Geology 152

Blewett Pass Field Trip

On our first field trip I discussed that the primary goal of this course is to help you see the Earth from a geological perspective. Following the same procedures as the first trip, you will make individual observations throughout the day and answer the questions in this field trip guide from our discussions at the various stops along the route. Our stops along the route may change depending on the weather and the time of day, but we will probably go to most of the stops listed in this handout.

I encourage you to take notes on this handout and then download a fresh copy from the course web site (http://instruction.greenriver.edu/filson) to make your final copy. It is fine with me to add photos to your final copy, but do not substitute photos for your personal explanations and thoughts.

Part I: Individual Observations

As we travel through the day, make observations about what you are seeing in the various regions listed below. Many of you were on the first field trip. Do not repeat the same observations you made on the previous trip. One technique is to imagine that you are traveling with a person who cannot see the landscape. What would you tell them to accurately portray what you are seeing?

The Puget Lowlands (from GRCC to just east of North Bend):

The west side of the Cascade Mountains: (North Bend to the top of Snoqualmie Pass)

The east side of the Cascade Mountains (from Snoqualmie Pass to around Cle Elem):
Part II: Observations and information from our various stops:

We will stop in Cle Elum for a restroom break and for any last minute lunch purchases. Our first geological stop will be along Highway 97!

Stop 1:

What is the predominate rock type at this stop? If you attended the first field trip, what are similarities and differences in this outcrop and what we observed near Vantage? (If you did not go on the first trip, just record what is said at this stop).

Stop 2 (along the side road next to the highway):

What types of rocks do we find in this location? What do these rocks tell us about the environment of deposition?
We will learn how to take a strike and dip measurement at this location. Describe and illustrate this process. What is the strike and dip at this location?

Stop 3 (along highway, just north of Mineral Springs Lodge):

What type of rock is found at stop 3? What is the direction and angle of the dip here?

Stop 4 (at the horseshoe bend along the Old Blewett Road):

What are the two rock units at this location? Which one is older? What is your evidence?

What is the direction and angle of dip in the lighter colored layers?
**Lunch stop at the Swauk Creek Campground**

Stop 5 (along the highway near the summit of Swauk Pass):

What types of rocks are found at this stop? What is the environment of deposition for these rocks? What is your evidence?

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Stop 6: along the highway north of the summit

Sketch and label the outcrop.

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What is the relative age sequence of events as illustrated by the rocks in this outcrop?
Summary of the first 6 stops:

We will construct a cross-section and pull together the history of this region based on our observations. Record notes of our discussions below:

It is possible that we will make one or two more stops in the Ingalls Complex if there is time. Record your observations of these complex rocks.
Overall thoughts about the trip.

What questions do you have about this area that we not answered today?