Good pen-writes in rain -
Pilot Precise Rolling Ball extra fine

802848
Sulphurets

CANADA
Department Energy, Mines and Resources
Geological Survey of Canada

NOTE BOOK

No. 2 (Marges Camp)
SEASON OF 19 91
PROVINCE BC
DISTRICT
NAME Jack Henderson
CHIEF OF PARTY Jack Henderson

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Department of Energy, Mines and Resources
OTTAWA, CANADA
K1A 0E8

G.S.C. 146-S
R. 2527

Ch
1 123.2
2 126.7 } air/air mon intercept
3 122.9 }
4 121.5 int & distress

Nather Mtn 162.45

FOI Rob-
FOXTROT-OSCAR-INDIA

Bob Wright
JGP
Ward
Jeff (Polish)
Ross (Sash)
Jonathan (JR)
Lolie (JR)
Nadine (JR)
Hope (Cook)
Donnington
Andrée
Josie
Mat

Doug/Rob NMH
pilots GGFOI

1

Unuk River to Stuhini (@ Mzem 4
Green Lapilli tuff
Brn SD silt + Black arg
Grn & Brn massive tuff & debris flow
Black arg + Brn SD silt
Brn tuff
Conglomerate + SS
Brn Tuff + Brn SD carb (weylos)
★ Orthoqzl w/ Black LS + QZ DORT pebbles
Debris flow w/ sparse QZ DORT
Black arg + Brn SD silts w/
lots of dewatering dykes & sacks
passes along strike into V/C Breccia
★ pillow Bolt
Dk olive green mafic tuff

UNCONFORMITY

[illegible] Tuff + [illegible] ate
Conglomerate w/ [illegible]
Green Tuff
Black Arg [illegible]
Green & Brn massive tuff [illegible]
Brn SD silt + Black arg
Green Lapilli Tuff

20.08.91 Traverse w/ Geof 2
Tom & M. @ Corgum Lk
out of Margo
c/c Raven wood

(911 + 190 next stn)
Traversed E of below Tom Lk
green tuff & lapilli tuff w/
coarser channel fills face
West strike N vertical
with down section into Brn
carbonate silts & black
argillite typical Unuk R
lithologies
Cleavage is very sporadic
bedsare very non cylindrical
Open E 100m of green & Brn
soft massive tuff greens
sediment to debris flows
w/ rare black shale lenses
then E into black arg & brn ce
SS & silt laminated sequence
20m following by Green aphanitic
tuff w/ black silt type Plag injection

Passes down section out of green tuffs w/ injection of Hope Plug into bedded cgl
- Cleavage flattening of clasts picking up to most penetrative (Jolly looking for granite pebbles characteristic basal Unuk cgl)
Continue E (cross creek at chute said towards glacier)
100m Thick green tuff SS w/ Mn carb lenses well cleaved (358/70). Some flattened green fragments
Pass down section into PC-QZ-lithic graded (tuff-arc) fining E (005/90:50)
(Southerly directed current - fresh)
Found 1.5m QZ DORT cobble packed cgl (up to 20cm thick to 5) marks base of Unuk (other clasts include lsst, felsite etc BSLT) in places may be several QZ DORT cobble ka

∴ conformable transition into Stuhini Gp
Underlying debris flow contains scattered rounded QZ DORT cobbles
Then into black & Mn laminated 1-10cm beds w/ lots of bottle hyd fracs
- Then cgl - Mn SS - black args w/ lots of deformed slumps structures
Continue to Hope Plug

Wadered around & found Mn carbonate altered Pole Breccia sequence underlain by QZ DORT clasts cgl & then other fragments to Rx (a 40m) down section to Pillow BSLT > 30m thick underlain by olive green mafic tuff

Wed 21.08.91 2nd trip out of the ranges. Set out just upstream fr Camp on E side Unuk R. (had to abort Jack & Alice's trans due to wth - fog)

Mapping on Ranges 1:5K topo

91H190 Ccp @ River-cliff in Unuk
Ayk Dk green/med green
? BSLT/mgmtuff fracture clvg = 320/35
underlain by Bl. Slate S_1 = 340/15

Mont 1:5K S_1 = 290/45 in Black Slate
w/ minor chl
2 discrete post S_1 reverse
shear zones w/ S_1 in ft wall
bending-in
Shear = 300/35 L_s = 090 @ 20
(⊥ bending-in drag)
30 120/010 35

Bln AK SS interbeds S_1

Cl 282 m volcaniclastics 160
S_1 = 335/60 AK-CH
weak anomaly, high
clavage - prob frag mafic
volcanic PK + L vein
less sheared rock ∴ prob ANDS
tuff

Strong, wide shear zone 200° trend
Nanay ~ 180°
S_1 = 315/28 in strongly
clvd. AK altered prob
grey green tuff

Jtln w/ main shear (JLP-91-2)
(~230 m. ? Beyond bedding) ced sample site

east end of main shear zone
Ayk el = 260 m
carb altered ~~[illegible]~~ f.g granular
see sect
S_1 = 140/25

el 270 m on west side
valley N of falls

massive AK altered green
tuff & lones
well cleaved S, = 305/20

climbing up fall to cap
elev 280 m
pale green tuff silts/ch.
S, good slaty = 350/30

toward Umuk
el 265 on N valley wall
f.g. massive green w/ Br.
AK alt = rare vesicles
— prob flow not ANDS
no foln

N valley wall is vertical
cliff of Massive green +
AK Br not Br ANDS
no foln
Cr following hyp chan

Here meet in Umuk follow
hyp chan all ANDS mud
Breccia no foln of So
Elev 290 m
Mind shear zone in
massive ANDS
Shear = 325/32
can't tell sense

Loc JT-91-9 260 m
Black + white ms + tuff
So = 018/45

Thurs 22 Aug 91 fog patches - clear above cabin
Between Bruce & Jack Geers
Blowup photos

91H191 Thick (0.3-1m) SS Olm with SS beds w/ black shale interbeds. SS have black shale rip-up clasts. Good grading facing west (many detrital also features are west
Some thin SS are PC xl tuff
Lots of white PC detritus
No chlor
So = C66/80 USD
Spec orient C75/80 = So thin bedded
Bn/red SD SS & Black Sh
Spec-1 dirty SS c.g w/ vole detritus and dis PY
-2 PC xl-rich SS
Is this Unuk River?
Underlain by Boulder vesic. black breccia with olive green (sharp contact to SD Olm SS above)
So: 258/82

upslope to E 50m vole cgl w/ cg tuff interbeds with hrs green clasts are commonly vesicular broken mafic but still PC xl.. (no PX) Is this Stuhini?

So = 254/70 in dk green vole Breccia Cgl w/ interbedded tuff SS
Clasts 10-20 cm in coarse cgl
Curious fracturing w/ exfoliation looks like wk cleavage: 012/68 but no effects. Very little deformation in these rock (rare hole, QZ veins)
Channels show facing N

Contact relation summary
Lower Underlying Rock: with Dk green/Olive coarse pebble-boulder vole cgl mainly some vole SS - no argillite PC-Hb are xl clasts (no PX)
Upper Overlying Rock: with SD Olm or maroon med bedded cg SS (15m) and thinner black argillite. Thin whole PC-rich micro cgl common. Shale rip-up cgl common
No chlor, few veins, no folds, minor alt w/ disp

S_0=230/82 Passed thru 40m thick brn SS + arg rip up cgl (no volc clasts) & going up section into another laminated black arg - Brn SS sequence

91HI92 Passed thru 150m of thin bedded black arg - Brn Silts (Typical Umuk River) Cleavage zone w/ shitty fold S_1=010/67 $S_0 \times S_1$: 240/65 S_0=225/75 regional, 282/78 local

91HI93 massive recrystallized green Tuff w/ Brn SD concretions and PY nodules very strong fol no bedding S_1=225/65

91HI94 brn cutbank 5m LS w/ dispersed Weyla NO ash Tuff
p3-5 Photo Weyla Patterns in S_1=048/90 ~4:1
S_0=170/35 one of SCLN w/ Weyla bed very laminated cleaved silt.
S_1=045/90 S_0=014/45

S_1=260/90 brown at strike below 60m of Weyla-bearing silts — folded in S_1 w/ massive rusty volcs (plunging cliff to W) S_0=248/80 in Weyla bed

Photo p6 Weyla bed XZ~10:1 bedding transposed // S_1=066/82

91HI95 Black/Purple ~~shaly~~ silt w/ lots of Belemnites & few Weyla w/ 2-4m massive SS + 1.5 CSL 15m SD within beds very contorted S_1=190/80, S_0=215/60
Note on S_1: buckled veins ~80% shortening
NO pressure shadows around Weyla or Belemnites NO Bdnage of Belemnites
NO buttressing of matrix by Belemnites (weird)

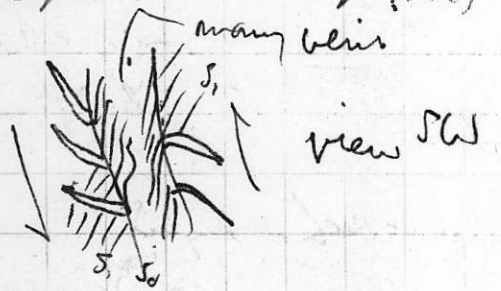
Spec Bel.-rich shaly LS
-1 refracts S_1 cut ⊥ $S_0 \times S_1$
+100m N more refracts S_1 thru black slate (w/ Belem) and grey silt. Bel. rotated out of S_0 into S_1 but no P. Shad. of bending
S_0=230/85, S_1=230/85 (slate) $S_0 \times S_1$=230/10

S_1 buttressed by nodules SS SS versus
Photo p7-10 buttressing

S_0 = 232/10 in pale green SS bed
Sequence is 50% 3m SS beds + 50%
3m black shale w/ wavy + Belem.
very mor cylindrical folds
S_1 = 055/90

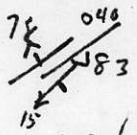
91H196 S_0 = 215/55 in SD Bm
cutting SS w/ wavy hash (Belem
in Black Slate interbeds) RHV
nice repeating S_1 = 030/55 XB's

Looks like anoxic basin
w/ dead belemnites and Bio
Clastic turbidite w/ live
wavy (valves together)



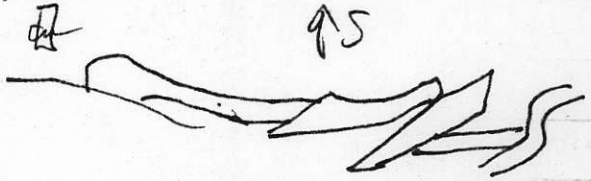
Pr 12, 13

91H197 Strongly cleaved SD silts 9
+ grey argillites
S_0 = 312/70 $S_0 \times S_1$ = 218@15
S_1 = 040/83



Spec ls w/ fossil hash + micro
fossils? (a square crinoid stem
w/ round hole in centre)

100m
Passed thru fossil ls - silts well cleaved
S_0 = 272/85 in Bm SD silt - blk args
thin beds highly fract but not
cleaved. cc veins show RHS ∥ S_0
as well as LHS
Pr 3 Photo RH + LH duplex in coarse
bed! View S



Looks like large late fold closing
to N across Bruce Glacier snout
w/ lots of brittle tectonics in
inner arc

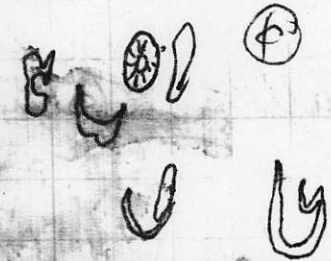
Sat 24.08.91 w/ Tom on left bank of Bruce Glacier - mapping on Mangels AP Zone 1:5K topo

91H198 el 1375m
green w/ thin highly foliated f.g. tuff massive (7AR.)
S_1=042/70
S_0=230/50 RWU in general angular cgl beds

S_0=235/70 RWU Grey silt w/ AK Grn w/ thin sands & load structures thin bedded sands 1-5cm silts 5-10cm
7J.K.LD

91H199 Greyish + bleminut silts purple & Brn w/ thin massive
(1) XZ=2:1 6.1×11.2
S_0=204/45 RWU/XB current Sw
$S_0 \times S_1$=240@12
S_1=050/90

f217+48 no evidence of redeposition



Spec float bleminite 4:1-TS XZ

Geologic contact w/ Tuff Breccia Clay Remains nearly vertical NE no evidence of thrusting at all. Tuff breccia cuts off weyla beds, but could be just local erosional unconformity

S_0=218/37 weyla bed

Back on blowup "Jack Glacier"
91H200 Black Arg & Grey Silt laminae
Current 180°
S_0=235/78 RWU (XB, GB)

1H201 Carb alt, 2-5cm silt and Black argillite
S_0=112/85 USD (GB)

1H202 minor slump folds in rafted asymmetrical
S_0 EVPG=070/70 USD
Slump AxPL=080/70 FDAX=090@40
N slope A1
slump

f 16 Tough grade intrafolial cut [illegible] in Mark R SD [illegible]

Sunday 25 Aug Rain early
Set out above Tarn Lk
going to Creek at Bob's Night.
gorges & then go up each
downstream if possible
— Mapping on Back of blowup
photo

14203 Dk grn & brn carbonate vole
lap & breccia tuff no So no S.
good "Stalinii"
Cut to W w/ pale green tuff
S_1 170/90 a 2:1 folding
of Dk grn 2x4 cm clasts
No So ~30m thick
Pass west into massive Cenozoic
black slate cont fwy past S_1
olive dykes .5-1m & some
brnto slick veins
S_1: 205/90
.5m olive dyke 260/75 cuts
this dyke 026/58 another dyke
matches primary trend N5→EW

At cirque lip W of lk N side
ck Rain-Rain-Rain
Johnson Cgl So 260/60
2m pebble-cobble cgl
w/ QZDORT clasts & felsic
frg crystals + rare blackbeds
w/ brown tuff below & above
Cgl is clast supported
1 boulder 50cm QZDORT

17-19
3 frt good clay in Bob's
folded brn silty black slate
by helicopter landing site
veer N versence E

Tues 27 Aug Rain & Fog
(Same as yesterday - Stayed in Camp)

Off at AP Zone (Tour below waterfall on hand drawn blowup) Muddy on E side Jack Ck, Rd down Jack Ck on W side)

1H204 welded tuff w/ frammes dns BY ash matrix no S_1
S_0 (frammes?) = 120/8 f
very Dillon't L'-blu

1H205 well fol frammes tuff welded tuff on W side of cp. 1' no seds in covered zone between glacius moze and cliff where ck flows between

S_1 = frammes flat = 066/72
~~dentrd~~ KB = 005/68

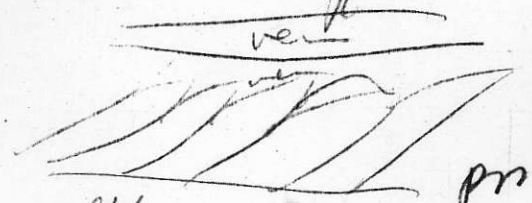
on fieldgraphs

1H206 fucking Rain & Fog can't write in anything on mylar Tops of photo!

S_0 Arg/Silt = 082/90 free N XBGB
weak chlor
underlies well cleaved tuff sest = no weyla beds between

Spec Arg/tuff SS lam
gradd (green) = S_0 = 080/8
free N wk S_1 = 050/73

Doubtful
Duplex in BLArg/Aklm silt
a 1 BRQV duplexed also 1m south of cut in pale green sheared tuff



↑N

fr 20-21
prob S_1 duplex
although same versence as S_1

— 1 Spec pale green tuff silt over Arg/silt

on blong plist
9/H207 silty tuff bed
pale green + AR lsm w thin
2-10 cm thick, few BP QV
no Si
Cntc w/ Arg/silt to E
covered by nstame
So = 225/80
(scale of beard/floor)

1H208 Cntc lapilli breccia tuff
with pnk Fuchsite green +
black massive arg lrgly
lith lithic bed but dir + sec
any

Lithic beds NW of big Tuff
+ E of crack (not plotted) - to wet
So = 190/35
Si = 040/80

9/H209 felsite dyke in
lithic beds ~ 5m wide
pinches feeding to Tuff also
trend 070/90
Spec black aphanite dyke

9/H210 lapilli tuff bed 5m thick
w/ thin lithic beds w/ frag
of lithic
Spec tuff well cleaved
Si = 250/80
So Cntc = 225/78

on photo-piece
1H211 felsic tuff bed 3m thick
in lithic lapilli
So = 224/80

9/H212 Back in lithic bed at creek
- fault tuff to discordant cntc
w/ Arg/silts and into
covered nstame. Crossed
fault zone to last exp N of it in
lithic buff carb silts + shale

Clogis [illegible] but not
mylonite
S_1 = 190/85
S_0 = 040/60
on other side of ck S_0: 155/75
S_0 = 205/70
in purple slate / AK Cm 55

91H212 m blowup
purple with H_2 55 & Sh a/ nar
welya
S_0 = 310/67 RWU (GB)
S_1 = 350/80
Cm Blowup No data just [illegible]
91H213 Rusty Brown 55 & Silt
★ cute w/ felsic tuff
S_0 = 220/75 S_1 = 020/60
Drill collar 315 @ 55

Dmo of stakes 290° ~ 50MN
of AP12 collar

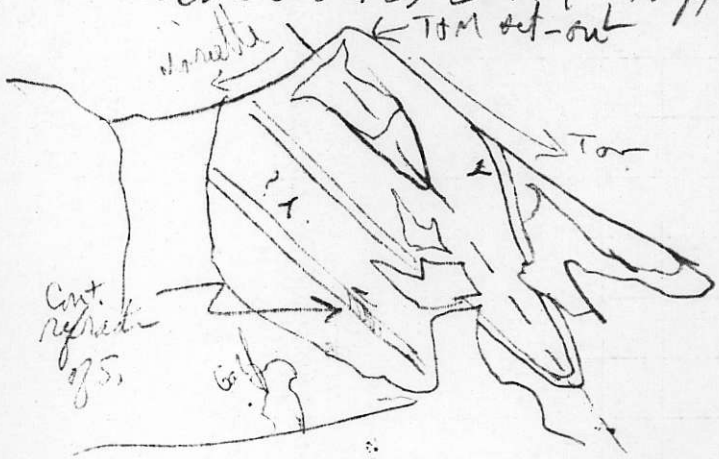
91H214 Lapilli tuff/bef
a/ seq of cht & lrg
pebble-cobble cht
Tongue bed as base of weak
unit
S_0 = 035/90 = S_1
bed folded S_1 bif cht pebble
cgl Trundles along E bank of
Canyon for 200 m

91H215 20m wide felsic
aphanitic dyke - pos feeder
open for pitting.

28.08.01 / Garfield Jack Hale
Set out 8s S2 Blowup
1H216
S_1 224/76 in silt
$S_0 = S_1 = 234/66$ arg-silt
with some rip-up arg
clasts 2-4 cm
10 m coarse SS unit
100 m down slope
$S_0 = 236/45$
$S_1 = 245/35$ So ∧ S_1, stay USD
thin arg & silt jig jambed
Brown AKalted
1H217 massive SS less graded
face SE. Some isolated
intraf slump folds
So EVPG = 235/50
axis slump = 010@50 ∴
slope is E or west
GB = USD
argillite mainly down to middle
1H218 thin dark arg-grey silts (brown AKalt)
$S_0 = 210/90$ no S_1

1H219 at stream draining ice
Felsic dyke cutting black shales
dyke lt brown with pale green frags, diss SC
dyke = 130/60 not deformed
Spec dyke
$S_{0-1} = 220/80$ (prob bedding fissility)

Plot Selw across East McTagg GL



1H220 Black shale argillite below
Flat bluff SS seg on ridge

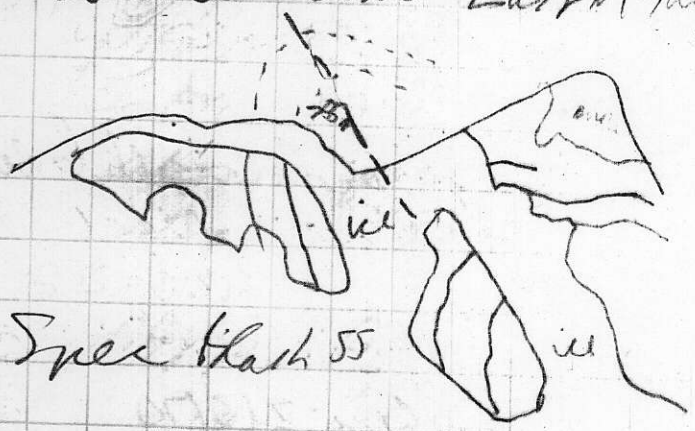
$S_0 = 190/50$
S_1 good fract = 210/70
over edge of ridge to NE
Pile S_1 dyke 010/42 1 m wide tourmaline
PC-HB porph
$S_1 = 220/55$
$S_0 = 190/50$ ☆ Dyke Spec w/ fibres & Fran

1H221 Bogg SS & rare crispie cgl
w/ shale chips, BC & rare No Qz

Spec cgl/arg - No Qz
So = 240/60

1H222 SS white cotton-black
fresh w/ floating tan CB
altered arg clasts
So = 220/65

1H223 on white cotton/black
fresh SS
ft 23-24 view of arch
to SW across East McTagg



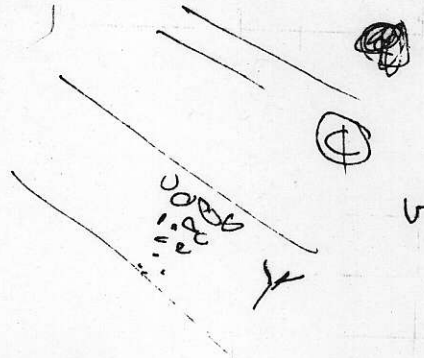
Spec black SS

2020m arête w/ ass plot tan & ⊥
in grey argillite

1H224 graded silt/arg

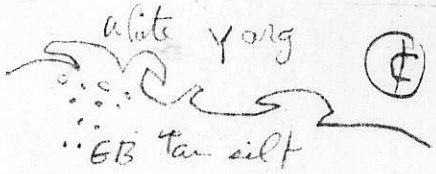
So 220/40 USD GB

flame ft 25 USD GB



ft 26 USD GB & penecontemp
new fault
← paleoslope South

1H225 USD Bacon pillow sed diapirs
ft 27-28



So = 200/56
view SW

29.08.91 (Tom Jones Blonde lady) Piece of plate upper jacket.
Set out Eddy, Jack, Dave (No radio!)
1H226 elev 2085m in snowstorm
DK red/brn mass vole
fragmental
w 10cm snow
S1 = 240/50 generally flatlying

1H227
Dk green PC physic vole Brecc
and vesic amygs flows
Jack 50° amygd vesic flow top 240/45

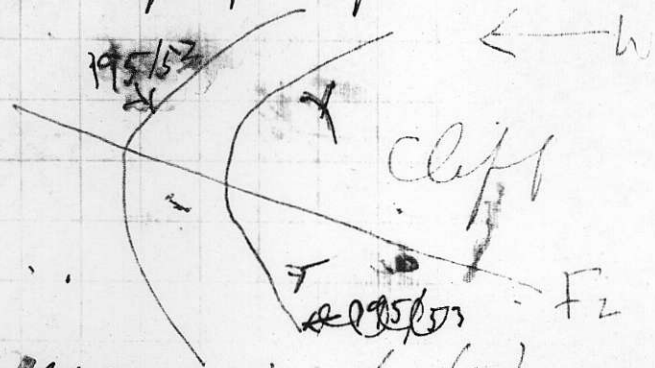
228 Rusty arg & silt
graded? Thin beds
USD 000/85 GB, Chert & BdP
face E ~50m thick
Post fold pale green/tan dyke
270/40 30cm thick
in arg/silt turbs

Back into PX PC physic
tuffist flows

1H229 Compact vole Brecc
flows 50cm angular
PX physic clasts
not much matrix
no fabric
Black
1H230 Arg & tuff w/ arg prop
+ 50cm
S0 = 230/70.

1H231 Dipping steep N plag SCLN
S0 305/75 on hinge RWU
X B, BdP
Dyke 310/65 cuts S on hinge
50cm pale green
+ 10m S0 = 180/67 USD
BdP grey
1H232 Thick Cbat/SS/marcgl w/ interbed
sequence of arg & silt turbs
S0 342/73 RWU GB BdP
No flows or vole Brecc

1H233
Thin ?lenses Arg & Siltst
So 236/55 pressing closing
in deep up slope?



Rec. fold must photo!

1H234 Arg / Siltstones

So 195/53 VSD B&P, GB
+ 150m So = 250/55 VSD B&P

20m CG PC pebbly (remains
dyke seems to be folded
by Rec in area of only
Must come to Arg right
Fading Blizzard!

1H235 Coarse-type pebbly
spec massive PC clasts

1H236 premier
West cont c/dyke = 200/75 = Jam
wall rk Arg Silt + thin turbs

1H237 Thin bedded Arg-Silt turbs
w/ GB + B&P
NB Base of GB are Chattered
progressive colour change
from yellow base = black top

So = 214/63 VSD B&P, GB
Jam of pebbly speckled
105/90 .5 to 2m wide
300/90 Rock — on width
Contact rk @ 1H237
GB = 200/75 pace E VSD

1H238 KF = PC = HB pebbly w/ flow
top Breccia (pebbly + arg) grey
black matrix to pebbly

Spec pebbly
— Hard rock PC-rich cgl + SS massive
So = 205/85 × Bedded

1H239 closed fill gouges
back into thin bedded
B, Silt-Arg beds face E

S_1 = 228/80 USD GB BH,
Clear zone hard + fractures
S_1 = 235/60 verge West
So = 040/80. So x S_1 face E
passes SFM hinge 025@20°

H240 passes thru ~100m
thick B zone with thin turbs
SS up hill now at ice
we have mud bedded SS-Silts
Arg turbs cleaved
w/ refraction again face E
& verge West

So = 230/65 Calc
S_1 = 222/45 So x S_1 =

getting into SS cgl w/ arg
Rip-up clasts at base
across 2nd Fill gouges
4 in Cgl So = 235-55 well cleaved clasts
or So 55 (So hard to find)

1H241 mostly cleaved fill
very fractured acid dike dens
So = 213/85

at death ice
? So = 030/78

Fine 3G-stay Swimming in
Fresh Black Argillite

Soft

91H242 Massive SS 90%
10% thin turbs - no fabric
S_0 = 200/56 USD
Graded SS faces E

91H243 S_0 = 205/60
90% massive SS w/ 10% black shale
bits of BP QV (no fibres) few w/
down-dip fibres & steep
west dips - just north
BP shears in hinge
also some ~~[illegible]~~ shear
indicates W ←

consistent w/ overturned
beds rising upon E limb
of E vergent ACLN

91H244 S_1 = 005/90 black phyllite
no S_0 very sheared also veins
& cleavage sheared

50m West goes S_0 in interbedded
SS w/ thin 55% 1-3mm & 30cm
silt/arg.
S_0 = 194/60
No S_1

91H245 Thick Bm graded SS w/ thin
Shales RWU GB, BP

S_0 = 195/50 faces West
Crossed over AXPL dips 20W
+ 20m S_0 = 190/45
slump fold indicates paleoslope
to West if RWU

91H246 S_0 = 200/80 face E (USD/BP)
graded & cleavage
Thick bm to thin SS & thin
arg-silt interbed
Spec BP in Silt/Arg

Cf 247
S_0 = 190/73 ÔSD GB.B/P
Ign rocks thin arg-silt turbs
in massive SS seq

· Seems to be recorded
small folds on cliff above
but can't map in rain

1H248 S_0 = 190/80 in massive SSt
Silt
looking N on Cliff

9/1H249 Passes thru more arg into beds
S_0 = 008/75 in med bedded Silt-Arg 50m below thick brn xln
vein looking like fault

50m thick fault zone 180/50 No
Slickenlines. Cuppled by Calc tufa
Spec (left at Transect)

Pass more silt
on upper plate
Beds still USD!
Thin turbs
S_0 = 165/76 GB

Sat 3 (Arg ptly clay since valley floor
Thru a lake bed of Atkins glacier (2nd)
(slot on piece of beer can)

9/1H250 Brown dirty fs SS massive
S_0 // free ? = 340/72
overlain by vole cgl & white tuff w/
red lapilli (angular 3mm thick)
9/1H251 Brown w/ thin vole cgl w/ angular
boulder clasts of white, red, dirty green conf^n
some PC glassic - no PX massive arg
S_0 = 320/70
1H252 S_0 = 318/50 Brn vole cgl & minor
brn/grey-green c.s. SS w/ PC strain

1H253 Silt-arg thin bed[illegible] yellow
on within fresh black over
volcanic lattice. (Grey diag up section)
S_0 = 328/43
Spec orient = S_0 = 328/43

1H254 Massive orange & drab green cobble vole SS & Cgl – seen faulted against S_0 = 320/50 Silt/org seg to S.

1H255 Silt – m.g seg in massive coarse vole debris flows

S_0 = 325/48 RWU (NE) B+P

1H256 goes up section thru massive brownish green fresh vole cgl w/ few arg clasts Rare CG SS lens/bd

S_0 = 330/33

1H257 Vole breccia massive tops lapilli tuff others white fresh grey mostly felsic frags + PC

S_0 = 330/55 (BS Clus)

Spec.

Photo E wall Atkins Glacier a/round body in bedded sequence

Fr 29-31

1H258 going up Atkins Gl: Black arg & green silt w/ vole tuffs

S_0 = 320/64 RWU (GB)

1H259 S_0 = 190/56 USD (GB)

arg-silt blanket on turbs

(nearly duplicates next photo of arrow slope)

1H260 Thin turbs thick sands USD

S_0 150/50, 72/45, 200/14, 320/26

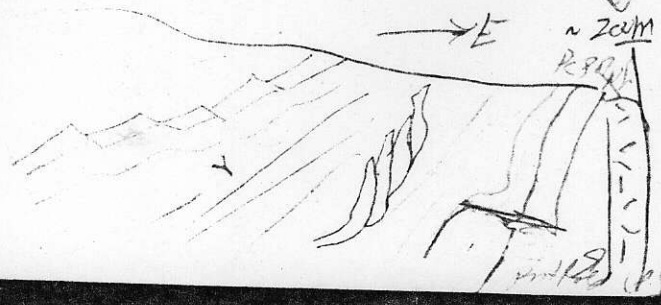
180/34 (USD B+P)

Ripple = 176/70

fr 32-33

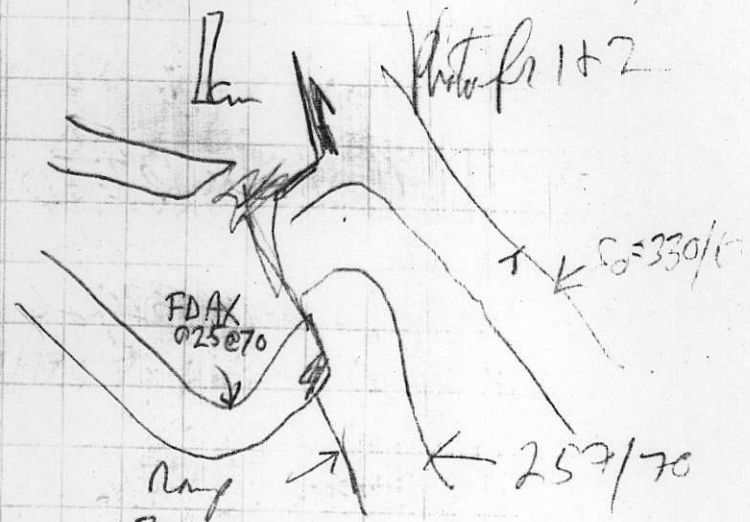
fr 34-38 veins N of cliff face

(thin turbs + thick sands

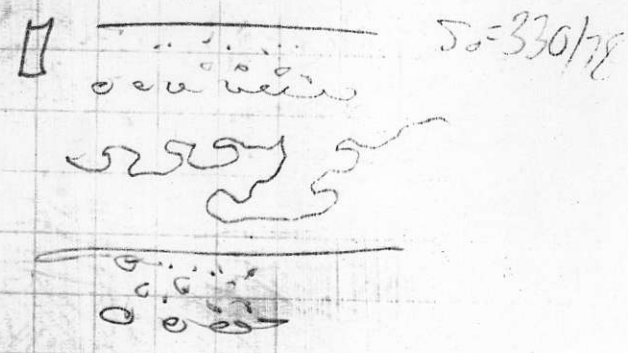


1H261 Top of Atkins Hill.
thin arg/silt turbs black & green
S_0 320/65 RW U (B/F)

Out of Sch thrust in arg-silt



200m downhill
fr 3 A & P inter GB



Sunday 01 Sept 91 High O/C Bryant Valley on Bow Lin Nanaimo

1H262 white w/tan felsic lap. tuffs surrounded by red vole breccia no fabric felsic clasts PC? green white w/tan tuff no PX / Hazelton probably

S_0=355/55 red interbed

1H263 passed down section from 30m [illegible] arg/lst thin into Vole Breccia [illegible] S_0=240/40 w/ apparently [illegible] NE overgrown [illegible]

1H264 Green Vole Clastic w/PC (no PX) friable
S_1=245/60 wk clvg

1H265 Vole Breccia/Cgl massive 5-7cm clasts PC felsic rare arg clasts, w/tan Red Brn - fresh Green (Hazelton)

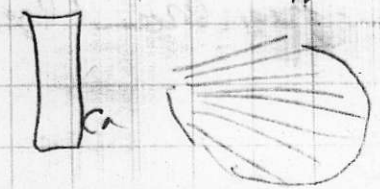
1H266 arg-silt ~~+ dust~~ lap
fossil leaved but [illegible]
corks ok
So=052/30 RWT (GB B/P)
Mud silt/arg
Spec ~~Dust~~ tuff w/GB + B/P

1H267 arg/silt + organic
black/green fresh
So=206/83 VSD (CB)
face E

+100m N So=200/78 VSD
face E (XB, B/P) in
silt/arg + PC-rich SS

1H268 Brick to Konkin Nyngan
Burnthru. Cap-rock pass
SS bed, fragments

So=084/30
Photo telenypod shell on So
fan-shape
p5



1H269 Shale chip cgl + cg lm SS
w/ curious flat cleavage

So=140/80
S1=220/20

1H270 Maroon + brown SS + rip up cgl
w/ grad ~ hosting clog.
So=280/85
S1=195/10 So×S1=28003
Spec Orient f=S1
[illegible] w/ cl

1H271 Maroon + Brn w/ thing
massive tuff breccias +
capillitiffs no fabric

Structure too w/ to measure

Spec LC

1H272 Red + Green massive
breccias + tuffs PC no PX
"Beth, Ch."
So=290/85 fan
Spec LC

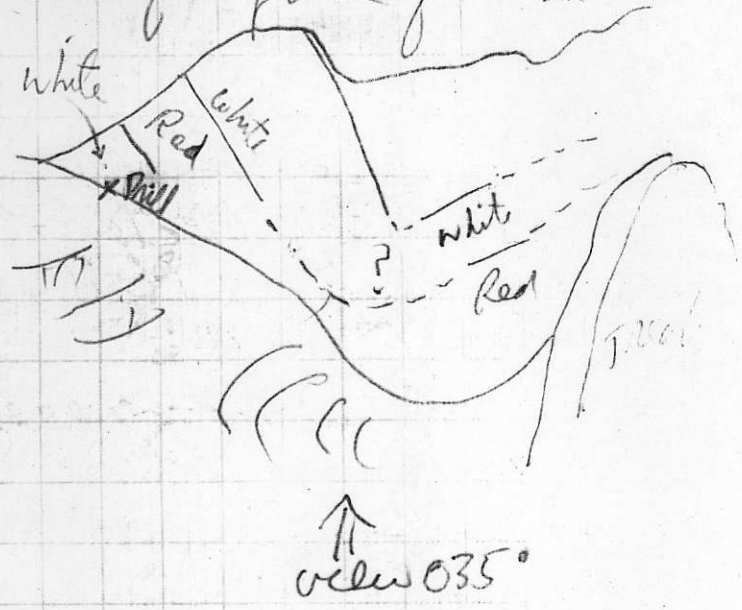
1H273 Red + white + dark grey 1H274
Pale Brn & Tuff

S_1 = 235/65
S_0 = 194/60

$S_1 \wedge S_0$ = 246@30
SE vergent

LC Spec

View of S face of ridge

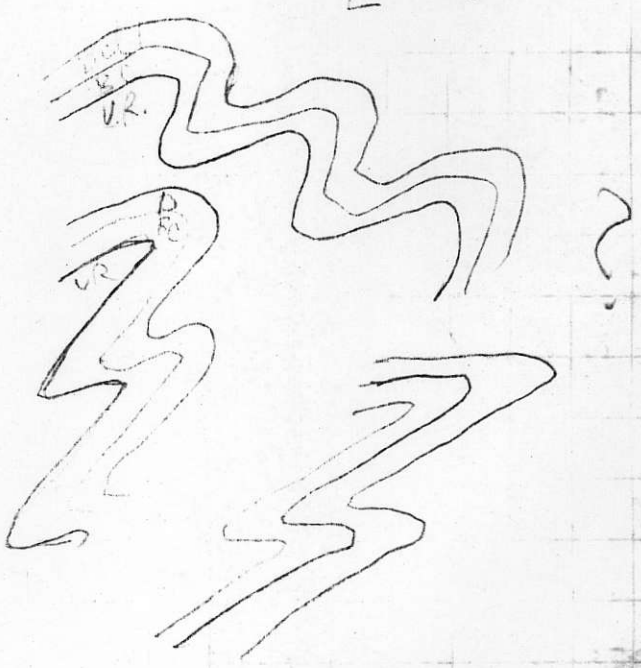


~5 flames of Marulon
w/end at bottom
of Jasper on side of
Treaty (Tanlilna?)

Stockwork QZ-R/
+20 or 50m (lower top
at jctn of 2 slaters)
LC Spec

TA 3,7 bit of S still here

E →



Mon 2 Sept Clearing on ridge bet Atkins & Harris

1H275 Top rt [illegible] S_0=010/83 well bedded underlies black [illegible] which are overlying [illegible] Stuhini arg + [illegible] argillite?
I saw this on [illegible] South. This tuff ~30m wide dust mainly white red + green volc, some black argillite

1H276 Massive Tuff breccia black or [illegible] clasts - ~~Quality~~ [illegible] crop due to [illegible] ice - looks mafic (? Stuhini PCPX [illegible])
Spec Heterolithic - [illegible]

1H277 Silt/arg turbs interbedded by cgl tuff overlain by arg-silt turbs!

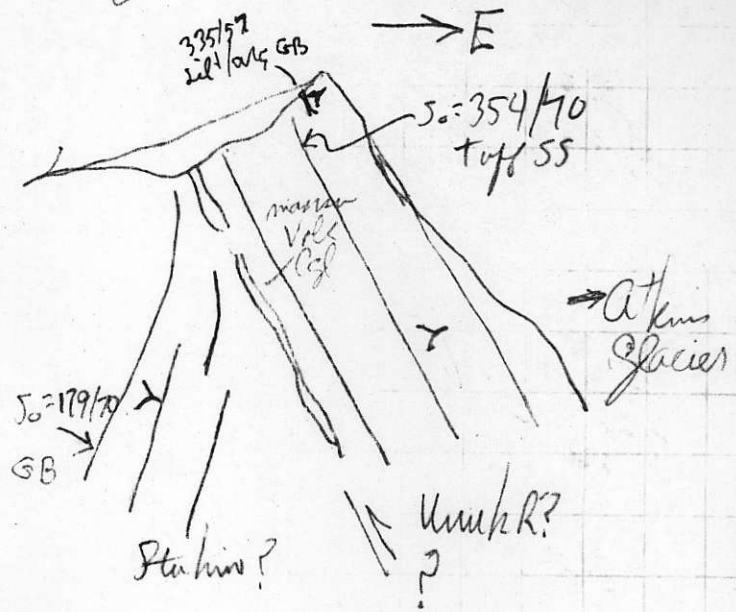


Photo fr 11-14

1H278 Back on ridge of volc-clastic SS-Silt-cgl-arg (70% cgl w/ well bedded SS + silt-arg) others AK Group
Spec SS w/ bedding
Same Loc as H252 S_0=338/35

1H279 Tuff (c.g. waterdeltaic)
AK altered Brown w/ Mn
Dk green fresh w/
strange mafic (metamorphic)
clasts S_0=332/38
Spec for T.S.

1H280 on nunatak in glacier
massive to very thin bedded
black turbs AK altered silts
w/ M yellow-Mn

S_0 avg = 032/45 variable
due to late folding
faces E (GB, B/P)
Crossed Rogue Falls Glacier
1H280 AK altered 2-1cm
281 Chert ACCN in all fragments
Shiv = 110/62 RWU
N Shiv = 250/42 RWU
ASPL = 286/82
FOAK = 290/35

1H282 Massive SS & Lam silts
282 c.g. turbs AK altered

S_0 = 296/36 RWU (GB, B/P)
1H282 Vrc SS & cgl + chert lenses
283

S_0 = 002/72

Back to camp w/ Charlie Victor
frames to 18 of unconformity
at toe of Grch Glacier
1/250 sec

Tues 3 Sept Heavy rain all
night & day
Evidence for unconformity & lack of
Mesozoic
① upright folds N-S cut by E-W dykes (indefinite)
② unconformity overlain by Weyla beds
③ unconformity w/ boulder cgl on Stuhini
Px phyric flows (Fault S of Sulphurets Ck)
④ Stuhini & Triassic Charlie N-S upright
folds – Dillworth SE vergent thrusts
& folding
⑤ Folds in Stuhini Upper Bruce Jack Ck.

Wed 4 Sept Clearing in AM
Set out 1100 at peak on
east side Atkins, GH. to look
for unconformity base/bazalton

1H284 Purple & green with
massive Tuff breccia
Epi in vesic. f.g. PC
phyric

1H285 PC + HB phyric grey/red/
green with AND Tuff/BRCA
prob blocky flow
no phyric

1H286 Buff/orthern clam fossil
lo (prob spirals - hash)
S_0 = 300/60 underlies Red-Purple
+ green volc breccia flow
Sparse cap - maybe 1 on top
Spec: LSw/ weefa ? Gastropod
? Bryozoan (also belemnites)

1H287 Brn with granule
beds w/ O'shen weefa, Snails
+ fossil hash + grey silt
Spec weefa, Ammonites
Good locality - fossils loose in soil
S_0 = 010/65

1H288 black arg/brn silt turbs
interbed in AND flow BRCA

S_0 = 030/42 RWU (XB, B/P)

1H289 Buff/Brown SS/silt w/ some
black arg hash spaced chrg

S_0 = 320/35 $S_0 \times S_1$ = 015@30 W vergent
S_1 = 355/60

This is another basin w/ unconformity over a
channels filled
w/ debris flows of AND
cobbles - boulders + ripped
up arg + SS

☆☆ Send Peter photo of slope to
use as a map

Specimens

1H191-1 vole SS w/ dis Py
-2 PC-rich SS
1H195 belemnite-bearing limey silt
195-1 refracted S, in limey silt-arg
197 fossil hash lst
199 Belemnite-bearing flatbed
206 Graded tuff-arg oriented
206-1 tuffaceous silt
209 Black aphanitic dyke
210 lapilli tuff cleaved
215 felsite dyke
219 dyke
220 dyke w/ filled vein
221 Chl/arg (no QZ)
223 Black SS
235 PC porph
238 PC porph
246 Ball & Pillow in silt/arg.
253 Silt-arg oriented
257 felsic tuff Brcc
262 tuff
266 Graded Silt-arg
270 SS ~~Brcc~~ w/ lots SS, (oriented)
271 LC spec massive tuff Brcc
272 LC spec vole Brcc
273 LC spec vole Brcc
276 Vole Brcc (mafic?)
278 SS w/ So & carb? cement L
279 Tuff w/ black (?BZ-QZ) clasts

Trans w/ Yarf. 10/13/93 1:10K Kenny
& Upper McTaggart / Johnston Deafield
(also BC 046 for regional rel =)
(in Ted Morris, Mitchell, McTaggart file)