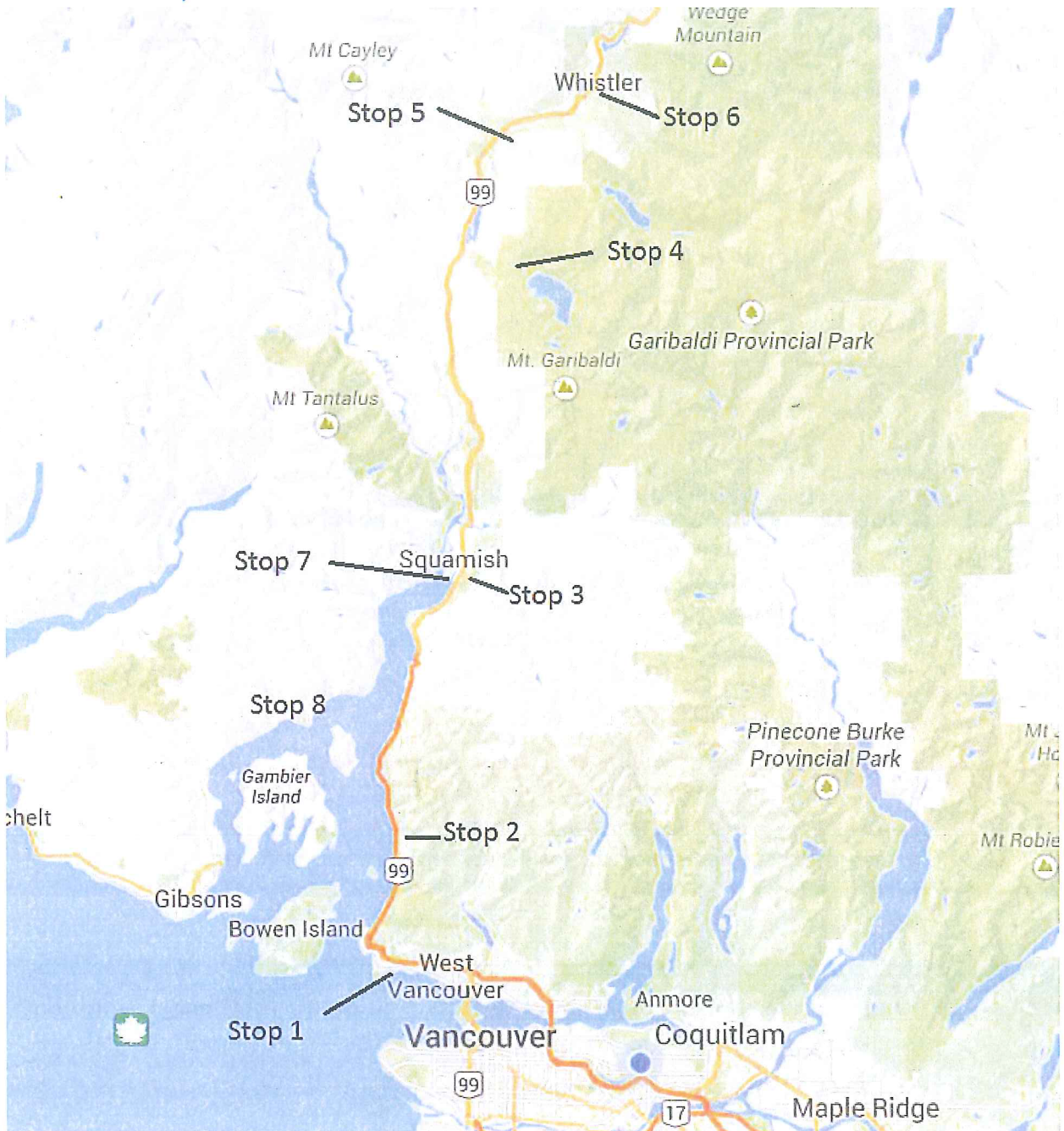


EOSC 110 Field trip

Name: [REDACTED]

Location Map:



Source (Google Maps)

Stop 1 - Caulfeild (sp) Cove – West Vancouver



Dykes
diorite

Source: Google Maps

1. List your initial observations about the site, what do you see?

- Many different types of rocks
- Land slide deposit (Alluvial fan).
- Intrusion of rocks

2. What broad categories of rock can you identify here? (Igneous, sedimentary, metamorphic)

2 types: Metamorphic & Igneous

3. How many different rock types? Describe them. Can you identify (name) any of these rocks?

- + Gneiss: Dark with some red-colored layers
- Granite: White with some black spots.
- Granite: From the dyke.

4. What order did these rocks form in?

The order is: Metamorphic (Gneiss), Igneous (Granite Diorite) and Granite (from the dyke).

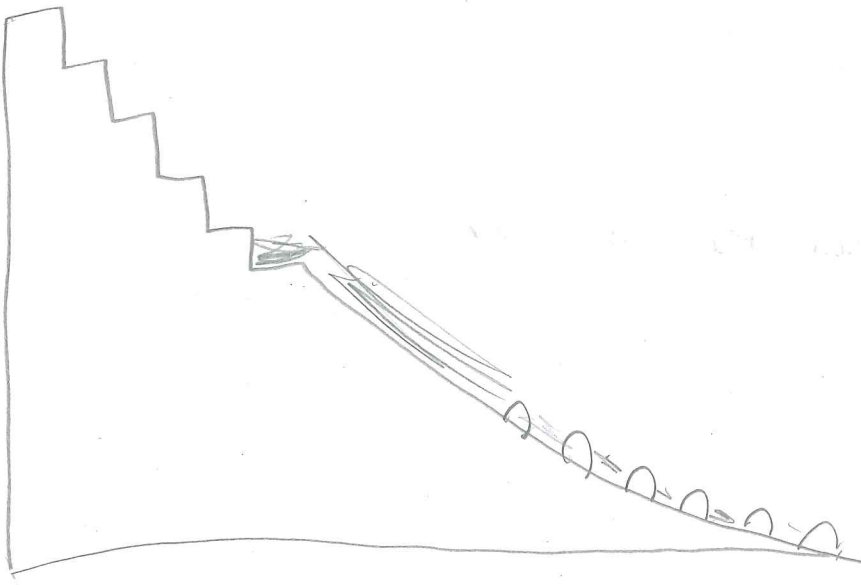
Don't stop 1a – Hwy 99

1. Throughout the trip, look for engineering structures you think help prevent landslides? (We will discuss this at stop 7)

- a. walls
- b. nets
- c. water pipe
- d. geotextile
- e. Big screw
- f. landslide structure

Stop 2 - Lions Bay

1. Draw a cross-section through this structure below



2. What is this structure for?

Prevent landslide by moving the water out of the landslide.

(Debris Retention structure)

3. How does it perform its task?

It takes out the water from the water.

(It separate the flow from debris).

4. How would you classify this stream?

- Excess energy

5. (How do you think the boulders got there?)

In order to slow the flow of water.
Carry by people.

6. Why is there a town built here?

It was built here because the landslide makes the land less steep.

7. Would you buy the house on the far side of the stream? Why or why not?

Yes, because the debris retention is secured enough to prevent a landslide.

Stop 3 - Stawamus Chief, Squamish

1. What do you see?

- Dyke
- Folds
- Faults
- Steps layers (Exfoliation)

2. Everyone grab a rock. Describe your rock.

- It is a granite
- Felsic rock
- It has big crystals

3. Is it the same rock as the Chief? If so what do you think it is? If not how did it get here?

No. I was brought from other places.

4. Look at everyone's rocks. Is there diversity? Why or why not?

Yes, because many different types of rocks were brought from other place.

5. How did the Chief form?

It is a batholith caused by intrusion.

6. What is the black linear feature in the middle of the cliff face? How did it form?

Those black lines are caused by chemical weathering (water).

Lunch! Squamish

Stop 4 – The Barrier – Garibaldi Park (or near the Barrier)



1. Describe the area.

- Steps layers on sediment.
- U-shape valley
- Lava flow when glacier was here.
- Alluvial fan.

2. What caused the large cliff up the valley?

lava and glacier

3. With your group, collect some of the rocks in the floodplain. Describe your rock? Is there diversity?

Felsic rock with tiny small pores inside the rock.

There is a diversity.

4. How did these rocks get here?

Magma & Lava.

X Stop 5 - BC rail quarry, outside of Whistler

1. Describe what you see in this area

- The rocks are oxidized.
- Surrounded by ice.
- Metamorphic rock

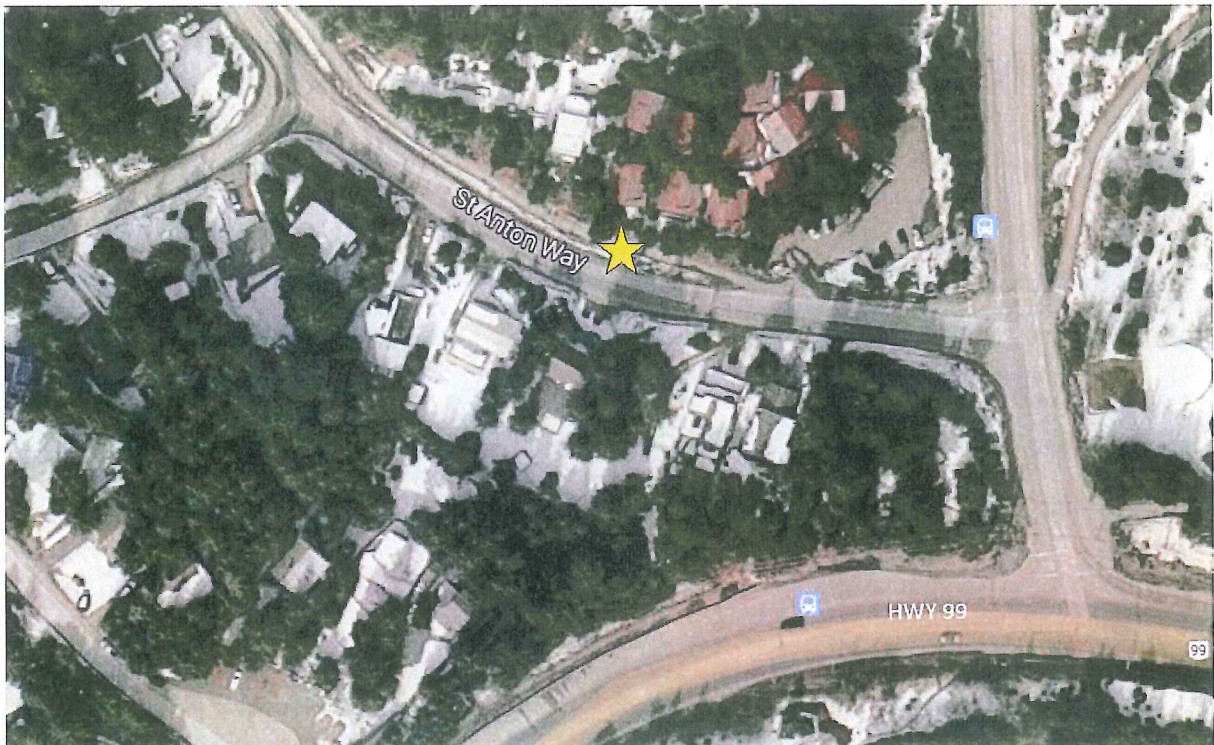
2. How many layers can you see? What do they mean?

- Lots of layers. They are metamorphic and it has been compressed by pressure.
- Vertical layers

3. How did this rock formation form?

This formation was formed by compression and pressure.

Stop 6 - Outcrop - St. Anton Way off Blueberry Drive, Whistler



1. Describe the area

- The rock are oxidized
- Surrounded by ice
- Metamorphic rock

2. What broad category of rock is this?

Metamorphic rock

3. Can you identify the rock?

Metamorphic rock

4. How did this rock form?

It was formed by heat and compression.

Stop 7 - Glacial outcrop – Stawamus Chief, Squamish

1. What type of rock is this?

Granite

2. Why is it so smooth?

Erosion by glacier

3. Is it the same as across the street? How do you know?

Yes, it is the same. We could see the dyke on this side too.

Stop 8 - Porteau Cove, Highway 99



1. Describe the area

- It is a Fjord.
- Scuba diving place
- End Moraine.

2. What types of hazards do you think can occur here?

- Landslide

