



# Ohio Department of Natural Resources

## Division of Soil and Water Resources

### Fact Sheet

Fact Sheet 93–23

## When Does a Well Log Need to be Filed?

The filing of well logs was originally required by the Ohio Water Resources commission in 1945. Upon establishment of the Ohio Department of Natural Resources (ODNR) in 1949, the Division of Water was given the charge of collecting and maintaining well logs for the state of Ohio. The Ohio Revised Code (ORC) Section 1521.05 (B) states that “Any person that constructs a well shall keep a careful and accurate log of the construction of the well.” This section provides a definition of a well, a description of the information that must be provided, where the forms must be sent, specifies a time frame for filing the well logs, and identifies the penalties for non-compliance.

### What constitutes a well?

ORC Section 1521.01 (B) defines a well as; “any excavation regardless of design or method of construction, created for any of the following purposes:

- (1) Removing ground water from or recharging water into an aquifer, excluding subsurface drainage systems installed to enhance agricultural crop production or urban or suburban landscape management or to control seepage in dams, dikes and levees;
- (2) Determining the quantity, quality, level, or movement of ground water in or the stratigraphy of an aquifer, excluding borings for instrumentation in dams, dikes, levees, or highway embankments;
- (3) Removing or exchanging heat from ground water, excluding horizontal trenches that are installed for water source heat pump systems.”

### Water Supply, Recharge, and Dewatering Wells

Definition (1) includes all private and public water supply wells, any well which is used to recharge an aquifer, and any well used to dewater an aquifer. Wells used for irrigation, livestock watering, general farm use, fire protection, industrial applications, power generation, or for cooling water supply fall under this definition, and a well log must be submitted. This definition excludes wells installed to control seepage in dams, dikes, and levees because these wells are usually installed in areas

that have been disturbed during construction and thus would not be indicative of natural conditions. Also excluded are shallow (less than 5-foot deep) structures that are used to increase soil moisture in agricultural or landscape settings.

### Monitoring Wells

Definition (2) pertains to monitoring wells, piezometers, and test borings. A well log needs to be filed for every well in which any characteristic of an aquifer is being monitored. This includes the quantity, quality, level or movement of ground water in an aquifer. Also included under definition (2) are borings used to characterize the aquifer(s) in an area. Test borings or wells drilled for environmental site assessments related to real estate transactions fall under this definition and a well log must be filed. Well casing DOES NOT have to be installed. Soil borings (less than 6 feet deep) and slope stability borings do not have to be logged and submitted to the Division of Soil and Water Resources.

Basically, any time casing is installed, or a boring is planned to determine the presence of an aquifer, a well log must be submitted on the form prescribed by the Division (i.e. either the on-line form or the standard four-part paper well log form provided to all contractors and consultants). ORC 1521.01 defines an aquifer as “a consolidated or unconsolidated geologic formation or series of formations that are hydraulically interconnected and that have the ability to receive, store, or transmit water.” Other governmental agencies have slightly different definitions of an aquifer. Therefore, if another agency requires the monitoring of a certain geologic horizon, then a well log needs to be filed for that well. Most importantly, the consulting company and the drilling contractor need to completely fill out and submit a well log for each well. Information must be provided by both parties to complete all sections of the well log as required by ORC section 1521.05(B).

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## Ground Water or Ground Source Heat Pump Wells

Definition (3) pertains to ground water heat exchange wells and borings. This definition includes both open and closed loop vertical systems. Wells used for withdrawal or injection of ground water require a well log to be submitted for each well. Vertical closed loop systems exchange heat from ground water and are thus covered under the definition of a well. For small closed loop systems (less than 20 borings), one well record is required. For all other systems, five well records are required; one at each corner of the grid and one for the center-most boring. Horizontally trenched closed loop systems are excluded under this section of the Revised Code.

For a quick reference of different types of excavations, and whether a well log needs to be filed with the Division of Soil and Water Resources, see the table below.

### Information Required on a Well Log

The Ohio Revised code requires that the well log forms be filled out completely and must include items identified in ORC Section 1521.05 (A). These items include a description of the formations encountered, the depth(s) at which water was encountered, the static water level of the completed well, a copy of the record of all pumping tests and analyses, construction details of the well, and the type of pumping equipment installed, if applicable. By default, any information identified on the well log, and collected by the drilling contractor and/or the on-site geologist, must be provided on the well log. By signing the well log, the contractor and/or the consultant certify the accuracy of and authenticity of the information recorded and filed.

## Penalties for Not Filing

Well logs are required to be filed with the Division of Soil and Water Resources within 30 days of completion of the well. The penalty for not filing a well log is described in ORC 1521.99.

The Division of Soil and Water Resources maintains over 800,000 well log and drilling report forms for the entire state. Well logs provide information on subsurface geology, ground water levels, well yields, and individual well construction. This data represents the most comprehensive and detailed source of ground water data for the state and is accessed daily for a multitude of applications including the development of geologic maps, ground water resource maps and investigations, conflict resolution, ground water contamination investigations, and programs related to other state, local and federal agencies.

The Division is committed to working cooperatively with both the drilling and consulting industries to promote the filing of well logs, and the collection and recording of accurate data on the well log forms.

For additional information, please contact:

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### Does a well log need to be filed?

Yes	No
Private water supply well	Recharge well that increases soil moisture only
Public water supply well	Soil boring
Irrigation well	Well installed to control seepage in dams, dikes, and levees
Dewatering well	Boring to determine slope stability
Heat exchange well	Soil vapor well
Livestock well	Industrial/municipal injection well (Class I)
Test well	Brine injection well (Class II)
Monitor well	Solution mining well (Class III)
Boring to characterize the aquifer	Mineral exploration boring
Remediation/extraction/collector well	
Drainage well	
Aquifer recharge wells	
Alteration of an existing well	
Cooling water well	
Fire protection well	
Industrial use well	

