



STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH LABS – WATER ANALYSIS LAB
29 HAZEN DRIVE, CONCORD, NH 03301
603-271-3445 Fax: 603-271-2138



WATER TESTING GUIDE

This packet of information is provided to help you choose the appropriate water test for your home and to assist you in taking a proper water sample. This page contains descriptions of the common water tests available from the New Hampshire Public Health Laboratories (PHL). INSTRUCTIONS for collecting the sample and a WATER TEST SUBMITTAL FORM that must be completed and submitted with your sample are provided. If you have any questions on which test to choose or on how to complete the submittal form, please feel free to call the laboratory at 271-3445. If sampling for a home mortgage, call the lender to identify the specific water quality tests they require. If sampling to obtain a food, daycare, or other license, check with the program for water testing requirements.

NH WELL WATER TEST FOR HOME BUYERS - This is the recommended analysis made on new wells or if purchasing a new home in order to evaluate their water quality for naturally-occurring and manufactured or refined contaminants that affect human health, and some aesthetic related parameters that may affect household water system equipment. The analysis includes the following tests: (\$90.00)

Total Coliform Bacteria	Chloride	Iron	Lead
<i>E. coli</i> Bacteria	pH	Manganese	Copper
Nitrate	Hardness	Sodium	Uranium
Nitrite	Fluoride	Arsenic	Radon

STANDARD ANALYSIS plus RADON- This is the recommended analysis for homeowners with drilled wells in order to evaluate their water quality for naturally-occurring and manufactured or refined contaminants that affect human health, and some aesthetic related parameters that may affect household water system equipment. This test is also recommended if you observe any of the following: staining of sinks, tubs, or laundry; scaling or chalky residue on hot water pipes; salty or metallic taste. The analysis includes the following tests: (\$105.00) Recommended every 3-5 years. Standard Analysis Only (\$85.00)

Total Coliform Bacteria	Chloride	Iron	Lead (both stagnant and flushed)
<i>E. coli</i> Bacteria	pH	Manganese	Copper (both stagnant and flushed)
Nitrate	Hardness	Sodium	Uranium
Nitrite	Fluoride	Arsenic	Radon

BASIC ANALYSIS (BCN) - This test is recommended as a periodic check of acute health related parameters after a Standard Analysis has been completed. This test includes: Total Coliform Bacteria, *E. coli* Bacteria, Nitrate, Nitrite, and Chloride. (\$30.00)

DRINKING WATER BACTERIA- This test should be chosen as a follow up to the Standard Analysis or BCN if bacteria were detected in your first test. This test includes: Total Coliform Bacteria and *E. coli* Bacteria. (\$15.00)

***E. coli* in Surface Water**- Performed by a different method from the drinking water bacteria, this test gives Most Probable Number (MPN) of *E. coli* Bacteria in surface water. (\$30.00)

RADIOLOGICAL ANALYSIS- New Hampshire’s bedrock geology contains naturally occurring radioactive elements. Examples include uranium, radium, thorium, and polonium as well as radon, a gas produced by the breakdown of radium. The radioactive elements dissolve easily in water and they emit alpha particles. Bedrock wells have more of a potential for encountering any or all of these elements than dug wells. The radiological analysis includes the following tests: “Analytical” gross alpha (consisting of the total gross alpha activity, i.e. the sum of uranium, radium, and other alpha emitting elements); radon gas; and uranium as mass (weight). Depending on the results of these analyses, additional testing may be recommended to determine the activity from radium and/or isotopic activity of uranium. Some mortgage lenders or towns require a radon analysis for loans or occupancy permits. (\$80.00 Radiological analysis, Radon alone is \$20.00)

FLUORIDE- In limited areas on NH, water in bedrock contains detrimentally high concentrations of fluoride. Conversely many areas contain very low concentrations of fluoride and so many dentists and pediatricians will ask you to test for fluoride in order to determine if, or how much fluoride supplement needs to be prescribed for your child to protect his or her teeth. (\$12.00)

VOLATILE ORGANIC CHEMICALS- This test is recommended if you suspect contamination by industrial solvents or petroleum products. Methyl tertiary butyl ether (MtBE) is included in the Volatile Organic Chemicals test. If you want to test for volatile organics, please request special glass vials and instructions. (\$120.00)

OTHER ANALYSES are available to meet your specific needs. Call the laboratory at 271-3445 to discuss your problem.

**State of New Hampshire
Department of Health and Human Services
Public Health Laboratories – Water Analysis Lab**

**INSTRUCTIONS FOR TAKING A WATER SAMPLE
PLEASE READ CAREFULLY BEFORE COLLECTING YOUR WATER SAMPLE**

- ✓ If you recently disinfected the well, be sure all chlorine is gone; the lab will not accept samples with chlorine.
- ✓ Select an indoor faucet in a clean area (do not use an outdoor faucet); the sample should be taken from the cold water. Avoid leaky faucets that allow water to seep around the valve.
- ✓ It is important that you do not contaminate the sample containers or their caps; keep them closed until ready to use and do not touch the inside of the cap.
- ✓ If you are collecting a sample for a **STANDARD ANALYSIS** or **STANDARD ANALYSIS Plus RADON**, you will have received four plastic bottles and one glass vial if collecting a radon sample.
 1. Allow the water to sit undisturbed in the water pipes for at least 6 hours (overnight is best).
 2. Turn on the faucet and immediately fill the small plastic container labeled “First Draw for Lead/Copper”.
 3. **Next, remove any aerator and wipe the faucet rim with a swab or tissue moistened with dilute bleach (1 capful bleach to 1 cup water) and then run the water for 5 minutes to clear the pipes.**
 4. **Reduce the water flow to a gentle stream and fill the plastic containers labeled “Sterile Bacteria Bottle”, “Nitrate/Nitrite”, and “Non-sterile”. *If you are collecting a radon sample continue to step 5.***
 5. Then slowly fill the glass vial labeled “Radon” to the top, creating a crown. Be sure no air bubbles are in the vial.
 - After placing the cap on the vial, tip it upside down and watch for air bubbles rising to the top. If you see an air bubble or space at the top, empty the vial and try again
- ✓ If you are collecting for a **BASIC ANALYSIS**, you will have received two plastic bottles labeled “Sterile Bacteria Bottle” and “Nitrate/Nitrite”. **Collect your sample by following steps 3 and 4 above.**
- ✓ If you are collecting for **DRINKING WATER BACTERIA**, you will have received one “Sterile Bacteria Bottle”. **Collect your sample by following steps 3 and 4 above.**
- ✓ If you are collecting a sample for a **NH WELL WATER TEST FOR HOME BUYERS**, you will have received three plastic bottles and a glass vial.
 1. Remove any aerator and wipe the faucet rim with a swab or tissue moistened with dilute bleach (1 capful bleach to 1 cup water) and then run the water for 5 minutes to clear the pipes.
 2. Reduce the water flow to a gentle stream and fill the plastic containers labeled “Sterile Bacteria Bottle”, “Nitrate/Nitrite”, and “Non-sterile”.
 3. Then slowly fill the glass vial labeled “Radon” to the top, creating a crown. Be sure no air bubbles are in the vial.
 - After placing the cap on the vial, tip it upside down and watch for air bubbles rising to the top. If you see an air bubble or space at the top, empty the vial and try again
- ✓ If you are collecting only for a **RADIOLOGICAL ANALYSIS**, you will have received two containers.
 1. Remove any aerator and then run the water for 5 minutes.
 2. Reduce the flow to a gentle stream and fill the plastic container labeled “Non-Sterile Container”.
 3. Then slowly fill the glass vial labeled “Radon” to the top, creating a crown. Be sure no air bubbles are in the vial.
 4. After placing the cap on the vial, tip it upside down and watch for air bubbles rising to the top. If you see an air bubble or space at the top, empty the vial and try again.
- ✓ After filling the container(s), sample(s) should be kept **refrigerated or on ice in a cooler** (but not allowed to freeze) and delivered to the laboratory as soon as possible. The lab must analyze samples for bacteria within 30 hours of collection; bacteria samples exceeding the **30 hour limit** will NOT be accepted. **The lab must receive radon or Nitrate/Nitrite samples within 48 hours of collection.** Samples received in improper containers, with insufficient volume or improperly preserved will not be accepted. Samples can be hand delivered to the lab Monday through Friday between 8am and 4pm. Bacteria samples cannot be accepted after 12:00 Fridays or the day before a holiday.
- ✓ If mailing sample(s), See Tips For Mailing Water Samples.
- ✓ The sample submittal form (see backside of this sheet) must be completely filled out and returned with each sample submitted. Be sure the DATE and TIME the sample was taken are written on the form.
- ✓ A full report of the sample results will be sent to you upon completion of the analysis (allow 3-4 weeks for a full Standard Analysis Report). If bacteria are found, a separate letter and disinfection instructions will be sent earlier.
- ✓ If you received a small sample container for FLUORIDE from your dentist, you cannot request any additional testing (e.g. Standard Analysis) as there will not be enough water to complete the analysis. Call the lab to have a new container sent.



Water Test Submittal Form - Homeowner

**The Lab cannot accept Bacteria samples on the day before a holiday
or after 12:00pm on Fridays**

State of New Hampshire
 Department of Health and Human Services
 Public Health Laboratories
 29 Hazen Drive
 Concord, NH 03301
 Tel: (603) 271-3445 Fax: (603) 271-2138
 Business Hours: Monday-Friday 8 am - 4 pm
 email: waterlab@dhhs.nh.gov

Lab Use Only	
Sample Temp _____	CK # _____
Date _____	Time _____
Rec Codes _____	Rec'd by _____

Worker ID: _____

Report to:
(Please print clearly)

Name: _____

Address: _____

City: _____

State: _____ Zip: _____

Phone: (____) _____

Sample Collection: (check one)

Date: ____/____/____ Time: ____:____ AM PM

Collected by: _____

Sample source: Well Public water system
 Surface water Other _____

Source Location: (Check if same as Report to:)

Well information:

Dug Drilled Spring Pounded Point Unknown Other _____

Has the well been disinfected within the last 30 days? Yes / No

Is the well being treated for any of the following? Yes / No

(If yes, please check all that apply)

Radon Hardness Iron/Manganese Arsenic Other _____

Sample taken Before After treatment

Lab Use Only	
TCR _____	Date _____
mg/L _____	Init _____

Please Check Test Choice

* These tests are included in the Standard Analysis

<input type="checkbox"/> NH Well Water Test For Home Buyers	\$ 90
<input type="checkbox"/> Standard Analysis plus Radon	105
<input type="checkbox"/> Standard Analysis	85
<input type="checkbox"/> Radon	20
<input type="checkbox"/> Radionuclides includes Alpha/Radon	80
<input type="checkbox"/> Volatile organic chemicals	120
<input type="checkbox"/> Drinking Water Bacteria	
<input type="checkbox"/> Total coliform/ <i>E. coli</i> Presence/Absence *	15
OR <input type="checkbox"/> Total coliform/ <i>E. coli</i> MPN (Most Probable Num)	30
<input type="checkbox"/> Basic Analysis *	30
<input type="checkbox"/> <i>E. coli</i> MPN (Surface water/Swim/Non-drinking wat)	30
<input type="checkbox"/> Arsenic *	15
<input type="checkbox"/> Fluoride *	12

Total enclosed \$ _____

Attention : Important Shipping Information

for Bacteria Samples

Be sure to ask when your package will arrive at the Lab. Your sample **must** be tested within 30 hours of collection.

Additional comments

**We accept cash or Make check payable to:
 Treasurer State of New Hampshire;
 Credit/Debit cards not accepted.**