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HWRS 482

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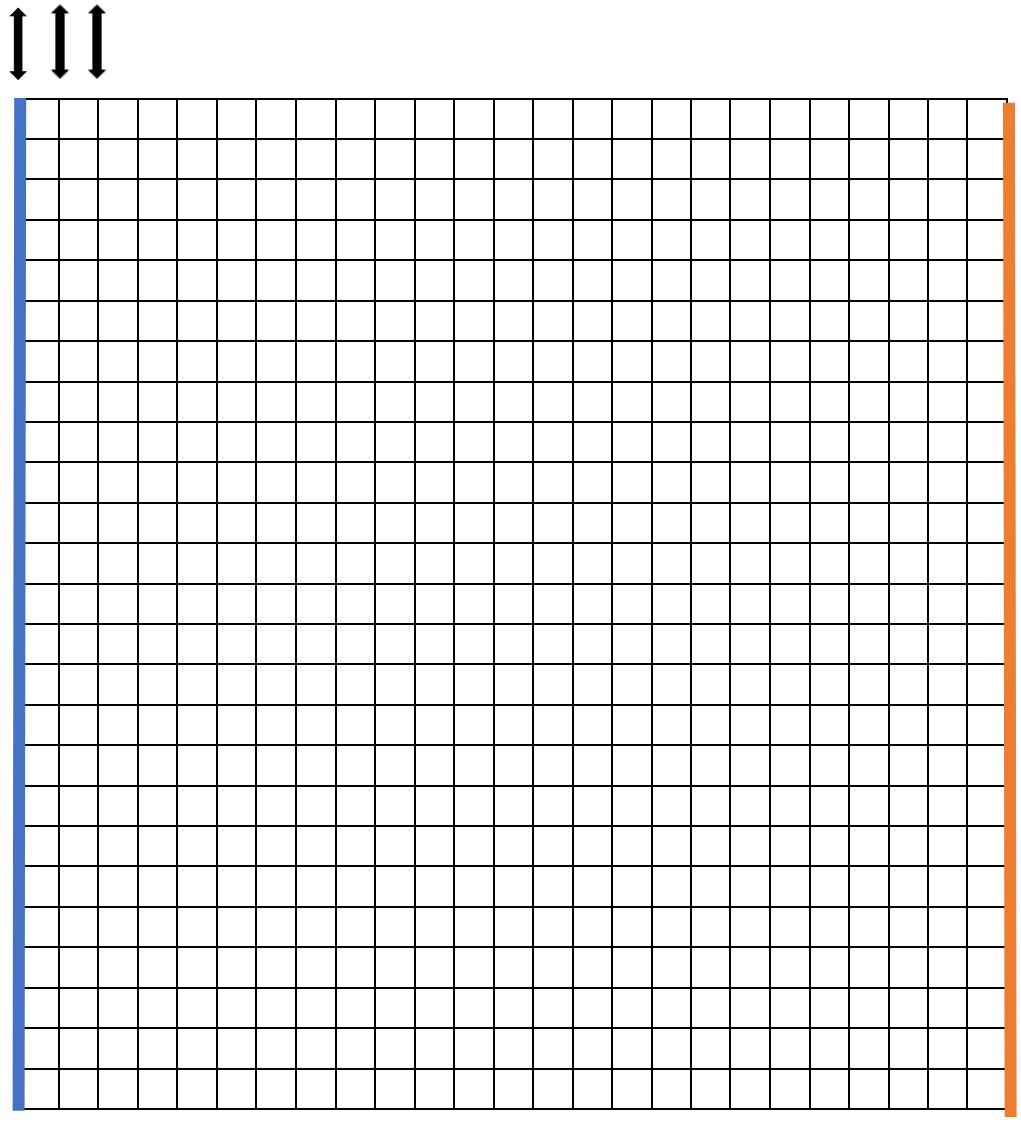
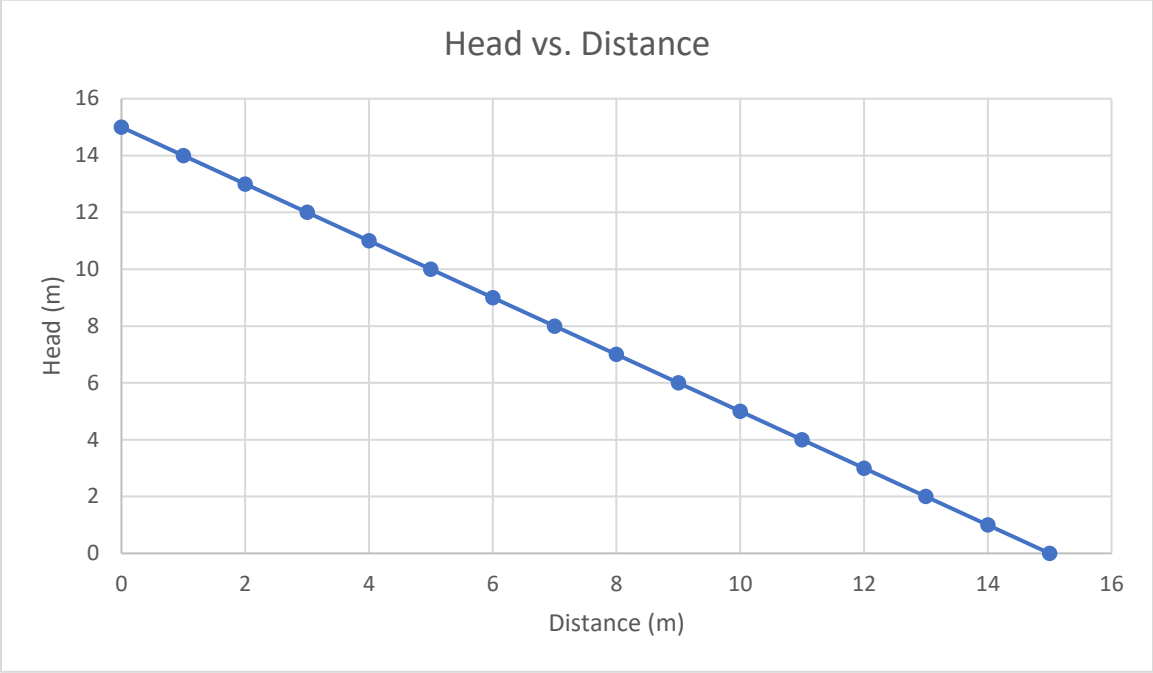
HW2 Figures

1. Conceptual Model

h_1 h_2 h_3 …… Flux = q = -K (dh/dL) ☐ K = 1.00



H= 15 m 25 X 25 Grid H= 10 m



Graph 1. A cross section of the predicted head gradient for the homogeneous model. At distance 0m the head is at 15 m and at distance 5m it is at 10 m. The flow direction goes from high head to low head.

2. **Flux with horizontal distance and model is steady state.**

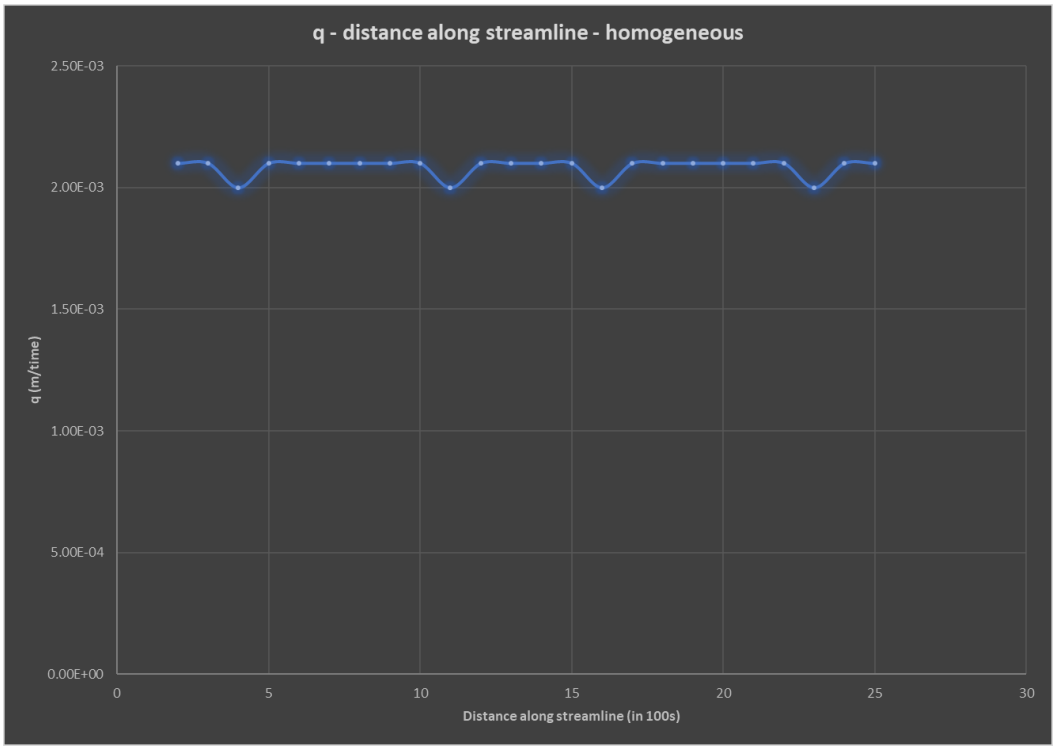


Figure 1. This figure shows the flux of a homogeneous case without the harmonic average.

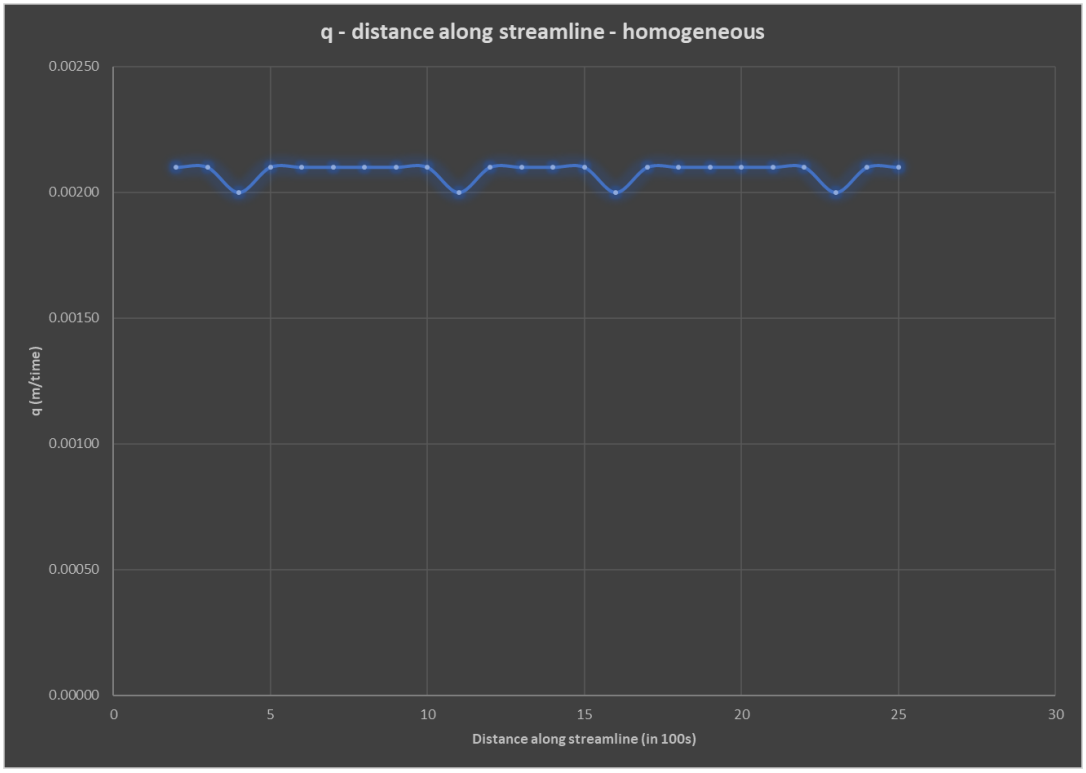


Figure 2. The flux for a homogeneous case, accounting for spatial differences in the hydraulic conductivity and taking the harmonic average

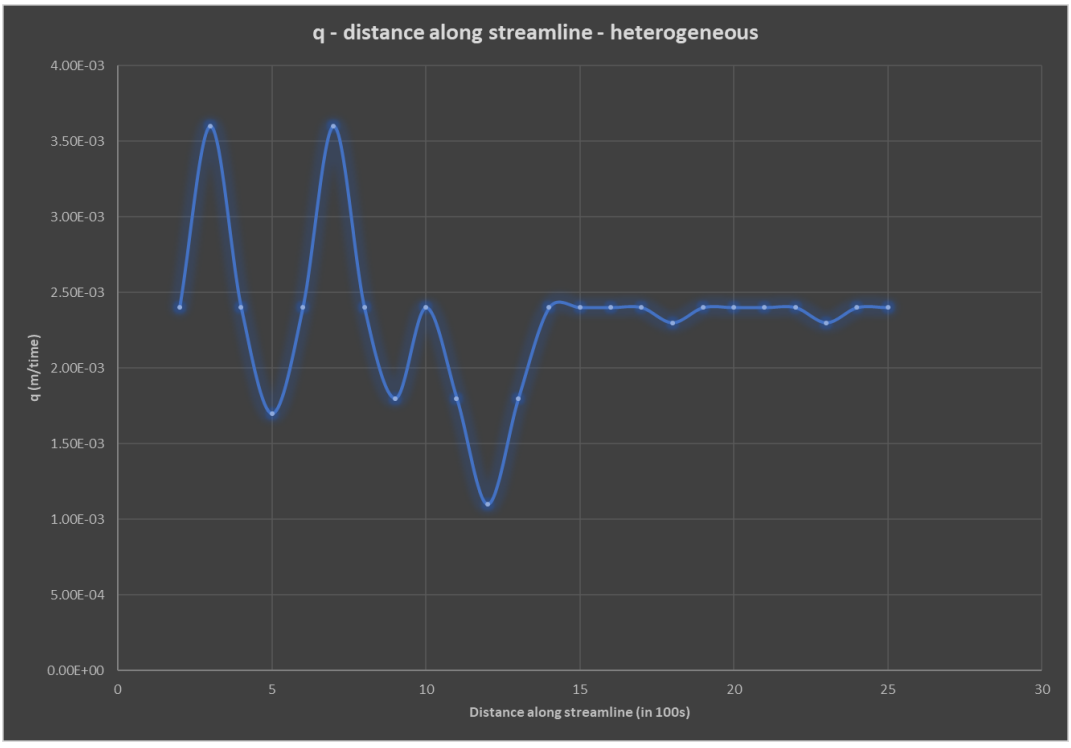


Figure 3. This figure shows the flux of a heterogeneous case without the harmonic average.

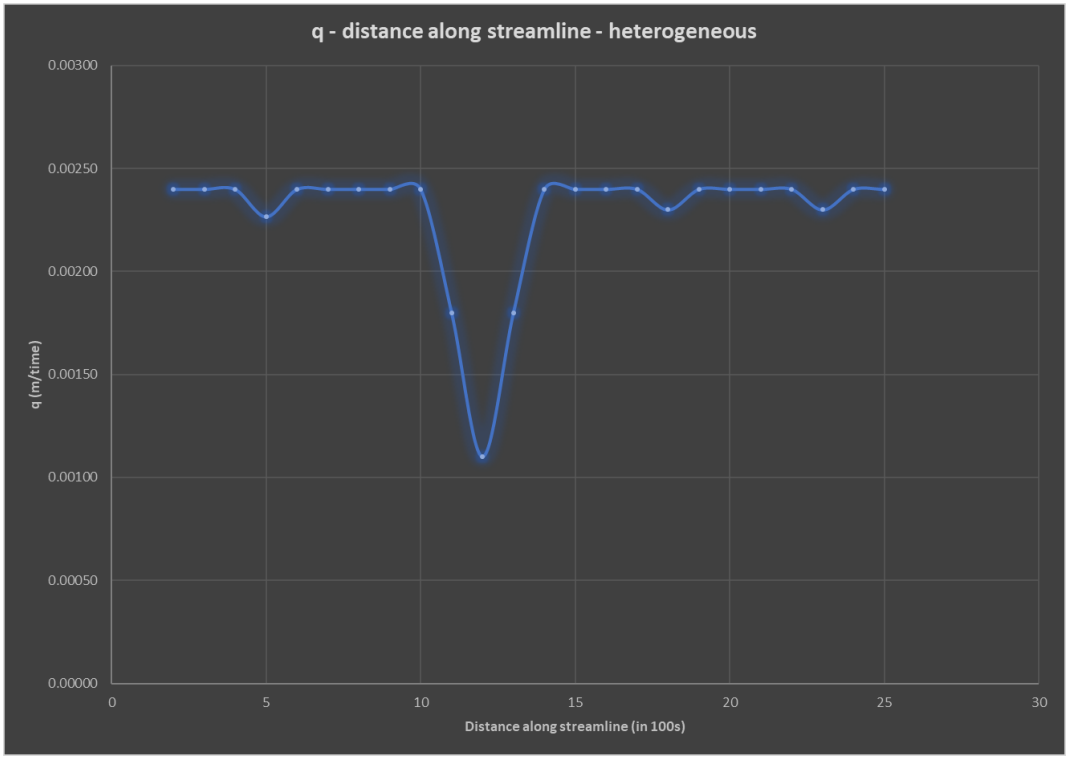


Figure 4. The flux for a heterogeneous case, accounting for spatial differences in the hydraulic conductivity and taking the harmonic average

3. **Steady state head contours in plan view.**

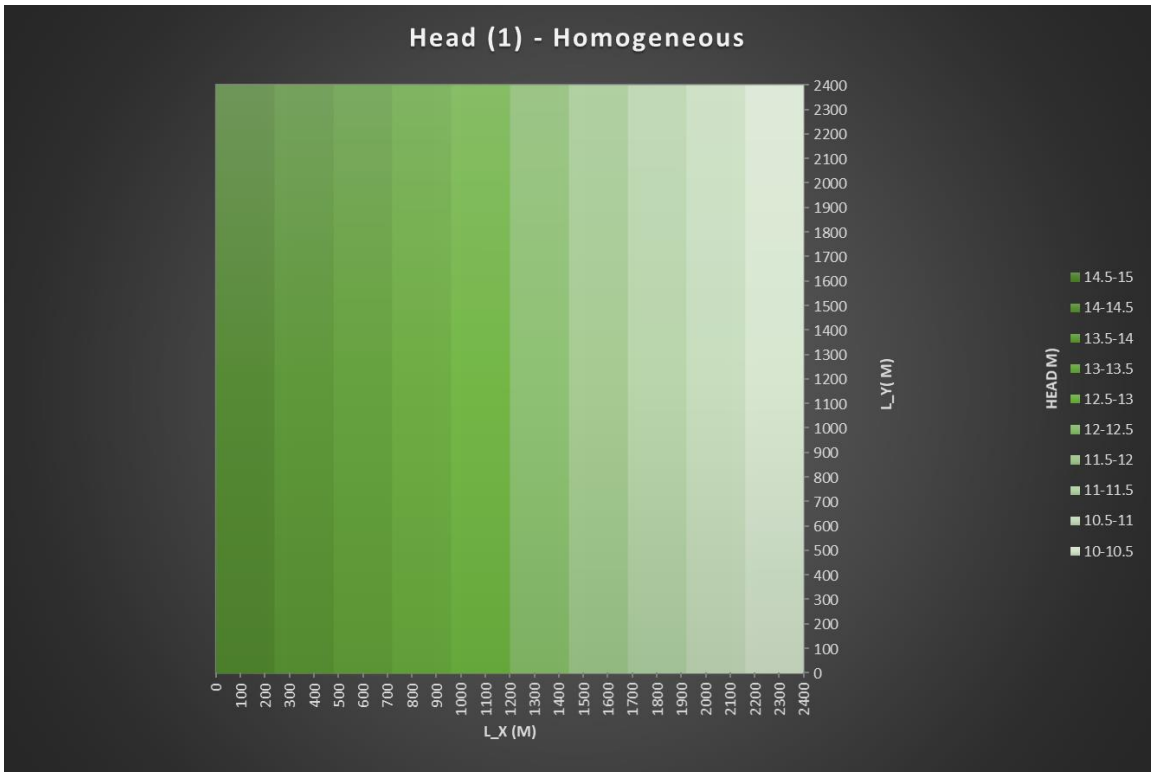


Figure 5. Homogeneous case with K values of 1.00 in each cell of the grid.

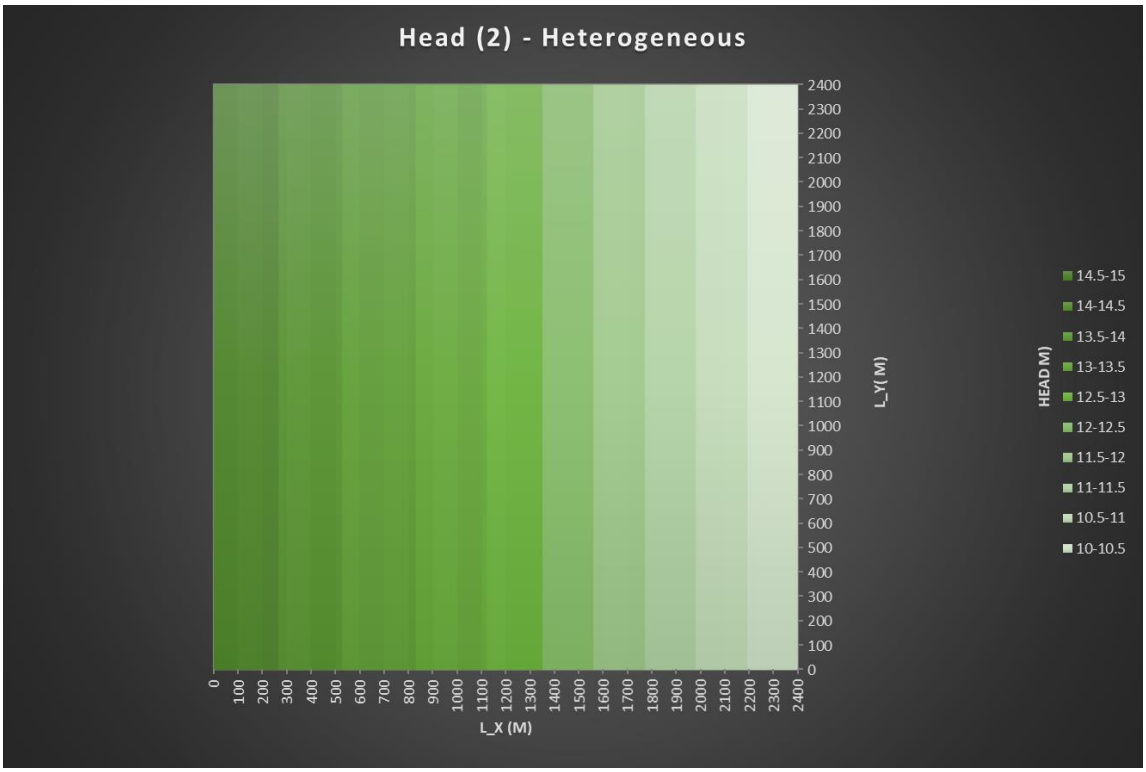


Figure 6**.** Heterogeneous case with K values of 1.00 and 2.00 in series (only a few of the columns in the grid were changed to 2.00).

4. **Square region of lower K in the middle of the domain.**

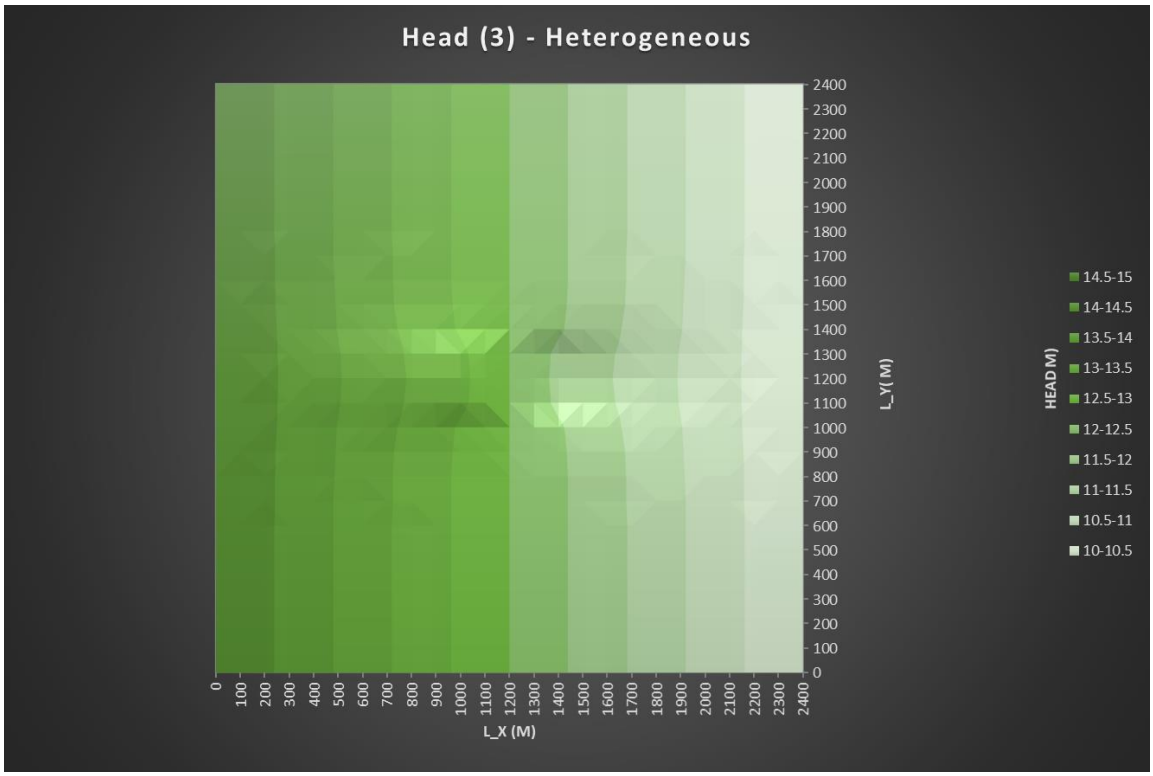


Figure 7. Heterogeneous head contour of center with a lower K value. Region in the center was 3x3 with K values of 0.5 in all 9 cells.