

MAP NO.: 105 D 6  
ASSESSMENT REPORT X  
PROSPECTUS  
CONFIDENTIAL X  
OPEN FILE

DOCUMENT NO: 092751  
MINING DISTRICT: Whitehorse  
TYPE OF WORK: Blast trenching

REPORT FILED UNDER: Ranger Pacific Minerals Ltd

DATE PERFORMED: 20 September 88-16 September 89  
DATE FILED: 22 September, 1989

LOCATION: LAT.: 60°17'N  
LONG.: 135°05'W  
AREA: ~~Mt Wheaton~~ Gold Hill  
VALUE \$:

CLAIM NAME & NO.: JILL 1-18 (YB08065-YB08082)

WORK DONE BY: G. MacDonald

WORK DONE FOR: Ranger Pacific Minerals Limited

DATE TO GOOD STANDING:


REMARKS: #35 GOLD HILL

Altered rhyolite was sampled in blast trenches near a warm spring which appears to be located on a major fault. No mineralization was found in the area.



ASSESSMENT REPORT

on

1988 / 1989

PROSPECTING and SAMPLING

on the

Jill 1 - 18 YB08065 - YB08082

NTS 105 D-6

Lat. 60 17' N, Long. 135 05' W

Whitehorse Mining District

for

RANGER PACIFIC MINERALS LTD.

BY

G. MACDONALD, P. GEOL.

September 22nd, 1989

092751

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## INTRODUCTION

This report describes blasting and prospecting work undertaken on the JILL 1 - 18 "GOLD HILL" claims in 1988/89. The writer has worked on the subject property from 1985 to 1988 and has managed several exploration programs in the district.

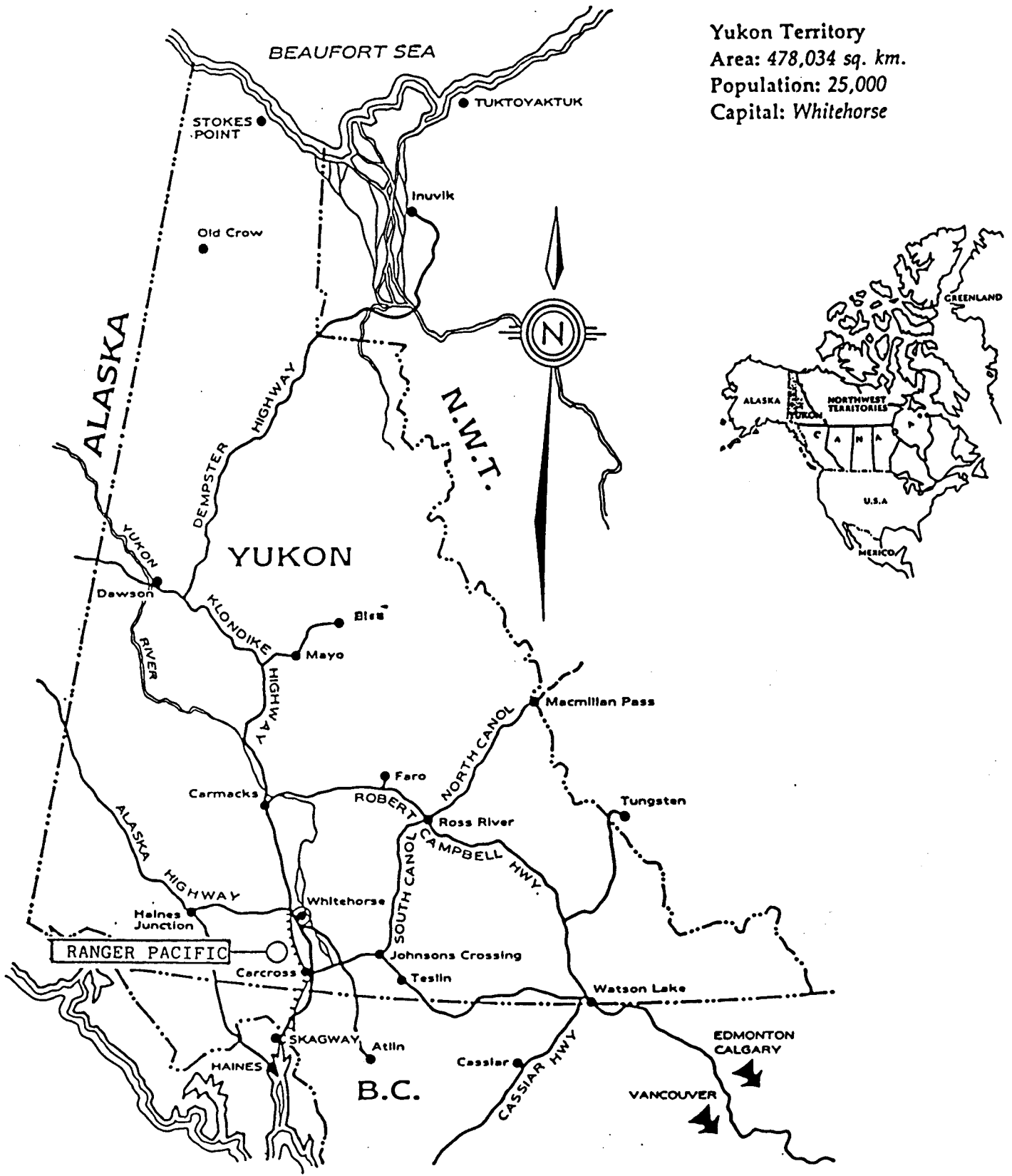
## LOCATION AND ACCESS

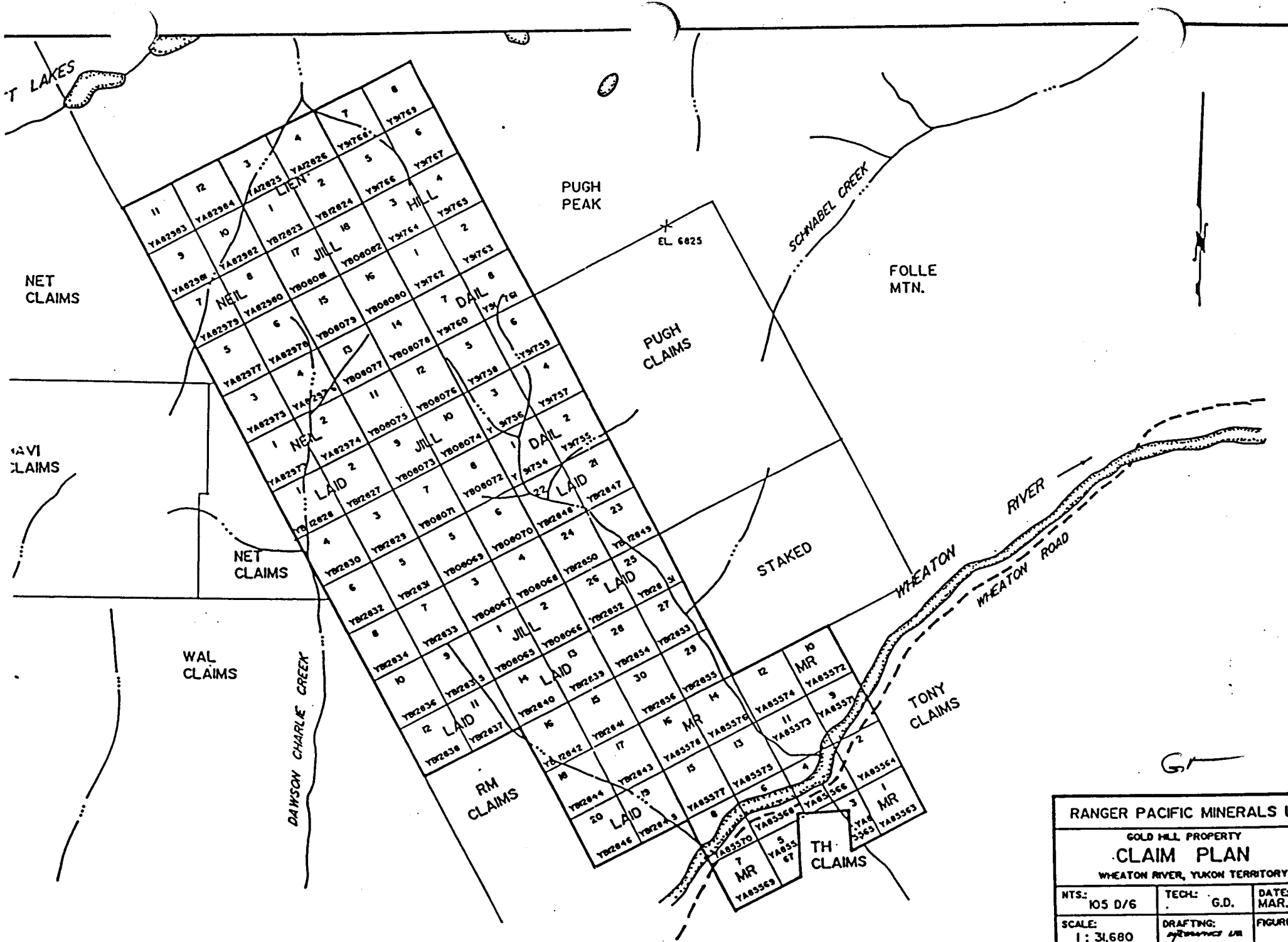
Ranger Pacific's Gold Hill claims cover a broad north-west trending ridge south of Pugh Peak, extending from the Wheaton River to Hodnett Lakes on NTS Map Sheet 105 D-6. The property lies 40 km south of Whitehorse at geographical coordinates 60 17'N latitude, 135 05'W longitude (see Figures 1 & 2).

The Alaska and Klondike Highways, and the Wheaton River-Mount Skukum all-season gravel road provide access to the area. A four wheel drive road follows Hodnett Creek from the Wheaton Road to the property. Presently access to the claims is on foot or by helicopter because the road is closed by a slide on the property end.

Figure 1

Yukon Territory  
Area: 478,034 sq. km.  
Population: 25,000  
Capital: Whitehorse





RANGER PACIFIC MINERALS LTD		
GOLD HILL PROPERTY		
CLAIM PLAN		
WHEATON RIVER, YUKON TERRITORY		
NTS:	TECH:	DATE:
105 D/6	G.D.	MAR., 1967
SCALE:	DRAFTING:	FIGURE:
1 : 31,680	BY: [Signature]	

## REGIONAL GEOLOGY

The Wheaton River/Bennett Lake district overlies the boundary between two terranes: (1) the Whitehorse Trough consisting of Mesozoic and Paleozoic folded metavolcanic and metasedimentary rocks, and (2) crystalline rocks of the Coast Plutonic Complex and Yukon Crystalline Terrane, consisting of metasedimentary rocks of the Late Precambrian or Paleozoic Yukon Group intruded by Mid-Cretaceous granite or granodiorite plutons. Both Terranes are intruded and overlain by Early Tertiary volcanic rocks of the Skukum Group. Figure 3 shows the regional geology.

The Whitehorse Trough features a complex assemblage of deformed volcanic and sedimentary rocks consisting of the Triassic Lewes River Group, the Lower Jurassic Laberge Group and the Jurassic Tantalus Group. The Lewes River Group consists of andesite, basalt and pyroclastic flows, and foliated marine sedimentary rocks. A narrow but continuous unit of limestone, limestone breccia and quartzite has been traced in a northwesterly direction from the west side of Mount Stevens across Tally-Ho Mountain and Gold Hill to the Hodnett Lakes. Interbedded schists occur with the limestone and volcanic rocks of the Lewes River Group. A narrow band of Tantalus Group conglomerates and Laberge

Group siltstones outcrops on Folle Mountain and Idaho Hill; however, rocks of these groups primarily outcrop north and east of the Wheaton River/Bennett Lake district.

Cretaceous granitic rocks of the Coast Plutonic Complex are the most common in the district; typically, they consist of fresh quartz monzonite, granodiorite or quartz diorite. Pendants and masses of Yukon Group quartz-mica schist, gneisses and crystalline limestone occur in the granitic intrusives. The Yukon Group is of Early Paleozoic and Late Precambrian age.

A younger series of andesite and rhyolite flows, tuffs and agglomerates, mapped as the Tertiary Mount Skukum, intrude and overlie granitic rocks forming volcanic complexes at Mount Skukum and Mount Macauley. Also, Skukum Group rhyolite and granite porphyry dykes and plugs intrude Lewes River Group rocks and Cretaceous granodiorites throughout the Wheaton River area.

The geology of the Wheaton River region was initially mapped by D.D. Cairnes of the G.S.C., published in Memoir 31 (1912) and later by J. Wheeler, published in Memoir 312 (1961). A reinterpretation of the regional geology formed part of the metallogenic map published as Open File E.G.S. 1979-6 (G. W. Morrison) by the Department of Indian Affairs and Northern Development.



Mesozoic and Paleozoic sedimentary and volcanic rocks of the Whitehorse Trough Terrane are deformed and generally metamorphosed to at least lower green schist facies. These units trend north to northwest and are internally complex.

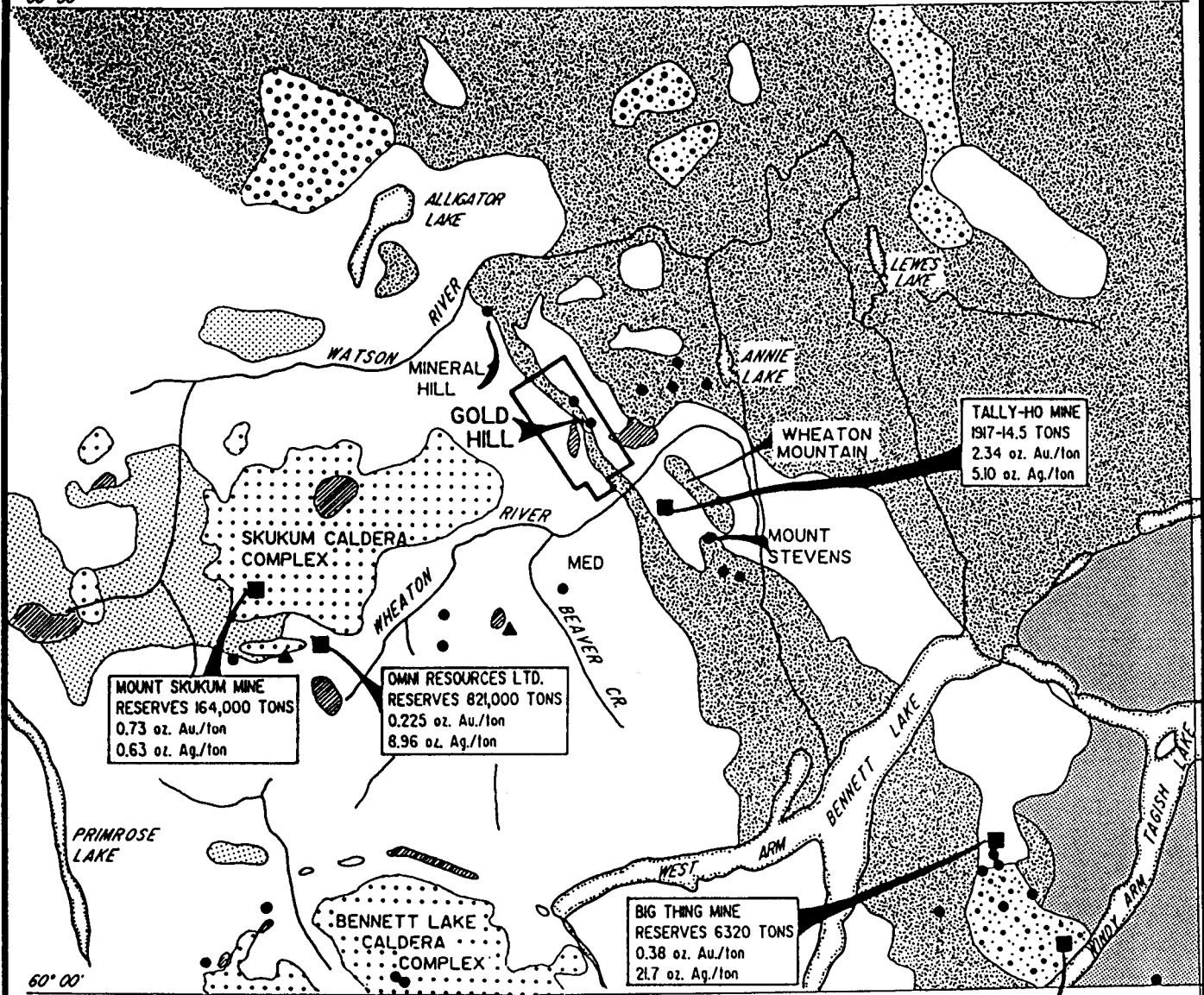
Structurally, the area features major faults, primarily along river valleys, associated with movement in the Coast Plutonic Complex and with Early Tertiary volcanism at Mount Skukum, Mount Macauley and Montana Mountain. The Skukum Group volcanic rocks are equivalent to the Sloko Group of northern British Columbia and the Mount Nansen Group of central Yukon. Late stage features of Skukum Group volcanism include dacite, rhyolite and granite porphyry dykes, emplaced in fracture and fault zones around the volcanic complexes, and quartz or quartz carbonate veining with significant precious and base metal mineralization.

See Table 1 for a Table of Formations.

Table of Formations

ERA	PERIOD or EPOCH	FORMATION	LITHOLOGY	
CENOZOIC	Pleistocene and Recent		Glacial drift, alluvium, volcanic ash	
		Miles Canyon	Basalt, minor sediments and pyroclastics	
	U n c o n f o r m i t y			
	Eocene	Skukum and Bennett Lake Intrusives		Quartz feldspar granite porphyry
				Smokey quartz eye granite
				Rhyolite feldspar porphyry
				Ryolite dykes
	I n t r u s i v e C o n t a c t			
		Skukum and Bennett Lake Volcanic Complexes		Felsic pyroclastics, tuff, lithic tuff, welded tuff, flow banded rhyolite, epiclastic sediments, andesite flows and breccias, dacite flows, conglomerate and basalt
	U n c o n f o r m i t y			
	Tertiary			Ibex alaskite
				Pink quartz monzonite
			Alaskite granite with mafic border phase	
			Leucogranite	
I n t r u s i v e C o n t a c t				
MESOZOIC	Cretaceous	Mt. Nansen Gp.	Rhyolite to andesite flows and lithic tuff	
		U n c o n f o r m i t y		
		Coast Plutonic Complex		Folle Mountain biotite granite
				Hornblende granodiorite
				Mt. Anderson granite-granodiorite
				Boudette Creek quartz monzonite
				Wheaton Valley hornblende granodiorite
		Fenwick Creek diorite		
	I n t r u s i v e C o n t a c t			
	Uppermost Jurassic/ Lower Cretaceous	Tantalus Formation		Chert pebble conglomerate, grit, sandstone, shale and coal
	Lower and Middle Jurassic	Laberge Group		Granite cobble conglomerate, greywacke, arkose, siltstone and andesite
	D i s c o n f o r m i t y			
	Late Triassic			Friday Creek diorite
				Pyroxenite, leucogabbro
				Megacrystic granite-granodiorite
				Intrusion breccia
I n t r u s i v e C o n t a c t				
		Lewes River Group		Andesite flows, breccias, tuff, augite and feldspar porphyry, chlorite schist, agglomerate, arkose, conglomerate, marble, limestone, greywacke and argillite
R e l a t i o n s U n c e r t a i n				
			Andesite flows, breccia and tuff	
U n c o n f o r m i t y				
PALEOZOIC -2222- Precambrian			Hornblende granodiorite gniess	
	I n t r u s i v e C o n t a c t			
	Paleozoic and Older	Yukon Crystalline Terrane	Biotite muscovite quartz feldspar gneiss, chlorite biotite feldspar gneiss, muscovite quartz schist, marble, quartzite, amphibolite	

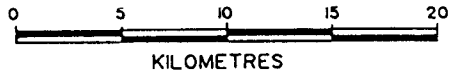
60° 30'



60° 00'

**LEGEND**

- QUATERNARY
  - MILES CANYON BASALT
- EOCENE
  - SKUKUM GROUP VOLCANICS
  - SKUKUM GROUP RHYOLITE
- CRETACEOUS
  - COAST PLUTONIC COMPLEX - GRANODIORITE
  - HUTSHI GROUP VOLCANICS
- TRIASSIC TO JURASSIC
  - WHITEHORSE TROUGH LEWES RIVER GROUP AND LABERGE GROUP
- PERMIAN
  - TAKU GROUP
- PALEOZOIC OR OLDER (?)
  - YUKON METAMORPHIC COMPLEX
- ANTIMONY PROSPECT
- PRECIOUS METALS PROSPECT
- PRECIOUS METALS DEPOSIT



NOTE: MINERAL OCCURRENCES AFTER NORTHERN CORDILLERA MINERAL INVENTORY 1986 : ARCHER, CATHRO & ASSOCIATES ( 1981 ) LTD. GEOLOGY AFTER WHEELER, 1961.

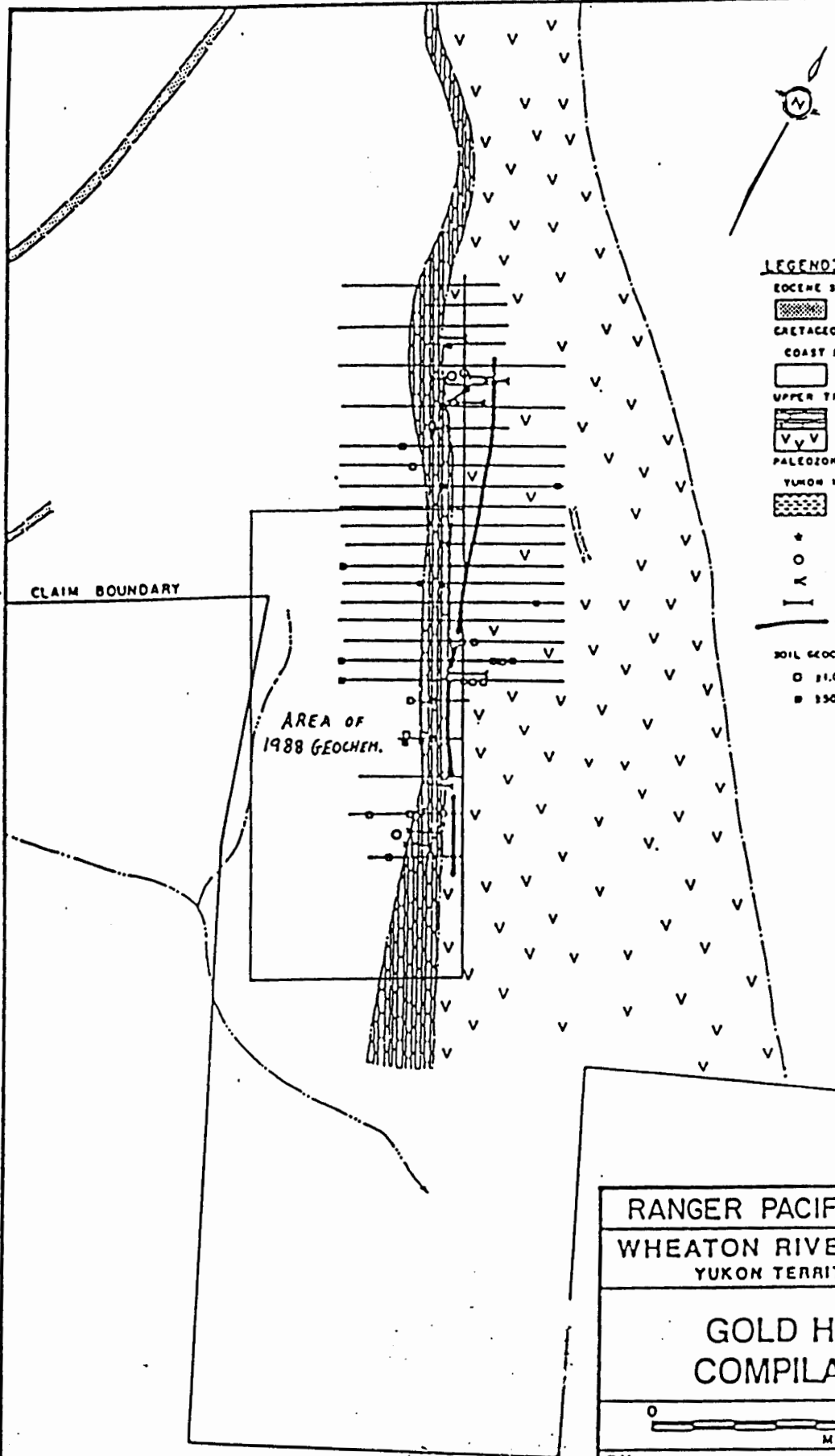
<b>RANGER PACIFIC MINERALS LTD.</b>		
GOLD HILL PROPERTY		
<b>REGIONAL GEOLOGY MAP</b>		
WHEATON RIVER, YUKON TERRITORY		
NTS.: 105 D/6	TECH.: G.D.	DATE: MAR., 1988
SCALE:	DRAFTING: INTEGRAPHICS LTD.	FIGURE: 3

134° 30'

GOLD HILL GEOLOGY

The Gold Hill area is primarily underlain by Cretaceous granodiorite of the Coast plutonic Complex and a northwesterly trending belt of Triassic Lewes river Group metasedimentary and metavolcanic rocks. Dykes and plugs of Early Tertiary Skukum Group volcanic rocks intrude the Mesozoic and Paleozoic rocks. Porphyry dykes and fracture systems associated with the volcanic centre at Mount Skukum pass through the Gold hill area.

Geology of the Gold Hill area is shown in Figures 4 and 5.



**LEGEND:**

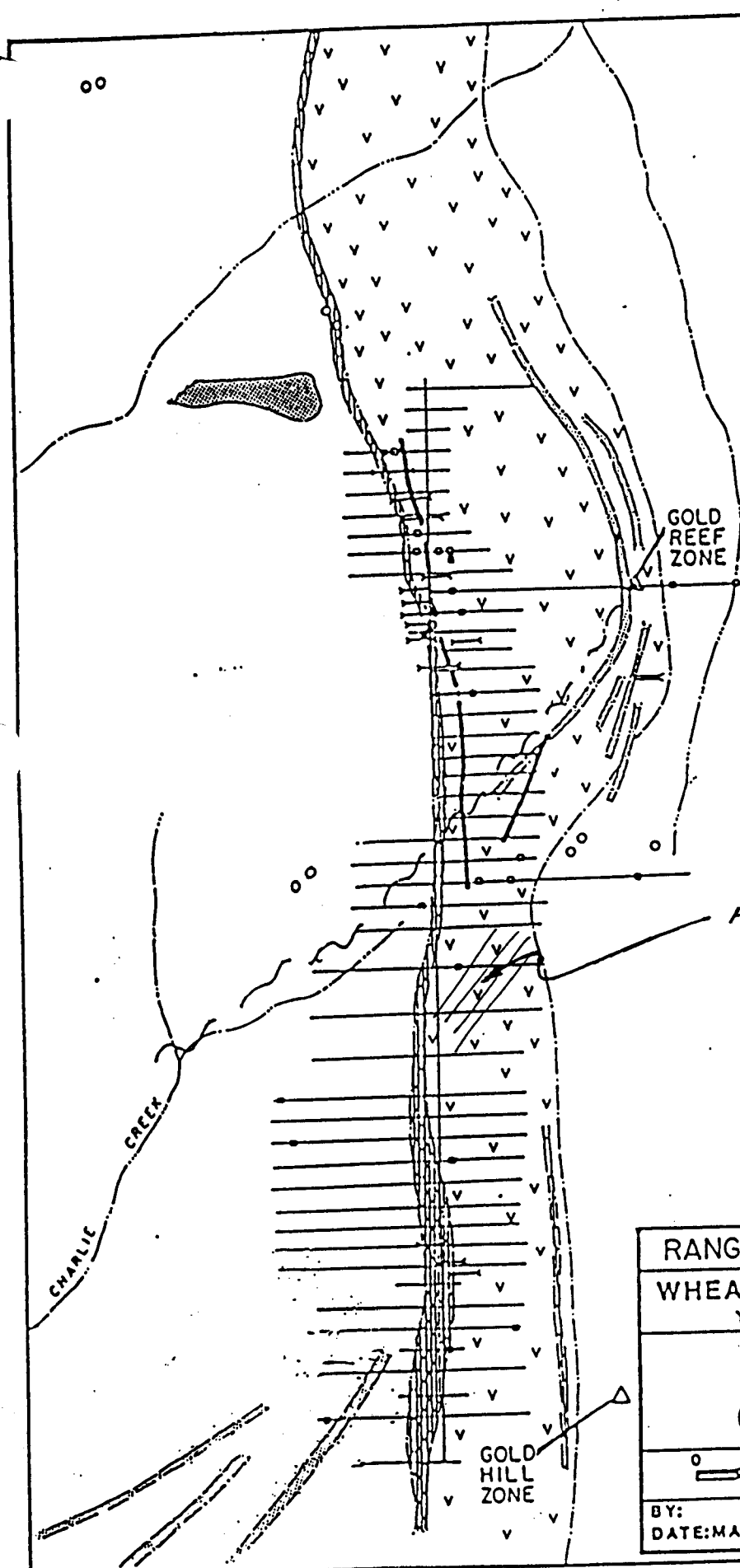
- EOCENE SKUKUM GROUP
  - FELSIC TO INTERMEDIATE SUBVOLCANIC DYKES
- CRETACEOUS
- COAST PLUTONIC COMPLEX
  - GRANODIORITE
- UPPER TRIASSIC LEWIS RIVER GROUP
  - ▨ LIMESTONE
  - ▽ SEDIMENTS AND VOLCANICS
- PALEOZOIC OR OLDER (?)
- YUKON METAMORPHIC COMPLEX
  - ▨ QUARTZOSE SCHIST, GNEISS AND LIMESTONE
- \* PERCUSSION DRILL HOLE
- Au, Ag ROCK MINERALIZATION
- K ADIT
- TRENCH
- VLF-EM IS CONDUCTOR AXIS
- SOIL GEOCHEMICAL ANOMALY
  - 21.0 PPB SILVER
  - 130 PPB GOLD

*GML*

RANGER PACIFIC MINERALS LTD.	
WHEATON RIVER JOINT VENTURE	
YUKON TERRITORY NTS:105 D/6	
GOLD HILL SOUTH COMPILATION MAP	
BY: DATE: MAY 1987	FIGURE: 4

**LEGEND:**

- EOCENE STURUM GROUP
- CRETACEOUS
  - FELSIC TO INTERMEDIATE SUBVOLCANIC DYKES
- COAST PLUTONIC COMPLEX
  - GRANODIORITE
- UPPER TRIASSIC LEWIS RIVER GROUP
  - LIMESTONE
  - SEDIMENTS AND VOLCANICS
- PALEOZOIC OR OLDER (?)
  - YUKON METAMORPHIC COMPLEX
    - QUARTZOSE SCHIST, GNEISS AND LIMESTONE
- PERCUSSION DRILL HOLE
- AD, Ag ROCK MINERALIZATION
- ADIT
- TRENCH
- VLP-EM IS CONDUCTOR AXIS
- SOIL BIOCHEMICAL ANOMALY
  - 31.0 PPM SILVER
  - 250 PPM GOLD
- Fault



AREA of 1988/89 PROJECT

GM

RANGER PACIFIC MINERALS LTD.	
WHEATON RIVER JOINT VENTURE	
YUKON TERRITORY NTS:105 D/6	
<b>GOLD HILL NORTH COMPILATION MAP.</b>	
BY: DATE: MAY 1987	FIGURE: 5

JILL No. 13

JILL No. 11

JILL No 14

JILL No 12

= Pit No. 1 5'x5'x3'

Spring

// Pit No. 2 5'x5'x4'

= Pit No. 4 6'x4'x3'

Tote Road

JILL No. 11

JILL No. 9

JILL No. 12

JILL No. 10



G. Mackintosh

FIGURE No. 6  
PIT LOCATIONS

### CURRENT EXPLORATION

A small, warm spring occurs along a major fault (contact ?) zone in carbonate and volcanic rocks of the Lewes River Series where Skukum series rhyolite dykes are present. Samples of altered country rock were obtained from small blast pits in the vicinity of the spring. These samples will be the subject of a future microscopie study to determine alteration characteristics. During the sample selection program, the area of the spring was prospected to determine if any sulphide mineralization occurs nearby. None was found. A prospector and helper crew supplied by Tempest Resources were contracted to carry out this program and had field crews on the site September 20 - 21, 1988, July 17 - 23, 1989 and September 14 - 16, 1989. This current exploration phase is shown on Figure 6 of this report.

### SUMMARY AND CONCLUSION

The samples selected for examination show substantial alteration. They should be analysed to determine the nature of the alteration products by microscopie and whole rock geochemical techniques.

*G. MacDonald*



APPENDIX 1

CERTIFICATE OF QUALIFICATIONS

I, GLEN C. MACDONALD, with business and residential address in Vancouver, BC, do hereby certify that:

1. I am a consulting professional geologist.
2. I am a graduate of the University of British Columbia (B.Sc. Geology, 1973 and B.A. Economics 1971).
3. I have practiced Mining and Exploration geology in Yukon, northern British Columbia and Northwest Territories since 1973. I began private practice in 1982 after leaving the position of Regional Geologist for Noranda Exploration Company Limited, Whitehorse, Yukon.
4. I hereby grant my permission for Ranger Pacific Minerals Ltd. to use this report for any legal purposes normal to the business of the corporation.

DATED at Vancouver, BC this 22nd day of September, 1989.



Glen C. Macdonald, P. Geol.

APPENDIX II

STATEMENT OF COSTS

Prospector	8 days @ \$ 250 / day	\$ 2,000
Helper	8 days @ \$ 100 / day	800
P / U truck	2 weeks @ \$ 300 / wk	600
Drill & Powder		500
		<hr/>
	Total costs	\$ 3,900