28/5/69. Geochem. Silt. Sampling

9R1(1,2,3) A.P. Photo - A12968/326

018580

Stream width 3' ave.
" depth 8" (.66)
F.R. 1, W.L. - ave
clear w. l.
Color weathered schist (red brown) (Float)
Sed. 19, 21 (silt w. organic)
Rock float
SCST. x 136° 38¾', y 63°, 28½'

9R2(123)

Stm. - 1'
depth - .5'
F.R. - 2
W.L. - ave to high
Color - clear
no boulders
19, 18, 21

Stream gravel - chips of mica schist

Drains schist out crop

136° 38¾' / 63° 29¼'

Above E. of Spec. 9R3.

260 / 14 o/c Micr. sch.

Red, stain, decompos. of silicates, or minor - fe oxides in rock.

9R3 (123)

S.W. 3½

Depth 15'

F.R. mod (2) to fast.

W.L. ave.

Color w = clear

no stain on boulders (grey) brownish

19, 18, 21

Float rock. wilt o/c on hills to E

Schistose area.

no mineralisation 136° 39' / 63° 29 3/3

9R4 (123)

S.W. 3'

Depth 1.5"

mod to fast.

W.L. ave.

Color - clear wat.

Brownish stain

19, 21 136° 39 9/10 63° 29.7'

qtz - float - o/c on hills at E
Float in stream,
Drains schistose terrain.

Notes on St. Section.

o/c v poor - lot overburden.

Rocks mostly grey green mica schist.
Interesting porphyroblasts of fspr
gives the rock a spotted appearance.
Fine kink-bands in the pelitic layers
Also - qu. boulders in St.
Rock. - feldspathic mica schist.

Did note pale limy? encrustation
on one o/c

GR5(2) one sample. (stream thin also lack of silt)
S.W. .5'
S Depth. 1"
FR. 1
W.L - Low - trickle
clear
19, 21
schistose area, no rain 136° 39.2
63° 29.6

GR6. # 1
S.W. 4'
D 1.5'
F.R. 2
W.L - 2
clear w.
Boulders brown - schist
18, 19, 21
drains schists 136° 39.4
63° 29.6

GR7 - 2
Sw. 1'
Depth 1"
FR. Slow(1)
W.L Low
clear water 136° 39.6
18, 21, 19 63° 29.5

QR-8 1,3. 136° 40.2
S.W. 4' 63° 29.7
Depth 2'
F.R. ~~slo~~ mod 2.
W.L average
clear water
- no boulders.
14.
Drains Schistose area.

QRQ 3.
S.W. 2'
Depth of 1'
F.R. moderate
W.L. ave.
clear.
no boulders
18, 19, 21'

136° 40.5
Schistose area 63° 29.7

QR:10 136° 40.8
S.W. - 1' 63° 29.7
Depth - 6"
F.R. - slow
W.L. - mod.

clear
no sediments
V. good silt 19
Drains schistose area.

QR11 (1,3)
S.w 5-6'
Depth 2-3'
F.R mod
W.L. ave.
clear
no float
19 21 silt with organic
schistose area

136° 41.2
63° 29.7

QR-12. (1,3)
S.W. 20'
Depth 1'-1.5'
F.R. slow
W.L. ave.
clear water - muddy org. looking bottom
no float
19 21
drains schistose area.

136° 41.6
63° 29.8

QR13-3 136° 42.1
S.W. - 6' 63° 29.7
Depth. 1'
F.R. mod.
W.L. ave.
clear.
no plant.
19.21.
Drains schistose area

QR14-13.
136° 42.8.
63° 29.8.
S.W. 6'
Depth. 2'
F.R. mod.
W.L. ave.
clear.
Quartzite boulders in stream.
19,21.
Draining schistose area

29/5/69

5 E.

29/5/69. Geochem. Silt Sampling.
A 12259/206/207

Station 1. Landing site.

O/C.

med to c. grd. "granodiorite"
mineralogy.
Hbe - Bi - ± Qtz - alk fspr.

Well jointed, homogeneous intrusive

Sheared finer grained facies, veined
with calcite (float)
quite.
Calcite veins common.
also in "vug" like bodies.

6 E.

Δ^2 o/c along bluff of "granitic" rock of Landing Site

Section, sheared, veined with, qtz calcite, yellow green mineral!! epidote.

See Specimen

Summary of 29/5/69 traverse.

Geochemical silt sampling was carried out as indicated on relevant air photographs.
A/12259/206/207

Geology.

Station Δ_1 Ridge with extremely well jointed grey green granodioritic intrusive. (porphyritic in aspect.)

Mineralogy

Phenoxls. Hbe - bi - plag. (alk fspr).
veins and vugs of calcite.
Dark grey fine g. mass.

In places a finer chilled facies of the rock was observed.

It was concluded that the rocks forming the crags to the west and north of Δ_1 are of same composition ? - time did not permit examination.

Δ_2. Rock of same composition, well jointed and shear zone with veins of qu - calcite

and associated yellow green epidote, which was common on slickensided surfaces.

Rocks in the stream bed ranged from the ones mentioned above, to quartzites, diorite, volcanic andesite (v. fine gnd, green, with small plag phenoxts.), volcanic agglomerate, and tobe-bi-porphyrites.

Thus on cursory inspection the region geochemically sampled would appear to be a roughly circular (air photo), high level igneous stock of granodioritic or monzonitic composition.

Mineralisation - barren on rocks examined.

May be more promising if contact phenomena could be observed.

30/5/69 Traverse AP no A12068-320

9. W.14. St. A
Rocks in str. with brown stain
Rocks quartzite, slate, diorite,
gneiss, chert. - float

Traverse 2:

Variegated metas vxs

Limestone (calc silicate)
Quartzite
mica schist / partings ->

Shear zone with amphibolite
(asbestos!)

Traverse

1000' from head

Quartzite 102 → 102 200'

66

Amphibolite:

mica schist

62 → 120 300'

Left, Quartzite

calc

Silicate

note. Veins anticlinal? ~~anticlinal~~ anticlinal

Traverse 1000° to 600' up stream.

Pass from.

Quartzite

mica schist with calc silicate bands.

Traverse # Pano A12068-320.

Δ, Landing site

qw.14: Δ2

Float in streams.

gneiss, qutzite, slate chert, granitic boulders

Rocks have brown stain

o/c of porphyritic (monzonite?) (Monte)
- large phenoxts of orthoclase + plag. (Pink or rimmed by albite
- hbe xtals
- plag. predominant
- 1000' from last sample site or 6600' from Landing
- Canyon walled on both sides by this rock.

Float in the stream
ranges from this porphyry,
to schist, quartzite, laminated
mica schist, tuff (agglomerate)

no mineralisation observed
on traverse.

Monzonitic stock E/C on
gully.

Traverse 2

A Landslide 21
9.W. 19.
9/c on Creek 800' from headwaters of stream.

Quartzite — with opalescent blue quartz. — looks almost like cordierite.

66 → 102

Pass down creek into sheared mica schist (with poss. Sousse. hbe in it (amphibolitic in appearance) —

Calc Silicate — laminae of siliceous material alternate with more lime rich rock — laminae 2-3 cm. in Thickness. Lst has yielded plastically to deformation

Strike ↗ 60 — 52 — 82

On shear 20ne — mica schist, Qu veins and

green fibrous antigorite

Antigorite in veins



Host rock mica schist, with qu veins.

Further downstream (3000') pass through mica schist with intercalated calc silicate



Pass into Quartzite at termination of traverse



NB. Calcite boulders in stream with grey shiny specks of

graphitic??

Rocks, especially in shear zone have rusty brown stain - fe oxide (decomposition of fe/mg minerals - antigorite etc.)

In slickensides in mica schist soapy antigoritic material

31/5/69.

12

Airstrip Creek A12259-109.

111

9G.13 Helicopter

9G.14

Δ_1 upst. 700' from 9G14.

Qz mica schist o/c on rt side Creek.

Rusty weathering

77 → 61

Δ_2. Gully. qz. of

Porphyritic intrusive

- well jointed.
- mineralogy
- Or xtals. 2-3 cms sqn. Some remained by alb. - 30-40%
- bi
- hbe 20-30%
- Qz > 10% br.
- plag

Porphyritic Granodiorite.

Veined by
fine grey felsite
with hbe (?)

S.L.O. Cont. of porphyritic
granite.
Veined with calcite, qu veins
with pyrite (sp)

Some mica schist blocks
caught up in intrusion

Also rock poss changing
facies (more diorite (sp))

End Canyon Felsite Rylee Lk

Rock more Qu Diorite
Contains pyrite
Plag - green - 60%
hbe - 20%
bi - 10%
Qu - 20%

In places rock sheared to fine "mylonite" Schistose is rock. Shear zones common pass close to margins of intrusion

Canyon traverse

~~No~~ numerous ~~rafts~~ in an calcic van. in diorite (syntec) also in more porphyritic granitic rock.

Pass granodiorite (granite in places) porphyry into Am Phyolite



Canyon

9154. o/c Porphyritic granite
700' from (N) canyon end.

1 A.
2 1
3 1
4 grey brown

9416
SW 2'
WL 05'
water clear
no stain
19 21 18
!
Lateral ity of schist + granite
hornblende

1	D		1	B	C
2	1		2	1	
3	3		3	3	3
4	grey green		4	"	"

30/5/69 Traverse Aft no A12068 - 320

9. W. 14. St. A

Rocks in st. with brown stain

Rocks quartzite, slate, diorite,
gneiss, chert. - float

Traverse 2:

Variegated metas wks

Limestone (calc silicate)
Quartzite
mica schist (phyllonite ->

Shear zone with amphibolite
(asbestos!)

Traverse

1000' from head

Quartzite 102 → 102 66 200'

Amphibolite:

mica schist. 62 → 120 300'

Left, Quartzite

calc

Silicate

note. Veins asbestos? antigorite

Traverse 1000' to 600' up stream.

Pass from.

Quartzite

mica schist with calc silicate bands.

Traverse APno A12068-320.

Δ_1 Landing site.

qw.14: Δ_2

Float in streams.

gneiss, qutzite, slate chert, granitic boulders

Rocks have brown stain

?
o/c of porphyritic (monzonite) (Monte)
- large phenocrysts of orthoclase + plag. (Pink or rimmed by albite)
- hbe xtals
- plag. predominant
- 1000' from last sample site or 6600' from Landing
- Canyon walled on both sides by this rock.

Float in the stream
ranges from this porphyry
to schist, quartzite, laminated
mica schist, tuff (agglomerate)

no mineralisation observed
on Traverse.

Monzonitic stock E/C on
gully.

Traverse 2

A Land site 21
9.W. 4 9.
% on Creek 800' from headwaters of stream.

Quartzite — with opaloscent blue quartz. — looks almost like cordierite.
66 / 102

Pass down creek into sheared mica schist (with poss. Sourc, hbe in it (amphibolitic in appearance) —

Calc Silicate — laminae of siliceous material alternate with more lime rich rock — laminae 2-3 cm. in Thickness. Lst has yielded plastically to deformation

Strike / 60 — 52 82

On shear zone — mica schist, Qu veins and

green fibrous antigorite

Antigorite in veins



Host rock mica schist, with qu veins.

Further downstream (1000') pass through mica schist with intercalated calc silicate



Pass into Quartzite at termination of traverse



NB. Calcite boulders in stream with grey shiny specks of

graphite??

Rocks, especially in shear zone have rusty brown stain - fe oxide (decomposition of fe/mg minerals - antigorite etc.)

In slickensides in mica schist soapy antigoritic material

31/5/69.

12

Airstrip Creek A12259-109.

111

95.13 Helicopter

95.14

Δ_1 upst. 700' from 9514.

Qz micaceous schist o/c on rt side Creek.

Rusty weathering

77 → 61

Δ_2. Gully. qz. of

Porphyritic intrusive

- well jointed.
- mineralogy
- Or xtals. 2-3 cms sqn. Some rimmed by alb. - 30-40%
- bi
- hbe 20-30%
- Qz > 10%
- plag

Porphyritic granodiorite.

Veined by
fine qua felsite
with hbe (?)

S.L.O. Cont. of porphyritic
granite.
Veined with calcite, qu veins
with pyrite (sp)

Some mica schist blocks
caught up in intrusion

Also rock poss changing
facies (more diorite (sp))

End Canyon Felsite Dyke N-S

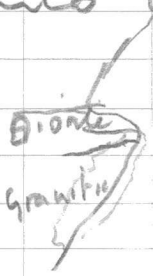
Rock more Qu Diorite
Contains pyrite.
Plag - green - 60%
hbe - 20%
bi - 10%
Qu - 20%

In places rock sheared to fine "mylonite" Schistose is rock. Shear zones common pass close to margins of intrusion

Canyon Traverse

~~No~~ numerous ~~intrusions~~ ~~in~~ ~~an~~ calcite vein in diorite (syenite) also a more porphyritic granitic rock.

Pass granodiorite (granite in places) porphyry into Am Phorite



Canyon

9154. o/c Porphyritic granite
700' from (N) canyon end.

1 A.
2 1
3 1
4 grey brown

9416
SW 2'
WL 05'
water clear
no stain
19-21 18

Lateral ridge of schist + granite
boulders

1	D	1	B	C
2	1	2	1	
3	3	3	3	3
4	grey green	4	"	"

Slide No 9 G16

Pink

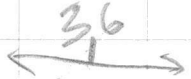
Pomplyng. (Or. 2-3 cm) 50%

Gneiss 30-40% Kfs Bi

Qtz 10-15%

Green gneiss.

Veined green dyke

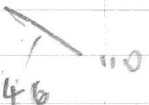


Kfs preferred orientation.

100' S.L.D.

Quartzitic - schist.

- Sheared - more foliate



9517A

2

3

4 grey brown

silt sand (mmsr19)

200' N. of 9517A.

O/c of grey-blue quartzite.

O/c for 300'-600' down stream.

Trace of pyrite (sp)

(not good)

80°

120

SL.O

quartzite

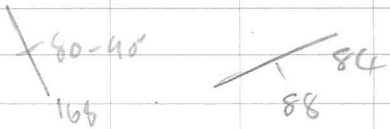
Stake ?

(1/4 mile from 9517A)

152°

— Sheared, slickensided

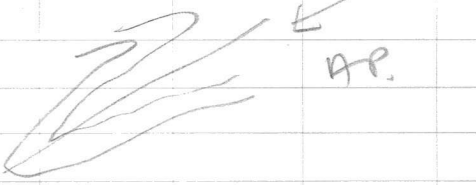
SLO 100' pass into laminated quartzite, (
- back to quartz.
- into laminated green mica sch. sh.



large fold — axis 138°



Minor folds on limbs of σ_{major}



9q15:

(19,21 Silt)

1 A
2 1
3 1
4 grey brown

9q19,A

(Silt, 19, 21: organic some)

1 A
2 1
3 1
4 grey brown

O/c Blue quartz all along

Since 9q18.

r160

QG 20A

SW. 1'
depth 2'
Flow rate mod.
water level ave.
Gravel sample.

1 A.
2 "
3 "
4 Gravel size: (rocks)

QG 21A

1 A 19 (silt)
2 "
3 " minor
4 grey brown Sand,

2/4 Blue green Quartzite

all down stream.

9422 A

1 A. (1918 (21)
2 /
3 /
4 Grey Brown

9423:

D/ Deeply weathered porphyritic
Granite.

Spec: taken

Upper surface kaolinised
"kaolinised".

"Summary Airstrip creek Traverse."

31/5/69. Air Photo nos- A12259 109-101

A_1 99.14. hand.

Upstream 900' from A_1 o/c of am mica schist (green in colour). 77 → 61 approx.:

A_2. Gully.

o/c of well jointed medium grained porphyritic bi-hbe-granite.

mineralogy:

Phenoxts.

Orthoclase (2-3cm) 40-50%

Groundmass.

Qu >10%

Hbe > 60% (gmass)

Bi ~ 10%

Some large blocks of mica schist have been caught up in the intrusion

also towards the end of the canyon the rock loses its porphyritic aspect and becomes a medium grained

granodiorite. Plag ~ green (saussuritised??)
hbl ~ 20%
Bi ~ 10%
Qu ~ 30%.

Intrusive veined by fine felsite dykes, (.5-1') in thickness

Shear zones have mylonised the intrusive. These are 2-3' wide.

The porphyritic granite o/c's 700' N of end of gully and is picked up once more in the slide ~~S~~ S of 9617.

Here the phenoxts are very pink ~~with~~ and ~~grey~~ in places ~~have~~ a preferred orientation

~~They are~~ Intrusive also veined by felsite dykes (1-2').

100' ~~S~~ north of the slide one passes into Quartzite.

Quartzs have a blue-grey colour. Disseminated pyrite, chalcopyrite occur in this horizon.

The character of the quartzite is fairly homogeneous. though in places it has a distinctly laminated appearance.

Where it is folded - compositional variation gives it an even more laminated appearance.

A large fold. 20-25' in amplitude. has minor folds with axial plane 20° 100, and plunge. 20-25° 138° SE. on its limbs.

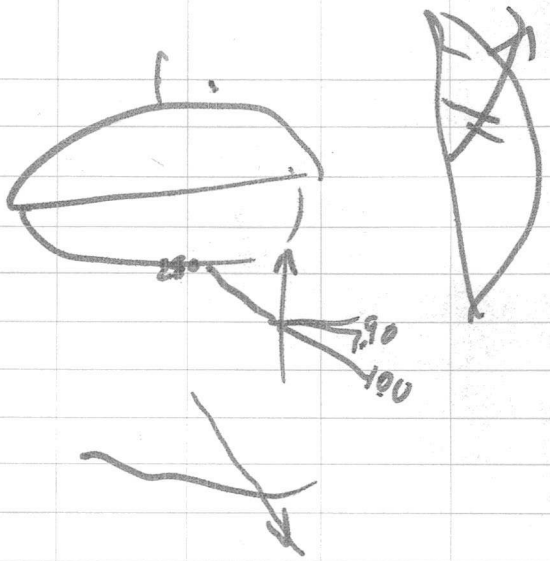


Style of fold. on limbs.

The quartzite is in places "veined" with deep blue quartz. Looking almost like cordierite, or corundum.

N (200') of 9 G.23. o/c of

Shattered porphyritic hbg granite



ETHEL LAKE

Mileage:

Start 32348.9

Road Fork 51.4
1st Creek 51.5 100'
2nd " 51.8 (mile 4)

3rd Creek 55.2 (mile 7)

bottom of large valley at valley bottom — 57.7 mile 9.5

A Bearing to largest of small lakes 112°
B to small south lake 62°

60.8

4th creek 63.0
5th " 63.3

START BACK (Snow) Cass Lake

65.2.

82.

2½ miles 79.5.

Up Ethel Lake Road, cross stream flows South:

o/c Coarse muscovite granite.

Tourmaline in Pegmatitic veins.

Rosettes of kaol. (Spec).

Traverse Pirate Mtn. 2/6/69

△ Pirate Mtn. N peak.

Rocks. float frost heave

Diorite, Granitic boulders

△2. QR 15. 200' downst. from X

Ox Sk.		137 13 50
SW.	2½	68 20 00
SD	.5	
FR	mod. 2	
Wk	ave.	
Color.	cleard/brown	
Color ppte.		
Sed Size	7 8 19	
Rock Occ	—	
Locality	Diorite.	
Misc.	—	

	A	B	C
En.	1	1	1
Loc.	2	2	2
Color	Brown.		

S.L.S. 2.15 pm.

from 9.15. Float.

granular veins of radiate xtals - (spec)

Also - brown weathered minerals in granular boundaries. ? ? ?

SL.9 Δ_2.

- Boulders Fine diorite (chilled phase.
- Coarser diorite blocks with large black xtals which weather brown.
- Boulders of more coarse phase fine grained - weathers red brown.

Biotite - granophyre - felsite

maybe not too much Ab in it 20%

137 12 05
63 20 16 21

QR16: 450' paces from L.S.

A
1 Whole bank
2 non active
3 Brown mud.
4

S.S.I.: (8.19)

QR17: 137 12 30
63 20 18

SW 21
SW 13'
FR mod
WL ave.
color clear
collapse brown
Sed Strgs 1918.21
Orchestra Diversi
Dracena — Moorlie
Mann —

A B C
1
3 3 3
gray brown

137 11 40
63 20 20

QR 18: Stream Inct.

SW 2-3'
SD - 6"
FR mod
WL
Color St. clear
Color ppt. brown
Sed Strct gravel sand (17 18)
Rock occ - Diorite
Bram - Diorite

A		B	
	2		2
	Sand		Sand

19, 19, 21

△3 0/c of med. grained -

granodiorite

Plag	40 - 50%
alk fsp	? 10% → 20%
hbl	30%
bi	5 - 10%
Qtz	~ 20 - 25%

Weathered red brown color.

300' SLS

Float - coarse grained
q. diorite

Alk fsp
Plag - Green weathering
Qu - 30%
Mic - Bi
Eye like texture - as if
sheared.
Slickensided surfaces with
epidote

Spec
9R19

9R19. qdo/gneiss frame 9R18. 137 10 45
63 2011

sw 2-3'
D - 1'
FR - Fast
W.L - none
Co.w - Clear
C.pete - -
granodiorite O/C on N bank

Sand - silt - organic

A.	B	C
1	1	1
2	2	2
Sand	Sand	sand

ORR20 - 700 ft. from L.S.

137.09.55.
63 20 06

SW B1'
D 2'
FR Fast
Wea. dhigh.
Color Brown
Color apple ↵
No hoWders ||

18, 19, (20)

Drawing granodiorite.

P	B	L
1	1	1
1	1	1
Sand	"	"

O/c Med. grd granodiorite

all along N bank of stream.

- no mineralization
- some Qu veins.
- epidote in fracture sides

QR20 - bearing 25°

QR21: (Sand, Silt)

SW	2'
D.	1.5
W.V.	one
F.R.	round (2)
color	clear
color ppts	brown
Float -	schist, quartzite, diorite.

18 19 21

137 09 45
63 20 52

A	B	C
1	1	1
2	2	2

grey - sandy color

137 09 00
63 20 50

9R22

Samples taken on bank. to S of stream as no silt in stream

Mostly silt. sand — organic

SW. 2'
D. ½
FR Slow
W Level low
no ppt

A
(non active) pool. 1 below water level
Color. (Sandy).

C - at water level (Silty)

QR 22: Boulders on N. Slope.

Xenolithic boulders.

- Xenoliths - of grey fine grained andesite or porphyrite -
- extensively veined by med to coarse grained grey granite
- Rock in places foliate.
- Contact phenomena between grey granite and included andesite or porphyrite ?
- Boulders in places gneissic in appearance.

137 07 55
63 20 22

24

QR23

Stream not flowing
gravel sample in deep
pool

Brown fine
gravel size
SW - 4'
depth 2 - 4 feet
not flowing
level low
no mineralization

Spec A
1
2
Sand

QR24 Bay

137 07 25
63 20 15

Sand Silt

Wide
Hardly flowing

MR 24 : 25 [Hbe-Bi Syenite]

o/c of coarse grd ~~Granite~~

Veined by Quartz (2-3') wide.

- Also includes hornfelsed Xenoliths mica(hbe) schists

- V dark coloured -

- Joints and cracks Stained with Feoxide.

- Veined by hornfelsed sheets of granophyre

- Some huge mass pegmatitic x vein of the above.
  - green powder inside one on breaking up.

9R2+ ABC. Sand silt

collected R bank

5' Brown

12'

2'

mod sloped

ave

Boulders throughout

granodiorite

color - clear

(B < A) :

+ :

Brown

137 07 00

63 2017

complete Ltr. 26

Traverse 3/6/69.

Air Photo A 12183 163, 165.

△ Land.

- Med grd grey green. diorite veined with fel-feld. veins and epidote.
- weathers to grey - lichen covered
- spec QR 26.
- Also o/c pinkish grey granite.
- Thus. Granitic, diorite complex.
- also chilled diorite phase (or hornfels)
- Complex - 3 rock types in 15'

Δ1200' from D, hit stream.
2

QR26 137 04 45

S.W - 1.5
D .33
WL Low.
FR. none.
Color clear
Color ppte - -
Sed Size - 16 19 21
Rock type local. diorite, granite

A	B	C
1	1	1
2	2	2

brown grey.

9R27

	A	B	C
2'	1	1	1
5	1	1	1
FR - mod	grey	"	"
WE ave.			
color clean	137 04 40		
- Brown.			
Sed. (92)			
Rock type "			
Flood-gravel granitic			

- All down spur on bank block-
- large granitic blocks

Δ_4 Falls.

- Spheroidal weathered granite
- intruding finer porphyritic phase of Dioritic composition

QR24A

A
2
3
Grey Brown

SW. 2'
Depth .5
Wk. ave.
PR mod
Silt - organic 1921 137 04 45
no boulders
clear water
- hydrolic - dynamic.

QR29A, BC 137 03 40

2.5
1.5
ave
mod.
1921, (C 18)
Brown
no flora.
Sand & gravel in stream
"

A B C
1/3 1/3 1/3
Grey grey sand

150p. from 9R29. Right bank:

2c of fine dioritic phase - chilled
- veined by coarser diorite
- some veins fine acicular xtallisation — Spec 9.R29.
- Qu
  Plag
  Hbe
  } Qu Diorite.

- chilled phase - or poss hornfelsed c rock.

9R30	A	B	C
2'	1	1	1
.5	2	1/2	1/2
are	Sandy Silt.		
mod.			grey brown

{ 16 19 21
  19 21 BC
  Sand.

137 03 00

QR31 - A - B

137 03 05

A	B
1	1
2	2
Sand	

1'
·33.
ave
mod.
18 21
Brownish tint
clear water

QR32. 30p up from Fork in Str.

1'
·5
ave
mod
19 21
clear
no boulders.
- downhill

A	B	C
1	1	1
2	2	2
grey		

137 02 20

QR33 100p up stream at Jn.

2'
2"
low
slow

137 02 10

clear
no-boulders
Diorite 19.

A	B	C
1	1	1
2	2	2
grey	"	"
		1

9R34

2-3'
.5
ave
mod.
19 21
clear

A	B	C
1	1	1
2	2	2
Grey	"	"

137 01 40

Diorite

3 Coarse spheroidally
- weathered granite intruding finer diorite rock of porphyritic aspect.

- the granite is quite shattered by weathering

- Bi | Grey granite
  - Fsp.
± hbe. - may be granodiorite
- Qu ~10-20%

- Fresher spec - may be monzonitic in character.
- poss adamellite ??

- anyway pretty coarse granitic intrusion cutting the fine chilled porphyrite

- further down stream. Granite invades, and brecciates fine dioritic rock

bottle
- Diorite - ~~dark~~ green
- veined by epidote
- marginal hornfels

of granitic (monzonite)
intrusive

- N.B. Q/c in stream
- Rocks stained Rusty Brown. - Shatter Zone

QR35: 137 01 30

SW - 3'
1'
ave
fast
19.
clear
Xenolithic granitic with
chilled diorite

Q/c on bank.

Med grd Qtz Diorite

This region pass one of outcrop of granitic body ∨ an Diorite.

QR36 150p down river
Bank Sample.

25'-30'	A
3-4'	2
ave	1
mod. flow	grey
silt	137 01 30
no boulders.	

QR37.	ABC
6-7'	1 1 1
2'	1 1 1
ave	grey
mod.	137 01 50
silt sand org.	
Diorite, granitic	

(31)

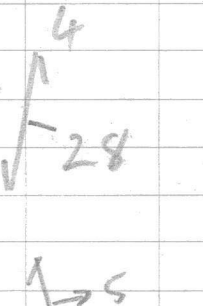
4/6/69 Traverse.

115P02

412259-101
-201

Mica schist

- good foliation
- qu veins + sweats.
- low grade
- AP





@ 800' SLO

Rusty weathered Qtz feld. gneiss 66/110

hem - magnetic

June 4/69 Star Walter Hamil (53)

9R38A - One sample only

9R38

W	3'
D	1'
R	2
L	2
T	1
ppt	—
size	21,19
rock occ.	—
rock, locality	N gneiss schist

	A
env	1
loc	1
col	5
ppt	—

136 50 35
63 05 10

9R39 - 800 paces from above sample

W	2'
D	0.5'
R	3
L	2
T	1
ppt	3
size	19,18,21
rock occ	1
rock loc	S

	A	B	C
env	1	1	1
loc	3	3	3
col	4	4	4

136 51 25
63 04 59

Tufa Row from South
50' up from
9R40 - about 200 paces from east

W 1
D 3
R 1
L 2
T 1
Rpt 3
size , 19, 21
Work oic —
work (Density) Rare

One sample only

136 51 24
04 58

9R41

W 2'
D 5
R 3
L 2
T 1
ppt
size

	A	B	C
enw	1	1	1
loc	1	1	3
col	4	4	4

136 51 40
04 56

9R42

W 2
D ·6"
R mod
L ave
T !
Pl —

ABC
1 1 1
3 2 3
grey

136 51 55
04 52

age 1921

9R43

W 1'
D ·3"
R mod
L low
T clear
Pl —

ABC
1 1 1
3 3 3
grey

136 51 56
04 50

age 1921

Drums gritstone Saltholme area

136 52 30
.04 46

9 R44
W 0.5'
D 2
R 1
L 1
T 1
pot Radford 3
sing 19, 18, 21
rock ex. —

9R45 — 136 52 46
63 04 50

9R45
W 2
D 5
R ~~one~~ mod
L — Give
clear water
no pbbs
19 ~~21~~ 1821

A B C
1 1 1
3 3 3
grey

136 53 10
63 04 50

54

2 kisp from L.S.

- o/c med grd - porphyritic granite.
- pale alk fspr. phenocrysts
- Bi -
- certain foliation aspect.

260' - sheared gtc.

- also more fine grained.
- chargins.

QR 47:

o/c med grained - holocrystalline tg rock

- Bi
- Hbl // Syenitic "
- Fspr // monzonitic "

Spec.

9R47

sw. 8'

136 53 45

63 04 38

D - .66

WL - ave (2)

#R 2

J - 1

type - reddish brown

- 1921

A B C

1 1

3 3

grey

Rx in area - fine - med.

subacid

igneous

Summary:

Qu Mica schist on hill top
- pass into well compositionally layered hbe schist or gneiss.
- interesting sub metallic brown mineral in qu vein in hbe schist. - specimen collected.
- hope to have it definitely identified

- down to Qu-feldspathic schist - bands look almost gritty + conglomeratic -
- rock extremely rusty in appearance.

- Beyond 9R46 - pass into beautiful porphyritic granite

- 9R47 - o/c of fine gnd rock. Igneous origin but with a hint of foliation. composition — Plag (Fs pv)
Hbe
Bi.

~ V minor Qtz.

Thus unusual rock possibly lamprophyric.

Either associated phase of granite, or separate intrusive.

— No mineralisation apart from the known metallic mineral.

5/6/69. Traverse AP no. 12227-181

△ Land

262 p from D, 115 p/s

QR 48 -

SW 2'

D 1'

FR mod.

WL high 3.

Color: Brown

- no ppte

Sed sugg 1921 (BC)

Flood-gravel shi

Brown sandstone yuk fp.

R	B	C
1	1	1
1	3	3

11 grey

136 02 40.
63 17 50

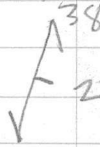
280 p. S.L.S.

Q/L - Finely laminated psammitic schist

- Note metallic mineral s p (9RU8)
- Also laminae of Rusted mineral.
- also blue quartz
- and dk mineral of good shape + cleavage - sp.



360 p Q/L LSk. -



- laminated - argillaceous partings
- has brown decomposed sulphide (oxide) - specks of rusty brown oxide disseminated thro LSk. Pyrite
- spec. 9RU9.

ARUG: closest jn

sw. 1.5
D. .33
PR mod. | adj sh. fast
WL ave.
- no molden.
(19=21)

136 02 11
63 17 41

Brown shists, LSHs.
ABC
111
222
grey.

ARDD

136 02 10
63 17 45

2
33
mod
ave
quartzite- + schist.- brown
stains on Qtzite

19 - 21
Brown schistose area

A	B	C
1	1	1
1	2	3
grey	grey	grey

GRII.

1.5.

.6"

Fark.

high.

color brown

Brownish or in boulders

of qu- + schist

Gravel (17)

Drain schist

A	B
1	1
3.	3

136 02 10
63 17 32

9R52 - Spec from Subsidiary Stream of main system

1'

"3"

136 02 05
63 [illegible] 05

Slow
mod
Clear (main one brown)
ppte - brownish
Schists etc

19:21
Rhaiss schistose area

A B C
1 1 1
2 2 2
Grey

9R53 Sub St ~150 y from last one

1'

2" deep
Slow
Dove
Clear

136 02 05
63 [illegible]658

A
19 org.
1
2

QR54

6'

1'

~~Fast~~

high

Brown

Brown sh. on Outcrop.

mica schist - float.

192118

Schistose Lst.

A B C

136 02 05

43 15 46

Grey.

360 ↑ SLS.

O/C Micaschist with Quartose Stringers ↗ 74 ↘ 18

- crenulated - fine lineation
- minor fold ax. pl. ≠ 86
- lineation = FFA of these folds. 138 ↘ 18 ↘ 138

- again black - min good ?? 9R54

9R55

136 02 50
63 16 21

15'
1'
Fast
axe.
Brown.
Brown on Qtz. Kl. (Schist Qtz
T-lower
1918.
Schists.
A B C
1 1 1
3 3 3
4 very brown

136 03 05

R 56 63 16 12

1

2"

slow

Low.

– hornblende

clear waxy

1918.21

Brown schist

A	B	C
1	1	1
3	2	2
grey	grey	

GR57.

12'

1'

Fast

high (over)

Sandy quartzite

Brown weathering

1958 21

Brown schist

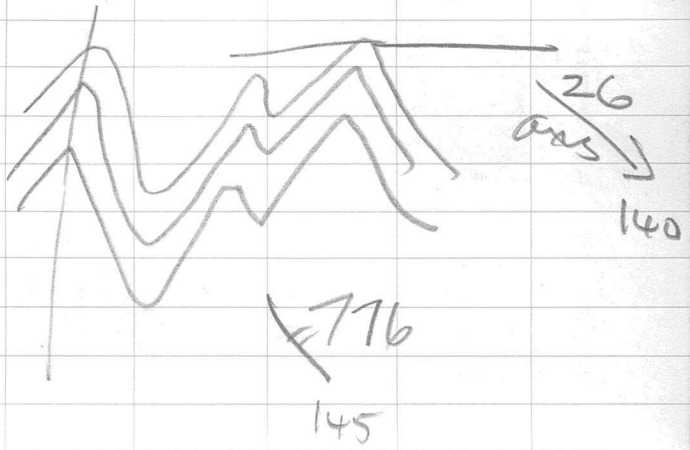
A	B	C
1	1	1
1	1	3
grey	Sandy	

Spec GR57

136 03 10

63 16 00

f/c accumulated,
- Schist
- Lst. (marly appearance)



Qm Stringers

9R59A

Same data

136 03 27
63 15 46

9R59.

- δ - 9'
1'

ave.
model.

A
|
|
grey silver.

A B C
3 1 1
1 1 1

Same River Data.

136 03 30
63 15 36

(41)

Traverse. 6/6/69

Air Photo. No.
A12183 - 97
A12851 - 320
115P-8, 7

△, Land.

9R60.

A B C
1 1 1
3 3 3
greyish brown.

3'
.66
ave
mod
none.
Water clear
1918
Drains schistose country.

136 2200
63 1855

61 2.5.
1'
ave
mod,
Phrag-marsh - grey ppte.
Clear water
1921

A B C
1
1

136 22 44
18 42

1362330
18 40

AR62

3'

6"
mod
ave.
clear water
Brown alluvial gravel 17/8

A

1/3

Sandy gravel.

(micaceous mostly sh)
minor sch

Brown sch. area

D/C Mica sch. & Granulated

36 136

En-echelon folds



2 lineations

74 younger

10° other

RHS to the anticlockwise

162

10° or so?

AP- 90

86

QR63 5.

8"

~~most~~ fast

ave

clear

dark brown.

18 19.

Schools

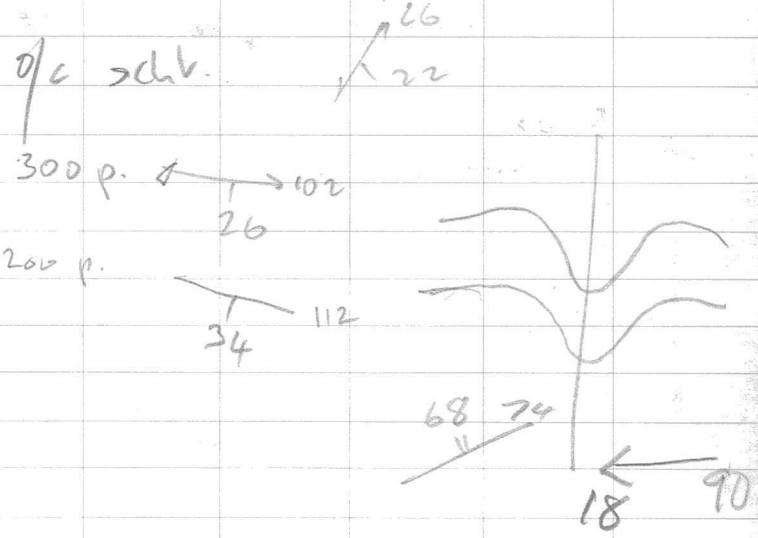
A B C

7 3 3

~~Sandy~~ brown

1362358

1845



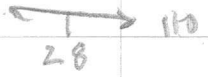
136 24 50
1855

GR64

4 B C
1 1 1
3 3 3

5.
15
Fair.
high.
Brown/black.
grey/brown color,
1921
Brown schistose area

N/c hammered schist
Rusty weathering.



N/c Schist



GR65.

136 24 59
1845

15'
21
mod.
ave.
grey brown color.
none
float (micaceous schist) o/c upper bank
1921

A B C
1 1 1
3 3 3
Grey.

o/c on R. gut
Upper Bank
Yellow Brown weathered schist

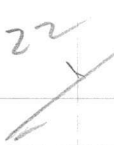
9R66
2'
·33
mod.
ave.
clear.
no ppte (quite brownish)
18 19.

A 136 2500
1 63 18 35
1 18 38
grey sandy.

o/c schist all down st

9R67.
20'
1.5.
fast
ave.
clear
no ppte - qu-schist
Silt (19 2)

A 136 2555
1 63 1835
1
grey



o/c sch

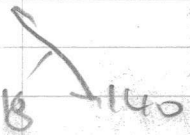
1362635
631814

9R68

8'
1'
Tan
ave
Brownish strain
worden clear.
1819

A B C
| | |
| | |
epoxy

o/c Psammitic mica sch
with limy concretions
ie limy coating - ppte.
from above.



9R69

10'
1'
Fast
ave.
grey brown
Brownish color
o/c on upper bank
1819

A B C
| | |
3 3 3

1362630
631754

9R70

	A	B	C
	1	1	1
15'	3	3	3

15.
mod
ave
clear to brownish
no pote
1918

136 27 50
63 17 40

9R71. 25'
21
Fast
ave
clear brownish
no pote
1918

A
1
2

grey.

From 300p Reach
Granitic boulders in
the River

136 29 55
63 17 35

QR72A	A
1.5	1
.33	3
slow	grey
low.	sandy
clear	
none	
sand, ± silt	
Brown	Granitic + Schist Green

QR73	ABC
10'	1 1 1
2.5	1 1 1
Fast	grey
Cave	
clear	
–	
Granite ns 19 18	

45

Qtzite Gossan — 90

82

10/6/69.

A.P.No 12179 - 56 - 67

Δ_1 Land. Grey brown phyllite.

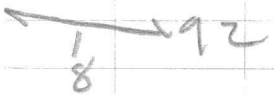


Possible graptolite? Sp.

- Also spotty mild-qu veined.

Δ_2 qc - Pale green slate.

- Massive coarse Qtzite with network of qu veins — well xtallised (3-5 cm in width)



- carbonate (Limy concretion on Rock.

Traverse 1:

Only two major rock o/c

2 rock types

① Slate – phyllitic
pale green – brown
finely laminated.
Possible fossil. Thought
low grade metamorphic. Note
wrinkles and fine lineations
in micaceous bands

② Coarse gritty altered
– veined by a network
of qtz veins – well x'tallised.
Looks favourable horizon
for mineralisation – but
none observed.

Rock poss sheared + fract
– accompanying ~~mineralisation~~
qtz veining

Note carbonate concretions
Poss marine horizons

Helicopter Traverse 7/6/69.

	9Q148	149	150	151	152	153
W	4'	3	1	3	3.5	2
D	2'	1.5	.33	1	1	.6
FR	mod	mod	"	"	"	mod
WL	ave.	"	"	"	"	ave
T+C	Brown.	"	"	Br.	Br.	Br
C.P.	-	-	-	-	-	
Sed Size	silt.	1921	19-21	2119	1918	2119
Reduced	-	-	-	-	-	
Local Derived	Schist	"	"	sch.	sch	-
No	ABC	"	ABC.	ABC	ABC	ABC
Eh	1	"	1	1	1	1
Loc	1	1	2	1	3	2
color.	Brown	Br.	Br	Br.	grey	Black.

154	155	156	157	158	159	160
3	4	15	3	15	3	15
1	2	2	1	2.5	1	2.5
mod	mod	slow	slow	slow	sl	sl
ave	ave	ave	ave	ave	ave	ave
clear	clear	brown	Brown	Br	Br.	Br
yphe	-	-	-			
2119	1718	1921	1921	1921	1921	1918
ABC	AB	ABC	ABC	"	"	"
1	1	1	1	1	1	1
1	1	3	2	3	1	3
Bl	Sandy	grey	-	gry	gry	sandy

161	162	163	164
3	10	6	15
133	3	.5	3
slow	slow	mod	slow
ave	ave	ave	ave
clear	Brown	Br.d.	Br.
yellowish	-	-	-
19	1921	1921	2119
ABC	"	"	A
1	1	1	1
2	1	1	1
yellow	Black	grey	
brown	Sod	Black	Black

Traverse 11/6/69

Δ Land.

Slate - grey to black
- weathers brown.
- 60 → 98 g.
- 14 → 108

88. Float. - slate.
- also vole (hyp.) rock
- books of mica.
- Lamprophyre.

Δ Sr Sn.

- Sheared chl. pebble conglom.
  28 → 158

- Buckle cleavage
- N.W. plane
  74 → 124

- Possible AP cl.
- Veined by Qtz-Calcite

- Sandier intercalations

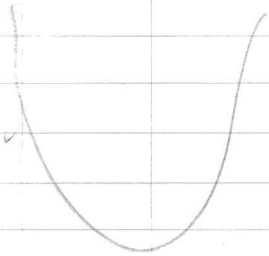
87-88

More slate on slopes. - float.

94 Lst.: Marly looking phyllite

- large apparently concordant Lst. veins (ie Calcite)
- no mineralization





Lab standup

74	137 45 05		87	33 02	100	42 39	113	35 40
	63 53 35					57 57		52 30
75	35		88	32 25	101	42 59	114	35 35
	32					57 53		52 35
76	46 8		89	39 59	102	43 15	115	34 40
	38					57 49		52 19
77	46 35		90	31 40	102	43 55	116	34 30
	42					58 15		52 20
78	47 28		91	31 05	104	44 05	117	34 00
	39					58 19		52 21
79	47 40		92	31 25	105	45 56	118	33 42
	35					57 58		52 00
80	47 59		93	32 35	106	46 10	119	33 42
	35					57 59		52 06
81	48 33		94	32 35	107	46 15	120	32 50
	48					58 05		51 59
82	48 59		95	33 25	108	137 37 50	121	32 40
	42					63 52 40		51 53
83	49 40		96	33 15	109	37 32	122	32 10
	55					52 42		51 48
84	50 10		97	137 41 25	110	37 25	123	32 00
	50			63 58 05		52 26		51 40
MISS	85		98	41 40	111	36 35	124	31 00
				58 04		52 20		51 55
	86 137 33 30		99	42 02	112	36 40	125	30 50
	63 54			57 58		52 28		51 52

126	137	29	40
	63	52	00
127	137	29	58
	63	52	05
128	137	28	20
	63	52	15
129	137	28	10
	63	52	10

Traverse.

50

APNo 12243 - 373

Δland 12/6/69. Sunny day.

QR97 -

QR98 - 450 p.d.

Δ1 Grey-fr.grd - laminated marly slate - fine laminations - fizzes gently w. HCl.

Land 13/6/69 - Fine Sunny Day.

Δ Landed on site of previous chopper L.S.

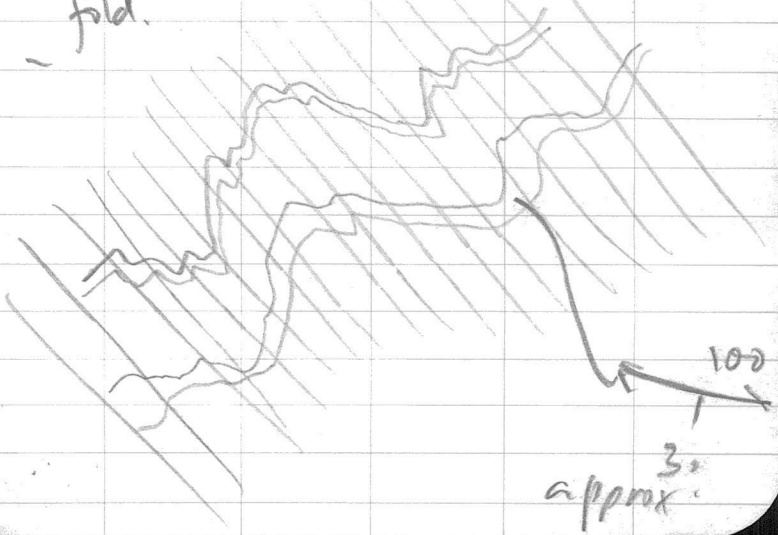
% Purple Rodded slate

cl.- 32 → 102 conjugate ← 122 / 62

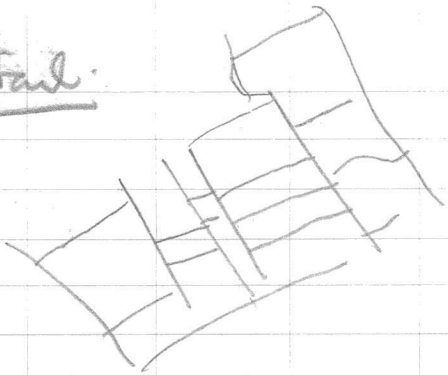
- Rodded slate intersection of conjugate pairs gives linear slate ← 24 ← 110

- Perfect development of shear fold.

-



Detail.



Gleitbett structure

- Beautiful!!

114/ 9/6 Grey green phyll- ← 12 → 106

- note little red spots in spec.

117-118- Phosph boulders sc&k and blue grey q tzite veined by qtz

Traverse - 14/6/69 Map 116A 3.

Clum Creek No A.P coverage

- Cloudier Day - Smoke in the Air.



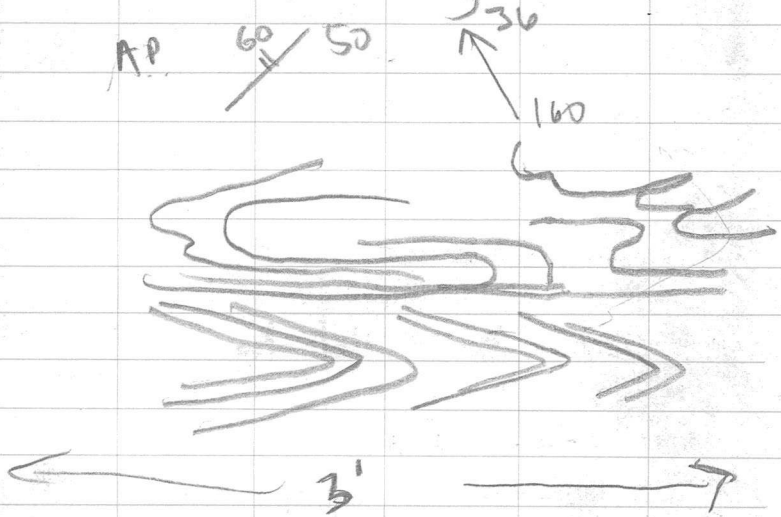
Thick stratiform sequence of Rusty brown weathering cherts.

- Chert. grey dark - fine laminations observed on weathered surface
- Knotted fossiliferous bodies in shaley partings
- leave cast on chert surface

Δ_2

- laminated black sh.
- 22/32
- Poss. - fossil? Can't find any 'tho'.

Δ_3 Contorted marly lst.



Traverse. - 15/6/69.

Syenite Mtn A12259-392.

A_1 Contact Syenite

- Black argillite - spotted with qu-cord?
- Quartzites grey - baked. v. rusty - folded

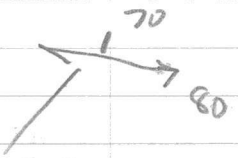
A_2 Quartzporphyry -

- Fspars all rusty alteration
- Spec taken
- Grey mx.

A_3 Intrusive - Body

- Green tsp } ? Neph?
- Brownish mx } ? Syenite?

- Xtals



Calciferous Sed -

- In Veins in Ig body ‖ Spec
- Green Diopside?
- Gt - or idocrase?

A_4 - Pass from this round into Bleach sh - calc veins.
- Sh. lost lamination due to proximity to intrusive.

- Then Pass into another body of intrusive

- Plag phenocrysts (white)
- Brown speckled mx?

- Much pyrite

- Pass along ridge into shale again

Traverse Summary:

Country Rock:

- Qtzites (greyish)
- Argillites - Dark rocks - Hornfelsed in most cases.
  - form black scree slopes -
  - also weather in rusty fashion
  - near igneous intrusive bodies (small intrusive dykes + stock - on N slopes Syanli mtn) dark argillaceous looking hornfels has lost slaty appearance more massive

Limsh. : horizon - at least extremely calc. / proux laminated Siltstone - with veins calcite.

- abuts unusual hypabyssal intrusive.

Ig xs: Syenite:

- Extremely homogeneous.
- no real) marked chilled effects near contacts.
- laminations of alkali feldspar phenocrysts - pronounced
- Fe/Mag - Hbl 30% Bi 15%

Qu Porphyry: Little Bosc like intrusion on NE Slope Syenite Mtn.

Extremely interesting

- Distinct Qu xtals
- Mottled White fspr.
- allotriomorphic in appearance - inequan mottled bodies.

- Weathers out rusty red from interior outwards - this loss due to little flecks of pyrite in fspr: not sure.

- Fine Grey Mx
- Interesting body - possibly some more in area?

- Hypabyssal - Intermed intrusive.

Forms dykes + plugs on N. slopes of Sylenite

Mtn: Vinterestring

- Plag-topp phenos.
- Weaker green.
- Fine mottled brown mineral in g mass poss. biotite but not sure. had conjectured that this may be undersat. related bodies associated with Sat. Syenitic complex.

- NB large quantities of flaky Py hite in this rock

- also where dyke intrudes limy horizon. lger veins of possible Diopside gt? Cv] docrase.

// Anyway interesting mineralogy

- Specs were collected
- O/C's shown in overlay of air photo

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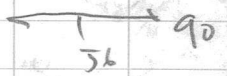
Lab Comp

130

D_1 Land

D_2 o/c Limy phyllite

- crenulate



- well developed cleavage

- calcite veins

153 - cross + texture



D_3 - Med - gnd grey hypab intrusive.

intrudes ? grey to black phyllite with limy veins. (from float evidence)

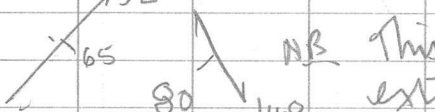
- FSpars - weather brown

(154) Poss o/c on other side of str.

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Δ_4 - Grey Black Crenulated

Lst - Plastically folded.



NB This simple extremely folded.

2 Limbs

Spec (157)

- NB. Rusty brown spots - decomposed pyrite?? Spec 1"

Δ_5 - NB Float - scree slope

pale grey - weathers brown - Lst? (Fizzes HCl)

Much Pyrite disseminated

Specs.

spec 159 100p downst.

Float- grey dolomitic limest-

- dissem. py.

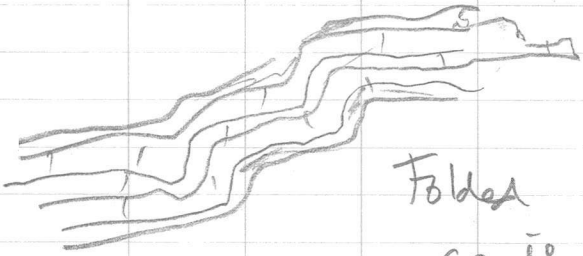
Δ Stratiform siltstone with

shaly prisms - looks cherty

20

120

- weathers rusty red.



Folded

gently

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Under weathering —

Thicker chert beds. S/d Same way. Grey lichen colored.

Again Rusty along jts. + fractures

Traverse 20/6/69

Δ_1 - Massive stratiform chert seq.

22 / 111

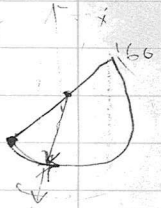
- Has peculiar "cast" structure on parting planes - worm casts?

- Grey + yellow color.

Round Ridge \ 48 / 150 ; 42 / 95

\ 106 dip slightly south

63 / 106 dip south



Thus looks like fairly tight fold. - shales in nose of fold. - Possible interpretation

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All could be rapid steepening to overfolding in a northerly direction

75 98

E.

N



22 130

Thinner beds - 6".

46 80

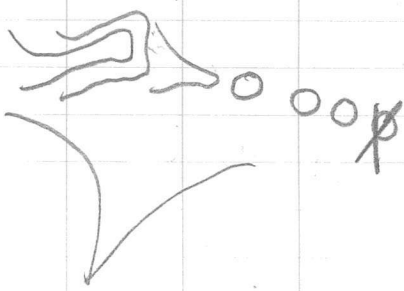
* Cu - showing.

Chalcopyrite - malachite
pyrite

Vein like body - parallel to
S/d of chert. - Exposed 15-20'

- specs. - See map for
location.

4th nipple along from.
main one on Ridge



Vein - Breccia complex.

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Chrt along ridge - 50 / 110

Chrt R.A. Ridge 50 / 108

Chrt - 52 / 136

Chrt - slate. 38 / 104

Note change strike (just blocks)

38 / 118 along ridge.

Chrt - + Slatier units - weathering is quite Brown.

On Ridge thr. sh.

70 / 100

Top Ridge 65 / 100

Traverse to here - sequence thickly bedded Cherts with intercalated shales - development of slatey cleavage in these

N.B.

Numerous Gossans in Comé
- Presense of Marcasite? (Pyrite)
Poss. chalco.
- specimens
- Rather loose slopes/to much around on - good Mtn Goat country
- Weather rich red brown - must be lot of sulphides around.
- hole also arseno? specs

Δ_3 Pyke. acicular to tabular

like porphyrite (not m. qutz)
poss dioritic composition

- med gnd. - acicular - fine chilled margins V. - the chart,

90

Pt. of contention - dyke or transgressive sill?

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- comes in v. close to s/d of chart. - (sp)

Traverse 22-6-69

AP. No. A13135-80

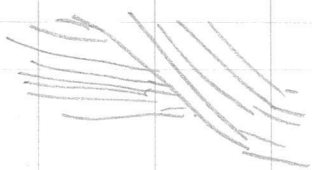
116B-1 Dawson

1, Land

- Grey phyllite - veined by Qu. 32 115
- Quite Psammitic
- Micac. Ptgs

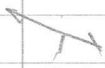
GR188: Thin - laminated phyllite - - poss marly - limy? (SP). Check acid.

Thrust Synclinorium



Float includes mica Pamprop? intrusion.

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Note also
Float of banded, mineralised

tuff? hyalite? xenoliths? of basic
lithic -?

Vugs of Qtz minerals x Fels.

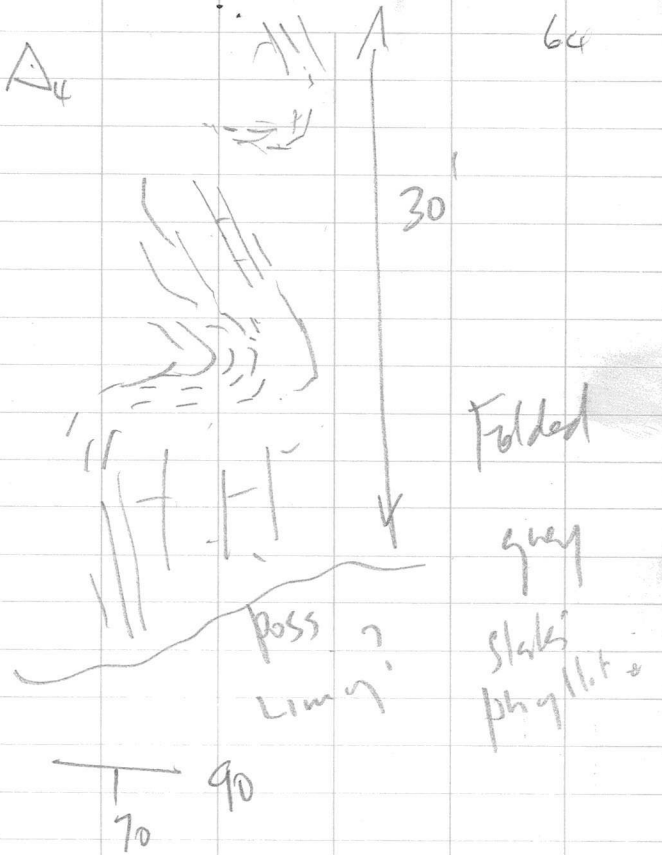
Comes from up top.

Δ_2 hammered grey slaty Lst?
Spec. for HCl.
Soft - looks marly?



Δ_3 Cht. Sh - with
grey - greywacke unit?
Sp.





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Δ_5. Diorite med
grd-grey Diorite

Δ_6 Basic Body
possibly Gabbro.
could be Dioritic