The Society of Petrophysicists and Well Log Analysts
8866 Gulf Freeway, Suite 320
Houston, TX 77017, USA
P: +1-713-947-8727
F: +1-713-947-7181
Email: Sharon@spwla.org
Membership@spwla.org
www.SPWLA.org
ISSN: 1529-9074

About the Cover
Gamma-ray spectra from thermal-neutron capture (left) and inelastic neutron reactions (right) in a carbonate formation, shown on a logarithmic vertical scale. CTB and ITB represent tool backgrounds. Not visible in this capture spectrum are several other elements that can be measured directly, including Al, Na, Mn, Ba and Sr.

PRINTED IN USA ON ACID FREE PAPER

The Society of Petrophysicists and Well Log Analysts is dedicated to the advancement of the science of formation evaluation through well logging and other formation evaluation techniques. SPWLA is dedicated to the application of these techniques, to the exploration and exploitation of gas, oil and other minerals. PETROPHYSICS publishes original contributions on theoretical and applied aspects of formation evaluation; particularly well logging and petrophysics.

Editor
Oliver C. Mullins
Schlumberger Doll Research
+1-713-240-8703
mullins1@slb.com

Managing Editor
Stephen Prensky
+1-301-593-4966
steve@sprensky.com

Publication Manager
Anna Tarlton
InkSpot Printing
2301 S. Shaver
Pasadena, TX 77502, USA
+1-713-472-1100
orders@inkspotprinting.com

PETROPHYSICS
June 2014, Vol. 55, No. 3

Contents

200  From the President
201  Call for Ambassadors
208  From the Editor
209  Calendar of Events

ARTICLES

211  A Case Study about Formation Evaluation and Rock Physics Modeling of the Bazhenov Shale
Pavel Kulyapin and Tatiana F. Sokolova

219  Borehole Carbon Corrections Enable Accurate TOC Determination from Nuclear Spectroscopy
Jeffrey Miles and Rob Badry

229  Magnetic Resonance Core-Plug Analysis with the Three-Magnet Array Unilateral Magnet
Juan C. García-Naranjo, Pan Guo, Florin Marica, Guangzhi Liao, and Bruce J. Balcom

240  Method for Predicting Permeability of Complex Carbonate Reservoirs Using NMR Logging Measurements
Willian Trevizan, Paulo Netto, Bernardo Coutinho, Vinicius F. Machado, Edmilson H. Rios, Songhua Chen, Wei Shao, and Pedro Romero

253  Analysis of Shale for Shaly-Sand Porosity Computation and Sedimentary Interpretation in Deepwater Sediments
Chunming Xu

IN THE SOCIETY

260  Summary of the SPWLA 54th Annual Logging Symposium
264  SPWLA Board of Directors Meeting Minutes
265  Chapter News