

86-1024-15688

ASSESSMENT REPORT

1986 FIELD SEASON

O K GROUP

SULPHURETS PROJECT

BRUCEJACK LAKE AREA

SKEENA MINING DIVISION

NTS MAP SHEET 104B/~~2~~^{31.5}9W

LATITUDE: 56 DEGREES ~~50~~^{31.5} MINUTES NORTH

LONGITUDE: 130 DEGREES ~~13~~^{17.3} MINUTES WEST

for the

NEWCANA J.V.
NEWHAWK GOLD MINES LTD. (Owner/Operator)
LACANA MINING CORP.
860 - 625 Howe Street
Vancouver, British Columbia
V6C 2T6

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

15,688

FILMED

N.L. TRIBE. P. ENG.,
FEBRUARY 15, 1987

TABLE OF CONTENTS

	<u>Page</u>
TABLE OF CONTENTS	i
LIST OF ILLUSTRATIONS	ii
INTRODUCTION	1
SUMMARY	1
LOCATION Access and Climate	2
CLAIMS	4
HISTORY	4
REGIONAL GEOLOGY	6
GEOLOGY OF THE MITCHELL ZONE	7
SUMMARY AND CONCLUSIONS	8
STATEMENT OF COSTS	9

5 00r

LIST OF ILLUSTRATIONS

	<u>Page</u>
FIG 1: LOCATION MAP	3
FIG 2: CLAIM MAP	5
FIG 3: INDEX MAP	Map Packet
FIG 4: GEOLOGY MAP 1:500	Map Packet

ASSESSMENT REPORT
1986 FIELD SEASON
OK GROUP
SULPHURETS PROJECT
BRUCKJACK LAKE AREA
SKEENA MINING DIVISION
NTS MAP SHEET 104B/8,9
LATITUDE: 56 DEGREES 30 MINUTES NORTH
LONGITUDE: 130 DEGREES 13 MINUTES WEST

for the

NEWCANA J.V.
NEWHAWK GOLD MINES LTD.
LACANA MINING CORP.
860-625 Howe Street
Vancouver, British Columbia
V6C 2T6

INTRODUCTION

The purpose of this report is to provide a record of work done on the OK Group of Mineral Claims which will be applied as assessment work as required under the Minerals Act.

SUMMARY

The OK Group part of the Sulphurets Property, is located 65 km (45 mi.) northwest of Stewart, B.C. in the Skeena Mining Division of British Columbia.

Access is by helicopter out of Stewart or the Tide Lake airstrip.

The OK Group consists of 38 claim units covering a large zone of alteration and mineralization worked periodically from about 1958.

Gold values are carried within northeast-southwest trending

quartz veins with minor amounts of pyrite, +/- chalcopyrite, tetrahedrite and molybdenite.

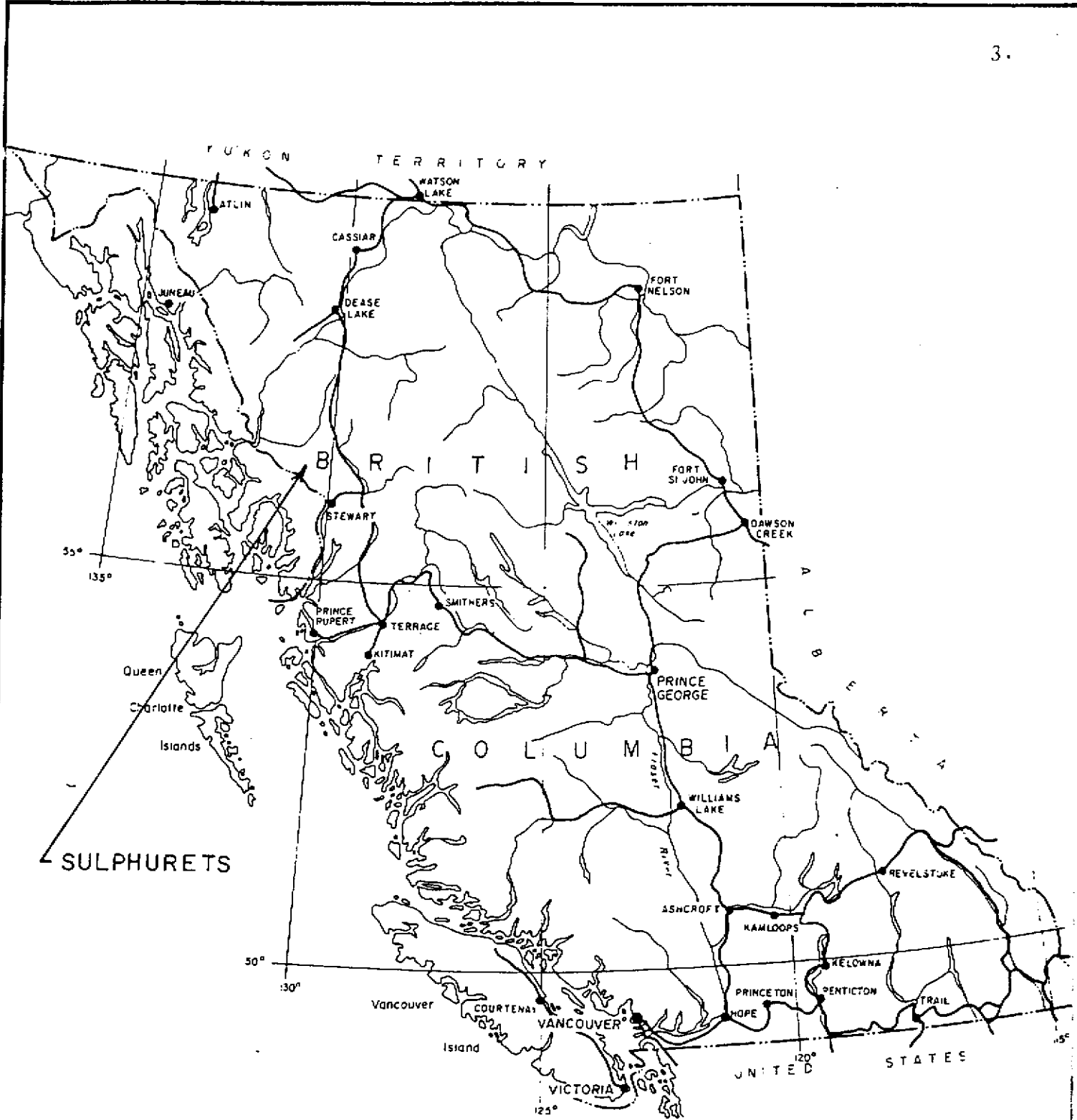
Location, Access and Climate

The property is located approximately 65 km north-west of Stewart B.C. and approximately 950 km north-north-west of Vancouver B.C.. Brucejack Lake is centered approximately 56 degrees 30 minutes north latitude, 130 degrees west longitude on NTS map sheet 104B/8 east and 104B/8 west.

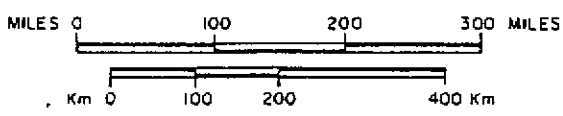
Access to the property at the present time is by helicopter from Stewart. Access for mobilization of equipment is also by helicopter but can be done from the Tide Lake airstrip after about July 1st, when the road is clear of snow. Round trip by helicopter from Tide Lake to Brucejack Lake is about 30 minutes.

Long term access for a mining operation in this location would involve a road from Highway 37. The proposed route would leave Highway 37 about 1 km south of Bell I, proceed up Surveyors Creek and down into the Bowser Valley just west to Bowser Lake. It would then proceed up the south side of the Bowser Valley crossing the river near Knipple Lake, then proceed up the Knipple Glacier to Brucejack Lake around the south side of Brucejack Lake into the area of the camp and the workings.

At the conclusion of our first full year on the property we now have some understanding of the weather conditions that can be expected. The summer season should start mid to late July with about 50-60% of the outcrop free of snow by mid-July. Snow continues to recede until around October 1st when freezing conditions set in again for the winter.



SULPHURETS



NEWCANA JOINT VENTURE		
SULPHURETS PROJECT		
LOCATION MAP		
Drawn. J.W.	By	FIG No.
Scale. As shown	Date. Nov '85	1.

Light snowfalls and strong winds (up to 100 km/hr) can be expected from October 1st until Mid-February, with temperatures varying widely between 0 degrees and -40 degrees centigrade. Mid-February until Mid-April appears to be the period when most of the snow falls, although we have no on site data to draw on. The nearest government snow stations are on Hanna Ridge and Meziadin about 50 km (30 miles) to the east near Highway 37.

Temperatures by Mid-May are warm enough to cause the snow to begin to melt with serious melting not taking place until mid June. Total snowpack in the Brucejack area is probably less than 3 meters, but the high winds which prevail around the equinoxes can drift snow into the sheltered areas to the west of the ridges to a depth of up to 10 m. (30 feet). Drifted snow to this depth can cause serious damage to buildings and other structures unless bracing is designed to carry these loads.

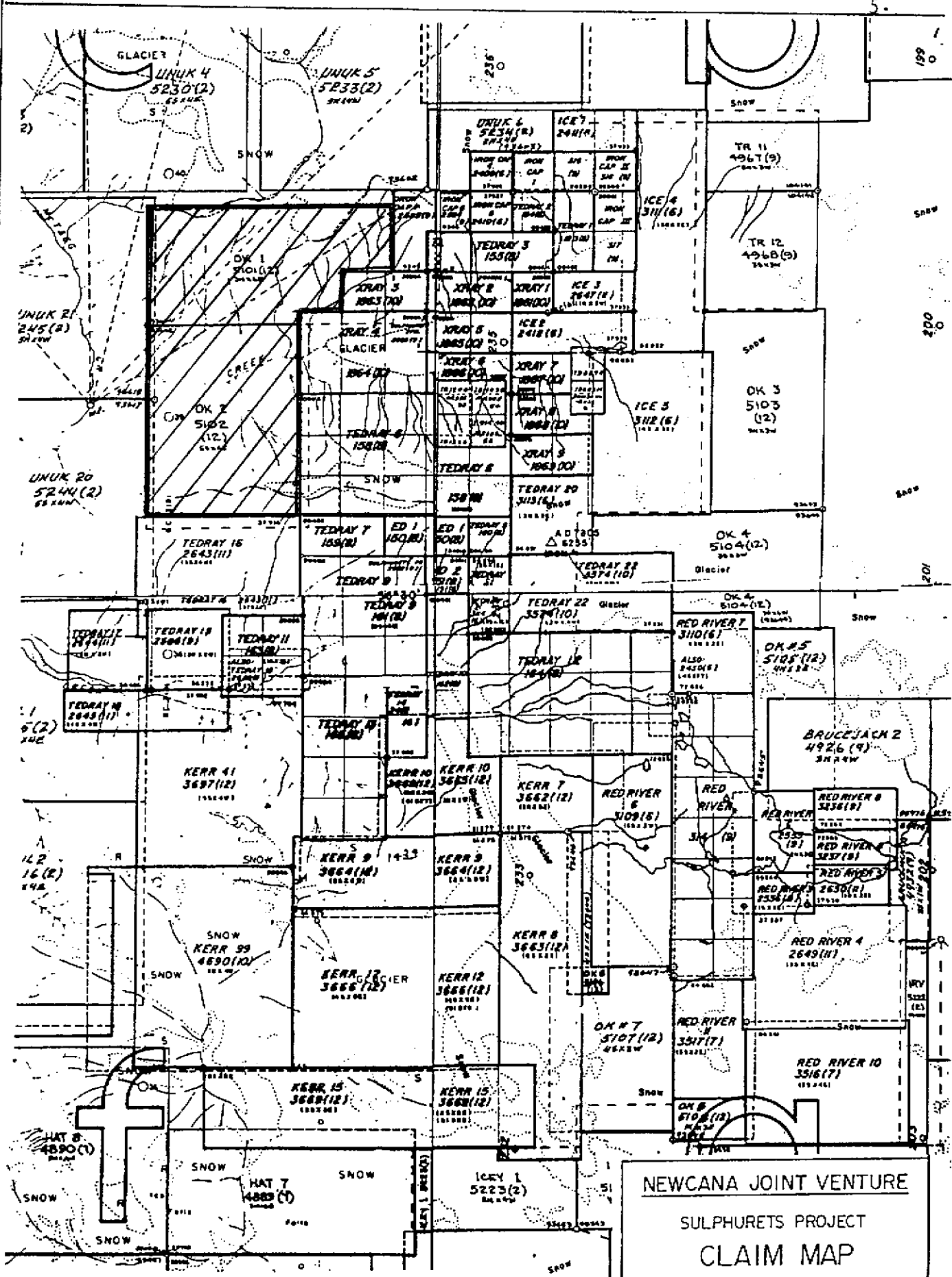
CLAIMS

Claim	/Record No.	/Recorded/ D/M/Yr	/Expiry/ Yr	/Units/ Yrs	Credit	/Rate/ Unit	/Applied	Total
OK 1	5101(12)	10/12/85	1986	18	2	100		\$3600
OK 2	5102(12)	10/12/85	1986	20	2	100		\$4000

TOTAL APPLIED CREDIT = \$7600

HISTORY

Early work in the area probably saw prospectors on the Tedray 20 claim as early as 1910. Claims were staked just to the north of the Mitchell Sulphurets ridge in the 1930's and Newmont had exploration crews in the area searching for copper deposits in the late 1950's. Gold mineralization was discovered by Esso Minerals in 1981 on the Peninsula at the west end of Brucejack Lake. This area



NEWCANA JOINT VENTURE
SULPHURETS PROJECT
CLAIM MAP

Drawn	By	FIG. No.
Scale: 1"=100,000	Date: Nov. '86	2

was mapped and numerous trenches cut across the stock work vein system now referred to as the Shore Zone.

Drilling commenced on the Shore Zone in 1982. The West Zone was discovered, mapped, trenched and drilled in 1982 and 1983. The West Zone is also a quartz stock work structure which contains some spectacular silver minerals.

The Newcana J.V. composed of a 50/50 partnership between Newhawk Gold Mines Ltd., and Lacana Mining Corp., began its work in 1985 and by the end of the 1986 field season had spent over \$2,000,000 on the property.

REGIONAL GEOLOGY

The geology of the Stewart area is typified by moderately folded, intermediate volcanics and sediments intruded by a succession of plutons. Areas around many gold-silver deposits are characterized by a distinctive red iron alteration forming a broad bank in which the numerous showings occur.

The lowermost formation within the Sulphurets claims is the Unuk River Formation of dark green volcanoclastic rocks. The Unuk River Formation is composed of medium-grained matrix-supported lapilli tuffs of andesite composition. This andesite lapilli tuff forms the host for most of the vein deposits in the Stewart area and appears to be the favored host rock at Sulphurets. The Unuk River Formation is believed to be as much as 10,000 feet thick. About the Unuk River Formation is the Salmon River Formation of siltstone, greywackes and other fine to medium-grained epiclastic and pyroclastic rocks. Both these formations are similarly iron-stained with pervasive pyrite-sericite alteration over most of the property. In the Sulphurets area these two formations are cut by two elongate

sub-parallel northerly-trending zones of intrusive rocks which are probably Middle Jurassic in age. These intrusive rocks range from diorite to granite or syenite in compositions and appear to be sub-alkaline. The intrusive rocks roughly enclose a northerly-trending 10 km. lineal zone of intense alteration. Sericite and pyrite are the most abundant alteration minerals with other assemblages locally dominated by K-feldspar, chlorite and propylitic minerals. Porphyry copper-molybdenum mineralization occurs in the north and north-west portions of the property and is often associated with K-feldspar and sericite alteration.

The gold mineralization is structurally controlled and is usually in the volcanic rocks, near the sedimentary contact, adjacent to intrusive rocks and within a wide zone of intense sericite-dominated alteration. The veins consist of quartz carbonate with up to 20 per cent sulphides ranging from simple veins to complex vein zones and stockworks. Pyrite, sphalerite, galena, tetrahedrite, electrum, argentite, pyrargyrite, chalcopyrite, barite and molydenite have been identified in these veins.

GEOLOGY OF THE MITCHELL ZONE

Three main lithologies are found within the area of precious metal mineralization in the Mitchell Zone. They consist of two volcanic tuffaceous units; a green-grey andesitic lapilli tuff and a fine grained grey tuff, as well as a intervening group of undifferentiated sediments. The sediments and the grey tuff have undergone the most intense local alteration. Sediments are intensely silicified, sericitized and pyritic with a number of mineralized quartz veins running approximately parallel to the local schistosity. Rusty, jarosite staining is common in the sediments and is therefore not particularly useful in defining the best areas of gold mineralization. Northeast-southwest trending quartz veins carrying pyrite with minor amounts of chalcopyrite, tetrahedrite or molybdenite appeared to contain the best gold values (up to 0.090 oz/T Au).

The grey fine grained tuff unit forms the northern boundary to the sediments and has been strongly sericitized. Few quartz veins are found in this unit.

A moderate amount of quartz veining is found within the grey-green andesitic tuff unit but most of the veins appear to contain only minor amounts of pyrite, very little alteration and negligible gold values.


SUMMARY AND CONCLUSIONS

Gold mineralization at the toe of the Mitchell Glacier appears to be preferentially located in quartz veins with small amounts of pyrite, chalcopyrite, tetrahedrite and molybdenite. The majority of these veins are found within the heavily silicified, sericitized and pyritized sediments. The veins themselves probably

formed preferentially within the competent sediments in response to an east-northeast/west-southwest tensional strain which parallels the general foliation.

Cost Statement - OK Group

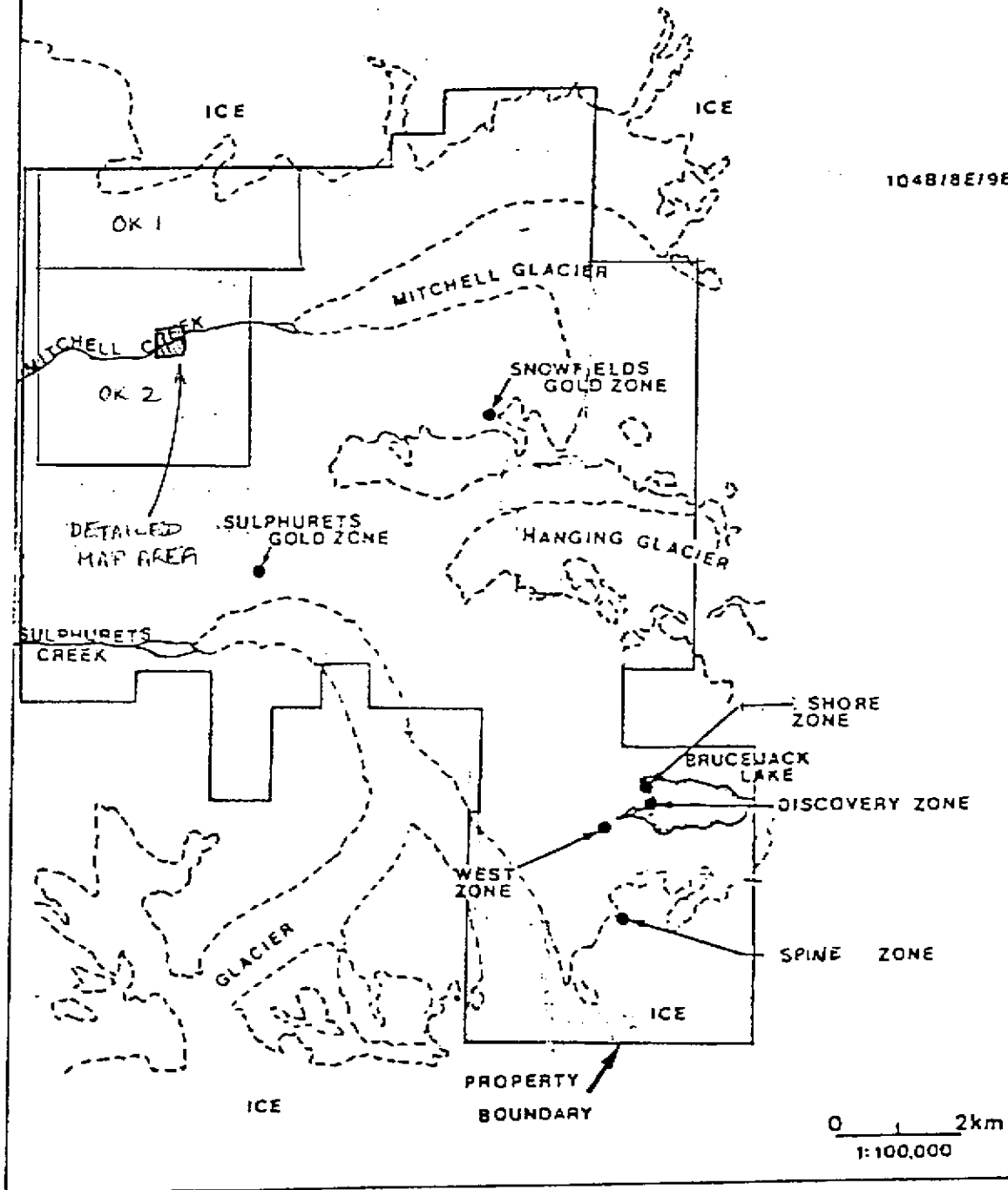
<u>Personnel</u>		
1 geologist mapping and prospecting	4 days @ \$200/day	=\$800
1 geological assistant	4 days @ \$100/day	=\$400
<u>Transportation</u>		
Helicopter (Hughes 500D)	5 Hours @ \$650/Hr	=\$3900
<u>Food and accommodation</u>		
8 man-days @ \$40/man-day		=\$320
<u>Drafting</u>		
2 man-days @ \$150/man-day		=\$300
<u>Field and camp supplies</u>		
		=\$100
<u>Supervision</u>		
1 man-day @ \$400/man-day		=\$400
<u>Report Writing</u>		
2 man-days @ \$200/man-day		=\$400
----- TOTAL ASSESSMENT CREDIT		----- =\$6620 -----

Author: grad. geol. U.B.C., 1960's; (AR. cover sheet signed)


SULPHURETS PROJECT



104818E/9E



NEWCANA JOINT VENTURE

SULPHURETS PROJECT

index map

Drawn.	By.	FIG. No. 3
Scale. 1:100,000	Date.	

6318900N

6318800N

6318700N

MITCHELL GLACIER

MITCHELL CREEK

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,688

421200E

421300E

421400E

421500E

421600E

LEGEND

LITHOLOGIES

- 20 ANDESITE LAPILLI TUFF
- 2d GREY, FG. TUFF
- I UNDIFFERENTIATED SEDIMENTS
- I GREY, IMPURE LMST

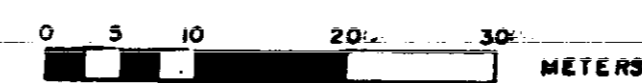
SYMBOLS

- GEOLOGICAL CONTACT, INFERRED, KNOWN
- OUTCROP BOUNDARY
- FAULT, KNOWN
- FOLD AXIS

- FOLIATION
- QUARTZ VEIN
- BEDDING

- Q - SILICIFICATION
- S - SERICITIZATION
- P - PYRITIZATION
- I - INTENSITY

- PY - PYRITE
- GA - GALENA
- TT - TETRAHEDRITE



NEWCANA J.V.
SULPHURETS PROJECT

MITCHELL ZONE
GEOLOGY

SCALE 1:500
DATE: AUG. 1996
DRAWN BY: K. HICKS
S.E. CORNER: 421600E
MAPPED BY: K. HICKS
DRAWING NO.: FIG 4

