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McMILLAN

PACIFIC

WATERPROOF

Cruisers Transit Book

No. 340

1971 #1

XQUV

453 2306
Webb Cummings

PACIFIC WATERPROOF

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18 E. side of Pukaust Ck — 49

PHOTO DESCRIPTIONS AT

BACK.

Card's checked

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Chataway

Wiz 17 malachite in trench, some disseminated cpy – estim. pot'l low plus

Wiz 16-21 also called

#4 zone

100 000 Tons ?

Sho 11 potential low

---

not sure this is a showing

zone 3 Rob 3 (?)

potential low

Moon 8 drill hole 0.1 → 1.84% Cu

~~drilled but to follow~~

~~it is a showing~~ Pot'l low several thousand tons?

Jay 3 ppt'l (low) (part of #2 zone) all I saw was a mineralized qtz vein in a boulder

#1 zone – Sky 6, Moon 1

Pot'l low

Alwin

Kraun

claim 20 MT @ 0.45% Cu proven

60 MT probable

I suggest both figures are too high

Trojan

Valley Copper

Estimate ~~600000~~ ~~700~~ 870 M Tons
8700

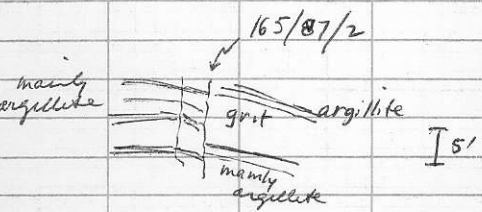
Pot'l 1,000 M Tons (+)

Lornex

293 MT 0.427% Cu
0.014 Mo

Highmont

7-1

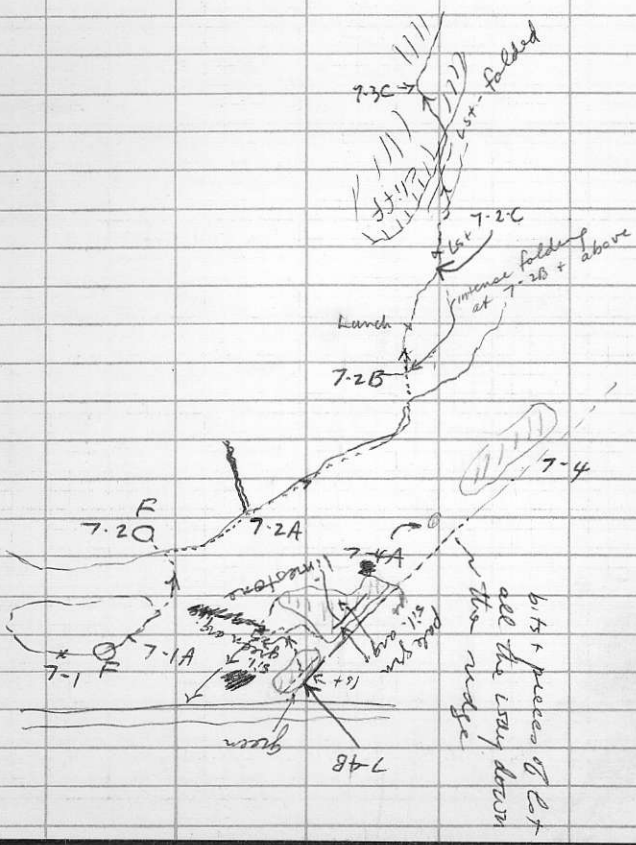

165/87/2
mainly argillite
grit
argillite
mainly argillite
5'

Traverse through Nicola rocks
N of Basque June 5/71
Cloudy, Breezy
Traverse 1 Dave Hendry

7-1 Fine bedded black pyritiferous argillite with local 2-3" grt-feldspathic grit interlayers
a fairly well preserved Halobia (?) was found by WJM. (Fossil 7-1)
Small fault 165/87/1

~~Grit layers thicken to 3' upward (30' from lowest o/c~~

Upward in the section 3' layers of pale green rock with fg plag (?) x/s in an aphanitic matrix. Local dark streaks (beds?) suggest a feldspathic tuff. - pale green wtrg. (sample 7-1A)
at this level the argillite is very siliceous, almost cherty. Thin qtz veins are common
occasional gray wtrg dk gray argillaceous limestone. Calcite veining fairly common.

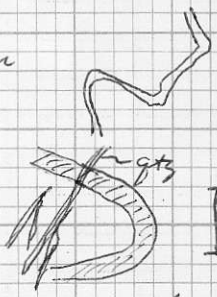

7-3C
1st - folded
7-2C
1st
intense folding at 7-2B + above
Lunch
7-2B
7-4
F
7-2
7-2A
7-4A
limestone
pale grn sil. arg.
sil. green arg.
7-1A
7-1
F
1st
green
7-4B
bits + pieces of lot all the way down the ridge

7-2 Prolific fossil locality - small pelecypods (Halobia?) large pelecypods (monotis ??) & poorly preserved ammonites in gray silty limy shale & gray wtrg dk gray lst (fossil zone is a limy bed 8' wide, then bedded with local cherty layers)

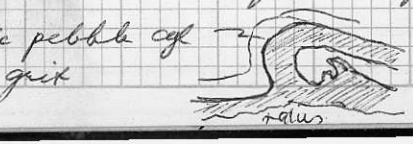
Example 7-2

7-2A Fault striking 030/88/1
several inches of gouge & vein calcite and epidote (epidote central)
Movement perhaps 2' East side up

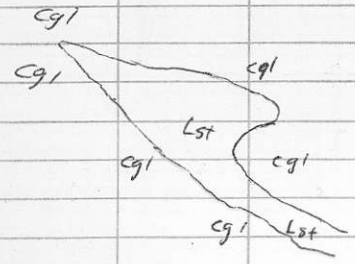
we moved along the 1st layer several hundred feet



7-2B Fold axis 330/49
Ax. Plane 135/50/1
Folded lst with inch scale cherty argillaceous interbeds
Fractures filled by quartz



angular
argillite clasts in grit



Cliff °k - base is folded thin bedded limestone
Bk in dc

Then thin bedded folded lst to cut by occasional green dykes

Thicker (1" beds) bedded cherty lst (folded)
7-20 gray + palegreen cherty argillite

Thin bedded cherty lst
siliceous thin bedded argillite

Lunch

at 7-2B the lst is tightly interfolded with quartz-vole pebble cgl + gst. Frags are mostly ≈ 1/4" across but range to 1½". Pebbles are dk fg + porphyritic lava, qtz (chert??) and pale green chert(?). Clasts 80% of rock? like the beds lower down

matrix veined by qtz + epidotized (?)

(sample 7-2B of cgl)

Volc breccia?

7-2-C Folds at 7-2C in lst

FA 010/34

Ax Pl 115/35/1



The lst is cut by pale green dykes - suggests some of the green "beds" below are sills or flows

small fold 345/18

Beds 022/38/1

177/50/1

062/12/1

"massive" next page

Thin Bedded 40' 73-c

— Bk in OTC 10' —

conglomerate

2' green silicious argillite

10' Folded thin bedded cherty lst 7-3B

grading - to ps up? bedded 7-3A

green gwke with argillite clasts ? } massive

conglomerate

green plagioclase porphyry

laminated gray silic. argillite

Pebble to cobble conglomerate (agglomerate?)

3' green lapilli tuff

folded lst thin bedded

OIB

folded lst " "

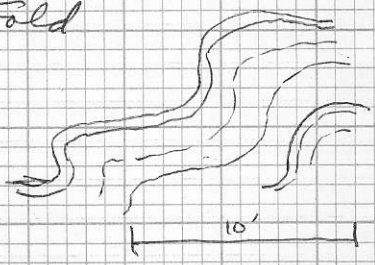
7-3 Cliff Qc

The massive rock has rounded to subangular ~~frag~~ clasts ~ 70%. Matrix obscure. Mostly volc clasts pale green or porphyritic. ~~Some~~ One rounded ovalloid clast seemed to have a chilled margin (bomb?)

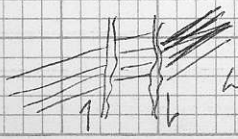
(sample 7-3) volc bx?

7-3A Bedded gray & green siliceous argillites & rel. massive 2-3' beds of green siliceous argillite

7-3B Fold

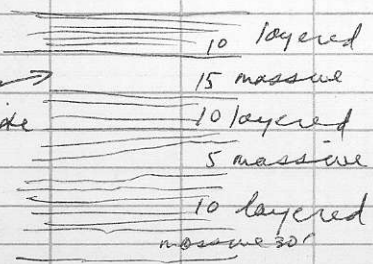


we are following a fault gully



Fault 011/76/S Qtz-ep. introduced

7.3.D


poorly preserved ammonite here
10 layered
15 massive
10 layered
5 massive
10 layered
massive 30'

7-3-c seems to be mainly siliceous green argillite with locally poddy gray lst layers several inches thick. (sample 7-3C)

Cut by some green plag porphyry sills (foot scale) - low ∠ to bedding [subparallel]

contains knee folds



7-3D Fossil

We have come down to a small pk at the top of the next ridge to the south

Brg 016 to where we went.

7-4 o/c on north side of hill & also a large slump block? down in the creek

Bedding 060/40/1

possible slump but rel uniform

silty fine bedded lst "overlain" by pale green siliceous argillite (2 samples)

7-4A

Small hummocky orc extends outward from the hillside - gray green w/trg dk gray fine banded to massive pyritiferous argillite (overlies gray lst)

7-4A (sampled) - 1 sample

(Locn per sketch on p. 4)

7-4B the pale green siliceous arg. is interlayered w. tan chert locally. Epidote-coated veins are common.

7-4B-1
7-4B-2

fairly massive green sil. arg to end of orc

7-4C

END OF DAY


7-11
trees

July 7/71
Sunny, cloudy.
cool rainovernite
Paul Garvin

Traverse #3 up slope north of Basque-
start in ck valley south of big
bedded rock face.

El 2530 - leave valley go southerly up hill
7-11 Dk gray o/c above talus slide. The
rock has white plag. laths (and local glassy qtz xls) (35%) in an
aphanitic matrix. Pyrite 2-5% scattered
through rock. Porphyritic Nicola flow.
or tuff
(Now favor xl tuff)

Rusty along joints
Joints 014 / 98 / 0 / 3 / 2
030 / 41 / 1 / 2 / 2 (Sample 7-11)
090 / 67 / 2 / 2 / 4 some have
(locally 1↑) epidote - qtz
stringers
>4' apart 1/8" wide

2700 o/c 7-11
above this the rock changes grain
size often + looks almost like
bx w. dk lines through it in
places. Pyrite abundant
(sample 7-11A)

El 2840 Pale green vfg pyritiferous rock with scattered black blebs

What appear to be dk gray tuff layers ~ ½" wide cross the rock

- layers 015/45/1
020/47/1

sample 7-11B

to El 3000' Bedding rel. consistant as before
Dk & lt colored thin bedded pyritif. tuff
at 3000'
Fragmental rocks now coming in to section -
crystal lappilli tuff, etc.

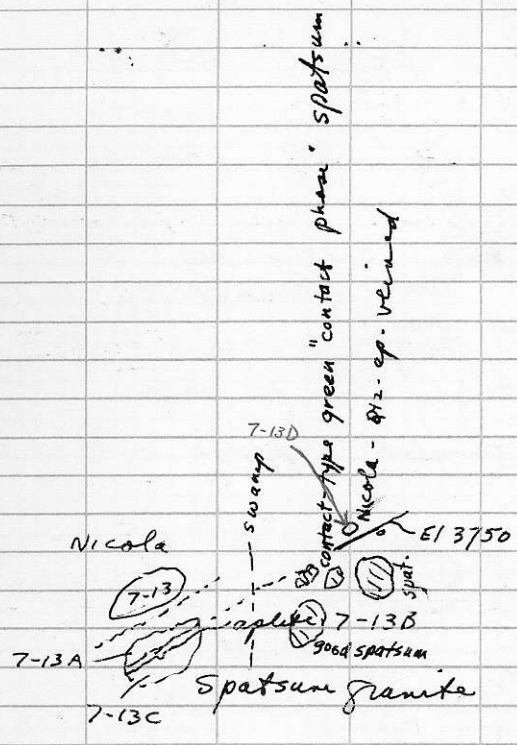
Bk in o/c 3200 to 3280'

Beds 024/43/1 Joints 024/43/1/2/2
149/67/1/2/2

7-12 3120' Joint 110/67/2/2/2

The rock is fine to thick ~~bd~~ bedded but this only shows on the wtrd face
The bken face is dark gray & consists of fine white to pale green plag. xls & xl fragments in a dk groundmass (earlier I suggested similar characteristics made the rock look like a bx

sample 7-12



Joint 010/72/2/2/2

Spatsum ??

7-12A (3230) Qtz 7% Plag porphyry aphatic pinkish matrix. Occasional fg tan wtrg UofC? xenoliths. Essentially a crowded porphyry. Mafic betwn xls ~ 7%. Matrix perhaps 20%.

Bk in o/c to 3520 then Thin

7-12B bedded tuffs with rare grit interlayers Grading says tops upright)

Bedo 018/47/1

Samples 7-12B

7-13 Joints 176/85/1/2/2 (LUNCH)

088/64/2/3/2

The stn is at a local culmination in the ridge 8610'

the rock is dark gray crystal tuff (?) with fs + rarely qtz xls which are fine-sand-size

To the south is fg → mg spatsum granite cut by aplite. Spatsum has aplitic txt but is Kspar-poor here. Gets green + mafic-looking toward N end of o/c


7-13

7-14 Spatsum/Nicola contact north of the knob ≈ 100' past the gully which is immediately north of the knob.

(7-14A) Spatsum in contact w. pale green Nicola. At 7·148 the nicola is porphyritic wrt qtz + fs + is fragmental (volc. frags)

Head down hill (3950' here)

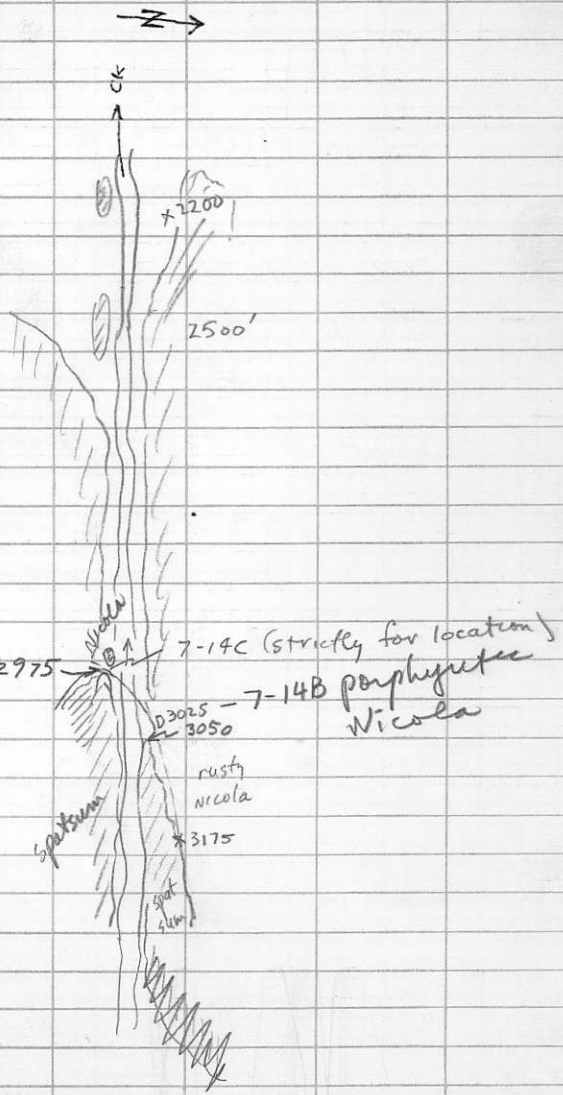
7-14A + B are 15' apart

3570 Contact on s. side of gully (50')
Spatsum is aplitic at contact normal 10' away. Nicola at contact is qtz-fs porphyry.

Continuing at 200°

Gulley 3420 qc of Spatsum granite
locally contains bl. fg angular Nicola xenos up to 2" across

7-14A (3320) Joints to 034/41/1)2/2
sample with xenos + cut by aplite stringer


N
ck
2200
2500'
Nicola
7-14C (strictly for location)
2975
7-14B porphyritic Nicola
D3025
3050
rusty Nicola
spatsum
3175
spat sum

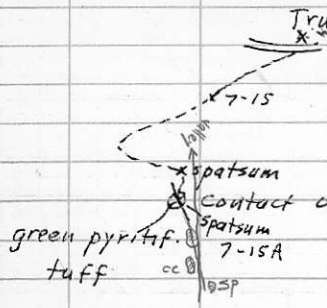
3175 Spatsum / Nicola contact
N. of gully.

7-14B on sketch

7-14C See sketch

El 2540 Beds ~~[illegible]~~
008/47/1
023/40/1

—END—



Brg 297
to tree
on Hill
across valley

Sunny June 16/71

Traverse #4 - Check Spatsum - Cache Ck contact on Power-pipeline-road above Spatsum.

7-15 on card

7-15A Contact - no gouge zone - also no obvious metam. effects. Both rock types have calcite veining adjacent to the contact and subparallel to it.

7-15A two samples

A thin aplite stringer occurs in the granite near its contact. No obvious chilling.

Contact being traced up the hill

7-15B Cache Ck group - so-called "rhomb porphyry" very dk green groundmass + 20% plag. phenos (as clusters of xls sometimes)

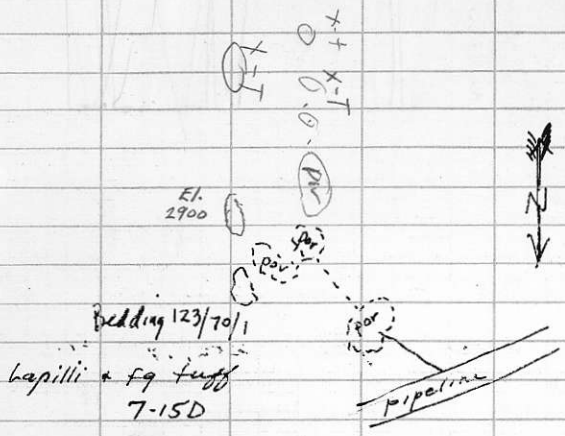
Glacial striae 280°/10°

7-15B (2)

several dirns of qtz veining

Nearby is green vfg tuff. w. aplite dykelets (7-15B-1) metam. to hornfels

150' along Brg 030 Brg 287° to true across the valley


El. 2900
por
por
por
N
Bedding 123/70/1
Lapilli + fg tuff
7-15D
pipeline

El 2730 (pace 0) Break in slope - gentler above
Have run out of outcrop.

Swing southerly & more or less follow
the contour

pace 350' green & gray Bache Clc cut by
several aplite dykes - scruffy olc

pace 475' Bedding 044/25/2 well developed.
Dk gray vfg tuff? argillite? with
local thin white feldspathic lenses.
500' and slightly uphill - the rock is
fg but somewhat recrld 7-15C hornfels
Most of the xls seem to be plag.

pace 625 Pipeline clearing trends 062½°
El 2820 stn P.O.T. 78 + 68 39

Brg 123 ~100' McIlhaney surv. top 1497
Plag Porphyry white plag phenos 25%
in dk gray finely xline matrix
Matrix much coarser than usual.
7-15D 2 samples

Foliation on Hyb contact - 115/78/1

Bedding 085/55/1 is the contact betwn crystal tuff or qtz plag ~~ppy~~ porphyry and fg tuff [7-15E]

Qtz - Ep veins 035/61/2/ 3" wide >2' apart

105/78/2/ thin coat on vein >2' apart

3030 Thin bedded tuffaceous sediments - grains silt size + finer. The rock has color layering, pinch + swell structures and thin veins + pods subpar. to bedding of hb with felsic selvedges. Beds 107/52/1 [7-15F]

Internal disruption (soft sed. defmn) makes tops unattainable.

Upward is a ~~massive~~ large % of laminated qtzo - feldsp. tuff [7-15G] with chloritized ~~[illegible]~~ biotite which gives way to hybrid phase just before the ridge crest. El 3220' Brg 298 to tree across valley (7-15G)



Bry -
Dave
John -
Dave
Doug
Paul
Bill
Al

100' from lunch spot - height of Land 3250'

Hybrid

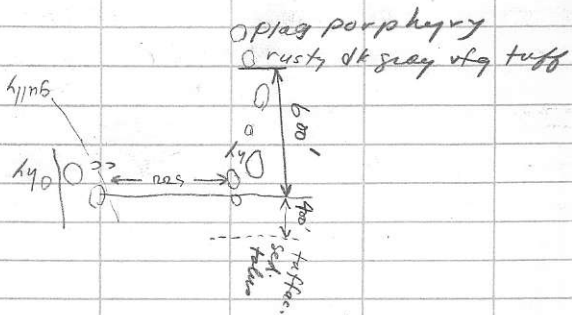
pace 750' Hybrid - west side of ridge (end of clearing area)
Fol n 178/36/2 Good
Glacial striae at 7-156 358/20

800 Going westward

7-154 Xenoliths of Cache Ck in the Hybrid - Hybrid contains 1-2% pyrite
E13180
(3 samples)
Qtz - ep calcite veining

a few ft downhill a pale qtzo-feldo. gneiss contains xenos of hybrid (several photos - (6) taken).

Sidehill again
408' on ridge crest Hybrid
7-155 overlooking gulley which crosses ridge
Bedding 010/42/2 - contact area
well bedded tuffaceous gray & green beds.


plag porphyry
rusty dk gray vfg tuff
600'
400'
tuffac.
sed.
talus
gully
ny
ny
cc
225

New pace 500' E1 2900'

Hybrid - a very mafic chloritized hybrid

7-16 650' E1 2800

quartz feldspar - chlorite mafic rock - the fs is also chloritized. altogether a sheared altered messy rock. Mafics occurs as anhedral clots + as ragged interstitial grains. Qtz - ep + calcite veins.

(2 samples)

Move up north now o/c 100 → 400'

100' out of hybrid (was wrong)

"hybrid" may be sheared, altered fs porphyry

Grain size varies rapidly over a few inches

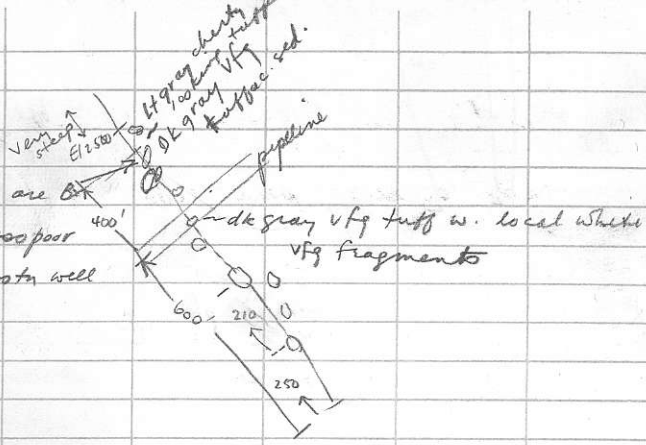
430 Hybrid

450' below line a bit E1 2750'

Dk gray nearly black vfg tuffac sediment 7-16A

Further on the rock is somewhat lighter has white plag xls in clusters

local areas are
but o/c is too poor
to see distn well



Further on gray & green tuffac seds occur pace 1000'

El 2700' New Brg 345

250' Dk massive fg tuffac sed. Rusty wtrg

600' pipeline clearing El 2620

1750' Truck. road El 2160

— END —

Sidehilling southward
pace 550 (3'/pace) pipeline ? lots of cat
work anyway E/1750

% abundant 200' vent above us

138/23/2/3/2
094/86/1/3/2
088/72/2/3/2

Traverse 5 17 June '71

Powerline road el. 1720'

Sidehill southward.

Sunny
WJM
J. Condonnier

7-17 El 1850 pace 600 (1800') ± gtz plag porphyry (Cache Ck)

Across the o/c % phenos varies from 70 to 40 and from f-mg to m→c g.

The xls are in a dk gray vfg groundmass.

two samples

El 1940 pace 80 fm 8th

The rock is dk - light gray vfg prob. tuff with small areas of plag porphyry (dykelets ??) - at least one is just over 3' wide has irreg. joint cntld contacts + trends about 160/steep.

Intermittent o/c's almost entirely porphyry to 2150.

215 Vfg slightly por (plag) basalt

235 Pale green-ish pyritic cherty tuff

Next o/c is mottled wh + grey "

Brg 260 to ja

Pace 335 EI 2080

Stn 7-18 The rock is very sheared with numerous faults with up to 6" of gouge

The rock is a "chert" pebble conglomerate. The chert is actually pale green aphanitic to finely xline lava or tuff(?)

Spill. tuff?

Pebbles are seperated by matrix & form 20% of the rock. They are uneven in outline but equant & well rounded.

No evidence of stretching.

Matrix is dk gray & seems to be finely fragmented material

Pyrite occurs as small clots & coats joints

Int. o/c to pace 60

7-18A Pace 80 to 90 o/c of mafic-rich chloritized hybrid. Large pale green plag xls are ~15% of the rock locally. Grain size & compsn change rapidly over a few inches

106 pebble cgl again

125 mottled gray tuff

Dark gray basalt? rings when hit 7-20-3

interbedded — Dark gray tuff - vfg

sugary tuff. pale green w. mafic streaks

similar but bedding better developed 7-20-2

200 vert feet

green thin bedded rattamottled pyritic tuff

rusty "rhyolite" 7-20-1

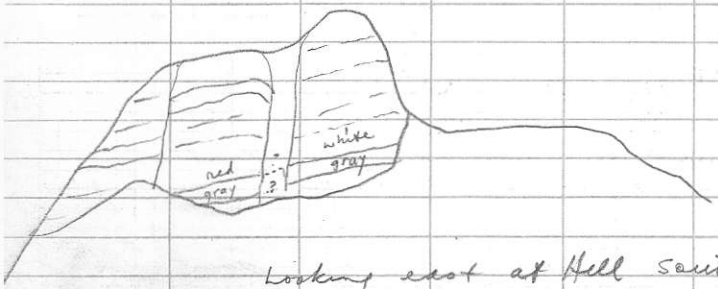
135 Back into hybrid - some of this hybrid
7-18B (2 specs) is obviously rexllzd, altered porphyry
El 2100

191 7-19 see card
New pace begun
New pace 190 possible contact zone -
contact met. rx in talus
El 2100

290 Rock Bluff 7-19A El 2150
Hybrid cutting & containing xenos
of hornblendic metased. rock
(photos)
Hornblende lineation
276/68

377 Rusty wtrg pale gray green rhyolite?
rhy. tuff? contains clots of pyrite
and abundant secondary hematite

377 headed uphill El.
7-20
Bedding 159/37/2
green, metamorphosed silic. tuffs
El 2350 Local top of Bluff
El 2400 New pace Head North again



Looking east at Hill south of Powerline

Pace = 3 feet

Projection trends v065

El 2150 pace 540
Brg to truck 324°

195 El 2420'
Bedding 048/81/1

260 Hybrid just beyond small gully
(7-20A)

404 Rexlld porphyry-type hybrid

487 Plagioclase porphyry-type hybrid
(El 2340)

(7-20B)
680 Elev 2280 Rexlld dk gray lava? tuff?
Brg 262 to jct of Power Line & Spatsum Rd

800 New pace begun



El 2250 pace 135
plag. porphyry

after this at el 2250 is virtually continuous o/c to pace 500 (pipeline El. 2180) porphyry & dark gray basalt? and some green sugary porphyritic (plag) rock (7-20C) pace 235

Powerline – leave truck el 1200'
argillic Thin bedded lst

following gully

conglomeratic rocks (agglom.?)

med green fg tuff? massive
so closely fract. avg frag. is fingernail-size
Bedding 025/54/1
Color banding with parallel milky qtz veins)
closely spaced joints
127/74/1

1575' from top of gully el 1570

Talus of Spatsum

900
500
270
135
365
435
465
3070

18/6/71

Traversing near powerline along Bluffs close to road near Spatsum

WJM
Al. Semenchuk

Talus hopping 900' south of turning point (see opposite page)

7-21 El 1860'

Spatsum granite (2 samples)

Locally it is typical with

qtz 15% small anhedral, mg squarish
plag 71% locally kspar is not
kspar 7% (pink) visible - I suspect
mafic 7% it is pale green.
chloritized
Hornblende only

"Veins" ~~and actually~~ joint coatings
epidote, calcite, chlorite

Qtz + kspar form small omeboid



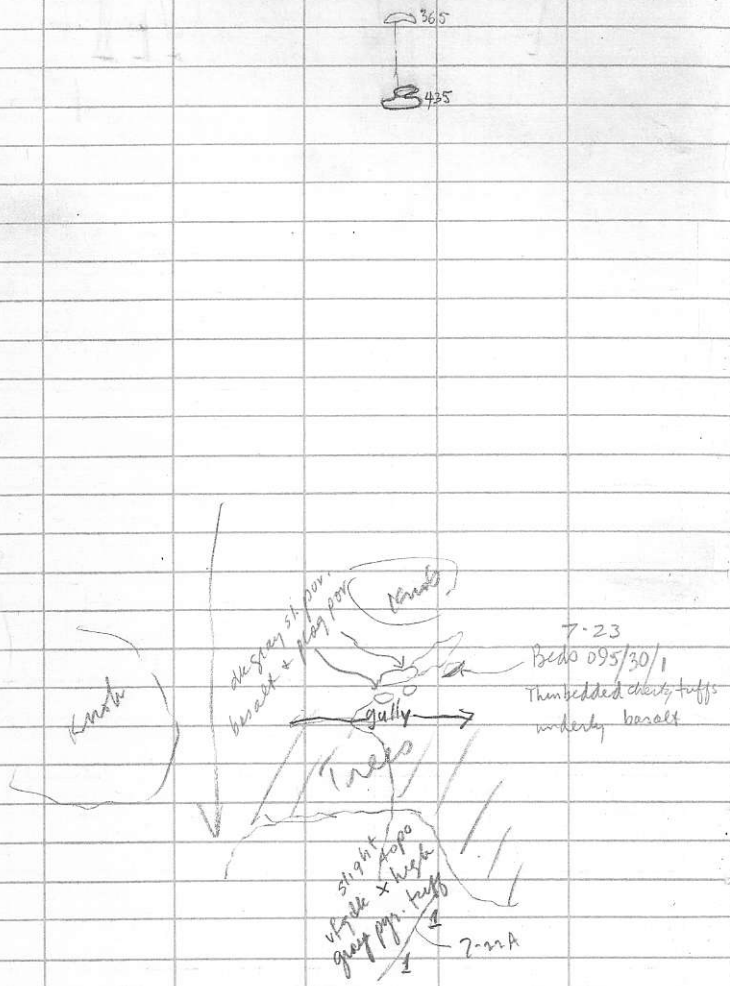
areas with kspar enclosing qtz

rock more kspar/qtz - rich here

500 ~~[illegible]~~' small gully The matrix has numerous small rounded qtz grains - aplitic almost - still Spatsum

270' more see sketch

135' " spatsum has a few small xenos



The contact is exposed. No evidence of faulting + the sample has been rexlld as a result of contact metamorph. The CK was is green fg tuffac. sed (now mainly green fs)

365' more o/c in shallow gully
Spatzum w narrow altered closely
jointed areas and qtz-kspar-ep
clots

435' more small gully with o/c

465' " more EI 1840 Power Line 7-21A

claimposts Red 41, 42, 43, 44, 45, 46
Final Final (Initial Final)
47, 48
(Final Initial)
Lorner Aug '68
755065-72
Gerald Thaburg

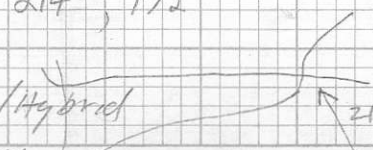
7-22
Headed up powerline - 50' south of it
EI 900 Cache Creek volcanic

possibly volc bx o/c. The rock
is dk gray aphanitic with perhaps 5%
scattered plag phenocrysts

1 sample

New area -

7-22A Brgp 214, 172
(sample) 2040
EI 1940
Cache Ck uphill / Hybrid
downhill
contact o/c



Basalt + Porphyry

2060 15' rusty bedded tuff

Basalt + por

Bk in o/c

1880

green lapilli tuff

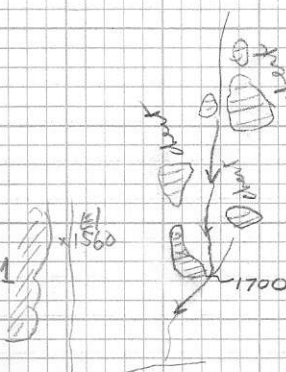
1800 gray "chert"

1700 Dk gray basalt

7-23 Massive sl. por (plag) dk gray basalt underlain by thin bedded gray and white mottled cherty tuff (sampled) Rusty
El 2060 2160 Bedding 095/30/1
Brg 194° to truck
Local gtz - ep veining in the basalt + polyhedy

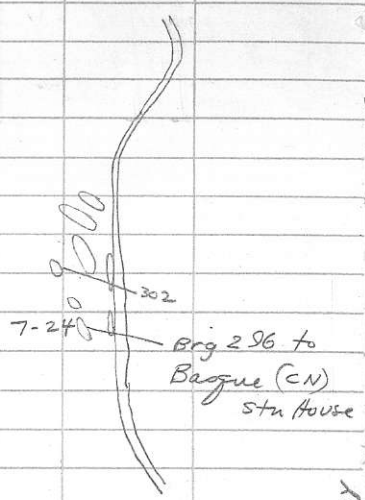
Going more or less downhill
El 1880 1980 Lapillic tuff
white aphanitic volc frags.

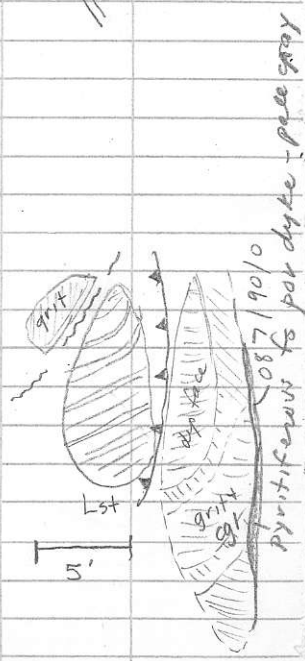
1800 Gray massive cherty - looking rocks



Ended up on road when we left the truck on Traverse 5 ?
El 1500 pace to truck 1475'

AH meter read 100' loco at camp


302
7-24
Brg 296 to
Basque (CN)
Stn House


grit
Lst
5'
grit
cgl
087/90/0
pyritiferous to por dyke - pale gray

Finishing off the geology of the road from Bancroft (CN) southward

Cloudy
June 29/71
WJM, DMVC

7-24 Interlayered volcanic pebble cgl and quartz Volcanic grit (7-24-1). Frags in cgl up to 40% of rock, well rounded pale green to tan & gray (often sl. por. wrt plag) Frags up to 3/4" long dimension

Bedding 120/ steep; somewhat irreg grit/cgl contact

Brg 302 to Stn

Beds 084/43/1 interlayered impure gritty volc SSt and black siltstone (7-24-2)

Beds 087/31/1
144/62/1 thin bedded lst and arg. lst

Dyke (7-24-3) Brg 309 to Stn

Truck in bypass where road comes in to Thompson R. bank again

Brg 240 to truck El 1500'

Green volcanic breccia - Frags are all aphanitic dk gray and grey-green volc. rx - some are sl. porphyritic

Frags 60% pebble size
20% grit size
20% matrix

(7-24A) two specimens

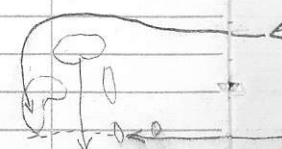
Pyrite cubes are disseminated thru the rock & clots of epidote ± cpy occur also

Int. % of bx - some w. frags up to 4" across then gray LST with silic. layers & pods

Beds 039/39/1

Brg 262 to truck - ammonite & belemnite remains (7-24A-1)

Underlying the lst is pale green rough textured limy siliceous rock (7-24A-2)



Brg 273 to car Gully El 1500'
green volc bx again

Then green volc sst and grit (7-24A-3)

The next % is volc bx 40' away, 50' more is more bx

Moved uphill ~~because~~ following lowest o/c's

El 1570 Brg 309 to truck
233 to curve in rd

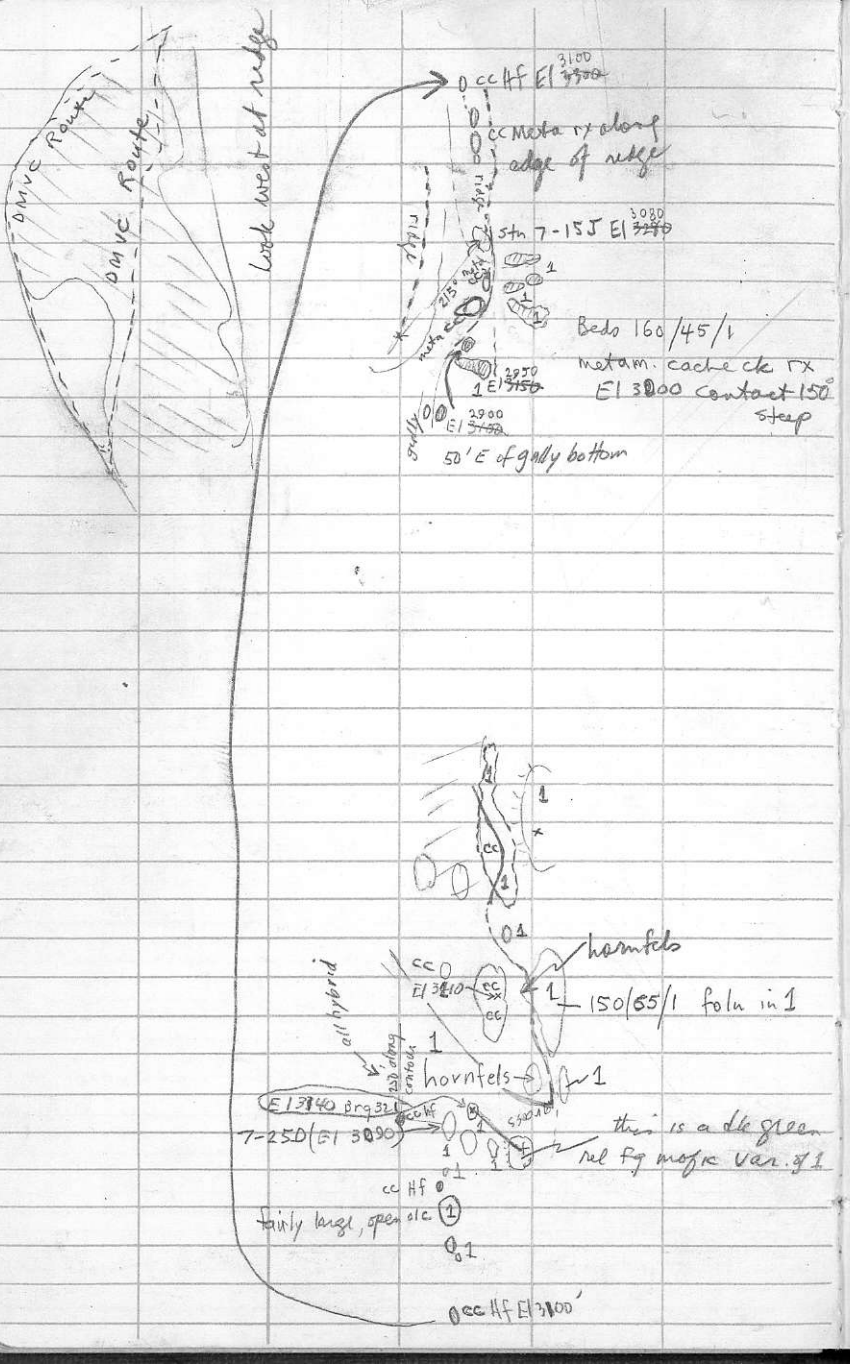
(Photo 7122-038)

The rock is pale green volc bx frags
matrix almost aphanitic
grit-to ~~cob~~ pebble-size. Frags volcanic
50% of rock. Quartz (euhedral mg xls) can be
seen in the rock - whether as part
of matrix or as frags in uncertain.
(7-24A-4)

Bedding? joint? 063/25/1
Green + dk gray green bx are interlayered

Brg 267 to corner - met up with DMVC
El 1520
Black volc bx ~~[illegible]~~ (7-24A-5)
The frags are dk also but are seen to
be abundant on a clean wtrd face

7-25 see cards



DMVC Route
DMVC Route
Look west at ridge
cc Hf El 3100 ~~3300~~
cc Meta rx along edge of ridge
ridge
ridge
stn 7-15J El 3080 ~~3280~~
meta cc
215°
meta cc
1
1
1
Beds 160/45/1
metam. cache ck rx
El 3000 contact 150° steep
1 El 2950 ~~3150~~
gully
El 2900 ~~3100~~
50' E of gully bottom
1
1
cc
1
1
hornfels
cc
El 3110
cc
cc
1
150/65/1 foln in 1
all hybrid
250 along contact
1
hornfels
1
El 3140 Brg 321
cc Hf
7-25D (El 3090)
1
1
1
1
this is a dk green rel fg mafic var. of 1
cc Hf
fairly large, open olc.
1
1
cc Hf El 3100'

June 21/71
Cloudy, sunny

Traverse from pipeline to knob overlooking Coldstream Ck
WJM
DMVC

pace 400' Hybrid - well foliated
El 3840
foln 178/70/1

pace 500' Hybrid - looks almost like Spatsum but kspar seen is assoc with ~~kspar~~ epidote as rims on ep. veins at least in part (7-~~27B~~ 25A)

Glacial Striae 332/25
Foln 145/75/~~2~~ 1

pace 570' El 3040 o/c of bi fs augen
~~7-25B~~ 7-26B gneissic subschistose rock
DMVC o/c of a few days ago

Below where we ate lunch last visit

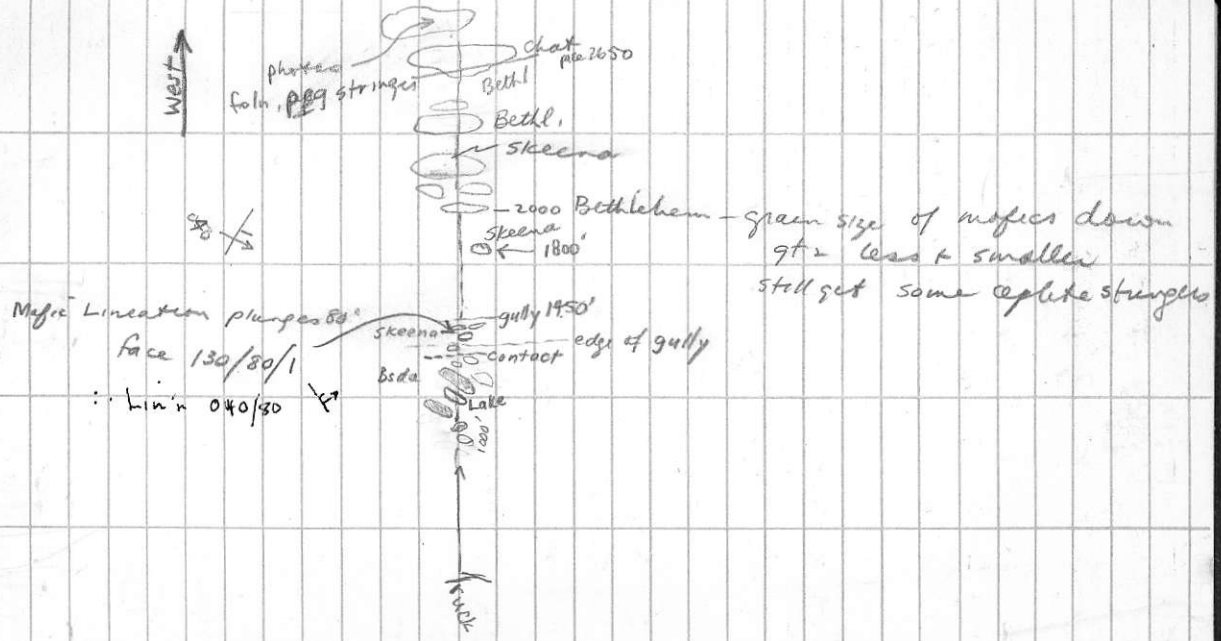
Bedded tuff
Hornfels derived fm

bi qtz fs gneiss
Hybrid Contact El ~~3390~~ 3190

7-26 Cards - put in by DMVC

El 2680 Tuff + Basalt appx 080 to truck

along 100 yds then 525' @ 070 to rd No o/c


West
photos
foln. peg stringers
Chat
pole 2650
Bethl
Bethl.
Skeena
2000 Bethlehem - grain size of mafics down
gt 2 less + smaller
still get some aplite stringers
Skeena
1800'
Mafic Lineation plunges 80°
face 130/80/1
∴ Lin'n 040/80
gully 1950'
Skeena
edge of gully
contact
Bsda
Lake
1000'
Truck

Traverse 9

June 23/71

Traverse west from road about 3/4 mile south of Calling Lake

WJM
DMVC
Sunny, cool, buggy, breezy

350' Due west

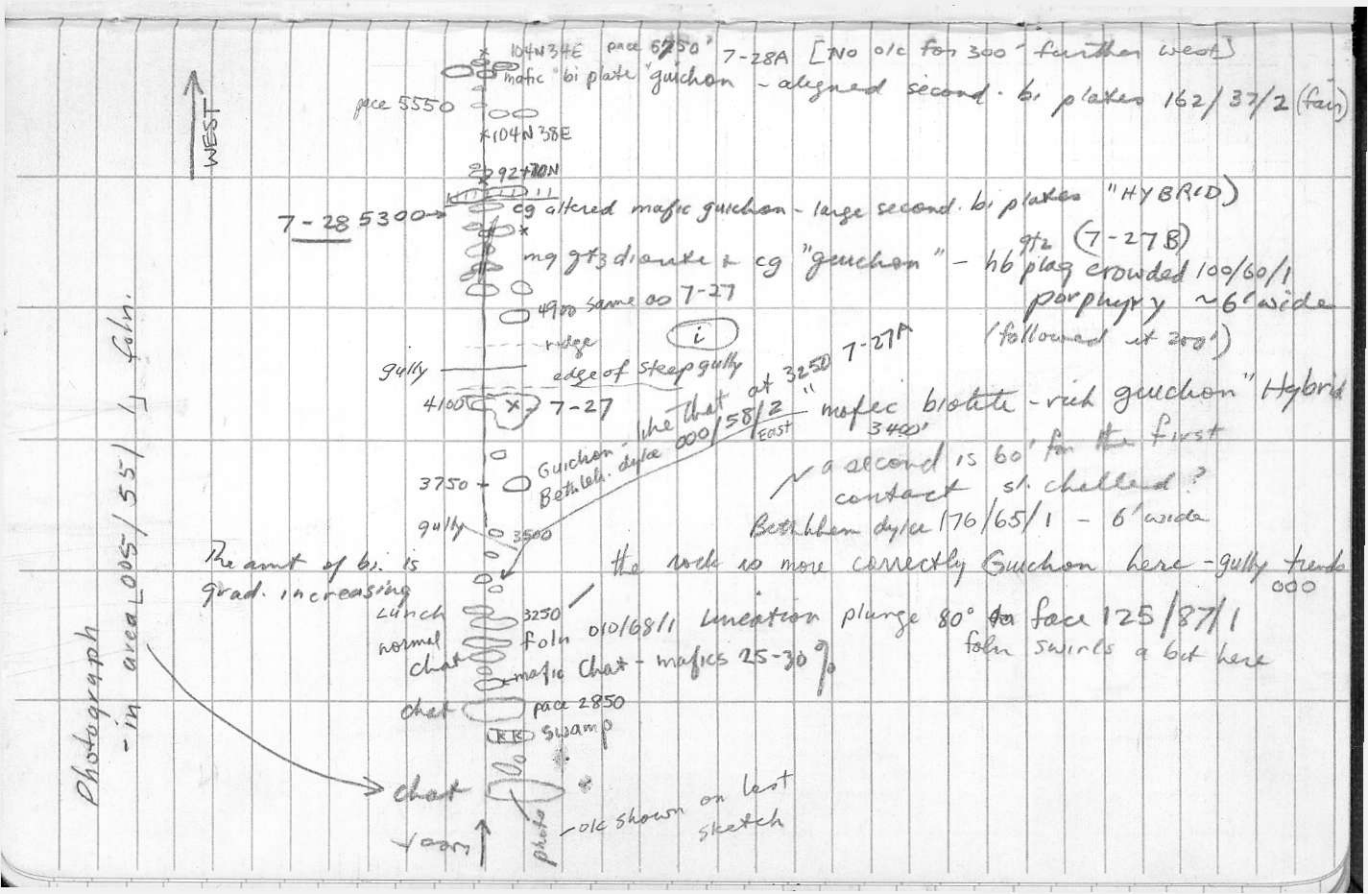
o/c west of marsh
Bsda

1000' Bsda gm w. some hb but b>hb and aplite stringers
1% hb xls are blocky x up to 1/4" across

1300' the contact is placed just before the edge of the gully. Poik. block
Hb more abund. square qtz gone

pace 2600' Jon 2/ Jon 1 claim 960525
initial initial MP Stadnyk 960526
final posts to the East

pace 2650 Bethl/Chataway contact
- trends 170° Foln {038/74/2
050/63/2
aplite stringers still common

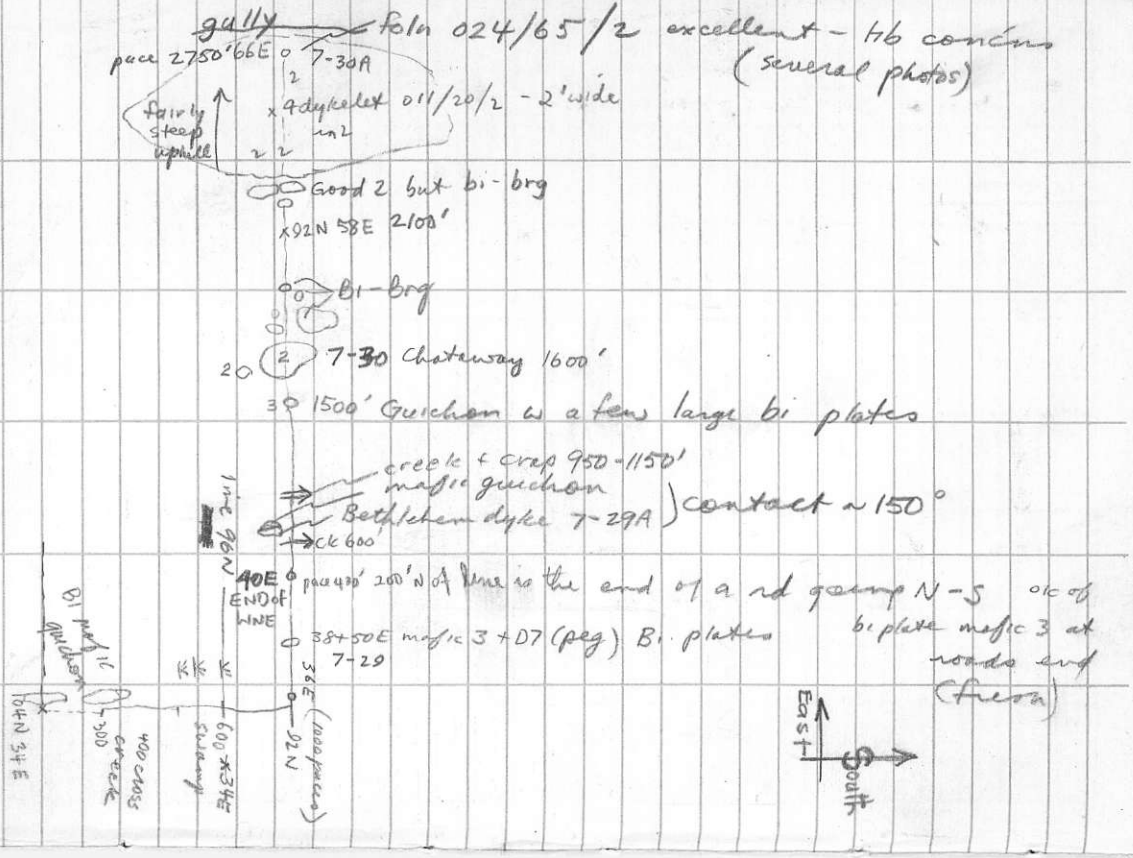


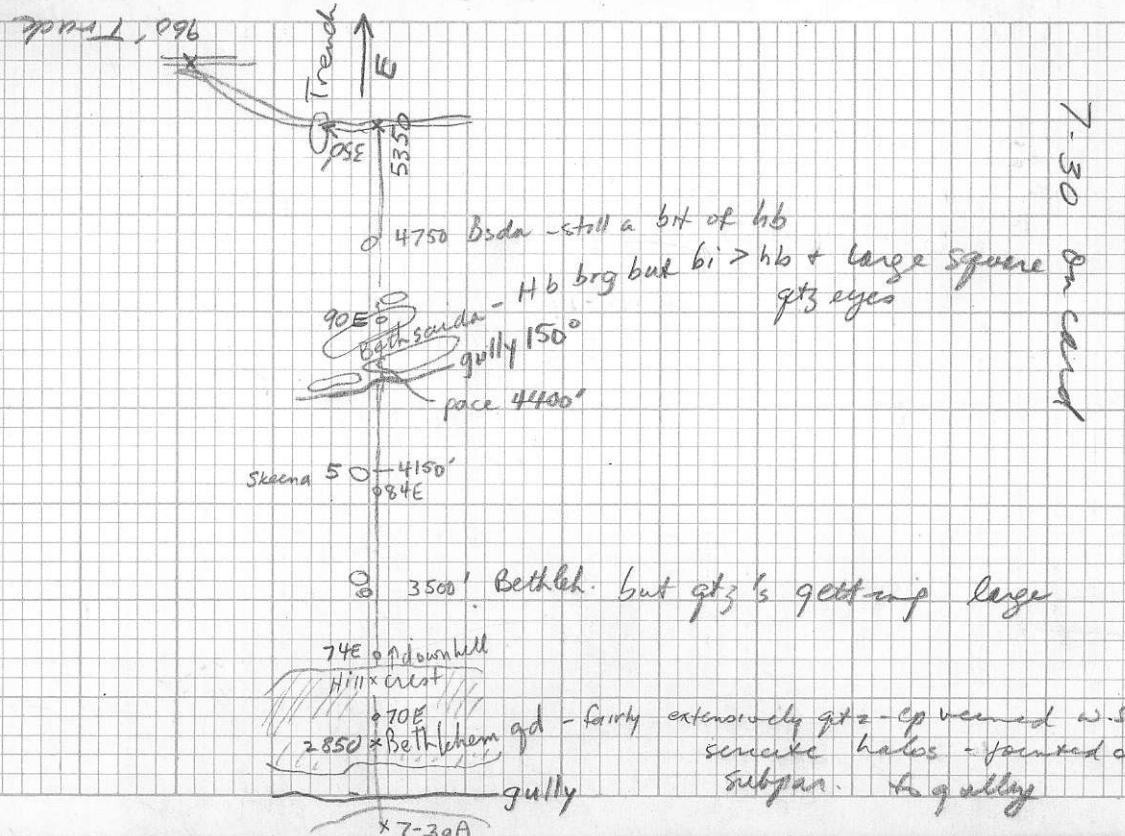
104N34E pace 6750' 7-28A [No o/c for 300' further west]
mafic "bi plate" guichon - aligned second. bi plates 162/37/2 (fair)
WEST
pace 5550
104N38E
92+70N
7-28 5300
cg altered mafic guichon - large second. bi plates "HYBRID)
mg gt3 diorite & cg "guichon" - hb gt2 plag crowded 100/60/1 (7-27B)
porphyry ~6' wide
(followed at 200')
4900 same as 7-27
ridge
i
gully
edge of steep gully
4100
7-27
7-27A
Guichon - like that at 3250
Bethleh. dyke 000/58/2 East
"mafic biotite - rich guichon" Hybrid 3400'
a second is 60' for the first contact sl. chilled?
Bethlehem dyke 176/65/1 - 6' wide
3750
gully
3500
The amt of bi. is grad. increasing
the rock is more correctly Guichon here - gully trends 000
Lunch
3250
normal chat
foln 010/68/1 Lineation plunge 80° to face 125/87/1
foln swirls a bit here
mafic Chat - mafics 25-30%
chat
pace 2850
swamp
chat
photo
o/c shown on last sketch
Photograph - in area 005/55/1 foln.

7-27 see card

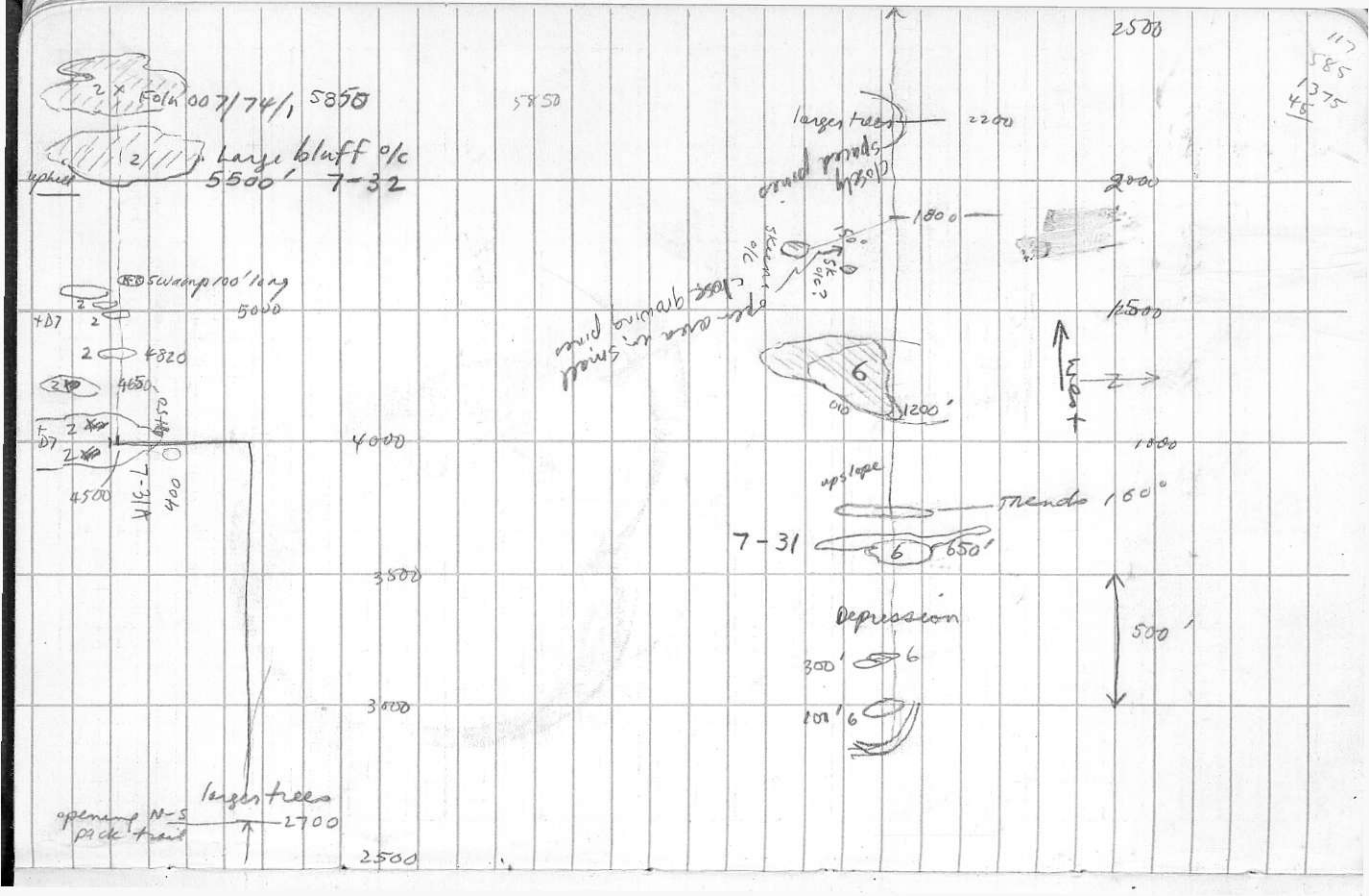
7-28- see card

2850


gully
foln 024/65/2 excellent - Hb concns
(several photos)
pace 2750' 66E
7-30A
fairly steep uphill
4 dykelet 011/20/2 - 2' wide
in 2
Good 2 but bi-brg
92N 58E 2100'
Bi-Brg
7-30 Chateway 1600'
1500' Guichon w a few large bi plates
creek + crap 950-1150'
mafic guichon
Bethlehem dyke 7-29A
contact ~150°
ck 600'
line 96N
40E
END of LINE
pace 430' 200' N of line is the end of a rd going N-S
ok of bi plate mafic 3 at roads end (fresh)
38+50E mafic 3 + D7 (peg) Bi plates
7-29
Bi mafic guichon
104N 34E
300
400 cross creek
600 x 34E swamp
92N
36E (1000 paces)
East
South



960' Trade
Trench
E
350
5350
4750 Bsda - still a bit of hb
90E
Bethsauda - Hb brg but bi > hb + large square qtz eyes
gully 150°
pace 4400'
Skeena 5
4150'
84E
3500' Bethleh. but qtz's getting large
74E
downhill
Hill
crest
70E
2850
Bethlehem
gd - fairly extensively qtz-cp veined w. some sericite halos - jointed closely subpar. to gully
gully
7-30A
7-30 on card



117
585
1375
45
2500
2 x Foln 007/74/1 5850
5850
Large bluff o/c
5500' 7-32
uphill
larger trees
2200
closely spaced pines
2000
1800
skeen o/c
sk o/c?
open area w/ small close growing pines
swamp 100' long
5000
+D7
2
4820
4650
+D7
4500
7-31
400
4000
1500
6
010
1200'
West
1000
upslope
Trends 160°
7-31
6
650'
3500
Depression
500'
300'
6
100'
6
3000
larger trees
opening N-S pack trail
2700
2500

Traverse 10 June 26

Sunny
Cumulus clouds

South ½ mile of Calling Lk Traverse
west from Pimainus lake road

WJM
A. Semenchuk

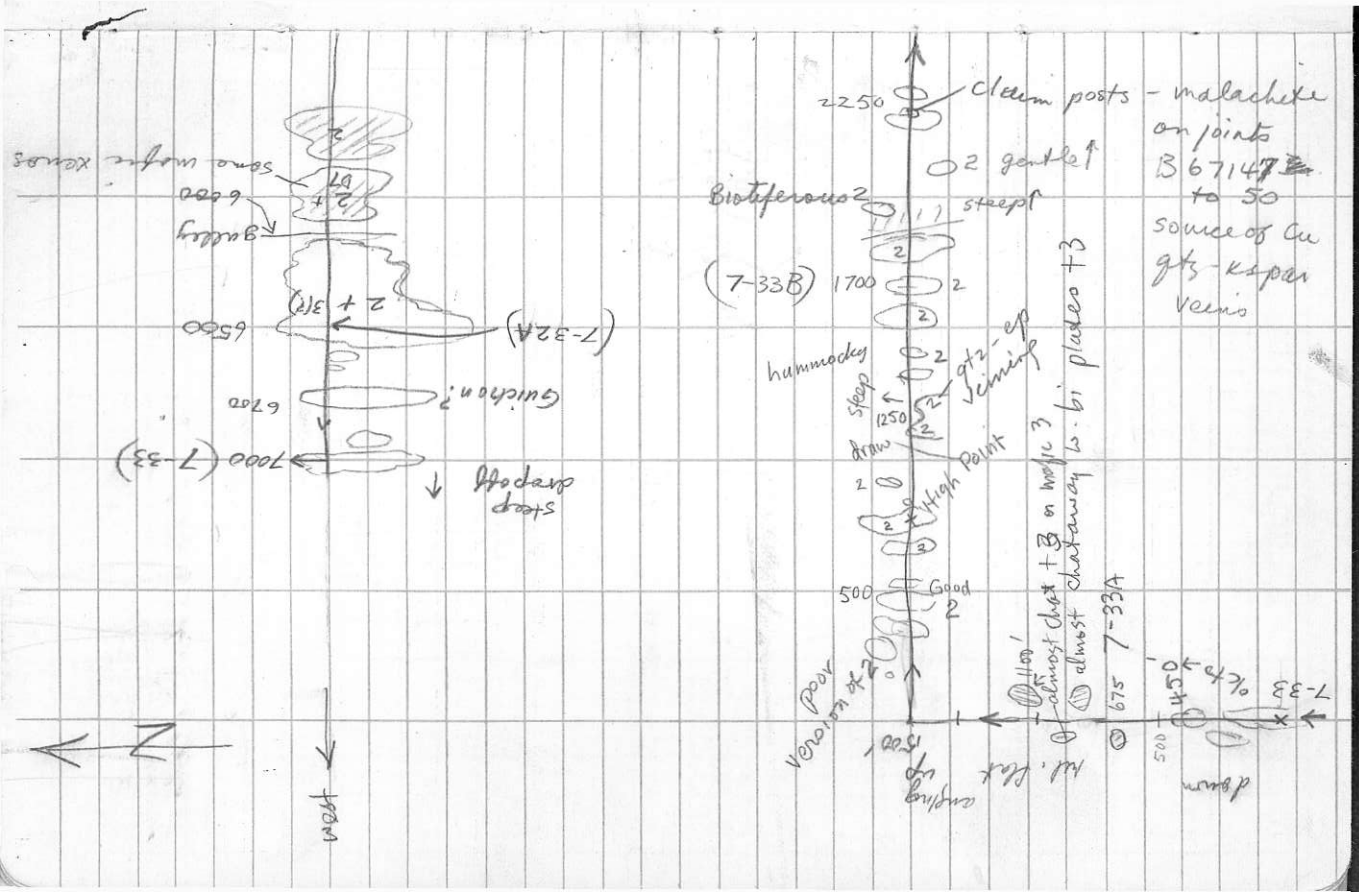
7-31 on cards [sample]

7-31A rather scruffy Chataway
local large poik pink Kspar x 1:
locally large bi plates
Blocky mafics but both bi + hb
Lots of aplite dykelets 090/90/0
(older)
younger set 110/90/0

Senate altn of plag along
+ out fm fractures

[2 samples]

7-32 Foln 018/67/1
Notes [sample]



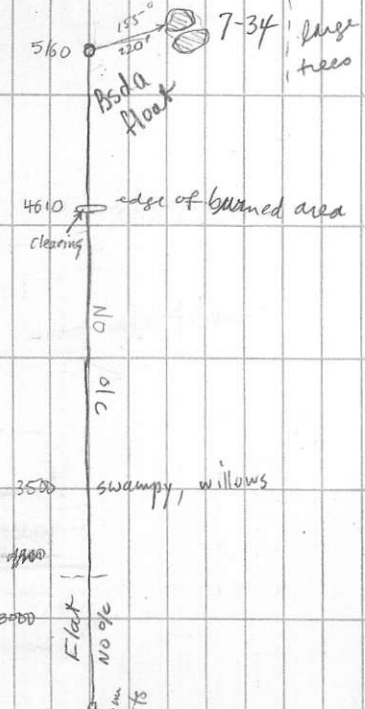
Claim posts - malachite on joints
B 67147 to 50
source of Cu
qtz-kspar veins
2250
2 gentle
Biotiferous 2
steep
(7-33B) 1700
hummocky
steep
1250
draw
High Point
qtz-ep veining
500
Good
poor
Version of 2
1500'
angling up
hil. flat
almost chat + 3 or mafic 3
almost chataway w. bi plates + 3
675
7-33A
450
500
down
7-33
Guichon?
6700
7000 (7-33)
steep drop off
6500
(7-32A)
2 + 3(?)
gulley
6000
some mafic xenos
2 + 3
N
west

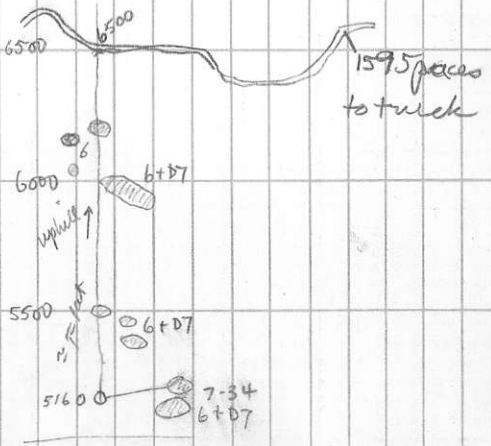
7-32A Some of the rock is 2 (chat away)
pone has large bi plates
to eg and looks like
3 (guichon) [1 sample]

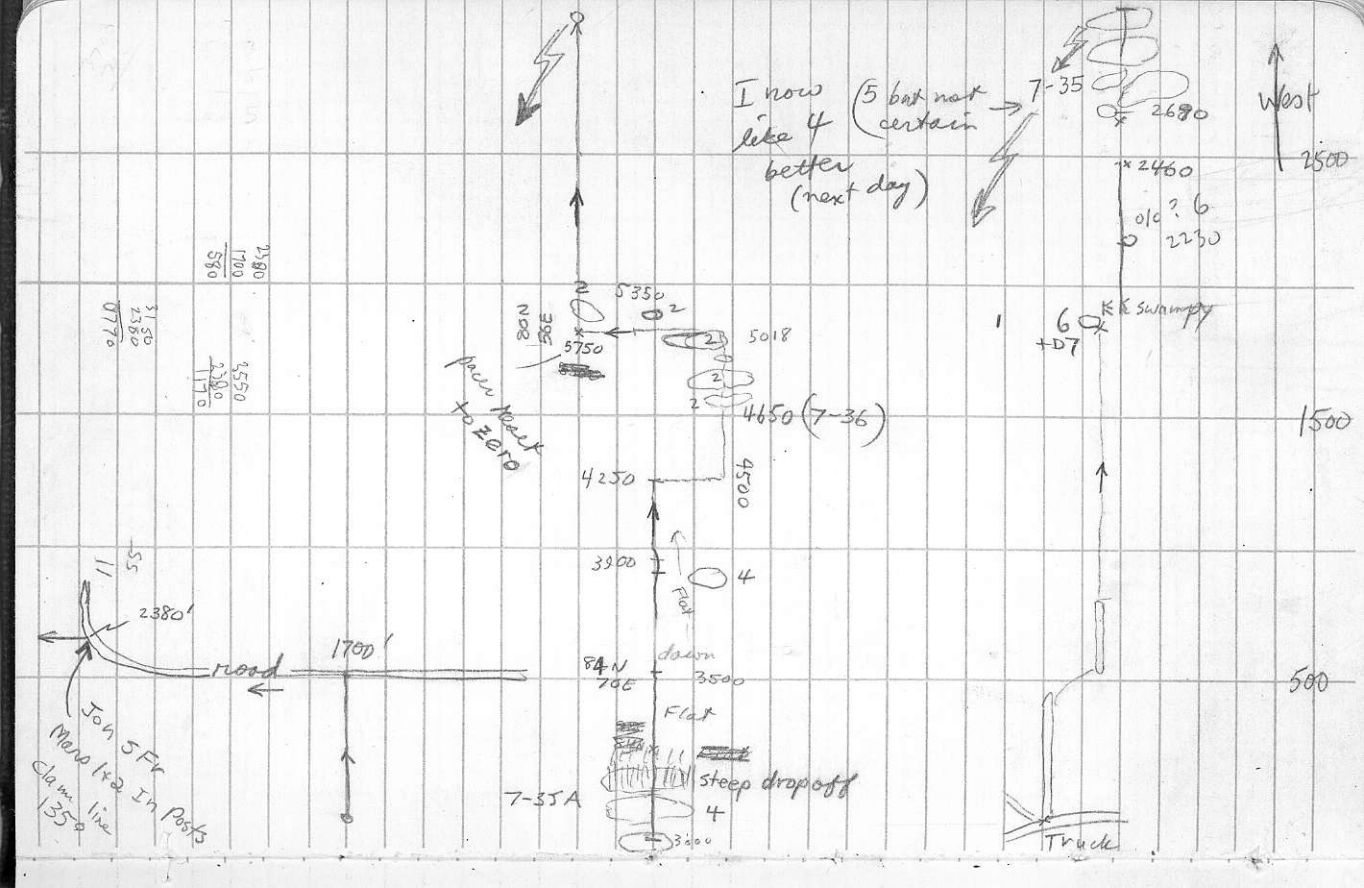
7-33 cards [sampled]

7-33A Fs greenish
large bi plates
Mafic ~25%
"Mafic Guichon"

7-33B Joints consistent over several hundred feet 100°/84/1/2/2


5160
135°
220'
7-34
large trees
Bsda float
4610
edge of burned area
clearing
ON
210
3500
swampy, willows
4000
3000
Flat
NO %
clam posts


6500
6500
1595 paces to truck
6
6000
6+07
uphill
5500
Flat
6+07
5160
7-34
6+07


I now like 4 better (next day)
(5 bar not certain
7-35
2680
West
2500
2460
old? 6
2230
K K swampy
+D7
1
6
5350
2
5750
5018
4650 (7-36)
1500
4250
4500
3900
4
Flat
down
3500
Flat
steep dropoff
7-35A
4
3600
500
Truck
Jon 5 Fr
Many Ice In Posts
Clam line
1350
road
1700'
2380'
11
55
2
2
2

Traverse 11

June 27/71

1½ miles south Calling lake Traversing westward.

WJM
J Cordonier
Showery

800 Trench + water lake in it.

2460 Line stn 84N80E

7-35 Just pat 84N78E

3150 By 3150 the rock is pretty definitely Bethlehem. Perhaps 7-35 is also Bethlehem.
7-35A

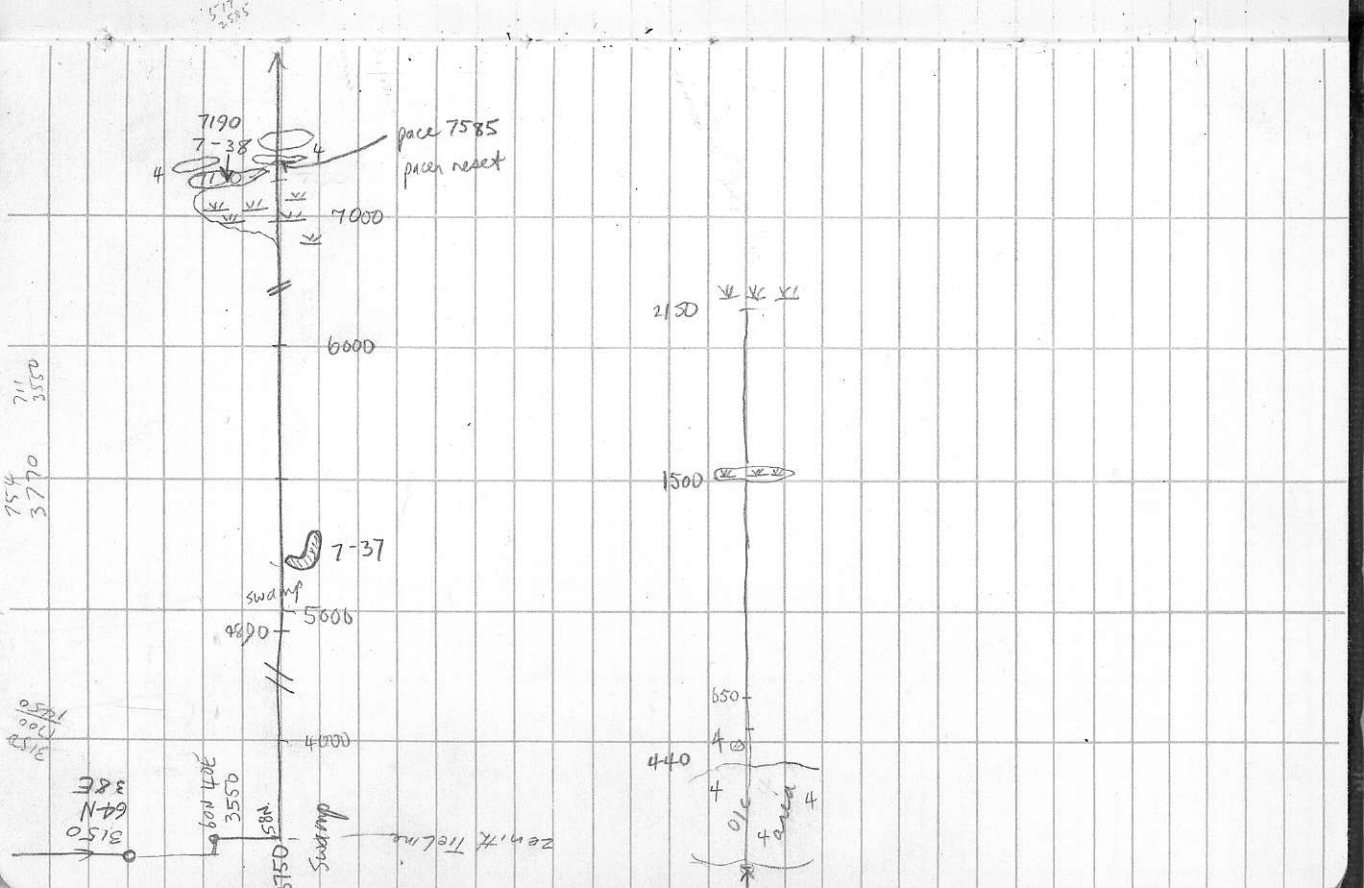
Qtz - epidote veins
N-S and E-W
155/81/1 qtz-ep vein 1/16" 2'
062/67/2 " " " 1/16" apart "

112/40/2 } aplite 1"
175/19/1 } photographed

84N 70E 3560'

4250 Due North for 500'

5750 Pacer reset to zero (no slipsteck!)


7190
7-38
4
4
pace 7585
pacer reset
7000
6000
7-37
swamp
5000
4000
3750
2150
1500
650
440
4
4
4

7-36
7-37
7-38
7-39
} cards

7-40	shear zone	100°	63°	dir 2	
	alteration	large qtz. fine mafics		sericite	
	quartz vien	60°	79°	2	

Trench along the Alwin by pass road

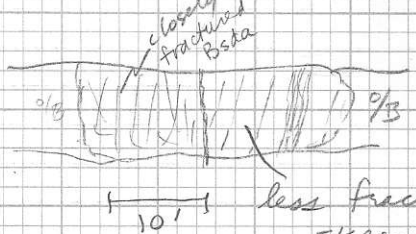
N Hb (large, pink xls) locally

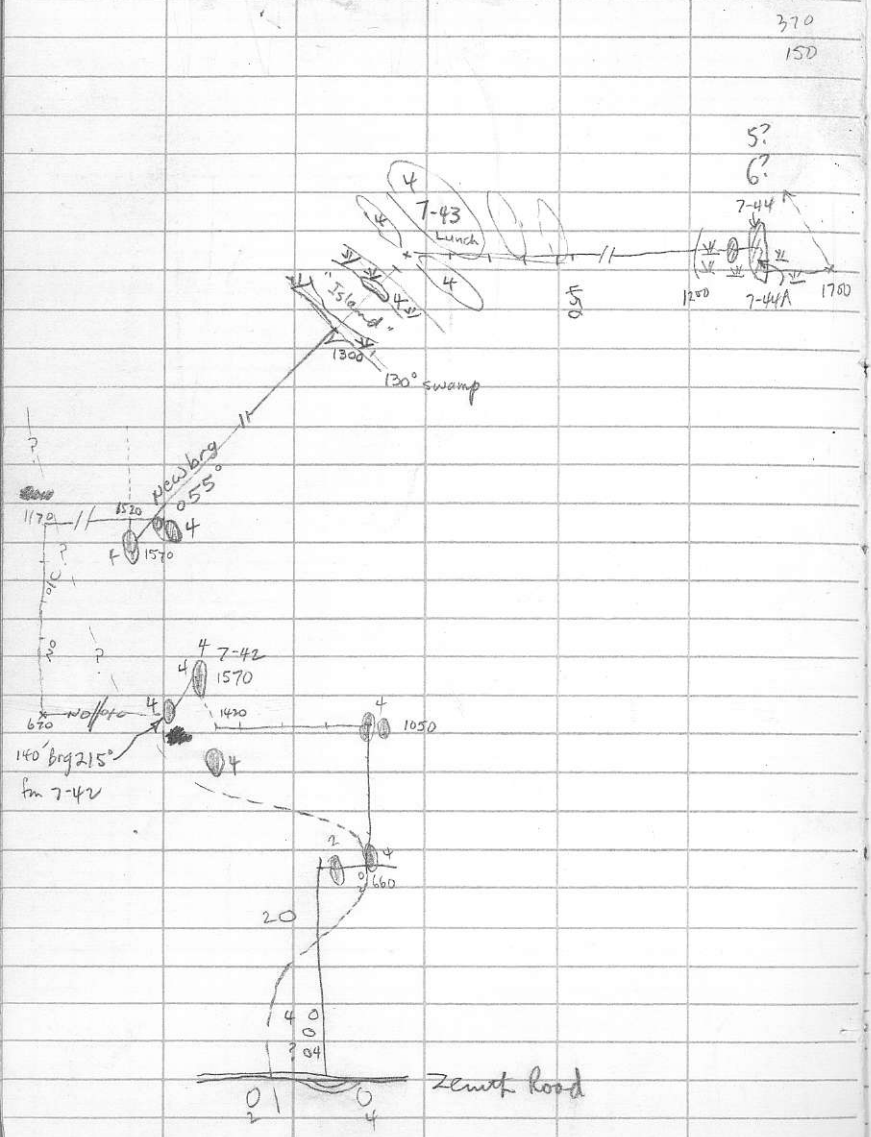
Bsda @ east end of Trench

Skeena at west end.

			dir	dem	char
joints	11°	74°	2	2	2

fault 156/81/1 Bsda against Skeena




370
150
5?
6?
7-44
7-43
Lunch
4
"Island"
1300
130° swamp
1250
7-44A
1700
Newbrg
055°
1170
1520
1570
7-42
1570
1420
1050
670
140' brg 215°
fm 7-42
660
20
Zenith Road

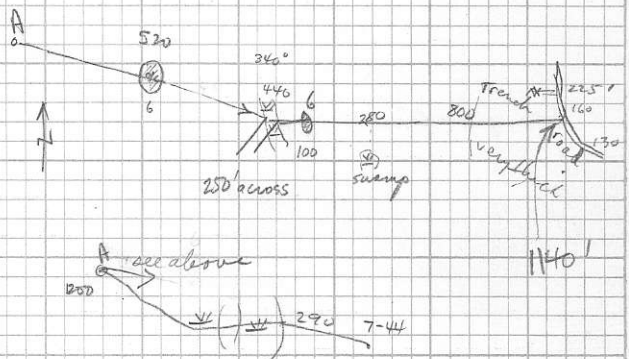
WJM
D. Hendry
June 29/71
Cloudy
Buggy

Traverse North from Zenith road

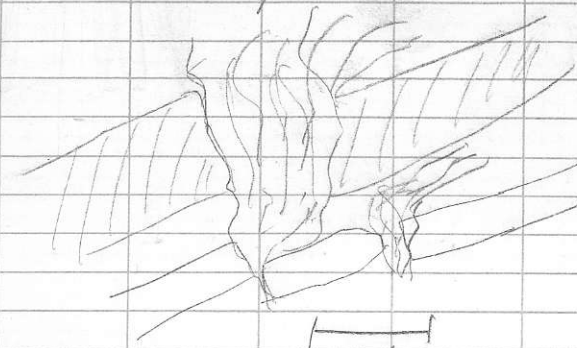
7-41 on cards

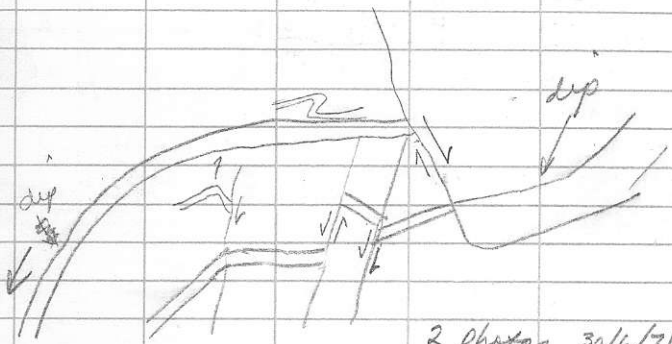
7-42 on cards

7-43 on cards



Railway Tracks

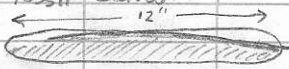




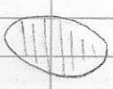
2 photos 30/6/71
B/w

Stn 10-66
area

Stn 10-66 area | B/w photo 30/6/71 Rain drop impressions
" " " Mud cracks
" " " Cylindrical
" " " mushy zone aquifer?
end on view
" " " fossil leaves



ridge photo

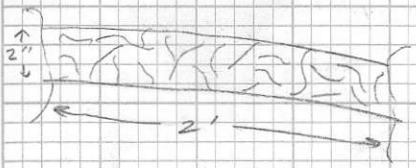




other

12 Blade Canyon traverse

looking N up mbt river from 10-66
1 / B/w / 30/6/71



1 B/w photo of large leaves

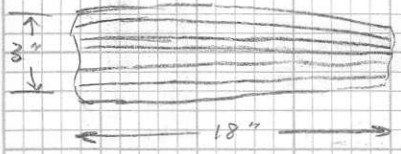
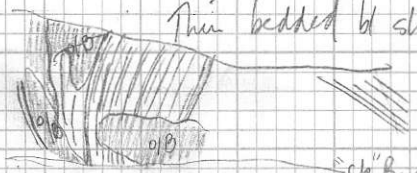


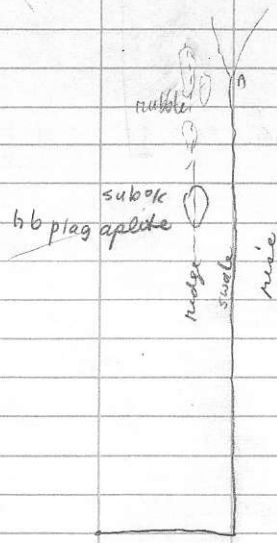
Photo 1 B/w Nicola xeno in plag. aplite east of Willard Lake 8-96(?)

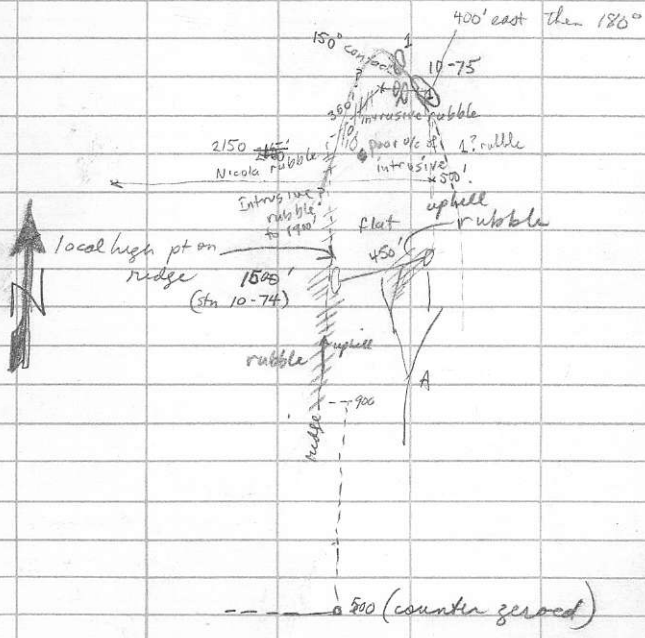
10-72B
Beds
33/85/1

Look S. across gully



CHEVRON FOLDS?


A
rubble
sub o/c
hb plag aplite
ridge
swale
rise


400' east then 180°
150° contact
1
10-75
360'
intrusive rubble
2150
Nicola rubble
poor o/c of intrusive
1? rubble
500'
Intrusive rubble to 1900'
flat
uphill
rubble
local high pt on ridge
450'
1500'
(stn 10-74)
uphill
rubble
A
900
ridge
500 (counter zeroed)

13 east of Willard Lk

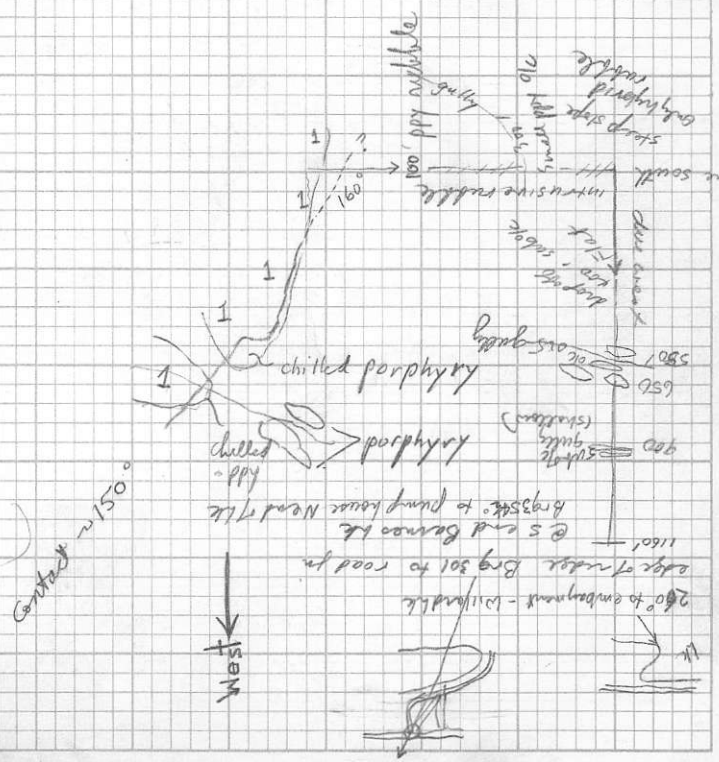
① Hiked to Stn 8-96

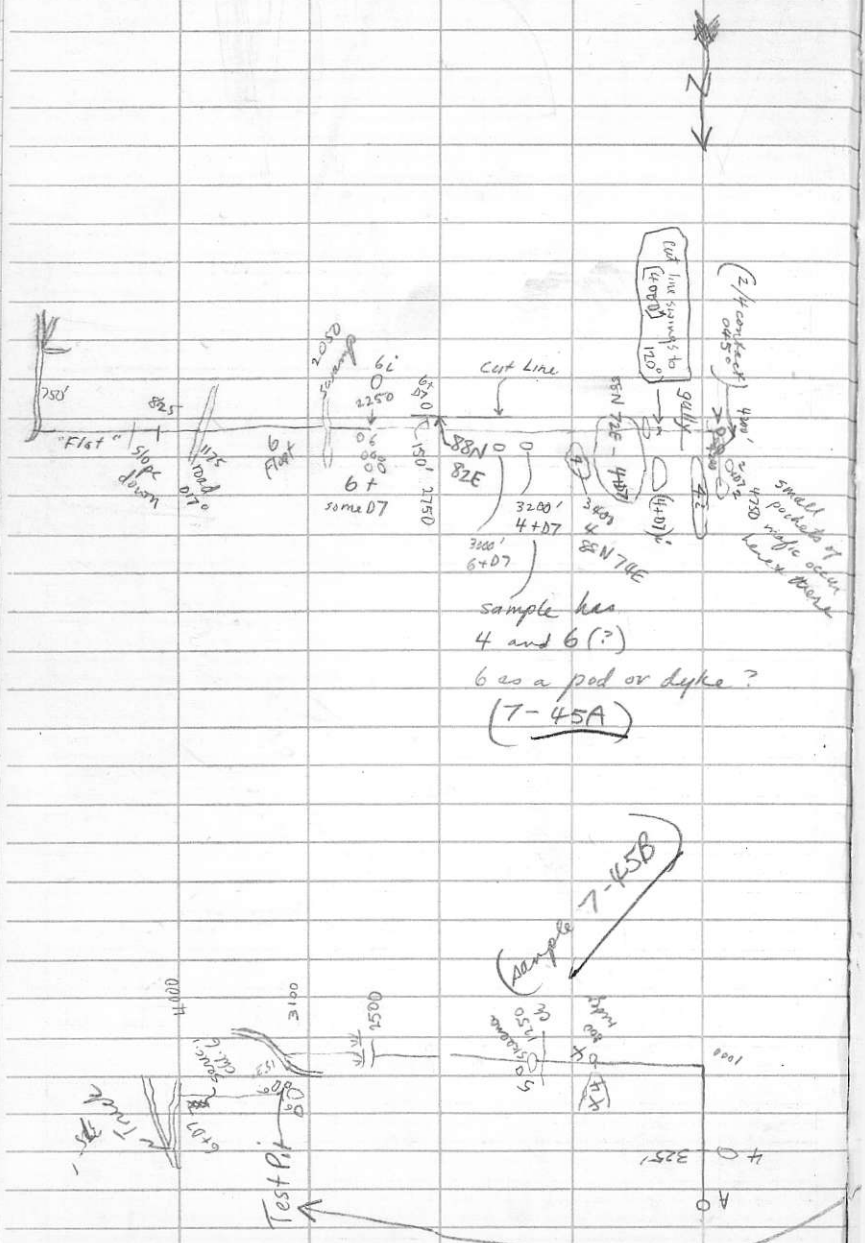
② Went 500' due east fm Fence rel flat at 500 steep several hundred feet east

③ Now 000

etc

* Intrusive chilled against hybrid

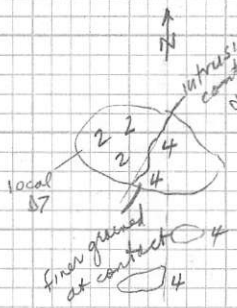



N
750'
825
"Flat"
slope down
1175
road
D17°
6 Float
2050
swamp
6i
2250
6 +
some D7
6+
D7
150'
2750
Cut Line
88N
82E
3200'
4+D7
3000'
6+D7
3400
4
88N 74E
88N 72E - 4+D7
(4+D7)
cut line swings to (4000') 120°
gully
(2/4 contact) 045°
4200'
4750
small pockets of mafic occur here & there
sample has
4 and 6 (?)
6 as a pod or dyke ?
(7-45A)
(sample 7-45B)
4000
3100
2500
1250
800
1000
325'
A
Test Pit
Trace
6+D7

July 8/71
Cloudy, rain

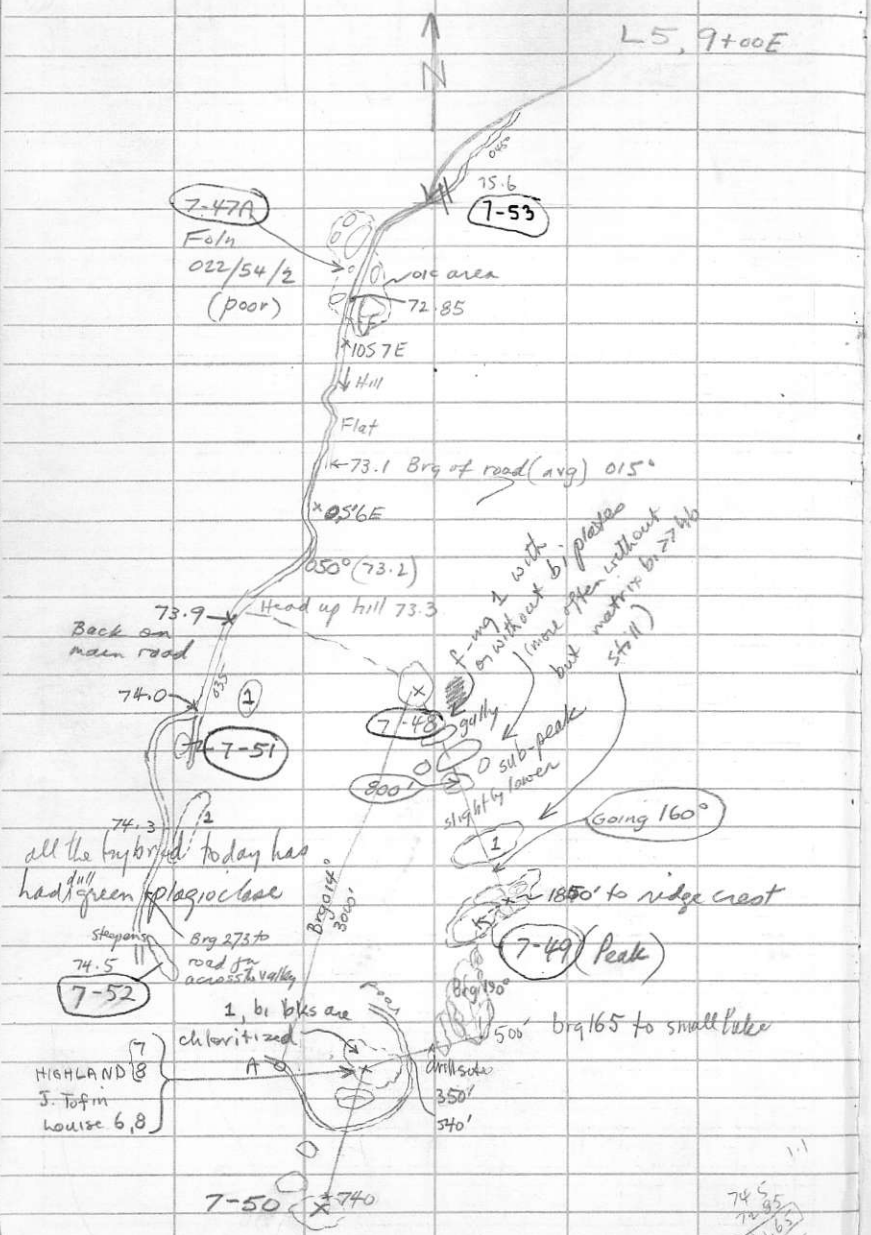
14 S. of Calling Lk traverse West

58N 72E aplite 1' wide
100/90/0 – also several
parallel smaller ones



Test Pit
qtz - spec. hem vein 2" wide
(sample 7-45C) 007/80/2

Spec. occurs at both edges
adj. to the vein the rock is sericitized
Elsewhere mafic in the o/c is chloritized.

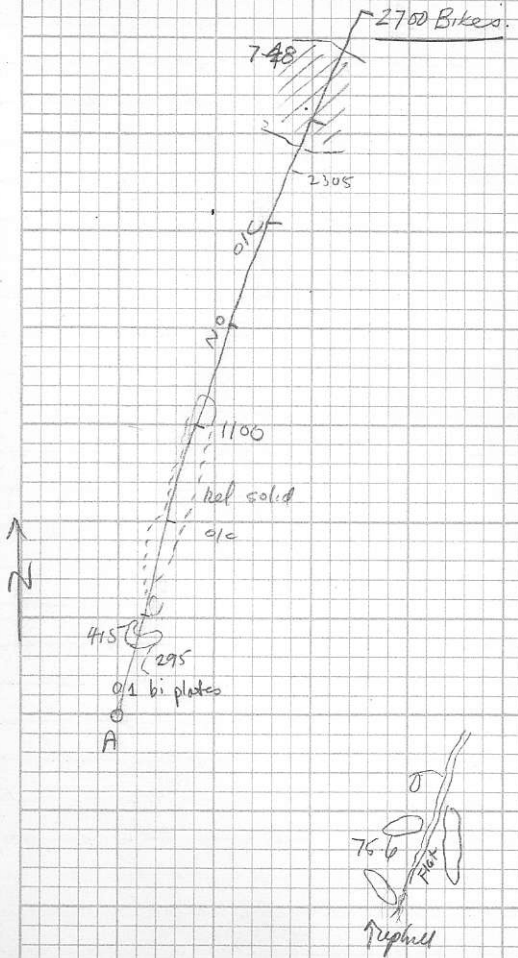


L5, 9+00E
N
045°
75.6
7-53
7-47A
Foln
022/54/2
(poor)
ok area
72.85
105 7E
Hill
Flat
73.1 Brg of road (avg) 015°
05'6E
050° (73.2)
73.9
Head up hill 73.3
Back on main road
f-mg 1 with or without bi plates (more often without but matrix bi >> hb still)
74.0
035
1
7-51
7-48
gully
0 sub-peak
800'
slightly lower
Going 160°
74.3
1
all the hybrid today has had dull green plagioclase
1850' to ridge crest
Brg 014° 3000'
steepens
Brg 273 to road fn across the valley
74.5
7-52
7-49 (Peak)
Brg 190°
poor
1, bi bks are chloritized
500' brg 165 to small lake
HIGHLAND 7 8
J. Tofin
Louise 6,8
A
drill site
350'
540'
7-50
740
74.5
72.85
1.65

Traverse 15 East side of Pukaist Ck

July 10/71
Sunny
WJM, JBC

see also cards



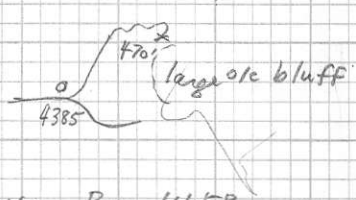
4385
2795
1590

Traverse 16

Sunny → RAINT HAIL
WJM, DAH

Road to back end of dip face sheet 11C
Tree across road
2795' claim post Red 3, 4, 5, 6
Final posts initial #2 post to south

4385 Road branches rt fork
Took left fork



470 New Brg 145° El 3420' in ck valley

7-53A starting uphill pace 980 El 3440
gray + green finely bedded
pyritiferous tuff
Bedding 046/45/1

1150 El 3560 Lapilli tuff - underlies
(structurally) the fine tuff

angling up + northward
lap. tuff has fg dk gray zones
+ then we hit dk green black
basalt (?)
Then more layered green + gray
(1480') tuff

The dk rock is along the rock face (trend 125°) - eastward & above is Hybrid

Beds 021/46/1

1800 Green massive tuff
Then dk gray basalt (?) interlayered with fg tuff

stn 7-54 (2150) Cache Ck green + gray tuff has a dike rock with plag + mafics phenos a granophyric matrix + ep. clots

"Spatsum"

158/77/2 contact

2250 lunch El 3760

Spatsum ~ 100' wide

Hybrid on north side

RAIN, HAIL

Going ~ 020 - rapidly swing E then SE

250' gtz-rich hybrid 7-54A

7-54A

700' dk gray holocrystalline rock

7-54B

835 El 3750

Somewhat gtz-rich 1

New Brg 000

el 3680 gtz.-rich 1

pace 395' Hybrid - qtz - rich
more mafic than last %

E13580 pace
Gully OOT
Hybrid and partially assimil.
Nicola 7-54D

pace 715 New brg 315

pace 400 Gully Trends 050
E13480
7-54E Hybrid

1095' rel normal 1 - sl. more
qtz than usual

1355 Rd + claim post
for claims Red 5, 6, etc

2750 Truck

17 45

South + east of Jim Bl Lake

July 15/71
WJM
DMVC
Sunny

Brg 057 425 o/c? Chataway (Biotiferous)

550 o/c of foliated rather mafic Chataway (Biotiferous)

pace 1155

035/78/2 Eola (good)
Chataway with quite large bi books and plates (5%)

New Brg 350

480' Rather scruffy mafic Chat.

510 Mafic Guichon

New Brg 033

100 very scruffy 2

450 Rather variable hybrid → mafic 3

600 New Brg 158

200' poor variety of 2

280 swamp → 145

2 almost looks like 3 Chatguich?

sample 7-55A

pace 966 second swamp
o/c N of it is Chatguich

1500 Hillock - still 2

7-55 Bluff east of swamp (1950')
o/c to 2400 where we ∡'d away from the swamp
o/c continues.

2700 aplite dyke 150/30/1 appx (12" wide)
in Chatguich

Bluffy o/c to 3000

3000 a poor var. of Chataway.
Sample 7-55B

3000 New Brg 150

aplite 2" 078/x8/1

800 Stn 7-56 New Brg 233

Locally, partly digested tg mafic to ?
Xenos occur

o/c 200 - 500

800 - 900 o/c scruffy 2

1250 2? or 3? 7-56A

1740 Small swamp & o/c

sim. to 7-56A

NO o/c

2100' New Big 213

200' low o/c on rt same as 7-56A

675 Creek x end of a rd which goes east

small o/c in ck Like 7-56A

1050 "Big Ck" ack. no water just a flat area

1,500 7-57 stn – mafic 3

2342 Ht of Land

White aplitic dyke 160/50/2 several other dykes have unknown trends

pink at contacts width uncertain

in mafic gneiss

2550 Knob of rock – mafic gneiss. o/c poor var. of 2

2630 o/c is definitely mafic 3

3150 Ht of Land poor o/c

3280 7-58

start at 3150 spot New big 330

450 Mafic 3 to 650

o/c 1000 Aplite cutting mafic 3

-1100' 025/35/1 thickness > 8"

Folia 178/55/1

1900 New Brg 340 stm 7-59

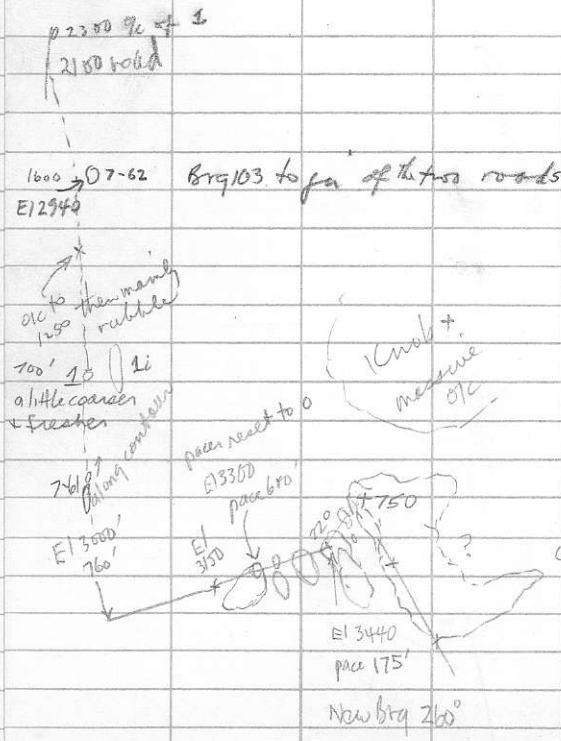
300' Mofic 3 %

700' Br-rich hybrid & mofic 3 %

850 Mofic 3 at bk in slope

2000-2200 swampy

3300 Truck ~ 300' west of rds end



Qtz - Chl vein
076/71/2
1/8" wide
density 18" apart
for 10'

Traverse 18 Sunny, July 18/71

East side of Pukaist Ck WJM DMVC
down to IR9 Bndry

4200' New Brg ~~090~~ 180

pace 700 Creek

New Brg D90

~~1900'~~ El 2550 Ck now several
900(?) hundred feet south

Went to ridge crest New pace
pace 1450 El 2810
Bk in slope (flattens off)

Sidehill southward - Mainly hybrid float
pace 2150 El 2920 overlooking Inkikuh Creek

No o/c visible

after lunch alt read 2980
Follow ridge ~060
400' El 3020 New Brg 000

El 3270 Brg 133 fm us to o/c in
clearing across Inkikuh Ck

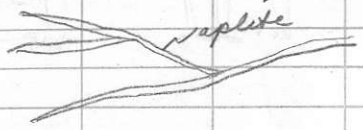
pace 2000 o/c spotted

Brg 330 150' Stn 7-60 El 3560
Locally fg → mg. Some relatively
leucocratic segregns

pace 750 Qtz-ep vein 078/65/2
up to 1½" wide

New Brg 220° X Joints 080/72/2 locally dens. 2 char 2.

June 26 Color branching aplite 7-55A



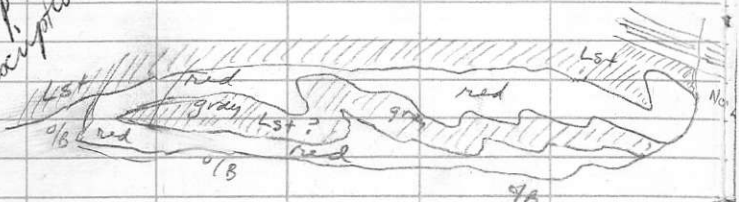
July 10 New roll Color

color 1 shot looking SW from just above 7-53A

" " " toward Ashcroft " " "

JJ B/W 2 shots (ends Roll 3/1971) of the knoll SW of 7-53A

see also p38 for photo descriptions



almost looks like a large Nappe

Color

JJ Photos of Bethel to Lornex

JJ Photos of Penstemmon July 16/71

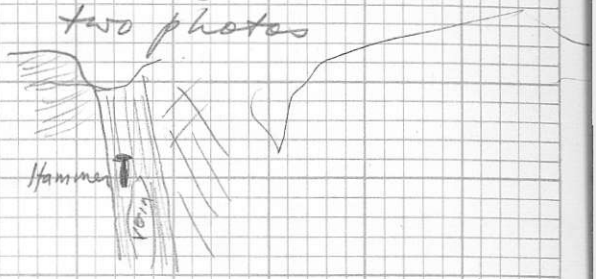
J July 18 Color Photo of hybrid-Cache Ck Contact - look west to east side Packard Ck

J July 18 Photo to same spot of lot Pond in Cache Ck

✓✓✓✓✓✓ ✓1 B/W photo ✓✓ ✓✓✓✓
18 Rolls finished with photos of Bx + D. Blanchflower
with ASA 30, 40, 50, 60
" ✓ Columnar joints
19 Several photos of cactus in flower
✓✓✓ all with wrong ASA setting (60)
(color)

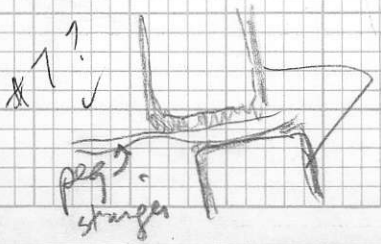
New Color Roll
New B/W roll

19 ✓✓ Color fault zone 7-23
two photos



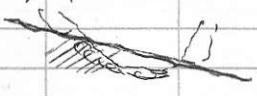
23 ✓ photos of lady slippers (color)
" photo of leucocratic segregn + peg. dykelet cutting Chat
color
" ✓ B/W same photo + 3 more
" ✓ showing grain size varin
" ✓ in Chat + leuco segn
(1" wide)
" ✓✓ B/W several photos of hb concn.
zone in Chat 7-30A

Photos also @10-66 see p 38

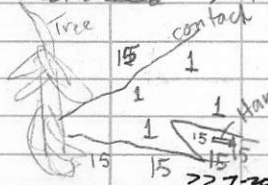


one photo of this

✓ 5	Seven shots of ag 7-1 to 7-3 area	looking northward. Rusty	
June 5 ✓	A wide & color shot of Red Hill	(Not Red Hill)	
" 5	" " " " " "		
✓	Looking west - second shot more southerly angle (Wound two shots which were not shot)		
June 5 ✓	B/W	Rusty Red Hill shot	
" " ✓✓	B/W	2 Photos of folded Pst 7-3B	
✓	B/W	Hendry at saw	
June 6	New	Roll	B/W ASA 125
	✓ New	Roll	color ASA 25
" 6	✓ B/W	(Photos of Kamloops volcs uncon.	
" 6	✓ B/W	overlying Jurassic beds) (7-9)	



9	✓ B/W	ag / lava contact at stn 4-1
9	✓ "	agglomerate at stn 4-1
✓✓16	Color	2 closeups of Larkspur
✓ "	"	Shot looking NW at Red Hill
✓✓ "	"	2 shots at 7-15H of Hybrid xenos in feldsp. gneiss
✓✓✓ "	B/W	same as color (4 shots)
✓✓ "	color	shots S. down Coldstream
✓ also a B/W shot here	Ck	Wide & ✓ normal lens
✓✓17	Hybrid cutting Ck gray tg metased 7-19A	

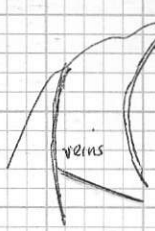


??7-20 Photo of thrust fault??

✓ 17 Photo of Hoodoos in powerline road valley Look N

Bug Waddle

✓June 4 color Curved calcite vein 4" wide (folded?) cutting pencil shale



✓June 4 - color - Pencil shale
✓ " - color - close-up of pencil shale
✓ " - color - rel. " " " " " } Looking North

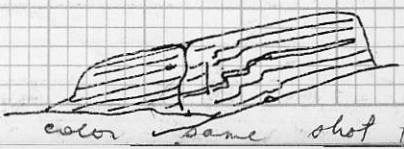
✓ " - color The chevron fold gives way along its axial plane to an axial shear



Looking northward.

✓color Shot down Bug Wash
✓ " - color - grown up asparagrass

June 5 — color — shot looking north toward dip slope slab of Nicola sedo



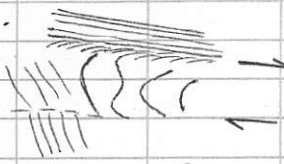
✓8 color same shot fm further north

✓ photos back

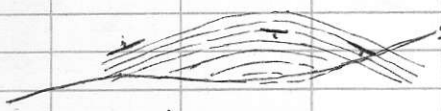
Photographs 1971

BUG WADDIE

✓ June 9/71	Color	shale/siltstone interbeds with small crinkles		
~~" B/W~~	~~small thrust fault~~			
✓ " 10-29	B/W	"	"	" (same one)



✓ " 10-29	B/W	Chevron folds		180/15° FA
✓ " 10-29	B/W	"	"	158/60 W/2
✓ " 10-29	B/W	Gentle Fold		axis 240/26 (?) in shale w. silty layers
✓ 10-29	" (wide ¢)	"	"	
✓ 10-29	" (wide ¢)	"	"	

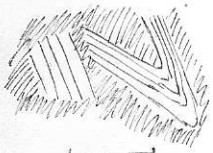


✓ "	B/W	Photo of brown silty layers & shale layers with "pencil" cleavage	
✓ "	B/W	Sole mark casts ~~on~~ on siltstone	
✓ "	B/W	Crescentic markings - possibly sole mark casts	
		Tops south	
		SW	
✓ "	B/W	Carbonized tree stump	
		chisel for scale	
✓ "	Color	same thing ?	
✓ "	color	sole marks + ripple? Crescents	
✓ "	Color	Dave Coombes - ham!	



180/80W

station 10-29



10'

Looking south

Cleavage 178/27/2
Beds 040/72/2

view east from above Bug Waddie

