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(R < 60)
   2.
                                                                 , 1979. – 696 .
                      ., 1983. – 216 .
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ics» Tyumen State Oil and Gas University, phone: 8(3452)200790, e-mail: pial228@rambler.ru
         622.276
              MODELING OF HORIZONTAL OIL WELL OPERATION
                               IN THE STRATIFIED BED
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S. K. Sohoshko, J. M. Kolev, N. V. Nazarova

Key words: oil well, perforated hole, inflow profile, velocity profile, steady-state flow mode, numerical model, horizontal borehole, layered reservoir

[1].

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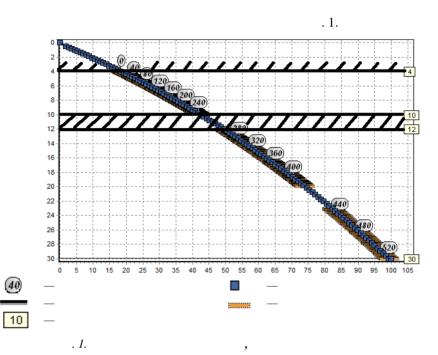
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[2]  $P_{j}$  $\left(\sqrt{(x_{j}-x_{i})^{2}+(y_{j}-y_{i})^{2}+\frac{1}{\sqrt{k_{h}/k_{v}}}(z_{j}-z_{i}+2nh)^{2}}\right)^{-1}+$  $+ \left( \sqrt{(x_j - x_i)^2 + (y_j - y_i)^2 + \frac{1}{\sqrt{k_h/k_v}} (z_j + z_i + 2nh)^2} \right)^{-1}$  $\Delta P_{j} = \frac{\mu}{4\pi k_{h}} \sum_{i=1}^{N} Q_{i} \sum_{n=-\infty I_{i}}^{\infty} \left[ -0.5 \left( \sqrt{(x_{j} - x_{i})^{2} + (y_{j} + y_{ki})^{2} + \frac{1}{\sqrt{k_{h}/k_{v}}} (z_{j} - z_{i} + 2nh)^{2}} \right)^{-1} - 0.5 \left( \sqrt{(x_{j} - x_{i})^{2} + (y_{j} + y_{ki})^{2} + \frac{1}{\sqrt{k_{h}/k_{v}}} (z_{j} + z_{i} + 2nh)^{2}} \right)^{-1} - 0.5 \left( \sqrt{(x_{j} - x_{i})^{2} + (y_{j} + y_{ki})^{2} + \frac{1}{\sqrt{k_{h}/k_{v}}} (z_{j} + z_{i} + 2nh)^{2}} \right)^{-1} - 0.5 \left( \sqrt{(x_{j} - x_{i})^{2} + (y_{j} + y_{ki})^{2} + \frac{1}{\sqrt{k_{h}/k_{v}}} (z_{j} + z_{i} + 2nh)^{2}} \right)^{-1} - 0.5 \left( \sqrt{(x_{j} - x_{i})^{2} + (y_{j} + y_{ki})^{2} + \frac{1}{\sqrt{k_{h}/k_{v}}} (z_{j} + z_{i} + 2nh)^{2}} \right)^{-1} - 0.5 \left( \sqrt{(x_{j} - x_{i})^{2} + (y_{j} + y_{ki})^{2} + \frac{1}{\sqrt{k_{h}/k_{v}}} (z_{j} + z_{i} + 2nh)^{2}} \right)^{-1} - 0.5 \left( \sqrt{(x_{j} - x_{i})^{2} + (y_{j} + y_{ki})^{2} + \frac{1}{\sqrt{k_{h}/k_{v}}} (z_{j} + z_{i} + 2nh)^{2}} \right)^{-1} - 0.5 \left( \sqrt{(x_{j} - x_{i})^{2} + (y_{j} + y_{ki})^{2} + \frac{1}{\sqrt{k_{h}/k_{v}}} (z_{j} + z_{i} + 2nh)^{2}} \right)^{-1} - 0.5 \left( \sqrt{(x_{j} - x_{i})^{2} + (y_{j} + y_{ki})^{2} + \frac{1}{\sqrt{k_{h}/k_{v}}} (z_{j} + z_{i} + 2nh)^{2}} \right)^{-1} - 0.5 \left( \sqrt{(x_{j} - x_{i})^{2} + (y_{j} + y_{ki})^{2} + \frac{1}{\sqrt{k_{h}/k_{v}}} (z_{j} + z_{i} + 2nh)^{2}} \right)^{-1} - 0.5 \left( \sqrt{(x_{j} - x_{i})^{2} + (y_{j} + y_{ki})^{2} + \frac{1}{\sqrt{k_{h}/k_{v}}} (z_{j} + z_{i} + 2nh)^{2}} \right)^{-1} - 0.5 \left( \sqrt{(x_{j} - x_{i})^{2} + (y_{j} + y_{ki})^{2} + \frac{1}{\sqrt{k_{h}/k_{v}}} (z_{j} + z_{i} + 2nh)^{2}} \right)^{-1} - 0.5 \left( \sqrt{(x_{j} - x_{i})^{2} + (y_{j} + y_{ki})^{2} + \frac{1}{\sqrt{k_{h}/k_{v}}} (z_{j} + z_{i} + 2nh)^{2}} \right)^{-1} - 0.5 \left( \sqrt{(x_{j} - x_{i})^{2} + (y_{j} + y_{ki})^{2} + \frac{1}{\sqrt{k_{h}/k_{v}}} (z_{j} + z_{i} + 2nh)^{2}} \right)^{-1} - 0.5 \left( \sqrt{(x_{j} - x_{i})^{2} + (y_{j} + y_{ki})^{2} + \frac{1}{\sqrt{k_{h}/k_{v}}} (z_{j} + z_{i} + 2nh)^{2}} \right)^{-1} - 0.5 \left( \sqrt{(x_{j} - x_{i})^{2} + (y_{j} + y_{ki})^{2} + \frac{1}{\sqrt{k_{h}/k_{v}}} (z_{j} + z_{i} + 2nh)^{2}} \right)^{-1} - 0.5 \left( \sqrt{(x_{j} - x_{i})^{2} + (y_{j} + y_{ki})^{2} + \frac{1}{\sqrt{k_{h}/k_{v}}} (z_{j} + 2nh)^{2}} \right)^{-1} - 0.5 \left( \sqrt{(x_{j} - x_{i})^{2} + (y_{j} + y_{ki})^{2} + \frac{1}{\sqrt{k_{h}/k_{v}}} (z_{j}$ (1)  $-0.5\left(\sqrt{(x_j-x_i)^2+(y_j-y_{ki})^2+\frac{1}{\sqrt{k_h/k_v}}(z_j-z_i+2nh)^2}\right)^{-1} -0.5 \left( \sqrt{(x_j - x_i)^2 + (y_j - y_{ki})^2 + \frac{1}{\sqrt{k_k/k_k}} (z_j + z_i + 2nh)^2} \right)^{-1}$ (1) (2)  $\Delta \, P_{\,j} \quad = \, \Delta \, P \, - \frac{\rho}{2} \, (\, V^{\, 2} \, - \, V_{\,\,j}^{\,\, 2}\,) \, - \, \sum_{k=1}^{j} \, \rho \, g \, (\, h \, + \, h\,)_{\,k} \, , \label{eq:delta-P}$ (3)

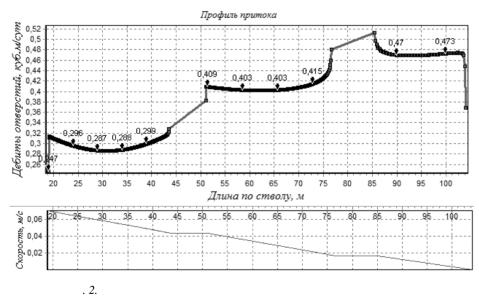
*№ 3, 2014* 

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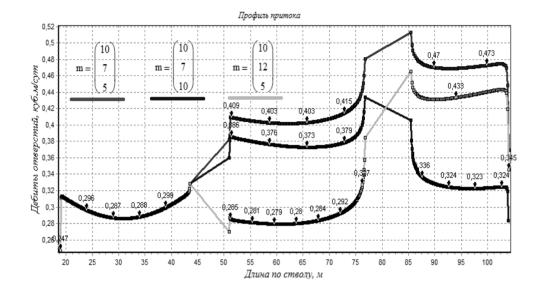
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73,158  $^{3}/$  .  $^{191,42}$   $^{3}/$  .,  $^{118,263}$   $^{-}$  .



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