1. Record Nr. UNINA9910830970103321 Autore Pinder George Francis <1942-> Titolo Subsurface hydrology [[electronic resource] /] / George F. Pinder, Michael A. Celia Hoboken, N.J.,: Wiley-Interscience, c2006 Pubbl/distr/stampa **ISBN** 1-280-64900-3 9786610649006 0-470-04420-9 1-60119-842-6 0-470-04419-5 Edizione [1st ed.] Descrizione fisica 1 online resource (484 p.) Altri autori (Persone) CeliaMichael Anthony Disciplina 551.49 Soggetti Groundwater Groundwater - Pollution Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto SUBSURFACE HYDROLOGY; CONTENTS; PREFACE; 1 WATER AND THE SUBSURFACE ENVIRONMENT; 1.1 Groundwater Hydrology; 1.2 Groundwater and the Hydrologic Cycle; 1.3 Groundwater as a Resource; 1.4 Groundwater and the Subsurface; 1.5 The Near-Surface Environment; 1.5.1 Soil; 1.6 Porosity; 1.6.1 Primary Porosity; 1.6.2 Secondary Porosity: 1.7 Soil Water: 1.8 Groundwater Contamination: 1.8.1 Naturally Occurring Groundwater Contaminants; 1.8.2 Anthropogenic Contaminants; 1.8.3 Superfund; 1.9 Quantitative Analysis of Groundwater Problems: 1.9.1 Governing Equations: 1.9.2 Field Data 1.9.3 Behavior of Groundwater Systems1.10 Summary: 1.11 Problems: Bibliography; 2 FLUID FLOW AND MASS TRANSPORT; 2.1 Fluid Pressure; 2.2 Hydraulic Head; 2.3 Fluid Potential; 2.4 Concept of Saturation; 2.5 The Darcy Experiment; 2.5.1 Extended Forms of Darcy's Law; 2.5.2 Example of a Groundwater Flow Velocity Calculation in Two Dimensions; 2.5.3 Additional Concepts of Fluid Potential; 2.6 Fluid Flow

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## Sommario/riassunto

With an emphasis on methodology, this reference provides a comprehensive examination of water movement as well as the movement of various pollutants in the earth's subsurface. The multidisciplinary approach integrates earth science, fluid mechanics, mathematics, statistics, and chemistry. Ideal for both professionals and students, this is a practical guide to the practices, procedures, and rules for dealing with groundwater.