

Book about Indiana coal mine reclamation compiles years of research

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This photograph of a seep that discharges acid mine drainage at the Friar Tuck site near Dugger, Ind., shows a mass of iron oxyhydroxide precipitates.

The Indiana Geological Survey has published an extensive collection of research papers about the reclamation of abandoned Indiana coal mine lands and the effects reclamation has on ground and surface water.

This volume, "Effects of Abandoned Mine Land Reclamation on Ground and Surface Water Quality: Research and Case Histories from Indiana," gathers together information learned by researchers who have studied the environmental impacts of mining and reclamation.

Thirteen papers, contributed by 20 authors from federal and state agencies, private industry, and university research institutes and academic departments, address these issues. The data in the full-color printed volume and on the accompanying CD-ROM will be useful to those who design and construct mine reclamation projects and to researchers actively involved in developing and refining today's and tomorrow's reclamation technologies, as well as to students and teachers in the environmental sciences.

"This book is especially important as it will aid our work in the future to design efficient and effective remediation systems for the many square miles of abandoned mine lands that still require our attention," said Bruce Stevens, director of the Reclamation Division of the Indiana Department of Natural Resources.

More than \$131 million has been spent in Indiana on reclamation efforts at over 1,000 [coal-mining](#) sites. Studies conducted at Indiana mine sites and controlled lab experiments have produced considerable data and provide important information about what techniques are effective in converting barren abandoned mine lands to productive uses. Of major concern is reducing the outflow of [acid mine drainage](#) that leaches [toxic metals](#) from mine refuse into waterways.

"The results documented in this book represent investigations that have taken many years of field sampling and [laboratory analyses](#) to reveal the effects of reclamation on Indiana's waters," said John Steinmetz, Indiana [Geological Survey](#) director and Indiana state geologist. "We hope they can inform reclamation programs in Indiana as well as in neighboring

coal-producing states."

The book is available online from the [Indiana Geological Survey Bookstore](#).

Provided by Indiana University

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