Scattered widely over the Earth, karst landscapes are often pocked and pitted areas of sinkholes, limestone towers, steep-sided hills, underground drainage, and caves, for the most part formed on carbonate rocks such as limestones or dolomites. The south-central Kentucky karst, explored in this volume, is a superb example of a shallow, intensely karsted, carbonate aquifer unit. *Karst Hydrology: Concepts from the Mammoth Cave Area* is the first comprehensive book on a karst aquifer system in the United States. It offers you a complete review of the Mammoth Cave area in hydrological terms, with cave systems described in terms of hydraulic geometry and their hydrologic role in the drainage system.

The 12 original papers collected here draw on the 30-year program of the Cave Research Foundation, on the survey and cartography of the giant cave systems, and on many individual hydrological and geomorphological studies. Also included is the program of the National Park Service carried out by the National Park geologist. Written by leading experts on the subject, the book presents an introduction to the karst hydrology of the Mammoth Cave area, as well as detailed contributions on its hydrogeology, subsurface drainage, and water budget and physical hydrology. Other topics covered are

- flood hydrology
- chemical hydrology
- cave systems south of the Green River
- caves and drainage north of the Green River
- hydraulic geometry of cave passages
- fracture control on conduit development

There is also a report on stratigraphic and structural control of cave development and groundwater flow, plus a geomorphic history of the Mammoth Cave system.

The volume as a whole represents an up-to-date progress report on research from the Mammoth Cave area. It features a map of karst drainage basins, a complete analysis of the conduit system, and a description of water balance in karst aquifers. And to help you get the most out of the research material, the volume contains 113 line drawings, 32 photographs, and two oversized maps folded in a special pocket.

Karst Hydrology: Concepts from the Mammoth Cave Area is an outstanding case study from which much can be learned and applied to many other limestone aquifers in the United States and elsewhere. As such, the book is an important reference for geologists, hydrologists, geomorphologists, and water resource planners.

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