

**DRAFT Testing of Private Drinking Water Wells**

**15A NCAC 18A .3801 is proposed for adoption as follows:**

**SECTION.3800 - PRIVATE DRINKING WATER WELL SAMPLING****15A NCAC 18A .3801 DEFINITIONS**

The following definitions shall apply throughout this Section:

- (1) “Practical Quantitation Limit” or “PQL” means the lowest detectable level that can be achieved among laboratories within specified limits during routine laboratory operations. The PQL represents a practical and routinely achievable detection level with a relatively good certainty that any reported value is reliable.
- (2) “Certified laboratory” means the North Carolina State Laboratory of Public Health certified by the US Environmental Protection Agency or a laboratory certified by the Certification Section of the North Carolina Public Health Laboratory pursuant to 10A NCAC 42D to determine the presence of coliform bacteria and/or the chemical constituents to be tested.
- (3) “Coliform bacteria” or “total coliform” means aerobic or facultative anaerobic, gram-negative, non-spore forming, rod shaped bacteria included in the genera Klebsiella, Enterobacter, Escherichia and Citrobacteria. Coliform bacteria originate in soil, vegetation or the intestinal tract of warm-blooded animals. The presence of coliform bacteria in a water sample indicate the presence of a pathway for bacteria and possibly pathogens to gain entry into a water supply system.
- (4) "Department of Environment and Natural Resources" or “Department” means the North Carolina Department of Environment and Natural Resources. The term also means the authorized representative of the Department. For the purposes of any notices required pursuant to the rules of this Section, notice shall be mailed to “Division of Environmental Health, On-Site Water Protection Section, North Carolina Department of Environment and Natural Resources,” 1642 Mail Service Center, Raleigh, NC 27699-1642.
- (5) "Local Health Department” means the county or district health department or its successor.
- (6) “Fecal coliform bacteria” or “fecal coliform” means a sub-group of coliform bacteria that are present in the gut and feces of warm-blooded animals. The presence of fecal coliform bacteria in a water sample indicate fecal contamination and the presumed presence of pathogens in the water supply
- (7) "Private drinking water well" means any excavation that is cored, bored, drilled, jetted, dug, or otherwise constructed to obtain groundwater for human consumption and that serves or is proposed to serve 14 or fewer service connections or that serves or is proposed to serve 24 or fewer individuals. The term “private drinking water well”

includes a well that supplies drinking water to a transient non-community water system as defined in 40 Code of Federal Regulations 141.2 (1 July 2003 Edition).

- (8) "Water supply" means any source of drinking water.
- (9) "Water supply system" means pump and pipe used in connection with or pertaining to the operation of a private drinking water well including pumps, distribution service piping, pressure tanks and fittings.

*History Note: Authority G.S. 87-97;  
Eff. July 1, 2008.*

**15A NCAC 18A .3802 is proposed for adoption as follows:**

**15A NCAC 18A .3802 SAMPLE COLLECTION**

- (a) Within 30 days after it issues a certificate of completion for a newly constructed private drinking water well, the local health department shall test the water obtained from the well, or ensure that the water obtained from the well has been sampled and tested by a certified laboratory, in accordance with the rules of this Section. Samples collected from private water supply wells pursuant to the rules of this Section shall be collected by an Environmental Health Specialist employed by a local health department, an authorized agent of the Department, or an employee of a certified laboratory. The sample collector shall be trained in aseptic sampling techniques for collection of coliform bacteria and shall be knowledgeable in the sampling techniques and containers for chemical constituents following methods described in 40 Code of Federal Regulations 141.23 Inorganic Chemical Sampling and Analytical Requirements and 40 Code of Federal Regulations 143.4 Monitoring, which are incorporated by reference including any subsequent amendments or editions.
- (b) Water samples shall be collected from the sample tap at the well or the closest accessible collection point to the water source with a tap capable of being disinfected, provided the sampling point shall precede any water treatment devices.
- (c) It is the responsibility of the well owner to provide access and a source of power for the purpose of collecting the required water sample.
- (d) Samples for determination of the presence of total coliform and fecal coliform bacteria and chemical constituents shall be collected in bottles supplied by the State Laboratory of Public Health or a third party certified laboratory.
- (e) For all new private drinking water wells, samples for total coliform and fecal coliform bacteria shall be collected not less than 24 hours after chlorine or disinfectant agents have been flushed from the well and water supply system. The water shall be tested for chlorine or other disinfectants used in that well to verify removal of disinfectants before collection of samples for bacteria. Required water samples shall not be collected from:

- (1) Water supply systems that contain chlorine or other disinfectant chemicals;
- (2) New water supply systems that have not been disinfected; or
- (3) Water supply wells that are not constructed and located in accordance with the rules of Section 15A NCAC 02C.0300

(f) Samples shall be shipped to the laboratory following the procedures for sample preservation and within holding times required in 40 Code of Federal Regulations 141.21(f) Analytical Methodology, 141.23 Inorganic Chemical Sampling and Analytical Requirements, and 143.4 Monitoring, which are hereby incorporated by reference including any subsequent amendments or editions.

(g) Additional or retest samples may be collected if::

- (1) the initial field inspection or historical information indicates there is the potential for other contaminants to be present in the groundwater source; or
- (2) a retest sample is deemed necessary based on the analytical results or data review of the initial testing.

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**15A NCAC 18A .3803 is proposed for adoption as follows:**

**15A NCAC 18A .3803 SAMPLE ANALYSIS**

- (a) Required water samples shall be analyzed in the North Carolina State Laboratory of Public Health or a certified laboratory.
- (b) A required bacteriological water sample shall be tested for total coliform bacteria and if present, further tested for the presence of fecal coliform bacteria or *E. coli*.
- (c) A required chemical water sample shall be tested for Arsenic, Barium, Cadmium, Chromium, Copper, Fluoride, Lead, Iron, Magnesium, Manganese, Mercury, Nitrate, Nitrite, Selenium, Silver, Sodium, Zinc and pH.
- (d) Testing protocols shall follow EPA methods as published in the applicable sections of the most recent 40 CFR 141 and 143, Federal Register updates and/or the North Carolina Drinking Water Laboratory Certification rules of Section 10A NCAC 42D.

*History Note: Authority G.S. 87-97;  
Eff. July 1, 2008.*

**15A NCAC 18A .3804 is proposed for adoption as follows:**

**15A NCAC 18A .3804 REPORTING**

(a) The results of required chemical and bacteriological water sample analyses for each new private drinking water well shall be reported to:

- (1) the Environmental Health Specialist at the local health department;
- (2) the DENR Private Water Supply Protection Branch; and
- (3) the DHHS Division of Public Health, Epidemiology Section, Occupational and Environmental Epidemiology Branch.

(b) Certified laboratories reporting results of sampling required by the rules of this Section shall use the reporting format developed by the North Carolina State Laboratory of Public Health for reporting private well-water sample results and shall include well identification information and a guide for interpreting sample results.

*History Note: Authority G.S. 87-97;  
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**15A NCAC 18A .3805 is proposed for adoption as follows:**

**15A NCAC 18A .3805 DATA REVIEW**

For all private well sampling data where chemical or biological contaminants are detected at or above the practical quantitation limit, the North Carolina Occupational and Environmental Epidemiology Branch (OEEB) shall provide the following to the local health department from which the sample was collected:

- (1) information about the contaminant(s) detected;
- (2) recommendations for uses of the water; and
- (3) recommendations about the need for and the frequency of repeat sampling.

*History Note: Authority G.S. 87-97;  
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