DIAMOND DRILL REPORT

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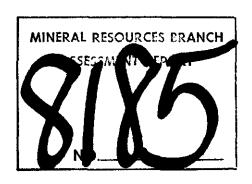
PINK GROUP

CARIBOO MINING DIVISION

93 B 8

(LATITUDE 52° 30', LONGITUDE 122° 19')

OWNER AND OPERATOR
GIBRALTAR MINES LIMITED
McLEESE LAKE, B.C.



Author: G.D. Bysouth

Submitted: 3 July 1980

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#### 1.0 INTRODUCTION

The Pink Group lies approximately 1.5 miles (2.42 km) southwest of the Gibraltar Mines concentrator. It covers much of Cuisson Lake and extends north about 2 miles (3.33 km) from the Northern tip of the lake. Elevations within the group range from about 2900 feet to 3500 feet. Access is via a two-wheel drive road which links the claims to the Gibraltar Mines road at a point about 3 miles (4.8km) from the plant site. The general location of the group is shown in Figure 1.

The property was first staked in 1928 by the Hill brothers. Mineralization found in a shear zone was tested with a trench and opencut 75 feet in length. A chip sample across the heaviest mineralization gave 25 feet of 2.0% copper, but no gold or silver.

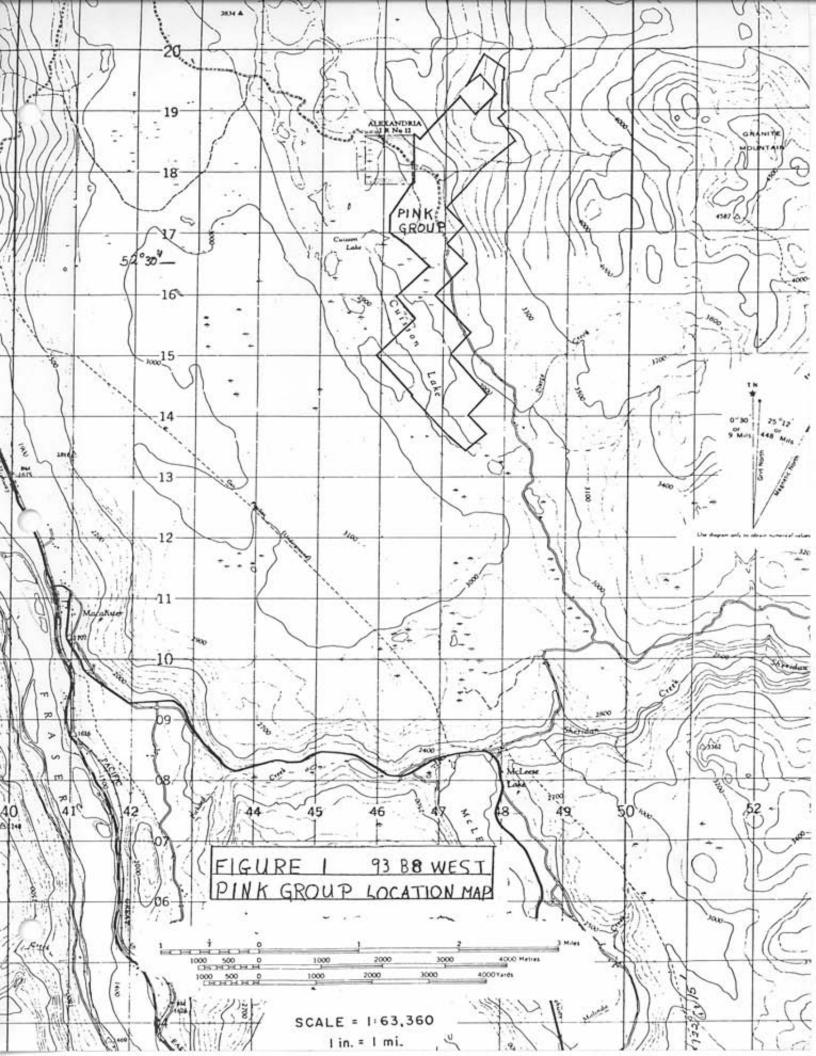
From 1954 to 1956, Sunset (Kimaclo Mines Limited) staked 100 claims in this area and in the Pollyanna area on Granite Mountain. They drove the "Sunset Adit" into the shear zone along Granite Creek at a point about one mile (1.6 km) east of the north end of Cuisson Lake. The adit ran for a distance of 110 feet at \$35°E. They tested the area around the adit with a pack sack diamond drill. Chip sampling of open cuts west and east of the portal yielded 23 feet of .87% copper and 23 feet of .20% copper respectively. A sample taken of the hanging wall above the shear assayed 12.5 feet of 1.43% copper, and one across the shear yielded 2 1/3 feet of 1.95% copper.

In 1958, Sunset (Major Mines Limited) took over 72 claims in this area. They did 3,000 feet (937.5m) of diamond drilling in 10 holes and carried out a geological mapping program over the area.

In 1967, McPhar Geophysics Limited carried out an I.P. Survey for Cominco Limited which outlined a small anomaly at the northern end of the Pink Group.

Gibraltar Mines have held some claims in the area since 1962. In 1969 they drilled 15 N.Q. wireline holes as part of a larger program designed to test the extensions of the Granite Lake and Gibraltar East orebodies. Gibraltar Mines Limited was working under an agreement with Duval Corporation and Canadian Exploration Limited until 1971 when all interests reverted to Gibraltar. The claims presently in the Pink Group were grouped in 1972 and some of them have been taken to lease. Figure 2 shows a detailed location map of claims and leases in the Pink Group, all of which are owned by Gibraltar Mines Limited.

This report covers a drill program designed to test the mineralized area indicated by the adit, the 1969 drill program and the McPhar Geophysics anomaly. J.T. Thomas Drilling was contracted during the period March 8 to March 11 and April 30 to May 17, 1980 to drill fourteen vertical N.Q. wireline diamond drill holes totalling 6,473 feet (2,022.81m). Core is stored at Gibraltar Mines plant site.



# 2.0 MINERAL CLAIMS

Claims and leases of the Pink Group are shown in Figure 2. Information on them is tabulated below.

CLAIM NAME	RECORD NO.	LOT NO.	LEASE	ANNIVERSARY DATE
A1-1	28447	_		July 2, 1983
2	48	_	_	- u
3	49	_	_	11
4	50		_	n
6	52	_	_	rr
DOT 2	34978	3596	M-34	JULY
3	79	"	rr -	*
4	80	11	**	n .
5	81	11	17	rt (
EST 5 Fra	action 62403	3596	M-34	JULY
6 Fra	action 04	4150	M-65	OCTOBER
EV 17	31741	_		Jan. 17, 1981
19	31743		_	n .
21	3636 <b>4</b>	_	-	June 14, 1983
22	65	-	-	IF.
JAN 2 Fra	action 61461	4150	M-65	OCTOBER
PAN 1	25791	4150	M-65	11
4	25794	3596	M-34	JULY
5	95	II .	H	**
11	35742	-	-	Feb. 1, 1981
12	43	_	-	51
RUM 79 Fra	ction 58239	3596	M-34	JULY
STU 5 Fra	ction 52932	-	-	July 18, 1983
ZEPHYR 1	25574	3596	M-34	JULY
3	76	***	11	11
5	78	Tt .	11	11
PINE TREE 1	43029	_	_	July 4, 1982
2	30	-	-	tt
3	43488	_	-	Sept. 6, 1982
4	89	-	-	11
5	90	-	_	"
6	91	-	_	et ·
VAL 1	33849	-	-	Mar. 18, 1981
2	50	_	_	tt
4	52	-	_	**
GIB 21 Fra	ction 6678 <b>4</b>	4150	M-65	OCTOBER

All of these claims belong to Gibraltar Mines Limited and adjoin to the south, east and north, 2-post claims of the Gibraltar Mines permanent property. The western edge of the group is bounded by Indian Reserves and private sub-divisions.

### 3.0 DRILL PROGRAM

### 3.1 OBJECTIVE

The purpose of this drill program was to test the mineralized area indicated by the adit, the 1969 drilling program, and a McPhar geophysics anomaly.

### 3.2 RESULTS

The drill hole locations are shown in Figure 2. Drill holes along a narrow strike zone intersected good chalcopyrite and pyrite mineralization. Holes which missed the zone were relatively barren. Oxide and supergene effects were negligible. Drill logs are included in the pocket of this report. All copper values reported here and in the logs are for total copper, all molydenum reported is MoS<sub>2</sub> and silver is given as ounces per ton.

Hole 80-10 was cased to 51 feet. No significant mineralization was intersected.

Hole 80-11 was cased to 41 feet. Between 280 and 480 feet, 200 feet of .421% copper was intersected. Molybdenum values were insignificant. Three 10-foot random samples averaged .023 oz/ton silver.

Hole 80-30 was cased to 30 feet. Between 270 and 600 feet, a 330-foot zone of .68% copper was intersected. Molybdenum values were insignificant. Silver values for randomly selected samples were relatively higher than those generally found in the nearby Gibraltar Mines open pits. The average grade obtained for seven random samples was .103 oz/ton silver. Six of these samples were also assayed for zinc giving an average grade of .05% zinc.

Hole 80-31 was cased to 20 feet. Between 110 and 430 feet, a 320-foot zone of .405% copper was intersected. Molybdenum grades were insignificant. Four random samples gave an average grade of .138 oz/ton silver. Zinc values reported for these same intervals averages .04% zinc.

Hole 80-32 was cased to 20 feet. Twenty feet of .40% copper was intersected between 230 and 250 feet. One high molybdenum value of .500%  $MoS_2$  was intersected at 250 to 260 feet. Silver averaged .029 oz/ton for four 10-foot samples and zinc values for the two samples averaged .04% zinc.

Hole 80-33 was cased to 30 feet. Between 70 and 380 feet, a 310-foot zone of .493% copper was intersected. Molybdenum values were insignificant. An average silver value of .089 oz/ton silver was obtained from six random ten-foot samples. Two samples tested for zinc averaged .1% zinc.

Hole 80-34 was cased to 40 feet. Between 40 and 240 feet, a 200-foot zone of .657% copper, was intersected and between 430 and 460 feet, a 30-foot zone of .28% copper was intersected. There are no significant molybdenum values. An average silver value of .058 was obtained from five random 10-foot samples.

Hole 80-35 was cased to 20 feet. Between 40 and 200 feet, a 160-foot zone of .409% copper was intersected. There were no significant molybdenum values. Two random 10-foot samples averaged .084 oz/ton silver.

Hole 80-36 was cased to 10 feet. Between 30 and 130 feet, a 100-foot zone of .275% copper was intersected. There were no significant molybdenum values. Silver assays averaged .039 oz/ton silver for three random 10-foot samples tested.

Hole 80-37 was cased to 10 feet. Between 180 and 200 feet, a 20-foot zone of .765% copper was intersected and between 350 and 400 feet a 50-foot zone of .322% copper was intersected. There were no significant molybdenum assays. Two random 10-foot samples averaged .021 oz/ton silver.

Hole 80-38 was cased to 10 feet. Copper values were sporadic with short zones of mineralization. Between 80 and 120 feet, a 40-foot zone of .24% copper was intersected and between 410 and 430 feet, a 20-foot zone of .315% copper was intersected. Molybdenum values were not significant. Silver values averaged .032 oz/ton silver over three random 10-foot samples.

Hole 80-39 was cased to 14 feet. No significant copper or molybdenum values were intersected. Three random 10-foot samples averages .029 oz/ton silver.

Hole 80-40 was cased to 34 feet. Between 110 and 396 feet, a 286-foot zone of .364% copper was intersected. There were no significant molybdenum assays. Four random 10-foot samples averages .058 oz/ton silver.

Hole 80-41 was cased to 24 feet. Between 310 and 580, a 270-foot zone of .550% copper was intersected. 7% significant molybdenum values were reported. Nine random 10-foot samples averaged .062 oz/ton silver.

## 3.3 INTERPRETATION

Drill results from this report suggest that a narrow sulphide zone has been intersected which has a known strike length of 1,150 feet. The copper bodies are believed to be of a roughly cylindrical shape formed at the intersections of two shear systems. There are two of these cylinders, the top one being approximately 180 feet thick at the center of the zone, and the bottom one being about 100 feet thick. The bottom zone is also of a somewhat lower grade. Molybdenum values are very low throughout the system. Silver values appear to follow the same trends as the copper values.

The host rock of the copper body is a quartz-chlorite/quartz-sericite schist running in three continuous shear zones, all striking at an azimuth of 304. The main system dips approximately 60° to the northeast and the other two zones cut it with a 30° southwesterly dip. There appears to be a pervasive chlorite alteration envelope surrounding the shear zones and this grades out into an epidote-chlorite altered Mine Phase quartz-diorite.

The northwestern end of the ore zone appears to be faulted downward and northeasterly with a resultant movement of about 350 feet. The fault strikes 010° azimuth and dips 40° westerly.

# 4.0 STATEMENT OF EXPENDITURES

# MARCH - MAY, 1980 DIAMOND DRILLING, PINK GROUP

a)	Site Preparation TD 20 C Bulldozer Fe TD 20 E Bulldozer Ap	ril 7-8 <u>14.00</u> h		\$ 938.4	4
b)	Drilling Costs  Moving: Flatbed Rent  Drill Compan				
	Drilling: 80-10 80-11 80-30 80-31 80-32 80-33 80-34 80-35 80-36 80-37 80-38 80-39 80-40 80-41  Materials	\$ 5,684.00 6,524.00 8,696.00 7,084.00 5,684.00 7,056.00 3,192.00 5,684.00 5,530.00 8,696.00 5,572.00 5,544.00 8,696.00 \$90,698.00		101,428.7	1
C)	M A A	ebruary 15		395.6	0
d)	Assay Costs 675 assays @ \$4.40/as		, <u>,</u>	2,970.0	
e)	Miscellaneous Costs 330 core boxes @ \$4.6 Sample bags, tags, et		<u>o</u>	1,668.0	0
f)	Mar Mar May May May May	ch 11-13 24 ho ch 14 8 ho ch 17-18 16 ho 5-9 40 ho 12-16 40 ho 20 8 ho 26-29 32 ho	ours ours ours ours	3,292.8	0

M. Schaumberger	May 2 May 6-9 May 12-15 May 22-23 May 26-28	8 hours 32 hours 32 hours 8 hours 24 hours 104 hours @ \$10.67	1,109.68
Field work and or E. Oliver	rganizing Feb. 15 March 9	4.0 hours 4.5 hours 8.5 hours @ \$13.23/hr.	112.46
C. Johnston	Feb. 15 March 9 May 3-4 May 10-11 May 17-18	4.0 hours 4.5 hours 4.5 hours 3.5 hours 2.5 hours 19.0 hours @ \$10.87/hr.	206.53
Core Splitting E. Oliver	March 12-13	16 hours @ \$13.23/hr.	211.68
C. Johnston	March 12-13 May 5-9 May 12-13	16 hours 40 hours 16 hours 72 hours @ \$10.87/hr.	782.64
W. Raven	May 5-9 May 15-16 May 20-21 May 30 June 13 June 16	40 hours 16 hours 16 hours 8 hours 8 hours 96 hours @ \$9.23/hr.	886.08
R. Riedel	May 21-23 May 26-30 June 2-3 June 6 June 11-13 June 16 June 23-27 July 2-4	24 hours 40 hours 16 hours 8 hours 24 hours 40 hours 40 hours 24 hours 24 hours 6 \$6.67/hr.	1,227.28
M. Duquette	May 12-13 May 15-16 May 30 June 17 June 19-20 June 23-27 June 30 July 2-4	16 hours 16 hours 8 hours 4 hours 12 hours 40 hours 8 hours 24 hours	
	4	128 hours @ \$7.80/hr.	998.40
	I TATOT	DRILLING COST	\$116,228.30

TOTAL DRILLING COST

\$116,228.30

## 5.0 CONCLUSIONS

Drilling results indicate a chalcopyrite-pyrite body exists northwest of the Sunset adit. The sulphides appear to be concentrated into two cylincer-like zones, both having a horizontal axis, a strike of 304°, a strike length of 1,150 feet and a width of about 150 feet. Further drilling is required to completely delineate the zone.

Submitted by,

Garry D. Bysouth Senior Geologist

GIBRALTAR MINES LIMITED

### APPENDIX I

## STATEMENT OF QUALIFICATION

I, Garry D. Bysouth, of Gibraltar Mines Limited, McLeese Lake, B.C., do certify that:

- 1. I am a geologist.
- I am a graduate of the University of B.C., with a B.Sc. degree in geology in 1966.
- 3. From 1966 to the present I have been engaged in mining and exploration geology in B.C.
- I personally supervised this drill program, logged the core and assessed the results.

Garry D. Bysouth

## APPENDIX I

# STATEMENT OF QUALIFICATIONS

I, Madeline R. Schaumberger, of Gibraltar Mines Limited, McLeese Lake, B.C. do certify that:

- 1. I am a geologist.
- 2. I am a graduate of the University of B.C. with a B.Sc. in Geological Science in 1978.
- 3. From 1978 to the present I have been engaged in mining and exploration geology in B.C.
- 4. I personally assisted in the supervision of this drill program, logging of the core and assessment of the results.

Madeline R. Schaumberger

# APPENDIX II

# ABBREVIATIONS USED IN DRILL LOGS

cal calcite

carb. carbonate

chl. chlorite

cp chalcopyrite

cren. crenulated

dissem. disseminated

ep epidote

foln. foliation

grn. grained

lim. limonite

mal. malachite

mag. magnetite

py pyrite

QSP quartz-sericite-py

qtz quartz

rx. rock

ser. sericite

str. strong

stkwk stockwork

wk weak

### BIBLIOGRAPHY

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