

Homework 3 - Recharge

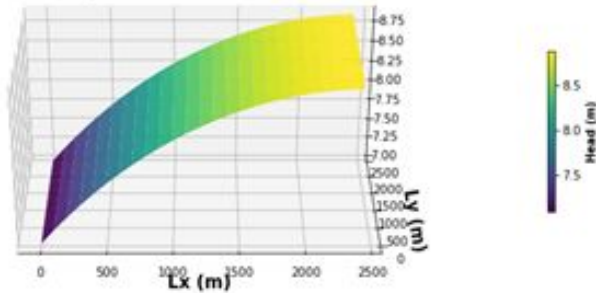
HWRS 582

2/27/2020

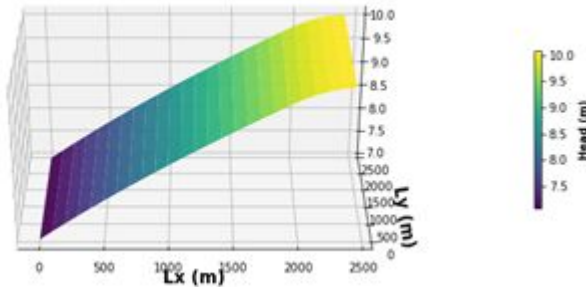
David Murray and Danielle Tadych

Part 1 - Uniform versus partial recharge

Steady-State Model Head Profile

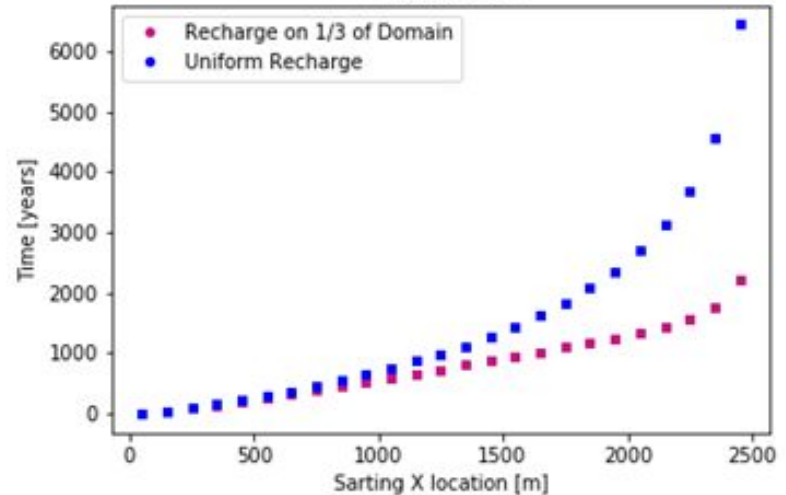


Steady-State Model Head Profile

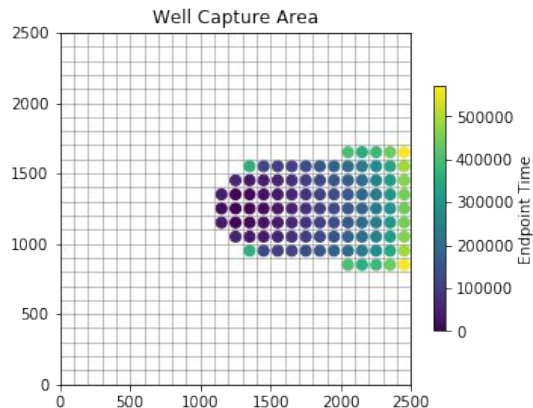
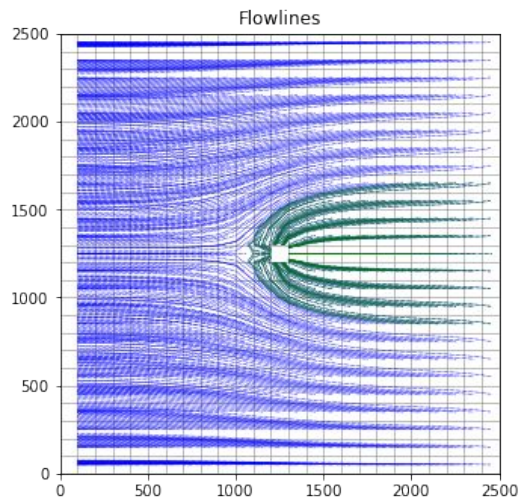


1. How does the head profile change when the recharge is only applied to the right 1/5 of the domain? Why is this?
2. How do the ages and the relationship between age and recharge location change? Explain why this makes sense?

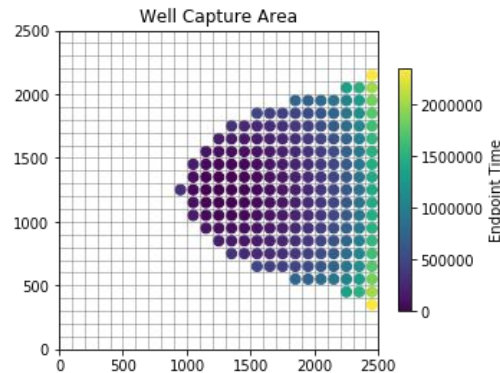
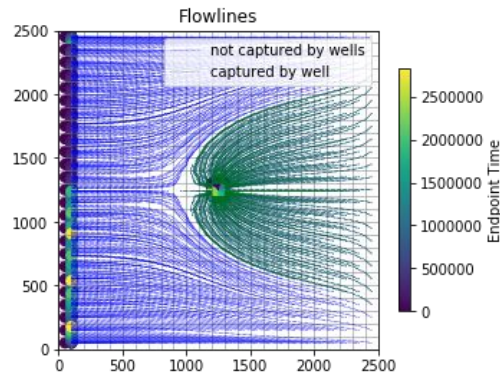
Travel times



Part 2 - Well that's nice



Recharge on $\frac{1}{5}$ of the domain

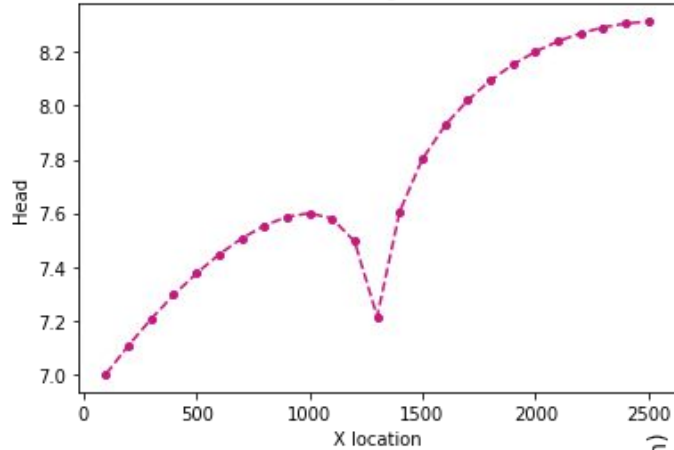


Uniform Recharge



Part 2 - Gradient Change

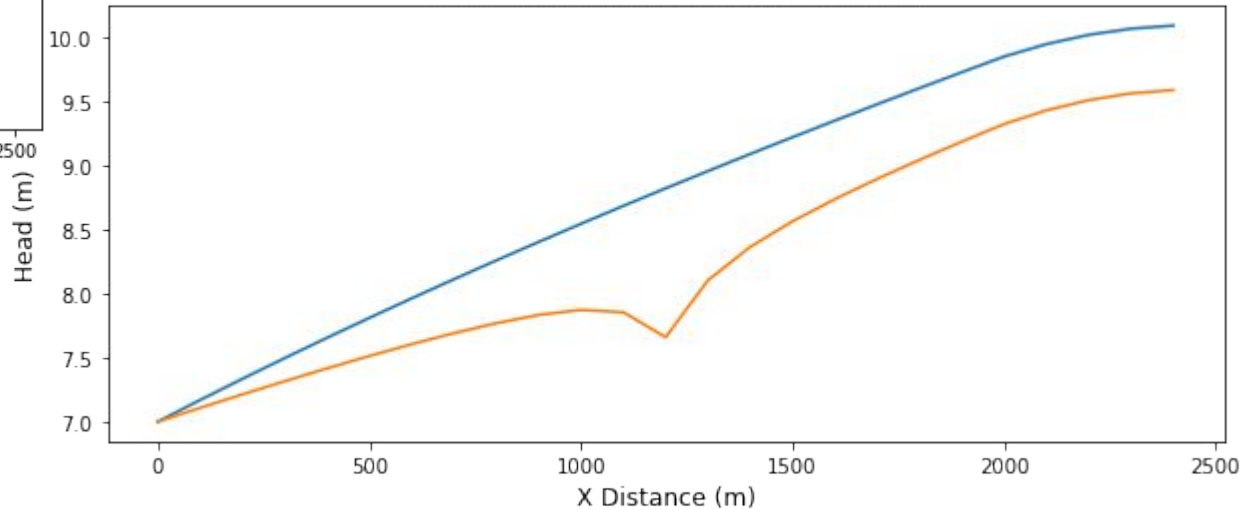
Head along row 12



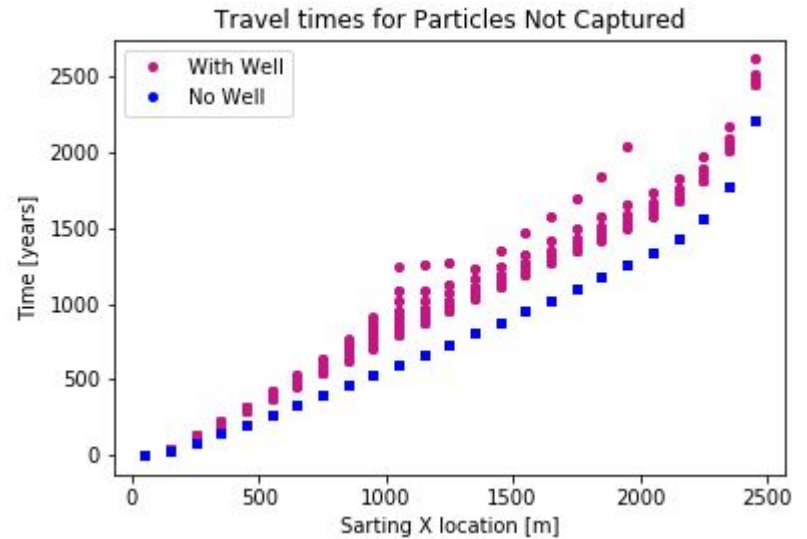
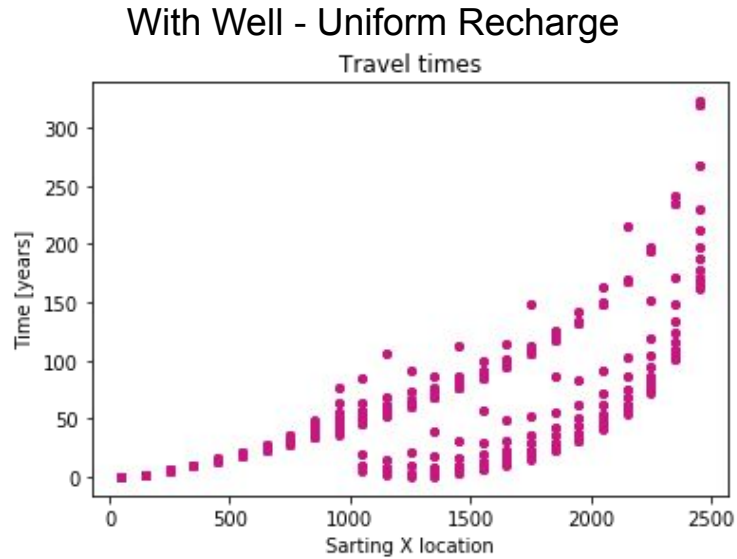
Uniform
Recharge

Recharge on $\frac{1}{6}$ of the
domain

Head Transect across X-Domain



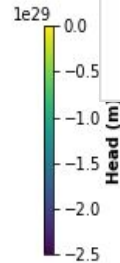
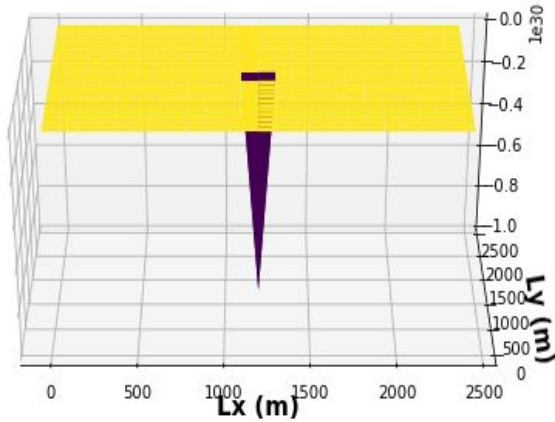
Part 2 - Travel Times



Optional Part 3

Total recharge = $30 \text{ m}^3/\text{d}$

Steady-State Model Head Profile



Captured Particles by Pumping rate

