Union Mountain Gold Property

SUMMARY

The Union Mountain Gold property near Atlin, British Columbia, encompasses a two-kilometre zone of gold-quartz veins with notable visible gold and vein chip samples of up to 2.76 oz/ton Au (Bankowski, 1981; Figure 1). Downstream from the property is Spruce Creek, the highest placer gold producing creek in British Columbia, which also produced British Columbia's largest nugget weighing 2.6 kilograms (85 ounces; Ballantyne, 2003). To-date only few Motherlode-Bonanza lode gold quartz vein sources have been identified in the Atlin area. Investment in the Union Mountain Gold Property has high potential to uncover new, high-grade gold quartz veins that are the hard-rock source of the extensive placer deposits in the Atlin Gold Camp.

Quartz-carbonate veins on the Property contain a metal suite of gold-silver-copper-arsenic-antimony, and have returned assays in the range of 0.14 to 2.76 oz/ton Au (trench chip samples across exposed veins; Bankowski, 1981). They occur predominantly along a late, brittle structure, named the Union Mountain Fault (Figure 2) that trends approximately north across the property. The fault zone is strongly listwanite-altered (quartz-carbonate-pyrite alteration) and hosts an array of quartz veins in several preferred orientations. Another generation of faults on the property also have the potential to host similar gold vein systems. Early (Jurassic) thrust faults imbricate the host Cache Creek terrane ophiolite assemblage. Regionally, these thrust faults are also extensively listwanite-altered and are known to host gold-enriched quartz veins (Ash, 2004).

The timing of alteration and quartz vein emplacement along these structures is uncertain, but may be related to a nearby Jurassic-age intrusion on the property that contains surface molybdenite mineralization. The Mo-porphyry potential of this intrusion is also untested.

Previous work on the property has been sporadic; work has focused on trenching with minimal vein mapping, and a regional soil geochemical survey of uncertain quality. Neither property-scale geophysical surveys, nor drilling have been undertaken on the property. This vein system with known gold mineralization remains untested to depth and along strike.

The property is owned by Mr. Lenard Diduck, a prospector and developer who owned the Yellowjacket Mine property in the Atlin area, which is currently going through the bulk-sampling phase of mine development.

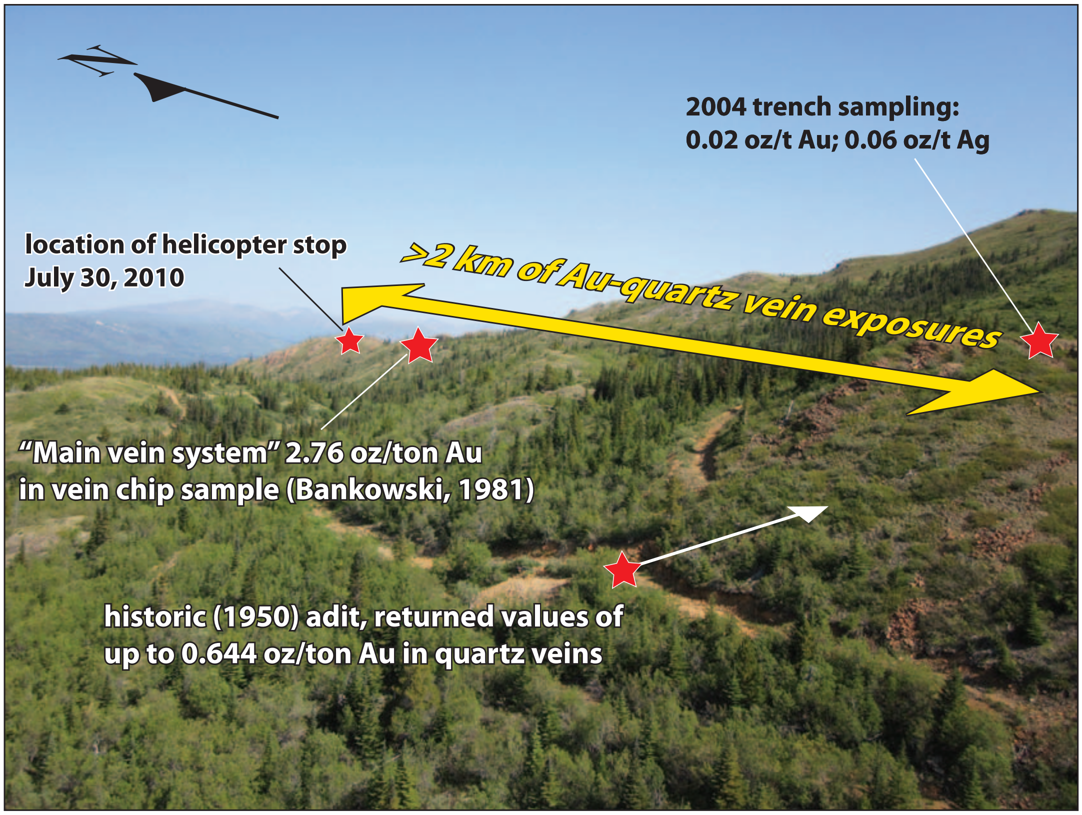

Figure 1. Photo of the gold vein trend on the Union Mountain property (view to the northeast).

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CONTACT

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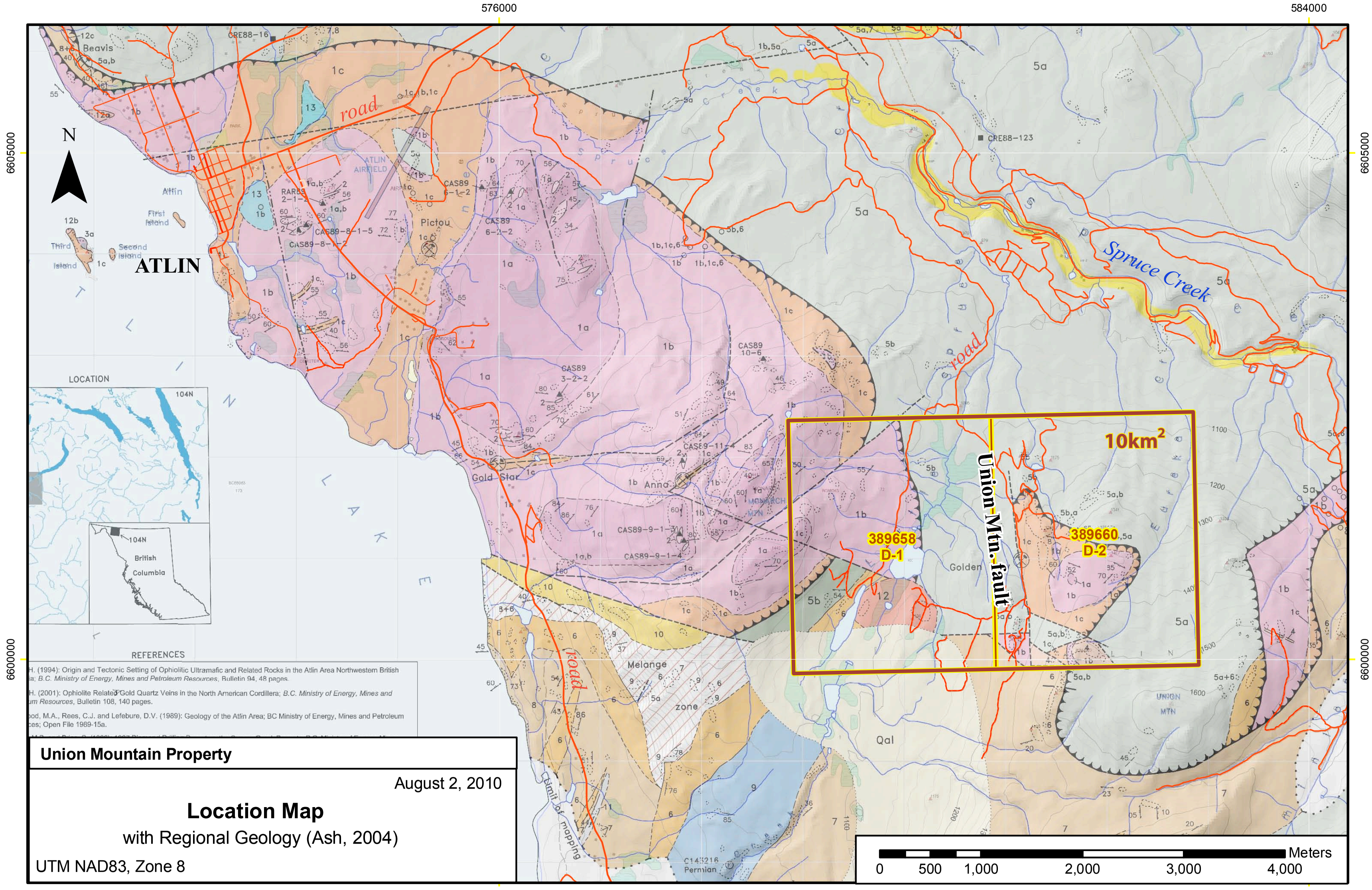

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Union Mountain Property

August 2, 2010

Location Map

with Regional Geology (Ash, 2004)

UTM NAD83, Zone 8

Figure 2. Location map of the Union Mountain Property in the Atlin area, underlain by the regional geology of Ash, 2004. Legend on following page.

BC
Ministry of Energy & Mines

Geological Survey & Development Branch

GEOSCIENCE MAP 2004-4

Accompanies Bulletin 94

GEOLOGY OF THE ATLIN AREA, NORTHWESTERN BRITISH COLUMBIA

UTM NAD83 Zone 8
Elevation in metres
NTS 104N/11W&12E

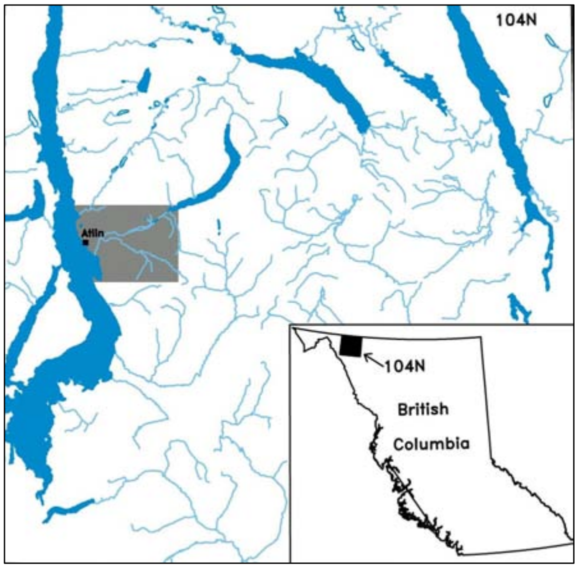
Geology by C.H. Ash

Scale 1:25 000
0 1 2
KILOMETRES

LEGEND

SYMBOLS

Geological contact (defined, approximate, inferred, inferred from aeromagnetics)	——— – – – – – – — ·· —
Fault or shear zone (approximate, inferred, inferred from airphoto linear)	– – – – – – — ·· —
Thrust fault (approximate, inferred, inferred from airphoto linear)	▲▲▲▲ –▲▲– –▲– –▲
Tectonite foliation (S1)	╲
Tectonite banding (metamorphic) (S1b)	╲
Schistosity–shearing fabric (S2)	╲
Bedding	╲
Dike (inclined, verrtical; d=diorite)	╲
Outcrop location	◌
Drill hole location (lables indicate down hole progression of units)	○ 1b,1c,6
Lode gold showing	⚒
Sample location:	
whole rock geochem	■
mineral phase chemistry	▲
Trench	≻—≺
Fossil locality with GSC reference number	Ⓕ



QUATERNARY

Qal	Unconsolidated glacial till and poorly sorted alluvium
🟨	Placer areas (Levson and Kerr, 1992)
13	HYDROMAGNESITE: white, powdery with a uniform texture and composition, no bedding or structure evident, thickness ranges from 0.1 to 1.1 metres

MIDDLE JURASSIC

FOURTH OF JULY BATHOLITH (172 +/- 3 Ma, U-Pb zircon age, Mihalynuk et al., 1992)

12	GRANODIORITE: buff-white to dull pink, medium- to coarse-grained, k-feldspar megacrystic, megacrysts up to 2 cm (20-40%) in a medium-grained matrix of quartz, plagioclase, biotite, accessory magnetite and sphene
12a	FELDSPAR PORPHYRY: buff-white to dull pink fine grained with 15 to 30 %, 4 to 9 millimetre feldspar phenocrysts, hornblende phenocrysts from 3 to 6 millimetre varies from trace to 15 %; unit typically occurs as 0.5 to 2 metre wide dikes and small stocks.

MISSISSIPPIAN TO MIDDLE JURASSIC

SEDIMENTARY ROCKS

11	WACKE: grey, grey-green weathering, with abundant chert clasts and lesser clasts of argillite, quartz and limestone with the latter typically weathering out on surface, locally well bedded
10	SEDIMENTARY TECTONIC BRECCIA: tan to rusty-brown, polymictic with angular to rounded fragments of variably bedded to massive limestone and siltstone from several centimetres to metres in size cemented by iron-magnesite, includes minor chert and basalt fragments
9	LIMESTONE: massive, grey to buff-white, light to dark grey weathering, typically recrystallized
8	ARGILLITE: dark grey to balck (graphitic), fine grained, typically sheared and flaggy
7	CHERTY ARGILLITE: dark to pale grey, silicious siltstone, impure chert, typically massive, locally bedded
6	CHERT: varies from dark to light grey to buff white to red brown to black, massive to commonly ribboned with thinner argillaceous interbeds, where containing interbeds the unit is labeled 6/7
▨	MELANGE: siliceous argillite with blocks and lenses of limestone, volcanic rock and chert (outcropping units indicated)

LATE PALEOZOIC

OCEANIC CRUSTAL ROCKS

5a	METABASALT: grey-green, typically massive, fine- to medium grained, locally autobrecciated, to flowbanded to pillowed, variably carbonatized (5-20 %) with disseminated pyrite (trace to 10 %); minor metadiabase, undivided
5b	CARBONATIZED METABASALT: weathers orange-brown; generally massive to brecciated with quartz as veinlets and space filling breccia; traces to accessory amounts of mariposite
4	METAGABBRO: dark grey to buff white, medium to coarse grained equigranular to locally varitextured and variably carbonate altered
3a	PERIDOTITE (WEHRLITE?): black to dark grey, dull to light grey weathering, typically highly serpentinized, locally displays poikiolitic textures on well washed surfaces with oikocrysts from 1 to 3 centimetres in size
3b	LISTWANITE (carbonatized serpentinite): similiar to 1c (ca. 169 Ma, Ar-Ar Mariposite ages; Ash, 2001)

MANTLE ROCKS

2	DUNITE: dark green, medium-grained equigranular; weathers characteristic tan- brown; variably serpentinized (50 to 100 %); occurs as podiform bodies hosted by harzburgite; trace to 4 %, 1-4 mm disseminated chrome-spinel
1a	HARZBURGITE: dark green to black, medium- to coarse-grained porphyroclastic; differential erosion caused by the more resistant orthopyroxene imparts a rough brown weathered surface; accessory chrome-spinel and clinopyroxene; generally 40-60 % serpentinized but primary textures are commonly preserved; typically foliated and locally banded
1b	SERPENTINITE-BASTITE: altered equivalent to 1a; light to dull weathering; locally mylonitic; minor to moderate talc; accessory magnetite and carbonate

ALTERATION

1c	LISTWANITE (carbonatized serpentite): buff-white to dull grey, weathers distinctive orange-brown; fault controlled intensity of alteration; quartz stringers and episodic veins (auriferous?); accessory to moderate amounts of mariposite with higher abundances immediately associated with quartz veins or areas of quartz flooding; sulphides variable (trace to 10 %), (*ca.* 169 Ma, Ar-Ar Mariposite ages; Ash, 2001).