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Saturation/Height Analysis"; ""4.1 Core Capillary Pressure Analysis"; ""4.2 Log-Derived Functions"; ""5. Advanced Log Interpretation Techniques"; ""5.1 Shaly Sand Analysis"; ""5.2 Carbonates"; ""5.3 Multi-Mineral/Statistical Models"; ""5.4 NMR Logging"; ""5.5 Fuzzy Logic"; ""5.6 Thin Beds"; ""5.7 Thermal Decay Neutron Interpretation"; ""5.8 Error Analyses"; ""5.9 Borehole Corrections"; ""6. Integration with Seismic""
""6.1 Synthetic Seismograms""""6.2 Fluid Replacement Modelling"; ""6.3 Acoustic/Elastic Impedance Modelling"; ""7. Rock Mechanics Issues"; ""8. Value Of Information"; ""9. Equity Determinations"; ""9.1 Basis for Equity Determination"; ""9.2 Procedures/Timing for Equity Determination"; ""9.3 The Role of the Petrophysicist"; ""10. Production Geology Issues"; ""10.1 Understanding Geological Maps"; ""10.2 Basic Geological Concepts"; ""11. Reservoir Engineering Issues"; ""11.1 Behavior of Gases"; ""11.2 Behavior of Oil/Wet Gas Reservoirs"; ""11.3 Material Balance""
""11.4 Darcy's Law""""11.5 Well Testing"; ""12. Homing-in Techniques"; ""12.1 Magnetostatic Homing-in"; ""12.2 Electromagnetic Homing-in"; ""13. Well Deviation, Surveying, and Geosteering"; ""13.1 Well Deviation"; ""13.2 Surveying"; ""13.3 Geosteering"; ""13.4 Horizontal Wells Drilled above a Contact"; ""13.5 Estimating the Productivity Index for Long Horizontal Wells"";
""Appendix 1: Test Well 1 Data Sheet""; ""Appendix 2: Additional Data for Full Evaluation""; ""Appendix 3: Solutions to Exercises""; ""Appendix 4: Additional Mathematics Theory""
""Appendix 5: Abbreviations and Acronyms""""Appendix 6: Useful Conversion Units and Constants""; ""Appendix 7: Contractor Tool Mnemonics""; ""Bibliography""; ""About the Author"";
""Acknowledgments""; ""Index""

Sommario/riassunto

This hand guide in the Gulf Drilling Guides series offers practical techniques that are valuable to petrophysicists and engineers in their day-to-day jobs. Based on the author's many years of experience working in oil companies around the world, this guide is a comprehensive collection of techniques and rules of thumb that work. The primary functions of the drilling or petroleum engineer are to ensure that the right operational decisions are made during the course of drilling and testing a well, from data gathering, completion and testing, and thereafter to provide the necessary parameters to