

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD
GROUNDWATER TESTING

(No.)
CODE 355

DEFINITION

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

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

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."

Testing for compatibility with use shall be tied to resource concern and testing may be needed for crops irrigated with well water.

Testing Level Recommendations

- ***Basic; PH, alkalinity and dissolved solids.***
- ***Specialty; Tests listed above, plus contaminants, volatile organic compounds (VOC), pesticides and heavy metals.***
- ***Full Spectrum; Test listed above, plus coliform.***

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.

NRCS, NHCP
September 2014

NRCS, WV
December 2015

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 visit the [Field Office Technical Guide](#). **Note: Bold italics is information added or changes made to the National Conservation Standard by WV.**

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
- 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

Use the most current version of WV 355 Groundwater Testing Operation and Maintenance Plan.

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.

WV CSR 64-19-Title 64; Department of Health and Human Resources; Series 19 Water Well Regulations

WV CSR 64-46-Title 64; Department of Health and Human Resources; Series 46 Water Well Design Standards.

WV Department of Health and Human Resources Request for Water Analysis (SW-253 Rev. 2004)
[Water Sample Request Form](#)