

# „Geology and the Exploration of Hydrocarbon Reservoirs”

authors J. Velić, T. Malvić, M. Cvetković



**Uroš Barudžija**<sup>1</sup>

<sup>1</sup> University of Zagreb, Faculty of Mining, Geology and Petroleum Engineering, Pierottijeva 6, 10000 Zagreb

The book „Geology and the exploration of hydrocarbon reservoirs“ was printed in 2015 (in Croatian). The authors are Prof. Dr. Josipa Velić, Assoc. Prof. Dr. Tomislav Malvić and Dr. Marko Cvetković, all graduated in Geology. The publisher is the Faculty of Mining, Geology and Petroleum Engineering (RGNF) of the University of Zagreb, additionally supported by the faculty’s Department of Geology and Geological Engineering where the authors are employed, and by the state’s Agency for hydrocarbons. The circulation was 500 copies. The Senate of the University of Zagreb made a decision on the 19<sup>th</sup> of November, 2014 that the book is also a university handbook (memo class: 032-01/14-01/26, registry no.: 380-061/117-14-2), i.e. *Manualia Universitatis Studiorum Zagrabiensis* (books of the University of Zagreb).

The book’s format (see **Figure 1**) is A4 (210 x 297 mm), including 144 pages with a prologue, the main text with 10 chapters, references and a list of applied symbols and measurement units and an index. The chapter titles are: 1. Introduction, 2. Basic physical properties of oil; 3. Optical and biological observations of hydrocarbons in samples; 4. The origin and accumulation of hydrocarbons; 5. Geology of hydrocarbons in Croatia; 6. Petrophysical properties of reservoir rocks; 7. Geophysical measurements in wells – logging; 8. Classification of hydrocarbon reserves; 9. Methods of hydrocarbon reserve’s calculations; 10. Elaborates on reserves. The book includes 66 figures, 11 tables and 26 equations.

A CIP record is available in the computer catalogue of the National and University in Zagreb under no. 893747, and the book’s ISBN is 978-953-6923-28-1. The reviewers were Dr. Boris Vrbanac, Grad. in Geol., retired, and Dr. Katarina Simon, Grad. in Petr. Eng., Full Prof. at the Faculty of Mining, Geology and Petroleum Engineering of University of Zagreb. Galley proofs and print are done in Denona d.o.o. from Zagreb.

The book is a valuable university handbook, created through studying and synthesising materials which were used a long time at the Chair of Hydrocarbons and Geology of Quaternary in the Department of Geology and Geological Engineering of the Faculty. The book will help students study geology and exploration methods of hydrocarbons in detail. In the first part of the book (chapters 1-5), authors clearly and concisely presented basic hydrocarbon properties, the method of their determination, their origin and a short review of hydrocarbons in Croatia. The second part (chapters 6-10) include petrophysical properties of reservoir rocks, and the most comprehensive chapter (7) with a review of geophysical logging in deep wells. In the last chapters (8-10) the reserve’s classifications, volume calculations and rules of elaborating are shown, thus completing the idea indicated in book’s title. The book is available in the Faculty’s library for loan or purchase.

About the authors:

**Josipa Velić** is Professor Emerita at the Faculty of Mining, Geology and Petroleum Engineering of University of Zagreb, Department of Geology and Geological Engineering. She holds several collegiums on the Chair of Hydrocarbons and Geology of Quaternary. Among others, she is author of the university textbook “Geology of oil and gas reservoirs” (in Croatian, 2007) with 342 pages, and co-author of “Geological guidebook in NP Northern Velebit” (2009) and “Geological guidebook in NP Paklenica” (2014). Her bibliography is available at: <http://bib.irb.hr/lista-radova?autor=51811>.

**Tomislav Malvić** is employed in INA-Industry of Oil Plc., Sector for Geology and Reservoir Management, as advisor/senior expert in director office. Simultaneously, he holds the position of Associate Professor at the Faculty of Mining, Geology and Petroleum Engineering of University of Zagreb, Department of Geology and Geological Engineering, leading collegiums Geology of Fluid Flows, Geostatistics and Geomathematics. His bibliography is available at <http://bib.irb.hr/lista-radova?autor=211965>.

**Marko Cvetković** works at the Faculty of Mining, Geology and Petroleum Engineering of University of Zagreb, Department of Geology and Geological Engineering, as senior assistant for collegiums at the Chair of Hydrocarbons and Geology of Quaternary, held by Prof. Dr. Josipa Velić. He is co-author of “Geological guidebook in NP Paklenica” (2014). His bibliography is available at <http://bib.irb.hr/lista-radova?autor=298764>.