# Annual Drinking Water Quality Report for 2013
# Village of Port Dickinson
# Port Dickinson, New York
# Public Water Supply ID# NY0301672

**INTRODUCTION:** To comply with State and Federal regulations, this annual report is issued by Port Dickinson Water department describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water. The Village of Port Dickinson does not produce our own water. Presently we purchase about 98% of our water from Hillcrest and the other 2% from the City of Binghamton. This means that if you live between Old State Road and Binghamton, you probably get most of your water from Binghamton. If you live between Wayne Ave. and Hillcrest, you probably get most of your water from Hillcrest. Those between Old State Road and Wayne Ave. are getting a mix of both water systems. Last year, both systems met all State Drinking Water Health Standards. This report provides an overview of both water systems.

If you have any questions about this report or your water, please contact Charles Harding (771-8233) during business hours.

**WHERE DOES OUR WATER COME FROM:** In general, the sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminates. In order to ensure that tap water is safe to drink, the State and EPA prescribe regulations, which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Hillcrest water comes from three wells, ranging in depth from 210 feet to 219 feet that draw water from a lower aquifer in the Chenango River Basin. The water is pumped from the wells into two covered storage tanks with a combined capacity of 1,250,000 gallons. The water is disinfected with sodium hypochlorite as it leaves the well field. Polyphosphate sequestrant is added to keep dissolved iron and manganese found in our water in solution.

The City of Binghamton's primary source is the Susquehanna River. The water is withdrawn and treated at a modern, recently renovated water filtration facility. Binghamton also has a back-up groundwater supply, a well of relatively small capacity compared to their normal water demands. The well is typically exercised 8 hours per week and thus supplies less than one-half of one percent of their water. Water pumped from the well is chlorinated before entering the water distribution system.

**ARE THERE CONTAMINANTS IN OUR DRINKING WATER:** Of course! All drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. Regular testing is conducted on both systems and within Port Dickinson itself, to assure our water meets the accepted standards for the Federal Government and the State of New York. These tests include tests for total coliform, inorganic compounds, nitrates, nitrite, lead and copper, volatile organic compounds, and synthetic organic compounds.

Included at the end of this report are copies of both water systems' testing result for the year 2013. If these tables present any questions contact Charles Harding (771-8233) at any time or stop by the Village Hall during business hours for a more detailed copy.

**WHAT DOES THIS INFORMATION MEAN?** As you can see by the table, our system had no violations. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State.

**IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?** During 2013, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

**DO I NEED TO TAKE SPECIAL PRECAUTIONS?** Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infection. These people should seek advice from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lesson the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

**WHY SAVE WATER AND HOW TO AVOID WASTING IT?** Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

1. Saving water saves energy and some of the cost associated with both of these necessities of life;
2. Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers.
3 .Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water.

Conservation tips include:

1. Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
2. Turn off the tap when brushing your teeth.
3. Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it up and you can save almost 6000 gallons per year.
4. Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.

**SYSTEM MAINTANENCE:** Within the Village of Port Dickinson, the public works crew is constantly monitoring our delivery system. If a problem arises, notification and repairs are quickly completed. If you witness or experience any irregularities in the water delivery system, please contact the Village Office or Bob Aagre (771-8233).

**CLOSING:** Thank you for allowing us to continue to serve you. Together, we can continue to provide safe, efficient service at the most reasonable cost possible**.**

# TABLE OF DETECTED CONTAMINANTS FOR VILLAGE OF PORT DICKINSON

| Contaminant | Violation Yes/No | Sample Location | Date of Sample | Level Detected (Range) | Unit Measure-ment | MCLG | MCL | Source |
|---|---|---|---|---|---|---|---|---|
| Lead[1] | No | Distribution | 8/2013 | 1.9 (ND – 2.6) | ug/l | 0 | AL=15 | Corrosion of house- hold plumbing systems, erosion of natural deposits. |
| Copper[1] | No | Distribution | 8/2013 | 0.212 (0.0546-0.254) | mg/L | 1.3 | AL=1.3 | Corrosion of house hold plumbing |
| Total Trihalomethanes[2] | No | Distribution | 8/2013 | 4.4 | ug/l | N/A | 80 | By-product of drinking water chlorination needed to kill harmful organisms. |

**NOTES:**

1 The level presented represents the 90$^{th}$ percentile of the sites tested. A percentile is a value on a scale of 100 that indicates the percent of distribution that is equal to or below it. The 90$^{th}$ percentile is equal to or greater than 90% of the lead/copper values detected at your water systems.

2 Includes chloroform, bromodichloromethane, dibromochloromethane, and bromoform.

**DEFINITION OF TERMS USED IN THE TABLES:**

***Maximum Contaminant Level (MCL)***: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.

***Maximum Contaminant Level Goal (MCLG)***: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

***Action Level (AL)***: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

***Non-Detects (ND)***: Laboratory analysis indicates that the constituent is not present.

***Not Applicable (N/A)***

***Milligrams per liter (mg/l)***: Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

***Micrograms per liter (ug/l)***: Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

***Picocuries per liter (pCi/L)***: A measure of the radioactivity in water.

***Millirems per year (mrem/yr)***: A measure of radiation absorbed by the body.

# *Annual Drinking Water Quality Report for 2013*
# *Hillcrest Water District Number 1*
### *Hillcrest, New York*
### *Public Water Supply ID# NY0301667*

## TABLE OF DETECTED CONTAMINANTS – HILLCREST 2013

| Contaminant | Violation Yes/No | Well No./ Location | Date of Sample | Level Detected (Avg/Max) (Range) | Unit Measure-ment | MCLG | Regulatory Limit (MCL or AL) | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|---|
| **Inorganics** | | | | | | | | |
| Barium | No | Treatment Plant | 06/22/11 | 0.197 | mg/l | N/A | 2.0 | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits. |
| Arsenic | No | Treatment Plant | 06/22/11 | 0.0013 | mg/l | N/A | 0.010 | Erosion of natural deposits, Runoff from orchards, Runoff from glass & electronics production wastes |
| Sodium [1] | No | #1<br>#2<br>#3 | 11/04/13<br>11/04/13<br>11/04/13 | 26.3<br>30.1<br>53.5 | mg/l | See Health Effects | N/A | Naturally occurring; Road salt; Water softeners; Animal waste. |
| Copper [2] | No | Distribution | 09/24/13 | 0.275 (0.11-0.58) | mg/l | 0 | AL = 1.3 | Corrosion of household plumbing systems, erosion of natural deposits. |
| Lead [2] | No | Distribution | 09/24/13 | 1.9 (ND – 4.1) | ug/l | 0 | AL = 15 | Corrosion of household plumbing systems, erosion of natural deposits. |
| Sulfate | No | Treatment Plant | 12/18/08 | 29.3 | mg/l | N/A | 250 | Naturally occurring |
| Nitrate | No | #1<br>#2<br>#3 | 11/04/13<br>11/04/13<br>11/04/13 | 0.14<br><0.05<br>1.56 | mg/l | 10 | 10 | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits. |
| **Disinfection Byproducts** | | | | | | | | |
| Total Trihalo-Methanes [3] | No | Distribution | 08/30/13 | 5.5 | ug/l | N/A | 80 | By-products of drinking water chlorination. |
| Total Haloacetic Acids [4] | No | Distribution | 08/30/13 | 1.0 | ug/l | N/A | 60 | By-products of drinking water chlorination. |

**Notes:**

1 - Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.

2 - The level presented represents the 90$^{th}$ percentile of the 10 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90$^{th}$ percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, ten samples were collected at your water system and the 90$^{th}$ percentile value was the ninth highest value. The action level for lead or copper was not exceeded at any of the sites tested.

3 – This level represents the total levels of the following contaminants: chloroform, bromodichloromethane, dibromochloromethane, and bromoform.

4 - This level represents the total levels of the following contaminants: monochloroacetic acid, monobromoacetic acid, dichloroacetic acid, trichloroacetic acid, dibromoacetic acid.

# Annual Water Quality Report for 2013
# Binghamton Water Department
### 25 Broome St., Binghamton, New York 13903
### Public Water Supply ID# NY0301651

## Table of Detected Contaminants – City of Binghamton 2013

| CONTAMINANT | | VIOLATION | DATE | LEVEL DETECTED (Range) | UNIT | MCLG | Regulatory Limit MCL | LIKELY SOURCE OF CONTAMINANT |
|---|---|---|---|---|---|---|---|---|
| **Inorganics** | | | | | | | | |
| Barium | Plant<br>Well | NO | 6/11/13 | 0.0143<br>0.0795 | mg/L | 2.0 | 2.0 | Drilling Waste ,Discharge from metal Refineries, Erosion of natural deposits |
| Nickel | Plant<br>Well | NO | 6/11/13 | 0.0018<br>0.0066 | mg/L | N/A | N/A | Erosion of Natural Deposits and manufacturing wastes |
| Arsenic | Plant<br>Well | NO | 6/11/13 | 0.0007<br>0.0013 | mg/L | N/A | 0.01 | Natural, orchard runoff, manufacturing |
| Chloride | Plant<br>Well | NO | 6/11/13 | 17.6<br>204 | mg/l | N/A | 250 | Naturally occurring or indicative of road salt contamination |
| Sulfate | Plant<br>Well | NO | 6/11/13 | 5.86<br>23.2 | mg/l | N/A | 250 | Naturally occurring |
| Fluoride | Plant<br>Well | NO | Daily<br>6/11/13 | (0.89 - 1.22)<br>0.18 | mg/L | 1.0 | 2.2 | Additive for good dental health and Erosion of Natural Deposits |
| Nitrate | Plant<br>Well | NO | 9/24/13 | 0.40<br>3.38 | mg/L | 10 | 10 | Runoff from fertilizer, runoff from septic tanks ,sewage, natural erosion |
| Sodium | Plant<br>Well (*1) | NO | 6/11/13 | 11.8<br>117 | mg/L | N/A | None | Natural in soil, road salt, water softeners |
| **Principle Organics** | | | | | | | | |
| Trichloroethylene | Well | NO | 12/11/13 | 0.7 | ug/L | 0 | 5 | Discharge from metal degreasing sites and other factories |
| **Disinfection By Products** | | | | | | | | |
| Total Trihalomethane (*2)<br>Distribution system | | NO | Quarterly | 16.6 - 62.3 | ug/L | N/A | 80 | Byproduct of disinfection. TTHM's form when chlorine meets organic matter. |
| Haloacetic Acid (*3)<br>Distribution system | | NO | Quarterly | 7.6 - 51.6 | ug/L | N/A | 60 | By product of disinfection. HAA5's form when chlorine meets organic matter. |
| Chlorite | Plant Average<br>Daily High | NO | Yearly<br>2/11/13 | 0.108<br>0.270 | mg/L | N/A | 1.0 | By product of in plant generation of chlorine dioxide |
| Chlorine Dioxide | Plant Average<br>Daily High | NO | Yearly<br>2/9/13 | 0.053<br>0.012 | mg/L | N/A | 0.8 | Chemical used in taste and odor control at the Water Filtration Plant. |
| Sodium Hypochlorite | Plant Average<br>Daily High | NO | Yearly<br>Oct 22nd | 1.40<br>1.74 | mg/L | N/A | 4.0 | Chemical used in the disinfection of drinking water ( as Free Chlorine) |
| **Radiological** | | | | | | | | |
| Gross Alpha | Plant<br>Well | NO | 12/11/12<br>2008 | 4.2<br>2.19 - 3.36 | pCi/L | 0 | 15 | Erosion of Natural Deposits |
| Gross Beta | Plant | NO | 12/11/12 | 1.92 | mrem/yr | 0 | 4 | Decay of natural deposits and man-made emisions |
| Radium 226 | Plant<br>Well | NO | 12/11/12<br>2008 | 0.01<br>0.04 - 0.23 | pCi/L | 0 | 5 | Erosion of Natural Deposits |
| Radium 228 | Plant<br>Well | NO | 12/11/12<br>2008 | 1.40<br>0.00 - 1.79 | pCi/L | 0 | 5 | |

## * Notes:

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**2** - This level represents the total levels of the following contaminants: Chloroform, Bromodichloromethane, Dibromochloromethane, Bromoform.

**3 -** This level represents the total levels of the following contaminants: Monochloroacetic Acid, Monobromoacetic Acid, Dichloroacetic Acid, Trichloroacetic Acid, & Dibromoacetic Acid.