GLY 4310 Name

February 20, 2020

**Take Home Quiz 4**

Take home quizzes are due at the beginning of the following lecture. They are worth 2 points of EXAM credit. Please attach this sheet to your answers if additional sheets are used.

1. What is oxygen fugacity? What are typical fugacities associated with magmas inside the earth? How does a change in fugacity affect ions in magma? What does this effect have on the sequence of mineralization?

Hint: Careful reading of section 7.3 of the text will help.

2. Use equilibrium thermodynamic arguments under isothermal conditions to explain why the core of the earth changes from liquid to solid as depth increases.