

# Water Testing



## DOMESTIC WELLS

The district offers free analysis for nitrates and bacteria in groundwater. Rural domestic wells are not held to public water system regulations; therefore it is the well owners' responsibility to ensure safe drinking water. These wells should be tested at least once a year for both bacteria and nitrates.

## BACTERIA

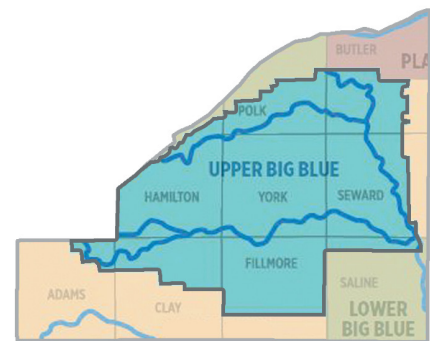
While most wells are free of harmful bacteria, it can be introduced into a well during construction or repairs, or may enter a well through a crack in the casing or surface seal. It is well documented that certain bacteria pose a serious health risk to humans and livestock. For more information regarding health risks of high nitrates and bacterial contamination, please consult with a physician.



*The NRD offers free analysis for nitrates and bacteria in groundwater. Rural domestic wells are not held to public water system regulations, so it is the well owner's responsibility to ensure safe drinking water.*

## TESTING INSTRUCTIONS

1. You must use a sterile bottle provided by the NRD. This bottle is sealed and needs to remain sealed until you are ready to collect the sample.
2. Collect the sample from a hydrant or faucet that is connected to the waterline closest to the well.
3. Let the water run for at least 10 minutes before collecting the sample.
4. Shut off the water.
5. Using a match or lighter, expose the end of the hydrant to the flame for 3-6 seconds. Do not expose the plastic parts to a flame, as it will damage the faucet.
6. DO NOT touch the inside of the bottle or lid.
7. Carefully fill the sample container to the fill line on the bottle. Do not rinse.
8. Secure the cap on the container.
9. If you cannot deliver the sample immediately, it must be refrigerated. Deliver the sample to the NRD office within 4 hours of collection.



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## NITRATES

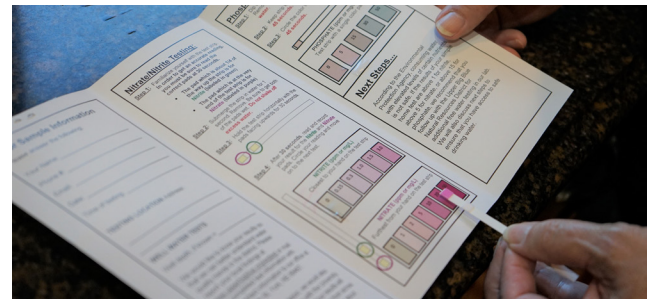
The safe drinking water standard is ten parts per million of nitrates in public water supplies. Pregnant women, nursing mothers, and babies less than 6 months old are at the highest risk for nitrate poisoning. A condition called methemoglobinemia, commonly known as blue baby syndrome, limits the blood's ability to carry oxygen. This can result in brain damage and even death if not treated promptly.

### TESTING INSTRUCTIONS

1. You may use your own container, although the NRD will provide a clean sample bottle if requested.
2. The container must be washed and rinsed before the sample is collected.
3. Collect the sample from a hydrant or faucet that is connected to the waterline closest to the well.
4. Do not let the sample pass through a water treatment device (distiller, R/O, softener) unless you wish to test that device's effectiveness. If you are doing this, we recommend you also provide an untreated sample for comparison.
5. Let the water run for at least 10 minutes before collecting the sample.
6. Rinse the sample container with water 3 times before collecting the sample.
7. Fill the sample container approximately ½ inch from the top.
8. Rinse the lid and place it securely on the container.
9. If you cannot deliver the sample immediately, it must be refrigerated. Deliver the sample to the NRD office within 24 hours of collection.
10. Keep the sample cool during transport.

## AT-HOME NITRATE TESTS ARE ALSO AVAILABLE...

*The most reliable test results are provided by bringing a sample to our office for testing in the lab, however, you can also request a free at-home test kit that gives you a general indication of how much nitrate may be in your drinking water and whether or not you need to take further steps to ensure clean drinking water. Contact the NRD to request your free test at [info@upperbigblue.org](mailto:info@upperbigblue.org) or call (402) 362-6601.*



## IRRIGATION WELLS

Operators within an area that has been designated a Phase III Management Zone must have their irrigation water tested for nitrates at least once every three years. Zones 5, 6, and 11 are in Phase III Management.

Important things to remember:

- All active wells in Zones 5, 6, and 11 must be sampled.
- Commingled wells need to be sampled individually.
- Follow sampling instructions above and deliver to the NRD within 48 hours of collection.
- If there are multiple wells per quarter, be specific when labeling – sub-quarter or physical location description is helpful to assign results and therefore, comply with rules and regulations.