

Name: _____
February 19, 2001

Introduction to Ground-Water Modeling

15-GEOL-602

Exercise #6 (due February 26, 2001)

This problem is in the Wang and Anderson (1982) text on pages 45-49. It as we discussed in class, the problem itself is pretty fanciful but it is interesting. Please use the hydraulic properties and physical dimensions of the problem as given in the text.

Please:

- a) Enter all parameters into a spreadsheet and label
- b) Determine the maximum permissible time step for solving the problem using an explicit approach
- c) Determine heads as a function of downstream distance from 0 to 500 minutes of elapsed time
- d) Plot the head as a function of downstream distance at 100 minute intervals
- e) Plot head as a function of downstream distance using the analytical solution for steady-state