

## CONVERSION FACTORS, VERTICAL DATUM, AND ABBREVIATED WATER-QUALITY UNITS

Multiply	By	To obtain
<b>Length</b>		
inch (in.)	2.54	centimeter
inch (in.)	25.4	millimeter
foot (ft)	0.3048	meter
mile (mi)	1.609	kilometer
<b>Area</b>		
acre	4,047	square meter
acre	0.4047	hectare
acre	0.4047	square hectometer
acre	0.004047	square kilometer
square foot (ft <sup>2</sup> )	929.0	square centimeter
square foot (ft <sup>2</sup> )	0.09290	square meter
square mile (mi <sup>2</sup> )	259.0	hectare
square mile (mi <sup>2</sup> )	2.590	square kilometer
<b>Volume</b>		
acre-foot (acre-ft)	1,233	cubic meter
acre-foot (acre-ft)	0.001233	cubic hectometer
<b>Flow rate</b>		
acre-foot per day (acre-ft/d)	0.01427	cubic meter per second
acre-foot per year (acre-ft/yr)	1,233	cubic meter per year
acre-foot per year (acre-ft/yr)	0.001233	cubic hectometer per year
foot per second (ft/s)	0.3048	meter per second
foot per year (ft/yr)	0.3048	meter per year
square foot per second (ft <sup>2</sup> /s)		
cubic foot per second (ft <sup>3</sup> /s)	0.02832	cubic meter per second
gallon per minute (gal/min)	0.06309	liter per second
gallons per minute per square foot [(gal/min)/ft <sup>2</sup> ]	0.06791	liter per second per meter squared
inch per year (in/yr)	25.4	millimeter per year
<b>Specific capacity</b>		
gallon per minute per foot [(gal/min)/ft]	0.2070	liter per second per meter
<b>Hydraulic conductivity</b>		
foot per day (ft/d)	0.3048	meter per day
<b>Hydraulic gradient</b>		
foot per foot (ft/ft)	1	meter per meter
foot per mile (ft/mi)	0.1894	meter per kilometer
<b>Transmissivity<sup>1</sup> and Conductance</b>		
foot squared per day (ft <sup>2</sup> /d)	0.09290	meter squared per day
<b>Leakance</b>		
acre-foot per day per mile [(acre-ft/d)/mi]	1	cubic meter per second per kilometer

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$$^{\circ}\text{F} = (1.8 \times ^{\circ}\text{C}) + 32$$

**Sea level:** In this report, “sea level” refers to the National Geodetic Vertical Datum of 1929—a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

**Altitude,** as used in this report, refers to distance above or below sea level.

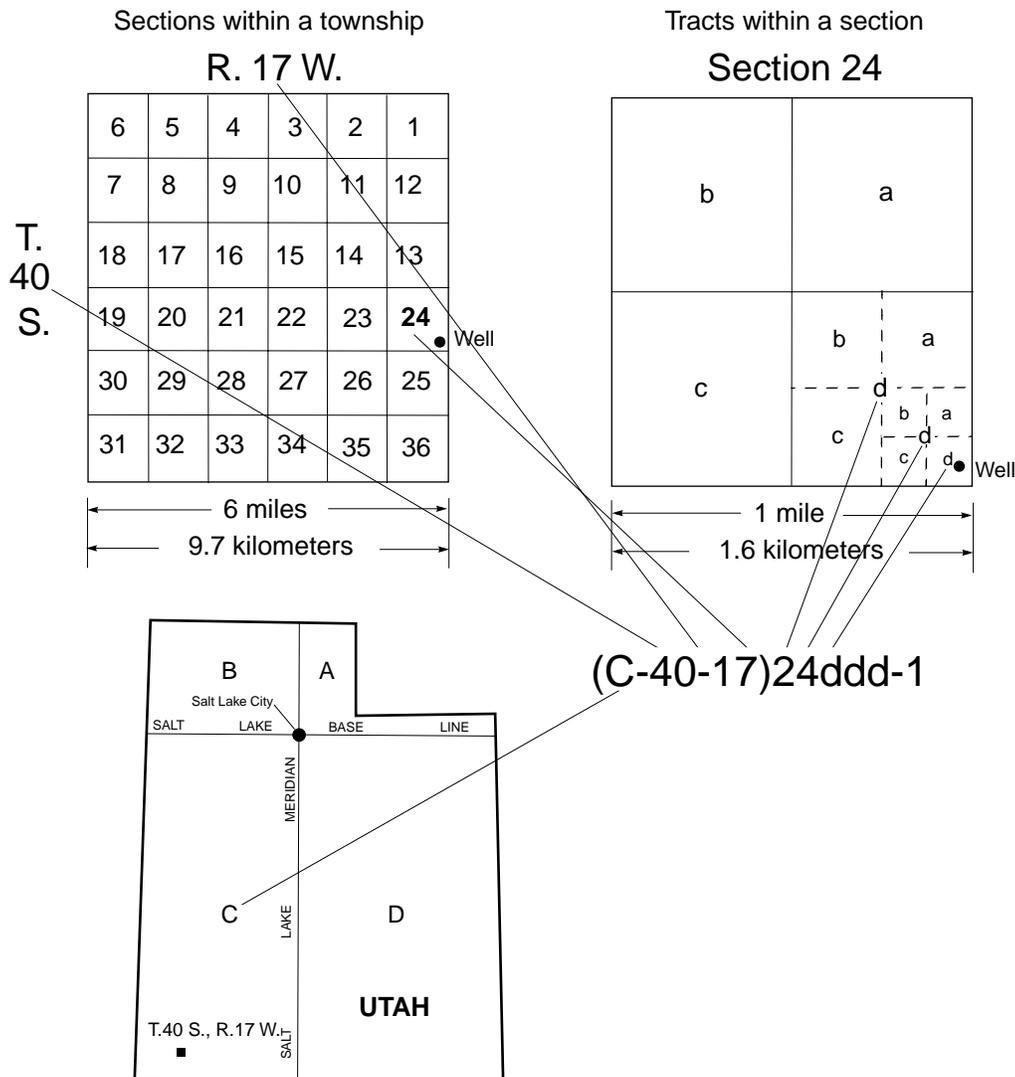
<sup>1</sup>**Transmissivity:** The standard unit for transmissivity is cubic foot per day per square foot times foot of aquifer thickness [(ft<sup>3</sup>/d)/ft<sup>2</sup>]ft. In this report, the mathematically reduced form, foot squared per day (ft<sup>2</sup>/d), is used for convenience.

**Specific conductance** is recorded in microsiemens per centimeter at 25 degrees Celsius (μS/cm).

Chemical concentration and water temperature are reported only in International System (SI) units. Chemical concentration in water is reported in either in milligrams per liter (mg/L) or micrograms per liter (μg/L). The chlorofluorocarbon concentration in water is reported in picomoles per kilogram (pmole/kg) or parts per trillion (ppt). These units express the solute weight per unit volume (liter) or unit mass (kilogram) of water. A liter of water is assumed to weigh 1 kilogram. The numerical value in milligrams per liter is about the same as for concentrations in parts per million. One thousand micrograms per liter is equivalent to 1 milligram per liter, one million picomoles per kilogram is equivalent to 1 mole per liter, and one million parts per trillion is equivalent to 1 part per million. A mole of substance is its atomic or formula weight in grams. Concentration in moles per liter can be determined from milligrams per liter by dividing by the atomic or formula weight of the constituent, in milligrams. Stable isotope concentration is reported as per mil, which is equivalent to parts per thousand.

Tritium units (TU) are used to report tritium concentration. One TU equals tritium concentration in pico-Curies per liter divided by 3.22.

The system of numbering wells and springs in Utah is based on the cadastral land-survey system of the U.S. Government. The number, in addition to designating the well or spring, describes its position in the land net. The land-survey system divides the State into four quadrants separated by the Salt Lake Base Line and the Salt Lake Meridian. These quadrants are designated by the uppercase letters A, B, C, and D, indicating the northeast, northwest, southwest, and southeast quadrants, respectively. Numbers designating the township and range, in that order, follow the quadrant letter, and all three are enclosed in parentheses. The number after the parentheses indicates the section and is followed by three letters indicating the quarter section, the quarter-quarter section, and the quarter-quarter-quarter section—generally 10 acres for a regular section<sup>1</sup>. The lowercase letters a, b, c, and d indicate, respectively, the northeast, northwest, southwest, and southeast quarters of each subdivision. The number after the letters is the serial number of the well or spring within the 10-acre tract. When the serial number is not preceded by a letter, the number designates a well. When the serial number is preceded by an “S,” the number designates a spring. A number having all three quarter designations but no serial number indicates a miscellaneous data site other than a well or spring, such as a location for a surface-water measurement site or tunnel portal. Thus, (C-40-17)24ddd-1 designates the first well constructed or visited in the southeast 1/4 of the southeast 1/4 of section 24, T. 40 S., R. 17 W.



<sup>1</sup>. Although the basic land unit, the section, is theoretically 1 square mile, many sections are irregular in size and shape. Such sections are subdivided into 10-acre tracts, generally beginning at the southeast corner, and the surplus or shortage is taken up in the tracts along the north and west sides of the section.

Numbering system used for hydrologic-data sites in Utah.