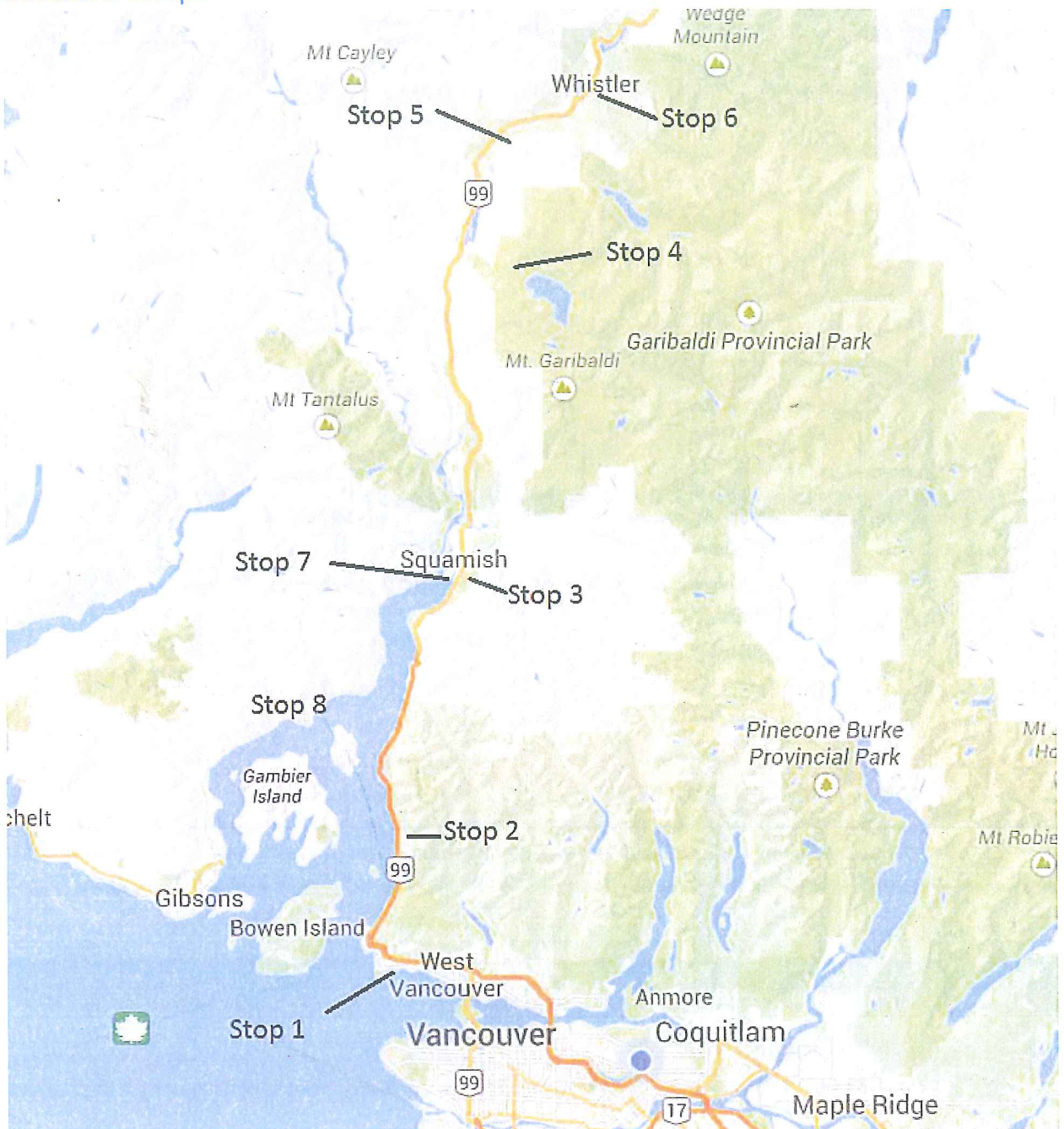


# EOSC 110 Field trip

Name: [REDACTED]

## Location Map:



Source (Google Maps)

## Stop 1 - Caulfeild (sp) Cove – West Vancouver



Source: Google Maps

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

lines -  
 fractures  
 dykes  
 minerals  
 crystals -  
 - oxidation  
 - intrusions

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

igneous.

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

~~sedimentary~~  
 metamorphic  
 mafic  
 felsic.

4. What order did these rocks form in?

- metamorphic  
 - lava → igneous

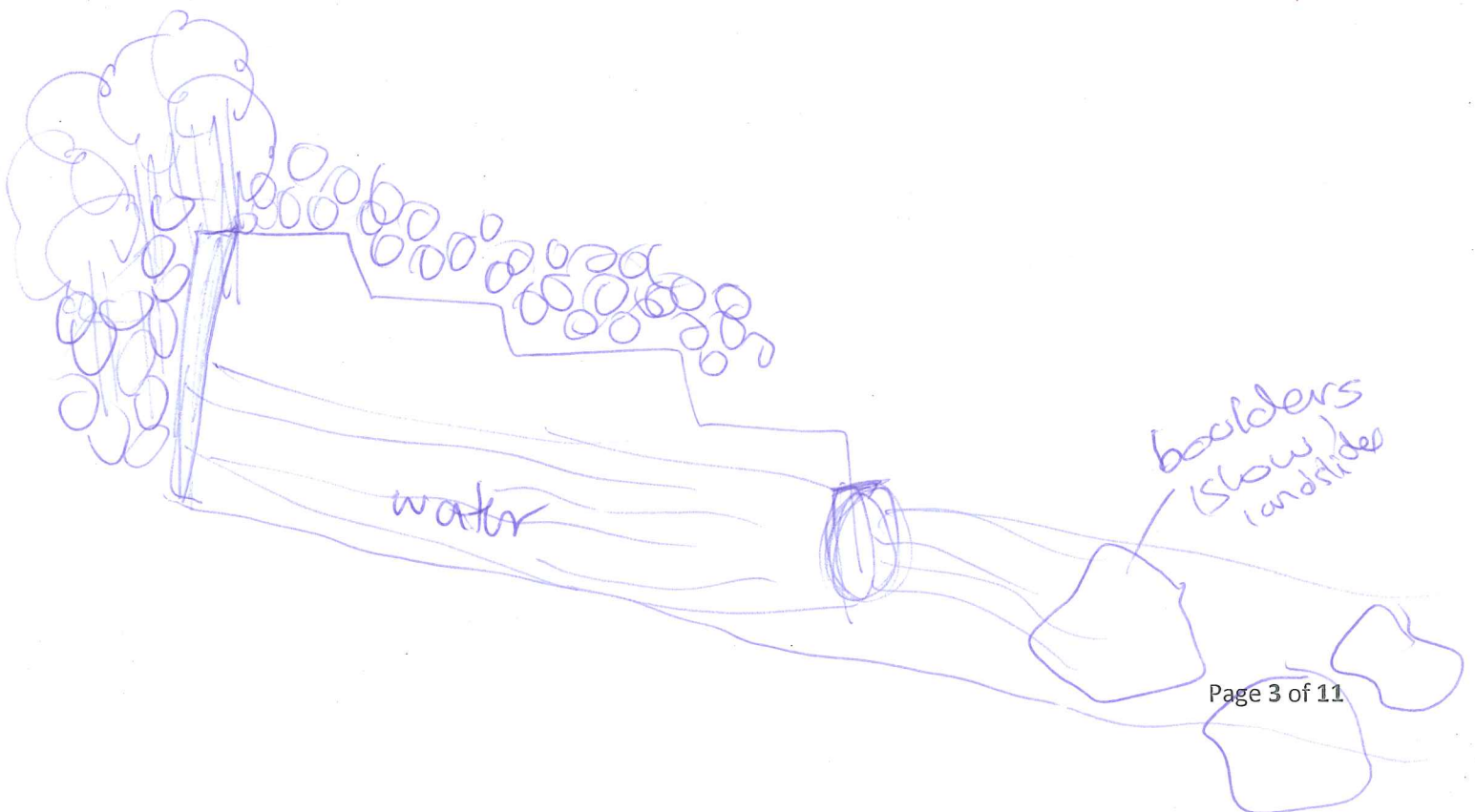
- ① gneiss
- ② granite dyonite
- ③ granite.

## 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. concrete walls.
  - b. nets
  - c. water pipe
  - d. barrier
  - e. geotextile.
  - f. ~~Yes~~ debris catchment structure

## Stop 2 - Lions Bay

1. Draw a cross-section through this structure below



Debris detention structure

2. What is this structure for?

- to prevent landslides
- and debris landslides
- liquefaction

3. How does it perform its task?

separate water from debris and avoid liquefaction

4. How would you classify this stream?

Excess high energy straight

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

by humans and the current

6. Why is there a town built here?

It looks flatter and not ~~that~~ ~~the~~ very steep

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

No.

Probably it has a nice view and is actually a safe place. than buying a house at the bottom of a house where no structure (dam) was built to prevent landslides

### Stop 3 - Stawamus Chief, Squamish

1. What do you see?

big rock batholith  
dykes

2. Everyone grab a rock. Describe your rock.

granite quartz  
felsic → dyorites  
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?

~~Yes~~ Yes but they were brought  
in ~~by~~ by glacier streams

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

Yes. lava, granite

5. How did the Chief form?

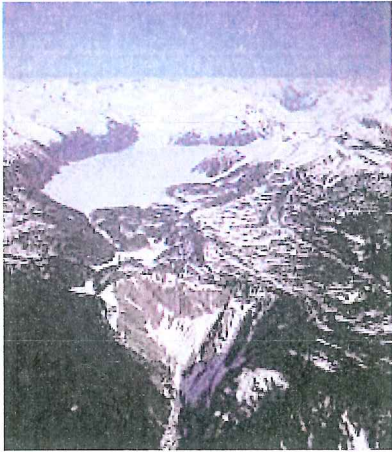
plutonic rocks  
that formed deep inside the earth and  
was cooling slowly

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

~~dyke~~ dyke  
water  
chemical weathering  
acid from the trees

Lunch! Squamish

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



1. Describe the area.

Basalt → columns  
alluvial fan  
talus slopes

2. What caused the large cliff up the valley?

~~the~~ the licking water  
~~flows~~ that passed through the  
basalt!

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

Yes - tiny pores  
• felsic rock - some clay  
• basalt

4. How did these rocks get here?

lava  
flows.

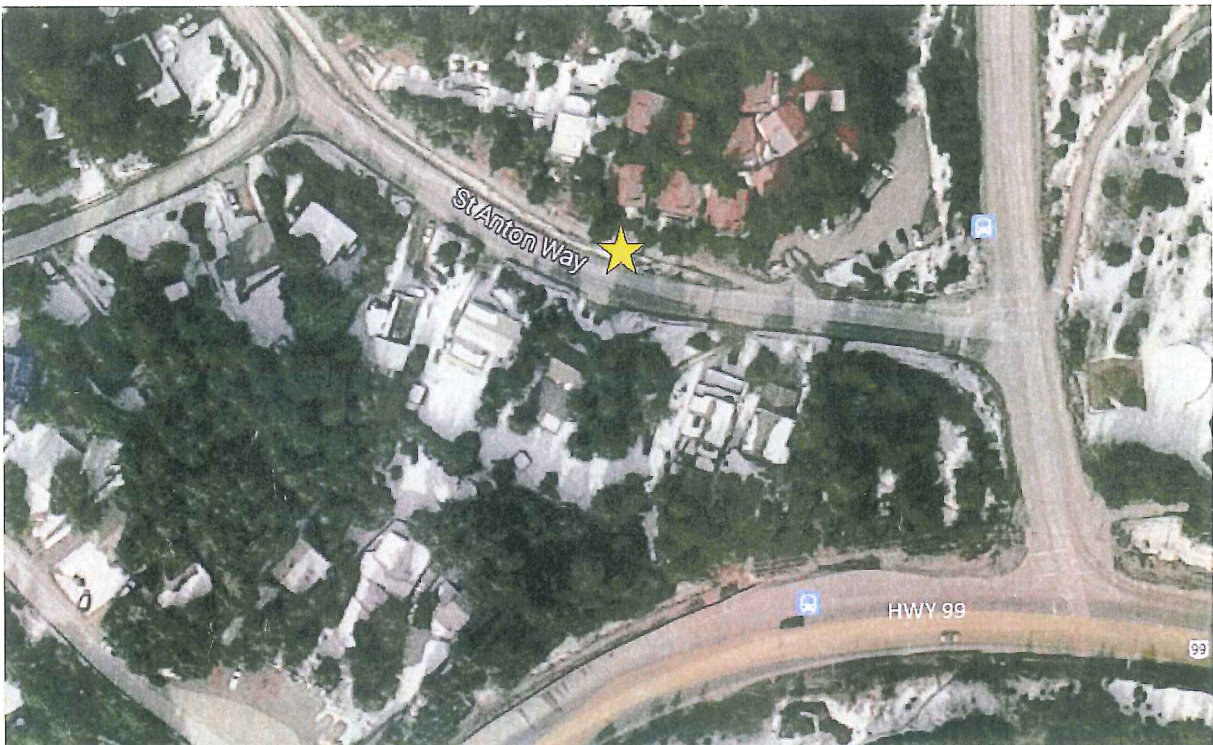
## Stop 5 - BC rail quarry, outside of Whistler

1. Describe what you see in this area

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

3. How did this rock formation form?

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



1. Describe the area

rock is weak  
with glacial till clay some quartz

2. What broad category of rock is this?

metamorphic  
rock

3. Can you identify the rock?

slates

4. How did this rock form?

squeezed  
from both  
sides lot  
of pressure

Stop 7 - Glacial outcrop - Stawamus Chief, Squamish

1. What type of rock is this?

Granite  
Polished

dyke → is basalt.

2. Why is it so smooth?

eroded  
by  
glaciers

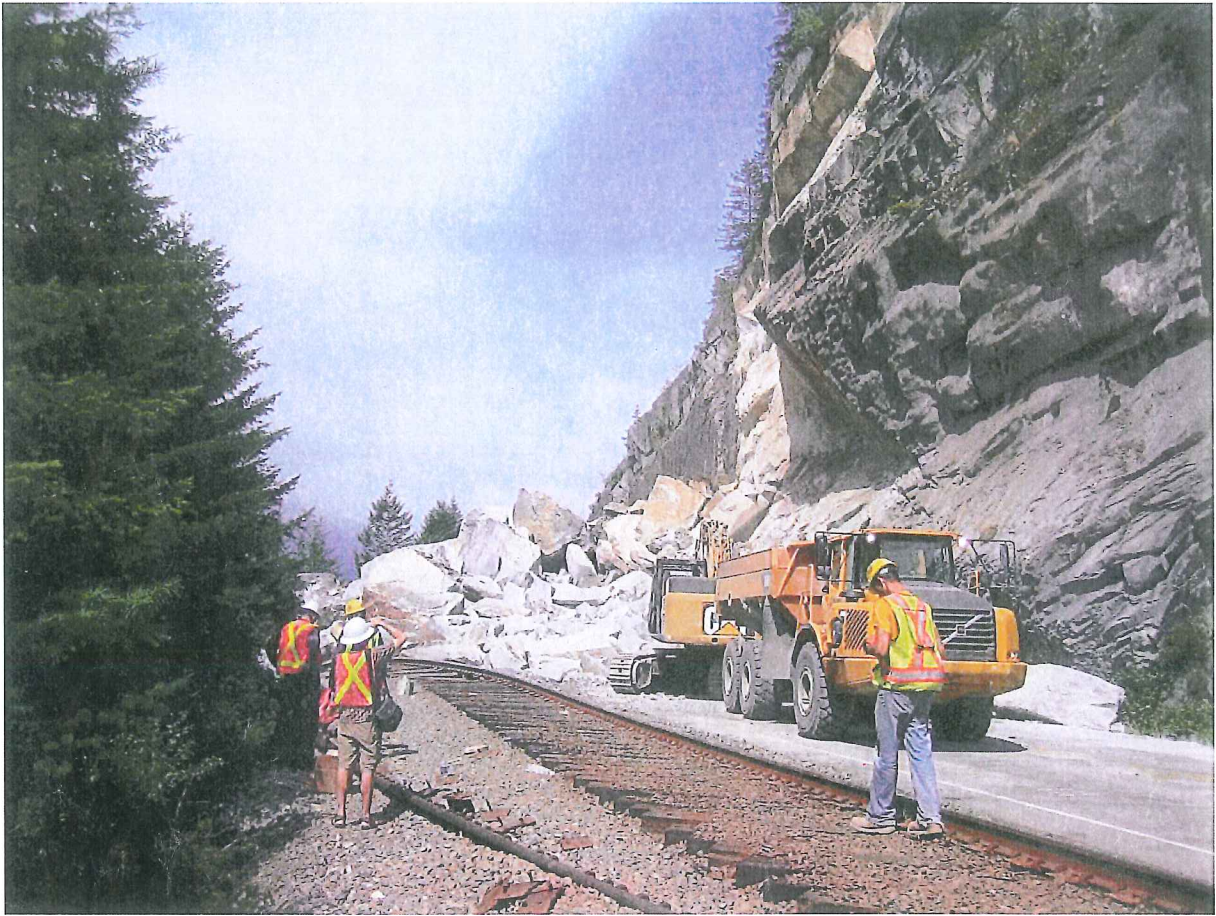
3. Is it the same as across the street? How do you know?

Yes.

because  
of the  
same dyke.



## Stop 8 - Porteau Cove, Highway 99



1. Describe the area

It looks like a fjord. In the side there are mountains, steep hills and the ocean. End moraine.

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

landslides in the hills side.

