**2012 Geol 231 Petrology**

**Sustainability Project**

**Format:** 20 minute oral presentation (~17 minute talk with ~3 minutes for questions/discussion).

**Topic:** Choose a non-renewable (solid Earth) resource. It must be something that you can discuss in a petrologic context.

**Things your presentation should include (+/-):**

* **Introduction:** Why is this resource important and what is it used for? Is demand shrinking or growing?
* **Petrology:** Describe how this resource forms. You should consider including discussion of geologic factors, rock types, association with tectonic setting, any association with rocks of particular stage of Earth history, etc.
* **Production:** How is this resource produced? What sort of physical or chemical processing is involved? How resource intensive is production?
* **Broader issues:** Describe broader issues such as geopolitical concerns, environmental concerns, issues related to equity (interspecies, interhuman, intergenerational).
* **Known and projected resources:** How are reserves estimated? What is the geographic distribution of production and exploration? What criteria determine economic viability of production?
* **Future outlook:** Is the future rosy or grim? Can innovations in technology improve economic viability or mitigate environmental concerns? Can recycling efforts be improved?
* **Conclusions:** Summarize key points. Finish with a slide in which you define sustainability of non-renewable resources in your own terms.