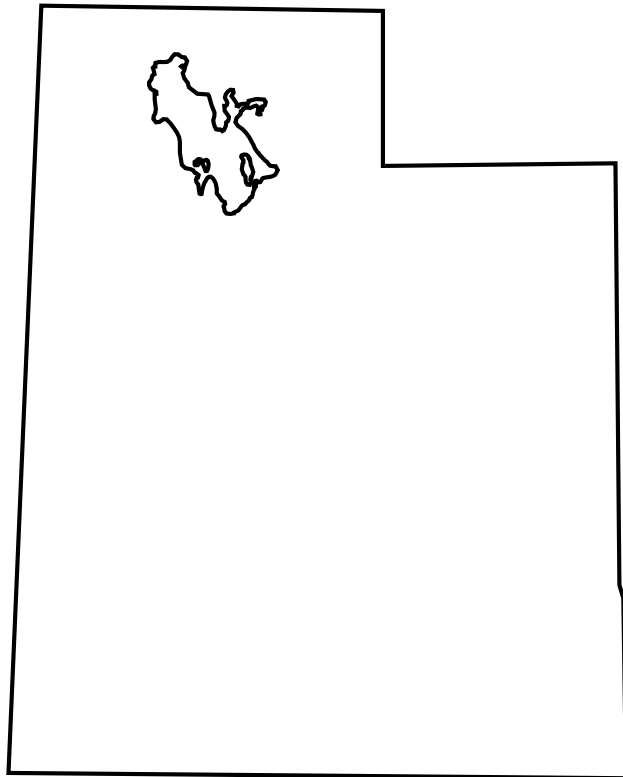


# Water Resources Data Utah Water Year 2003

By J.R. Tibbetts, Michael Enright, and D.E. Wilberg

Water-Data Report UT-03-1



Prepared in cooperation with the  
State of Utah and other  
cooperators and agencies

**U.S. Department of the Interior**  
**U.S. Geological Survey**

**U.S. Department of the Interior**

Gale A. Norton, Secretary

**U.S. Geological Survey**

Charles G. Groat, Director

2004

U.S. Geological Survey

2329 Orton Circle

Salt Lake City, Utah 84119-2047

801-908-5000

Information about the USGS, Utah District is available on the Internet at <http://ut.water.usgs.gov>

Information about all USGS reports and products is available by calling 1-888-ASK-USGS or on the Internet via the World Wide Web at <http://www.usgs.gov/>

Additional earth science information is available by accessing the USGS home page at <http://www.usgs.gov/>

This volume of the annual hydrologic data report of Utah is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nations land and water resources. Hydrologic data for Utah are contained in one volume.

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

Carole B. Burden	Jay Cederberg	Howard K. Christiansen
Mark Danner	Paul Downhour	Stefanie L. Dragos
Robert Eacret	Michael Enright	Martel Fisher
Kenneth Galyean	Joseph F. Gardner	Steve Gerner
Peter Haraden	Michael Hawkins	Larry R. Herbert
James Howells	Terry Kenney	Julane Mulder
Jeff Phillips	Mike ReMillard	Brad A. Slauch
Cynthia Smith	Robert Swenson	Chuck E. Turner
Christopher Wilkowske	Vince Walzem	

This report was prepared in cooperation with the State of Utah and with other agencies and cooperators under the general supervision of Patrick Lambert, District Chief, Utah.

### DOWNSTREAM ORDER AND STATION NUMBER

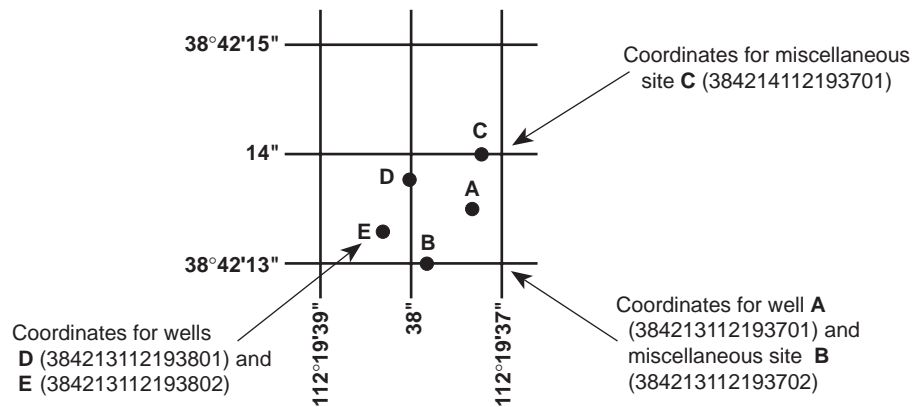
Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary entering between two main-stream stations is listed between. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indentation in a list of stations in the front of the report. Each indentation represents one rank. This downstream order and system of indentation show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station number, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are consecutive. The complete 8-digit number for each station such as 09004100, which appears just to the left of the station name, includes a 2-digit part number "09" plus the 6-digit downstream order number "041010."

### NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit, downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site number system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, and the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and miscellaneous site are the same, assign sequential numbers "01," "02," etc. as one would for wells. See figure 6.



**Figure 5.** System for numbering wells and miscellaneous sites (latitude and longitude).

In addition to the well number that is based on latitude and longitude given for each well, another well number is given that is based on the U.S. Bureau of Land Management's system of land subdivision. This well number is familiar to the water users of Utah and shows the location of the well by quadrant, township, range section, and position within the section. See figure 6. The capital letter at the beginning of the location number indicates the quadrant in which the well is located. Four quadrants are formed by the intersection of the base line and the principal meridian--A indicates the northeast quadrant, B the northwest, C the southwest, and D the southeast. The first numeral indicates the township, the second the range, and the third the section in which the well is located. Lowercase letters following the section number locate the well within the section. The first letter denotes the quarter section, the second the quarter-quarter section, and the third the quarter-quarter-quarter section. The letters are assigned within the section in a counter-clockwise direction beginning with (a) in the northeast quarter of the section. Letters are assigned within each quarter section and quarter-quarter section in the same manner. Where two or more locations are within the smallest subdivision, consecutive numbers beginning with 1 are added to the letters in the order in which the wells are inventoried. For example, (C-16-9) 15daa-2 indicates a well in the northeast quarter of the northeast quarter of the southeast quarter of sec. 15, T. 16 S., R.9 W., and shows that this is the second well inventoried in the quarter-quarter-quarter section. The capital letter C indicates that the township is south of the Salt Lake Base Line and that the range is west of the Salt Lake Meridian.

In addition to the Salt Lake Base Line and Salt Lake Meridian, which apply to most of Utah, the Uintah Base Line and Meridian are the basis for describing locations in a small, irregularly shaped area of north-eastern Utah. The quadrants, townships, ranges, sections, and parts of sections are designated in the same way as for the Salt Lake Base Line and Meridian. For any location in the Uintah area, however, the letter "U" precedes the parenthesis.

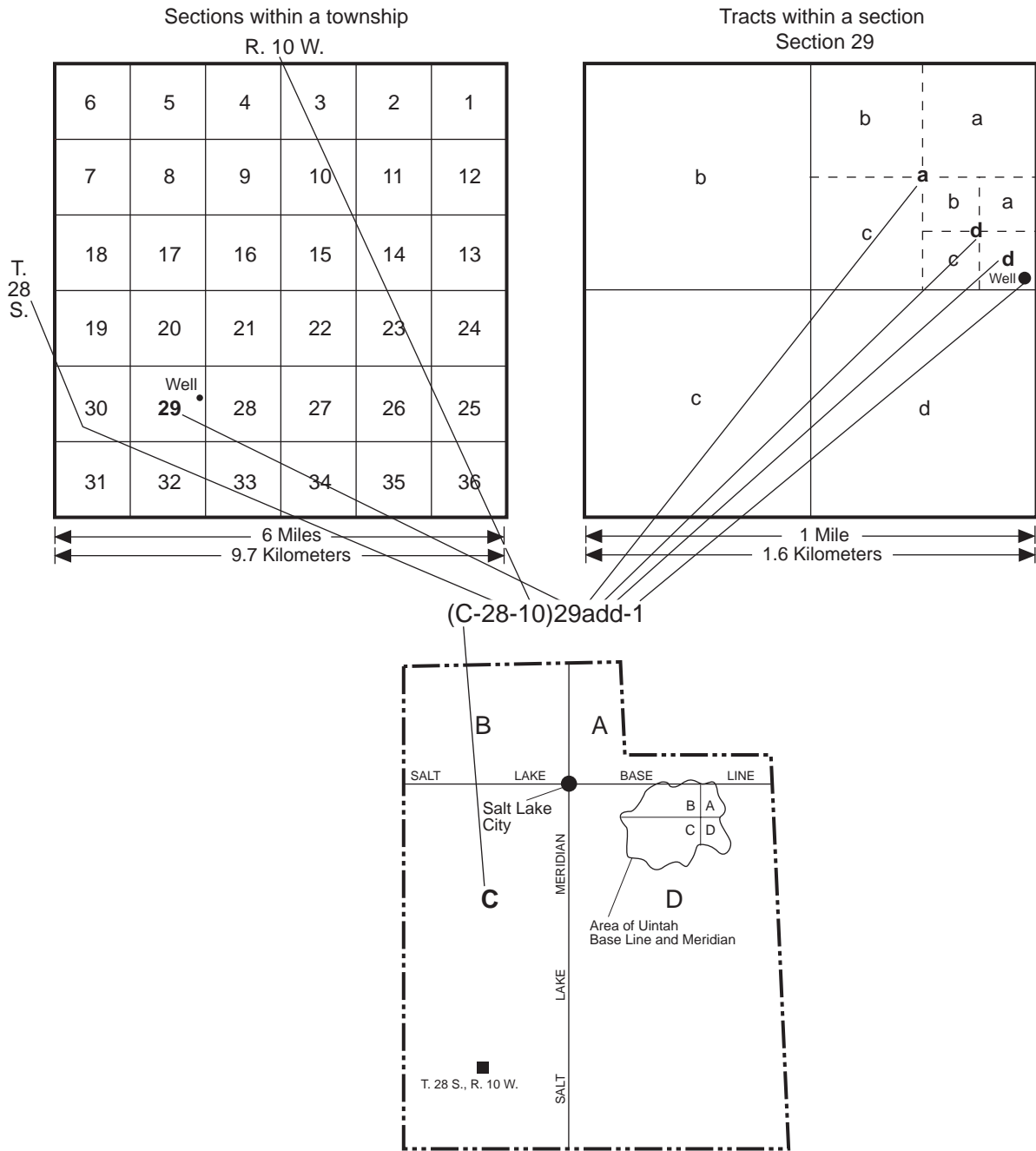


Figure 6. System for numbering wells and miscellaneous sites (township and range).