2026 BROOKHAVEN NATIONAL LABORATORY Water Quality CONSUMER CONFIDENCE REPORT

BNL publishes an annual water quality report to provide on-site drinking water consumers with an overview of the Lab's water quality during the previous calendar year. The purpose of this report is to inform you about where your water comes from; what analytical tests are conducted; what they reveal; how the results compare to New York State standards; and to educate you about the importance of preventative measures. Educated consumers are more likely to help protect their drinking water sources.

BNL's drinking water supply and distribution system were in full compliance with all county, state, and federal regulations regarding drinking water quality, monitoring, operations, and reporting in 2025.

BNL's Energy & Utilities (EU) Division is committed to providing over 3,000 employees, facility users, contractors, and guests annually with safe drinking water. BNL's drinking water is regularly tested using an independent laboratory approved by the New York State Department of Health (NYSDOH). Analytical data are reviewed by the Lab's Environmental Protection Division (EPD) to ensure that testing results comply with all applicable regulatory standards. In addition, EU and EPD work with BNL's Groundwater Protection Group to make sure our potable water supply is not adversely impacted by possible groundwater contamination or remediation operations.

Water Treatment Facility Staff (L-R) Nicholas Risi (Supervisor), Robert Kelley, Sean Clennan, Kevin Okula, Stephen Kelvas, Patrick Halpin, Joesph Stanisci

Where Does Our Water Come From?

The Long Island aquifer system is made up of three primary formations. From the surface to approximately 150 feet below is the Upper Glacial aquifer, from 150 to 1,000 feet below is the Magothy aquifer, and from 1,000 to about 1,600 feet below is the Lloyd aquifer. As designated by the U.S. Environmental Protection Agency (EPA), Long Island's aquifer system is one of 78 "sole source" aquifers in the nation recognized under the Aquifer Protection Program authorized by the U.S. Safe Drinking Water Act (SDWA).

Four of the Lab's six drinking water wells are in-service and draw up to 1,000 gallons per minute, or about 1.34 million gallons of water per day from the Upper Glacial aquifer to supply drinking water, process cooling water, and fire protection. The water from Well 7 is processed at BNL's on-site Water Treatment Plant. Well 10, Well 11, and Well 12 are treated with a granular activated carbon (GAC) filter, then treated for pH adjustment and disinfection prior to entering the distribution system. Last year, BNL pumped approximately 427 million gallons of water.

For questions about this report, or to speak with someone regarding your drinking water, please contact:

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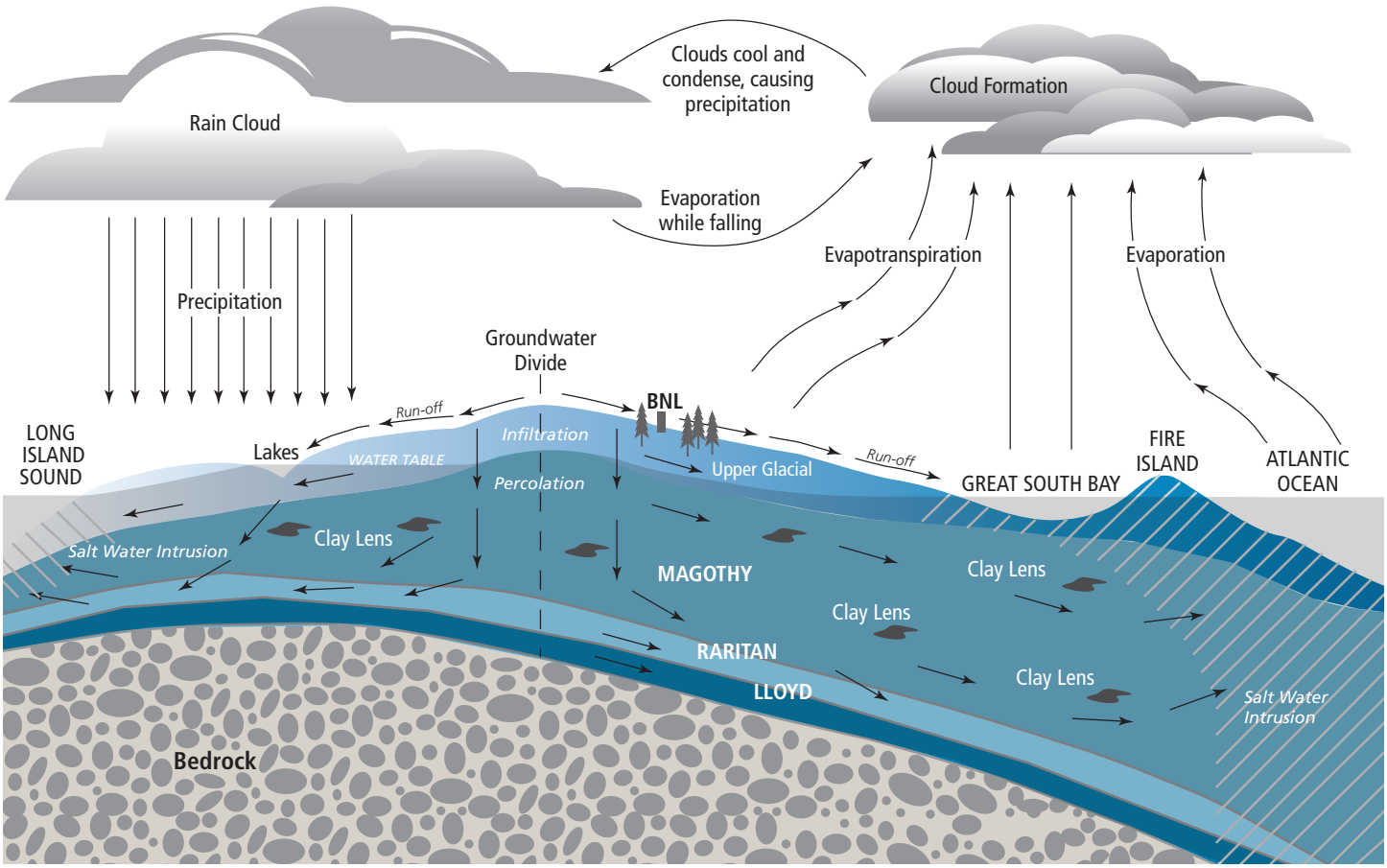

Long Island Aquifer System

What's in Our Drinking Water?

The sources of drinking water (both tap water and bottled water) 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 from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants.

In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the Food and Drug Administration's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Source water is treated to remove substances or reduce their concentration before the water is fit for human consumption. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

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 infections. These people should seek advice from their health care provider about their drinking water.

EPA/Centers for Disease Control and Prevention guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

BNL's Source Water Assessment

As required by the 1996 Safe Drinking Water Act, in 2003 the NYSDOH completed an assessment of the source water used by the Lab's public water system to evaluate known and possible contamination sources. The assessment includes a susceptibility rating for each well based on the risk posed by the presence of potential sources of contamination within the well's contributing area and the likelihood that the contaminants will travel through the environment to reach the well.

Although the susceptibility rating is an estimate of the potential for source water contamination, it does not mean that the water delivered to consumers is or will become contaminated. If a contaminant is present, it does not necessarily mean that there is a health risk.

The 2003 assessment concluded that three of BNL's water supply wells were very highly susceptible to potential impacts from the use of industrial solvents. Although risks associated with past and current use of industrial solvents have greatly diminished since the 2003 assessment, BNL recently determined that all six supply wells are highly susceptible to Per- and Polyfluoroalkyl Substances (PFAS) associated with the Laboratory's past use of firefighting foam. In August 2020, NYS established drinking water standards of 10 ng/L (parts per trillion) for PFAS compounds perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS). PFOS has been detected in three wells at concentrations above 10 ng/L. To address this contamination, BNL has placed back into service GAC filtration systems at three wells to remove PFAS before the water is released into the distribution system. BNL also ended the operation of two supply wells (Wells 4 and 6) that do not have GAC filters. All in service potable supply wells and water leaving the Water Treatment Plant are now tested for PFAS on a quarterly basis.

A copy of the complete assessment may be reviewed by contacting Jim Milligan (631) 344-4458 or Jason Remien (631) 344-3477.

Water Conservation Measures

BNL's water conservation program has achieved dramatic reductions in water use since the mid-1990s. The Lab continually evaluates water conservation as part of facility upgrades, such as replacing existing conventional plumbing fixtures with low-flow devices, or new construction.

To help the Lab conserve water, start by being conscious of your personal use, e.g., reduce faucet flow, decrease running water while not in use, and report any drips, leaks, or other plumbing problems promptly to your Facility Project Manager. Regarding process and research use, make sure temperature controls operate properly to minimize flow and specify recirculating water or air-cooled systems for new devices.

While it is important to conserve water, the EPA encourages that you run your tap water for 30 seconds to two minutes and only use cold water for drinking or cooking. Due to the aging infrastructure at Brookhaven Lab, iron and lead may leach into the water from the pipes. Flushing the water will help to remove any contaminants that may have built up while the water was sitting in the pipes.

Water Treatment Process

BNL's Water Treatment Plant can treat up to two million gallons of "raw" water per day to remove naturally occurring iron and manganese from the groundwater.

Of the four in-service drinking water wells, Well 7 provides high-in-iron source water which must be passed through the Water Treatment Plant before being distributed around the site. This water is chlorinated and the pH is adjusted before it enters the distribution system. Chlorine is a disinfection agent and prevents the spread of waterborne diseases.

Water from Well 7 is aerated to reduce carbon dioxide gas and aid in iron oxidation. Lime is added to raise the pH to provide for proper corrosion control. A polymer is added to aid in flocculation in the filtration process. Flocculation, or the formation of particle aggregates which settle out of the water as sediment, begins in the retention tank. To help form "floc," water is sent from the retention tank to a slow-mix tank.

Filtration is performed using a rapid sand filter made up of sand and anthracite coal to remove all particles. Filtered water is stored in the "wet well" before it is pumped into air-stripping towers, which remove volatile organic compounds, if present, from the water being treated.

Up to 250,000 gallons of treated water is stored at the clear well before its final chlorination and distribution. Pumps send finished water from the Water Treatment Plant to the two elevated storage tanks.

Wells 10, 11, and 12 pump water that is low in iron, and does not require treatment for iron. Water from Wells 10, 11, and 12 pass through GAC systems to remove PFAS before being treated with chlorine for disinfection and sodium hydroxide or calcium hydroxide for pH correction prior to being sent to the two elevated storage tanks. The water from the two storage tanks is delivered on-site at 55 to 70 pounds of pressure per square inch via 35 miles of distribution pipe.

For more information on the Lab's water treatment process, visit the Water Quality website at *https://www.bnl.gov/water/*.

Plant Upgrades & Distribution System Improvements – 2025

There have been several improvements made to BNL's potable water infrastructure over the past year. Below are some highlights:

- Four fire hydrants were replaced, two distribution valves were replaced, and five new distribution valves were installed throughout the distribution system.
- A new chemical treatment analyzer was installed at Well 10 to monitor temperature, pH and chlorine residual at the point of entry. This data is continuously transmitted to our Supervisory Control and Data Acquisition (SCADA) system to ensure proper adjustment and control of the treatment process.
- New cross connection control devices were added at Buildings 902 and 905.
- Approximately 800 feet of 6-inch cast iron water main along Technology Street was replaced with new 10-inch cement-lined ductile iron water main, including new valves and fire hydrants.

BNL's 2025 Drinking Water Sampling Results

BNL's drinking water and the supply and distribution system were in full compliance with all applicable county, state, and federal regulations regarding drinking water quality, monitoring, operations, and reporting in 2025. Through water sampling and testing, results show that the compounds listed below were **not detected or below the minimum detection limit (MDL)**. Twenty-nine out of the total 176 contaminants tested were detected and are summarized in the table starting on Page 5.

11-Cl-PF3
1,1-dichloroethane
1,1-dichloroethene
1,1-dichloropropene
1,1,1-trichloroethane
1,1,1,2-tetrachloroethane
1,1,2-trichloroethane
1,1,2,2-tetrachloroethane
1,2-dibromo-3-chloropropane
1,2-dibromoethane (EDB)
1,2-dichlorobenzene
1,2-dichloroethane
1,2-dichloropropane
1,2,3-trichlorobenzene
1,2,3-trichloropropane
1,2,4-trichlorobenzene
1,2,4-trimethylbenzene
1,3-dichlorobenzene
1,3-dichloropropane
1,3,5-trimethylbenzene
1,4-dichlorobenzene
2,2-dichloropropane
2,4,-D
2,4,5,-TP (silvex)
2-chlorotoluene
3-hydroxycardofuran
4-chlorotoluene
4-isopropyl toluene
4:2 FTS
6:2 FTS
8:2 FTS
9-Cl-PF30
alachlor
aldicarb
aldicarb sulfone
aldicarb sulfoxide
aldrin
ammonia
antimony
asbestos
atrazine
benzene
benzo (A) pyrene
beryllium
bromobenzene
bromochloromethane
bromomethane
butachlor
cadmium
carbaryl
carbofuran
carbon tetrachloride
cesium-137
chlordane
chlorobenzene
chlorodifluoromethane
chloroethane
chloromethane
chromium
cis-1,2-dichloroethene
cis-1,3-dichloropropene
color
dalapon
di(2-ethylhexyl) adipate
di(2-ethylhexyl) phthalate
dibromomethane
dicamba
dichlorodifluoromethane
dieldrin
dinoseb
diquat
DONA
e. coli
endothall
endrin
ethylbenzene
fluoride
freon-113
glyphosate
gross alpha
gross beta
heptachlor
heptachlor epoxide
hexachlorobenzene
hexachloro-1,3-butadiene
hexachlorocyclopentadiene
HFPO-DA (Gen-X)
isopropylbenzene
lindane
lithium
m,p-xylene
manganese
mercury
methomyl
methoxychlor
methyl tert-butyl ether
methylene blue active substances (MBAS)
methylene chloride
metolachlor
metribuzin
n-butylbenzene
n-propylbenzene
NFDHA
NEtFOSAA
NMeFOSAA
nitrite
odor
oxamyl
o-xylene
pentachlorophenol
PFDA
PFDOA
PFEESA
PFHpS
PFMBA
PFMPA
PFNA
PFPeS
PFTA
PFTDA
PFTrDA
PFUnDA
picloram
propachlor
sec-butylbenzene
selenium
silver
simazine
strontium-90
styrene
tert-butylbenzene
tetrachloroethene
thalium
toluene
tolytriazole
total coliform bacteria
total polychlorinated biphenals (PCBs)
total xylenes
toxaphene
trans-1,2-dichloroethene
trans-1,3-dichloropropene
trichloroethene
trichlorofluoromethane
tritium
vinyl chloride
zinc

Other Water Quality Indicators

The following maximum values were measured in samples of well water or finished water at the BNL Water Treatment Plant in 2025. Although the Lab is required to test these indicators, there are no MCLs (maximum contaminant levels) set for these parameters.

Indicator	BNL Sample	MCL
alkalinity†	59.8 mg/L	NS
calcium†	21.8 mg/L	NS
conductivity†	420 µmhos/cm	NS
pH	8.8 standard units	NS

Notes:
NS = drinking-water standard not specified
† = measure of water hardness or dissolved salts

Types of Contaminants

- **disinfectant and disinfection by-products:** formed when disinfectants used in water treatment plants react with bromide and/or natural organic matter (i.e., decaying vegetation) present in the source water. Different disinfectants produce different types or amounts of disinfection by-products. Disinfection by-products for which regulations have been established have been identified in drinking water, including trihalomethanes, haloacetic acids, bromate, and chlorite.
- **inorganics**: dissolved salts and metals, which can occur naturally or result from stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, farming, etc.
- **microbiological:** bacteria and viruses, which may come from sewage, livestock operations, wildlife, etc.
- **organic:** natural and synthetic compounds, including volatile organic compounds (VOCs). These chemicals are by-products of industrial processes, residential uses and petroleum production, and they can also come from gas stations, stormwater runoff, septic systems, etc.
- **perfluorinated:** man-made compounds used in firefighting foams and stain proof coatings.
- **pesticides & herbicides:** substances for, respectively, eliminating problem insects and plants, which may come from a variety of sources, such as agricultural operations, stormwater runoff, residential uses, etc.
- **radioactive:** naturally occurring, or from oil and gas production, mining activities, nuclear facilities, etc.
- **synthetic organic:** man-made compounds used for a variety of industrial and agricultural purposes.
- **volatile organic:** emitted by products including contaminants: paints and lacquer; paint strippers; cleaning supplies; pesticides, building materials and furnishings; office equipment such as copiers and printers; correction fluids and carbonless copy paper; graphics and craft materials including glues and adhesives; permanent markers; and photographic solutions.

2025 Water Quality Consumer Confidence Report Contaminants

CONTAMINANT	UNIT OF MEASURE-MENT	DATE OF DETECTION	VIOLATION (YES/NO)	LEVEL DETECTED	RANGE OF RESULTS	MCLG	REGULATORY LIMIT (MCL)	LIKELY SOURCE OF CONTAMINATION
Chlorine Residual, Free	mg/L	1/6/25	No	1.4	0.3 - 1.4	NS	4	Water additive to control microbes.
DISINFECTION BY-PRODUCTS								
Haloacetic Acids	µg/L	8/4/25	No	1.9	< 1 - 1.9	NS	60	By-product of drinking water disinfection needed to kill harmful organisms.
Total Trihalo-methanes	µg/L	8/4/25	No	23	< 0.5 - 23	NS	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains organic matter.
INORGANIC CONTAMINANTS								
Arsenic	µg/L	6/2/25	No	1.1	< 1 - 1.1	10	NS	Erosion from natural deposits. Runoff from orchards; Runnoff from glass and electronics production wastes.
Barium	mg/L	6/2/25	No	0.046	0.032 - 0.046	2	2	Discharge of drilling wastes
Chloride	mg/L	6/2/25	No	72.6	42.7 - 72.6	NS	250	Naturally occurring; indicative of road-salt contamination.
Cyanide (as free Cyanide)	µg/L	6/2/25	No	12.9	< 10 - 12.9	200	200	Discharge from steel/metal factories. Discharge from plastic and fertilizer factories.
Hexavalent Chromium	µg/L	9/8/25	No	1.1	0.24 - 1.1	NS	NS	Erosion of natural deposits.
Iron	µg/L	9/8/25	No	30.2	< 20 - 30.2	NS	300	Naturally occuring; corrosion of plumbing.
Nickel	µg/L	7/7/25	No	0.84	< 0.5 - 0.84	NS	100	Nickel enters groundwater and surface water by dissolution of rocks and soils, from atmospheric fallout, or from biological decays.
Nitrates	mg/L	7/7/25	No	0.9	0.45 - 0.9	10	10	Erosion of natural deposits; runoff from fertilizer use; leaching from septic tanks and sewage.
Sodium*	mg/L	6/2/25	No	45.5	24.6 - 45.5	NS	NS*	Naturally occurring; road salt; water softeners.
Sulfates	mg/L	6/2/25	No	11.3	9 - 11.3	NS	250	Naturally occurring.
PERFLUORINATED CONTAMINANTS								
PFOS (Perfluorooc-tanesulfonic Acid)	ng/L	2/3/25	No	1.25	< 1.67 - 1.25	NS	10	Released into the environment from widespread use in commercial and industrial applications.
PFOA (Perfluorooc-tanoic Acid)	ng/L	2/3/25	No	1.96	< 1.79 - 1.96	NS	10	Released into the environment from widespread use in commercial and industrial applications.
RADIOACTIVE CONTAMINANTS								
Radium-228**	pCi/L	4/17/20	No	0.77	< 0.53 - 0.77	0	5	Decay of natural deposits.
SYNTHETIC ORGANIC CONTAMINANTS								
1,4 Dioxane	µg/L	5/5/25	No	0.099	< 0.02 - 0.099	NS	1	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.

continued on next page

2025 Water Quality Consumer Confidence Report Contaminants *(continued)*

CONTAMINANT	UNIT OF MEASUREMENT	DATE OF DETECTION	VIOLATION (YES/NO)	LEVEL DETECTED	RANGE OF RESULTS	MCLG	REGULATORY LIMIT (MCL)	LIKELY SOURCE OF CONTAMINATION
VOLATILE ORGANIC CONTAMINANTS								
Bromodichloromethane	µg/L	1/6/25	No	0.98	< 0.5 - 0.98	NS	80***	By-product of drinking water chlorination needed to kill harmful organisms.
Bromoform	µg/L	1/6/25	No	2.5	< 0.5 - 2.5	NS	80***	By-product of drinking water chlorination needed to kill harmful organisms.
Chloroform	µg/L	1/6/25	No	1.3	< 0.5 - 1.3	NS	80***	By-product of drinking water chlorination needed to kill harmful organisms.
Dibromochloromethane	µg/L	1/6/25	No	2.4	< 0.5 - 2.4	NS	80***	By-product of drinking water chlorination needed to kill harmful organisms.
SAMPLING AT THE CONSUMER'S TAP (Tap water samples were collected throughout the Laboratory site) (a)								
CONTAMINANT	**UNIT OF MEASUREMENT**	**DATE OF SAMPLING (MO./YR.)**	**AL EXCEEDANCE (YES/NO)**	**90th PERCENTILE RESULT**	**RANGE OF RESULTS**	**MCLG**	**REGULATORY LIMIT (AL)**	**LIKELY SOURCE OF CONTAMINATION**
Copper	mg/L	8/21/24	No	0.024	< 0.002 - 0.029	1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Lead	µg/L	8/21/24	No	2.7	< 1.0 - 19.7	0	15	Corrosion of household plumbing systems; Erosion of natural deposits.

Table Notes:
*No MCL has been established for sodium. However, 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.
** The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.
*** MCL is the sum of the four compounds (Bromodichloromethane, Bromoform, Chloroform, and Dibromochloromethane).
NS = drinking-water standard not specified
(a) Sampling at the consumer's tap for lead and copper is performed every three years; next sampling is scheduled for 2027. Please see article on Page 7 for health advisory information.

Unregulated Perfluoroalkyl Substances

The New York State Department of Health (NYSDOH) requires testing for some contaminants even though health advisory limits and/or maximum contaminant levels have not been established. EPA and NYS are currently reviewing some of these compounds for future regulations.

CONTAMINANT	UNIT OF MEASUREMENT	DATE OF DETECTION	VIOLATION (YES/NO)	LEVEL DETECTED	RANGE OF RESULTS	MCLG OR HEALTH ADVISORY LEVEL [1,2]	LIKELY SOURCE OF CONTAMINATION
Perfluorobutane sulfonate acid (PFBS)	ng/L	8/15/25	No	0.61	< 1.68 - 0.61	2000	Released into the environment from widespread use in commercial and industrial applications.
Perfluorobutanoic acid (PFBA)	ng/L	2/12/25	No	129	< 1.76 - 129	NA	Released into the environment from widespread use in commercial and industrial applications.
Perfluoroheptanoic acid (PFHpA)	ng/L	2/12/25	No	0.71	< 1.89 - 0.71	NA	Released into the environment from widespread use in commercial and industrial applications.
Perfluorohexanesulfonic acid (PFHxS)	ng/L	8/15/25	No	2.25	< 1.72 - 2.25	NA	Released into the environment from widespread use in commercial and industrial applications.
Perfluorohexanoic acid (PFHxA)	ng/L	2/12/25	No	1.28	< 1.89 - 1.28	NA	Released into the environment from widespread use in commercial and industrial applications.
Perfluoropentanoic acid (PFPeA)	ng/L	2/12/25	No	1.53	< 1.76 - 1.53	NA	Released into the environment from widespread use in commercial and industrial applications.

[1] USEPA Health Advisory Levels identify the concentration of a contaminant in drinking water at which adverse health effects and/or aesthetic effects are not anticipated to occur over specific exposure durations. Health Advisory Levels are not to be construed as legally enforceable federal standards and are subject to change as new information becomes available.
[2] All perfluoroalkyl substances, besides PFOA and PFOS, are considered Unspecified Organic Contaminants (UOC) which have an MCL = 0.05 mg/L = 50,000 ng/L.
NA - Not Available

2025 UCMR 5 Testing

In 2025, the Lab participated in EPA's Unregulated Contaminants Monitoring Rule – List 5 (UCMR5) Testing. This is an EPA program, required by the SDWA that looks at unregulated contaminants in drinking water every 5 years. This was the second time the Lab participated in the program. The testing included 30 contaminants, consisting of 29 per- and polyfluoroalkyl substances (PFAS) and lithium. One contaminant (PFBA) was found in the BNL samples. Results can be found in Unregulated Perfluoroalkyl Substances table. There are no regulatory limits on these compounds at this time. The information is used by the EPA to determine if the contaminants should be added to the list of regularly sampled contaminants and to gain information toward setting regulatory limits. More information about the UCMR5 program can be found on the EPA website: *https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule.*

Lead and Copper Testing

Lead and copper sampling at the required locations in August 2024 revealed BNL was in compliance with regulatory requirements.

In accordance with regulations, Brookhaven Lab sampled its water supply for lead and copper in 2024 and nineteen of twenty samples were below established action level limits.

In 1991, the EPA established a "lead and copper rule" to limit the concentration of lead and copper in public water. Brookhaven Lab is required to sample for lead and copper at 20 consumer taps every 3 years and to notify those occupants of the buildings tested with the results. Results from testing performed in 2024 are shown in the table to the right. While lead was detected in some samples, the 90% action limit was not exceeded. Testing will be performed again in 2027. It is possible that lead levels in your building may be higher than at other buildings at the Lab as a result of materials and components used in your building's plumbing.

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. Brookhaven Lab is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time.

2024 Lead and Copper Sampling Results

Location	Faucet	Lead (µg/L)	Copper (mg/L)
Apt. 1A	kitchen	< 1.0	0.004
Apt. 10A	kitchen	19.7	0.029
Apt. 11A	kitchen	< 1.0	0.004
Apt. 13C	kitchen	< 1.0	0.006
Apt. 28D	kitchen	< 1.0	0.012
Apt. 30A	kitchen	< 1.0	0.024
Apt. 34A	kitchen	< 1.0	0.005
Apt. 36A	kitchen	< 1.0	0.003
Apt. 40F	kitchen	< 1.0	< 0.002
Apt. 41DM	kitchen	< 1.0	0.015
Apt. 5A	kitchen	2.7	0.01
Apt. 6C	kitchen	< 1.0	0.008
Apt. 7B	kitchen	< 1.0	0.008
Apt. 8C	kitchen	< 1.0	0.009
Bldg. 153	bathroom	< 1.0	0.009
Bldg. 170	kitchen	< 1.0	0.005
Bldg. 257	bathroom	3.2	0.016
Bldg. 258	kitchen	< 1.0	0.011
Bldg. 371	bathroom	< 1.0	0.026
Bldg. 599	kitchen	< 1.0	0.008

Notes:
90% Action Level for Lead is 15µg/L
90% Action Level for Copper is 1.3 mg/L
90% Result for Lead: 2.7 µg/L
90% Result for Copper: 0.024 mg/L

You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes.

You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead in your water and wish to have your water tested, contact C. Bruno at (631) 344-8262 or J. Remien at (631) 344-3477. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at *https://www.epa.gov/safewater/lead*.

Information On Lead Service Line Inventory

A Lead Service Line (LSL) is defined as any portion of pipe that is made of lead which connects the water main to the building inlet. A LSL may be owned by the water system, owned by the property owner, or both. The inventory includes both potable and non-potable service lines within a system. In accordance with the federal Lead and Copper Rule Revisions (LCRR), Brookhaven National Laboratory has prepared a lead service line inventory and has made it publicly accessible by contacting C. Bruno at (631) 344-8262 and/or visiting our website at: *https://www.bnl.gov/water/water-service-line-inventory.php*.

In all, 326 water service lines were identified between Brookhaven Lab's potable water distribution mains and the buildings on-site. These service lines are generally used for domestic/drinking water supply, fire sprinkler/standpipe water supply, and industrial system water supply. Piping materials were identified by field inspection in each building, historical records review, and excavation where possible. Each service line was categorized as either "Lead," "Galvanized Requiring Replacement," "Non-Lead," or "Lead Status Unknown" as defined by the regulations. After a thorough review, no lead service lines or galvanized service lines requiring replacement were found.

Chlorine Disinfectant and Its By-Products

Each day, more than 200 million people in the U.S. consume water that has been disinfected to kill unwanted microorganisms found in source water. Worldwide, one of the most commonly used and effective disinfectants is chlorine. A form of chlorine known as sodium hypochlorite is used by BNL for disinfection of its potable water.

Although disinfectants are effective in killing unwanted microorganisms in source water, they can react with naturally occurring organic matter and inorganics to form disinfectant by-products which may pose health risks. Under the SDWA, disinfectants and their by-products are regulated. The Lab had no violations in 2025; annual averages for chlorine residual and by-products are based on results from finished tap water.

Disinfection Residual	2025 Annual Running Average	MRDLG
chlorine*	0.9 mg/L	4 mg/L
Disinfection By-product	**2025 Highest Value**	**MCL**
total trihalomethanes[1]	23.4 µg/L	80 µg/L
haloacetic acids (five)[2]	1.9 µg/L	60 µg/L

Notes:
* BNL range of results for chlorine is 0.3 - 1.4 mg/L; maximum found on 1/6/25

[1] Total trihalomethanes is the sum of the concentration of chloroform, bromodichloromethane, dibromochloromethane, and bromoform.

[2] Haloacetic acids (five) is the sum of the concentration of mono-, di-, and trichloroacetic acids, and mono- and dibromoacetic acids.

BNL's Water Main Flush Program

In accordance with American Water Works Association recommendations, unidirectional flushing of water mains using fire hydrants within a water distribution system is the most effective and economical way to cleanse and improve water quality.

Iron can get into drinking water from corrosion of cast iron, steel, and galvanized iron pipes that are used throughout the site for water distribution. The Lab's water mains are flushed twice per year to improve the quality of the water delivered to facilities by the Lab's on-site taps, and to help eliminate rusty water.

Visit the Water Quality website at *http://www.bnl.gov/water/* for some tap-water recommendations to be sure your on-site drinking water is the best possible quality.

Definitions Used in this Report

- **90th percentile value:** The reported copper and lead values represent the 90th percentile. 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 90th percentile is equal to or greater than 90 percent of the lead and copper values detected in the water system.
- **action level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a drinking water supplier must follow.
- **granular activated carbon (GAC):** A system used to remove volatile organic compounds from groundwater.
- **maximum contaminant level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as possible.
- **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.
- **maximum residual disinfectant level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of disinfectants is necessary for control of microbial contaminants.
- **maximum residual disinfectant level goal (MRDLG):** The concentration of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of using disinfectants to control microbial contamination.
- **micrograms per liter (µg/L):** Equals one part of liquid in one billion parts of liquid or parts per billion (ppb).
- **micromhos per centimeter (µmhos/cm):** A measure of the ability of water to conduct electricity. Conductivity effectively measures the concentration of ions, such as dissolved salts.
- **milligrams per liter (mg/L):** Equals one part of liquid per million parts of liquid, or parts per million (ppm).
- **millirems per year (mrem/yr):** Measure of radiation absorbed by the body.
- **minimum detection limit (MDL):** The lowest level to which an analytical parameter can be measured with certainty by the analytical lab performing the measurement. While results below the MDL are sometimes measureable, they represent values that have a reduced statistical confidence associated with them (less than 95 percent confidence).
- **nanograms per liter (ng/L):** Equals one part of liquid in one trillion parts of liquid or parts per trillion (ppt).
- **picocuries per liter (pCi/L):** Picocuries per liter is a measure of radioactivity in water equal to one trillionth of a curie.
- **volatile organic contaminants (VOCs):** Organic chemicals that have a high vapor pressure at ordinary room temperature. Their high vapor pressure results from a low boiling point, which causes large numbers of molecules to evaporate or sublimate from the liquid or solid form of the compound and enter the surrounding air. VOCs include both man-made and naturally occurring chemical compounds.

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