

1. Record Nr.	UNINA9910254101303321
Autore	Benson Richard C
Titolo	Site Characterization in Karst and Pseudokarst Terraines : Practical Strategies and Technology for Practicing Engineers, Hydrologists and Geologists // by Richard C. Benson, Lynn B. Yuhr
Pubbl/distr/stampa	Dordrecht : , : Springer Netherlands : , : Imprint : Springer, , 2016
ISBN	94-017-9924-5
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (421 p.)
Disciplina	550
Soggetti	Geotechnical engineering Natural disasters Geology Geotechnical Engineering & Applied Earth Sciences Natural Hazards
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Some Common Terms -- 2. The Development of Karst Conditions -- 3. Types of Karst Features -- 4. Karst Maturity and Development -- 5. Areas Affected by Karst and Pseudokarst -- 6. Karst and Its Many Benefits -- 7. Karst and Its Damaging Impact -- 8. Triggering Mechanisms for Sinkholes -- 9. Cave and Cavern Collapse -- 10. Insight into the Nature of Cover Collapse Sinkholes -- 11. What is Site Characterization -- 12. The Strategy -- 13. The Desk Study -- 14. Aerial Photography and Remote Sensing Data -- 15. Site Walkover -- 16. Surface Geophysical Methods -- 17. Invasive Methods -- 18. Geophysical Logging -- 19. Assessment of Larger Open Voids and Structures -- 20. Engineering Measurements and Monitoring -- 21. Hydrologic Characterization and Measurements -- 22. Dye Tracing -- 23. The Conversion of Data to Useful Information -- 24. Risk Assessment -- 25. The Development of a Landfill Over an Abandoned Limestone Mine -- 26. Site Characterization along Bridge Alignment -- 27. EPA Superfund Site -- Index.
Sommario/riassunto	This book provides a practical strategy for obtaining a more complete and accurate geologic site characterization. The strategy and methods

to characterize complex geologic settings are readily available. The strategy utilizes readily available technology, basic science and good, old-fashioned common sense resulting in a solid understanding of geologic and even karst or pseudokarst conditions. We provide an introduction to many off-the-shelf methods available for site characterization as well as examples of their application throughout the book. The purpose of a geologic site characterization is to understand the 3-dimensional geologic framework, along with the engineering and hydrologic properties of a site including any man-made impacts. A well-done site characterization is the cornerstone of all geotechnical, groundwater and environmental projects. The geologic conditions, particularly karst conditions, can significantly impact a site including its structural stability, groundwater pathways and potential for rapid transport or traps for contaminants. Once we have adequately characterized the geologic conditions can we carry our remediation, design and construction, model flow, and make risk assessments that are accurate and reliable.

---