XRF Workshop

Bridging the gap between geology and chemistry

Wednesday, August 9th, 2017

Welcome to MGRRE

Michigan Geological Repository for Research and Education

https://wmich.edu/michigangeologicalrepository
Safety Information

- Exits
- Equipment
- Rocks
- People

What we hope to accomplish

- Objectives
  - Increase familiarity with the concept of using geological materials as sources of quantitative chemical data
  - Better appreciate the relationship between common geological materials, their bulk chemical composition, and common societal uses
  - Gain a basic understanding of how X-ray fluorescence spectrometry can be used to determine the chemical composition of geological materials
- Outcomes
  - Be able to apply bulk geochemical data to (i) discriminate between various materials, and (ii) evaluate simple claims about the elemental composition of an object
  - Be able to articulate how geoscientists use analytical instruments to study the composition of geological materials
  - Be able to apply some of the concepts learned in the workshop to develop a classroom exercise whereby students test a claim using bulk elemental data
Agenda & Reminders

• Full agenda in booklet
• Summary
  • AM: Lectures, discussions, MGRRE Tour
  • Noon: food, paperwork
  • PM: hands-on activities, discussions
• Please have fun, and ask lots of questions
• Please share your expertise with the team

Facilitator Introductions

• Remember, we are all teachers