

1. Record Nr.	UNINA9910461993403321
Autore	Towler Brian F
Titolo	Fundamental principles of reservoir engineering [[electronic resource] /] / Brian F. Towler
Pubbl/distr/stampa	Richardson, Tex., : Henry L. Doherty Memorial Fund of AIME, Society of Petroleum Engineers, 2002
ISBN	1-61399-162-2
Descrizione fisica	1 online resource (240 p.)
Collana	SPE textbook series ; ; v. 8
Disciplina	622/.3382
Soggetti	Oil reservoir engineering Petroleum engineering Petroleum - Geology 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	""Acknowledgments""; ""Contents""; ""1-Introduction""; ""1.1 History of Reservoir Engineering""; ""1.2 Tasks of the Reservoir Engineer""; ""1.3 Data Sources""; ""1.4 Fundamental Drive Mechanisms""; ""1.5 Trapping Mechanisms""; ""2-Review of Rock and Fluid Properties""; ""2.1 Introduction""; ""2.2 Rock Properties""; ""2.3 Gas Properties""; ""2.4 Oil Properties""; ""2.5 Water Properties""; ""3-Reservoir Statics""; ""3.1 Introduction""; ""3.2 Extrapolation of Pressures""; ""3.3 Determination of Oil Density in the Reservoir""; ""3.4 Determination of Gas Density in the Reservoir"" ""3.5 Extrapolating Pressures in Aquifers and Oil and Gas Reservoirs"" 4-Volumetrics""; ""4.1 Introduction""; ""4.2 Calculating Volume of OIP and GIP""; ""4.3 Integration Rules""; ""4.4 Computerized Mapping""; ""4.5 Map Modification With Dummy Points""; ""4.6 Computerized Determination of OOIP and OGIP""; ""5-Material Balance""; ""5.1 Introduction""; ""5.2 History of the Material-Balance Equation""; ""5.3 Derivation of the General Material-Balance Equation""; ""5.4 Material-Balance Plots""; ""5.5 Waterdrive Analytic Plots""; ""5.6 Drive Indices"" ""6-Single-Phase-Fluid Flow in Proous Media""""6.1 Introduction""; ""6.2 Formulation of Fundamental Flow Equation""; ""6.3 Constant-Rate Solutions: Bounded Cylindrical Reservoir""; ""6.4 Constant-Rate

Solutions: Infinite Cylindrical Reservoir With Line-Source Well""; ""6.5
Constant-Rate Solutions: Cylindrical Reservoir With Constant Pressure
at Outer Boundary""; ""6.6 Constant-Pressure Solutions: Bounded
Cylindrical Reservoir""; ""6.7 Principle of Superposition for Multirate and
Multipressure Solutions""; ""7-Introduction to Well-Test Analysis""; ""7.1
Introduction""
""7.2 Constant-Rate Flow Tests""""7.3 Multirate Flow Tests""; ""7.4
Constant-Pressure Flow Tests""; ""7.5 Constant-Rate Buildup Tests"";
""7.6 Multirate Buildup Tests""; ""7.7 Buildup Analysis of Finite-Acting
Wells""; ""7.8 Well-Test Analysis of Horizontal Wells""; ""8-Aquifer
Influx""; ""8.1 Introduction""; ""8.2 Schilthuis Steady-State Method"";
""8.3 VEH Unsteady-State Method""; ""8.4 Determination of Aquifer
Parameters by Material Balance""; ""8.5 Fetkovich Pseudosteady-State
Method""; ""8.6 Alton Field Example""; ""9-Dry-Gas Reservoirs""; ""9.1
Introduction""
""9.2 Volumetrics and Recovery Factors""""9.3 Gas Equivalent of Water
and Condensate Production""; ""9.4 Material-Balance Analysis of Dry-
Gas Reservoirs""; ""9.5 Material-Balance Plots for Volumetric Gas
Reservoirs""; ""9.6 Waterdrive Gas Reservoirs""; ""9.7 Overpressured Gas
Reservoirs""; ""9.8 Waterflooding Gas Reservoirs""; ""9.9 Gas-Storage
Concepts""; ""10-Gas/Condensate Reservoirs""; ""10.1 Introduction"";
""10.2 Gas/Condensate Material Balance""; ""10.3 Material-Balance Plots
for Gas/Condensates""
""10.4 Calculation of Recovery Factors From Constant-Volume-
Depletion (CVD) Experiments""
