riveted Surfaces Appearing Sound, Yet With Coating Failure And Blotch Rusting*

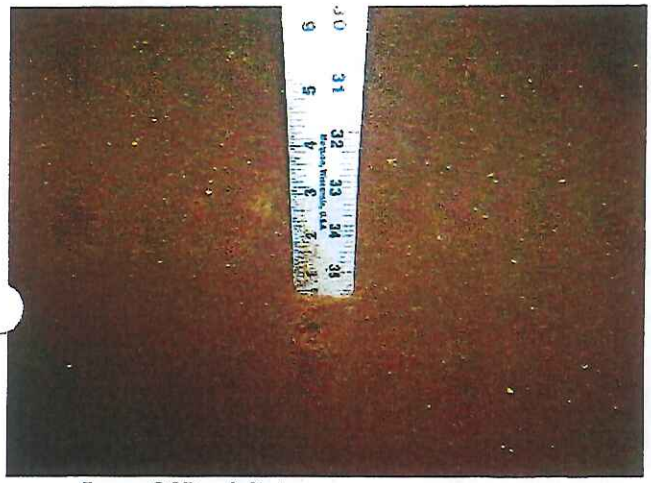


18 *Roof Panel And Riveted Surfaces Appearing Sound, Yet With Coating Failure And Blotch Rusting*

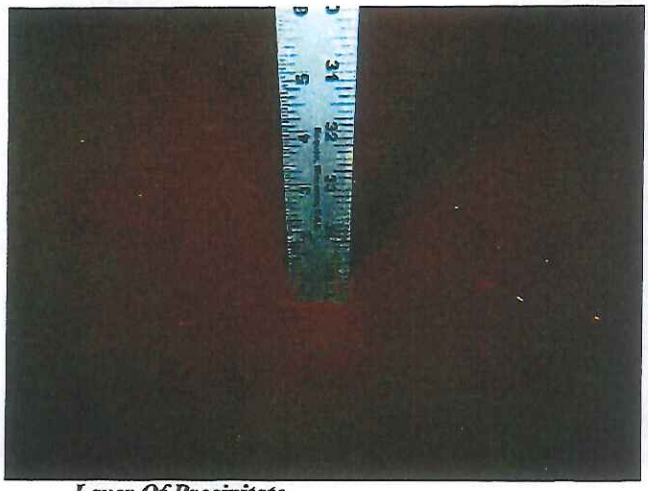
19 *Hatch*



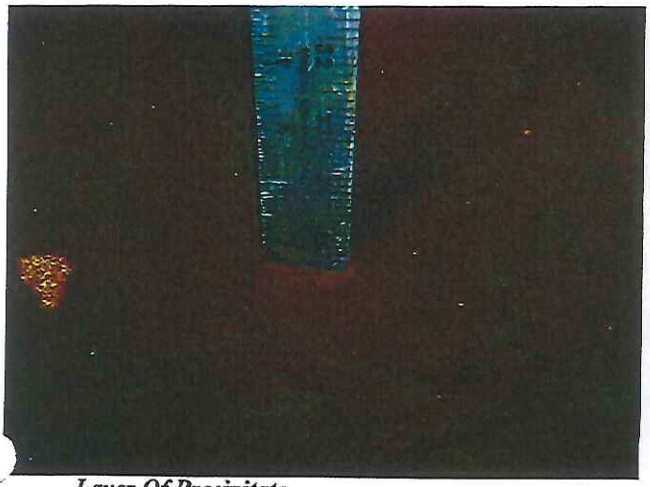
20 *Layer Of Precipitate*



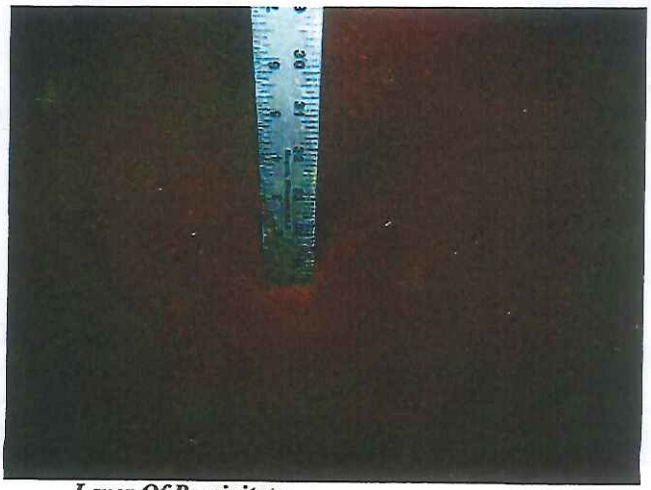
21 *Layer Of Precipitate*



22 *Layer Of Precipitate*



23 *Layer Of Precipitate*



24 *Layer Of Precipitate*

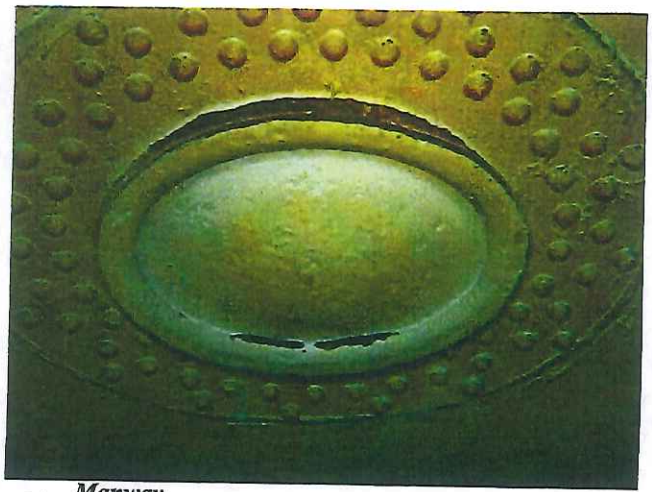
25 *Floor Panel And Riveted Surfaces Appearing Sound, Yet Found Heavily Stained After Cleaning*

26 *Floor Panel And Riveted Surfaces Appearing Sound, Yet Found Heavily Stained After Cleaning*

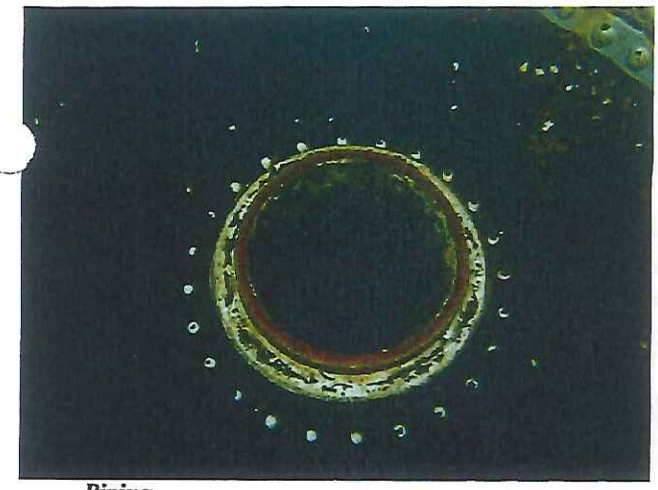
27 *Floor Panel And Riveted Surfaces Appearing Sound, Yet Found Heavily Stained After Cleaning*

28 *Floor Panel And Riveted Surfaces Appearing Sound, Yet Found Heavily Stained After Cleaning*

29 *Floor Panel And Riveted Surfaces Appearing Sound, Yet Found Heavily Stained After Cleaning*



30 *Manway*

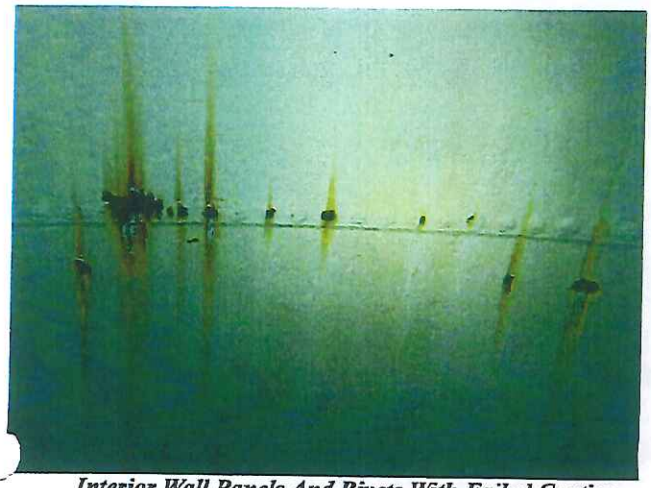


31 *Piping*

32 *Piping*

33 *Piping*

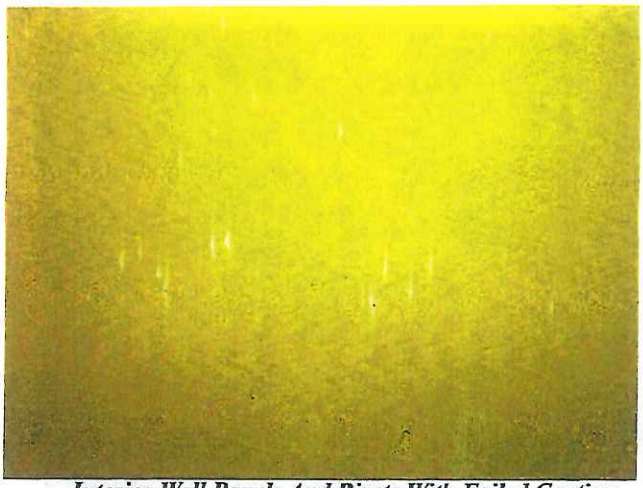
34 *Piping*



35 *Interior Wall Panels And Rivets With Failed Coating, Surface Corrosion And Staining*

36 *Interior Wall Panels And Rivets With Failed Coating, Surface Corrosion And Staining*

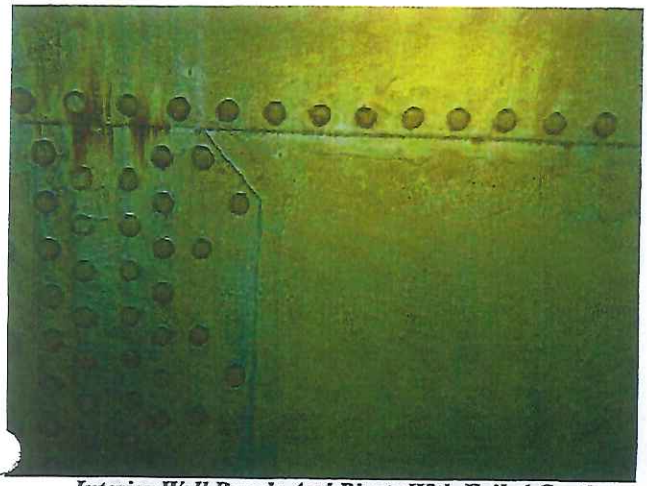
37 *Interior Wall Panels And Rivets With Failed Coating, Surface Corrosion And Staining*



38 *Interior Wall Panels And Rivets With Failed Coating, Surface Corrosion And Staining*

39 *Interior Wall Panels And Rivets With Failed Coating, Surface Corrosion And Staining*

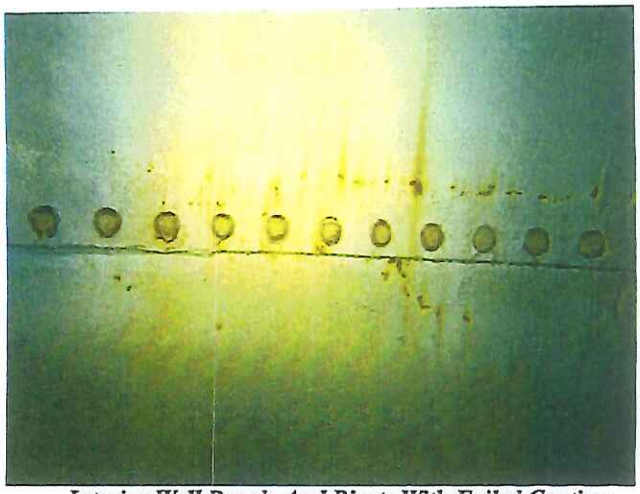
40 *Interior Wall Panels And Rivets With Failed Coating, Surface Corrosion And Staining*



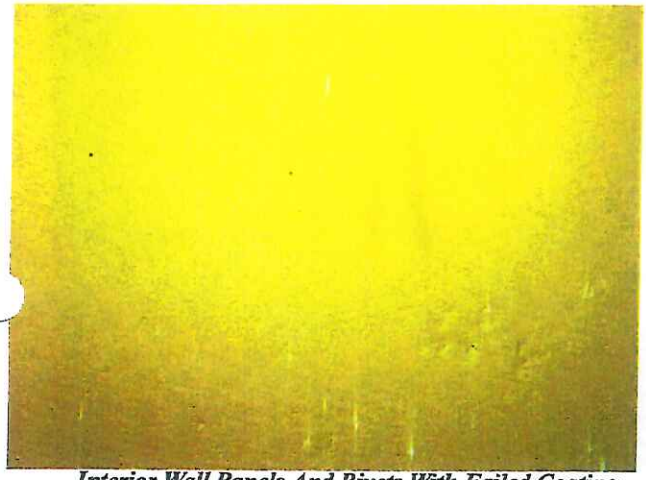
41 *Interior Wall Panels And Rivets With Failed Coating, Surface Corrosion And Staining*

42 *Interior Wall Panels And Rivets With Failed Coating, Surface Corrosion And Staining*

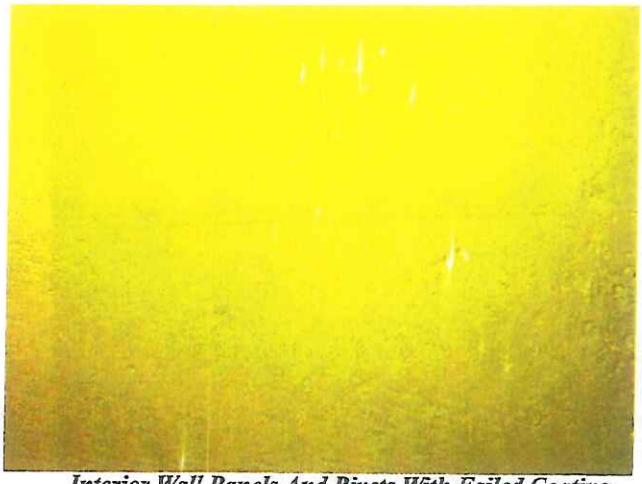
43 *Interior Wall Panels And Rivets With Failed Coating, Surface Corrosion And Staining*



44 *Interior Wall Panels And Rivets With Failed Coating, Surface Corrosion And Staining*



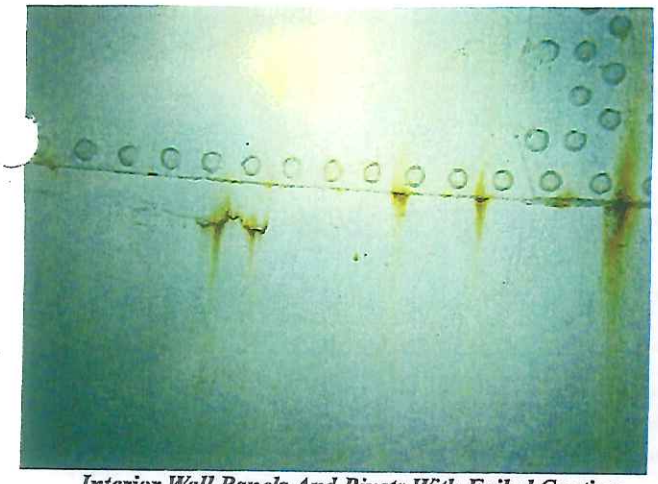
45 *Interior Wall Panels And Rivets With Failed Coating, Surface Corrosion And Staining*



46 *Interior Wall Panels And Rivets With Failed Coating, Surface Corrosion And Staining*

47 *Interior Wall Panels And Rivets With Failed Coating, Surface Corrosion And Staining*

48 *Interior Wall Panels And Rivets With Failed Coating, Surface Corrosion And Staining*



49 *Interior Wall Panels And Rivets With Failed Coating, Surface Corrosion And Staining*

50 *Interior Wall Panels And Rivets With Failed Coating, Surface Corrosion And Staining*

51 *Interior Wall Panels And Rivets With Failed Coating, Surface Corrosion And Staining*

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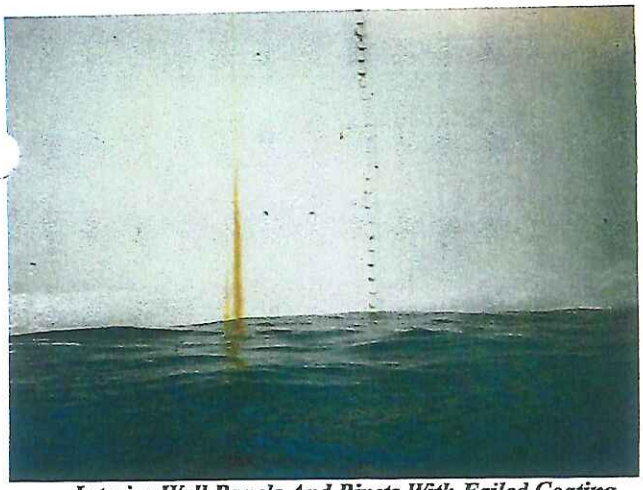
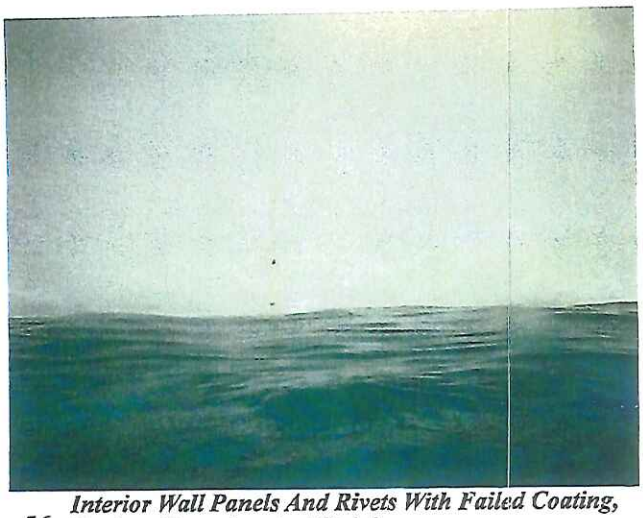
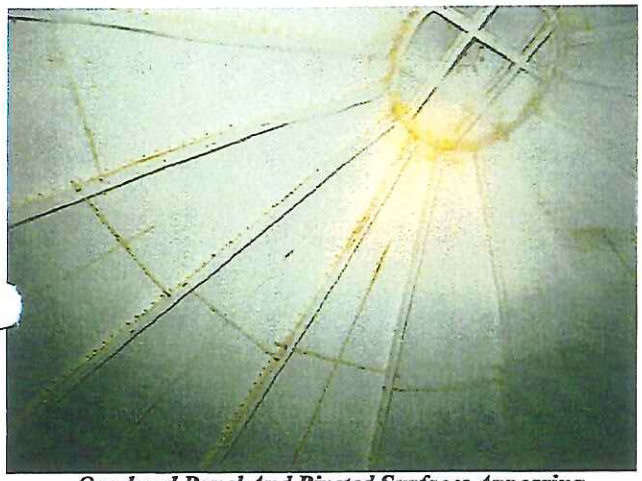


55 *Interior Wall Panels And Rivets With Failed Coating, Surface Corrosion And Staining*



56 *Interior Wall Panels And Rivets With Failed Coating, Surface Corrosion And Staining*



57 *Overhead Panel And Riveted Surfaces Appearing Sound, Yet Having Blotch Rusting*

58 *Overhead Panel And Riveted Surfaces Appearing Sound, Yet Having Blotch Rusting*

59 *Overhead Panel And Riveted Surfaces Appearing Sound, Yet Having Blotch Rusting*

60 *Discharge During Cleaning*

APPENDIX – D

MARCUS J. MOLINARO
COUNTY EXECUTIVE

MICHAEL C. CALDWELL, MD, MPH
COMMISSIONER

COUNTY OF DUTCHESS
DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH SERVICES

Certified Mail # 7004 0750 0000 0456 0602

July 16, 2013

Laura Hurley, Village Mayor
Village of Millbrook
P.O. Box 349
Millbrook, N.Y. 12545

Re: Millbrook Village - Public Water Supply Inspection
Federal ID# 1302770
Town of Washington

Dear Ms. Hurley:

On June 27, 2013, this Department conducted its regular inspection of the above-referenced facility to determine compliance with Part 5 of the New York State Sanitary Code. Accompanying me and providing input was your New York State certified operator, Scott Osborn of VRI. Based on our records, your water system currently serves approximately 1400 people through 720 service connections. Please provide updated information to this office as appropriate.

- Monthly operation reports indicate an average daily usage of approximately 200,000 gallons per day.
- Three (3) infiltration galleries located adjacent to the treatment building serve as water sources for this facility. At this time, the safe yield of each gallery is unknown. Aquifer pump testing performed in November of 1997 indicated a stabilized flow rate of 58 gallons per minute.
- Raw water flows by gravity to a 45,000 gallon clear well located below the treatment building where it is injected with a sodium hypochlorite solution for disinfection, caustic soda for pH control and zinc orthophosphate for corrosion control. This tank provides storage for future use as well as adequate chlorine contact time. Two galleries combine in a small wet well before entering the clear well.
- Alternating booster pumps send water to a 500,000 gallon elevated storage tank which "floats" on the system, accepting water only when there is no demand in the distribution system. The tank provides storage volume as well as adequate pressure for most of the distribution system.
- Alarms are provided for high/low storage levels as well as power and communication failure. The onsite generator is exercised weekly and was briefly turned on during the inspection.
- The distribution system is flushed once a year in May.

The following items were discussed during the inspection and are re-iterated here as documentation for the New York State Department of Health, Bureau of Public Water Supply Protection program.

1. After reviewing monthly operation reports and monitoring results submitted to this Department since our last inspection, it appears the system was capable of meeting the demands placed upon it. The sodium hypochlorite solution added was able to meet disinfection requirements and laboratory results for all system monitoring were able to meet quality standards for drinking water. The chlorine residual at the plant was 0.7 ppm at the time of inspection. In addition, monthly operation reports as well as sample results were provided to this Department in an acceptable and timely manner. A surveillance bacteriological sample was taken at the highway garage during the inspection. A chlorine residual was present and results were satisfactory.

❑ 223 Main Street, Beacon, New York 12508 • (845) 838-4801 • Fax (845) 838-4824
❑ 131 County House Road, Millbrook, New York 12545 • (845) 677-4001 • Fax (845) 677-4020
❑ 85 Civic Center Plaza - Suite 106, Poughkeepsie, New York 12601 • (845) 486-3404 • Fax (845) 486-3545 • TTY (845) 486-3417
HealthInfo@dutchessny.gov
www.dutchessny.gov

2. During the inspection, it was observed that the meter pit has been equipped with a sump pit and pump to help keep this area dry. However, due to the heavy rainfall recently, groundwater was entering the pit faster than could be discharged at the time of inspection. When rainfall dissipates, the pump can be properly set and this issue should be resolved. Please keep this office updated on your progress with this issue.

3. It was noted during the inspection that some maintenance items mentioned in the previous inspection have been attended to. Piping within the treatment building (bottom floor) has been repainted, the eyewash solution has been replaced, an exhaust fan has been installed in the chlorine storage room and openings in the chlorine crock was completely covered.

4. Since the previous inspection, the bunkers adjacent to the plant have been fully repaired and are again operational. It is noted that it appears similar work may be required at the bunkers on the opposite side of the stream running through the property. The area surrounding one of these bunkers has been excavated for evaluation. This area is ponding water and is considered a possible source of contamination. Please fill in the excavation no later than September 30, 2013. VRI and representatives of this Department will further evaluate the structural integrity of these bunkers at next year's inspection to determine if additional work is required.

5. It appears your elevated 500,000 gallon storage tank needs painting. It is strongly recommended this work be performed as soon as possible.

6. Based on the results of recent MPA testing, this office has determined the source water for this supply to be under the influence of surface water. Therefore, you have 18 months from the date of this letter to install an adequate filtration system. Please be advised engineering plans must be submitted to the New York State Department of Health as well as this office for review and approval prior to installation. If you wish to further discuss this matter, please contact this office to set up a conference.

7. Copies of the 2012 Annual Water Quality Reports (AWQR) and certification were received by this Department on time and accepted. As a reminder, the certification document must be provided to this office no later than September 1, 2013. Please be advised the 2013 AWQR must be provided to this Department and all consumers no later than May 31, 2014 and a copy of the AWQR certification form must be provided to this Department by September 1, 2014. It is recommended to submit a rough draft of the report to this Department by February 28th to allow sufficient review time.

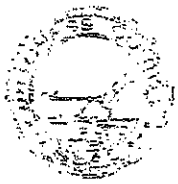
I would like to thank Scott Osborn for his assistance during the inspection. Please keep this office updated on any changes associated with the operator, village officials, phone numbers and addresses. If you have any questions regarding this correspondence, or if I can be of further assistance, please contact me at (845) 486-3404.

Yours very truly,

Daniel J. Keeler
Public Health Engineer
Environmental Health Services

DJK/ams
cc: Scott Osborn, VRI
File (1302770)

MARCUS J. MOLINARO
COUNTY EXECUTIVE



MICHAEL C. CALDWELL, M.D., M.P.H.
COMMISSIONER

COUNTY OF DUTCHESS
DEPARTMENT OF HEALTH

Certified Mail # 7004 0750 0000 0457 4593

September 4, 2012

Laura Hurley, Village Mayor
Village of Millbrook
P.O. Box 349
Millbrook, N.Y. 12545

Re: Millbrook Village - Public Water Supply Inspection
Federal ID# 1302770
Town of Washington

Dear Ms. Hurley:

On August 29, 2012, this Department conducted its regular inspection of the above-referenced facility to determine compliance with Part 5 of the New York State Sanitary Code. Accompanying me and providing input was your New York State certified operator, Scott Osborn of VRI. Based on our records, your water system currently serves approximately 1400 people through 720 service connections. Please provide updated information to this office as appropriate.

- Monthly operation reports indicate an average daily usage of approximately 200,000 gallons per day.
- Three (3) infiltration galleries located adjacent to the treatment building serve as water sources for this facility. At this time, the safe yield of each gallery is unknown. Aquifer pump testing performed in November of 1997 indicated a stabilized flow rate of 58 gallons per minute.
- Raw water flows by gravity to a 45,000 gallon clear well located below the treatment building where it is injected with a sodium hypochlorite solution for disinfection, caustic soda for pH control and zinc orthophosphate for corrosion control. This tank provides storage for future use as well as adequate chlorine contact time. Two galleries combine in a small wet well before entering the clear well.
- Alternating booster pumps send water to a 500,000 gallon elevated storage tank which "floats" on the system, accepting water only when there is no demand in the distribution system. The tank provides storage volume as well as adequate pressure for most of the distribution system.
- Alarms are provided for high/low storage levels as well as power and communication failure. The onsite generator is exercised weekly and was briefly turned on during the inspection.
- The distribution system is flushed once a year in May.

The following items were discussed during the inspection and are re-iterated here as documentation for the New York State Department of Health, Bureau of Public Water Supply Protection program.

1. After reviewing monthly operation reports and monitoring results submitted to this Department since our last inspection, it appears the system was capable of meeting the demands placed upon it. The sodium hypochlorite solution added was able to meet disinfection requirements and laboratory results for all system monitoring were able to meet quality standards for drinking water. The chlorine residual at the plant was 1.1 ppm at the time of inspection. In addition, monthly operation reports as well as sample results were provided to this Department in an acceptable and timely manner.

2. During the inspection, it was observed that some deficiencies from the previous inspection have been corrected. A suitable means of crossing the stream to access the infiltration gallery located southeast from the treatment building. In addition, monitoring wells have been properly sealed to protect the aquifer from contamination and all bunkers in infiltration gallery #3 have been cleared of any brush growing in this area.

3. It was noted during the inspection that some maintenance items need attention. Piping within the treatment building (bottom floor) needs repainting, the eyewash solution has expired and must be replaced, an exhaust fan must be installed in the chlorine storage room and openings in the chlorine crock must be completely covered. These issues must be properly addressed no later than October 31, 2012 to avoid a violation and please indicate the work complete on the appropriate monthly operation report. In addition, standing water within the meter pit is above the bottom of the water main and a suitable means of removing this water must be employed. It appears a sump pit may need to be installed. Please demonstrate the water is being removed at next year's inspection.

4. According to your operator, certain high points within the distribution system experience low pressure. This Department is requesting this issue be investigated to determine exact pressures within connections (i.e. upstairs bathroom tap) at these elevations. Such areas include homes directly near the storage tank, the Millbrook High School and a residence at the top of the hill on Nine Partners Road. Please submit pressure readings no later than December 31, 2012 to avoid a violation. You may wish to contact this office to accompany your operator during this investigation.

5. It appears your elevated 500,000 gallon storage tank needs painting. It is strongly recommended this work be performed as soon as possible.

6. As you are aware, the Village has been undergoing a study to determine if the infiltration galleries are under the direct influence of surface water. This office in consultation with the New York State Department of Health has required microscopic particulate analysis (MPA) be performed from the stream and two raw water sources during wet and dry weather periods. Following this sampling, a determination will be made as to whether the sources are under the influence of surface water. Due to the fact that excavation has already begun around the bunkers and the presence of surface water within the open excavation, it is believed that MPA testing at this time may produce data not representative of the actual raw water. Therefore, it was agreed during last year's inspection that bunker work be performed as soon as possible and be completed prior to the start of the first MPA. Although some work was completed on this project since the previous inspection, repair work has not been completed and MPA testing has yet to be completed. As this work was required to be completed by November 2011, this is hereby a violation of 5-1.71(a). Bunker repair work must be completed no later than October 31, 2012. Please contact this Department upon completion to discuss the most desirable times for MPA wet/dry weather sampling. Please be advised failure to meet this deadline may result in formal administrative action.

7. Copies of the 2011 Annual Water Quality Reports (AWQR) and certification were received by this Department on time and accepted. Please be advised the 2012 AWQR must be provided to this Department and all consumers no later than May 31, 2013. A copy of the AWQR certification form must be provided to this Department by September 1, 2013. It is recommended to submit a rough draft of the report to this Department as soon as possible to allow sufficient review time.

8. Part 5-1.52 addresses your facility's monitoring requirements for quality control. The attached sampling schedule has been provided as a general guide only. It is the responsibility of the supplier and not this Department to make sure that all monitoring is performed according to the methods, procedures, and time periods indicated in Part 5 of the New York State Sanitary Code. Sampling frequency is based on maximum contaminant and action levels and therefore, the frequency is subject to change pending sample results. A violation will be issued for failure to comply with the sampling requirements and due dates.

I would like to thank VRI's personnel for their assistance during the inspection. Please keep this office updated on any changes associated with the operator, village officials, phone numbers and addresses. If you have any questions regarding this correspondence, or if I can be of further assistance, please contact me at (845) 486-3404.

Yours very truly,

Daniel J. Keeler
Public Health Engineer
Environmental Health Services

DJK/ams

cc: Scott Osborn, VRI (w/ enclosures)
Michelle Kelley → File 097-0024622 (w/ enclosures)

SDWIS/State Water Sample Schedule Report

MILLBROOK VILLAGE PWS ID: NY1302770

Due 2012	Contaminant (Group)/ Sample Location/Frequency	Last Compliance Results	Sample Requirements
	Coliform, Total (TCR)		
☑	Location: Distribution System Frequency: 2 Samples Monthly		2 Samples must be collected every month.
	A positive total coliform (TC+) sample requires notifying the health department and collecting repeat distribution system samples within 24 hours. Unless otherwise directed by the health department, source (or raw) water before any treatment, from all active wells, must also be sampled within 24 hours.		
	Part 5-1.52 Table 9A - Disinfection Byproducts		
☑	Location: DISTRIBUTION SYSTEM ID: DS199 Frequency: 1 Sample Yearly Sample Point: DISTRIBUTION DBPMAX Sample Point No.: DBPMAX Sample Point Type: MR-Maximum Residence Time	Samples last collected: 8/17/2011	Next sample must be collected between 7/1 and 9/30 within a single year by 9/30/2012
	Stage 1 Disinfection By-Products: A sample must be obtained from a sampling point reflecting the maximum residence time in the distribution system during the warmest month of the year. Samples taken in July, August, or September will be accepted for compliance.		
	Zinc		
☑	Location: DISTRIBUTION SYSTEM ID: DS199 Frequency: 1 Sample Quarterly Sample Point: DISTRIBUTION IOC Sample Point No.: IOC-DS Sample Point Type: DS-Distribution System	Samples last collected: 4/11/2012	1 Sample must be collected each calendar quarter.
	Asbestos		
☐	Location: DISTRIBUTION SYSTEM ID: DS199 Frequency: 1 Sample Every 9 years Sample Point: DISTRIBUTION ASBESTO Sample Point No.: ASB Sample Point Type: DS-Distribution System		Next sample must be collected by 12/31/2016
	Nitrate		
☐	Location: DISTRIBUTION SYSTEM ID: DS199 Frequency: 1 Sample Yearly Sample Point: ENTRY POINT NITRATE Sample Point No.: RTNO Sample Point Type: EP-Entry Point	Last Sample Collected on or Before: 4/11/2012	Next sample must be collected between 1/1/2013 and 12/31/2013
	Part 5-1.42 - Lead and Copper		
☐	Location: DISTRIBUTION SYSTEM ID: DS199 Frequency: 10 Samples Every 3 years Sample Point: DISTRIBUTION PBCU Sample Point No.: PBCU Sample Point Type: DS-Distribution System	10 Samples Collected on or Before: 9/22/2011	Next 10 samples must be collected between 6/1 and 9/30 within a single year by 9/30/2014
	This PWS is currently on a reduced monitoring frequency of every 3 years. Public water supplies on reduced monitoring must sample between 6/1 and 9/30 of the given year.		
	Part 5-1.52 Table 12 - Radiological		
☐	Location: DISTRIBUTION SYSTEM ID: DS199 Frequency: 1 Sample Every 6 years	Samples last collected: 11/7/2007	Next sample must be collected by 12/31/2013

Due 2012	Contaminant (Group)/ Sample Location/Frequency	Last Compliance Results	Sample Requirements
	Sample Point: ENTRY POINT RAD Sample Point No.: RAD Sample Point Type: EP-Entry Point		
	Part 5-1.52 Table 8B - Primary Inorganic Chemicals		
☐	**Location: DISTRIBUTION SYSTEM ID: DS199** **Frequency: 1 Sample Every 3 years** Sample Point: ENTRY POINT IOC Sample Point No.: IOC-EP Sample Point Type: EP-Entry Point	Samples last collected: 9/21/2010	Next sample must be collected by 12/31/2013
	Part 5-1.52 Table 9B - Principal Organic Chemicals		
☐	**Location: TREATMENT PLANT ID: TP199** **Frequency: 2 Samples Yearly** Sample Point: RAW IG199 & IG299 CO Sample Point No.: RAW1 Sample Point Type: RW-Raw Water Source Sample Point: RAW IG399 Sample Point No.: RAW2 Sample Point Type: RW-Raw Water Source	2 Samples Collected on or Before: 6/20/2012	Next 2 samples must be collected between 1/1/2013 and 12/31/2013
	Part 5-1.52 Table 9C - Synthetic Organic Chemicals		
☐	**Location: DISTRIBUTION SYSTEM ID: DS199** **Frequency: 1 Sample Every 3 years** Sample Point: ENTRY POINT SOC Sample Point No.: SOC Sample Point Type: EP-Entry Point	Samples last collected: 12/7/2010	Next sample must be collected by 12/31/2013

Certified Mail # 7004 0750 0000 0456 8752

September 20, 2011

Laura Hurley, Village Mayor
Village of Millbrook
P.O. Box 349
Millbrook, N.Y. 12545

Re: Millbrook Village - Public Water Supply Inspection
Federal ID# 1302770
Town of Washington

Dear Ms. Hurley:

On September 15, 2011, this Department conducted its regular inspection of the above-referenced facility to determine compliance with Part 5 of the New York State Sanitary Code. Accompanying me and providing input was your New York State certified operator, Scott Osborn of VRI. During the inspection, I observed that your water system is properly operated and adequately maintained and currently serves approximately 1400 people through 720 service connections. Please provide updated information to this office as appropriate.

Dutchess County Department of Health

William R. Steinhaus
County Executive

Michael C. Caldwell, MD, MPH
Commissioner

Environmental Health Services

387 Main Street
Poughkeepsie
New York
12601
(845) 486-3404
Fax: (845) 486-3545

- Monthly operation reports indicate an average daily usage of approximately 200,000 gallons per day.
- Three (3) infiltration galleries located adjacent to the treatment building serve as water sources for this facility. At this time, the safe yield of each gallery is unknown. Aquifer pump testing performed in November of 1997 indicated a stabilized flow rate of 58 gallons per minute.
- Raw water flows by gravity to a 45,000 gallon clear well located below the treatment building where it is injected with a sodium hypochlorite solution for disinfection, caustic soda for pH control and zinc orthophosphate for corrosion control. This tank provides storage for future use as well as adequate chlorine contact time. Two galleries combine in a small wet well before entering the clear well.
- Alternating booster pumps send water to a 500,000 gallon elevated storage tank which "floats" on the system, accepting water only when there is no demand in the distribution system. The tank provides storage volume as well as adequate pressure for most of the distribution system.
- Alarms are provided for high/low storage levels as well as power and communication failure. The onsite generator is exercised weekly and was briefly turned on during the inspection.

The following items were discussed during the inspection and are re-iterated here as documentation for the New York State Department of Health, Bureau of Public Water Supply Protection program.

1. After reviewing monthly operation reports and monitoring results submitted to this Department since our last inspection, it appears the system was capable of meeting the demands placed upon it. The sodium hypochlorite solution added was able to meet disinfection requirements and laboratory results for all system monitoring were able to meet quality standards for drinking water. The chlorine residual at the plant was 1.4 ppm at the time of inspection. In addition, monthly operation reports as well as sample results were provided to this Department in an acceptable and timely manner.

2. During the inspection, it was observed several deficiencies have been corrected since the previous inspection. A new cover for the wet well has been installed, access hatches to infiltration gallery #3 were equipped with gaskets to provide a better seal, and manhole risers to infiltration gallery #3 had been appropriately repaired. In addition, the sump pump installed in the metering pit has been working to keep water out of the pit and signage has been provided in the treatment building indicating that the sink be used for sample use only and not hand washing.

3. The monitoring wells located on the property must be equipped with caps which provide a sanitary seal to prevent contamination of the aquifer. Please submit a specification of the cap proposed prior to installation. Said work must be performed no later than December 31, 2011.

4. During the inspection, it was noted that the area surrounding infiltration gallery #3 across the stream has mostly been kept clear as part of routine maintenance. The bunker furthest from the treatment building needs attention to reduce the brush growing in this area. Please perform this work no later than December 31, 2011 to avoid a violation.

(5) During the inspection, there was no access to the infiltration gallery located southeast from the treatment building. During previous inspections, the operator would use a 10-12" wide piece of wood as a plank to cross the stream. However, the water level was too high to use this device. This Department is requiring a suitable means of crossing this stream be provided such that required maintenance and inspections can be performed. This work must be completed no later than December 31, 2011.

(6) It appears your elevated 500,000 gallon storage tank needs painting. This work should be performed as soon as possible. Your operator indicated during the inspection that piping within the treatment building is to be re-painted during the winter.

(7) As you are aware, the Village has been undergoing a study to determine if the infiltration galleries are under the direct influence of surface water. This office in consultation with the New York State Department of Health has required microscopic particulate analysis (MPA) be performed from the stream and two raw water sources during wet and dry weather periods. Following this sampling, a determination will be made as to whether the sources are under the influence of surface water. At the time of inspection, Bill Bright from Delaware Engineering was present to discuss this analysis as well as the repair work proposed for infiltration gallery bunkers located north of the treatment building. Due to the fact that excavation has already begun around the bunkers and the presence of surface water within the open excavation, it is believed that MPA testing at this time may produce data not representative of the actual raw water. Therefore, it was agreed that bunker work be performed as soon as possible and be completed prior to the start of the first MPA. Bunker repair work must be completed no later than October 31, 2011 and MPA wet weather sampling must be completed no later than November 30, 2011.

8. Copies of the 2009 and 2010 Annual Water Quality Reports (AWQR) and certifications were received by this Department on time and accepted. Please be advised the 2011 AWQR must be provided to this Department and all consumers no later than May 31, 2012. A copy of the AWQR certification form must be provided to this Department by September 1, 2012. It is recommended to submit a rough draft of the report to this Department as soon as possible to allow sufficient review time.

9. Part 5-1.52 addresses your facility's monitoring requirements for quality control. The attached sampling schedule has been provided as a general guide only. It is the responsibility of the supplier and not this Department to make sure that all monitoring is

performed according to the methods, procedures, and time periods indicated in Part 5 of the New York State Sanitary Code. Sampling frequency is based on maximum contaminant and action levels and therefore, the frequency is subject to change pending sample results. A violation will be issued for failure to comply with the sampling requirements and due dates.

I would like to thank VRI's personnel for their assistance during the inspection. Please keep this office updated on any changes associated with the operator, town officials, phone numbers and addresses. If you have any questions regarding this correspondence, or if I can be of further assistance, please contact me at (845) 486-3404.

Yours very truly,

Daniel J. Keeler
Public Health Engineer
Environmental Health Services

DJK/ams

cc: Scott Osborn, VRI (w/ enclosures)
Michelle Kelley → File 097-0024622 (w/ enclosures)

Certified Mail # 7004 0750 0000 0455 5653

April 23, 2010

Andrew J. Ciferri, Village Mayor
Village of Millbrook
P.O. Box 349
Millbrook, N.Y. 12545

Re: Millbrook Village - Public Water Supply Inspection
Federal ID# 1302770
Town of Washington

Dear Mr. Ciferri:

On April 9, 2010, this Department conducted its regular inspection of the above-referenced facility to determine compliance with Part 5 of the New York State Sanitary Code. Accompanying me and providing input was your New York State certified operator, Scott Osborn of VRI. During the inspection, I observed that your water system is properly operated and adequately maintained and currently serves approximately 2100 people through 600 service connections. Please provide updated information to this office as appropriate.

Dutchess County Department of Health

William R. Steinhaus
County Executive

Michael C. Caldwell, MD, MPH
Commissioner

Environmental Health

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12601
(845) 486-3404
Fax (845) 486-3545

- Monthly operation reports indicate an average daily usage of approximately 200,000 gallons per day.
- Three (3) infiltration galleries located adjacent to the treatment building serve as water sources for this facility. At this time, the safe yield of each gallery is unknown. Aquifer pump testing performed in November of 1997 indicated a stabilized flow rate of 58 gallons per minute.
- Raw water flows by gravity to a 45,000 gallon clear well located below the treatment building where it is injected with a sodium hypochlorite solution for disinfection, caustic soda for pH control and zinc orthophosphate for corrosion control. This tank provides storage for future use as well as adequate chlorine contact time. Two galleries combine in a small wet well before entering the clear well.
- Alternating booster pumps send water to a 500,000 gallon elevated storage tank which "floats" on the system, accepting water only when there is no demand in the distribution system. The tank provides storage volume as well as adequate pressure for the distribution system.
- Alarms are provided for high/low storage levels as well as power and communication failure. The onsite generator is exercised every two weeks and was briefly turned on during the inspection.

The following items were discussed during the inspection and are re-iterated here as documentation for the New York State Department of Health, Bureau of Public Water Supply Protection program.

1. After reviewing monthly operation reports and monitoring results submitted to this Department since our last inspection, it appears the system was capable of meeting the demands placed upon it. The sodium hypochlorite solution added was able to meet disinfection requirements and laboratory results for all system

monitoring were able to meet quality standards for drinking water. The chlorine residual at the plant was 2.0 at the time of inspection. In addition, monthly operation reports as well as sample results were provided to this Department in an acceptable and timely manner.

2. During the inspection, it was observed that the cover for the wet well is acting as a rain collector, allowing infiltration of surface water when the cover is opened. This cover must be replaced with a lockable, sealable unit that diverts rainwater off the surface no later than July 1, 2010 to avoid a violation.

3. The status of several monitoring wells located on the property is unknown. If these wells are no longer being used, they must be properly abandoned no later than December 31, 2010. Please submit the appropriate permit applications prior to the start of work.

4. During the inspection, it was noted that the area surrounding the newer infiltration gallery across the stream was cleared of all brush and trees since the last inspection. Please keep this area clear as part of routine maintenance. To further protect the galleries from contamination, this department is requiring the bunkers which allow access to the source water be cleaned of debris and any cracks or spaces between the concrete risers repaired with an approved material. In addition, this department is requiring the bunkers' access hatches be provided with a sealable gasket. Please perform this work no later than July 1, 2010 to avoid a violation.

5. It was noted during the inspection that a sink within the treatment building discharges directly on a stone bed outside the building. This department is requiring a sign be posted above the sink that reads, "NO WASHING. FOR SAMPLE USE ONLY" as soon as possible. In addition, during the inspection I observed that there was no light in the chlorination room. Please provide a new light immediately. Indicate this work has been completed on your next monthly operation report to avoid a violation.

6. It is strongly recommended that piping within the treatment building be painted as soon as possible. In addition, this department recommends a safer, more secure way of crossing the stream on this property. Currently, the operator uses a 10"-12" wide piece of wood as a plank to cross the stream.

7. It appears your elevated 500,000 gallon storage tank needs painting. Your operator indicated the village is planning to have the tank inspected and painted this year.

8. Copies of the 2008 Annual Water Quality Report (AWQR) and certification were received by this Department on time. Please be advised the 2009 AWQR must be provided to this Department and all consumers no later than May 31, 2010. A copy of the AWQR certification form must be provided to this Department by September 1, 2010. It is recommended to submit a rough draft of the report to this Department as soon as possible to allow sufficient review time.

9. Part 5-1.52 addresses your facility's monitoring requirements for quality control. The attached sampling schedule has been provided as a general guide only. It is the responsibility of the supplier and not this Department to make sure that all monitoring is performed according to the methods, procedures, and time periods indicated in Part 5 of the New York State Sanitary Code. Sampling frequency is based on maximum contaminant and action levels and therefore, the frequency is subject to change pending

sample results. A violation will be issued for failure to comply with the sampling requirements and due dates.

I would like to thank VRI's personnel for their assistance during the inspection. Please keep this office updated on any changes associated with the operator, town officials, phone numbers and addresses. If you have any questions regarding this correspondence, or if I can be of further assistance, please contact me at (845) 486-3404.

Yours very truly,

Daniel J. Keeler
Public Health Engineer
Environmental Health Services

DJK/kmk

cc: Scott Osborn, VRI (w/ enclosures)
Michelle Kelley→Joseph Tagliavia, DCDOH→File 097-0024622 (w/ enclosures)

Sampling Schedule

PWS: Millbrook Village
Federal ID# 1302770
Population: 1400 **Service Connections:** 651
Infiltration Galleries: 3 **Treatment Plants:** 1 **Distribution Systems:** 1

ANALYTE	SAMPLE POINT	WSF	MONITORING PERIOD #	FREQUENCY	LAST SAMPLE	VIOLATION	NEXT DUE
TCR	DIST	DS199	2	Monthly	1/12/2010	NO	2/28/2010
GWUDI (Temp. & Conductivity)	RAW	SOURCES &STREAM	1	Daily	N/A	NO	6/1/2010
LT2SWTR (E. Coli Enumeration)	RAW	EACH SOURCE	1	Every 2 Weeks	N/A	NO	6/1/2010
NITRATE	EP	DS199	1	Annually	3/4/2009	NO	12/31/2010
IOC 8B	EP	DS199	1	Every 3 Years	10/17/2007	NO	12/31/2010
IOC 8D	EP	DS199	2	Quarterly	2/2/2010	NO	6/30/2010
SOC	EP	DS199	1	Every 3 Years	7/18/2007	NO	12/31/2010
RAD	EP	DS199	1	Every 6 Years	3/15/2007	NO	12/31/2013
POC	RAW	DS199	1	Annually	7/21/2009	NO	12/31/2010
PBCU	DIST	DS199	1	Every 3 Years	9/2/2008	NO	9/30/2011
DBP STAGE 1	DIST	DS199	1	Annually	8/19/2009	NO	8/30/2010
DBP STAGE 2	DIST	40/30 WAIVER ISSUED ON 3/31/2008					
ASBESTOS	EP / DIST	WAIVER ISSUED ON 1/29/07					

APPENDIX – E

CT Time Calculations

3.2 Log Removal Credit with LT2 Cartridge Filter and we need 4 log removal to meet the LT2 requirements.

The proposed 150,000 gallon contact tank with mixing and or baffles, provides a baffle factor of .5, which equals which 75,000 gallons of contact time or 300 minutes CT with one pump @ 250 gpm and 150 minutes with two pumps @ 500 gpm.

One pump @ 250 gpm equals a CT of 300 minutes.

75,000 gal / 250 gpm = 300 minutes CT.

Two pumps @ 500 gpm equals a CT of 150 minutes.

75,000 gal / 500 gpm equals a CT of 150 minutes.

Using the EPA Guidance Manual Table C-1 Values for Inactivation of Giardia Cysts by Free Chlorine at 0.5° C ^{or} Lower

The system average chlorine concentration of 1.2 mg/L, pH of 7.5 and the low temp of 3° C

Using the above mentioned table 173 minutes of CT time / 1.2 mg/L chlorine = 145 minutes provides 2 log removal.

173/1.2 = 145 minutes will provide 2 Log Removal

Conclusion is that with the 3.2 log removal of the Cartridge filter and the 2 log removal by free chlorine the new system will provide a minimum of 5.2 log removal

Table C-1. CT Values for Inactivation of *Giardia* Cysts by Free Chlorine at 0.5°C or Lower

CHLORINE CONCENTRATION	pH<=6 Log Inactivation						pH=6.5 Log Inactivation						pH=7.0 Log Inactivation						pH=7.5 Log Inactivation					
(mg/L)	0.5	1.0	1.5	2.0	2.5	3.0	0.5	1.0	1.5	2.0	2.5	3.0	0.5	1.0	1.5	2.0	2.5	3.0	0.5	1.0	1.5	2.0	2.5	3.0
<=0.4	23	46	69	91	114	137	27	54	82	109	136	163	33	65	98	130	163	195	40	79	119	158	198	237
0.6	24	47	71	94	118	141	28	56	84	112	140	169	33	67	100	133	167	200	40	80	120	159	199	239
0.8	24	48	73	97	121	145	29	57	86	115	143	172	34	68	103	137	171	205	41	82	123	164	205	246
1	25	49	74	99	123	148	29	59	88	117	147	176	35	70	105	140	175	210	42	84	127	169	211	253
1.2	25	51	76	101	127	152	30	60	90	120	150	180	36	72	108	143	179	215	43	86	130	173	216	259
1.4	26	52	78	103	129	155	31	61	92	123	153	184	37	74	111	147	184	221	44	89	133	177	222	266
1.6	26	52	79	105	131	157	32	63	95	126	155	189	38	75	113	151	188	226	46	91	137	182	228	273
1.8	27	54	81	108	135	162	32	64	97	129	161	193	39	77	116	154	193	231	47	93	140	186	233	279
2	28	55	83	110	138	165	33	66	99	131	164	197	39	79	118	157	197	236	48	95	143	191	238	286
2.2	28	56	85	113	141	169	34	67	101	134	169	201	40	81	121	161	202	242	50	99	149	198	248	297
2.4	29	57	86	115	143	172	34	68	103	137	171	205	41	82	124	165	206	247	50	99	149	199	248	298
2.6	29	58	88	117	146	175	35	70	105	139	174	209	42	84	126	168	210	252	51	101	152	203	253	304
2.8	30	59	89	119	148	178	36	71	107	142	178	213	43	86	129	171	214	257	52	103	155	207	258	310
3	30	60	91	121	151	181	36	72	109	145	181	217	44	87	131	174	218	261	53	105	158	211	263	316

CHLORINE CONCENTRATION	pH=8.0 Log Inactivation						pH=8.5 Log Inactivation						pH=9.0 Log Inactivation					
(mg/L)	0.5	1.0	1.5	2.0	2.5	3.0	0.5	1.0	1.5	2.0	2.5	3.0	0.5	1.0	1.5	2.0	2.5	3.0
<=0.4	46	92	139	185	231	277	55	110	165	219	274	329	65	130	195	260	325	390
0.6	48	95	143	191	238	286	57	114	171	228	285	342	68	136	204	271	339	407
0.8	49	98	148	197	246	295	59	113	177	236	295	354	70	141	211	281	352	422
1	51	101	152	203	253	304	61	122	183	243	304	365	73	146	219	291	364	437
1.2	52	104	157	209	261	313	63	125	188	251	313	376	75	150	226	301	376	451
1.4	54	107	161	214	268	321	65	129	194	258	323	387	77	155	232	309	387	464
1.6	55	110	165	219	274	329	66	132	199	265	331	397	80	159	239	318	398	477
1.8	56	113	169	225	282	338	68	136	204	271	339	407	82	163	245	326	408	489
2	55	115	173	231	288	346	70	139	209	278	348	417	83	167	250	333	417	500
2.2	59	118	177	235	294	353	71	142	213	284	355	426	85	170	256	341	426	511
2.4	60	120	181	241	301	361	73	145	218	290	363	435	87	174	261	348	435	522
2.6	61	123	184	245	307	368	74	148	222	296	370	444	89	178	267	355	444	533
2.8	63	125	188	250	313	375	75	151	226	301	377	452	91	181	272	362	453	543
3	64	127	191	255	318	382	77	153	230	307	383	460	92	184	276	369	460	552

Source: AWWA, 1991.

PRESS RELEASE

HARMSCO®

LT2
Pleated Cartridges

North Palm Beach, Florida
December 2, 2013
Harmsco Filtration Products
LT2 Pleated Cartridges

Meet Long Term 2 Requirements Today
for Ground Water Under Direct Influence of Surface Water (GWUDI)

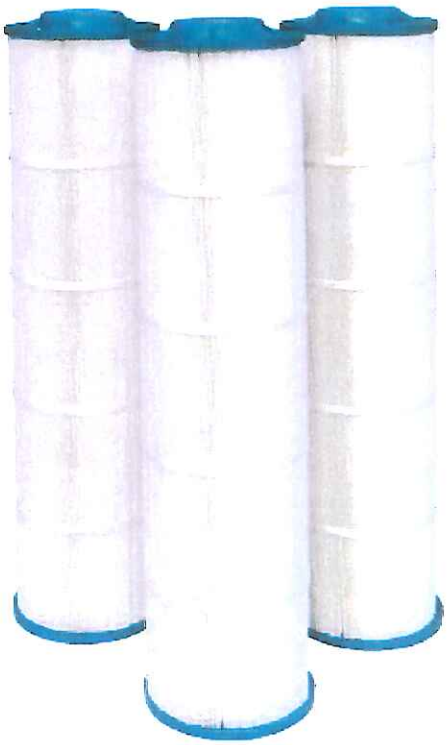
Municipal Hurricane® Systems

Certified: NSF/ANSI Standard 61
Drinking Water System Components - Health Effects
Independently Tested

Certified to ANSI-NSF 61

Now Available!

Harmsco® Filtration Products
is pleased to announce the availability of
LT2 Pleated Cartridges
for **Public Drinking Water.** These cartridges feature high flow capability, low initial pressure drop, lower overall operating cost, increased contaminant removal, and longer filter runs for fewer change-outs.



Harmsco® HC/170-LT2

Features

- ✔ **NSF-61 Listed filter media removes cyst-sized particles for safe, cyst-free drinking water**
- ✔ **Pleated media provides more surface area for longer filter life and increased particle removal**
- ✔ **Patented Dual Durometer end caps ensure positive sealing**
- ✔ **FDA Listed Materials: Manufactured from materials which are listed for food contact applications in Title 21 of the U.S. Code of Federal Regulations**
- ✔ **100 GPM per cartridge at >3.6 log reduction**

Applications

- ✔ **Surface Water Treatment Rule (SWTR) LT2**
- ✔ **Ground Water Under Direct Influence (GUDI)**
- ✔ **Municipal Drinking Water**
- ✔ **Reverse Osmosis Pre-filtration**
- ✔ **Food & Beverage Filtration**
- ✔ **Desalination Pre-filtration**
- ✔ **Commercial/Residential Drinking Water**

CLICK HERE TO VIEW ALL LT2 LISTINGS

Specifications

Filter Media: FDA borosilicate with acrylic binder	**Surface Area:** 120 sq. ft.
End Caps: Plastisol (pliable PVC)	**Temperature*:** 140°F(60°C) max.
Change Out: 25-30 PSI (1.72-2.07 Bar) ΔP	**pH:** 3 to 11
Flow Rate: 100 GPM (recommended)	**Center Tubes:** Rigid PVC (perforated)

* Temperature rating based on pressure and time under load.

HARMSCO® Filtration Products
P.O. Box 14066, North Palm Beach, FL 33408
(561) 848-9628 • Toll-free: (800) 327-3248 • Fax: (561) 845-2474 • E-mail: sales@harmsco.com
www.harmsco.com

Made in USA

APPENDIX - F

Floway two Stage Pump same model as existing pumps with with a smaller motor

1760 RPM ENCLOSED TYPE IMPELLER 8JKM

NUMBER OF STAGES	EFFICIENCY CHANGE (NO. OF POINTS)
1	- 3
2	- 1 1/2
3	- 1/2

HORSEPOWER WILL BE AFFECTED BY CHANGE IN EFFICIENCY

PUMP DATA

Shaft Dia.(IN)	1 3/16
Maximum Sphere (IN)	3/4
Maximum Head (FT)*	956
Min. Submergence (IN)**	11
Impeller Weight (LBS)	5.4
Thrust Constant (K)	4.7
Thrust Bal Const. (K)	N/A
Bowl O.D.(IN.)	7 3/4
Bowl Height (IN.)	7 1/4
Bell DIA. (T) (IN.)	7 3/4
Strainer height (IN.)	4 7/8
Impeller C-line(X)(IN.)	5 3/4
Eye Area (IN^ 2)	11.8

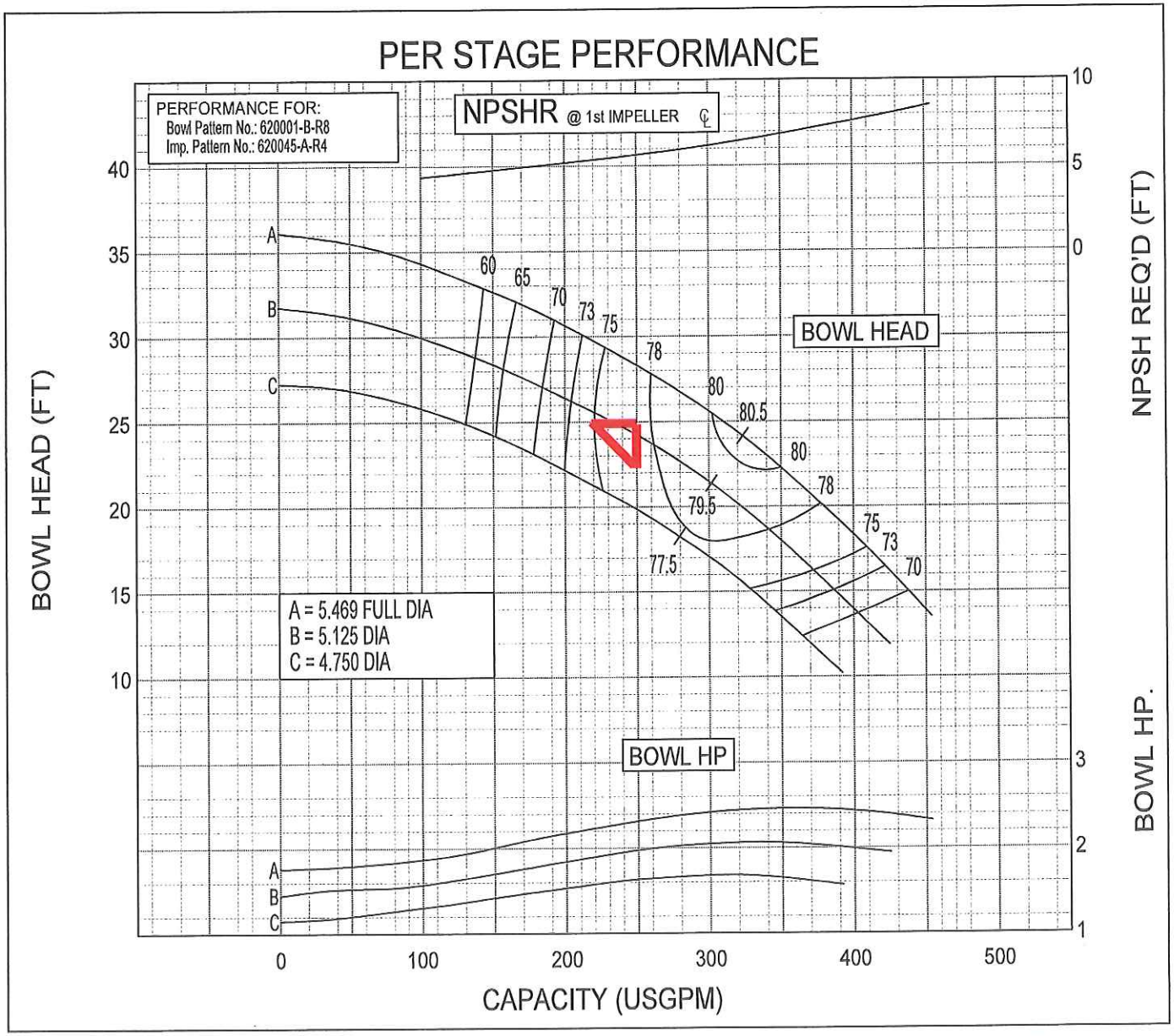
NOTES

Performance indicated based on cold water with specific gravity of 1.0.

* Standard Construction.

** Minimum submergence over lip of bell to prevent vortexing.

Efficiency improvements are available in certain instances. Please contact the factory.

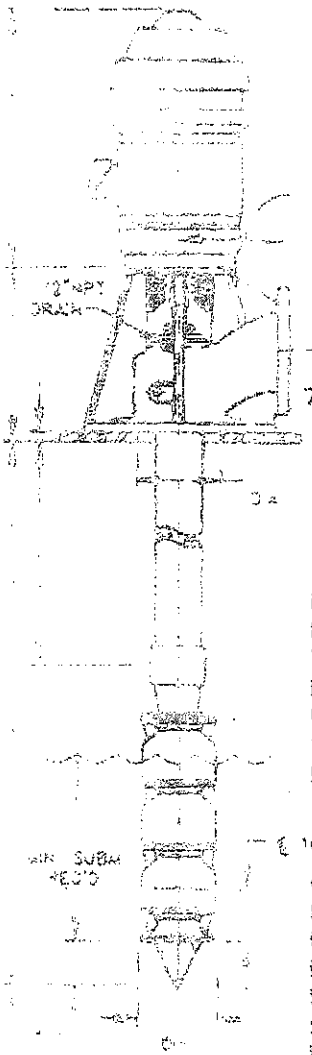


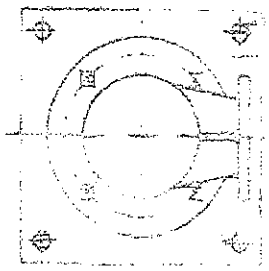
NEW SUPPLY PUMS FROM THE EXISTING WET WELL TO THE FILTER BUILDING

Peabody Flowsy

VERTICAL TURBINE PUMP

TYPE "A"





SC

DISCHARGE
6" 125# ANSI F.F. FLG.
DIA HOLES *
DIA BOLT CIRCLE
DIA FLANGE
* BOLT HOLES STRADDLE VERTICAL

MOTOR

MAKE EXISTING
ENCLOSURE
TYPE MS NRP
HP RPM
PHASE HERTZ
VOLTAGE
FRAME NO
TYPE COUPLING THREAD

GAIT
1 LINE SHAFT
PROTECTION
250
IMPELLER CLOSED
STRAINER

MATERIAL

COL PIPE STEEL
LINE SHAFT 416 SS
BOWL SHAFT
SHAFT PACKING
SOLE PLATE CI STEEL
BEARING RETAINER BRZ

PUMP BOWL CI
BRZ
BOWL
BEARINGS LINE
STRAINER
DISCHARGE HEAD

REMARKS
NO. UNITS REQ'D

FLUID
SPEC GRAVITY
TEMPERATURE

CUSTOMER
ORDER NO
SUPPLIER

Company: Delaware Engineering
Name: MILLBROOK WATER
Date: 2/13/2015

PROPOSED NEW BOOSTER PUMPS

burks®

Pump:

Size: G9 - 2

Type: Close Coupled Cent.
Synch speed: 3600 rpm

Speed: 3500 rpm
Dia: 8.5 in

Curve: 11237TX

Impeller: 21172

Specific Speeds:

Ns: ---
Nss: ---

Dimensions:

Suction: 2.5 in
Discharge: 2 in

Pump Limits:

Temperature: 225 °F
Pressure: 200 psi g
Sphere size: 0.375 in

Power: ---
Eye area: ---

Search Criteria:

Flow: 250 US gpm

Head: 270 ft

Fluid:

Water
Density: 62.32 lb/ft³
Viscosity: 0.9946 cP

Temperature: 68 °F
Vapor pressure: 0.3391 psi a
Atm pressure: 14.7 psi a

NPSHa: ---

Motor:

Standard: NEMA JM
Enclosure: TEFC

Size: 30 hp
Speed: 3600
Frame: 286JM

Sizing criteria: Design Point

--- Data Point ---

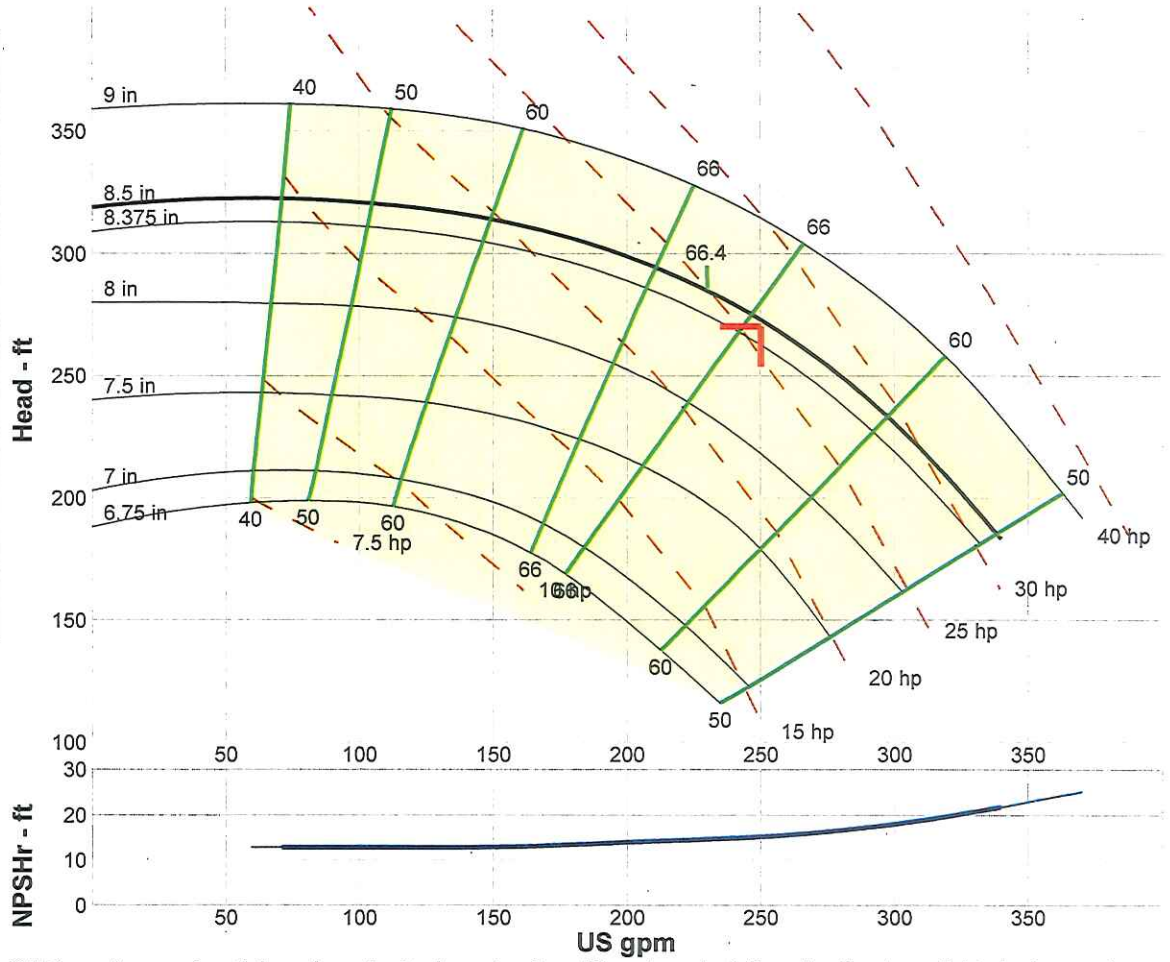
Flow:	250 US gpm
Head:	273 ft
Eff:	65.6%
Power:	26.2 hp
NPSHr:	15.2 ft

--- Design Curve ---

Shutoff head:	319 ft
Shutoff dP:	138 psi
Min flow:	---
BEP:	66.4% @ 230 US gpm
NOL power:	31.7 hp @ 340 US gpm

-- Max Curve --

Max power: 37.3 hp @ 370 US gpm



225F max temperature is based on standard construction. Alternate material/construction is available for temperatures to 500F.

Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
300	3500	230	59.4	29.3	18
250	3500	273	65.6	26.2	15.2
200	3500	298	65	23	13.9
150	3500	314	60.1	19.8	12.9
100	3500	321	48.6	16.6	12.8