

EXECUTIVE SUMMARY

520982

YELLOWJACKET

**NTS: 104N/12E
MARCH, 1990
D.M.**

District: Atlin Mining District, B.C.

Location: 9 km ENE of Atlin, northern B.C. (Fig. 1 and 2).

Land Position: 168 units totalling 10,262.5 acres (4,153.2 ha) (Fig. 3).

Agreements/Title: Contiguous claims are controlled by Canova Resources. Underlying agreements also exist with T. Yardley and Grasslands Exploration. HMDC is now vested with 60% interest and the property is under a joint venture agreement, with Canova retaining a 40% interest. T. Yardley has a 3% NSR on the Yardley claims, Grassland Exploration has a 2% NSR on the Cal claim. Placer rights are not covered by these agreements.

Commodity/Model: Gold-silver/Motherlode-type mesothermal vein-stockwork in shear zone or thrust faults near ultramafic-andesitic volcanic contacts.

Exploration Stage: Target drilling stage in part/remainder at early drilling stage.

Expenditures:

	<u>HMDC</u>	<u>Canova</u>	<u>Total</u>
Dec. 1988	\$1579K	\$544K	\$2123K
1989	<u>\$84K</u>	<u>-</u>	<u>84K</u>
Total	\$1663K	\$544K	\$2207K

Competitor Activity: Hughes-Lang, Standard Gold Mines, Stetson Resources. Noranda has recently optioned the immediately adjoining property.

Geology/Past History: The property lies in an Upper Paleozoic and Lower Triassic oceanic sequence of the Atlin terrane. This sequence consists of an ophiolitic volcanic-intrusive assemblage and Cache Creek Group carbonates, cherts, wackes and argillites. During the Mesozoic, major thrusting coincided with transcurrent faulting, following accretion and subduction on the flank of the Cordillera. The property is situated near the Nahlin Fault-one of the major plate overthrusts.

The following rock types are present on the property (Fig. 4):

- a) Cache Creek Group oceanic crustal rocks consisting of basic volcanics.
- b) Serpentinized ultramafics* (Aitken's Atlin intrusions).
- c) Porphyry dykes.

The property straddles the Pine Creek Fault, a major northeast trending, steeply dipping structure which preferentially focused carbonate (ferroan dolomite, magnesite and ankerite), talc, quartz and mariposite alteration.

*The origin and method of emplacement of these ultramafics is a matter of debate. It cannot be tacitly assumed that they form part of the Cache Creek Group; they may be ophiolitic.

The area has been worked intermittently since 1898, when the first placer mineralization was discovered. Several shallow shafts were sunk on quartz veins containing "spectacular gold". The area was effectively dormant except for placer mining until 1983, when T. Yardley staked the Arent claims. Total placer production in the area (Fig. 4) is approximately 750,000 ounces, including 140,000 ounces from Pine Creek.

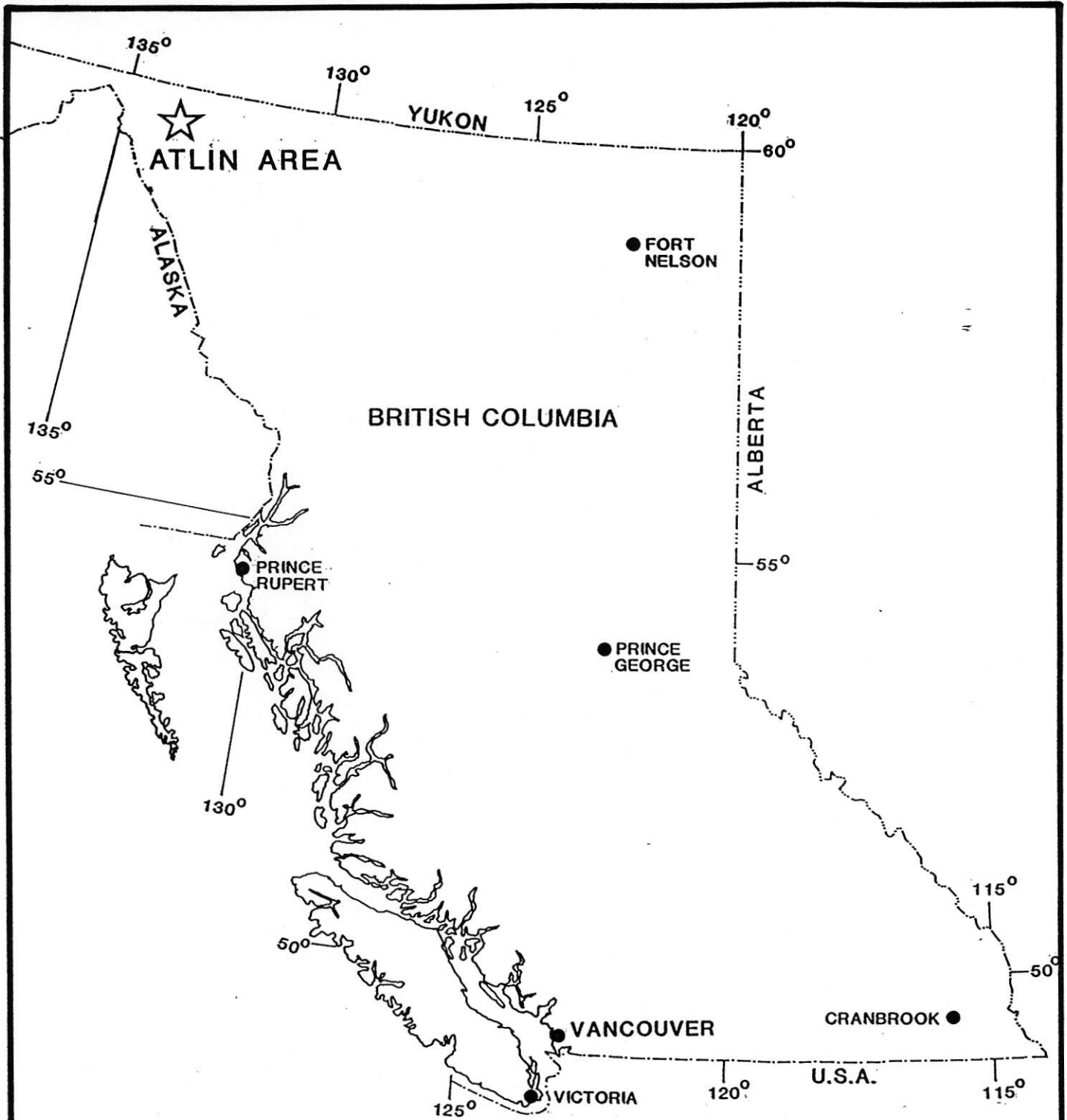
The majority of known lode gold occurrences within the Atlin camp are associated with intensely altered (silica-carbonate-mariposite) ultramafic rocks proximal to fault contacts with rocks of the Cache Creek Group (Fig. 5). The gold mineralization is almost exclusively associated with quartz and quartz-carbonate veins and vein stockwork; it commonly occurs as spectacular coarse free gold, or in intimate association with sulphides and sulphosalts such as pyrite, chalcopyrite, arsenopyrite, galena, sphalerite, tetrahedrite, and pyrargyrite.

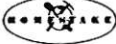
Between 1984 and 1988, Homestake and Canova completed 11,239 meters of diamond and rotary drilling on the Yellowjacket Group, and as a result have outlined an area of gold mineralization, near the Pine Creek Fault (Fig. 6). Much of the mineralization is confined to the faulted and fractured footwall andesites, however, continuity is lacking. The grades and intercepts (Table 1) are erratic (see model) and it is unlikely that the "inventory" could be classified as mineable without fill-in delineation drilling or a bulk sample.

A major benefit gained from past exploration programs on the Yellowjacket Property is an understanding of key structural and lithological ore controls which will help target new zones on the Yellowjacket and adjacent properties (ie. Reef, Heart of Gold).

Inventory: Possible geological reserves are 93,650 tonnes @ 8.4 g/t using 3 g/t cut-off and minimum widths of 1.6 metres. Metallurgical tests completed in 1986 on a section of drill core indicated a 95% recovery rate using gravity concentration and floatation of gravity tails (Fig. 7).

Exploration Potential: Mineralization on the Yellowjacket property appears to be confined to quartz stockworks within quartz-carbonate ± mariposite ± sericite altered zones controlled by thrust faulted contacts between ultramafic and volcanic rocks, and the subvertical Pine Creek fault system (Fig. 8). The intersection of these two fault trends appears to be a key ore control. Numerous good, untested, exploration targets of a similar geological but blind nature occur along the entire strike length of the Pine Creek fault. Some of these are located on the Beama claim, the Reef claim and the Pictou property.



HOMESTAKE MINERAL DEVELOPMENT COMPANY			
ATLIN PROJECTS BRITISH COLUMBIA			
LOCATION MAP			
DRAWN KMc	DATE 11/87	FILE CODE 104N/11;12	FIG. 1
Revised _____			

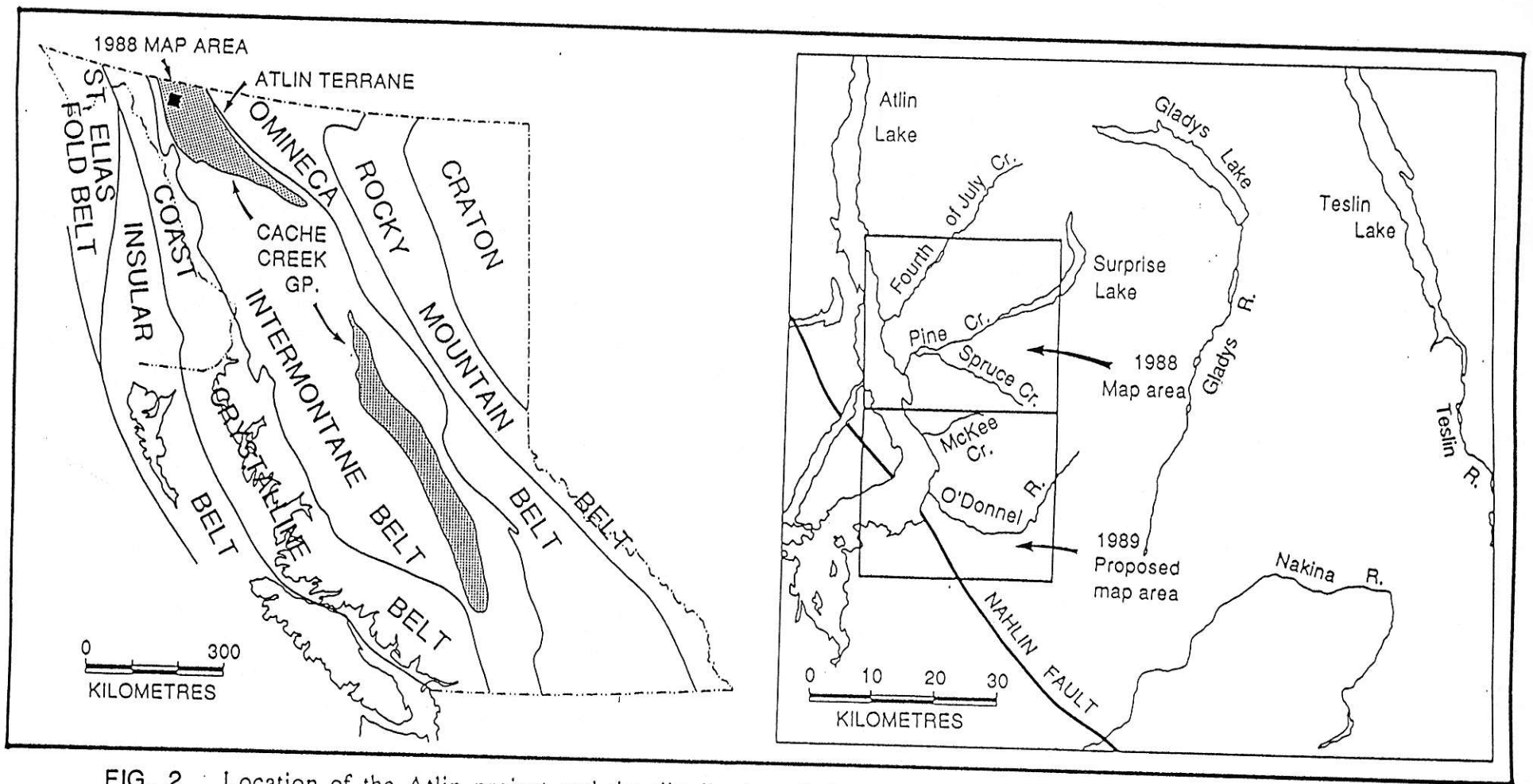
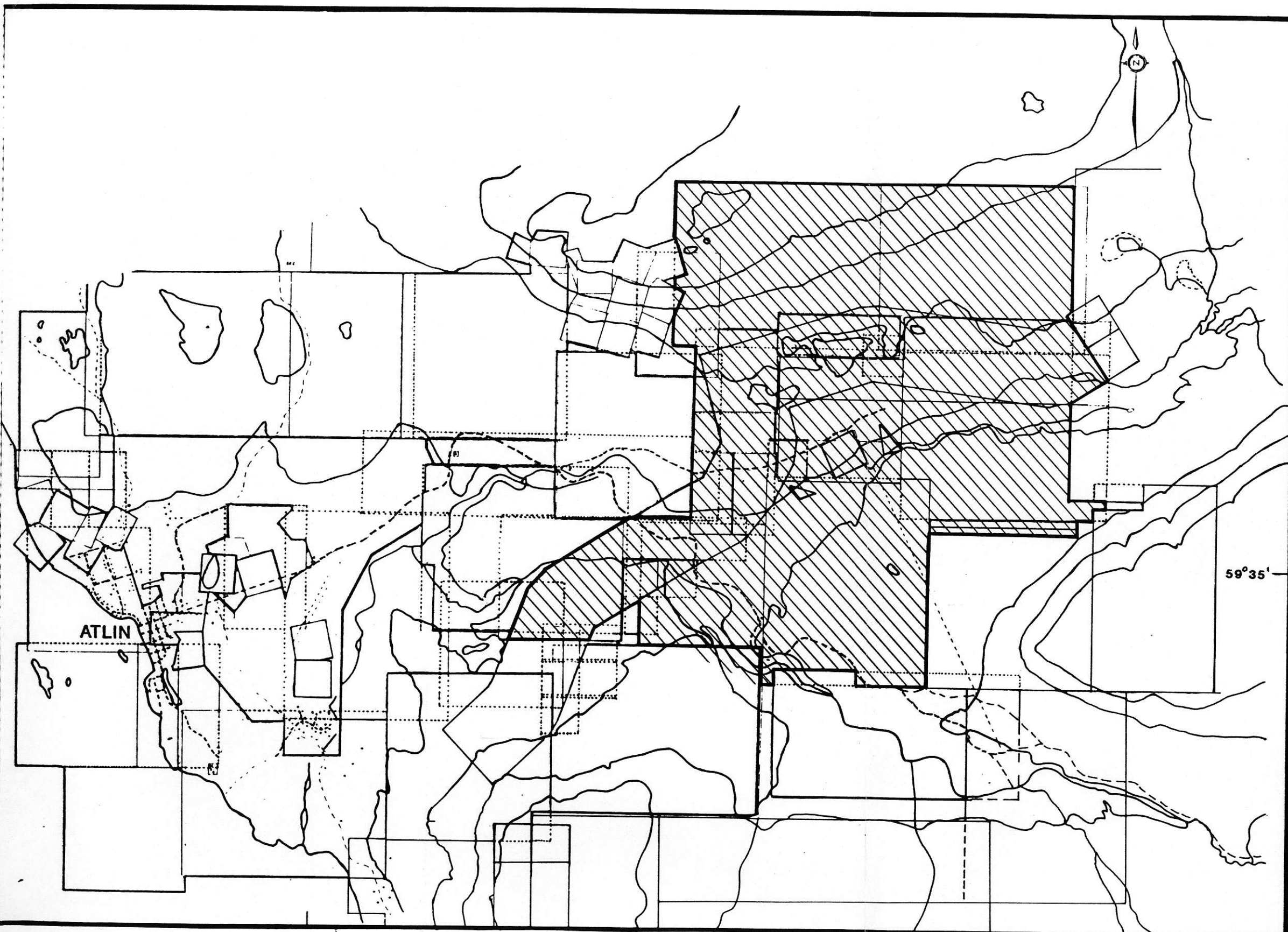



FIG. 2 Location of the Atlin project and the distribution of the Cache Creek Group rocks throughout British Columbia (modified after Wheeler and McFeely, 1987).




**YELLOWJACKET PROJECT AREA
(CANOVA AGREEMENT)**

0 1000 2000 metres
SCALE 1:50,000

HOMESTAKE MINERAL DEVELOPMENT COMPANY			
YELLOWJACKET PROPERTY BRITISH COLUMBIA			
PROPERTY MAP			
DRAWN <small>Revised</small>	DATE 11/87	FILE CODE 104N/11,12	FIG. 3

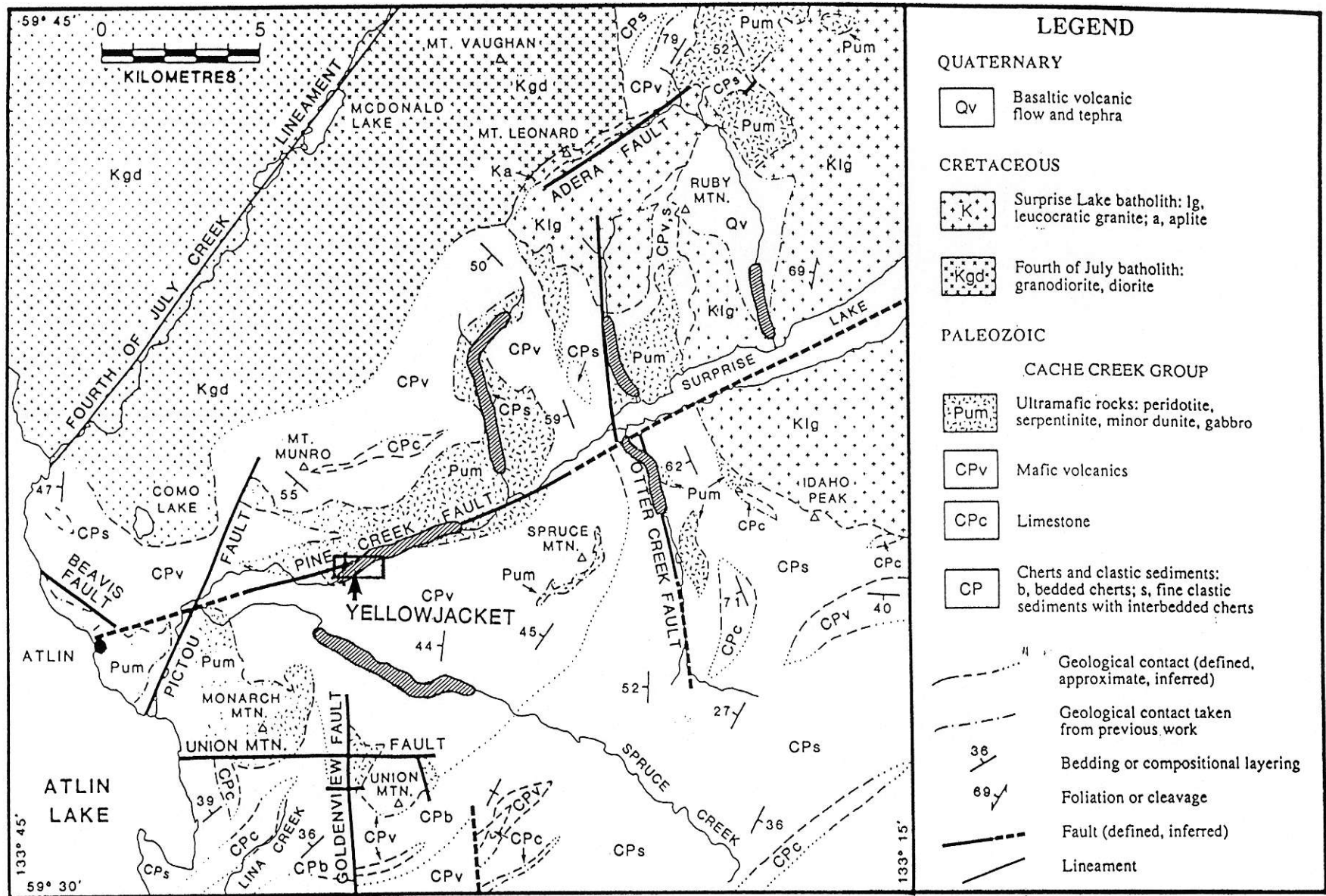


FIG. 4 Geology map (104N/11W, 12E).

 HISTORIC PLACER PRODUCING AREAS

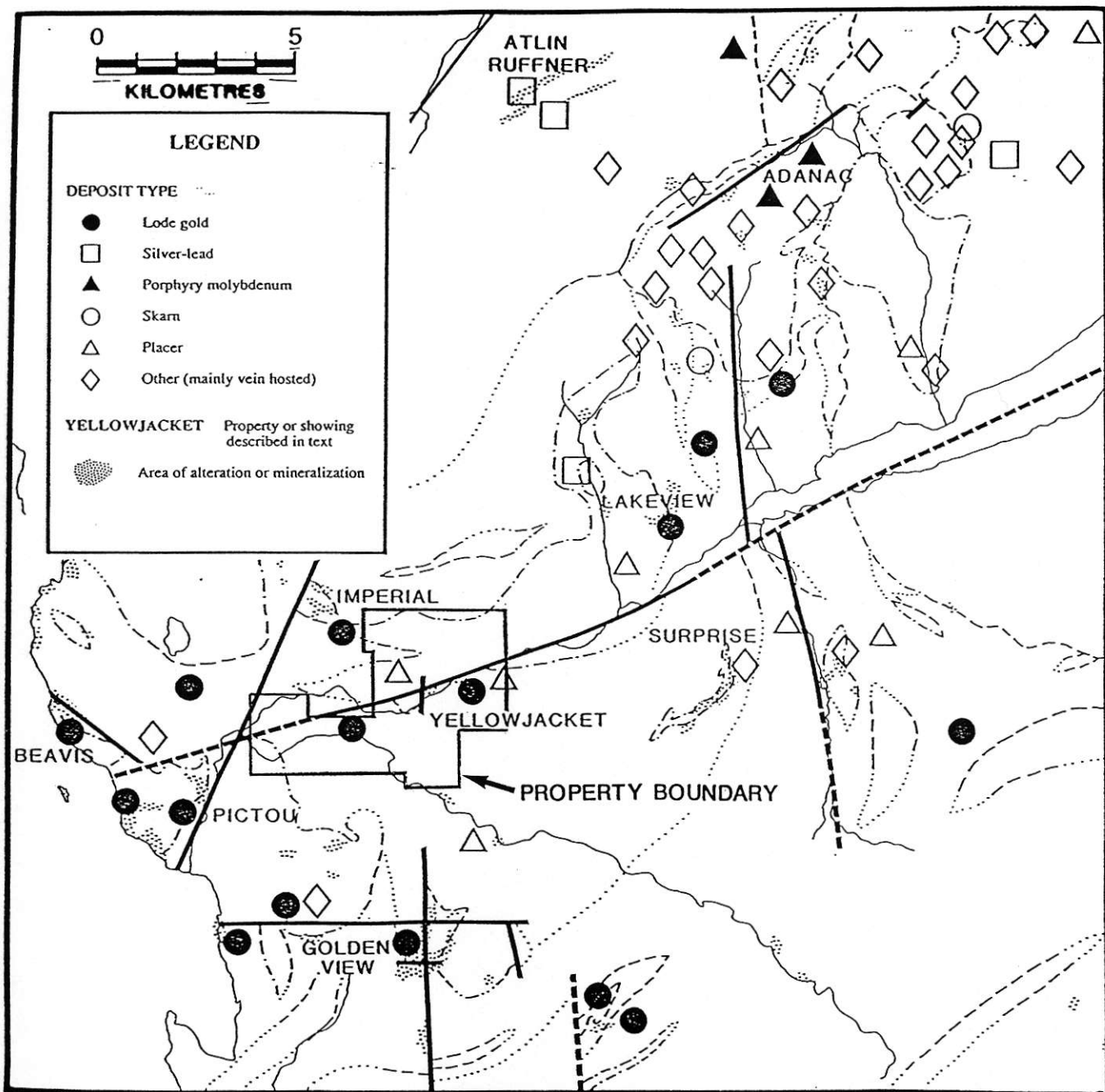
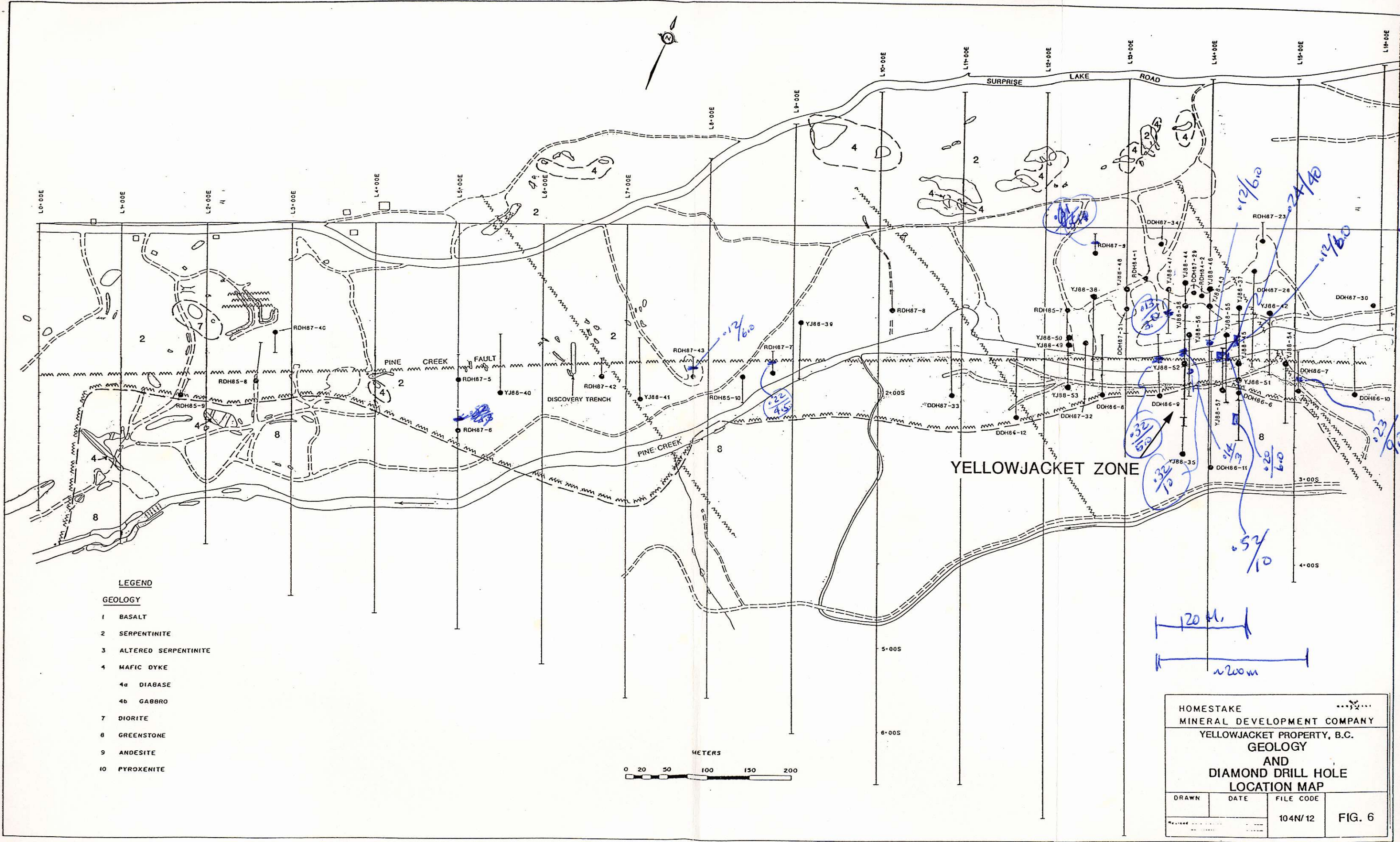


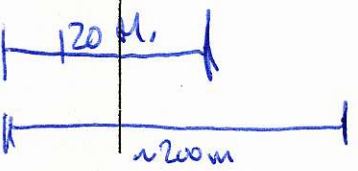
FIG. 5 Mineralization and alteration within 104N/11W, 12E.



LEGEND

GEOLOGY

- 1 BASALT
- 2 SERPENTINITE
- 3 ALTERED SERPENTINITE
- 4 MAFIC DYKE
- 4a DIABASE
- 4b GABBRO
- 7 DIORITE
- 8 GREENSTONE
- 9 ANDESITE
- 10 PYROXENITE



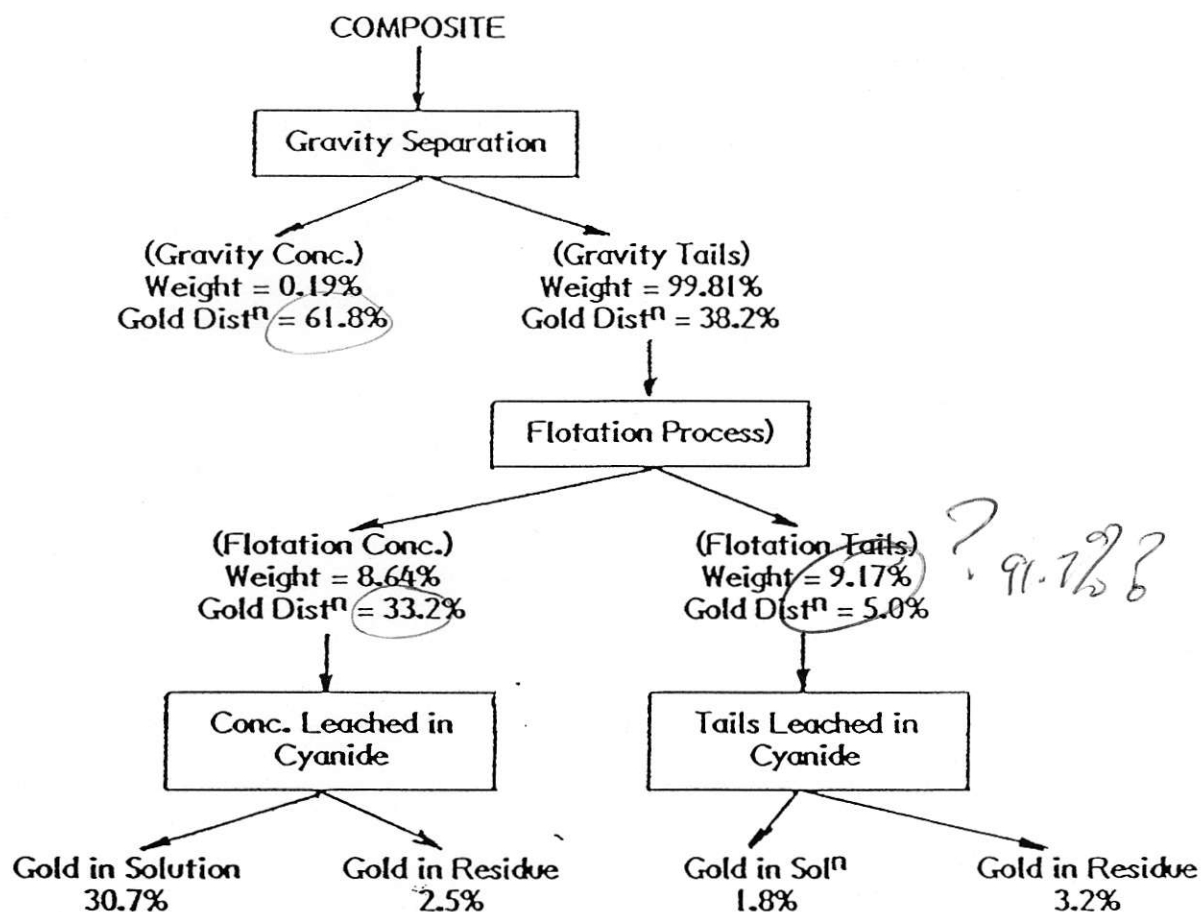
HOMESTAKE MINERAL DEVELOPMENT COMPANY YELLOWJACKET PROPERTY, B.C. GEOLOGY AND DIAMOND DRILL HOLE LOCATION MAP		
DRAWN	DATE	FILE CODE
		104N/12
		FIG. 6

HOMESTAKE MINERAL DEVELOPMENT COMPANY

Metallurgical Test at Lakefield Research (August 1986)
on a Composite Sample (DDH YJ 86-6: 82.3 m. to 89.9 m.)

Crushed rejects from each of the five samples were screened at 10 mesh. In all instances, these were found to be approximately 60 to 70% plus 10 mesh with larger particles at 1/4 inch. All materials were crushed to obtain 100% minus 10 mesh.

After crushing, each sample was riffled to obtain a half portion and these were combined to produce a composite for testwork. The processes used and results obtained are outlined below.









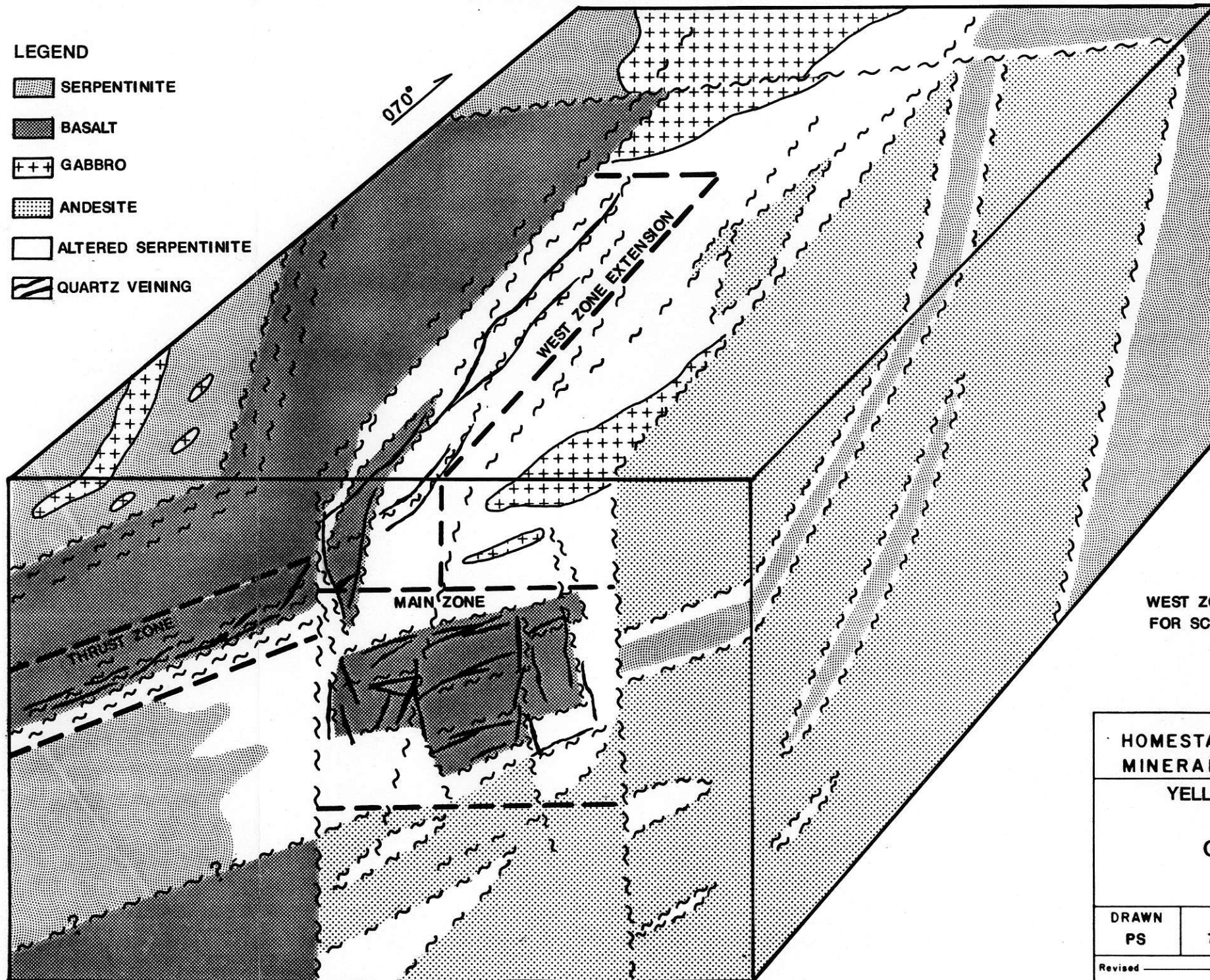
OVERALL SUMMARY

Process	% Dist ⁿ Au	% Overall Recovery Au
Gravity Concentration	61.8	95.0
Flotation of Grav. Tails	33.2	

FIG. 7


LEGEND

-  SERPENTINITE
-  BASALT
-  GABBRO
-  ANDESITE
-  ALTERED SERPENTINITE
-  QUARTZ VEINING



WEST ZONE IS SHOWN EAST OF MAIN ZONE FOR SCHEMATIC PURPOSES ONLY.

NOT TO SCALE

HOMESTAKE			
MINERAL DEVELOPMENT COMPANY			
YELLOWJACKET PROPERTY, B.C.			
CONCEPTUAL MODEL			
DRAWN PS	DATE 7/03/90	FILE CODE 104N/12	FIG. 8
Revised _____			