

TITLE: Legal Descriptions On Water Well Logs

The legal description of a water well is required on all water well logs and is a topic often mentioned by people in the water well industry. The Department of Health field personnel inspect many of these well logs. While some legal descriptions are adequately reported, many are reported as a street address, business name, or mileage from a specific point. Currently, state regulations require any licensed water well contractor to keep and maintain an accurate well log of the construction of each water well and furnish a copy to the owner of the well.

What is an "accurate" well log and how does "accuracy" affect the legal description of the well? Webster's defines accurate as careful and exact. Accuracy is the nearness of a measurement to the actual value of the variable being measured. To determine how accuracy relates to the wells legal description, intent or purpose must be defined. Section 46-1202 of the Water Well Standards and Contractors' Licensing Act outlines four criteria that declare purpose. While all four criteria are important to the water well industry, the last one is especially relevant to this discussion. This is to provide data on potential water supplies through well logs which will promote the economic and efficient utilization, and management of the water resources of the state.

To accomplish this, a degree of accuracy must be incorporated into the legal description. Figure 1 illustrates the standard land divisions used in the United States. The base of the system is the section, a mile long and one mile wide block of land containing 640 acres. Thirty-six sections or thirty-six square-mile sections that are numbered as in the figure comprise a township. For the purpose of locating features, such as water well locations, an additional convention is used. This consists of dividing the section into four quarters. The quarter sections are further divided into four more quarters or two halves, depending on the desired accuracy. For example, consider the well location in Section 7. If the location is described as the SE 1/4 of Section 7, T. 1 S., R. 3 W., we are implying the well could be anywhere within the 160 acres of the SE 1/4. Though the well location is in the SE 1/4 it is actually closer to portions of the SW 1/4 of Section 7 and the N 1/2 of Section 18, than it is to the northern portion of its described location. If the legal description is reported as the SW 1/4 of the SE 1/4 of Section 7, T. 1 S., R. 3 W., then we imply the well location can be anywhere within a 40 acre block. Both examples are technically correct, but the location reported to the 40 acre subsection has a higher degree of accuracy and is more informative. This can be sufficient to provide some data to be interpreted on a larger scale.

However, if more than one well is drilled in the same 40 acre tract or a higher degree of accuracy is desired, the tract can be further divided into 20 acre or even 10 acre tracts.

The standard land division system is appropriate in rural areas. However, in areas such as cities and villages, the lot, block, and addition system is employed. Both of these systems, if used properly will enable a correct and accurate legal description to be reported on a water well log.