

Taking Geologic Field Notes

Adding basic geologic information to your field notes – This is just an outline to get you started... As you progress you will find your description technique. Your primary objects are to be: A) Comprehensive/complete/specific/clear with your written observations, B) Be Consistent (day to day / year to year), C. Follow proper field/back country safety and etiquette, D) keep interpretation SEPARATE from initial observations, E) carefully use your direct observations to guide your daily to end-of-project interpretations

Also “Think big then small” – meaning do not rush to the outcrop, it is important to describe the context/setting of the outcrop first.

General Geologic Field Notes – Outline

Project name

Your name

Date

Purpose/objectives

Field partners

Weather conditions

1. Landscape ‘map’ drawings

- a. Location title
- b. General drawing with labels
- c. Detailed scale (approximate if necessary)
- d. Location and number of samples
- e. North arrow

2. Outcrop and/or soil description

- a. Depth
- b. Color
- c. Size/Measurements
- d. Rock types present

Hand sample descriptions -

- e. Fresh - SED: Sorting, rounding, sphericity, grading etc., Ig: Crystal size, minerals & %s, special textures, Meta: foliation, crystal size, minerals and %s
- f. Weathered characteristics

Outcrop descriptions -

- g. Characterize contact types between described layers (formations/members)
- h. Number and title of photographs taken
- i. Number and specific location of samples taken, make sure identification labels are written clearly (are not likely to rub off the sample or sample bag)

3. Global Positioning System (GPS)/ Geographic Information System (GIS)
 - a. Latitude and longitude (degrees, minutes, seconds)
 - b. Digital version of #2 outcrop and/or soil description / METADATA
 - c. Always start with hand-written notes as your primary source of information, digital data are great, but can fail in many ways...
4. Photographs – Every time you take one...
 - a. Write a corresponding photo-number and description in your field notes.
 - b. Use an appropriate scale
 - c. Take multiple images using different exposure settings
 - d. Learn to use light, sometimes you will need to take your photos in the morning or afternoon, other times you will have to make do with whatever the lighting conditions are...
5. General summary of observations
 - a. Interpretations
 - b. Ideas on what to look for in the future
 - c. Possible lab analysis to be used