1. Record Nr. UNINA9910350332003321 Autore Cheng Xiaodong Titolo Comprehensive Practice of Exploration and Evaluation Techniques in Complex Reservoirs / / by Xiaodong Cheng, Leyuan Fan, Weikang Gu Singapore:,: Springer Singapore:,: Imprint: Springer,, 2019 Pubbl/distr/stampa 981-13-6431-1 **ISBN** Edizione [1st ed. 2019.] 1 online resource (X, 390 p. 291 illus., 283 illus. in color.) Descrizione fisica 550 Disciplina 526.1 Soggetti Geophysics Fossil fuels Economic geology Geophysics/Geodesy Fossil Fuels (incl. Carbon Capture) **Economic Geology** Inglese Lingua di pubblicazione **Formato** Materiale a stampa

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Nota di contenuto Comprehensive practice of sequence stratigraphy techniques and

application -- Comprehensive practice of structure analysis and sedimentary facies study -- Comprehensive practice of reservoir prediction and evaluation -- Exploration and evaluation techniques of

subtle reservoirs.

Sommario/riassunto This book covers exploration and evaluation practices for various types

of complex reservoirs, and summarizes a series of practical and effective techniques and methods. For example, it shows how, by integrating multiple types of new logging technology, complex reservoir petrophysics evaluation can be performed using high-precision core experiment data and quantitative logging interpretation; and demonstrates how the technology of sporopollen assemblage and palynofacies analysis can improve the time precision of sequence stratigraphy and the quantitative study level of sedimentary facies, respectively. It discusses how reservoir lateral prediction and vertical resolution can be substantially improved by integrating fracture

prediction and geostatistical inversion; and presents innovative log

interpretation charts for the lithological identification of metamorphic rocks, e.g. GR-DEN crossplot and Impedance-Resistivity crossplot. To support the main content, the book features a wealth of high-resolution, thin- section images, quantitative illustrations of palynofacies composition, multi-property overlapping map set and quantitative tables. It offers an essential reference guide for researchers in geological exploration and evaluation, and will also appeal to a broad readership, from engineering technicians to advanced graduate students in related areas.