

JUNE 27, 1983 H. AWMACK CASSIAR RECONN.

Traverse along ridge to west of Co silt geochem anomalies

Atan Gp limestone + dolomites, NE<sup>2</sup> from ~ 59°35'N 129°40'E

El 4100'

HA03-25 80656 Carbonate-altered ultramafic (or dolomite?)

672748  
Grey-brown, <sup>mottled</sup> fg dolomitic rock with coarse, irregular white dolomite patches and stringers (forming half the rock). Malachite (fuchsite?) associated with coarse white dolomite, mainly on fractures. Minor sulphides (fuchsite?)

asp? pyrite?) with some associated scorodite. Dark blue

(azurite-colored) coating on one fracture. Weathers light to dark brown. Occurs as a 2m x 1m patch

near bottom of limestone outcrop (dark grey ls on three sides). El 4100', 100m North of Helicopter landing site

Geochem: Cu, As, Au (Sb, Ag)

Note: further dolomite/C-a-v patches in limestone nearby

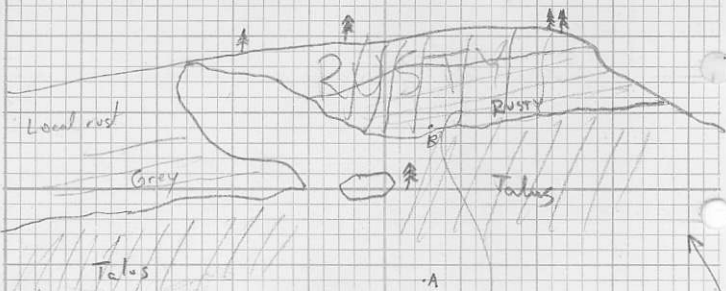
Note: Little valley 100m North: piece of swamp float: coarse vein dolomite with graphitic splits (cf Audrey's graphitic alteration).

83CAT-101 30cm x 5cm slow silt 20% org Flows 100°  
channel El. 4080

Climbing next hill to north (ie 5000' bump) much faulted (glacial?) volcanic float: massive basalt, gneiss, etc. Also

occasional granodiorite (Cassiar) boulders. (ie glaciation from West.

Limestone/Dol cliffs, looking N



Bedding dips  $3^{\circ}$  W on cliff-face. Prominent joints 025/00NW. Deep, linear valley parallels cliffs (Fault?)

A- siltstone - grey-green, soft, thinly cleaved, shifflly dolomitized rubble outcrop HA83-25

B- Black limestone, lg massive. Unoriented coarse dolomite veins common. Hemitls on healed fractures. Goofhlite (from dol) on recent fractures. Bedding (?) fractures 050/15<sup>NW</sup>

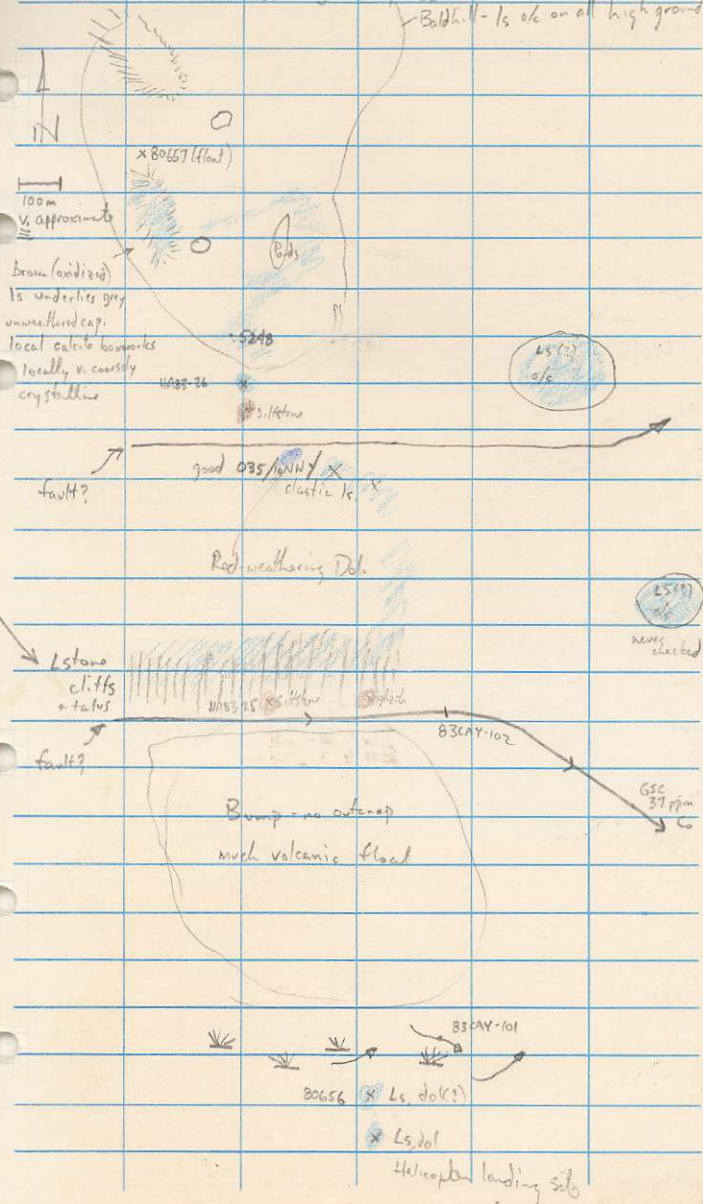
83CAY. 102 100m x 20m slow Sand/silt/gravel 5% org  
Glacial float = dolomite limestone Channel. Flows  $090^{\circ}$   
E1 4430

North of cliff-face (on bump, E) 4970, overlooking next creek north and biggest bump) Limestone, grey-weathering, clastic (ie sand-sized limestone clasts - dk grey), poorly bedded

On south side of 5240 bump, Spec HA83-26. Clastic limestone dk grey ls clasts in lighter matrix, E1 5250

Sketch of traverse - June 27, 1983

Baldh. V - ls o/c on all high ground



80657 Halfway down to pond off N end of highest  
ridge (Pond center at 030°. Fastest ridge N - hump at 020) 57 x 500  
Float of silicified (clastic?) limestone. Much fg marcasite in  
clumps and clusters. Some aspy? (silvery). Boulder bright  
orange from limonite. A few similar (unmineralized) boulders  
nearby, but also several glacial (eg volcanics, intrusive)  
boulders

Geochem for As, Au (Ag, Sb)

JUNE 28, 1983 CASAU Ridge west of Gallic Lake

Drainage all screwed up on claim map.

Ultramatics at South end of traverse: variable

- a) green-weathering magnetite-rich serpentinitic (from dunite probably although no textures remain)
- b) black weathering ditto <sup>of gabbro</sup>
- c) coarse-grained, foliated peridotite (serpentinized); >50% plag.
- d) fine-grained, serpentinized, ol-rich, plag-poor peridotite
- e) several varieties of sheared, black (serpentinitic), fg rox

80658 Float-gtz-dol vein. Vein is mainly white, barren quartz, with fragments of black, fg, fairly hard, non-magnetic sheared ultramatic (?) and cut by dolomite and vuggy gtz veinlets. <sup>wallrock</sup> Fuchsite occurs along wallrock contacts and in vuggy gtz veinlets. No sulphides.

Float - 2 boulders. Some gtz-carbonate vein float reasonably common on this hill. El 6360. N-facing slope of ridge 355° on tallest peak.

HAB3-27 Tuff-breccia - to east of ultramatics, Pale olive green volcanic fragments in a black fg. matrix. Plagioclase laths. Sylvester volcanics.

Following ridge east, the volcanics are quite variable but ~~no~~ all are basic. Near the east end, there are a few small outcrops of grey-green or dark brown chert.

## SPECIMENS : SAMPLES - CASAU

JMAD3-25	Atan siltstone	June 27
26	Atan clastic limestone	"
27	Tuff-breccia (Sylvester)	June 28
28	Chert (Sylvester)	28
29	Fuchsite-rich um	28
30	Diorite	28
31	Granodiorite (Cassiar)	29
32	Bi-spar-Qtz Porphyry	29

(June 28)

These are associated with hard, pale green (serpentinized) volcanics (possibly seafloor basalts)

HA83-28 Chert - grey-green (argillaceous) and dark grey. Weathers white. Intimately associated with dark green, basic volcanics. E1 6590' Ridgetop

Bedded chert X 153/30 SW. About 10m thickness. Basic volcanics above and below. Beds 2cm to 50cm thick. Variable in color, argillaceous content.

Claim map drainage out to lunch. Ridge location v. approximate (E1 6670 E side of ridge)

B3CA7-103 1m x 30m mod yellowbrown silt backwaters 1% organics E1 6030 Flows 155° Drains basic volcanics. (close to east are ultramafics)

HA83-209 Bizarre ultramafic alteration. Grains of pale green mineral (not talc - possibly fuchsite; platy, w/ soft) in white matrix (plag(?) + ?). Could be altered granitic intrusion. Surrounded by UM (assorted).

HA83-30 Moderately coarse: plag 60%; serpentinized pyroxene 40%  
Plag is pale green. Rock weathers light green-grey. chlo. lined? Stock? Sill? Dike?  
cf HA83-23.

To north of diorite, clastic rocks more common: volcanic sandstones - poorly sorted, dirty, entirely composed of (rounded) volcanic clasts.



JUNE 29, 1983

CASAU

Traverse near  $59^{\circ}36'$   $129^{\circ}59'$

HA83-31 Cassiar batholith granodiorite (near contact with sylvester, El 6150) Bi 15%; Qtz 35%; Fspar 50% Biotite  $\sim$  1-2mm, unchloritized; Qtz & fspar variable grain sizes. Cut by fine, leucocratic dikes. Minor py.

Hornfels well-developed at contact. Coarse biotite-Qtz rock (htfelsed sed?) with much py. Also a black, soft hfels with serpentine (htfelsed UM?)

Parallel 1cm veins in peridotite of pink and white, soft UM alteration minerals (brucite, talc, etc etc?). One only blob of silvery white, very soft (soft like moly) sulphide. May be magnetic (hard to tell in such magnetic background)

Platinum?

Some of the ultramatics (or associated <sup>sediments</sup>) have a bluish cast to them (not just from serpentine) and may be blue-schists (ie glaucophane etc)

In blueschists, a piece of foreign (at least 200m) float: biotite hornfels (fairly coarse) with much disseminated py and cpy (0.5% Cu). Presumably comes from contact with Cassiar. Rusty (no malachite) on outer surface.

83CAY-104 150cm x 30cm Br sand/silt/gravel  
backwaters + channel. Flowing over fg andesitic volcanics  
Drains UM + beds + grids 0% org E15550  
Flows 040°

Volcanics are mainly fg purple pyritic andesite. Others (eg  
andesitic feldspar porphyry) are local. A small pod of  
sheared and messed crystalline limestone (E1 6260) Bull quartz  
veins locally common

80659 Frost-heaved qtz vein, probably 100cm wide, trending  
N90°. Transparent to milky; mottled in greys and browns  
Minor dissem epy in all boulders; minor pyrr in one; minor  
py in another. Vein is hosted by green fg andesite, sl  
brecciated by veins E1 6310  
Geochron for Cu, Au, Ag

Bi granito (equigranular or porphyritic) dikes common  
Chert locally in volcanics

HA83-32 Bi-fspar-qtz porphyry - variable over  
short distances to bi gr (or grids) Fspar 40%; Bi 5%  
Qtz 5%; matrix (mid grey) 50%. Bi phenocrysts unaltered.  
This rock covers large areas and is probably a  
satellite stock from the Cassiar.

HA83-33 Fspar porphyry, tan fspar phenocrysts in  
a fg. siliceous black matrix. Always associated with BFQP  
and bi granito. Intrusive

80660 Hornfels: > 50% pyrr; 2% epy. Contact of volcanics  
and bi granito. Dk green rock. Rainbow staining on fractures  
(iridescent purple, yellow, green) Bright yellow goosam. Massive  
sulphides 10x1m 060°. E1 6020

Geochron: Cu, Ag, Au, Ni Prob. not significant.

JUNE 30, 1983

CASAO

Staking CAS1

5 units N, 4 units West

83-CAS-105 2m x dry silt/sand brown high vel 0 org

Channel Volcanics at 5N 3+400W Flows 275°

At 4+310N 4+00W, small zone of very  
rusty rock of 80660. Intersecting this, and probably  
continuing (under talus is a nice, appetizing qtz  
vein (dissem py) 30cm wide and at least 50m  
long; clean contacts w. green volcanic (?) 020/90