



Natural Resources Conservation Service

CONSERVATION PRACTICE STANDARD

GROUNDWATER TESTING

CODE 355

(no)

DEFINITION

Testing the physical, biological, and chemical quality of groundwater from a water well or spring.

PURPOSE

This practice is used to accomplish the following purpose:

- This practice is applied to determine the quality of a groundwater supply with respect to its intended use

CONDITIONS WHERE PRACTICE APPLIES

This standard applies to groundwater from a production well or spring used for agricultural or wildlife purposes.

This practice does not apply to monitoring wells installed to sample, monitor, or test groundwater quality parameters related to contamination associated with waste management systems.

CRITERIA

General Criteria Applicable to all Purposes

Select the parameters for testing consistent with the intended use or concerns identified with the well or spring.

Use sampling and testing procedures that comply with the Environmental Protection Agency's "Manual of Methods for Chemical Analysis of Water and Wastes."

Water samples shall be collected and analyzed by a laboratory certified by the State of Connecticut Department of Public Health (CT DPH) 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

Consider using a computerized total farm record keeping system for ease of data input, analysis, and retrieval of testing results.

PLANS AND SPECIFICATIONS

Prepare plans and specifications for groundwater testing that describe the requirements for applying the practice to achieve the intended purpose. Include the following:

1. Document the location and depth of supply.
2. Document aquifer characteristics, geology, and history of site relative 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.
3. Document the construction method used to install the well or spring development.
4. Include a description of the collection process, storing, transporting, and testing samples; and the reporting of test results.

OPERATION AND MAINTENANCE

Maintain the water test records for the design life of the well or spring. Include the following items as part of the water test records:

- Sample site location by ground coordinates, such as by Global Positioning System (GPS), or other suitable method
- Name and title of person who collected sample(s)
- Planned use of the water
- Tested contaminants
- Rainfall data
- Depth interval where sample was taken
- Date and time of water sampling
- Type of sampler and volume of sample
- Standard collection procedure used
- Date of water quality analyses
- Name and address of laboratory that performed analyses
- Parameters tested
- Schedule of additional testing, if required by the applicable water quality standard
- Records to evaluate trends and the effects of any remedial actions to produce water of quality suitable for the intended purpose
- Observations of well or spring condition at time of sampling
- Installation date of well or spring development
- Other records as required by regulations

REFERENCES

U.S. Environmental Protection Agency, Mar. 1983. "Manual of Methods for Chemical Analysis of Water and Wastes", EPA/600/4 79/020, Office of Research and Development, Washington, DC 20460, 552 p.