

Name: \_\_\_\_\_

**Hydrogeology (ERS 580) Problem Set**

The tabulated data below was collected during a pumping test. The water levels were measured in an observation well located 210 ft from a well pumping at a rate of 2 gallons/minute.

- What is the transmissivity and storativity of the bedrock aquifer.
- A town ordinance mandates that the water table may not be lowered by more than one ft at the property line due to pumping on that property. Can both wells be pumped at 270 gallons per day (typical value for a 3 bedroom house) without violating this rule.
- What assumptions have you made and how might they impact the results of your analysis.

When completing this problem set, prepare a brief (one page, typed) statement describing your methodology and a brief (typed) statement indicating how many (if any) houses can be constructed on this site.

Time (min)	Depth to water (ft)	Notes
750	11.63	
823.25	11.63	
827		Start pump
837	11.75	
848.8	12.14	
904	12.68	
914	13.01	
924	13.34	
934	13.65	
944	13.96	
959	14.43	
1014	14.88	
1029	15.30	
1044	15.67	
1059	16.00	
1114	16.30	
1129	16.57	
1144	16.81	
1159	17.03	
1229	17.41	
1259	17.71	
1329	17.96	
1429	18.38	
1529	18.75	
1629	19.10	
1643.65	19.18	

