Section Description

C-C' is a dip-oriented section running through the west-central area of the State. Originating at a water well in northern Lexington County, the section runs in a southeasterly direction passing through Orangeburg and Dorchester Counties, the eastern part of Colleton County, and terminating at a water well at Kiawah Island in Charleston County. Five core holes and five water wells were used to construct the section. One inch on the vertical scale is equivalent to 200 feet of depth. The distance, in miles, between two adjacent wells is provided on the section.

The northernmost well (**LEX-154**) is a commercial well drilled in 1970 in northern Lexington County for the Pennsylvania Glass and Sand Corporation. Completed in the McQueen Branch aquifer, an aquifer test at the well produced a transmissivity of 1,700 ft^2/d (feet squared per day) while pumping at a rate of 500 gpm (gallons per minute). Continuing downdip, **LEX-844** is a core hole drilled in 1997 in southern Lexington County by the U.S. Geological Survey (USGS) and the South Carolina Department of Natural Resources (SCDNR). Two wells were constructed at the site—a shallow well in the unconfined Gordon aquifer (LEX-846) and a deep well in the McQueen Branch aquifer (**LEX-844**). The shallow well was dry and was subsequently abandoned; the deep well is currently monitored by SCDNR for water levels.

Continuing downdip, **ORG-256** is a core hole drilled by the USGS in 1982 near the Town of Wolfton in northern Orangeburg County. A well completed at the site was used by SCDNR as a measurement point for potentiometric mapping purposes but the well has since been plugged and abandoned (2012) by the property owner. Well **ORG-393** is a core hole drilled in 1997 by the USGS and SCDNR to delineate the geologic and hydrogeologic units in the Orangeburg area (SCDNR Report 42). Three wells were constructed at the site, one each in the Upper Three Runs, Gordon, and Crouch Branch aquifers, all of which are monitored by SCDNR for water levels. Just downdip from the **ORG-393** site is **ORG-368**, an industrial well originally drilled in 1988 for the Hughes Aircraft Company. Completed in the McQueen Branch aquifer, an aquifer test yielded a transmissivity of 20,000 ft^2/d pumping at a rate of 853 gpm. Farther south, well **ORG-461** is a public supply well drilled in 2003 for the Town of Branchville. Completed in the McQueen Branch aquifer, an aquifer test produced a transmissivity of 2,400 ft^2/d pumping at a rate of 948 gpm.

Core hole **DOR-211** was drilled in 1982 by the USGS in northern Dorchester County near the Town of St. George as part of a regional study of tectonics, seismicity, and stratigraphy (USGS Open-File 96-684). Well **COL-53** was a test hole drilled for a crop irrigation well near the Town of Cottageville in eastern Colleton County. Core hole **DOR-37** was drilled between 1975 and 1977 and was also part of the USGS study of tectonics, seismicity, and stratigraphy. Much has been written about this core hole, which is considered a benchmark stratigraphic test hole for the southeastern United States (USGS Professional Paper 1518; USGS/1994/2273/report; USGS Open File 049). The last well on the section, **CHN-814**, is a golf course irrigation well drilled in 1999 for Kiawah Island Resorts at Kiawah Island in Charleston County. Screened in the Charleston aquifer, a transmissivity of 1,900 ft^2/d was measured from an aquifer test pumping at a rate of 1,102 gpm.

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