

Секция «Инновационное природопользование»

Well logging Interpretation of AB1 Horizon's in Samotlor Oil Field (Western Siberia) Drilled with Polymer Drilling Mud

Elgtlawi Mohamed M.m.

Студент

Lomonosov Moscow State University , Graduate School of Innovative Business,

BENGHAZI, Ливийская Арабская Джамахирия

E-mail: mjetlawe83@hotmail.com

When opening the productive and promising well sections using drilling fluids on the basis of mud, as a rule, there is a partial blockage of the near-well reservoir. This often causes some difficulties in evaluating the electrical resistivity and other parameters of the layers that have a significant lithological heterogeneity and those that have a small thickness. At the present time a widespread method of drilling wells using polymer is a solution. The use of drilling fluids of this type has a number of features compared with the use of drilling fluids on the basis of mud:

1. No littering in the reservoir zone of mud filtrate;
2. Lack of cake in front of reservoirs, less erosion layers of mud;
3. Inhibitory effect on clastic and carbonate sediments;
4. Reduction of swelling shale particles in fees;
5. Low values of ρ Drilling Fluid.

However, lower values of ρ Drilling Fluid are unfavourable for the using of the apparent resistivity and SP methods. Thus, a standard set of Well-logging techniques is not effective enough to find the calculation parameters. In this thesis we propose to use data from wells drilled with the polymer solutions for the studies of a set of Well logging based on modern methods of radioactive GR CNL, GNT.

The application of this complex Consider the example of formations from a number of wells AB in Samotlor field, This considered wells have been selected from Samotlor field with the most complete set of Well logging methods, The proposed set it possible to solve in these wells, the following tasks: produce a lithological division of the section, determine the ratio of effective porosity, saturation, and saturation of the nature of reservoirs, Thus, presented in this paper, the complex provides all the basic parameters required for tasks such as counting the oil and gas reserves, as well as the selection of promising intervals for perforation.

Литература

1. Ball, L. D., Corbett, P. W. M., Jensen, J. L. and Lewis, J. M. 1997, "The Role of Geology in the Behaviour and Choice of Permeability Predictors" SPE Formation Evaluation, 12, 32-39.

2. Doll, G. H. "The S. P.: Theoretical analysis and principles of interpretation".
3. Link, P. K. "Basic Petroleum Geology" OGCI publications, Tulsa, ISBN: 0-930972-10-4.
4. Pittman, E. D., 1971, "Microporosity in Carbonate Rocks" AAPG Bull., Vol. 55, No. 10 (October, 1971), pp. 1873-1881.
5. Poupon, A., Loy, M. E. and Tixier, M. P. "A contribution to electrical log interpretation in shaly sands".
6. Schon, J. H., 1996, "Physical Properties of Rocks: Fundamentals and Principles of Petrophysics" Volume 18, Pergamon, ISBN: 0-0804-1008-1.
7. Serra, O., 1984, "Fundamentals of Well-Log Interpretation, 1. The acquisition of logging data" Elsevier Amsterdam Oxford New York Tokyo, ISBN: 0-4444-2132-7.
8. Schlumberger, 1989, "Log Interpretation Charts".
9. Schlumberger, 1991, "Cased Hole log Interpretation Principles/Applications".
10. Timur, A. 1968, "An Investigation of permeability, Porosity, and Residual Water Saturation Relationship for Sandstone reservoirs" The log Analyst (July-Aug) 1968.
11. Wyllie M. R. "A quantitative analysis of the electrochemical component of the S.P. curve".
12. Kelman Z. 2000, "Techniques for Corrections of Input Well Logs" 1st Symposium on Well Log Analysis and Formation Evaluation, 29-31 Oct. Tripoli-Libya.

Слова благодарности

I thank all for there support and help during all the time's of my education period.