Record Nr.	UNINA9910462018203321
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Titolo	Theory, measurement, and interpretation of well logs [[electronic resource] /] / Zaki Bassiouni
Pubbl/distr/stampa	Richardson, TX, : Henry L. Doherty Memorial Fund of AIME, Society of Petroleum Engineers, 1994
ISBN	1-61399-157-6
Descrizione fisica	1 online resource (382 p.)
Collana	SPE textbook series ; ; vol. 4
Disciplina	622/.1828
Soggetti	Oil well logging
	Geophysical well logging
	Electronic books.
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 indexes.
Nota di contenuto	""Introduction""; ""Acknowledgments""; ""Contents""; ""1-Electrical Resistivity of Rocks""; ""1.1 Introduction""; ""1.2 Definition of Electrical Resistivity"; ""1.3 Nature of Electrical Resistivity of Reservoir Rocks""; ""1.4 Formation Resistivity Factor""; ""1.5 Effect of Formation-Water Salinity and Temperature on Rock Resistivity""; ""1.6 Rock Resistivity/Porosity Relationshlp"; ""1.7 Relationship Between Formation Resistivity Factor and Permeability""; ""1.8 Relationship Between Rock Resistivity and Fluid Saturation""; ""1.9 Electrical Properties of Shaly Sands"" ""2-Radioactive Properties of Rocks""""2.1 Structure of the Atom""; ""2.2 Energy States and Radioactivity"; ""2.3 Nature and Type of Natural Radiation""; ""2.4 Rate of Radioactive Decay""; ""2.5 Natural Gamma Ray and Gamma Ray Logging""; ""2.6 Gamma Ray Interactions""; ""2.7 Absorption of Gamma Rays""; ""2.8 Gamma Ray Absorption Logging""; ""2.9 The Neutron""; ""2.10 Neutron Interactions""; ""2.11 Neutron Diffusion""; ""2.12 Neutron Logging Methods""; ""3-Acoustic Properties of Rocks""; ""3.1 Introduction""; ""3.2 Basic Concepts of Elasticity"" ""3.3 Acoustic-Wave Propagation in Fluid-Filled Borehole"""3.4 AcousticA-Wave Propagation in Rocks""; ""3.5 Porosity/Transit-Time Relationships"; ""4-Measurement Environment"; ""4.1 Measurement Environment Effects"; ""4.2 Borehole Diameter and Shape""; ""4.3 Mud,

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Mud-Filtrate, and Mudcake Properties""; ""4.4 Invasion Profile""; ""4.5 Formation Temperature""; ""4.6 Record of Measurement Environment""; ""5-Resistivity Logs""; ""5.1 Introduction""; ""5.2 Apparent Resistivity""; ""5.3 Conventional Electrode Tools""; ""5.4 Focused Current Devices""; ""5.5 Induction Devices""

""5.6 True Resistivity Determination"""5.7 Determination of Rxo From Microresistivity Tool Readings""; ""5.8 Summary""; ""6-The Spontaneous Potential Log""; ""6.1 Naturally Occurring Electrical Potentials""; ""6.2 The SP Log""; ""6.3 Origin of the SP""; ""6.4 Theoretical ESSP vs. Measured SP""; ""6.5 Determination of Formation Water Resistivity""; ""6.6 Character and Shape of the SP Deflection""; ""7-Gamma Ray Log""; ""7.1 Introduction""; ""7.2 Detection and Measurement of Nuclear Radiation""; ""7.3 Unit of Measurement"; ""7.4 Statistical Variations""; ""7.5 Logging Speed""

""7.6 Tool Response"""7.7 Applications of the Gamma Ray Log""; ""7.8 Gamma Ray Spectrometry Log""; ""8-Gamma Ray Absorption Logs""; ""8.1 Introduction""; ""8.2 Single-Detector Formation Density Tool""; ""8.3 Dual-Detector Density Tool""; ""8.4 Tool Calibration""; ""8.5 Porosity From Density Log Response"; ""8.6 Litho-Density Tool""; ""9-Neutron Logs""; ""9.1 Introduction""; ""9.2 Types of Detectors""; ""9.3 N-G Tool""; ""9.4 Sidewall Neutron Log""; ""9.5 Dual-Detector Neutron Tool""; ""9.6 Pulsed Neutron Tools""; ""10-Sonic Porosity Log"; ""10.1 Introduction""

""10.2 Single-Receiver System""