

①

NORTH FORK

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NORTH FORK

July 29/83

SOLLICUM LAKE

start

NF 101

285m past
Creek

1070m

- dacitic tuff, faint ash texture
visible in light green schist

310/70N

but on scale

→ schistose, light to brown mica

- light colour generally suggests
sericite alteration

- rusty weathering both ^{blebs} visible
py to 1% → likely sheared

forestry phylites Gabbro ✓

NF 102

+35m

O/C

350/70°E contact between

schistose tuffs of two slightly
different shades of green +

X size, variably [?] sericite
altered chl. tuffs in places

rusty weathering thro. lacking
fresh py

- interbedded with black argillites
(locally graphitic), variably dark

~~Client bands~~

~~total 165m + 170 → 235
likely error in recording
sb. 165m? ✓~~

~~last o/c before steep drop off
→ light green → source~~

(2)

→ interlocking granular crystals,
sparse FP subhedral, definite
folds + crenulations tuff (GVA)
- some of black/dk green
subind blbbs appear to be
wash size frags (JCH)

NOTE: hand samples taken
appear more like metaseds.

→ ? intermediate motavc

(w. Bi) → phylitic schist
ey cherts

local banding in argillites
could be soft sediment or
tectonic \pm granular chert band
-ve have 1 cherty component
from previous and chert
bands are variably well
laminated with elongate
whirls in some cases parallel
to bedding

NF102A \rightarrow vc with Hb pseudocryst
-light gray, mostly less
massive than previous
 \rightarrow intermediate tuff. - no fizz

NF103 + 170M 1000m

? vesiculate tuff \rightarrow vague
suggestion of ash fragments
but could be metam. \rightarrow

NF10 - likely dacitic tuff with
sericite + chlorite alteration
- in places \rightarrow chlorite schist
- vague bands in places
no fizz
- local interbedded argillites

(3)

→ NF102

↗ SAW ultra tuff

← slightly stretched, GVA →
deformed ultra or crystal tuff

trace,

↙ enclaves - ? ms schist &
intermediate metaev, indist
gabbro whered texture
not tuff

- sparse "wursts" mod grey - ?
refolded veins + all. cent
from veins

→ into trees

* ↓ ? prob. w. meosure

NF104

+1300m

950me

1.6 mod green chert with mm
spots which appear to be remnant
ash to, fr. lapelli

- o/c appears massive tho.
band. w. stripes and schistose
- seriate + chl. alt.

+ 1180 m fork to NW

NF105

+690m

? dacitic tuff ← chert
schist probable o/c in
stream

- mod green, granular with
mod grey "wursts" + patches

- schistose 130/60S

- very faintly discontinuous b

SAWED → showed gabbro
w/ leucocratic blades + chloritized
Opx

± light green amphibole

→ dacitic tuff? ← SHEARED
GABBRO

104

SAWED. ? mm, flattened vesicles filled w.
P₀ → vesicular dacite (pumice-type)

→ some resemblance to fiamme?

- phenocrysts are Ep now were Ab
- 2-D saw cut → very large egg + 3-
flattened frogs → DACITIC

UP Valley

- reverse p...
whist floor
patches p₀
- rusty weather
w/ some

used
measure to
fork + elev.

tic
lar

← INTERMEDIATE

prob w.
NF
104 partial
maybe
also aft
ultramafic

rod to prominent

mm →
cm
scale

(4)

SAWED → sheared gabbro
w/ leucocratic blades + chloritized
OPx

± light green amphibole
→ dacitic tuff? ← SHEARED
GABBRO

104

SAWED: ? mm, flattened vesicles filled w. (pumice-type)

P₀ → vesicular dacite

→ some resemblance to fiamme?

- phenocrysts are EP now were Ab
- 2-D saw cut → very large egg + 3-5%
feathered frogs → DACITIC

UP Valley

- reverse pieces of chloritic
volcanic float with irregular
patches po to 2-3%

- rusty weathering, no/c

Wolfe

← INTERMEDIATE METAVC — maybe
taken east of
Sulphur

rod to prominently banded on mm →
cm
scale

+215me

775me

d/c in creek of westy
weathering phyllite w/s
- minor bedding parallel \odot
veins or ? metam-segregations
- schistosity slightly crenulated
80/30N

NF106

+95m

760me

^{calcareous}
chlorite mica schist, mod light
green with grey swirls, probably
laminated but creek d/c is massive
- Prominent ash texture \rightarrow
dacite ~~is~~ tuff with sericite +
chlorite alteration
- in places vacuolar amphibole

- py 1% anhedral dissemination
 \rightarrow effervesces violently - diss. in
matrix the same Ct veins

NF107

+150m

730me

dacite tuff, locally well lam
350/35°E

5

- X cut by Ct veins

← appear to be metamagmatics :
granular always || laminae

- fresh surfaces granular +
weathered surfaces pitted.
- ^{< 1 mm} blebs of rusty weathering
material surround fresh py

GVA: 2 PX wheated gabbro
(dark grey O_{px} → chl, green is
C_{px} → Hb + grey (suscens))

Plus coarsely xlined mafic metab
→ flow → diabase salt +
pepper texture - Fp + dark green
amphiboles phenoxypts

Cliff o/c

aled ← intermediate metab

schistose with varicite
alteration; \pm local Ep

\rightarrow chlorite / Ms schist

- In places very rusty weathering
w. up to 5% po along slip
zones or shears \pm Ct, P G
but elsewhere < 2 po very fr
disseminated / coating P -rich lenses
- diff shears several bands of
puffy powdery weathering melange
above
- X cut by diabase dyke which
expands to laminae \uparrow will up
cliff

NF 108 +150m 700me

decide tuff w varicite
alteration \pm chlorite

\rightarrow chlorite schist

+ interbedded phyllite w
bedding as before 140/25N

X cut by dark brown grey
mefic dykes to 10m across

(6)

or chlorite-schist schist

MPLE) NF107A
ly

2 (← LIKELY GYPSUM : xl. form)

- for most part more massive
than previous + ↓ rusty weathering
- to py

- well banded

→ Hand sample collected:

light green amphibole - chlorite
schist bands + dark green
amphibole bands; sparse brown

Bi

821061

lacking chilled margins
+ irreg. discord of Fct
veins

NF109 +290m 700me

chlorite schist med green,
micaceous

→ likely dacitic tuff as
previous tho. no ash visible

- 1% po disseminated

throughout

- sericite altered

+1100m No o/c

Area Below Shoring

July 31/83

NF.110 end of standing

predominantly B₁ schists with
chlorite to chloritic schists with
B₁

- recently blasted + dirt covered
so hard to tell if material
is precisely in place

(7)

part cliff, probable of
this pos. that is avalanche
from cliff above

- in places Bi forms mm diameter
blebs on foliation planes
- sparse anhedral/subhedral pink
Qt X cut foliae
- trace py

* S_0 is visible as more felsic bands subparallel to S_1

→ S_0 10/75° ✓

- several areas elongate parallel to bands with Qt amidst felsic material but no effective cross
- small scale "creulations" on S_1 may be creep

L_1 on Bi not visible → ? too

L_2 30° plane / 10° ✓ green bands 1-3cm white amidst brown Bi

- may be up to 10-15% amphibole (actinolite) which intercalated within Bi which but discrete samples not possible

Very start of d/c → confused

∴ can't distinguish what's in

place from blasted → NF110A

- more granular Bi + Qt + Fp + rock which looks planar

8

(metho)

omaised

volcanicity

- no fizz

- vague indication to spotted appearance, large angular appare but no visible source

- ? small o/c of apparent fault or gouge zone with abundantly fractured white granular recrystallized chert as well as area of coarser crystalline chert ? recrystallized / Homologous vein

- also very weathered
Bi / ? amphibole schist i.e.
could be ^{meta}ve but small
relative to total o/c +
very shattered

- O-FP
→ Birefractive schists interbedded
with 110B (= lithology to 110A)
in a zone w. abnt ① gouge +
very strong L, in Bi

?? 20° / 85° Pass

9

* fragment

Ask GBA
how to plot
- need stereo

WF 111

+30m

granular Bi / Qtz rock in
band 10-15 cm thick, likely
metachert, sparse subhedral
Qtz 1-3%; Bi v. finely X-line
- Bi crudely elongate subparallel

S₁ = S₀ 5/70° E ✓

L₁ 10/75° plane

? ↑ ve component ↓ Bi, ↑
competance, ↑ Qtz in felsic
segregations → chert
schist

- metacherts to 5% of
sequence w. ↑ Bi to 30%

S₁ = S₀ 0/80° E ✓

or chert schists
w Bi spots

or Bi-chert schists

→ return to Bi schists with
pinkish granular felsic segregations w/
which unplaced show very
small scale crenulations
- as well as Bi-chert
schists lacking such bands.

S₁ = 360/75° E ✓

to +120m relatively
condenses o/c, next o/c
→ 30m up from jct → o/c

NF112

with B1

chlorite-light green amphib schist, but markedly
more competent + greener
than previous ← mafic meta

S₁ 355/85 vertical

- sparse splashes of B1 +
suggestion of ^{coarser} coarse amphibole
needles in schists

coarser + fine

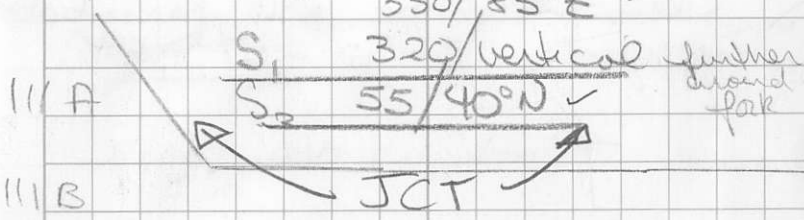
+ typical B1 schists as
before with Anst bands of schist
as above, slight crenulation

S₁ 350/85° E ✓

S₁ 320/vertical

S₀ 55/40° N ✓

further
dip
fork



02

chlorite - light green amphibole schists
suggesting mafic meta

III C

→ small up road to SE
at jct +125m small o/c
of Bi schist with
laminae of chlorite ± St
w folios $D \gg F_0$, very gran
- likely metaseds
N/S : above to small + dirt
covered

- likely metapelite w. thrust-schist
bands 112D

NF 113 + 80m up jct
? schistose metavc → chlorite- lg
schist to Bi schist
- in places appears laminated
more like metased but elsewhere
less schistose with sparse bands
C. xline
A amphiboles S₀ 20/70E ✓

→ Continue down road

NF 114 up road 53m from next jct
mafic metavc now chlorite
schist with some Bi; notably
more competent + harder than prev
Hard samples: granular quartzose → met

hand sample: sparse F_p leucodora to dent

(11)

lacking well defined bands

S_1 50/90 ✓

S_2 120/50°S ✓ often rusty

weathering plane

loc

- irreg. discont. felsic veins to patches, soft but no fizz

- irreg. coarsely granular masses of Bi along apparent slip planes

- in places Bi schist but lacks well defined planes of schistosity

- irreg discont Q veins

amph.

NEW ROAD



NF115 at Creek 2nd road

mafic metavolcanic, relatively massive chlorite ^{- amphibole} > Bi schist, some variation chl/Bi ratios parallel to schistosity but no S_0 ✓

→ S_1 120/80E ✓ over 140/80E

- rusty weathering in places

S_2 35/30S

- irreg discontinuous felsic lenses + veins w minor BxR. schist ||

schistosity; 1-3% v. finely v. line parallel to schistosity

d but prod. chl. not Bi, tr. py, v. sparse Gt

- along strike 115A Bi ↓ →
 chlorite ^{to amphiboles} schist in very rounded
 o/c, coarser amphiboles X cut
 → chlorite Hb schist 115B
 ≈ 100 m (dark amphiboles)

$$S_1 = 170/70E \checkmark$$

$$S_2 = 85/10E \checkmark$$

NF 116 + 65m

sub-green mafic metab - chlorite schist
 with some Bi along slip planes
 but P felsic as vague
 magnesian, foliated, veins +
 lenses, rounded o/c → no
 measure

+ 30m finely banded
 granular schist with rusty-
 weathering partings between .5-2

$$S_1 = 165/70E \checkmark$$

in sharp contact with Bi schist
 with < 5% felsic segregations
 ⇒ metasediments Bi schists
 with felsic segregations 1-5%

(12)

foliation as well as making up
ground mass, some metam. segregation

amphibole

- faintly spotted \rightarrow SAW \rightarrow
looks like typical igneous
textured gabbro (melano)
 $<$ 5% felsics, magnetic

in

- also some amphibole \rightarrow likely
some tuff component

1-5% euhedral Qt, cherty interbeds
finely granular as well as more
coarsely where remobilized Q
veins, also very Q-Bi
irreg banded woods.

→ banded chert sequence 10m
thick chert → Bi schist
of parking; 10m is end of
exposure $S_1 = 360/70E$ ✓

- are reworked Q veins subparallel
to bands [116+]

- some Ep w. Bi along parking

- overall Bi schist ≈ 10% of 10m

+ 50m return to small (3m)
interval of mafic metal →

Bi schist w. alnt chert - very
granular irreg. masses w.
curves, of Bi schist, minor
boundaries $340/vertical$

- Gts up to several cm

$S_1, 360/80E$ ✓

+ 15m

$S_2, 320/20W$

into mafic metal again show

(13)

- granular chest with well
developed cm scale folds →
circulations separated by Bi schist
wbc

dx exp)

probable Bi-rich laminated
metasods.

NF 117 +50m near end of continuous

- hard to tell if metasod or meta-
likely rather as relatively hard
foliated well defined with
some variation of acicular
amphiboles (very dark so +chl
likely Hb) ✓

S₁ 345/70E ? S₂ 45°/30SW
↖ fracture planes

→ chlorite (Bi) ^{amphib.} with
amphiboles, likely prod.
mafic metab. same Qtz in Bi-
rich layers
- ? refolded \odot veins or
metam segregations, well
folded & crenulated but not
obviously consistent

NF 118 +45m

- very very hard massive
chloritic unit with mm Bi

14

p/c

→ B

~~→ S₃ 100/50N~~

porphyroblasts; appears
to be chl-Bi schist
interbedded with more typical
schists likely metaseds
i.e. sparse at
S₁ = 355/55E ✓

- similar porphyroblastic units
about 20m further are
only of average hardness

NF119 +105m after bulldozer
- probable mafic meta^{about -g} + ^{met}
schists - Bi schist with up
to 10% Bi phenocrysts (?
pseudomorphs or metam)
- rusty weathering relatively
massive with abundant o/c
above
- in places to 5% very fine
amphibole needles and/or Bi
- ~~less~~ interbedded Bi-Gt (5-10%)
+ T very coarsely ~~also~~ Bi
along minor slip planes

→ gabbro, but can't tell if
invasive or extrusive flow centre

phyllite
red

or metabasalt with fuff component

porphyroblasts
rust

NF 120

- no fiss

+50m just up road from fork

- chlorite schist, relatively (< 118)

hard ± amphibole

S₁ 10/75E

S₂ 105/80N

- planes of coarse Bi but no
real laminae, texture finely
granular "spotted" w/ salt & pepper

Gabbro

→ Gabbro

? S₂ further 150/65W

- coarse Bi pheno crystals - < 3%

NF 121

MAIN ROAD

+100m

amp.

- probable mafic metave, chlor
schist, well laminated with folic
segregations + very Bi-rich bands
with ot suggesting metased
interbeds

S₁ 20/60E

- mafic metve go before with < 5%
Bi pheno crystals in places

- ↑ Bi down/c + some planes
some well developed amphibole
keels

*

- trace Cpx

segregations show
well formed microfolds

+50m

121+

Bi^{-chl} schist → Bi^{-chl}-O schist

often with metave interbeds
or granular Bi-O interbands

16

Gabbro

very granular + porous, well foliated; subhedral to euhedral G in some beds

S₁ 355/75E ✓

- meg white veins (no Q, no feg) with hematite inclusions in one area

fr diabase

+10m metaVC, minor interbed w. Bischist with var chl + G
→ metaseds 121+

NF122 + 90m

- probable metaV chlorite schist bands within Bischist (B₁)

S₁ = 340/75E ✓

Picky gabbro
mini frags
ok like
x → amphi

Gabbro/DIORITE (GVA)

+10m well defined metaV with salt + pepper texture (122+) o/c

weathers subround but no feg
→ digitous texture in places
- tr. py 2 wave foliation

NF123 + 5m

? Gabbro, may be intrusive

up flow centre, may X cut ok
but too small to be sure

- weathers grey
- some rx are Bi phenoxypt
metavc (N/S), massive

- no real sharp chill zone + coarse
diabase → metavc with gradational
contact with emboidal fp, no
reliable orientation

? CGLT - ^{matrix} + ^{separate}
- ^{fault}

+17m rubble weathers o/c
w. cobbled appearance fault

V. c. xline Bi - [?] fault or just

stream erosion; $\pm E$
SAVED: subrounded → subrounded? ^{diab}

(Bi) ^{ochst}
metased. on S

side? fault

S₁ 355/55E ← ?

+17m banded granular cherts
tho. not as rubber-like as
previously + with well defined
chert Bx sub L granular
fragments, matrix supported

- in darker grey matrix, + some swirls to bands, in rest of chert, hard to tell whether Bx are confined to single strata
- do not appear tectonic
- cover w very friable Bi schists, coarsely exfoliate with mm → en crumulations

NF ^{pits} angdaladao pi ^{phenocrysts} BASALT (GVA) ^{MS}

124 → mafic meta ve - cherts - Bi schists, Bi ^{MS} phenocrysts locally
 S₁ 10/75° E ✓

- coarse Bi dense to planes may → metam segreg w movement or long diff comp.

trace Ep as irreg patches
 - local brown Bi clots (1-2mm) with Bi ^{MS} phenocrysts (two distinct colours)

- one face when mm orbed w prob. tarnished py but can't break

→ friable zone sub || schistosity may be gouge zone w faulted discontinuous pieces of apple

green amphibolites

- near probable fault line
schistosity appears to angle
↳ toward fault? drag

E side mafic metavc →
FAULT w ell schists +
TREMOLITE amphibolites (pale
green) → w side granular
Chert w. Bi. schist, but
exposure too poor to get
orientation

August /83

Clear Cut Area

✓ N/F 125 end of top road
? S/C

- mafic metavolcanic with ultramaf
very poorly exposed subcrop
yielding inconsistent \angle no
measure

- chlorite - amphibole - (Bi)
schist, rusty weathered

Also altered ultramafics

- talc - serpentine veils
- massive actinolite - tremolite
± radiating crystals, in places
banded

BC 80004 No. 262

- looks like sheared gabbro
with remnant intrusive
textures

- but may be very large
fragments

• sparse limonite blobs, med. green on
relatively fresh surfaces → SAW
- well foliated
- locally amphibole as mm
phenocrysts

Plus altered ultramafics →
pale green with grey, talcose
with possible serpentine
→ talc schist with kyanite
visible in some samples
- probable Bi (? ms) along
some foliation planes

+ 48m more very weathered
o/c with lensoid green and
grey ultramafic
plus Bi schists with
actinolite (Bi → actinolite)
with some Bi + granular Qtz + Fp
✓ ? segregation or bedding

1254

- single chert bed < .1m thick
with purb-grey highly

(19)

- sparse B porphyroblasts

or actinolite + chl \rightarrow B1

porous granular Φ + thin B_i partings
+ chlorite-actinolite schists
with B_i , finer than 125
minor felsic segregations
and patches of coarser B_i +
actinolite

✓ $S_0 = S_1$ 25/30W ✓

NF.26 + 37m more massive d/c
mafic, very competent
chlorite-actinolite schist, mod
green with minor bands coarser B_i

$S_1 = S_2$ 15/50W ✓ weighty displaced
from cliff

S_2 150/50E

- well banded with mm \rightarrow cm
felsic segregations showing
some folds
- ? relic ash debris as seen
weathered face

Plus interbed granular chert
(cm) + B_i + Ms schists, minor

interbed on $\frac{1}{2}$ m scale

+ 85m

GVA (SAW) : melanogabbro (?)

all you can really say is sheared fng. gabbro.

(in terms of grain size decrease to coarse basalt)

interbedded on m scale

bedding development + surfs in
Bi bands

- chert 50% of bands

+75m next good massive o/c
chlorite-actinolite schist

S₁ 320/68S ✓ S₂ 80/35W

+ Bi-sericite Φ -Fp schists interbedded
with granular chert weathers "woody"

FAULT PLANE 126F

to S +20m MS-?sericite schist

→ talc schist + serpentine

S₁ 350/80W slightly

warped up no L is measured

- within fault plane ultramafics
+ actinolite schists

- metabc + metasods. angle into
fault

+ 160m

with segregations as before

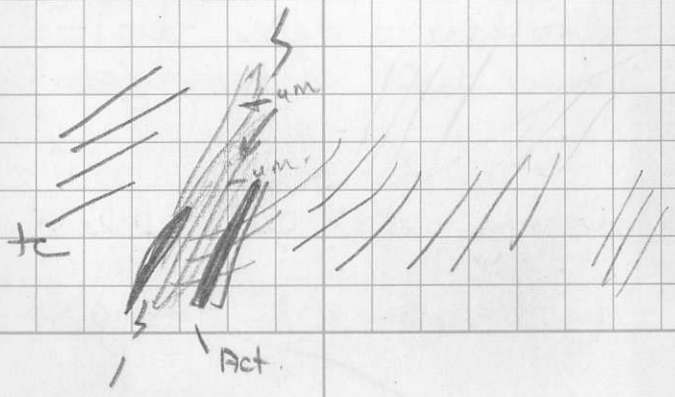
ed as before

+ 180m

No All very very soft
talc (GVA)

± talc

+ sparse amphibole inclusions



✓
NF127 +55m

- chl - adm. to schist as before*

S₁ 355/80E ✓ S₂ 40/60W
S₃ 95/vertical 2,3 for cle

- lesser Bi-MS schist with 0
rich layers cm wide +
one chert band 1.5m thick

Q-Fp - MS^{chl} gneiss

→ MTS metabasements

* foliation segregation may show
green amphi crystals elongate
parallel to schistosity

← m. wide

+ 30m small white
weathering dykes - fresh surfaces
show dull brown-grey color

- no evidence of chilled
margins X cuts foliation

prod. metabas. → minor fault