

Erratum/

In the paper “Analytical Model for Computing Residence Times near a Pumping Well,” Simpson et al. (2003) derived, discussed, and numerically validated an analytic solution to calculate the residence time t for fluid flowing to a pumping well. The problem was posed with t given as a function of the hydraulic head h , the radial coordinate r , the saturated hydraulic conductivity K , and the porosity θ . In the hypothetical test case, the following parameters were chosen: $r_w = 0.1$ m, $r_r = 10.0$ m, $h_w = 3.5$ m, $h_r = 4.0$ m, $K = 50.0$ m/d, and $\theta = 0.3$. The corresponding steady-state pumping rate (Equation 1 in Simpson et al. 2003) is $Q_w = 128$ m³/d (to the nearest whole unit). Unfortunately, the value of Q_w appeared mistakenly in Simpson et al. (2003) as $Q_w = 28$ m³/d. It is important to point out this error since t can also be written as a function of Q_w . Clearly, if the incorrect value of Q_w is used to reevaluate the calculation in Simpson et al. (2003), then the results will be different. This typographical error does not imply any error in the solution presented by Simpson et al. (2003) and does not cause any difficulty when t is calculated without direct reference to Q_w .

Reference

Simpson, M.J., T.P. Clement, and F.E. Yeomans. 2003. Analytical model for computing residence times near a pumping well. *Ground Water* 41, no. 3: 351–354.

Erratum/

In the paper “Travel Time to a Well Pumping an Unconfined Aquifer without Recharge” by Chapuis and Chesnaux (2006), Equation 9 should have appeared as:

$$t(r) = n_e \sqrt{\frac{\pi}{2KQ_w}} \left[r_i^2 g(r_i) - r^2 g(r) + \frac{r_w^2 \sqrt{\pi}}{2C} [\operatorname{erfi}(g(r_i)) - \operatorname{erfi}(g(r))] \right] \quad (9)$$

Specifically, the number 2 in the first term on the right must be in the denominator and not in the numerator.

We also note that a comparison of our results with results based on an equation in Simpson et al. (2003) is affected by an error in the Simpson et al. (2003) paper as reported in the erratum by Simpson (2006) whereby the value of Q_w was incorrectly given as 28 m³/d, when it should have been 128 m³/d. We have verified that the solution of Simpson et al. (2003) predicts travel times very close to those calculated using our three different solutions (a closed-form solution, a budget method, and a simplified equation) and those of our finite-element calculations when the correct value for Q_w is used. Our verifications assumed that the hydraulic head in the Simpson et al. (2003) equation is the saturated thickness and total porosity is in fact the effective porosity.

References

- Chapuis, R.P., and R. Chesnaux. 2006. Travel time to a well pumping an unconfined aquifer without recharge. *Ground Water* 44, no. 4: 598–601.
- Simpson, M.J. 2006. Erratum. *Ground Water* 44, no. 4: 507–508.
- Simpson, M.J., T.P. Clement, and F.E. Yeomans. 2003. Analytical model for computing residence times near a pumping well. *Ground Water* 41, no. 3: 351–354.

Erratum/

The paper “On Storage Coefficient and Vertical Strain” by Narasimhan had two typographical errors.

1. Page 489, right column, lines 6 and 7, in the paragraph immediately following the subheading “Terzaghi and Biot,” “odometers” should read “oedometers.”
2. Page 490, Equation (3) should read

$$\alpha_v = -\frac{d\varepsilon_v}{d\sigma'_M}$$

Reference

Narasimhan, T.N. 2006. On Storage Coefficient and Vertical Strain. *Ground Water* 44, no. 3: 488–491.

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