**Exercise: 1** 

Instructions: Using the information on these and preceding maps, answer the following:

1. Which of the following rocks tend to have more potassium: sandstone or carbonate? more uranium and thorium: felsic igneous rocks or mafic igneous rocks?

2. Which geologic province contains most of the thermal springs in Idaho?

3. Judging from the type of rocks occurring (Figure 1) in the geologic province identified in (2), which geothermal heating mechanism is likely responsible for creating these thermal springs?

4. From the dearth of volcanic rocks and the predominance of active faulting in the Basin and Range province of southeast Idaho, which one of the geothermal heating mechanisms represents the most likely explanation for the prevalence of warm springs in that region?

5. Note where most thermal wells occur in the state and relative to geologic province boundaries. Do you think their spatial location and density reflect the underlying geology and hydrology, alone, or could other factors affect where most of these wells occur (and where they don't occur)?