87-420 -15945

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: July 13, 1987

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1 INTRODUCTION

The Red Group of mineral claims is part of the Gibraltar Mines Limited permanent property. It is accessed via the mine access road and mine haul roads. It lies due south of the plant site and extends in a southerly direction. The general location is shown in Figure 1.

This group encompasses the southern part of the Pollyanna ore body, the western part of the Granite Lake ore body, and the southeast corner of the Gibraltar East ore body. It shares a common history with the adjacent purple group.

The early history of this claim area is somewhat sketchy. It was first described as the Rainbow Group in 1918. A 1925 B.C. Ministry of Mines Report states that "T. H. Jackson holds or held 40 claims in this region either under option or in virtue of ownership by himself and associates."

In 1925 the area was staked by the Hill's brothers as the Pollyanna claims. A 60-foot wide shear system in "granodiorite", showing malachite and azurite mineralization, was exposed by a series of open cuts. An eight foot deep trench exposed a quartz vein 15 feet wide striking N 60-degrees W (magnetic). A grab sample from the dump of this material assayed: gold - trace, silver - trace, copper - 3.5%. Copper mineralization was in the form of azurite, malachite, and chalcopyrite.

The 1928 report indicates five claims being held by F. Conway, Mrs. Conway, T. Thompson, H. B. Hill and H. F. Hill. The shear system was expanded to a 75-foot width and given a strike and dip of 55-degrees W (magnetic) 45-degrees NE. A trench 15 feet deep and 20 feet long was dug to expose a quartz vein 15-feet wide with a flat dip to the northeast. Mineralization consisted of azurite, malachite and chalcopyrite. A vertical shaft was sunk to a depth of 33 feet. Copper stains and chalcopyrite were visible above the level of water in the shaft and the top three feet showed 2.00% copper, but no gold or silver. Minor cuprite was noted.

In 1949 the claims were relocated by C. E. Johnson and R. R. Moffat as the Copper King claims. Copper mineralization was reported in irregularly placed quartz lenses between shear planes oriented at N 30-degrees W/45-degrees E and on noses of folds in a 170-foot wide zone of sheared "granodiorite".

The 1950 report states that three shafts had been sunk previously, running along a north-south line. These were 25 feet apart. The northern most one was 10 feet deep and showed no mineralization. The middle shaft showed good mineralization and in 1949 was drained and mined. Half a ton of ore averaging 10.5% copper was shipped to Tacoma, Washington. A grab sample from their dump assayed: gold - nil, silver - 0.1 oz. per ton, copper - 3.3%. The southern-most shaft was filled with water but dump material showed malachite staining.

In 1949 an attempt was made at trenching thirty feet north of the north shaft to cross-cut the shear zone. This, however was abandoned because the overburden was too deep.

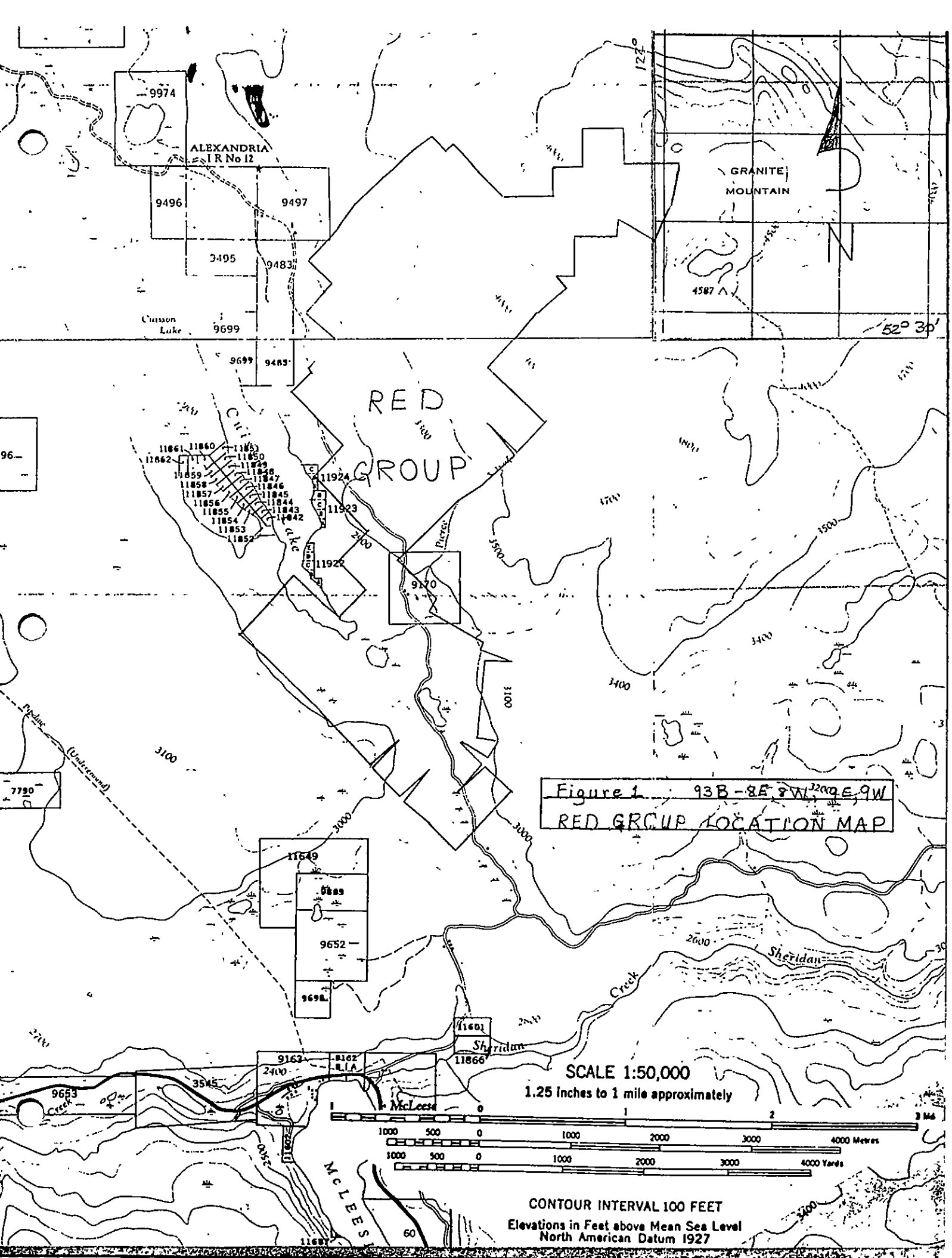

Figure 1 93B-8E, 8W, 9E, 9W

RED GROUP LOCATION MAP

In 1950 they sank a 28-foot shaft 120 feet south of the most southerly shaft. It exposed a light malachite staining on sheared "granodiorite" and a small amount of crushed barren quartz. A grab sample from the dump assayed: gold - trace, silver - nil, copper - 0.3%.

From 1954 to 1956 the claims were restaked as the Pollyanna claims by Kimaclo Mines Ltd. They reported the same orientation for the shear system and expanded its width to 230 feet. Mineralization in the form of malachite-azurite-chalcopyrite and traces of cuprite occurs in small and irregular quartz veins which run approximately parallel to the shearing. Another grab sample from the Copper King dump mentioned above assayed 0.6% copper.

Kimaclo Mines Ltd. allowed their claims to lapse and the property was staked by Mr. Robert Glen in early 1963. Keevil Mining Co. held an option on this property in 1963 during which time they performed geochemical and induced polarization surveys and drilled two holes. In 1964, Duval Corporation optioned the property from R. Glen and partially defined 10 to 30 million tons of low grade copper mineralization.

In 1967 the area was restaked as the GG claims by Canex Aerial Exploration Ltd. and Duval Corporation. They describe the mineralization differently, giving it an orientation of N 35-degrees W/50 to 70-degrees SW. They describe the system as a central vein zone, two to five feet thick, flanked by quartz-muscovite schist grading into a foliated quartz diorite. Streaks and bands of pyrite and chalcopyrite exist in the shear zone.

Stripping of overburden exposed 30 feet of schist and 30 feet of bleached, schistose quartz diorite. A hand trench 100 feet northeast of the stripping exposed rubble of vein quartz and quartz-muscovite schist. The Copper King shaft was covered by the bulldozing.

The 1969 report gives the reserves as 61,000,000 tons at 0.36% copper. 44,105 feet of N.Q. diamond drilling was done in 81 holes and 200 feet of 5 7/8" diameter rotary drilling was done in two holes.

In 1970 a topo-mapping survey was completed. Stripping was done to clear the millsite and 32 diamond drill holes, totalling 13,783' were drilled. Four underground diamond drill holes, totalling 1,174', were drilled on the GG claims.

By 1971 the Canex Aerial claims were transferred to Gibraltar Mines Limited. Recent drilling has been reported in assessment reports done on the Red Group.

1987 drilling on this group was carried out by Frontier Drilling Limited of 670 Ruston Road, Kelowna, B. C. during the period May 1 to May 7, 1987. Three angle N.Q. wireline diamond drill holes were completed for a total of 1,945' (592.84 m.). Core was not split. The whole core was sent to the assay lab for analysis. The ground core is stored at the Gibraltar Mines plant site for a period of one year.

2 MINERAL CLAIMS

The Red Claim Group has mineral leases grouped with mineral claims. Particulars of each claim are listed below. All claims are part of the Gibraltar Mines Limited permanent property. Mineral claim locations are shown in Figure 2 (in pocket).

RED GROUP MINERAL CLAIMS

NAME	RECORDED DDMMYY	RECORD NUMBER	UNITS	MINERAL LEASE
AL # 5	020764	28451	1	
AL # 7	020764	28453	1	
AL # 8	020764	28454	1	
AL # 9	020764	28455	1	
AL #10	020764	28456	1	
AL #11	020764	28457	1	
AL #12	020764	28458	1	
EV # 9	191065	31062	1	
EV #10	191065	31063	1	
EV #11	191065	31064	1	
EV #12	191065	31065	1	
EV #13	191065	31066	1	
EV #14	191065	31067	1	
EV #15	170166	31739	1	
EV #16	170166	31740	1	
EV #18	170166	31742	1	
EV #20	170166	31744	1	
FLO #2 FR	030867	43173	1	
FLO #3 FR	290867	43289	1	
FLO #4 FR	290867	43290	1	
STU #1 FR	180769	52928	1	
STU #2 FR	180769	52929	1	
STU #3 FR	180769	52930	1	
STU #4 FR	180769	52931	1	
STU #6 FR	120869	53211	1	
VAL #35	120869	53212	1	
VAL #36	120869	53213	1	
VAL #37	180769	52917	1	
VAL #38	120869	53214	1	
VAL #39	180769	52918	1	
VAL #40	120869	53215	1	
VAL #41	180769	52919	1	
VAL #42	120869	53216	1	
VAL #43	180769	52920	1	
VAL #44	120869	53217	1	
VAL #45	180769	52921	1	
VAL #46	120869	53218	1	
VAL #47	180769	52922	1	
VAL #48	120869	53219	1	
VAL #49	180769	52923	1	
VAL #50	120869	53220	1	
VAL NO 3	180366	33851	1	
VAL NO 5	180366	33853	1	
VAL NO 6	180366	33854	1	
VAL NO 7	180366	33855	1	
VAL NO 8	180366	33856	1	
VAL NO 9	180366	33857	1	
VAL NO10	180366	33858	1	
VAL NO11	180366	33859	1	
VAL NO12	180366	33860	1	

RED GROUP MINERAL CLAIMS

NAME	RECORDED DDMMYY	RECORD NUMBER	UNITS	MINERAL LEASE
VAL NO14	180366	33862	1	
Z #2FR	030366	34969	1	3601 M39
ZEPHYR # 2	090162	25575	1	3601 M39
ZEPHYR # 4	090162	25577	1	3601 M39
ZEPHYR # 6	090162	25579	1	3601 M39
ZEPHYR # 8	090162	25581	1	3601 M39
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 5FR	030366	34974	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	3603 M41
GG #50	281064	29262	1	3603 M41
GG #51	281064	29263	1	3603 M41
GG #52	281064	29264	1	3603 M41
GG 19	080667	42812	1	3603 M41
GIB #9	200571	62412	1	3603 M41
HT 14FR	080667	42811	1	3603 M41
ZEPHYR #15	090162	25588	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	62399	1	3711 M49
EST NO2 FR	200571	62400	1	3711 M49
EST NO4 FR	200571	62402	1	3711 M49
ZEPHYR #14	090162	25587	1	3711 M49
ZEPHYR #16	090162	25589	1	3711 M49
AL #13	020764	28459	1	4147 M62
AL #14	020764	28460	1	4147 M62
AL #16	020764	28462	1	4147 M62
AL #22 FR	020764	28468	1	4147 M62
EV # 5	191065	31058	1	4147 M62
EV # 6	191065	31059	1	4147 M62
EV # 7	191065	31060	1	4147 M62
EV # 8	191065	31061	1	4147 M62
XAIRE #1	230762	26004	1	4148 M63
XAIRE #2	230762	26005	1	4148 M63
PAN NO2	040562	25792	1	4149 M64

TOTAL UNITS 97

3 DRILL PROGRAM

3.1 Objectives

The purpose of this drill program was to test the validity of ore projections from the Stage 1 pit. The ore was being projected along a 310-degree strike with a 30-degree dip.

3.2 Results

The drill hole locations are shown in Figure 3. The locations were surveyed with a plane table. Drill logs are included in the pocket of this report. All copper values reported here are for total copper. The logs report total copper and, in some cases, oxide copper (included malachite and azurite), and chalcocite. All molybdenum reported is MoS_2.

Core is sampled in 10-foot (3.048m.) sections, crushed and passed through a Jones Splitter. The product is pulverized to minus 100 mesh and rolled. A 1/2 gram sample is weighed out and digested in a mixture of Potassium Chlorate, Nitric Acid, and Sulphuric Acid for a period of 30 minutes. Following digestion, each sample is bulked to 10% HCl and assayed in a Perkin Elmer 3030 Atomic Absorption Spectrophotometer.

The Pollyanna ore body lies generally within the "Mine Phase Quartz Diorite. It typically consists of about 30% to 35% quartz, 45% to 50% light green, saussuritized feldspar, and about 20% green chloritized mafics. This rock often shows some degree of segregation and alteration ranging from lighter zones of weaker saussurite alteration and darker zones of higher chloritic concentration to sericitic and chloritic shearing. Grain size is normally medium grained.

The Mine Phase grades to the Granite Mountain Phase Quartz Diorite at depth and to the north and south of the pit area. The Granite Mountain Phase consists of about 40% quartz, 50% saussuritized feldspars, and 10% chloritized mafics. It is generally medium-grained to coarse-grained. The transition zone between Mine Phase and Granite Mountain Phase shows an increase in quartz and contains zones of Leucocratic Phase, high quartz, low chlorite rocks thought to be late stage differentiates of the pluton. They display seriate to porphyritic texture and sometimes contain sericitic shear zones.

Hole 87-15 was collared at 3956.40' (1205.9m.) and drilled at an azimuth of 20-degrees and average dip of 62-degrees. Casing was set to 30-feet (9.14m.) and the hole was drilled to 646'(196.9m.). A weak limonite zone extended to 170' (51.8m.). An ore zone extended from 100' (30.48m.) to 490' (149.35m.) for 390' (118.87m.) of 0.34% copper and 0.016% molybdenite. A gougy, broken and sheared zone overlies the ore zone and malachite comprises much of the copper grade in the upper 20'(6.1m.) of the ore zone. Chalcopyrite and bornite are present in veins and as fine grained disseminations in a dark vuggy alteration phase. Pyrite concentration was low in this hole. The Mine Phase Quartz Diorite intersected in this hole was not typical. It is much altered and structurally deformed with variable grain size. Grain boundaries are often indistinct, perhaps due to silicification. A zone of Seriate Phase was intersected at 538'

(163.98m.) to 578' (176.17m.), very rich in quartz (~50%) and grading in and out of Leucocratic Phase and Granite Mountain Phase. A major fault was intersected at 578' to 602' (176.17 to 183.49m.).

Hole 87-16 was collared at 3949.50' (1203.81m.) and drilled at an azimuth of 20-degrees and an average dip of 65-degrees. Casing was set to 25' (7.62m.) and the hole was drilled to 655' (199.64m.). Leach cap extended to 140' (42.67m.) and a limonite zone continued to 190' (57.91m.). Most of the hole was drilled in Normal Mine Phase Quartz Diorite. Narrow zones of Leucocratic Phase and seriate-textured rock were intersected, as well as a white quartz-porphyry zone from 517 - 528' (157.58 - 160.93m.). An ore zone was intersected from 390 to 560' (118.87 - 170.69m.) for 170' (51.82m.) of 0.36% copper and 0.024% molybdenite. Chalcopyrite was the major copper mineral. Minor bornite was seen in places. Pyrite content was low.

Hole 87-17 was collared at 3946.00' (1202.74m.) and drilled at an azimuth of 20-degrees and an average dip of 62-degrees. Casing was set at 10' (3.05m.) and the hole was drilled to 644' (196.29m.). A limonite zone extended to 150' (45.72m.) and copper grade in this zone was mainly due to malachite. A weak ore zone from 390 to 450' (118.87 to 137.16m.) contains chalcopyrite and minor bornite and chalcocite, for 60' (18.29m.) of 0.24% copper and 0.022% molybdenite. A second ore zone from 500 to 620' (152.4 to 188.98m.) averages 0.29% copper and 0.020% molybdenite. Only chalcopyrite was noted in this system. Rock is mainly a typical Mine Phase Quartz Diorite. A narrow Leucocratic zone was intersected from 481 to 499' (146.61 to 152.10m.). Pyrite content was low.

3.3 Interpretation

The holes drilled in this program served to confirm the ore projections in this area.

4 STATEMENT OF EXPENDITURES

May, 1987 Diamond Drilling, Red Group.

(a) Drilling Costs

Direct Footage Charges:

87-15	646' @ $12.75/foot =	$ 8,236.50	
87-16	655' @ $12.75/foot =	$ 8,351.25	
87-17	644' @ $12.75/foot =	$ 8,211.00	
	1,945'	$24,798.75	

Man and Machine Hours

11 man hrs. @ $24./hr.	=	$ 264.00
4 drill hrs. @ $30./hr.	=	120.00
3 tractor hrs. @ $60./hr.	=	180.00
		$ 564.00

Lost Equipment and Supplies

Mud and Additives	=	2,520.30
1 - NQ core bit @ $506.25	=	506.25
		$ 3,026.55

Services - Hole Testing

5 tests @ $60.00/test	=	$ 300.00

Total Drilling Charges	$28,689.30
Less 1% Discount	286.89
	$28,402.41

(b) Vehicle Costs

4x4 1980 Suburban, May 1-7, 3 days @ $20.00	$ 60.00

(c) Assay Costs

189 Cu - MoS2 assays @ $4.40/assay	$ 831.60

(d) Supplies

Core boxes: 94 boxes @ $6.00/box	=	$ 564.00	
Tags, bags, etc.	=	56.00	
			$ 620.00

(e) Personnel Costs

Core Logging and Sample Preparation
G. D. Bysouth
May 04-08 40 hrs.
May 11-13 20 hrs.
60 hrs. @ $31.55/hr. = $1,893.00

Field Work
G. E. Barker
May 01 4 hrs.
May 04-06 20 hrs.
24 hrs. @ $22.02/hr. = $ 528.48

Field Work and Report Preparation
M. R. Thon

May 07	4 hrs.
Jul 10	4 hrs.
Jul 13	6 hrs.
	14 hrs. @ $22.02/hr. = $308.28

Total Personnel Charges	$ 2,729.76
TOTAL COST	$ 32,643.77

5 CONCLUSIONS

Drilling in this area is adequate to confirm the ore projections. No further drilling is recommended.

Submitted by: Madeline R. Thon

Madeline R. Thon
Mine Exploration Geologist

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 logged the core and assessed the results of this drill program.

Garry D. Bysouth

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 logged some of the core and assessed the results of this drill program.

Madeline R. Thon

Madeline R. Thon

APPENDIX II. List of Abbreviations

ank.....ankerite

bo.....bornite

cal.....calcite

carb.....carbonate

chl.....chlorite

cp.....chalcopyrite

dissem.....disseminated

ep.....epidote

foln.....foliation

gg.....gouge

grn.....grained

lim.....limonite

mal.....malachite

mag.....magnetite

py.....pyrite

qtz.....quartz

rx.....rock

ser.....sericite

str.....strong

stkwk.....stockwork

wk.....weak

Wt. Q.D.....White Quartz Diorite
= Leucocratic Phase

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

EXPLORATION D.D.H.

Date ..... 6 MAY ....., 1987

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2			
				87-15		
97026	.09	.10	.001	30-90		
27	.05	.05	.001	-50		
28	.06	.09	.001	-60		
29	.08	.08	.001	-70		
30	.14	.16	.001	-80		
31	.13	.14	.001	-90		
32	.18	.19	.001	-100		
33	.57	.63	.001	-110		
34	.09	.20	.003	-120		
35	.02	.20	.018	-130		
36	.02	.34	.021	-140		
37	.01	.20	.003	-150		
38	.01	.17	.004	-160		
39	.02	.28	.015	-170		
40	.01	.21	.004	-180		
41	.01	.19	.005	-190		
42	.01	.30	.011	-200		
43	.01	.16	.022	-210		
44	.01	.21	.006	-220		
45	.01	.25	.004	-230		
46	.01	.19	.007	-240		
47	.01	.16	.026	-250		
48	<.01	.21	.010	-260		
49	<.01	.25	.008	-270		
50	.01	.66	.020	-280		
51	.01	.55	.022	-290		
52	.01	.56	.016	-300		
53	<.01	.64	.029	-310		
54	<.01	.37	.024	-320		
55	<.01	.41	.037	-330		
56	<.01	.42	.026	-340		
57	<.01	.35	.012	-350		
58	<.01	.27	.013	-360		

cc: Assay Lab.

Assayer ... D.A.W. .....

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration

Date May 7 19 87

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	87-15		
97059		.32	.010	— 360 - 370		
60		.69	.014	- 380		
61		.47	.018	- 390		
62		.32	.014	- 400		
63		.39	.014	- 410		
64		.59	.030	- 420		
65		.44	.022	- 430		
66		.25	.014	- 440		
67		.24	.018	- 450		
68		.37	.016	- 460		
69		.21	.010	- 470		
70		.32	.008	- 480		
71		.35	.008	- 490		
72		.12	.004	- 500		
73		.06	.004	- 510		
74		.04	.002	- 520		
75		.04	.002	- 530		
76		.11	.002	- 540		
77		.03	.006	- 550		
78		.06	.006	- 560		
79		.03	.002	- 570		
80		.01	.002	- 580		
81		.03	.002	- 590		
82		.03	.010	- 600		
83		.02	.002	- 610		
84		.02	.004	- 620		
85		.03	.002	- 630		
86		.04	.002	- 640		
87		.01	.002	- 646		
				End of hole		

cc: Assay Lab.

Assayer

Form. No. MIII - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

EXPLORATION D.D.H.

Date .....10..MAY...., 19.87

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2		
				87-16	
97101	.05	.05	.001	25-30	
02	.04	.05	.001	-40	
03	.03	.04	.001	-50	
04	.04	.06	.004	-60	
05	.05	.09	.001	-70	
06	.05	.09	.001	-80	
07	.05	.06	.001	-90	
08	.07	.08	.001	-100	
09	.07	.08	.001	-110	
10	.08	.10	.001	-120	
11	.02	.04	.006	-130	
12	.31	.40	.002	-140	
13	.10	.15	.001	-150	
14	.04	.15	.010	-160	
15	.05	.07	.001	-170	
16	.03	.06	.003	-180	
17	.02	.05	.002	-190	
18	.01	.13	.009	-200	
19	.01	.09	.007	-210	
20	.01	.09	.009	-220	

cc: Assay Lab.

Assayer ...D.A.W.....

Form No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

EXPLORATION D D C.

Date ....12...MAY....., 19.87..

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2			
				87-16		
97121	.01	.07	.006	220-230		
22	.01	.05	.003	-240		
23	.01	.15	.079	-250		
24	<.01	.05	.007	-260		
25	<.01	.09	.006	-270		
26	.01	.08	.004	-280		
27	.01	.19	.009	-290		
28	.01	.23	.008	-300		
29	.01	.06	.010	-310		
30	.01	.11	.024	-320		
31	.01	.06	.008	-330		
32	.01	.10	.007	-340		
33	.02	.18	.035	-350		
34	.01	.08	.012	-360		

cc: Assay Lab.

Assayer ...D.A.W.....

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration D.D.H.

Date ...May 14..... 19..87

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	87-16		
97135	.01	.08	.020	360-370		
36	<.01	.11	.006	-380		
37	.01	.17	.024	-390		
38	.01	.37	.050	-400		
39	.01	.42	.034	-410		
40	.01	.18	.030	-420		
41	.01	.36	.032	-430		
42	<.01	.38	.018	-440		
43	.01	.28	.016	-450		
44	.01	.24	.038	-460		
45	.01	.55	.042	-470		
46	.01	.54	.016	-480		
47	<.01	.35	.018	-490		
48	<.01	.33	.022	-500		
49	<.01	.40	.012	-510		
50	<.01	.38	.014	-520		
51	<.01	.25	.020	-530		
52	.01	.56	.014	-540		
53	<.01	.23	.008	-550		
54	.01	.24	.018	-560		
55	.02	.17	.024	-570		
56	.01	.16	.008	-580		
57	<.01	.23	.010	-590		
58	<.01	.08	.002	-600		
59	<.01	.13	.008	-610		
60	.01	.09	.010	-620		
61	<.01	.20	.020	-630		
62	.01	.16	.002	-640		
63	<.01	.06	.002	-650		
64	<.01	.06	.008	-655		
				End of hole		

cc: Assay Lab.

Assayer ..JO..

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration

Date May 14, 1987

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	87-17		
97176	.01	.02	<.002	— 10-20		
77	.04	.05	.002	— -30		
78	.05	.06	.002	— -40		
79	.05	.06	.002	— -50		
80	.05	.06	.002	— -60		
81	.04	.05	<.002	— -70		
82	.06	.07	<.002	— -80		
83	.08	.09	<.002	— -90		
84	.06	.07	.002	— -100		
85	.09	.11	<.002	— -110		
86	.11	.16	.002	— -120		
87	.12	.16	<.002	— -130		
88	.07	.12	<.002	— -140		
89	.08	.28	<.002	— -150		
90	.02	.11	.002	— -160		
91	.02	.14	.002	— -170		
92	<.01	.14	.002	— -180		
93	<.01	.17	.002	— -190		
94	<.01	.03	<.002	— -200		

cc: Assay Lab.

Assayer .....

Form. No. MIII - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

O Exploration

Date May 15, 1987

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	87-17		
97195	.01	.16	.002	200-210		
96	<.01	.10	.050	-220		
97	.01	.19	.032	-230		
98	.01	.10	.004	-240		
99	.01	.07	.002	-250		
200	.01	.12	.008	-260		
01	.01	.13	.008	-270		
02	.01	.26	.014	-280		
03	.01	.06	.002	-290		
04	<.01	.04	.002	-300		
05	<.01	.06	.006	-310		
06	<.01	.15	.012	-320		
07	<.01	.04	.002	-330		
08	<.01	.05	.002	-340		
09	.01	.17	.004	-350		
10	<.01	.18	.006	-360		
11	<.01	.12	.010	-370		
12	<.01	.26	.026	-380		
13	<.01	.11	.018	-390		
14	<.01	.27	.016	-100		
15	<.01	.19	.014	-410		
16	<.01	.21	.014	-420		
17	.01	.28	.070	-430		
18	.01	.18	.012	-440		
19	<.01	.28	.008	-450		
20	<.01	.14	.004	-460		

cc: Assay Lab.

Assayer .....

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

EXPLORATION D.D.C.

Date ..... 19 ..MAY...., 19 87.

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2			
				87-17		
97221	<.01	.14	.023	460-470		
22	<.01	.15	.006	-480		
23	<.01	.21	.057	-490		
24	<.01	.16	.070	-500		
25	<.01	.27	.004	-510		
26	<.01	.31	.034	-520		
27	<.01	.32	.019	-530		
28	<.01	.20	.009	-540		
29	.01	.27	.005	-550		
30	.01	.41	.016	-560		
31	<.01	.29	.003	-570		
32	<.01	.26	.009	-580		
33	<.01	.22	.015	-590		
34	<.01	.38	.088	-600		
35	.02	.28	.027	-610		
36	.02	.22	.015	-620		
37	<.01	.16	.005	-630		
39	<.01	.11	.029	-644		

: Assay Lab.

Assayer ..D.A.W.....

GIBRALTAR MINES LIMITED

PERMANENT PROPERTY AREA

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GRID _____

GIBRALTAR MINES LTD.

HOLE No. 87-16
SHEET No. 1 of 11

LOCATION Pollyanna South Wall | BEARING 20° Az | LATITUDE 48587.00 | CORE SIZE N.Q.W | LOGGED BY G.D.B.
DATE COLLARED 03-May-87 | LENGTH 655' | DEPARTURE 52655.00 | SCALE OF LOG 1" = 10' | DATE May 6-8, 1987
DATE COMPLETED 05-May-87 | DIP Collar 55°; 350'-64°; 655'-68.5° -65° used in computer | ELEVATION 3949.50 | REMARKS

METRES / FEET: 0 / 3.05 / 6.10 / 9.14 / 12.19 / 15.24 — 0 / 10 / 20 / 30 / 40 / 50

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Stockwk	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE
Casing To 25'			25'					0 10 20 30 40	
Leucocratic Phase			30		60	2"	qt3	50 60 70 80 90	
(25-35') a pink-grey Q.P. 35'	ND				5° 60+70	12" ¼×2	gg-bx-lim qt3×2	0 10 20 30 40	<0.5
Mine Phase			40		80-90×10	¼-⅓×10	qt3×10	50 60 70 80 90	
Quartz Diorite (35'-655') typical comp. & texture. ~20 o/o chl	ND		50		70×4 35×2 8 80-90×12 20 80×8+40×2	¼-⅓×4 ¼×2 ⅛ ⅒-⅓×12 ½ ⅛-⅓×7	qt3×4 qt3×2 qt3-mal qt3×12 qt3 qt3×7	0 10 20 30 40 50 60 70 80 90	<0.5
45 o/o sauss 30 o/o qt3 grn size ~1/10"-⅛"	ND		60		80×5 45+80+70×2 70-80×10	⅒-¼×5 ⅛<4 ⅒-¼×10	qt3×5 qt3×4 qt3×10	0 10 20 30 40 50 60 70 80 90	<0.5
	ND		70		70-80×8 60-90	⅒-¼×8 ¼-½	qt3×8 qt3 stk wks	0 10 20 30 40 50 60 70 80 90	<0.5

Mineralization: strong barren qt3 veining + wk lim

BOTTOM DEPTHS	
LEACH CAP	140'
LIM. ZONE	190
SUPERGENE	—

REMARKS

lim very wk down to 120' and very strong from 120' to 150'

∴ this hole intersects a strong qt3 veining zone from 35' to ~330' - in most cases the qt3 veins make up to 20-60 o/o of the core.

Footage Diesps.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
25							
	90		97101	.05 .05 ox	.001		
31	70						
36		0	97102	.05 .04 ox	.001		.05
46	90	47	97103	.09 .03 ox	.001	.05 3905	.08 ox
53	95	43	97104	.06 .04 ox	.004		.05
63	95	47	97105	.09 .05 ox	.001		10 ox
	95						

GRID _____ GIBRALTAR MINES LTD. HOLE No. 87-16
SHEET No. 2 of 11

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 %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	ND		80		80 70+60+50 80x4 70-90x5 80x4 30-	½ ¼x3 ½-¼x4 ⅛-¼x5 ¼x4 ⅛	qt3-lim qt3-mal-MnO2x3 qt3-lim-MnO2x4 qt3-lim x5 qt3-x4 chl-mal		<0.5			73 83	95	53	97106	.09 .050x	.001		.05
	ND		90		60 45-90 80x3+40+60 50 30-80x6	2" ⅛-⅓ 1/10-⅛x5 ½ 1/10-⅛x6	qt3 qt3-stkwks qt3x5 qt3-lim qt3-stkwks		<0.5			90	98	27	97107	.06 .050x	.001		.05
	ND		100		45-80 20 80	1/10-¼ ¼ ½	qt3-stkwks chl-mal qt3-lim		<0.5			99	100	50	97108	.08 .070x	.001 f	.008 3860	.05
	ND		110		45 60 70x3 5x2 60+10+30+20 20+30+40x2	1/20 ½ ⅛x3 hlex2 ⅛x4 ⅛-¼x4	qt3-mal qt3 qt3x3 lim x2 qt3-lim x4 qt3-lim x4		<0.5			166	100	40	97109	.08 .070x	.001		.05
	ND		120		30-70 35 45+30 30-80	1/10-¼ 1/10 1/20x2 1/10-¼	qt3 stkwks mal gg-malx2 qt3 stkwks		<0.5			116 120	98 98	47	97110	.10 .080x	.001		.08 0x
	ND		130		70-80x5 70x4 45 60-90	½-¼x5 hlex4 6" ¼-⅛	qt3-lim x5 lim x4 chl-gg-lim qt3-stkwks + (lim) (mal)		<0.5			130	98	40	97111	.04 .020x	.006		.10 0x

METRES 0 3.05 6.10 9.14 12.19 15.24 18.29
FEET 0 10 20 30 40 50 60

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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GRID ____ GIBRALTAR MINES LTD. HOLE No. 87-16
SHEET No. 3 of 11

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Structure	Veins ∠ to Core Axis	Width of Veins	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
0						0										
10						10										
20						20										
30						30										
40						40										
50						50										
60						60										
70						70										
80						80										
90						90										
3.05	60-80 Mod	140	80×15 60×4 45-55×6 30	¼₀-¼×15 ¼-½×4 ¼-⅛×6 1½	qt₃-lim×15 qt₃-lim×4 qt₃-lim×6 qt₃-chl-lim		<0.5		136	95	47	97112	.40 .31ox	.002		.05
10			30 5-20×5 90 60-80×5 20×2 50×3 5×3	⅛₀ ¼₀-hle×5 ¼₀ ½-½×5 ⅓×2 1"±2"-½ hle×3	qt₃-lim-mal lim×5 qt₃-chl-lim-mal-cp qt₃-lim×5 qt₃ qt₃×3 lim×3		<0.5		143	80						
6.10	80 WK	150							146	95	50	97113	.15 .100x	.001	.015 3815	.08
20			20-80 5±80×3 70×2 40±3	⅛-⅛ ⅓×4 ⅛+¼ hle±2	qt₃-stkwks qt₃×4 qt₃-chl×2 lim-mal×3	fine cp along ep-chl slips @ 90°	<0.5		156	100	53	97114	.15 .109ox	.010		.10
30	70 WK	160							166	90	53	97115	.07 .05ox	.001		.05
9.14			30×2 5? 20-30×6 20-60	¼×2 2' ½-½×6 ⅛-¼	qt₃×2 gg-bx-hem qt₃×6 qt₃ stkwks		<0.5									
40									173	95						
12.19	MD	180	5×3 40-60×5 70+45-30×8 20 60 50×12	hle×3 ¼×5 ⅛-¼×9 6" 8" ⅓-¼×12	lim×3 qt₃×5 qt₃×9 qt₃(lim) qt₃-chl-(lim) qt₃×12	sparse disscm cp (mal)	<0.5			90	30	97116	.06 .030x	.003		.08
15.24									183							
50	MD	190	80-60×10 40-60×13 70×2 60×5 20	¼-⅛×10 ¼×13 ⅛×2 ⅛₀×5 ¼	qt₃(lim)×10 qt₃×13 qt₃-meg×2 qt₃-chl(cp)×5 qt₃-ser-mag(mal)	fine cp bo (mal) along ep-chl slip @ 90°	<0.5		186	95	57	97117	.05 .102x	.002		.12
18.29																
60																

METRES FEET

GEOLOGICAL BRANCH
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GRID _____ GIBRALTAR MINES LTD. HOLE No. 87-16
SHEET No. 4 of 11

GEOLOGICAL BRANCH
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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 %	ROD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	ND		200		50×2 45 50×6 90×3 60×10 S+60×2+70×3	½×2 ⅓ ¼×6 ½0×3 ⅒×10 ¼-⅓×6	qt3-chl-(cp)(mal) qt3-Mo qt3×6 chl-ep-cp×3 qt3-chl(cp)×10 qt3(lim)×6	0 10 20 30 40 50 60 70 80 90	<0.5		196	90	43	97118	.13 .10%	.009	.09 3770	.15
	ND		210		20+35+60+70 40+60×2 30×2 60-70×6 5×3+60×2 5×6	¼×4 hle×3 1/10×2 ⅓-¼×6 ¼×5 hle×6	qt3×4 lim-mal×3 qt3-ep-cp×2 qt3×6 qt3×5 lim×6	fine cp(bo) along 90° chl-ep slips 0 10 20 30 40 50 60 70 80 90	<0.5		206	95	53	97119	.09 .10%	.007		.14
	ND		220		70-50×16 50×3 60-70×8	⅛-⅓×16 ⅓×3 ⅒-½×8	qt3×16 qt3×3 qt3×8	0 10 20 30 40 50 60 70 80 90	<0.5		215	90	33	97120	.09 .10%	.009		.05
	ND		230		60×3 60×2 80 S+40+2+60×10	½+¼×2 ¼×2 3" ½-⅛×18	qt3×3 qt3×2 qt3-chl-mag(cp) qt3×18	0 10 20 30 40 50 60 70 80 90	<0.5		missing block 230	90	37	97121	.07 .10%	.006		.05
dk alt'n	80 wk		240		70-80+45×2 90 90+60+30 35+40+70×2 70×10	⅓-⅛×10 ⅓ ⅛×3 ¼×4 ⅛×10	qt3×10 qt3-chl qt3-chl×3 qt3×4 qt3×10	fine bo along chl. slips 0 10 20 30 40 50 60 70 80 90	<0.5		236	98	60	97122	.05 .10%	.003		.08
	80 str mod		250		90 5×2+60+70×2 90 80+60+70 45	3' ⅛-¼×5 ½ ⅓-¼×3 3"	qt3-chl (carb) ((cp)) zone qt3×5 qt3-mag qt3-chl×3 qt3-chl ((cp))	fine bo along 80° chl slips 0 10 20 30 40 50 60 70 80 90	<0.6		246 250	95 95	63	97123	.15 .10%	.079	.09 3725	.08

FEET 0 3.05 6.10 9.14 12.19 15.24 18.29
METRES 0 10 20 30 40 50 60

GRID

GIBRALTAR MINES LTD.

HOLE No. 87-16
SHEET No. 5 of 11

ROCK TYPES & ALTERATION	∠ to Core	Foliation Alteration	GRAPHIC LOG 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 %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	70 WK		260		50±2+70±4 5+30×2+40 15+30 60×2 70×2 15+20+10×2 90	¼-⅒ ⅛×4 2"+¼ ¼×2 ½-⅓ ⅓-¼×4 ⅒	qt3-chl-x6 qt3×4 qt3×2 qt3-chl-mag×2 qt3-chl-mag<2 qt3×4 qt3-chl-cp	0 10 20 30 40 50 60 70 80 90	<0.5		255	95	67	97124	.05 <.01 ox	.007		.08
	ND		270		5+30 70×3 70-80×4 30 70+80+50 20×2	⅛×2 ⅒×3 ⅒×4 ⅓ ⅛+⅒×2 ½×2	qt3×2 qt3-chl-mag-cp×3 qt3-chl-cp×4 qt3 qt3-chl (cp)×3 qt3×2	0 10 20 30 40 50 60 70 80 90	<0.5		265	98	77	97125	.09 <.01%	.006		.14
	80 Mod		280		20×2 30×3 30+20×2 70×3 80-90 30 25	½+1 ⅓×3 ¼×3 ⅛×2 3" 12" ¼	qt3-chl×2 qt3×3 qt3×3 qt3-chl×3 qt3-chl-mag qt3 (cp) qt3-carb-cp	0 10 20 30 40 50 60 70 80 90	<0.5		275	95	60	97126	.08 .01%	.009		.14
	80 WK Mod		290		90 80×2 80 70×2 5×2 60×2 5	1" ⅒×3 ½ ¼ ½-⅛ ⅛×2 3"	qt3-mag qt3-chl-cp×3 qt3-chl qt3-mag qt3×2 qt3×2 qt3	0 10 20 30 40 50 60 70 80 90	<0.5		285	95	73	97127	.19 .01%	.007		.12
	80 WK Mod		300		4' 45 60-80×5 35 60×2	4' 6" ¼-⅓×5 ½ ⅒×2	qt3-chl-carb ((cp)) qt3-carb qt3×5 qt3-mag qt3-chl-cp (bo)×2	0 10 20 30 40 50 60 70 80 90	<0.5		295	95	80	97128	.23 .01%	.008	.13 3680	.12
	ND		310		60+50 5+30+20+60 70 20×2 70	¼+⅓ ¼-⅓×4 ⅓ ¼×2 ⅛	qt3-mag×2 qt3×4 qt3-mag qt3×2 qt3-mag	0 10 20 30 40 50 60 70 80 90	<0.5		305 0'	98	83	97129	.06 .01%	.010		10

METRES 0 3.05 6.10 9.14 12.19 15.24 18.29
FEET 0 10 20 30 40 50 60

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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GRID _____

GIBRALTAR MINES LTD.

HOLE No. 87-16
SHEET No. 6 of 11

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 %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
dk alt'n	80 blk	320	60 90 10+5+15+20 45+50x4 5x2 80x2 80	1" 1/20 1/4x4 1/4x4 1/2x2 1/8x2 2'	qtz-mag-cp qtz-ep-cp qtz x4 qtz-chl x4 qtz-chl qtz-chl x2 qtz-ser-carb (cp)	0 10 20 30 40 50 60 70 80 90	<0.5		315	98	60	97130	.11 .01 ox	.024		.15
	ND	330	80 5x2+20 5x3 90 90	1/20 1/3x3 1/4x3 1/10 1/4	qtz-chl-cp qtz x3 qtz x3 qtz-chl-cp (bo) qtz-chl-cp	0 10 20 30 40 50 60 70 80 90	<0.5		325	95	57	97131	.06 .01 ox	.008		.08
dk alt'n.	60 blk-str	340	75x2 80x3 70x2 50 60	1/10x2 1/10x3 1/20x2 1/20 4'	qtz-chl-cp + qtz-mag qtz-chl-cp x3 qtz-chl-cp x2 chl-bo qtz-chl-carb ((cp))	0 10 20 30 40 50 60 70 80 90	<0.5		335	95	63	97132	.10 .01 ox	.007 f		.16
	60 wk-str	350	20 80 20x2 70x2 70	1" 1/2x2 1/4x2 1/2x2 1/2	qtz qtz-chl (cp) qtz x2 qtz-chl (mag) x2 qtz-chl-mag (cp)	0 10 20 30 40 50 60 70 80 90	<0.5		346	90	33	97133	.18 .02 ox	.035	.10 3635	.12
	70 wk	360	80x2 60 30 65 30 80x2	1/2x2 14" 2" 1/2 1/4 1/10 + hle	qtz-chl-mag x2 qtz-chl-(carb) ((cp)) qtz qtz-chl (cp) qtz qtz-ep-cp x2	0 10 20 30 40 50 60 70 80 90	<0.5		356	95	77	97134	.08 .01 ox	.012		.12
	70 Med	370	60 80 80x2 20x2+30 70 60	hle hle 1/3+1/4 1/4x3 1/3 1/2	cp-cp ep-cp qtz-chl x2 qtz x3 qtz-carb (cp) qtz	0 10 20 30 40 50 60 70 80 90	<0.5		366	98	53	97135	.08 .01 ox	.020		.10

METRES: 0, 3.05, 6.10, 9.14, 12.19, 15.24, 18.29
FEET: 0, 10, 20, 30, 40, 50, 60

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,915

GRID

GIBRALTAR MINES LTD.

HOLE No. 87-16
SHEET No. 7 of 11

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 Discrd.	Estimated Core Recovery %	R O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	55 Str	380	30 70×2 35 65 5×3	1" ¼ 2½ 4' ½+½×2	qt3-carb ((cp)) qt3-mag-cp×2 qt3 qt3-carb-ser-chl qt3×3	0 10 20 30 40 50 60 70 80 90	<0.5		376	98	57	97136	.11 .010%	.006		.10
Soft vuggy core 380-430'	90 Wk	390	5+20 60×3 40 90	½+⅓ ⅛×3 ⅓ 3' 2'	qt3×2 qt3-chl-ep-cp×3 qt3-chl-cp gg-bx qt3-chl-cp-carb	0 10 20 30 40 50 60 70 80 90	<0.5		386	95	23	97137	.17 .010%	.029		.25
	90 Wk	400	90<3 60 50×2 90 45 80-90×10	⅒×3 ½ ¼×2 ½×2 ⅛ ½₀-⅛×10	chl-cp×3 qt3-chl-cp (mag) qt3-chl-cp×2 qt3-chl-cp×2 qt3-cp qt3-chl-(cp)×10	0 10 20 30 40 50 60 70 80 90	<0.5		395	90	10	97138	.37 .010%	.050	.16 3590	.30
	90 Wk	410	90×8 90×2 80-90 45+80×2 70-90×4 80 5	¼-⅒×8 ⅛+⅓ ⅛-¼×6 ⅒×2 ⅒×4 ½ 6"	qt3-chl-cp×8 qt3-chl-mag-cp qt3-chl-cp×6 qt3-chl-cp×3 qt3-chl-cp×4 qtz-(mag)(cp) gg-hem	0 10 20 30 40 50 60 70 80 90	<0.5		405	95	33	97139	.42 .010%	.034	WI 11.57	.40
	ND	420	70×4 5 60 80 90 60-70×30	⅛×4 3" 2" 1" ½ ⅛×3	qt3-chl-cp×4 qt3 qt3-chl-mag qt3 (cp) qtz-chl (cp) qt3-chl-(cp)×3	0 10 20 30 40 50 60 70 80 90	<0.5		416	90	10	97140	.18 .010%	.030		.25
grades to a seriate phase	80 Wk	430	20 50 90+70 70+60+30×3 70 45 65-70×6	2" 2" 1/10×2 ⅛-⅒×5 2" ¼ ⅒-¼×6	gg-hem qt3-chl (cp) qt3-chl-cp×2 qt3-chl-cp×5 qt3-chl-cp-Mo qt3-mag (cp) qt3-mag-cp×6	0 10 20 30 40 50 60 70 80 90	<0.5		424	95 65	17	97141	.36 .010%	.032		.45

METRES 0 3.05 6.10 9.14 12.19 15.24 18.29

FEET 0 10 20 30 40 50 60

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,945

GRID

GIBRALTAR MINES LTD.

HOLE No. 87-16
SHEET No. 8 of 11

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,945

METRES / FEET

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 Diesel.	Estimated Core Recovery %	R O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
0 – 3.05	ND.	440	60-70 x 5 80 x 2 90 80 x 2 90 80 x 2	1/8 x 5 1/4 x 2 2" 1/10 x 2 1/2 1/10 x 2	qt3-chl-cp x 5 qt3-chl-cp x 2 qt3-(cp) qt3-chl-cp qt3 qt3-chl-cp x 2	0 10 20 30 40 50 60 70 80 90	<0.5		432	95	40	97142	.38 <.01 ox	.018	WI 1457	.20
grades to a seriate phase			80 5x~ 80 x 2+50 30 90 x 10 80 80-90 x 5	1/10 1/10 + 2" 1/4 x 5 3" 1/20-1/10 x 10 1" 1/10 x 5	chl-cp qt3 x 2 qt3-chl (cp) x 3 qt3 qt3-chl-cp (bo) x 10 qt3 qt3-chl-cp (Mo) x 5	0 10 20 30 40 50 60 70 80 90	<0.5		442	95	53	97143	.28 .01 ox	.016	.32 3545	.22
3.05 – 6.10	80 wx-Mod	450	90 x 12 90 x 2 5 5 x 3 90 70 x 3	hlex 12 1/10 x 2 1/2 1/2 x 3 1/4 1/8 x 3	chl-ep-cp (bo) x 12 chl-cp x 2 qt3 qt3 x 3 qt3 (Mo) qt3-chl-cp x 3	0 10 20 30 40 50 60 70 80 90	<0.5		452	90	43	97144	.24 .01 op	.038	WI 12.22	.25
soft vuggy dk zone	80-90 Mod	460	80-90 x 8 90 60-70 x 90 70-80 x 6 80 90 80 x 5 70	1/20-1/8 x 8 1/4 1/8 x 3 1/10 x 6 1/8 1/8 1/8 x 5 1/8 x 3	qt3-chl-cp qt3-mag chl-ep (Mo) x 3 chl (qt3)-cp x 6 qt3-chl-py chl-cp-py-Mo qt3-chl-cp x 5 qt3-chl-cp x 3	0 10 20 30 40 50 60 70 80 90	<0.5		462 469	90	27	97145	.55 .01 ox	.042		.50
6.10 – 9.14	80-90 Mod	470	50-80 x 20 80 80 80	1/10-1/8 x 20 1/4 x 2 1/3 2" 4'	qt3-chl-cp x 20 qt3-chl-cp x 2 qt3-chl-carb-mag-cp qt3-carb-cp qt3-chl-carb-(cp) zone	0 10 20 30 40 50 60 70 80 90	<0.5		476	95	33	97146	.54 .01 ox	.016		.35
9.14 – 12.19	80-90 Mod	480	45 45-90 x 8 80 70 80 or 50 + 60 70 x 3 60 x 2	1/2 1/10-1/4 x 8 2" 1" 1/10 x 3 1/10 x 3 1/10 x 2	qt3-chl-cp qt3-chl-cp x 8 qt3-mag-Mo qt3-chl-cp qt3-chl-cp x 2 qt3-chl-cp x 3 qt3-chl-cp x 2	0 10 20 30 40 50 60 70 80 90			486	95	33	97147	.35 <.01 ox	.018		40
12.19 – 15.24		490														
15.24 – 18.29																

GRID

GIBRALTAR MINES LTD.

HOLE No. 87-16
SHEET No. 9 of 11

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 %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
inter. ep as blebs	NO	500	80 60×2 80±50 5-40 30 80 Co+80×3 50±10	1/8 1/4+1/10 1/8+1/4 2' 1/8 1/4 1/10×4 1/8×2	qt3-chl-cp qt3-chl-cp×2 qt3-chl-cp×2 gg-bx-hem qt3-cp chl-cp qt3-chl-cp×4 qt3-chl-cp×2	0 10 20 30 40 50 60 70 80 90	<0.5		494	90 95	17	97148	.33 L.01%	.022	.40 3500	.30
knots and lenses - approaches a chl-ep-qt3 zone	NO	510	70×2 70 35 90 70-80 65 60 90	1/8×2 1/20 1/20 1/3 1/10×3 1/2 3" 1/2	qt3-chl-cp ep-cp ep-cp qt3-chl-ep-cp qt3-chl-cp×2 qt3 (chl)-cp qt3-chl-ep-cp qt3 (cp) (Mo)	0 10 20 30 40 50 60 70 80 90	<0.5		504 510	60	17	97149	.40 K.01%	.012	WI 14.92	.35
517 - 528 a white qt3. porp zone. (the ep. zone appears to be a border phase of the porp.)	NO	520	80 70×2 80 70×2 ? 80-90 90	1/8 1/10×2 4° 1/10×2 1 1/2 1/20-1/10 1/8	qt3 (cp) qt3-chl-cp×2 qt3-ep-(cp) qt3-chl-cp×2 broken ep (qt3)(carb)-py qt3-cp×3 qt3-py	0 10 20 30 40 50 60 70 80 90	<0.5		516	85 90	17	97150	.38 K.01%	.014		.26
	NO	530	80 5-60 35-60×3	6" hle-1/20 1/2×3	qt3-mag-py (cp) fine chl (cp) stkwks qt3-chl (cp) (Mo) ×3	0 10 20 30 40 50 60 70 80 90	1.0		523	95	43	97151	.25 K.01%	.020		.18
	NO	540	50 80×3 80 50+60±5 75×3 70+40 45-50×3	1/3 1/20-1/10×3 5" 1/10+1/4×2 1"+1/4×2 1/2+1 1/8×3	qt3-chl (cp) (Mo) qt3-chl-cp×3 qt3-chl-(cp) (Mo) qt3-chl-carb-cp×2 qt3-chl-cp×3 qt3-chl-cp×2 qt3-chl-cp×3	0 10 20 30 40 50 60 70 80 90	<0.5		533	95	37	97152	.56 .01%	.014		.35
	NO	550	45 30 35±60 40+70 85 70	1/3 1/2 1/10×2 1/20×2 1/4 1/8	qt3-chl-cp qt3-Mo qt3-chl-cp×2 ep-cp (bo)×2 qt3-chl-cp cp	0 10 20 30 40 50 60 70 80 90	<0.5		541	95	43	97153	.23 K.01%	.008	-36 2955	25

METRES 0 3.05 6.10 12.19 15.24 18.29
FEET 0 10 20 30 40 50 60

GRID

GIBRALTAR MINES LTD.

HOLE No. 87-16
SHEET No. 10 of 11

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 Diesels	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	ND	560	60+70 80+50 70×3 40 25	½×2 1/10×2 1/10×3 ⅛ 1/10	qt3-chl-cp ×2 qt3-chl-cp qt3-chl-cp ×3 qt3-chl-cp qt3-chl-cp	0 10 20 30 40 50 60 70 80 90	1.5		531 560	90	40	97154	.24 .01 ox	.018		.18
	ND	570	60×2 90 60×2 40 60×2 45×2	⅛×2 hlc ¼×2 ¼ ½+⅓ 1/20×2	qt3-chl(cp)×2 chl-cp qt3×2 qt3-ill o qt3-chl (cp) ep-cp×2	0 10 20 30 40 50 60 70 80 90	<0.5		570	95	17	97155	.17 .02 ox	.024		.15
	ND	580	30 40×2 ? 75 60 40+50+60	½ 1/10×2 2' 2" ⅓ ⅛×3	qt3-chl-cp qt3-chl-ep-cp×2 gg-bx qt3-chl-cp qt3- mag-chl qt3-chl-cp ×3	0 10 20 30 40 50 60 70 80 90	<0.5		580	95	43	97156	.16 .01 ox	.004		.18
	ND	590	70 45 30 50 10 70	1/10 ½ 2" 2" 2½ ½	qt3-chl (cp) qt3-chl (cp) qt3-ill o-cp (bo) qt3-chl (cp) qt3 (cp) qt3-chl (cp)	0 10 20 30 40 50 60 70 80 90	<0.5		590	90	47	97157	.23 <.01 ox	.010		.22
	ND	600	? 20 60	5'? ¾" 1"	4½' last core ? qt3 qt3-chl (cp)	0 10 20 30 40 50 60 70 80 90	<0.5		?	75	23	97158	.08 .01 ox	.002	.18 3410	.12
	ND	610	? 30 45 40 60 60×2	12" 1/10 ¼ 1/10 ⅛ ½×2	gg-bx qt3-chl-cp qt3 qt3-chl-cp qt3-chl-ep (cp) qt3-ill o ×2	0 10 20 30 40 50 60 70 80 90	<0.5		606		50	97159	.13 <.01 ox	.004		.12

METRES 0 3.05 6.10 9.14 12.19 15.24 18.29

FEET 0 10 20 30 40 50 60

GRID

GIBRALTAR MINES LTD.

HOLE No. 87-16
SHEET No. 11 of 11

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,975

METRES / FEET

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 %	RQD	Assay Results: Sample Number	% Cu	% Mo		Estimated Grade
grades to a pale grey qtz-rich (n 35-40% qtz) phase		620	60 45 ? ?	1/16 2" 1" 1½"	qtz-cp chl. chl chl		<0.5	616	95	20	97160	.09 .010x	.010		.08
with veins and clots of chl	5-60 wk-str.		5 5-60	2' ¼ 5'	gg-bx qtz-Mo qtz-carb-chl-((cp)) zone		<0.5	624	95	13	97161	.20 .010x	.020		.18
a dk. qtz-rich phase		630							95						
dk alt'n zone	5-60 Mod-str	640	5-60 5°	6' 3'	qtz-carb-chl (cp) zone bx (gg)		<0.5	633	98	40	97162	.16 .010x	.002		.16
	50 Mod	650	70 60 60+70	½ ¼ 1/20xx	qtz-cp qtz-chl-cp qtz-chl-carb (cp) xx		<0.5	649	95	20	97163	.06 .010x	.002	.13 3365	.12
E.O.H 655'		655	80 30	1/10 1/10	chl-cp chl (cp)		<0.5	655	60		97164	.06 .010x	.008		.10

M R Shaw.

for G.D. Bysouth

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 87-15
SHEET No. 1 of 11

LOCATION Pollyanna South Wall | BEARING N 20° E (20° az) | LATITUDE 48636.00 | CORE SIZE N.Q.W | LOGGED BY G.D.B.
DATE COLLARED 01-May-87 | LENGTH 646' | DEPARTURE 53163.50 | SCALE OF LOG 1" = 10' | DATE May 4-6, 1987
DATE COMPLETED 03-May-87 | DIP -55° @ collar ; -65° @ EOH (-62° used in computer) | ELEVATION 3956.40 | REMARKS mineralization (cp) is fine grn and uniformly distributed in a dk vuggy rx - low py - that is, Zone C-type ore.

METRES / FEET

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	BOTTOM DEPTHS: LEACH CAP → (110' in comp.) / LIM. ZONE 170 (weak) / SUPERGENE — / REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
Casing To 30'			30								30							
MINE PHASE QUARTZ DIORITE (30' - 538')	ND		40		30-60×8 35+40 30	¼-1½×8 ½₀×2 ½₁₀	coarse qt₃-stkwks gg-lim-mal qt₃-lim		<0.5		34 40	95 90	17	97026	.10 .09ox	.001		.10
not a typical Mine Phase - prob. much alt'a and structurally deformed - tex. often indistinct (silicification?)	N3		50		25+30×2 60+30×2 20+5 70-30×10 10+15	½-¼×3 ⅓-¼×6 ½₀-½×10 ½₀×2	qt₃×3 qt₃×6 qt₃-stkwks gg-lim-mal×2		<0.5		46	90	33	97027	.05 .05ox	.001		.10
and of variable grn size - a sample is collected every ten feet for geol. analysis. Fault @ 54'-60'	ND		60		30-40×2 ? ?	⅛×3 6' ?	lim-MnO_2 (mal)×3 gg-bx (+ 3½' lost core)		<0.5	gen. hard broken gg'y core.	56	80 35	7	97028	.09 .060x	.001	.08 3905	.08
throughout most of this hole, and particularly the min. sections, the rx is only weakly sauss. alt'd - approaching a dk. vuggy alt'n phase.	30-55 str		70		55×2 30 ? 40-70	⅓×2 3' 14" 2½'	qt₃×2 qt₃-chl-carb (lim) zone qg-bx qt₃-chl-ep (lim) zone		<0.5		63 70	60	13	97029	.08 .080x	.001		.05

GRID _____ GIBRALTAR MINES LTD. HOLE No. 87-15
SHEET No. 2 of 11

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration	GRAPHIC LOG Fracture Frequency	GRAPHIC LOG Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SULPERGENE	REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	20-60 Str.	80					Faulted, broken qtz-chl shear zone - mainly broken rx - 6" gg @ 76' - ~ 7' core lost		<0.5			76	30	0	87030	.16 .19ox	.001		.05
	?	90					Faulted, broken dk alt'n zone - numerous mal. stained frac's, ~ 4' core lost		<0.5		gen. broken gg'y core but not a definite	80 / 86	25 / 50	0	87031	.14 .13ox	.001		.14 .0x
	?	100					faulted, broken dk, vuggy alt'n zone - MnO_2 - mal coated frac's ~ 4' core lost		<0.5		fault zone	91 / 96 / 99	70 / 25 / 90	0	87032	.19 .18ox	.001		.12 .0x
	NO	110	20 5×3 ? 20 60×2		½ ½×2 2' ½ ½×2		qtz-mal gg-lim-mal x3 gg-bx-mal-lim gg-MnO_2-mal chl-mal x2		<0.5			105 / 95	90	3	87033	.63 .57ox	.001	.23 .21ox 3860	.20 .0x
finer grn var. ½"-¼" dia grns	NO	120	5 80×2 5×3 80 60-30×10		⅛ ½×2 ¼+1+2" ¼ ½-⅓×10		gg-lim chl-cp x2* qtz×3 qtz-chl-mal qtz-stk wks		<0.5		* first vein sulfide - fine dissem. py occurs near top of hole WI: 1499	111 / 116	90	57	87034	.20 .09ox	.003		.14
		130	5 60+5 60 70×3+3c		2" hlex2 ⅓ ½×4		gg-carb-hem lim x2 qtz-Mo qtz-chl-(cp)(bo)		<0.5		WI = 1491	126	95	47	87035	.20 .02ox	.018		.12

METRES: 0, 3.05, 6.10, 9.14, 12.19, 15.24, 18.29
FEET: 0, 10, 20, 30, 40, 50, 60

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 87-15
SHEET No. 3 of 11

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 Discr.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
mainly dk alt'n. 132' – 170' – This may also contain carb. and sparse dissem cp-bo	15-20 wk. Mod	140	30 5 5 ?	6" 12" 1/10 12"	gg-bx gg-bx qt3-chl (Mo) gg-bx	0 10 20 30 40 50 60 70 80 90	<0.5	wi = 19 09	.134 137	85 85	50	87036	.34 .02 ox	.021		.08
	10-20 Mod	150	20 15 tr x 2 5 x 3 50 20 60 + 10	8" 1/10 1/10 x 2 1/20 x 3 2" 1/3 + 1/2	gg-bx chl-py qt3-chl-(cp)(bo) x 2 qt3-chl-(cp) x 3 qt3 qt3-chl-cp qt3-chl-(cp)	0 10 20 30 40 50 60 70 80 90	<0.5	wi = 14 99	142 149	80 100	47	87037	.20 .01 ox	.003		.15
	10-20 Mod	160	15 70 5 5 60	1/10 1 1/2 14" 30" 5"	chl qt3-chl qt3-chl 3 one gg-bx qt3	0 10 20 30 40 50 60 70 80 90	<0.5	wi = 14.99 ↑ ↓	156	85 95	20	87038	.17 .01 ox	.004	.23 3315	.08
	45 WK	170	30 10 + 60 60 x 2 60 60 70 45 10 x 3	1/4 1/2 + 1/2 1/10 x 2 1" 1/10 1" 30° hlc x 2	qt3-chl-cp qt3-mag-cp x 2 qt3-chl-cp qt3 (cp) qt3-chl-cp qt3-chl-mag-cp qt3-chl-mag-cp 3 one lim x 3	0 10 20 30 40 50 60 70 80 90	<0.5	wi = 16 43	162	95	40	87039	.28 .02 ox	.015		.25
	10-15 Str.	180	15 15 10 x 3	3' 1/2 1/20 x 3	qt3-chl-carb-spec 3 one qt3-carb chl-(bo) x 3	0 10 20 30 40 50 60 70 80 90	<0.5	wi = 16 43	172	90	47	87040	.21 .01 ox	.004		.10
	20-60 WK	190	50-40 20 45 60 x 3	30" 2 1/2 1/4" 1/10 x 3	qt3-carb-chl qt3-chl-cp qt3-chl-mag-cp qt3-chl-cp x 3	0 10 20 30 40 50 60 70 80 90	<0.5	wi = 16 43	181 186	95 90	27	87041	.19 .01 of	.005		.15

METRES: 0, 3.05, 6.10, 9.14, 12.19, 15.24, 18.29
FEET: 0, 10, 20, 30, 40, 50, 60

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 87-15
SHEET No. 4 of 11

METRES / FEET

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Structure	Vein ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Discrs.	Estimated Core Recovery %	R O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	NO	200	20×2 60 40 60×2 +50×2 35 60×3	¼×2 1" ½ ½-⅛×4 ¼ ¼-⅛×3	qt3-chl (cp)(Cbo)) x2 qt3 qt3(Mo) qt3-chl (cp)((Cbo)) x4 qt3 qt3-chl-cp(bo) x 3	0 10 20 30 40 50 60 70 80 90	<0.5	W.I = 16.43	193 198	90 70	30	87042	.30 .010%	.011		.14
70-80 Mod	70-80 Mod	210	20×2 45 70 20×3 45	1"+½ 10" ¼ ¼×3 1"	qt3-carb×2 qt3-chl-(vug) chl-cp qt3(vug)×3 qt3-carb	0 10 20 30 40 50 60 70 80 90	<0.5	W.I = 16.43	201 205	70 90	27	87043	.16 .010%	.022	.23 =770	.08
80 WK	80 WK	220	45+? 40 ? 15	14"+10" 12" 6" ½	qt3-carb-chl (vug) x2 qt3-carb qt3 qt3	0 10 20 30 40 50 60 70 80 90	<0.5	W.I = 16.43	215 221	98	30	87044	.21 .010%	.006		.05
dk alt'n zone	45 WK	230	30 or 40 70 5	¼10+¼ ¼ ⅛	qt3-chl(cp)x2 qt3-(Mo)(cp) qt3-chl-carb-cp	0 10 20 30 40 50 60 70 80 90	<0.5	W.I = 13.37	226	90	60	87045	.25 .010%	.004		.10
	20-80 STR	240	20-80	10'	qt3-chl.-carb (cp) zone, fine	0 10 20 30 40 50 60 70 80 90	<0.5	W.I = 13.37	236	90	30	87046	.19 .010%	.007		.18
dk alt'n zone	70 STR	250	30 80	½ ½10×2	qt3 qt3-chl-cp (dissem. cp.)	0 10 20 30 40 50 60 70 80 90	<0.5	W.I = 13.37	246	85	33	87047	.16 .010%	.026		.10

METRES: 0 3.05 6.10 9.14 12.19 15.24 18.29
FEET: 0 10 20 30 40 50 60

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 87-15
SHEET No. 5 of 11

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 Diesel	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	80 Str	260	80 70 x2 70 25	1/8 1/2 x2 1/8 1/4	qt3-mag-(cp) qt3 + qt3-chl qt3-chl (cp) qt3 ((cp))	0 10 20 30 40 50 60 70 80 90	<0.5	WI = 13.37	255 1'	90 90	50	87048	.21 <.01 ox	.010	.21 37 ≈ 5	.10
	80 WK	270	90 80 x2 45+50+x3 80 x3 80+25 30+50 80	1/10 1/10+1/8 1/8+1/10 x3 1/20 x3 1/4-1/10 1/2 x2 1/4	qt3-chl-cp qt3-chl x2 qt3-chl-(cp) qt3-chl-cp x2 qt3-chl (cp) x2 qt3-chl x2 qt3-chl-(cp)	0 10 20 30 40 50 60 70 80 90	<0.5	- the veins in this hole are not clearly defined, nor is the distribution of cp confined to the vein - most cases, the cp. is dissem. across the vein and into the wall rx	263 266	95	50	87049	.25 <.01 ox	.008		.18
	NS	280	60 70 x2 50 70 30 80 60 40 25 x2 15 x3	1/2 1/10 x2 1/8 1" 2" 1" 2" 1" 1/2 x2 1/4 + 1/2 + 1/8	qt3-chl-mag-cp qt3-chl-cp x2 qt3-chl-cp qt3-chl (cp) qt3-chl-cp qt3-chl-(wk)(cp) qt3-chl-cp qt3-chl-mag-cp qt2-chl-mag-cp x2 qt3-chl-mag-cp x3 + some dissem bn	0 10 20 30 40 50 60 70 80 90	<0.5	- much of the core is sl. vuggy and soft. WI = 11.22	276	95	57	87050	.66 .01 ox	.020		.40
	80 WK	290	60 60 x2 60 80 50 70 x3 80	6" 1/4 x2 8" 1" 2" 1/3 x3 3"	qt3-chl-cp qt3-chl-cp x2 qt3-chl-cp qt3-mag (cp) qt3-mag-cp qt3-chl-cp x3 chl-cp	0 10 20 30 40 50 60 70 80 90	<0.5	WI = 11.22	286	95	53	87051	.55 .01 ox	.022		.35
	80 WK	300	40 60 45 80 70 80 80 x3 80	3" 8" 1/3 1/4 3" 1/10 1/10 x3 2"	qt3-chl-cp qt3-chl-cp qt3-chl-cp qt2-chl-cp qt3-chl-mag-cp qt3-chl-cp qt3-chl-cp x3 qt3-chl-cp-mag-cp	0 10 20 30 40 50 60 70 80 90	<0.5	WI = 11.22	296	95	43	87052	.56 .01 ox	.016		.40
	80 WK	310	60 60 40 70 80 60+50+30 x2 60 x3 80	2" 1" 1" 1/2 1/4 1/4 x4 1/10 x3 3"	qt3-chl-mag-cp qt3-chl-cp qt3-chl-cp qt3-chl-mag (cp) qt3-chl-cp qt3-chl (cp) x4 qt3-chl-cp x3 qt3-chl-cp	0 10 20 30 40 50 60 70 80 90	<0.5	WI = 11.22	305	80	37	87053	.64 <.01 ox	.029		.30

METRES: 0, 3.05, 6.10, 9.14, 12.19, 15.24, 18.29
FEET: 0, 10, 20, 30, 40, 50, 60

GRID _____ GIBRALTAR MINES LTD. HOLE No. 87-15
SHEET No. 6 of 11

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 Diesel	Estimated Core Recovery %	R O D	ASSAY RESULTS: Sample Number	% Cu	% Mo	Sn	Estimated Grade
0 – 3.05	80 Mod	320	80 80 80 70±2 80 50 90±5 45 70-80 x 6	2" Y10 x 3 1/8 1/3 x 2 Y2 Y2 Y4 x 2 2" Y4-Y8 x 6	qt3-chl-cp qt3-chl (cp) x 3 qt3-cp qt3-chl (py) qt3-chl-cp chl (qt3) (cp) qt3 x 2 qt3-chl-mag-cp qt3-chl-(cp) x 6	0 10 20 30 40 50 60 70 80 90	<0.5	WI = 11.22	315	95	70	9/87054	.37 <.01 ox	.024	3680	.25
3.05 – 6.10	80 Mod-str.	330	80 80 80 x 8 5 70-90 x 8 80	2" 1/4 Y10 x 8 1/4 Y6-1/4 x 8 8"	qt3 qt3-chl-cp qt3-chl-cp x 8 chl-cp qt3-chl-(cp) x 8 qt3-chl-cp	0 10 20 30 40 50 60 70 80 90	<0.5	WI = 11.22 1	326	90	50	9/87055	.41 <.01 ox	.037		.28
6.10 – 9.14	70 Mod	340	80 80 x 3 80 70 70 80 x 3 80 x 2	2" Y2 + Y8 x 2 1/4 Y3 3" Y10 x 3 Y10 x 2	qt3-chl-ep-cp qt3-chl (cp) x 3 qt3-chl-(cp) qt3-chl-(mag) (cp) qt3-chl-mag-(cp) * qt3-chl-(cp) qt3-chl (cp) x 2	0 10 20 30 40 50 60 70 80 90	<0.5	* this, and most of the other mag veins consist of a central qt3-mag (cp) vein and a chl-cp envelope or halo. WI = 10.8	336	95	67	9/87056	.42 <.01 ox	.026		.30
9.14 – 12.19	70 Mod	350	70 65 50 x 2 20 80 x 4 + 45 80 70 70-90 x 5	Y2 Y2 Y4 x 2 3/4 Y8 x 5 Y10 1/6" Y10-Y8 x 5	qt3-chl-cp-ilo qt3-chl-mag (cp) qt3-chl (cp) x 2 qt3-chl-py qt3-chl- x 5 qt3-cp qt3-chl-cp (cp) qt3-chl (cp) x 5	0 10 20 30 40 50 60 70 80 90	<0.5	WI = 14.38	346	95 90	60	9/87057	.35 <.01 ox	.012		.25
12.19 – 15.24	70 WK	360	80+60 70-80 x 6 65 x 2 50 90+80 60 x 2 80 80+90	Y2+Y3 Y10 x 6 1" + 1/2 1" 1" x 2 Y2+Y10 Y8 x 2	qt3-chl (cp) x 2 qt3-chl (cp) x 6 qt3-chl-cp x 2 qt3-chl-cp chl (qt3)-cp x 2 qt3-chl (cp) x 2 qt3-chl-mag qt3-chl-cp x 2	0 10 20 30 40 50 60 70 80 90	<0.5	WI = 14.36	351 356	95	57	9/87058	.27 <.01 ox	.013		.25
15.24 – 18.29	70 WK	370	20 45 90+40 60 x 2 50+30 80-90 x 10	Y10 Y3 Y8 x 2 Y10 x 2 Y8 x 2 Y10 x 10	qt3 (cp) qt3-chl (cp) qt3-chl-cp x 2 qt3-chl (cp) x 2 qt3-chl-cp x 2 qt3-chl-cp x 10	0 10 20 30 40 50 60 70 80 90	<0.5	WI = 14.38	366	98	43	9/87059	.32	.010	.136 3635	.30

GRID ____

GIBRALTAR MINES LTD.

HOLE No. 87-15
SHEET No. 7 of 11

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 Diesel	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	80-90 Str		380	70x2+25 70-90x10 80 90	1/10x3 1/8-1/3x10 1/2 5'	qt3-chl-cp x3 qt3-chl-cp x10 qt3-chl-cp qt3-chl-carb (cp) ((bo))		<0.5		WI = 14.38	376	95	20	87060	.69	.014		.30
	80-90 Mod		390	90 80	3' H" 3'	qt3-chl-carb (cp) qt3-ser-(Mo) qt3-ep (cp)((Mo))		<0.5		WI = 21.19	386	95	23	87061	.47	.078		.28
	70-90 Mod		400	90 70 70?	2 1/2 3' 7'	qt3-chl-cp qt3-ser-carb(cp) qt3-ep (cp)		<0.5		WI = 21.19	394	95 90	10	87062	.32	.014		.20
	70 Mod		410	70? 80 70 60 x3 80	2' 3' 1/3 1/20 x3 1/8	qt3-ep (cp) qt3-chl-ep-cp (bo) qt3-chl-cp qt3-cp x3 qt3-chl-(cp)		<0.5		WI = 21.19	401 406	95	23	87063	.39	.019	.46 3590	.25
	80 Mod		420	60 70x3 50 90 45x2 80 50	1" 1/10x3 1/2 2" 1/4x2 2' 1/8	qt3-chl-cp qt3-chl-cp x3 qt3 qt3-chl-cp qt3-chl-cp (bo) x2 qt3-chl-cp qt3-chl-cp		<0.6		WI = 21.19 tarnish cp	415	90 85	30	87064	.59	.030		.30
	ND		430	70x2+80x2 80 80 65 80-90 x4 45 90	1/8+1/4+1/10x2 2" 3" 2" 1/8-1/3 x4 1" 4"	qt3-chl-cp x4 qt3-chl-ep-cp qt3-chl-cp qt3-chl-(Mo)-cp qt3-chl-cp x4 qt3-chl-cp qt3-chl-cp		<0.5		WI = 21.19	425	85 95	30	87065	.44	.022		.35

METRES 3.05 6.10 12.19 15.24 18.29
FEET 0 10 20 30 40 50 60
9.14

GRID: ____

GIBRALTAR MINES LTD.

HOLE No. 87-15
SHEET No. 8 of 11

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 Discr.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	80 wk-Mod	440	35 60-80×9 90 80 45 50	½ ⅛×4 8" 3' ½ ¼	qtz-chl-EP) qtz-chl-cp×4 cp qtz-chl-carb (cp) qtz-chl-carb-cp qtz-Mo	0 10 20 30 40 50 60 70 80 90	<0.5	WI=2119 1	432	95	27	97066	.25	.014		.30
	70 WK	450	70×2 80 70×2 +80 60 90 5 5+90 80+70	1/10×2 ⅓ ½+⅛+¼ ½ ¼ 2" 1/10×2 1/10×2	qtz-chl (cp)×2 qtz-chl-cp chl (qtz)-cp×3 qtz-chl-cp qtz-cp qtz-cp qtz-chl-cp×2 qtz-chl (cp)×2	0 10 20 30 40 50 60 70 80 90	<0.5	WI = 1916	441	98	30	97067	.24	.018		.40
	70-80 WK	460	5 80 90 80-90×6	⅛ 6" 1/10 ⅛-1/10 ½ 1/10×6	qtz-chl-cp chl-cp qtz-chl-cp qtz-chl-cp×2 qtz-chl-cp qtz-chl-cp×6	0 10 20 30 40 50 60 70 80 90	<0.5	WI=1916	451 458	95 96	27	97068	.37	.016		.25
	80-90 Mod	470	80×2 90 5 5+90×3 70 80×5+30+10	1/20×2 ¼ 1/10 1/10×4 8° 1/10×5+⅛×2	qtz-chl-cp×2 qtz qtz-chl-cp qtz-chl-cp×4 qtz (Mo)(cp) qtz-chl-cp×7	0 10 20 30 40 50 60 70 80 90	<0.5	WI=16	463	98	43	97069	.21	.010	34 SEE	.20
	80 Mod	480	60×5 50 80×3 90 5	1/10-⅛×5 ⅛ 1/10×3 ¼ 1/10	qtz-chl (cp)×5 qtz-chl-cp qtz-chl-cp×3 qtz gg-hem	0 10 20 30 40 50 60 70 80 90	<0.5	WI=17	473	95	17	97070	.32	.008		.18
	80 WK	490	5 90 90 80×2 90 45-70	1/10 1" 1/10 ½+⅛ ½ 1/10-1/20	gg-hem qtz-cp qtz-chl-cp-Mo qtz-chl-cp×2 qtz-carb-cp fine chl-cp stk wlks	0 10 20 30 40 50 60 70 80 90	<0.5	WI=14.1	482	95	35	97071	.35	.008		.20

METRES: 0, 3.05, 6.10, 9.14, 12.19, 15.24, 18.29
FEET: 0, 10, 20, 30, 40, 50, 60

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 87-15
SHEET No. 9 of 11

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 Discrs.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
0					50 +60		¼+⅛	qt3-cp xz	0				491							
					50		½	qt3-chl (vug)	10											
	70-80 wk Mod				70 x2		½ x2	qt3-chl-cp xz	20					75						
					5		½0	gg-hem	30	<0.5			495		23	97072	.12	.004		.15
			500		90		⅛	qt3-chl-py	40											
					80		⅛	qt3-cp	50											
					70		2"	qt3-chl-cp	60											
10					80		½ x3	qt3 (chl)	70					90						
	80 wk				80		2"	ep-chl-py-cp	80	<0.5			506		47	97073	.06	.004		.14
			510		80		½	qt3 (cp)	90											
					10		2"	qt3 ((cp))												
20					65		⅛	qt3-chl-(cp)												
					70 x3		¼+⅛ x2	qt3 ((cp)) x3						95						
	70 wk									<0.5			514		63	97074	.04	.002	.19 3500	.10
			520		70+60		¼ x2	qt3-chl- x2						98						
30					90		¼	qt3 (cp)												
					15		¼	qt3-chl												
	70 wk				5		⅓	qt3		<0.5			524		37	97075	.04	.002		.10
					20+60		½+½	qt3-chl ((cp)) x3						90						
			530		20		½	qt3					530							
	small fault						4'	gg-bx hem												
		ND			20		6"	qt3-chl-carb-mag-cp		<0.5				55						
	538'												536		10	97076	.11	.002		.15
			540		25+40+50 x2		⅛ x4	qt3-chl ((cp))		–				95						
40													541							
	SERIATE PHASE (538'-578') a complex, very hard siliceous rx ~ 50% qt3 as rounded grns up to ¼" dia				5		⅛	qt3												
		ND			30-70 x10		⅛-⅛ x10	qt3-chl stkwks		<0.5				95						
			550		15x3+20x3		⅛ x6	qt3 x3 + qt3-chl x3					548		30	97077	.03	.006		.08
50																				
	over																			

METRES: 0, 3.05, 6.10, 9.14, 12.19, 15.24, 18.29, 60.-
FEET: 0, 10, 20, 30, 40, 50

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,915

GRID ____ GIBRALTAR MINES LTD. HOLE No. 87-16 SHEET No. 10 of 11

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	Footages Blocks	Estimated Core Recovery %	ROD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
but also making up a finer grn matrix for the other constituents 25-35% saus plag as subhedral small (1/30-1/10") dia phenos and scattered anhedral grns up to 1/4" dia	ND	560	80 / 90 / 60	1" / .6" / 1/3 / 1"	qt3 / qt3-chl / qt3-chl / qt3-chl	0 10 20 30 40 50 60 70 80 90	<0.5		553 / 558	90	17	97078	.06	.006		.05
- 10-20% chl as rounded blobs up to 1/4" dia with fuzzy boundaries - grades in places to Granite Mtn Phase and also to Leucocratic Phase	ND	570	5 / 20	1/10 / 1/10	chl-cp / chl	0 10 20 30 40 50 60 70 80 90	<0.5		568	90	17	97079	.03	.002	.05 / 2055	.05
578'	ND	580	30 / 80 / ?	1/2 / 1" / 10"	qt3 / qt3 / qt3 } highly broken gg'y rx	0 10 20 30 40 50 60 70 80 90	<0.5		574 / 580	90 / 80	10	97080	.01	.002		.05
MAJOR FAULT ZONE (578-602') main dislocation appears to be @ 586-590'	ND	590		10'	gg-bx (~6' lost core)	0 10 20 30 40 50 60 70 80 90	<0.5		586 / 590	15 / 50	0	97081	.03	.002		.05
	ND	600		10'	bx (gg)	0 10 20 30 40 50 60 70 80 90	<0.5		596	55 / 75	0	97082	.03	.010		.05
602				2'	gg-bx	0 10 20 30 40 50 60 70 80 90	<0.5		602	90	20	97083	.02	.002		.05
MINE PHASE QUARTZ DIORITE (602'-646') same as above)	ND	610	35 x 2	1/2 + 1/4	gg-hem x2				610							

METRES 0 3.05 6.10 9.14 12.19 15.24 18.29
FEET 0 10 20 30 40 50 60

GRID ____ GIBRALTAR MINES LTD. HOLE No. 87-15
SHEET No. 11 of 11

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 Diesel.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
0 – 3.05	ND	620	60 35	12" 3"	gg-bx gg-bx } hem stained rx.	0 10 20 30 40 50 60 70 80 90	<0.5		618	98	33	87084	.02	.004	.02 3410	
3.05 – 6.10	ND	630	5 60±2	3" 1/8±2	gg-bx-hem qt3-chl-py + qt3	0 10 20 30 40 50 60 70 80 90	<0.5		623 630	95 80	10	97085	.03	.002		
6.10 – 9.14	ND	640	35 60 80	1/3 1/8 1½	qt3 qt3 qt3	0 10 20 30 40 50 60 70 80 90	<0.5		634 640	85 90	17	97086	.04	.002		
9.14 – 12.19	ND	646	?	3½'	gg-bx	0 10 20 30 40 50 60 70 80 90	<0.5		646	60		97087	.01	.002	.03 3365	
12.19 – 15.24	E.O.H.					0 10 20 30 40 50 60 70 80 90		M.R. Thom for G.D. Bysouth								
15.24 – 18.29						0 10 20 30 40 50 60 70 80 90										

METRES 0 3.05 6.10 9.14 12.19 15.24 18.29
FEET 0 10 20 30 40 50 60

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,915

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 87-17
SHEET No 1 of 11

LOCATION Pollyanna South Wall
DATE COLLARED 05-May-87
DATE COMPLETED 07-May-87

BEARING 320° Az
LENGTH 644'
DIP -55° @ collar; -65° @ 350'; -65° @ 644'
-62° used in computer

LATITUDE 48656.00 S
DEPARTURE 52286.00
ELEVATION 3946.00

CORE SIZE N.Q.W.
SCALE OF LOG 1" = 10'

LOGGED BY G.D.B
DATE May 11-13, 1987

REMARKS similar to 87-15 and 87-16 but more py, less ba, and steeper structures (to core axis)

BOTTOM DEPTHS
LEACH CAP -110' (in 17m)
LIM. ZONE 150
SUPERGENE

METRES	FEET	ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration Fractures Structures	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
0	0	Casing To 10'																
3.05	10	MINE PHASE QUARTZ DIORITE (10'-481') typical	80 WK	10' 70-80×10 30×2 60-75×6	1/10-1/2×10 2"±1" 14" 1/4-1/3×6	qt3×10 qt3×2 broken lim(mal) stained core qt3×6		<0.5	Strong qt3 veining occurs from 10' to 135' - in many cases the qt3 exceeds >60% of the rx.	10 16	90 90	30	97176	.02 .010x	<.002		10 .0x.
6.10	20	~1/16-1/8" aug. grn sil ~20 o/o chl 30o/o qt3 5-50 o/o sauss. down to ~120'	90 WK-STR.	20' 90 50-70×5	5' 15" hlex5	vuggy-qt3-carb-chl-lim zone gg-bx lim-MnO2-mal×5		<0.5	Much dk powder in vugs and in core, pox - MnO2? cc?	21 29	85	17	97177	.05 .040x	.002		12 ox.
9.14	30	The 'spar appears supergene alt'd (ie soft + bleached)	ND	30' 60-80×12 5-10×6 70×6 : 60-90×15	1/10-1/2×5 hlex6 1/4×6 3" 1/10-1/2×15	qt3×12 lim-×6 qt3×6 qt3 qt3×15		<0.5		36	85 98	40	97178	.06 .060x	.002		.08
12.19	40		ND	40' 65-90×20 60×3 10-15×4 10-90	1/8-1"×20 hle-1/2×3 hlex4 1/4-1/2	qt3×20 gg-lim-mal×3 MnO2×4 qt3-stkwks		<0.5		43	95	57	97179	.06 .060x	.002	.05 3905	10 .0x
15.24	50			50														

GRID

GIBRALTAR MINES LTD.

HOLE No. 87-17
SHEET No. 2 of 11

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation, Alteration, Footage, Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization
	ND	60	So Sf 45+60+70 65+70+90 20 35-70 60-70 x10	1" ⅛-½ x4 1"+1½+3 6" ¼-½ ½o-hlex10	qt3 qt3x4 qt3 (lim)x 3 qt3 qt3-stkwks gg-lim x10
	ND	70	26 20+60x8 50 x3 15+20 40-80	¼ ⅛-½ x9 ½x3 hlex2 ¼-½	qt3-chl-MnO2 qt3-limx9 qt3-lim x3 MnO2 (mal) x2 qt3-stkwks
	ND	80	40x3 40x4 80x6 50-70 x10 10	2"+1"+¾" ¼-½x4 ⅒-½x6 ¼-½x10 ½	qt3-lim x3 qt3x4 qt3x6 qt3x10 gg-lim (mal)
	ND	90	60+50x3 40+45x2 60 40+70 40-70	16" 2"+1½x2 ½ox2 ¼ 1"x2 ½-2"	gg-bx-lim qt3x3 chl-lim (mal)x2 chl-lim qt3-limx2 qt3 stkwks
	ND	100	60 x10 30+70 90x6 20+80 70x3 90x5	⅛-¼ x10 ½ x2 hlex6 ½+2½ ¼x3 hlex5	qt3x10 qt3x2 limx6 qt3-limx2 qt3x3 limx5
	ND	110	60-70 x6 ?	½ox6 24" 5'	lim (mal)x6 gg-bx-(lim)(mal) qt3 (chl) zone

FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE	REMARKS	Footage Diesel	Estimated Core Recovery %	ROD
	<0.5			53	90	40
	<0.5			62 70	100	30
	<0.5			80	95	37
	<0.5			91	90	20
	<0.5			96 106	90 95	27

ASSAY RESULTS	Sample Number	% Cu	% Mo		Estimated Grade
	97180	.06 .05ox	.002		.10
	97181	.05 .01ox	<.002		.08
	97182	.07 .06ox	<.002		.05
	97183	.09 .08ox	<.002		.10 .0x
	97184	.07 .06ox	.002	.07 3860	.08 .0x
	97185	.11 .09ox	<.002		.18 .0x

METRES: 0, 3.05, 6.10, 9.14, 12.19, 15.24, 18.29
FEET: 0, 10, 20, 30, 40, 50, 60

GRID ____ GIBRALTAR MINES LTD. HOLE No. 87-17
SHEET No. 3 of 11

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Structure	Vein ∠ 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
	ND	120	50 60±4 5±2 50-70±5	14" 1/20±4" 1/10±2 1/2±5	qt3-chl-(lim) (MnO2) qt3-chl-lim (mal) ±4 qt3-MnO2-lim ±2 chl-lim-mal±5 fine dissem cp		<0.5		115	95	13	97186	.14 .110x	.002		.14 .0x
	ND	130	40-60±5 ? 30±60 60±3±80 60	1/10±5 6" 1/8±2 1/20-blex 4 6"	qt3-chl-mal-lim±5 qt3 (mal) qt3±2 chl-lim (mal) ±4 qt3 (mal) fine dissem cp		<0.5		125	90	13	97187	.16 .120x	<.002		.15 .0x
	NP	140	50-70 60±4 ? 60±70	1/4-1/2" 1/20±4 8" 1/4±2	qt3(lim) stkwks qt3-mal±4 qq-bx-lim-mal qt3±2		<0.5		135	95	57	97188	.12 .107x	<.002		.14 0x
	ND	150	30±2 60 5 90 5±70±90	1/4±2 30" 1/2 12" 1/20±3	qt3±3 qt3-chl ((cp)) qt3 qt3-chl (lim) lim-mal ±3 fine dissem cp		<0.5		145	95	30	97189	.28 .080x	<.002	.16 3815	.16 0x
	ND	160	50±30±20±90 60-70±5 85±2 30±10 90±3	1/2+1/4+1+1/4 1/4-1/3±5 1/3±2 1/10-1/3±10 1/20±3	qt3±4 qt3±5 qt3±2 qt3±10 qt3-chl-lim-mal ±3 fine cp along 90° ep-chl slips		<0.5		152	95	60	97190	.11 .020x	.002		.14
	90 Mod	170	90±30±60±5 90±2 30±40 15±2 90 90	1/8-1/2±7 1/10±2 1/10±2 1/8±2 1" 2 1/2"	qt3±7 chl-py±2 qt3-chl-py-cp±2 qt3-chl±2 qt3-chl-cp qt3-chl-carb ((cp))		<0.5		162 166	95	30	97191	.14 .020x	.002		.16

METRES 0 3.05 6.10 9.14 12.19 15.24 18.29
FEET 0 10 20 30 40 50 60

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,915

GRID

GIBRALTAR MINES LTD.

HOLE No. 87-17
SHEET No. 4 of 11

ROCK TYPES & ALTERATION	METRES	FEET	∠ to Core	Foliation	Foliation Alteration	Graphic Log 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 Discr.	Estimated Core Recovery %	R O D	Assay Results: Sample Number	% Cu	% Mo		Estimated Grade
	0	0						80-90	5'	qt3-chl-carb ((cp)) (py)		0.5			98	43	97192	.14	.002		.15
	3.05	10	80-90 Str					90 x2	1/10 x2	qt3-chl-(py) x2				176				<.01 ox			
						186		90±80	1/10 x2	qt3-chl-py-cp x2											
	6.10	20	80 WK					70	1/3	qt3-cp (cc)		<0.5		186	95	43	97193	.17	.002		.20
								90	1/4	qt3-chl-py								<.01 ox			
								50	1/10	qt3-(cp)											
								40	1/20	qt3-chl-cp											
								70±50	1/10 x2	qt3-chl-cp x2											
								70	1/4	qt3-chl-cp											
						190		20	1/10	chl (cp)											
	9.14	30	ND.					30	hle	hem		<0.5		194	95	43	97194	.03	<.002		.14
								30 x2	1/20 x2	carb-hem x2								<.01 ox		.12	
								90 x2	1/20 x2	chl-cp (ho)((ba)) x2										3770	
								35	1/8	qt3 (cp)(ba)											
								90	1/20	qt3-chl-cp											
						200		60±60 x2	1/8 x4	qt3 x4					98						
			80 Str					30±60 x2	1/4 x3	qt3 x2		<0.5		204		47	97195	.16	<.002		.12
	12.19	40						80	6'	qt3-chl-carb ((cp))					50			.01 ox			
						210								212							
			70-80 Str					70-80	10'	qt3-chl-carb (py)(cp)		05			95	33	97196	10	.050		.15
	15.24	50												216				<.01 ox			
						220		70	4'	qt3-chl-carb ((cp))					98						
			70 Str					?	16"	qt3 - (No)(cp)		<0.5				67	97197	.19	.032		.12
	18.29	60						70	4'	qt3-chl-carb				226				.01 ox			
						230															

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GIBRALTAR MINES LTD.

HOLE No. 87-17
SHEET No. 35 of 11

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

ROCK TYPES & ALTERATION	Foliation / Alteration	GRAPHIC LOG: Footage	Structure	Veins: ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS	Footage Diesel	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
dk alt'n.	70 Mod	240		60x3 70 80 40 5+80 70x4 45	hlex3 ½ 16" ¼ ¼x2 ¼x4 1"	chl-cpx2 qt3 qt3-chl-carb qt3-mag qt3x2 qt3-chl x 4 qt3	0 10 20 30 40 50 60 70 80 90	<0.5		236	95	67	97198	.10 .01ox	.004		.12
	70 WK	250		45 ? 60 40x2 60	½ 12" ⅕ ⅓x2 ⅓	qt3 qt3-cp qt3-chl qt3x2 chl(cp)	0 10 20 30 40 50 60 70 80 90	<0.5		246	95	63	97199	.07 .01ox	.002	.12 3725	.12
	80 WK	260		70 80 80 60+70 80+70 80x10	hle 1/20 1/20 ¼x2 1/20 +1/10 1/10-1/8x10	chl-cp chl-cp chl-cp(bo) qt3-chl x2 qt3-chl-cp x2 qt3-chl x10	0 10 20 30 40 50 60 70 80 90	<0.5		256	95	80	97200	.12 .01ox	.008 f		.16
	80 WK	270		80 x 20 70 65 x 4 70 x 3 60-70x5 60x2	1/10-¼x20 ⅓ ⅓-½x4 hle x3 1/20 ¼x2	qt3-chl x 20 qt3-mag qt3-chl-magx4 ep-cp x3 chl-cpx3 qt3-chl-mg-cpx2	0 10 20 30 40 50 60 70 80 90	<0.5		266	98	80	97201	.13 0101	.008		.16
	80 Str	280		80 x 4 45+50 80 5 60x10 5	hle-1/20 x4 ⅛+¼ ¼ 6" 1/10-⅛x10 6"	chl-ep-cp x4 qt3x2 qt3-chl-mag qt2 qt3-chlx10 qt3	0 10 20 30 40 50 60 70 80 90	<0.5		276	95	40	97202	.26 01ox	.014		.15
dk alt'n		290		10 60 70 60+50 90x3	¾ ⅓ ⅓ ¼x2 1/20x3	qt3 qt3-mag qt3-chl-mag qt3x2 chl-cpx3	0 10 20 30 40 50 60 70 80 90	<0.5		286	95	20	97203	.06 .01ox	.002		.12

METRES: 0 3.05 6.10 9.14 12.19 15.24 18.29
FEET: 0 10 20 30 40 50 60

GEOLOGICAL BRANCH
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GRID ______ GIBRALTAR MINES LTD. HOLE No. 87-17
SHEET No. 6 of 11

ROCK TYPES & ALTERATION	∠ to Core Foliation	Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	Estimated % Pyrite	Remarks	Footage Blocks	Corrected Core Recovery %	R Q D	Sample Number	% Cu	% Mo		Estimated Grade
dk alt'n - grades to a qtz-chl-carb zone	50-60 Mod	300	45x3+60x2 20 20 90 x2 20+40+60 90 5	½-1" x5 1" ½" 1/20x2 ¼x3 ½ ½	qtz x5 qtz qtz qtz-cp x2 qtz x2 qtz-carb qtz	<0.5		295	90	67	97204	.04 <.01 ox	.002	.12 3680	.10
	60 Mod	310	5+60x2 60-80x3 45x2 60-80x8 90x2	½+⅓+1" ¼-½x2+1/10 ⅓x2 ¼x8 1/10x2	qtz x3 qtz x3 qtz-chl-mag x2 qtz-chl x8 qtz-cp (bo) x2	<0.5		305	95	37	97205	.06 <.01 ox	.006		.10
	70 wk	320	20-30 x4 80 45+55 90x3 90x2 25	¼-⅓x4 1/10 ¼+½ hle x3 hlc+1/20 ⅓	qtz x4 qtz-cp qtz x2 chl-cp (bo) x3 chl-cp (Mo) x2 qtz	<0.5		315	95	50	97206	.15 <.01 ox	.012		.12
dk alt'n	30-70 wk. str	330	30x2 60 ? 30	½+⅓ 2" 12" ½	qtz x2 qtz qtz-chl-ep qtz	<0.5		325	98	67	97207	.04 <.01 ox	.002		.10
	30-50 str.	340	30-50	8'	qtz-carb-chl ((py))	<0.5		335	95	23	97208	.05 <.01 ox	.002		.08
	30-50 Mod-wk	250	60 35 70 70x2	⅓ ½ 1/20 hle x2 4'	qtz-mag qtz-chl chl-cp-Mo qtz-chl-cp-bo x2 qtz-chl-Mag (cp) (bluish grey zone)	<0.5		345	95	13	97209	.17 .01 ox	.004	.09 3635	.12

METRES: 0, 3.05, 6.10, 9.14, 12.19, 15.24, 18.29
FEET: 0, 10, 20, 30, 40, 50, 60

GEOLOGICAL BRANCH
ASSESSMENT REPORT
15,945

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 87-17
SHEET No. 7 of 11

ROCK TYPES & ALTERATION	Vein ∠ to Core	Foliation ∠ to Core	Foliation, Alteration, Fracturing Footage	Vein ∠ 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 %	R O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	60 Mod	?	360	60 ? 80×4	5' 24" ½10×4	qt3-chl-carb-mag (cp)(Mo) (bluish grey zone) gg-bx qt3-carb×4	0 10 20 30 40 50 60 70 80 90	<0.5		355	80 90	17	97210	.18 <.01 ox	.006		.12
pale grey seriate zone	80 WK		370	80 80×4 80 30×3 60	½ 12" hle×4 ½ ½10×3 ⅓	qt3-mag gg-bx chl-cp×4 qt3-chl-mag qt3-chl ((cp))×3 qt3-chl-mag (cp)	0 10 20 30 40 50 60 70 80 90	<0.5		365	98	30	97211	.12 <.01 ox	.010		.14
pale grey sheared seriate and Q.P. zone	70-80 Mod		386	50 70×2 70-80×3 60 90 90×2 45 70+90	2" ⅓×2 hle×3 2" ½10 2"×2 2" ½10+¼	qt3-chl-mag (cp) qt3-chl (cp)×2 chl-cp×3 qt3((cp)) chl-cp qt3 (Mo)×2 qt3-mag qt3-cp×2	0 10 20 30 40 50 60 70 80 90	<0.5		375	95	40	97212	.26 <.01 ox	.026		.25
	70-80 Mod		390	55×2 80 90×3 60+40 60	3"+2" 3" hle-½20×3 1"-½ ¼	qt3((Mo))×2 qt3 (Mo) chl-cp×3 qt3×2 qt3(cp)	0 10 20 30 40 50 60 70 80 90	<0.5		385	98	50	97213	.11 <.01 .ox	.018		.14
	80 WK		400	80×3 60×2 80×2 90 80 50 80×2	½20×3 ½ ½20×2 14" 1" 1" ½10×2	chl-cp×3 qt3 (Mo)(cp)×2 chl-cp-Mo×2 qt3-chl qt3-chl-cp qt3-cp qt3-chl-cp×2	0 10 20 30 40 50 60 70 80 90	<0.5		395	98 95	40	97214	.27 <.01 ox	.016	.19 3590	.20
pale grey seriate zone	ND		410	90×3 5 90 20 30 80×2	½20×3 3" ½10×2 4" ½ ½10×2	chl-cp(bo)×3 gg-bx qt3-cp qt3-chl (vug) qt3-cp qt3-chl-cp×2	0 10 20 30 40 50 60 70 80 90	<0.5		405	95	37	97215	.19 <.01 ox	.014		.18

METRES: 0, 3.05, 6.10, 9.14, 12.19, 15.24, 18.29
FEET: 0, 10, 20, 30, 40, 50, 60

GRID

GIBRALTAR MINES LTD.

HOLE No. 87-17
SHEET No. 8 of 11

ROCK TYPES & ALTERATION	∠ to Core	Foliation, Alteration, Fracture	GRAPHIC LOG Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization
0						
	ND		420	60-70 x5 90 80 x3 90 80-90 x6 80 70	1/10-1/20 x5 1/10 1/20 x3 1/10 hle-1/20 x6 1/10 1/8	qt3-chl-cp x5 chl-cp (cc) chl-cp x3 qt3-cp qt3-chl-cp x6 qt3-cp qt3-chl-cp
10	ND		430	70-90 x6 80-90 x10 70 x2 90 90 45 70 x2	1/20-1/10 x6 1/20-1/10 x10 1/8 x2 1/10 6" 1/3 1/2 + 1/10	qt3-chl-cp x6 qt3-chl-cp x10 qt3-chl-cp x2 qt3-chl-cp qt3-carb (wo)(cp) qt3 (vug) chl-mag-cp + qt3-hlo
20	ND		440	90 x3 90 + 65 + 70 60 80 70 x2 80 + 70 25 5 + 65 x4	hle x3 1/3-1/4 x3 1/2 1/2 1/20 x2 1/10 x2 2" 1/2 + 1/2-1/10 x4	chl-cp x3 qt3-chl-cp x3 qt3-chl (cp) qt3-chl (mag)(cp) qt3-chl-cp x2 qt3-chl-cp (bo) x2 qt3-chl (vug) qt3 + qt3-chl x4
30	ND		450	80 +50 70 x8 80 x2 45 x2 90 x3	1/2 +1" 1/10-1/3 x8 1/8 x2 1/10 x2 hle x3	qt3-chl-cp x2 qt3-chl-cp (hlo) qt3-chl-cp x2 qt3-chl-cp x2 cp-cp x3
40	ND	dx alt'n	460	60 70 x3 90 +30 70 30 15 + 60 x2 60 x2 + 70 x2	1/20 1/20 x3 1/20 x2 1/20 1" 3" + 1/8 x2 1/10-1/4 x4	chl-cp cp-qt3-cp x3 cp-cp x2 chl-cp chl-(cp) qt3-chl-carb-py x3 qt3-chl-cp x4
50	ND		470	25 x2 45-55 x3 60-80 x8 70 40 +30 5 + 40	1/4 x2 1/10-1/8 x3 hle-1/20 x8 1/8 1/10 x2 1/3 + 1 1/2	qt3-chl (cp) x2 qt3-chl (cp) x3 chl-cp-cp x8 qt3-hlo qt3-chl-cp x2 qt3 x2
60						

FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE	REMARKS	Footage Diesel	Estimated Core Recovery %	R O D
0 10 20 30 40 50 60 70 80 90	<0.5			416	90	27
0 10 20 30 40 50 60 70 80 90	<0.5			426	90	27
0 10 20 30 40 50 60 70 80 90	<0.5			433 439	95 98	27
0 10 20 30 40 50 60 70 80 90	<0.5			446	98	50
0 10 20 30 40 50 60 70 80 90	0.5			456	95	33
0 10 20 30 40 50 60 70 80 90	<0.5			466	95	67

ASSAY RESULTS Sample Number	% Cu	% Mo		Estimated Grade
97216	.21 <.01 ox	.014		.35
97217	.28 .01 ox	.070		.40
97218	18 .02 ox	.012		.25
97219	28 <.01 ox	.008	-23 3595	.30
97220	.14 <.01 ox	.004		.25
97221	.14 <.01 ox	.023		.20

METRES 3.05 6.10 12.19 15.24 18.29
FEET 9.14

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,015

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-17
SHEET No. 9 of 11

ROCK TYPES & ALTERATION	∠ to Core	Graphic Log: Foliation	Graphic Log: Alteration	Graphic Log: Footage	Graphic Log: 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 Diesel	Estimated Core Recovery %	RQD	Assay Results: Sample Number	% Cu	% Mo		Estimated Grade
0						65-70 x 8	hle-Y20 x 8	qt3-chl-cp x 8	0				95						
						20 x 3	½+⅓+1/20	qt3-chl-(cp) x 3	10										
	90 wk-Mod					90 x 4	hla x 4	chl-cp (Mo) x 4	20										
						5+60	½ x 2	qt3 x 2	30	<0.5		476		23	97222	.15	.006		.18
									40							(.01 ox			
	dk alth			480		10	½	qt3-chl-cp	50				90						
									60										
	481					60°	6"	qt3-chl (vug) (Cpy)	70			481							
									80										
									90										
	LEUCOCRATIC ZONE (481'-499')					70 x 2	1/20 x 2	qt3-Mo x 2	0										
						70 x 3	hle x 3	chl-cp x 2	10				95						
	white rx consisting of 40-45 % qt3 and 45 % white soar	ND							20										
						70	1/10	qt3-Mo	30	30.5		488		33	97223	.21	.057		.19
	and ~ 5-10 % chl. as scattered relict blebs (fuzzy outlines) grn size ~1/20" equigranular - almost aplitic. 499			490		60+65	hle x 2	chl-cp x 2	40							(.01 ox			
									50										
									60										
									70										
									80										
						60 x 3	1/8 - 1/10 x 3	qt3-cp	90										
						65	1/10	qt3-chl-cp	0										
						70 x 2	1/10 x 2	qt3-Mo x 2	10				98						
		ND				25	1/10	qt3-chl-cp	20										
						5	6"	qt3-chl (vug)	30	<0.5		496		27	97224	.16	.070		.15
						60	3"	qt3	40							(.01 ox		.16	
									50									3500	
									60										
				500		70 x 3	1/10 x 3	qt3-chl-cp x 3	70										
									80										
									90										
	MINE PHASE QUARTZ DIORITE (499-644')					5	1/4	qt3-chl-cp	0										
						45±2	1/4+1/3	qt3-chl-cp	10										
									20				95						
		ND				35	1/2	qt3-chl-cp	30										
	same as above.					5+60	1/2+2"	qt3-chl-cp x 2	40	<0.5		506		33	97225	.27	.004		.25
						30	1/10	qt3 (cp) ((hw))	50							(.01 ox			
						70+40	3/4+1/8	qt3-chl-cp x 2	60										
				510		90	1/10	chl-cpy	70										
									80										
									90										
						70+65	1/10 + 1/2	qt3-chl-cp x 2	0										
						50	1/10+1/8	qt3-chl-cp x 2	10										
						50 x 5	1/3 - 1/2 x 5	qt3-chl (cp) x 5	20				95						
		ND				?	1"	qt3-cp-Mo	30										
						60	1/4	qt3-chl-cp	40	<0.5		516		33	97226	31	.034		.30
						70 x 3	1/4 x 3	qt3-chl-cp x 3	50							(.01 ox			
						70	1/8	qt3-chl-mag	60										
				520		70 x 2	1/8 x 2	qt3-carb (cp)	70										
									80										
									90										
						80 + 60	1/2 x 2	qt3-chl-cp x 2	0										
						60	2 1/2	qt3 (cp) (Mo)	10										
	dk alth					70+60	1/10 x 2	qt3-chl-cp x 2	20				95						
		ND				65	1/4	qt3-chl-carb-cp	30										
						90	1/4	chl-cp	40	<0.5		526		30	97227	.32	.019		.35
						60 x 3	1/20+1/10+1/8	qt3-chl-cp x 2	50			528	98			(.01 ox			
						30 x 2	1/4 x 2	qt3-chl-cp x 2	60										
				530		10	3"	qt3-cp	70										
									80										
									90										

METRES: 0, 3.05, 6.10, 9.14, 12.19, 15.24, 18.29
FEET: 0, 10, 20, 30, 40, 50, 60

GRID ______

GIBRALTAR MINES LTD.

HOLE No. 87-17
SHEET No. 10 of 11

Depth (FEET)	METRES	ROCK TYPES & ALTERATION	∠ to Core Foliation	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 %	R Q D	Sample Number	% Cu	% Mo		Estimated Grade
0–10	3.05		ND	540	5 40 x2 30 5 80 10 x2	1/3 1/8 x2 1/4 1/10 1/20 1/10 + 1/3	qtz qtz-chl-cp + qtz-carb qtz-chl-cp chl-cp* chl-cp qtz-chl-cp x2	0 10 20 30 40 50 60 70 80 90	<0.5	* tarnished cp	536	85.	33	97228	.20 <.010x	.009		.16
10–20	6.10		ND	550	15 90 20+30 60 50 30x2 55+60 20+60 60	1" 1/20 1" + 1/10 1/10 1/8 1/10 x2 1/2 x2 1/3 x2 1/4	qtz-chl-(cp) chl-cp qtz-chl-cp x2 chl-cp qtz-chl-cp qtz-chl-cp x2 qtz-chl-cp x2 qtz-chl-cp x2 qtz-chl (cp)	0 10 20 30 40 50 60 70 80 90	<0.5		545	90	27	97229	.27 .010x	.005	.27 3455	.25
20–30	9.14		ND	560	50+30x2+70 45 15x2+60x2 65x3+70x4 30x2 25+20	1/8 x3 + 1/2 1" 1/4-1/3 x4 1/10-1/3 x7 1/2 + 1/3 1 1/2 + 1/10	qtz-chl-cp x4 qtz-chl-cp qtz-chl-cp x4 qtz-chl-cp x7 qtz-chl-cp x2 qtz-cp + qtz-chl-cp*	0 10 20 30 40 50 60 70 80 90	<0.5	* tarnished cp.	555 560	98 95	33	97230	.41 .010x	.016		.30
30–40	12.19		ND	570	25x2 50x2 + 30x2 60 x2 60 50 x2 60x2 40	1/4 + 1/10 1/3 x2 + 1/2 x2 1/3 x2 1/10 1/8 x2 1/8 x2 2"	qtz-chl-cp x2 qtz x2 + qtz-chl(vug) x2 qtz-chl (cp) x2 qtz-chl-cp qtz-chl-cp x2 qtz-chl-(cp) x2 qtz-cp	0 10 20 30 40 50 60 70 80 90	<0.5		576	95	47	97231	.29 <.010x	.003		.22
40–50	15.24		ND	580	90 + 60 ? 60x2 30 60+35+40	1/8 x2 12" 1/2 + 1/3 1" 1" + 1/2 x2	qtz-chl-cp x2 gs-bx qtz-chl-cp x2 qtz qtz-chl-cp	0 10 20 30 40 50 60 70 80 90	<0.5		576	95	30	97232	.26 <.010x	.009		.25
50–60	18.29		ND	590	50 60 50 ? 55x2 60	1/2 1/3 1/4 3" 1/3 x2 1/8	qtz-(chl)-cp qtz-chl-cp qtz-cp qtz (cp) qtz (chl)-cp qtz-chl (cp)	0 10 20 30 40 50 60 70 80 90	<0.5		586	95	23	9722[illegible]	.22 <.010x	.015		.28

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 87-17
SHEET No. 11 of 11

GEOLOGICAL BRANCH
ASSESSMENT REPORT

0176

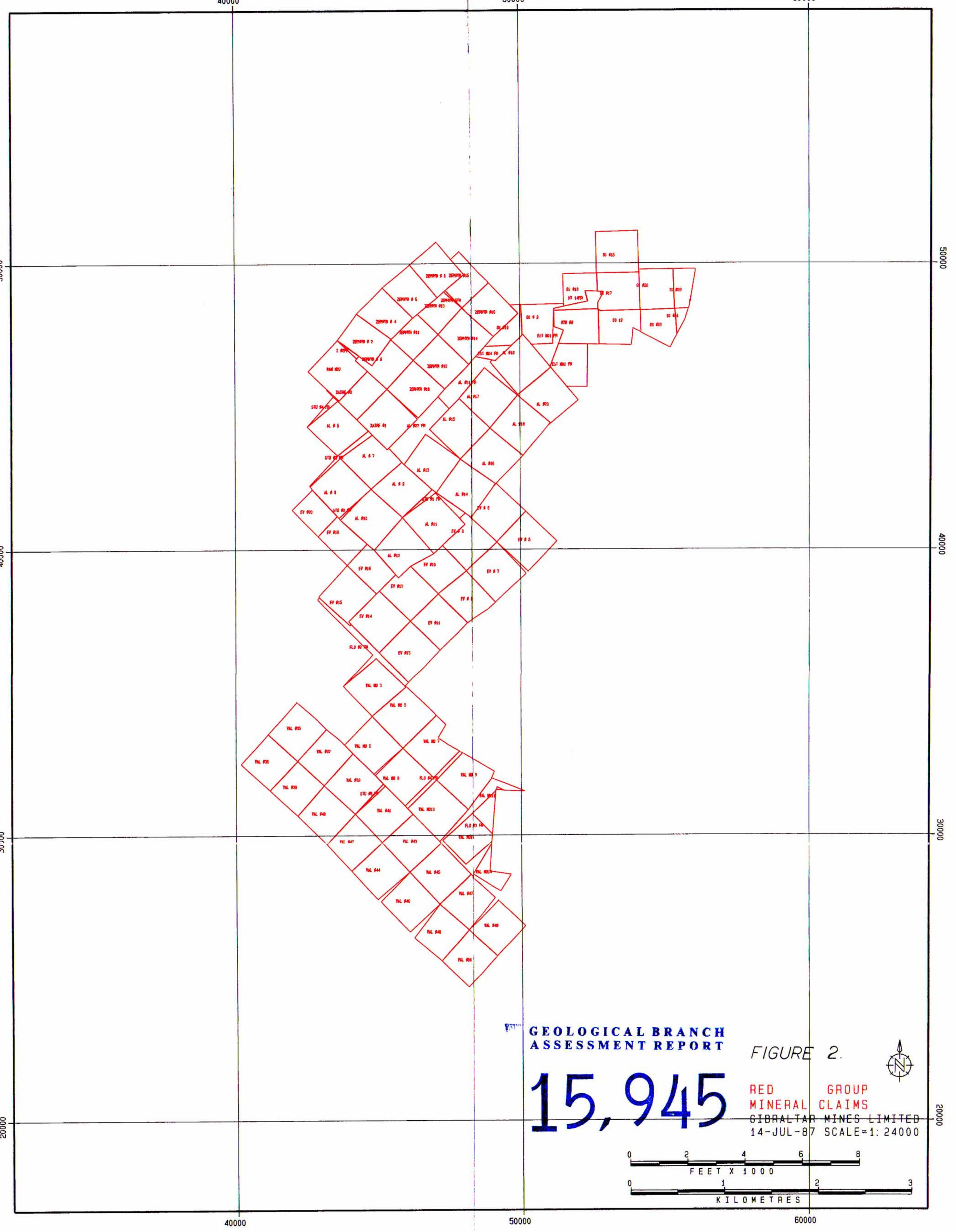
ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation/Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE
	ND		600	70+50+40 50×2 20 45 ? 60 70+30 45×2		1/3×3 1/3×2 1/4 18" 1/2 1/2 1/2 2"+1/10 1"+1 1/2	qt3-chl (cp) qt3-chl-cp qt3-chl (cp) gg-bx qt3-cp qt3-cp qt3-cp qt3-Mo×2 qt3-chl-cp-(Mo)×2		<0.5
broken gg/q core but no defined fault	ND		610	50×2 60 70+20 70		1 1/2+1/4 30° 1/4+1/10 15° 3"	qt3-chl (cp)×2 qt3-chl-carb (cp) qt3-chl (cp)×2 gg-bx } seriate zone qt3		<0.5
	ND		620	25 20+30 35 55 60+20		1" 1/3×2 1" 2" 1/2+3	qt3-chl (cp) qt3-chl-cp×2 qt3(chl)-cp qt3-chl (cp) qt3-chl (cp)×2		<0.5
	ND		630	90+50×2 60×3+40 50 60+40 60×2 80		1/20+1/10×2 1/3-1/4+1/4 1/2 1/20×2 1/10+1/5 6"	qt3-chl (cp)×2 qt3-chl (cp)×3+qt3(cp)x qt3-chl-cp qt3-chl-cp×2 qt3-chl (cp)×2 qt3-chl	* tarnished cp.	<0.5
	ND		640	40 55-65×6 50×2 55-75×5 40×2		1/10 1/3-1/10×6 1/10×2 1/20-1/10×5 1/10×2	qt3-chl (cp)x qt3-chl (cp)×6 qt3-chl-py qt3-chl-cp×5 qt3-chl-(cp)×2	* tarnished cp	<0.5
E.O.H. 644'				60 60+10 5		1/4 1/10×2 1/10	qt3-chl (cp) qt3-chl-cp chl-Mo		

BOTTOM DEPTHS	
LEACHED CAP	
LIM. ZONE	
SUPERGENE	
REMARKS	

Footage Blasted	Estimated Core Recovery %	R Q D	ASSAY RESULTS Sample Number	% Cu	% Mo		Estimated Grade
596	90	17	97234	38 K.01ox	.080	.37 3410	.35
606	90	20	97235	.28 .02 1/10x	.027		.20
616	85	27	97236	.22 .02ox	.015		.25
626	90	33	97237	.16 K.01ox	.025		.18
635	90	33	97238	.11 K.01ox	.029		.16
644	90		97238			.19 3365	.16

M.K. Thom
for G.D. Bysouth

METRES 0 3.05 6.10 9.14 12.19 15.24 18.29
FEET 0 10 20 30 40 50 60



GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,945

FIGURE 2.

RED GROUP
MINERAL CLAIMS
~~GIBRALTAR MINES LIMITED~~
14-JUL-87 SCALE=1: 24000

0 2 4 6 8
FEET X 1000

0 1 2 3
KILOMETRES

PURPLE GROUP

RED GROUP

GREEN GROUP

GG #14 GG #16 GG #7 GG #9 GG #19 GG #15 GG #27 GG #29 GG #50 GG #51 GG #52

CUTLINE

DITCH

RIDGE

LEGEND

Horiz. control · Photo centre · Roads · Building · Snowline · Creeks · Contours · Spot elev. · Piles · Poles · Culverts · Tree lines · Swamp

ISSUED FOR

REVISIONS

No. By Description

Drawn · Traced · Approved

Scale 1" = 200'

GEOLOGICAL BRANCH
ASSESSMENT REPORT

GIBRALTAR MINES LTD

POLLYANNA

Drawing No. E

File No.

0 250 500 750 1000 FEET

0 75 150 225 300 METRES

15,945

FIGURE 3 Drill Hole Location Map. 200 SCALE

POLLYANNA DDH'S AS OF MAY 87