84-964-13123

DIAMOND DRILL REPORT

ON THE

RED GROUP

Cariboo Mining Division

93 B 8, 9

(Latitude 52 30', Longitude 122 17')

OWNER AND OPERATOR

GIBRALTAR MINES LIMITED

McLEESE LAKE, B.C.

AUTHOR: M. R. Thon

Submitted: October 16, 1984

Part 2 of 2

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1.0 INTRODUCTION

The Red Mineral Claim Group is part of the Gibraltar Mines Limited permanent property. It lies approximately 1.25 miles (2.01 km) south of the Gibraltar Mines concentrator and touches the north end of Granite Lake. The southern end of the group covers the southern tip of Cuisson Lake. Elevations range from 2900 feet at Cuisson Lake to 4100 feet near Granite Mountain. Access is via the mine haul road and 4-wheel drive roads from the east end of Pollyanna Pit. The location of the claim group is shown in Figure 1.

This group encompasses the southern part of the Pollyanna orebody, the western part of the Granite Lake orebody, and the southeast corner of the Gibraltar East orebody. A complex history culminates in the combination of the Pollyanna and Gibraltar claims under a joint venture of Canex Aerial Exploration Limited and Duval Corporation in 1967. For a more detailed look at the early history of the area see the "Diamond Drill Report on the Red Group" submitted for assessment on May 20, 1981 by M. R. Schaumberger, Gibraltar Mines Limited. A major drill program carried out by Canex in 1969 outlined the three orebodies mentioned above and clearing of a mill site began in 1970. Drilling continued through 1970 and 1971 to firm up the ore reserves and in 1971 the claims were tranferred to Gibraltar Mines Limited, presently a subsidiary of Placer Development.

The area covered by the present drill program lies about 2,000 feet east of the Pollyanna Pit. Drilling was carried out by G. & D. Diamond Drilling of 5425 Dallas Drive, Kamloops, B.C. during the period May 13 to May 16, 1984. Two vertical N.Q. wireline diamond drill holes were completed for a total of 500 feet (152.40 m.). Core was not split. The whole core was sent to the assay lab for analysis. The ground core is stored at Gibraltar Mines plant site for a period of one year.

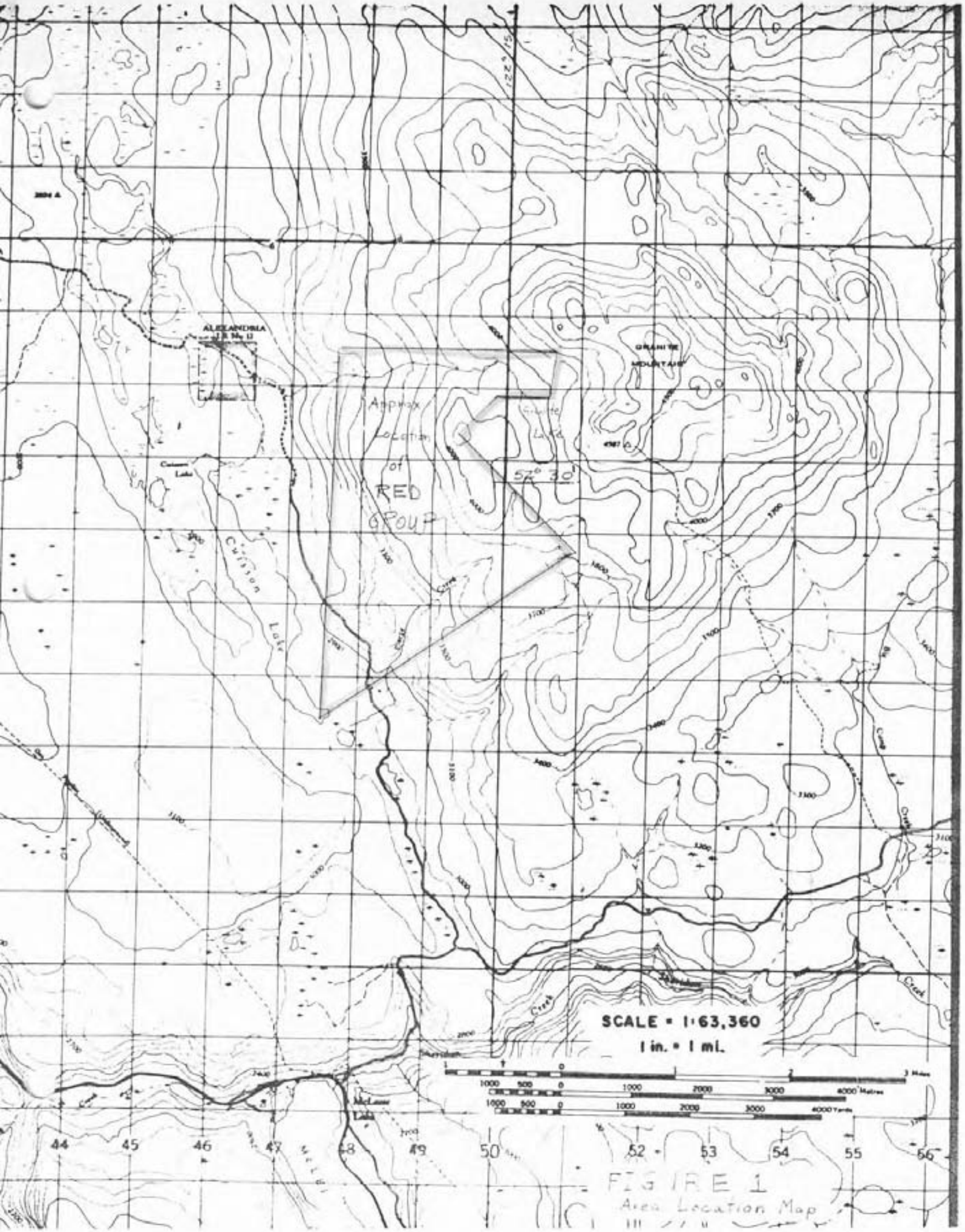

FIGURE 1
Area Location Map

2.0 MINERAL CLAIMS

The Red Claim Group has mineral leases grouped with mineral claims. Particulars of each claim are listed below. Some of the claims are owned by Cuisson Lake Mines Limited but Gibraltar Mines Limited has full administrative rights over all of these claims. Mineral Claim locations are shown in Figure 2 (in pocket).

RED GROUP MINERAL CLAIMS

NAME	RECORDED DDMMYY	RECORD NUMBER	UNITS	MINERAL LEASE	OPTIONED FROM
AL # 7	020764	28453	1		
AL # 9	020764	28455	1		
AL #10	020764	28456	1		
AL #11	020764	28457	1		
AL #12	020764	28458	1		
BUD 7	140656	30362	1		
BUD 8	140656	30363	1		
BUD #5	170166	32104	1		
BUD #6	170166	32105	1		
EV # 9	191065	31062	1		
EV #10	191065	31063	1		
EV #11	191065	31064	1		
EV #12	191065	31065	1		
FLO #3 FR	290667	43	1		
FLO #4 FR	290667	44	1		
GIB #19FR	161271	55177	1		
MA #1	161068	48019	1		CLM
MA #2	161068	48020	1		CLM
MA #3	161068	48021	1		CLM
MA #4	161068	48022	1		CLM
MA #5	230574	71505	1		
MA #6	230574	71506	1		
STU #1 FR	180769	52720	1		
VAL #23	230574	71508	1		
VAL #24	230574	71507	1		
VAL #25	230574	71510	1		
VAL #26	230574	71509	1		
VAL NO 7	180366	33555	1		
VAL NO 8	180366	33556	1		
VAL NO 9	180366	33557	1		
VAL NO10	180366	33558	1		
VAL NO11	180366	33559	1		
VAL NO12	180366	33560	1		
VAL NO14	180366	33562	1		
VAL NO19	180366	33567	1		
VAL NO20	180366	33568	1		
VAL NO21	180366	33569	1		
VAL NO22	180366	33570	1		
VAL NO27	180366	33575	1		
ZEPHYR # 9	090162	25582	1	3602	M40
ZEPHYR #10	090162	25583	1	3602	M40
ZEPHYR #11	090162	25584	1	3602	M40
ZEPHYR #12	090162	25585	1	3602	M40
ZEPHYR #13	090162	25586	1	3602	M40
ZEPHYR 3FR	030366	54974	1	3602	M40
GG # 9	281064	29241	1	3603	M41
GG #10	281064	29242	1	3603	M41
GG #15	281064	29247	1	3603	M41
GG #17	281064	29249	1	3603	M41
GG #18	281064	29250	1	3603	M41

GG #29	281064	29261	1	[illegible]	M41
GG #50	281064	29262	1	[illegible]	M41
GG #51	281064	29263	1	[illegible]	M41
GG #52	281064	29264	1	[illegible]	M41
GG 19	080667	42312	1	[illegible]	M41
GIB #9	200571	52412	1	[illegible]	M41
MT 14FR	080667	42311	1	[illegible]	M41
ZEPHYR #15	090162	25583	1	3705	M43
AL #15	020764	28461	1	3711	M49
AL #17	020764	28463	1	3711	M49
AL #18	020764	28464	1	3711	M49
AL #19	020764	28465	1	3711	M49
AL #20	020764	28466	1	3711	M49
AL #21 FR	020764	28467	1	3711	M49
EST NO1 FR	200571	52399	1	3711	M49
EST NO2 FR	200571	52400	1	3711	M49
EST NO4 FR	200571	52402	1	3711	M49
ZEPHYR #14	090162	25587	1	3711	M49
ZEPHYR #16	090162	25589	1	3711	M49
AL #13	020764	28459	1	4147	M52
AL #14	020764	28460	1	4147	M52
AL #16	020764	28462	1	4147	M52
AL #22 FR	020764	28468	1	4147	M52
EV # 5	191065	31058	1	4147	M52
EV # 6	191065	31059	1	4147	M52
EV # 7	191065	31060	1	4147	M52
EV # 8	191065	31061	1	4147	M52
XAIRE #1	230752	26004	1	[illegible]	M53
XAIRE #2	230752	26005	1	[illegible]	M53

TOTAL UNITS 79

3.0 DRILL PROGRAM

3.1 OBJECTIVE.

The purpose of this drill program was to fill in drill spacing between holes drilled by Canax Aerial in 1969, and holes drilled by Gibraltar Mines Limited in 1980 and 1981. It was hoped that they would confirm the existance of a small orebody to the east of the "East Boundary Fault.

3.2 RESULTS.

The drill hole locations are shown in Figure 3. The locations were surveyed with an E.D.M. AGA survey instrument. Drill logs are included in the pocket of this report. All copper values reported here and in the logs are for total copper. All molybdenum reported is MoS_2.

Both holes intersected a "Mine Phase Quartz Diorite" consisting of 30% to 35% dark grey quartz, 20% to 25% green chloritized mafics, and 50% to 55% light green saussuritized feldspar. In places, remobilization of epidote has left zones of "Dark Alteration". The feldspars here are a grey color and there is often a higher concentration of sericite and chlorite. Epidote commonly forms clots and veinlets near the borders of these zones. This area is close to the Granite Mountain Phase, a more siliceous phase of the pluton, and some of the rock intersected in these holes appears to be a "transitional" rock type between Mine Phase and Granite Mountain Phase. Zones of "Leucocratic Phase" or "White Quartz Diorite" described in the logs are a high quartz, low chlorite rock thought to be a late phase acid differentiate of the pluton. They display seriate to porphyritic texture and sometimes contain sericitic shear zones.

Hole 84-05 was collared at 4041.14 feet elevation, cased to 24 feet, and drilled to 250 feet. A limonite zone extended to 35 feet. Ore grade mineralization was encountered from 24 to 210 feet giving 186 feet of 0.32% copper, 0.022% MoS_2. Several small fault zones were intersected throughout the hole and a major one was intersected from 235 feet to the end of the hole.

Hole 84-06 was collared at 4058.42 feet elevation, cased to 20 feet, and drilled to 250 feet. A weak supergene zone was intersected to 75 feet. The entire hole assayed as ore giving 230 feet of 0.35% copper and 0.018% MoS_2. A fault zone was encountered from 79 to 87 feet.

3.3. INTERPRETATION.

This drill program confirmed the existance of an ore zone projected from previous drilling. Fault material encountered in these holes is believed to be part of northerly striking, steeply dipping faults running sub-parrallel to the East Boundary Fault. They cause only slight off-sets in the ore.

4.0 STATEMENT OF EXPENDITURES

May 1984 Diamond Drilling, Red Group

(a) Drilling costs

84-05	250' @ $13.50/ft.	$3,375.00	
84-06	250' @ $13.50/ft.	$3,375.00	
		$6,750.00	
			$6,750.00

(b) Vehicle

4X4 1980 Suburban, May 12, 15-16 3 days @ $20/day	$ 60.00

(c) Assay Costs

40 Cu - MoS2 assays @ 4.40/assay	$ 202.40

(d) Supplies

Core boxes, 25 boxes @ $6/box	= $150.00	
Tags, bags, etc.	= 15.00	
	$165.00	$ 165.00

(e) Personnel Costs

(1) Core Logging and Supervision
G. Bysouth
May 15-16 12hrs. @ $31.55/hr. $378.60

(2) Core Logging and Interpretation
*M. R. Thon
May 17-22 14hrs.
Oct 16 8hrs.
22hrs. @ $22.02/hr. $484.44

(3) Field Work and Sample Preparation
E. Oliver
May 12 4hrs.
May 15-16 12hrs.
16hrs. @ $19.64/hr. $314.24

$1,177.28 $1,177.28

TOTAL DRILLING COST $8,354.68

*Married name of M. R. Schaumberger

5.0 CONCLUSIONS

These drill holes are thought to confirm the existance of the orebody and no further drilling is recommended.

SUBMITTED BY:

GIBRALTAR MINES LIMITED

Madeline R. Thon

Madeline R. Thon
Mine Exploration Geologist

MS

APPENDIX I

STATEMENT OF QUALIFICATIONS

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

1. I am a geologist.

2. I am a graduate of the University of British Columbia, 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 British Columbia.

4. I personally supervised this drill program, logged the core and assessed the results.

Garry D. Bysouth

Garry D. Bysouth
Senior Geologist

APPENDIX I

STATEMENT OF QUALIFICATIONS

I, Madeline R. Thon, of Gibraltar Mines Limited, McLeese Lake, British Columbia, do certify that:

1. I am a geologist.

2. I am a graduate of the University of British Columbia, with a B.Sc. degree in Geological Science in 1978.

3. From 1978 to the present I have been engaged in mining and exploration geology in British Columbia.

4. I personally assisted in the logging of the core and the assessment of the results of this drill program.

Madeline R. Thon

Madeline R. Thon

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
Wt. Q.D	White Quartz Diorite = Leucocratic Phase
RQD	Rock Quality Determination

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-06
SHEET No. 1 of 5

LOCATION GRANITE MTN. | BEARING 0° | LATITUDE 48,780.26 N | CORE SIZE N.Q. Wireline | LOGGED BY M.RS
DATE COLLARED May 15, 1984 | LENGTH 250' | DEPARTURE 55,501.91 E | SCALE OF LOG 1"=10' | DATE May 17-22, 1984
DATE COMPLETED May 16, 1984 | DIP -90° | ELEVATION 4,058.42 | REMARKS

ROCK TYPES & ALTERATION	GRAPHIC LOG: ∠ to Core Foliation	Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP – / LIM. ZONE – / SUPERGENE 75' / REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
Cased to 20'.			20							Zinc may extend to 25' Sect'n is "rough" this is in boulders.	20						4090	
20–65' Mine Phase Q.D. - Mainly dark alt'n w/ narrow zones of sons. alt'd QD	ND to 70° Mod		30	70°×2 45 30×2 20 70°	½×0 ¼+⅛ 4 ⅛	hle×2	mal×2 gtz-chl-py gtz-chl-py-cp>×2 gtz-ser-py-cp gtz-chl-py-cp-mo	0–90	1%	Possibly cored boulder material to 27'. - Zinc 1st wt 40? + ok alt'd Mine Phase + Sericitic Mine Phase? w large zoned plag x's ~35%, gtz, ?? - Biotite rare, some coring.	27	30%	26%	33590	.39 .05 ox	.016		.11%
	45-60° WK		40	5° 70° 45×2 70×2 45 50 45 70	½0 2 1/16×2 hle+1/10 1 ⅛ ⅛ ½		gtz-chl-py gtz-chl-cp-py-<mo> gtz-chl-py-cp×2 gtz-chl-py×2 gtz-chl-py-cp-cc gtz-chl-ser-py-cp> gtz-chl-py-cp-<mo>? ggw/ frags w/ py-cp-cc?	0–90	1%	Ep. Veins	35 40	90% 84%	30%	33591	.38 .02 ox	.027		.20%
	45° v. WK.		50	30° 30×2 58° 60×2 30° 20×2 60 5°	1½" ⅛+1/20 ⅛ hle×2 1 hle×2 ⅛ hle+		gtz-chl-cp-cc-<hem> gtz-chl-py gtz-chl-py-<ccc> gtz-chl-py×2 gtz-chl-py-<cp>-vuggy gtz-chl-py×2 gtz-chl-py-<cp> gtz-chl-<py>+gg	0–90	1–2%		44 50½	78% 88%	30%	33592	.36 .01 ox	.006		.15%
	60° v. WK		60	10° 70×2 70° 60° 35° 30°<45° 45° 70°	⅛ hle+⅛ 1 ⅛ ⅛+2 ½ 5		gtz-chl-py gtz-ser-chl-py-<cp>×2 gtz-chl-ser-py-cp-cc-pic gtz-chl-cp gtz-chl-py-<cp> gtz-ser-py-<cp>×2 gtz-ser-cp-py py-gtz-ser	0–90	10%	ep veins	57 59½	88% 92%	40%	33593	.43 .01 ox	.016		.18%

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-06
SHEET No. 2 of 5

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation/Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS	Footage Discr.	Estimated Core Recovery %	R.Q.D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	60° WK to Mod.		60	45°	45° x2	1/4	qtz-ser-chl-py-cp-(cc)	0	2%	Few ep. veins to 65'		80%	60				30	
65-82' Sauss Alt'd Mine Phase QD				70	45°	1/2 + 1/2	Wt. QD. x2	10			65		40%	33594	.28	.013	3995	.16%
					70	1/2	qtz-ser-chl-py-cp	20				60%			.01			
					80	1/8	qtz-chl-py-(cp)	30							dx			
					40°	1	qtz-chl-ep-py-(ep-py)-(cc)	40		or less)	69		70					
					60 x3	1/16 x2 + 1/8	qtz-chl-ser-py-(cp)-(cc)	50		x3								
					30°	1/8	qtz-chl-py-(cp)	60										
					60°	1	qtz-chl-pied-py-(cp)	70										
			70	45°		1/10	qtz-chl-py-cp	80										
					50 x4	1/20 x4	qtz-chl-ep x4	90										
	60° Mod				60°	1/2	qtz-chl-ser-py-cp-cc	0										
					35°	1/8	qtz-ser-chl-py-(cp)	10										
					45°	1	qtz-(chl)-(ser)-py	20			74	90%			.27			
76-89 Red Hem. St'd Carb					45 x3	nle x3	qtz-ser-ep-py x3	30					54%	33595	.01	.014		1.9%
79-87 Fault Zone					60 x2	1/4 x2	qtz-ser-cp-py x2	40	2%			82%			ox			
			80		60°	1/4	ep-carb-hem	50			78							
								60					80					
								70										
					60°	1/20	qtz-chl-cp	80										
82-123 Seriate textured White QD - somewhat sheared and depletic in places	ND				60	1/8	qtz-ser-py	90										
					45°	1/8	qtz-ser-chl-py-cp	0			82	40%						
							qq-carb-hem	10										
					10°	1	qtz-ser-chl-py-cp	20										
					5°	1	qtz-chl-ser-py-cp x3	30	1%			53%			.27			
			20		60° x3	1/4 + 1/16 x2		40			87		10%	33596	<.01	.007		.17%
								50							ox			
								60					90					
					30 x3	1/4 x3	qtz-ser-chl-cp x3	70										
					45°	1/4	qtz-chl-ser-py	80										
					60	1	qtz-ser-chl-py-cp	90										
Seriatic 90-105	ND				20	1/4	qtz-ser-py-(cp) x3	0				60%						
	60°				45	1/8	qtz-chl-cp-py	10			94½							
	Mod				60 x3	1/4 + 1/20 x2	qtz-ser-chl-cp-py x3	20										
			100		30 x2	1/20 x2	qtz-ser-cp x2	30	.5%	Contains pied.		100%	72%	33697	.33	.009		.27%
								40							<.01			
								50			100		100		ox			
								60										
								70										
								80										
					30° +45	hle x2	qtz-ser-py-(cp) x2	90										
	25° -70° Wk to Mod				60	1/16	qtz-ser-chl-py-cp	0										
					20	1/20	qtz-ser-cp	10				94%						
					30 x9	1/8 x9	qtz-ser-py-cp x4	20			105							
					15	1/2	qtz-ser-chl-cp-mo	30					70%	33598	.37	.018		.30%
					60 x5	1/20 x5	qtz-ser-py-cp x5	40	.7%	Contains pied.					<.01		.31	
			110		70	1/8	qtz-ser-cp	50				100%			ox		3950	
								60			110		110					
								70										
								80										
								90										
					20°	8"	Rubble	0										
	ND.				60 x2	1/2	qtz-chl-(carb)-cp	10										
					45°	1/2 + 1	qtz-(chl)-cp-(mo) x2	20				97%						
					30° + 70°	1/4	qtz-cp	30			117		79%	33599	.92	.021		.28%
					30	1/8 x2	qtz-ser-cp-mo x2	40	1.5%						.01			
			120		20° +45	1	qtz-ser-py-(cp)-(mo)	50							ox			
						1/2 x2	qtz-chl-ser-cp-py x2	60					120					
								70										
								80										
								90										

GRID _____ GIBRALTAR MINES LTD. HOLE No. 84-06
SHEET No. 3 of 5

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	GRAPHIC LOG: Geology	GRAPHIC LOG: Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS	Geology Blocks	Estimated Core Recovery %	P O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Calc. Cu
123-152' Sauss AHd QD, ?- 35-40% qtz-fsp xls are quite visible and show alignment along foliation dir.? - possibly a less altered version of the above rock type. This does not look like typical Mine Phase - Poss. GRAN. Mtn. Phase.	10°-70° Mod to Str	120 / 130 / 140 / 150	60°, 80°, 20°, 40°, 60°, 70°, 45°x2, 15 / 65°, 55°, 70, 55°, 30°x2, 30°, 25 / 20°, 20°, 35°, 30°, 30°, 45°	1, 1/2, 1/2, 3/4, 2, 1/2, 1/16 x2, 3/4 / 1/2, 1/2, 1/2, 1/2, 1/16 x2, 3, 1/8 / 1/2, 3/4, 1, 1/4, 1/4, 1/16	qtz-ser-chl-cp; qtz-ser-chl-py-cp; qtz-ser-cp; qtz-chl-ser-ep-cp-py; qtz-ser-chl-pied; qtz-chl-ep-(py)-cp; qtz-chl-cp-(mo) x2; qtz-cp-mo / qtz-chl-(carb)-mag-py-cp; qtz-ser-chl-(carb)-cp-mo; qtz-chl-py; qtz-chl-ep-(carb)-py-(cp); qtz-chl-carb-py x2; qtz-ep-carb-(cp); qtz-chl-py-(cp) / qtz-chl-ep-cp-py; qtz-chl-ser-ep-pied-py; qtz-chl-carb-pied-py-cp; qtz-chl-py-cp-mo; qtz-chl-(cp); qtz-chl-py	0, 10, 20, 30, 40, 50, 60, 70, 80, 90	1%		127 / 130	99% / 87%	87%	33600	.29 / 2.01 / OX	.015		.27
	70° Mod	130 / 140	65°, 55°, 70, 55°, 30°x2, 30°, 25	1/2, 1/2, 1/2, 1/2, 1/16 x2, 3, 1/8	qtz-chl-(carb)-mag-py-cp; qtz-ser-chl-(carb)-cp-mo; qtz-chl-py; qtz-chl-ep-(carb)-py-(cp); qtz-chl-carb-py x2; qtz-ep-carb-(cp); qtz-chl-py-(cp)	0, 10, 20, 30, 40, 50, 60, 70, 80, 90	.2%		136 / 139 / 140	94% / 99%	45%	46789	.30	.020		.15
152-177 DK. Alt'n Mine Phase Q.D. - Sericitic in places.	60° Mod	150 / 160	20°, 20°, 35°, 30°, 30°, 45°	1/2, 3/4, 1, 1/4, 1/4, 1/16	qtz-chl-ep-cp-py; qtz-chl-ser-ep-pied-py; qtz-chl-carb-pied-py-cp; qtz-chl-py-cp-mo; qtz-chl-(cp); qtz-chl-py	0, 10, 20, 30, 40, 50, 60, 70, 80, 90	1%		143½ / 147 / 150	49% / 91% / 89%	36%	46790	.29	.018		.11
	N.D. Sinuous foliation	160 / 170	70°, 70°, 30°, 20°, 60°, ?, 20°	1/16 x2, 2½, 1/2, 1/8, 1, 1x1½, 1/4	qtz-ab-cpx2; qtz-chl-carb-cp; qtz-chl-carb-cp; qtz-chl-ser-carb-cp; qtz-ser-carb-py; qtz-ser-(chl)-py-(cp); qtz-chl-carb-cp-(py)	0, 10, 20, 30, 40, 50, 60, 70, 80, 90	2%	folded core	156 / 160	89% / 65%	43%	46791	.40	.012	.33 / 39%	.19
177-180 WH. QD	N.D.	170 / 180	70, 20°, 70, 10°, 30, 45°x2 / 70, 40°, 30°, 30°, 45°, ~70°, 10°	1/4, 1/4, 1/2, 1/8, 1/16, 1/8+1/32 / 1/4, 1/4, 1/2, 1/2, 3/4, 1/20	qtz-chl-py-(cp); qtz-chl-carb-cp; qtz-ser-chl-py; qtz-chl-carb-cp-py; qtz-chl-carb-cp; qtz-ser-chl-carb-cp; qtz-chl-ser-cp-py / qtz-chl-carb-cp; qtz-ser-chl-py; qtz-chl-carb-cp-py; qtz-ser-chl-carb-cp; qtz-chl-py-cp	0, 10, 20, 30, 40, 50, 60, 70, 80, 90	.8%		164 / 169½ / 170 / 173 / 177 / 180	65% / 97% / 46% / 75% / 77%	38% / 28%	46792 / 46793	.36 / .26	.038 / .018		.25% / .26%

GRID _____ GIBRALTAR MINES LTD. HOLE No. 84-96
SHEET No. 4 of 5

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration Footage	Stockwks	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE	REMARKS	Footage Diesel	Estimated Core Recovery %	R.Q.D.	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
180 - 194 OK Alt'n - Mine Phase QD	N.D.	180	60°	1/20	qtz-chl-cp													
			70°+10°	1/8 x2	qtz-ser-chl>-cp x2						193	77%	180					
			30	Flat 1/16	qtz-chl-cp													
			30	1/2	qtz-carb-chl-cp													
			60°	1/3	qtz-chl-carb-cp-mo								52%	46794	.31	.024		.28%
			20°	1/2	qtz-chl-carb-mag-cp-py							91%						
		190	70°	1/8	qtz-ser-cp-mo								190					
			50	1/2	qtz-ser-cp						192							
			60°	1	qtz-ser-chl-(carb)-cp-py-mo													
			5°	1/4	Cavity - broken qtz						194	75%						
194 - 205½ Transition Zone ? to Wt QD. ? - Less mafics - Ep Stringers + veins. Zones of	ND		30°	1/4	qtz-chl-cp-mo								25%	46795	.32	.018	.32	.29%
			70°	4	qtz-ep with qtz-chl-py-cp vein													
			80 x3	1/10 x3	qtz-chl-ser-py-(cp) x3													
			30	1/8	Sericitic QD						199	74%					3860	
		200	60	1	qtz-ser-cp-mo								200					
wk sans alt'n + zones of sericitic			70	1/4	qtz-chl-carb-cp-(mo)													
			60	1	qtz-ser-chl-cp-py-mo													
			60 x3	1/20 x3	qtz-chl-cp x3							69%						
205½ - 242½ Wt QD. Sericitic, seriate	ND		60°	1/8	qtz-chl-cp-cp						205½		27%	46796	.27	.014		.19%
			70°	1/20	qtz-chl-py													
			70	1/2	qtz-ser-chl-py-cp-mo-(py-carb)							51%						
			5°	1/2	qtz-ser-cp-mo						209							
		210	70°	1/8	qtz-ser-py								210					
text in places			60°	3	qtz-ser-chl-cp-py-mo													
			60 x2	1/2 x2	qtz-ser-chl-py-(cp) x2							60%						
	ND		25	1/4	qtz-cp-py						213							
			60	1/2	qtz-chl-carb-cp-py							68%	42%	46797	.60	.040		.30%
			15°	1/2	qtz-ser-cp-py-mo						217							
			60 x2	1/4 x2	qtz-ser-cp-mo x2													
		220	30°	5	qtz-(chl)-(carb)-cp-py							67%	220					
			60 x2	1/4 x2	qtz-ser-cp-cp x2													
			30°	1	qtz-(chl)-(carb)-(cp)-(mo)						223							
			60°	1/4	qtz-chl-cp													
			30°	1/10	qtz-ser-py-cp								30%	46798	.52	.028		.18%
	N.D.		60 x2	1/6 x2	qtz-cp-mo x2						227	65%						
			5°	1/4	qtz-ser-carb-py-(cp)													
		230	60 170	1/8 x2	qtz-chl-py-cp-mo x2							64%	230					
			5°	1/8	qtz-cp						232							
			10°	1/9	qtz-chl-cp-mo													
			80	1/16	qtz-chl-carb-cp													
			60	1/8	qtz-ser-chl-py-(cp)							60%	23%	46799	.46	.020		.18%
	N.D.		70°	1/8	qtz-(carb)-cp-mo						237							
		240	60°	1/2	qtz-carb-cp-(py)						239	40%						
													240					

GRID _____ GIBRALTAR MINES LTD. HOLE No. 84-06
SHEET No. 5 of 5

ROCK TYPES & ALTERATION			∠ to Core Foliation	GRAPHIC LOG Foliation	Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — REMARKS	Footage Discrepancy	Estimated Core Recovery %	P.O.D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
		242 - 250' DK GRN Mine Phase S.D.	N D			250		60° 45° 45 60 1 5° 70 x 2 60°	1/8 1/20 1/20 1/8 Hle Hle x 2 1/2	qtz - cp? qtz chl - cP qtz - chl - carb - cp - mo chl - qtz - cp carb gg thin qtz - chl - cp x 2 qtz - chl - cp - py	0 10 20 30 40 50 60 70 80 90	1%	Badly broken core	243 245 247 250	60% 70% 60% 70%	240 20% 250	46800	.25	.012	.97 385	.16%
		E.O.H. @ 250'									0 10 20 30 40 50 60 70 80 90		M.R. Shon								
											0 10 20 30 40 50 60 70 80 90										
											0 10 20 30 40 50 60 70 80 90										
											0 10 20 30 40 50 60 70 80 90										
											0 10 20 30 40 50 60 70 80 90										

242 - 250'

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-05
SHEET No. 1 of 4

LOCATION Granite Mtn. Pit | BEARING — | LATITUDE 48,862.55 N | CORE SIZE N.Q.W. | LOGGED BY G.D.B.
DATE COLLARED May 13, 1984 | LENGTH 250' | DEPARTURE 55,285.53 E | SCALE OF LOG 1"=10' | DATE May 15, 1984
DATE COMPLETED May 14, 1984 | DIP -90° | ELEVATION 4041.14 | REMARKS very blocky core

BOTTOM DEPTHS: LEACH CAP 0 | LIM. ZONE 35' | SUPERGENE —

ROCK TYPES & ALTERATION	∠ to Core Foliation	Graphic Log: Foliation Alteration	Footage	Stockpile	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
Casing To 24'											24							
MINE PHASE QUARTZ DIORITE	45 WK		30		20+45 20 45 45×2 40	1/8+1/10 1/2 1" 1/2×2 24"	qt3-chl-py (cp) ×2 qt3-chl-py qt3-chl-py (cp) qt3-chl-py (cp)-ser x2 qt3-chl-ser-py (cp) zone		2.5		25½	100 98		33751	.24 .01 0X	.020		.20
25% chl 35% qt3 40% saus plag med grn but finer grn than normal	50 WK		40		50 35 45 40 10 50 15±4 60	1/10 1/8 10" 2" 1" 1/2 1/10×4 1/2"	qt3-chl-py qt3-chl-py (cp) qt3-chl-ep-py-cp zone qt3-chl-mag-cp qt3-chl-mag-cp qt3-chl-py-cp qt3-chl-py×4 qt3-chl-cp-py zone	0 10 20 30 40 50 60 70 80 90	2.0		31½ 36 39	95 95	10	33752	.55 .02 0X	.036		.30
∴ Core all MW phase (24' – 92')	50 WK		50		20 20 40 20 60 45 40	1/10 1" 1/20 1/10×3 1" 2" 1/2	qt3-chl-py (qt3)-cp qt3-chl-cp qt3-chl-py×3 qt3-chl (cp) qt3 qt3 (cp)	0 10 20 30 40 50 60 70 80 90	1.0		47	95	37	33753	.28 .01 0X	.038	.47 3.00	.15
	60 WK		60		20 15 35×2 20 45 40	3/4 1" 1/2×2 1/10 1/10 6"	qt3-py qt3-cp qt3-chl-py (cp) ×2 qt3-chl-py qt3-cp qt3-chl (vug)	0 10 20 30 40 50 60 70 80 90	1.5		53 58	85 80	7	33754	.23 .01 0X	.032		20
	ND		70		60 70+	1/5 3'0	qt3-chl-py-cp — qt3-chl-py zone	0 10 20 30 40 50 60 70 80 90	1.0?	bx. & lost core	67	80	10	33755	.30	.020		.12?

GRID _____ GIBRALTAR MINES LTD. HOLE No. B7-05
SHEET No. 2 of 4

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration	Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE; REMARKS	Footage Blocks	Estimated Core Recovery %	P Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
Poss. Small fault	45°		60	10°	5'	(qq)-bx - hem - lost core		1.0%		75	45	10	33756	.38	.018		.12 %
				60	50'	qt3 - chl-ep (cp) zone											
				30	1"	qt3 (cp)				80	55						
Poss. Small fault	45°				5'	(qq)-bx		1.0%		84	50	10	33757	.25	.018	.29	15 %
				60°	3"	qt3										39.50	
				25	1/8	qt3 - chl - cp					70						
				20	1/16	qt3 - chl - py											
Small fracture zone						qq - bx				92							
LEUCOCRATIC ZONE (92 - 162) grades in places from qt3. porp. to seriate phase and to pinkish qt3 porp. Small fault	ND		60+50	½+1"	qt3-ser-cp x2						80						
			30	1/4	cp	bx + lost core		.5		96		7	33758	.49	.016		.18
			5	1	qq-bx												
			35	3"	qt3-ser(py)						40						
			45+30	¼ x2	qt3 - py (cp)					101							
			5°	2½'	bx - qq - lost core					103	30						
	ND		5-10 x2	¼ x2	py x2			.5		106	50	0	33759	.38	.008		.14
			5-40	4'	qq - bx - lost core												
											80						
			70+30	1/10 x2	qt3 - py x2					113½							
			50	3"	qt3 - ser - py												
			40+50	1" x2	qt3 - mag (cp) x2						90						
Small fault	ND		35	½"	qt3 - (cp)			.5				0	33760	.42	.036		.12
			15	30"	qq - bx					119							
			45 x2	1/8 x2	qt3 - py x2												
			30	1"	qt3 - mag (cp)						80						
			20	1"	qt3 - chl - cp					123½							
			70	1½"	qt3												
			30 x2	1" x2	qt3 (cp) x2			.5			75	7	33761	.31	.024		.15
			25	6"	qt3 - ser (py) (cp) zone					127							

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-5
SHEET No. 3 of 4

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation, Alteration, Footage, Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Blocks	Estimated Core Recovery %	P.Q.D	ASSAY RESULTS: Sample Number	% Cu	% Mo		
	ND	140	30 30x2 20 5	1/10 1/10x2 1" 3½'	qt3-chl-cp qt3-chl-cp x2 qt3-carb-chl broken qt3 core		<.5	133 137	80 90	13	33762	.32	.016	.39 3905	.10
poss. small fault															
	ND	150	45 x2 40-30 x 4 45	¼+1" 3' 1/20 x 2 1/10	qt3-chl-(cp) x2 qg-bx-lost core qt3-chl-py x4 qt3-chl-py		.5	142½ 148	85 60 70	23	33763	.21	.012		.10
	ND	160	50+40+35 30 x 2 60 30 30 5 5+30	½+1/20x2 1" x 2 1" 3" 1" ½ 1/10+1/8	qt3-chl-py (cp) x3 qt3-(chl)-cp x2 qt3-ser-py qt3-ser-py (cp) qt3-chl-(py) qt3-chl-cp qt3-chl-(cp)		1.0	151½ 157	95	33	33764	.19	.034		.15
167 MINE PHASE QUARTZ DIORITE Sauss. Alt'n phase	ND	170	45+50+60+20 45 15 5 40 30 30 90	1/10+1/8x2+½ 1/20 3" ½ 1/10 1/3 1/8 2"	qt3-chl-py (cp) x4 qt3-chl-cp qt3-ep zone qt3-cp qt3-chl-cp qt3-chl-cp qt3-chl-py qt3-chl-ser (cp)		1.0	163½ 167	90 90	13	33765	.21	.018		.25
inter. ep @ contact (162 - 250')		180	45x3 35 40x3 20	1/10x3 1" 1/10x3 4' 1/10	qt3-chl-cp x3 qt3-chl (cp) qt3-chl-cp x3 bx + lost core qt3-chl-(cp)		.5	174	85 60	20	33766	.12	.028	20 3860	.20
		190	30 30 50+35 40 50x2 35 40	2" ½ 1"+1/10 2½" 1/20 x 2 ⅓ 1	qt3-ep qt3 qt3-chl-cp x2 (qt3) ep zone qt3-chl-cp x2 qt3 (cp) (vug) qt3-chl-ep-py-cp		.5	182 186 190	80 80	17	33767	.18	.010		.25

GRID _____ GIBRALTAR MINES LTD. HOLE No. 82-5
SHEET No. 4 of 4

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE; REMARKS	Footage Blocks	Estimated Core Recovery %	P.S.D.	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	N.D.	200	45? 35x2 20x2 5 5 35 40?	10" 6"+2" 1"+½ 12" 4" ½ 14"	qt3-chl-ep ((cp)) zone qt3-chl-cp x2 qt3 x2 qt3-chl(ser)-(cp) zone qt3-chl(ser)-(cp) zone qt3-(chl)-cp qt3-(ser)-chl(ep)-cp zone		1.0		195	95 90		33768	.65	.018		.35
weak silicification	N.D.	210	45-60 20 30 20 30	4" ¼ ¼ 2" 1½"	qt2 qt3-py qt3-chl(py) qt3-chl(cp) qt3-chl-cp		.5		201 207	80	32	33769	.19	.014		.20
	N.D	220	60 60 30 30 35 45? 45	14" 1" 1" ¼ ½ 4" 10"	qt3-ser(py) qt3 qt3-chl-ep qt3 qt3-chl-carb (vug) qt3-chl-ep ((cp)) qq-bx-hem		<.5		215½	95 85	20	33770	.13	.004		.10
	N.D	230	50 +30 45 x2 15 x3 5 5	¼x2 ½x2 ¼x3 ½ ⅛	qt3 x2 qt3-ser-chl-py-ep x2 qt3-chl-qq x2 qt3-cp qq-hem		<.5		222 226	95 90		33771	.12	.034	3815	.10
Fault Zone	?	240	? ? 70	14" 6" 2"	qq-bx-hem qq qt3 qq-bx		?		234 238	50		33772	.05	.014		?
(235 - EOH) E.O.H. 250'	?	250	5-15°	15'	(qq is confined to numerous steep ¼-1½" zones)		?		244½ 247½ 250	75 70 65	0	33773	.11	.010		?

D. D. Bysouth

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,123

200 SCALE

POLLYANNA DDH'S AS OF JUL 84 Part 2 of 2

FIGURE 3: Diamond Drill Hole Location Map.

MINERAL CLAIMS

PLANT SITE

No. 1 Dump

No. 2 Dump

No. 3 Dump

GIBRALTAR WEST ULTIMATE PIT

GIBRALTAR EAST ULTIMATE PIT

POLLYANNA ULTIMATE PIT

No. 4 Dump

No. 5 Dump

GRANITE LAKE ULTIMATE PIT

No. 6 Dump

CUISSON LAKE

FIGURE 2:

RED GROUP
MINERAL CLAIMS
GIBRALTAR MINES LIMITED
10-OCT-84 SCALE=1:12000

FEET 0 500 1000 1500
METRES 0 1000

45000 50000 55000 60000