

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD**

**WELL WATER TESTING**

(No.)

**CODE 355**

**DEFINITION**

Testing for physical, biological, and chemical characteristics of groundwater in wells or spring developments.

**PURPOSE**

This practice may be applied as part of a conservation management system to determine the quality of a groundwater supply for the following intended uses: irrigation, livestock, fish and wildlife habitat, aquaculture enterprises, or other agricultural uses.

**CONDITIONS WHERE PRACTICE APPLIES**

This standard applies to water supplies that are used or have potential to be used on farms or ranches.

This practice does not apply to groundwater for human consumption, nor wells for monitoring groundwater hydrology or contamination associated with animal waste storage or treatment installations.

**CRITERIA**

The specific use of the water and the water quality concerns shall be identified.

The required tests and applicable standards shall be determined based on the planned use of the water.

Water samples shall be collected and analyzed in accordance with established procedures.

Specific parameters, sampling procedures, and laboratory analyses may be specifically required by local, State, Tribal, or Federal laws and regulations. Contact the testing entity for specific guidance.

Interpretation of test results and recommendations for remedial actions, as

necessary, shall be obtained from a source knowledgeable of the testing procedures and objectives.

**CONSIDERATIONS**

The following items should be considered in planning water supply testing:

- Location and depth of supply, aquifer characteristics, geology, and history of site in relationship to sources of potential contamination, such as surface water, septic systems, chemical storage facilities, landfills, roads, animal waste storage or treatment facilities, or naturally occurring sources of contamination
- Water supply construction practices used such as dug, drilled, or cased well, or spring development
- Using a computerized total farm record keeping system for ease of data input, analysis, and retrieval
- Using a State certified laboratory.

**PLANS AND SPECIFICATIONS**

Plans and specifications for water testing shall be consistent with this standard to achieve the desired results.

Plans and specifications shall include a description of processes for collecting, storing, transporting, and testing samples; and reporting test results.

**OPERATION AND MAINTENANCE**

Water testing records that shall be maintained will include:

- Sample site, location, and depth

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard contact your Natural Resources Conservation Service [State Office](#) or download it from the [Field Office Technical Guide](#) for your state.

- Remotely-sensed or in-situ records of water quality conditions within the well (pH, conductivity, turbidity, etc.)
- Date and time water sample taken
- Name and title of person who collected sample
- Type of sampler and sample taken
- Standard collection procedure followed
- Water test analysis date
- Laboratory performing the analysis
- Tested Contaminants
- Schedule or additional testing at required frequency according to applicable standard
- Records to evaluate trends and the effects of any remedial actions to produce water of sufficient quality for the intended purpose
- Rainfall data
- Observations on well condition
- Other records as required.

## REFERENCES

- National Engineering Handbook, Part 631 Geology. [Chapter 31 Groundwater Investigations](#). [H\_210\_NEH\_631, February 2010].
- Tennessee Department of Environment and Conservation, Division of Water Supply. [Chapter 1200-4-3 General Water Quality Criteria](#). May 2011. (Revised).
- Tennessee Department of Environment and Conservation, Division of Water Supply. [Chapter 1200-4-9 Water Well Licensing Regulations and Well Construction Standards](#). February, 2005. (Revised).
- Tennessee Department of Environment and Conservation, Division of Water Supply. Tennessee Healthy Well Manual. <http://www.tn.gov/environment/dws/pdf/TnHealthyWell.pdf>.
- Tennessee Department of Environment and Conservation, Division of Water Supply. Commercial Laboratories Approved for Drinking Water Analyses. [http://www.state.tn.us/environment/dws/pdf/dwa\\_labs.pdf](http://www.state.tn.us/environment/dws/pdf/dwa_labs.pdf), February 2013.