**SPE 84294:** [**Estimation of Storativity Ratio in a Layered Reservoir with Crossflow**](http://www.spe.org/elibrary/servlet/spepreview?id=00084294)**.**

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**Abstract:** This paper presents a practical method to estimate the storativity ratio of a layered reservoir with cross-flow from pressure transient data. The method uses an analytically derived formula for the storativity ratio in terms of the separation between the two semi-log straight lines on pressure versus log-time plot. Knowing the storativity ratio from a well test, individual layer properties may be estimated if the layer flow rates are available from production logs. Demonstrations of the method to estimate the storativity ratio and individual layer properties are presented by examples. Comparison of the results with those obtained from the existing techniques is also provided to highlight the accuracy of the proposed technique.