ARIS SUMMARY SHEET

District Geologist, Prince George — Off Confidential: 90.06.09

ASSESSMENT REPORT 18829 — MINING DIVISION: Cariboo

PROPERTY: Gibraltar
LOCATION: LAT 52 33 00 LONG 122 17 00
UTM 10 5822237 548595
NTS 093B09W

CAMP: 037 Gibraltar Area

CLAIM(S): Gib 8,GG 6
OPERATOR(S): Gibraltar Mines
AUTHOR(S): Thon, M.R.
REPORT YEAR: 1989, 61 Pages
COMMODITIES
SEARCHED FOR: Copper,Molybdenum/Molybdenite
KEYWORDS: Jurassic,Granite Mountain Pluton,Cache Creek Group,Diorites
Basalts,Limestones,Copper,Chalcopyrite
WORK
DONE: Drilling,Geochemical
DIAD 673.0 m 5 hole(s);NQ
Map(s) - 1; Scale(s) - 1:2400
SAMP 168 sample(s) ;CU,MO
RELATED
REPORTS: 10567,12452,15611,15712
MINFILE: 093B 012

DIAMOND DRILL REPORT

ON THE

PURPLE GROUP

Cariboo Mining Division
93 B / 9E & 9W

(Latitude 52° 30', Longitude 122° 16')

OWNER AND OPERATOR

GIBRALTAR MINES LIMITED

McLEESE LAKE, B.C.

Author: Madeline R. Thon

Submitted: June 8, 1989

Table of Contents

1 Introduction

The Purple Group of mineral claims forms part of the Gibraltar Mines permanent property and includes a large portion of the tailings pond. It also includes the northeastern corner of the Gibraltar East Pit and the northwestern and northeastern corners of the Pollyanna Pit. Access to the group is via the main haul road to the Pollyanna pit. The general location of the group is shown in Figure 1.

"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 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° 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 N 55° W (magnetic)/ 45°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 the 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° W/ 45° E and on noses of folds in a 170-foot wide zone of sheared "granodiorite".

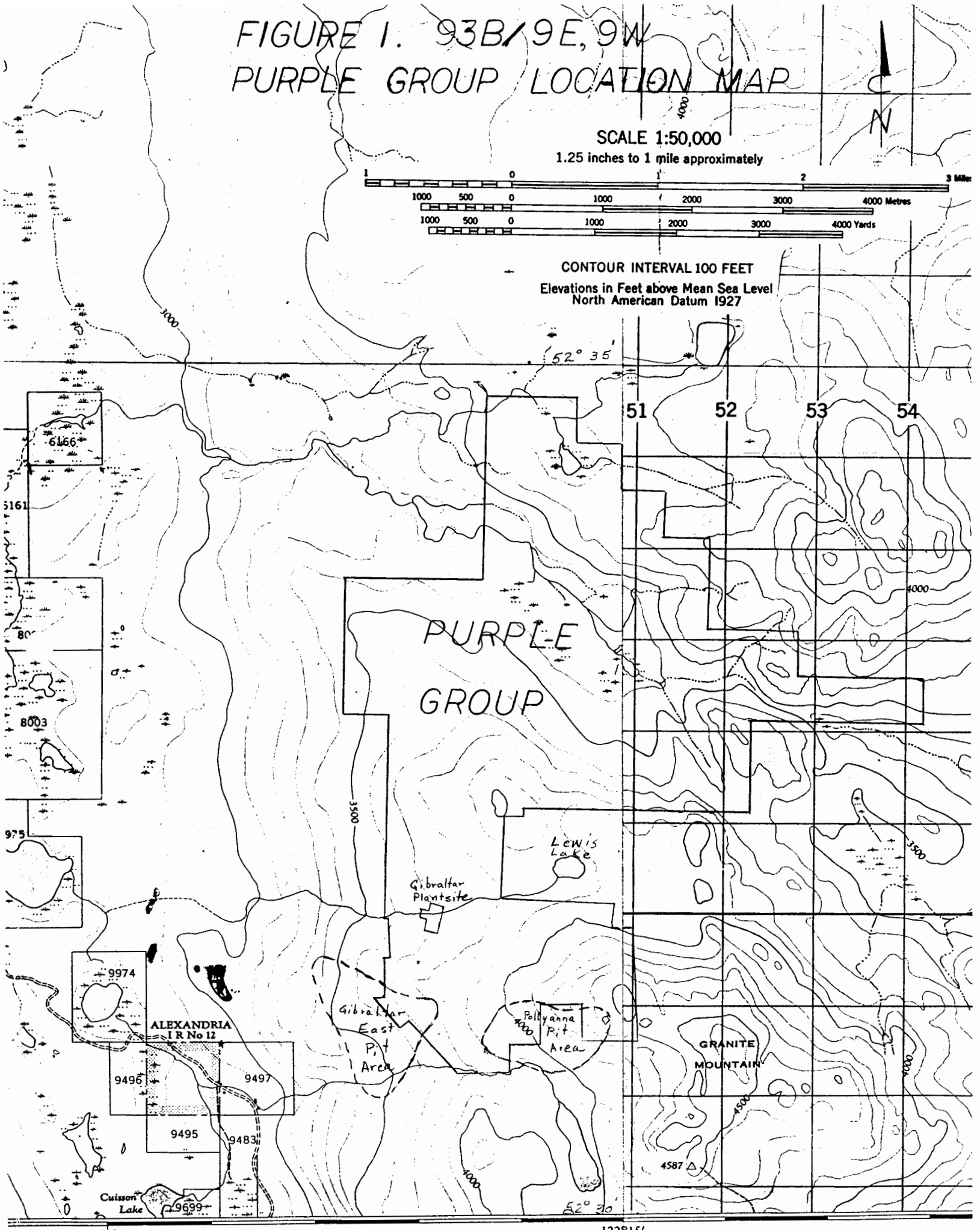
The 1950 report states that three shafts had been sunk previously along a north-south line. These were 25-feet apart. The northern-most one was 10 feet deep and showed no mineralization. The middle shaft showed good mineralization and in 1949 was drained and mined. Half a ton of ore averaging 10.5% copper 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.

In 1950 they sank a 28-foot deep 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 -

FIGURE 1. 93B/9E, 9W
PURPLE GROUP LOCATION MAP



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 the area of the current Pollyanna Pit.

In 1967 the area was restaked as the GG claims by Canex Aerial Exploration Ltd. and Duval Corporation. They describe the mineralized system differently, giving it an orientation of N 35° W/50 to 70° SW. They described 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 schist 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 60,000,000 tons at .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 1,174', were drilled on the GG claims.

By 1971 the Canex Aerial claims were transferred to Gibraltar Mines Limited." (from "Diamond Drill Report on the Purple Group", 20 April, 1981).

Much of the early activity in this claim group was centered around the current Pollyanna pit, particularly on its western edge. The drill program covered by this report however, is centered farther to the west and is associated with fringe mineralization in the northeastern corner of the Gibraltar East pit. This pit area was drilled by Gibraltar Mines Limited in 1968 through 1971 and two stages of mining have been completed here.

The drill holes covered in this report were drilled by L.D.S. Diamond Drilling Ltd. of Site 5, Comp. 13, R.R.#2, Kamloops, British Columbia during the period April 11 to May 4, 1989. Five NQ wireline diamond drill holes were completed for a total of 2,090-feet (673.03m). All of the core was sent to the assay lab, crushed and assayed, and waste material discarded. Composite samples were made through ore zones for the purpose of doing work index analyses. Assay pulps are stored at the plant site for a period of one year.

2 Mineral Claims

Claims and leases of the Purple Group are shown in Figure 2. All of the claims belong to Gibraltar Mines Limited. The Group is bounded to the south by Gibraltar's Red Group and to the west by Gibraltar's Grey Group. The Ze Group is not adjacent to the Purple Group to the north, but is nearby. The group adjoins claims held by Keevil to the east. Pertinent information on the group is listed below.

GIBRALTAR MINES LIMITED

PURPLE GROUP MINERAL CLAIMS Grouped on 151286

Name	Recorded ddmmyy	Record#	Units	Mineral Lease
HY 5	120680	01710	10	
HY 6	100578	00675	4	
HY 7	100578	00676	3	
HY 11	100680	01668	9	
HY 12	100680	01669	14	
HY 13	100680	01670	6	
HY 14	100680	01671	7	
HY 15	100680	01672	6	
HY 16	100680	01673	4	
HY 17	100680	01674	2	
HY 18	241180	03025	1	
HY 19	240381	03246	2	
GG # 85	250865	30669	1	3598 M36
GG 40	280864	28881	1	3598 M36
GG 80	220465	29747	1	3598 M36
GG 82	220465	29749	1	3598 M36
GG 86AFr	091266	39653	1	3598 M36
GIB #8	200571	62411	1	3598 M36
GG # 2	281064	29234	1	3599 M37
GG # 4	281064	29236	1	3599 M37
GG # 6	281064	29238	1	3599 M37
GG # 5	281064	29237	1	3600 M38
GG # 7	281064	29239	1	3600 M38
GG # 8	281064	29240	1	3600 M38
GG # 16	281064	29248	1	3600 M38
GG # 1	281064	29233	1	4136 M55
GG # 3	281064	29235	1	4136 M55
GG 30	280864	28871	1	4136 M55
GG 41	280864	28882	1	4136 M55
GG # 11	281064	29243	1	4137 M56
GG # 12	281064	29244	1	4137 M56
GG # 13	281064	29245	1	4137 M56
GG # 14	281064	29246	1	4137 M56
GG # 21	281064	29253	1	4137 M56
GG # 24	281064	29256	1	4137 M56
GG 31	280864	28872	1	4137 M56
RUM #41Fr	200470	57295	1	4137 M56
GG # 23	281064	29255	1	4138 M57
GG # 25	281064	29257	1	4138 M57
GG # 26	281064	29258	1	4138 M57
GG # 27	281064	29259	1	4138 M57
GG # 28	281064	29260	1	4138 M57

Total Units 98

50000E

60000E

70000N

60000N

50000N

FIGURE 2.

PURPLE GROUP MINERAL CLAIMS
GIBRALTAR MINES LIMITED
15-DEC-86 SCALE=1:24000

0 2 4 6
FEET X 1000

0 1 2
KILOMETERS

3 Drill Program

3.1 Objectives

Pit blast hole information and two stages of diamond drilling give some indication of mineralization along the north wall and in the northeast corner of the Gib-East pit.

1983 drilling along the north wall intersected pockets of supergene material and the projectability of this material needed testing.

Drilling in the northeast corner was designed to test ore projections from early Pollyanna drilling. Two possible sunset zones (315-degree strike, southwesterly dip) were indicated by drill holes P47 and P54. As well, there was some supergene enrichment in P47. Stage 1 mining also supported at least one sunset system passing through P47. The width of the system needed to be proven. As well, ground here was known to be badly faulted and the possibility of ore being off-set by faulting had to be tested.

3.2 Results

The drill hole locations are shown in Figure 3. Drill sites were established with a chain and compass and have not yet been surveyed. So locations are approximate. Drill logs are included in the pocket of this report. Total copper assays are available for all drill core, and oxide copper assays are provided for selected samples only. 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.

North Wall.

89-03, on the north wall, was drilled along strike from ore indicated by drill holes P40 and 83-16. Results were rather disappointing. The hole was cased at 3715-feet and drilled to a depth of 407-feet. A narrow ore zone extended from the base of the overburden at 62-feet to a depth of 110-feet, stopping just above a narrow fault. The grade of this 48-foot zone was .29% total copper and less than .002% molybdenite. Copper mineralization was mainly in the form of chalcocite enrichment. There was no leach cap developed, and limonite and chalcocite were weakly developed to 290-feet and 230-feet respectively. Two faults were intersected from 115 to 118-feet, and from 226 to 229-feet.

A thicker zone of good grade mineralization was intersected in the near-by 83-16 drill hole, concentrated in steeply dipping quartz-sericite-chlorite shear zones, but this system occurred below a fault. Since 89-03 did not pick up the strike projection of this system, it is probably safe to say that the fault in this hole cuts off the ore, and grades should not be projected beyond it.

Besides not intersecting the expected grades, 89-03 also intersected a different rock type than did 83-16. 83-16 was drilled in Mine Phase Quartz Diorite. Mine Phase Quartz Diorite is a light green, medium-grained rock comprised of about 30% quartz, about 20% chloritized mafics, and about 50% saussuritized plagioclase feldspar. This rock is altered and sheared in places to form Dark Alteration Zones or Quartz-Sericite-Chlorite Zones.

89-03 intersected Mine Phase rock from 62-feet to 151-feet. It then passed into Granite Mountain Phase rock, with 40 to 45% quartz, 15% chlorite and about 40% plagioclase. Granite Mountain Phase rocks are generally quite coarse grained, but in this case they were finer than normal, and the margins of the zone graded into a medium to fine grained Leucocratic Zone. The base of the zone was at 252-feet. From there to the bottom of the hole, core was of a non-typical Mine Phase rock, perhaps a transition zone between Mine Phase and Granite Mountain Phase. This rock is richer in quartz than normal Mine Phase, having about 30 to 35% quartz. A zone on chlorite enrichment occurred at the upper contact.

Northeast Corner.

89-02 was cased at 3800-feet and drilled to a depth of 405-feet. Fifty-six feet of overburden was intersected and leach cap extended to 80-feet and oxide to 90-feet. No supergene zone had developed. This hole was designed to check the thickness and the down-dip projection of a mineralized zone intersected in P54, and results were totally negative. The hole started in a normal Mine Phase Quartz Diorite down to a depth of 237-feet, with the exception of a narrow fault bounded Leucocratic zone at 160 to 171-feet. The bottom 17-feet of the Mine Phase rocks was badly faulted bringing it in contact with Granite Mountain Phase rocks, or perhaps a hybrid form of Granite Mountain Phase. This rock type was interrupted by a transitional Mine Phase rock from 350 to 395-feet, and then Granite Mountain Phase continued to the bottom of the hole at 405-feet. The entire hole was in waste.

It now appears that the mineralization in P54 was controlled by and restricted to the major fault system it occurs in. Rocks in this hole were described as sericitic Mine Phase, badly broken, and hematite stained. Copper mineralization reported here was in the form of chalcopyrite, a lot of which was in quartz veins. No chalcocite was reported, but assay values are much higher than estimates in some cases, and chalcocite may have been over-looked in the gougy rock.

89-18 was also designed to test the thickness and down-dip projection of ore from P54. It too blanked out. It was collared at 3832-feet and drilled to a depth of 407-feet. The hole was cased to 112-feet and leach cap extended to 132-feet and oxide to 155-feet. No supergene zone was developed in this hole either. Normal Mine Phase rocks were intersected to a depth of 197-feet, then passed into a zone of Leucocratic Phase rocks and seriate textured quartz rich rocks. A transitional Mine Phase rock extended from 207 to 282-feet, then the hole passed through another Leucocratic Phase which graded into a seriate textured Granite Mountain Phase from about 297 to 393 feet. From there to the end of the hole the hybrid Mine Phase rock was again intersected. No major faulting was intersected.

Holes 89-17 and 89-19 were designed to test the width of Sunset Zone mineralization intersected in P47 and P48. These holes display a well-defined leach cap - oxide - supergene zonation and both also intersect a deeper ore system. 89-17 was collared south of P47 at an elevation of 3770-feet and was

drilled to a depth of 467-feet, entirely within Mine Phase Quartz Diorite rock. The core was shattered and broken to a depth of at least 300-feet and recoveries were quite low in places. The hole was cased to 94-feet and leach cap extended to 250-feet, oxide to 320-feet, and a weak supergene zone continued to 460-feet. Two zones of mineralization were intersected, one from 260 to 320-feet grading .39% total copper, .06% oxide copper, and .008% molybdenite, and a second from 400 to 460-feet grading .26% total copper and .017% molybdenite. Mineralization in the upper zone was described as chalcocite, cuprite, native copper, and minor chalcopyrite. The lower zone is mainly chalcopyrite mineralization with only minor chalcocite along narrow steep fractures. So this hole supports the model of an upper zone of supergene enriched ore, and a narrow weak sunset zone dipping at about 42-degrees to the south. Faulting was very evident in this drill hole and led to the abandonment of the hole short of it's 600-foot target depth.

89-19 was drilled to the northeast of P47. It was collared at 3743-feet and drilled to a depth of 404'. Overburden was 90-feet deep, leach cap extended to 230-feet, oxide to 245-feet, and supergene to 390-feet. A mineralized zone extended from 240-feet to 400-feet, giving 160-feet of .32% total copper and .005% molybdenite. Copper mineralization was in the form of chalcopyrite, chalcocite, native copper, cuprite, and even minor bornite. Grade distributions within the zone appear to support the same model as above. The lower portion of this zone is likely the up dip projection of the deeper ore system in P47, though here it is further enriched itself. A normal Mine Phase Quartz Diorite was intersected from 90 to 356-feet, with narrow zones of seriate textured hybrid Mine Phase and Leucocratic Phase at 275 to 310-feet and 336 to 342-feet respectively. A Leucocratic Phase went from 356-feet to the end of the hole. The ore zone spanned all of these rock units. Core was badly broken from 345-feet to the end of the hole, suggesting proximity to a major fault system.

3.3 Interpretation

The intersection of Granite Mountain Phase Quartz Diorite along the foot wall of this ore body suggests to us that ore cut-offs could be quite abrupt and unpredictable. The contact between the Mine Phase and Granite Mountain Phase has been drilled along the north wall of the Pollyanna Pit, and it has proven to be quite steep with the Granite Mountain Phase being totally barren. Holes 89-03, 89-02 and 89-18 all support the same scenario for Gibraltar East.

Holes 89-17 and 89-19 help to support a supergene enriched ore zone and narrow Sunset Zones at depth, but there are some problems with ore projections in a northwesterly direction. Here they run into the waste rock of the Granite Mountain Phase intersected in 89-18. Faulting may be responsible for part of the problem here and the irregularity of the Granite Mountain contact may account for the rest.

4 Statement of Expenditures

April, May 1989 Diamond Drilling, Purple Group

(a) Drilling Costs

Direct Footage Charges

Hole#	Ftg. Charge	Cost
89-02	405 $10.50 per ft.	$4,252.50

89-03	407	$10.50 per ft.	4,273.50		
89-17	467	$10.50 per ft.	4,903.50		
89-18(ob)	10	$15.00 per ft.	150.00		
89-18	397	$10.50 per ft.	4,168.50		
89-19	404	$10.50 per ft.	4,242.00		
	2090			$21,990.00	
Man Hours					
45 man hours @ $22.00/hr.				$990.00	
Mud Charges					
6 pails @ $203.50				$1,221.00	
Lost Equipment					
3 NQ core bits				$1,155.00	
Total Drilling Charges					$25,356.00
(b) Vehicle Costs					
4x4 1980 Suburban, Apr. 12 to May 4					
5 days @ $20.00 per day					$100.00
(c) Supplies					
88 boxes @ $6/box				$528.00	
Tags, bags, etc.				50.00	
					$578.00
(d) Assay Costs					
168 copper/moly assays at $4.40 per assay					$739.20
(e) Personnel Costs					
Core logging and sampling					
G. D. Bysouth	hours				
Apr. 12 - 13	16				
May 5	8				
	24 hrs.	@ $31.00		$744.00	
M. R. Thon					
May 16 - 18	8				
May 30 - Jun. 2	8				
	16 hrs.	@ $22.02		352.32	
Field Work					
Cliff Trudeau					
Apr. 12 to May 4	40 hrs.	@ $17.06		682.40	
Report Preparation					
M. R. Thon					
Jun. 6 - 8	24 hrs.	@ $22.02		528.48	
					$2,307.20
TOTAL COST					$29,080.40

5 Conclusions

Negative results along the north wall of the pit suggest that ore projections here may be too optimistic. Fault control and the Granite Mountain foot wall rock may stop ore projections rather abruptly. Drill density along this wall is quite good, though not good enough to predict all of the detail. More work should be done on the location of the fault zones here, and if at that time more drilling is suggested to prove a theory, another drill program can be considered.

The depths of overburden, leach cap and oxide in the northeast corner of the Gib-East pit are quite detrimental to the economic value of the ore intersected in this area. As well, the incidence of native copper adds another strike against it. Native copper is not recovered in Gibraltar's mill. If pit design programs suggest that this area is economical, more drilling should be done and tests performed to determine the amount of recoverable copper grade.

Submitted by: Madeline R. Thon

Madeline R. Thon
Mine Geologist

Appendices

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 some of the core of this drill program.

Garry D. Bysouth

APPENDIX I. Statement of Qualifications.

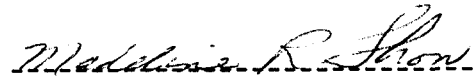
I, Madeline R. Thon, of Gibraltar Mines Limited, McLeese Lake, British Columbia, do certify that:

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



Madeline R. Thon

II. List of Abbreviations

azur.....azurite

bo.....bornite

cal.....calcite

carb.....carbonate

chl.....chlorite

cp.....chalcopyrite

dissem.....disseminated

ep.....epidote

foln.....foliation

gg.....gouge

grn.....grained

hem.....hematite

lim.....limonite

mal.....malachite

mag.....magnetite

N.M.P.Q.D.....Normal Mine Phase Quartz Diorite

py.....pyrite

qtz.....quartz

rx.....rock

ser.....sericite

str.....strong

stkwk.....stockwork

wk.....weak

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

GIBRALTAR MINES LIMITED

HOLE NO. 89-02
SHEET NO. 1 OF 7

LOCATION Gibraltar East | BEARING – | LATITUDE ~50,780 N | CORE SIZE N.Q. | LOGGED BY G.D.B.
DATE COLLARED April 11, 1989 | LENGTH 405' | LONGITUDE ~48,730 E | SCALE OF LOG 1"=10' | DATE April 12, 1989
DATE COMPLETED April 12, 1989 | DIP –90° | ELEVATION ~3800 | REMARKS this hole poss. intersects the Granite Mtn Phase.

BOTTOM DEPTHS: LEACH CAP 80' | LIM. ZONE 90 | SUPERGENE nil

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation, Alteration, Footage, Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0	Casing To 56'															
3.05	10	Typical MINE PHASE QUARTZ DIORITE	ND	60	40 x 4	1/20 x 4	lim x 4	0		57	90						
											95						.05
		- grn size 1/20-1/10								61							
		- 30% qtz			40 x 2	1/20 x 2	lim x 2							.02			
		- 20% chl. mafics			X									.010x	.004		
6.10	20	- 45% sauss. plag. (56'-160')	ND	70	45	1/20	lim-gg	0		67	98	83	78526				.05
											98					.04	
			ND					0		77		77	78527	.08	.002	3725	.05
9.14	30			80	40	1"	gg-lim							.060x			
					45	hle	mal				95						
					45	hle	mal							.04			
			ND		10?	2'	gg-bx	0		87		50	78528	.02 ox	.005		.05
					5 x 3	hle x 3	lim x 3										
12.19	40			90	5	hle	mal										
					5x2	hle x 2	lim-gg x 2				98						
			ND					0		97		83	78529	.03	.002		.05
15.24	50			100										.010x			

GIBRALTAR MINES LIMITED

HOLE NO. 89-02
SHEET NO. 2 OF 7

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
			ND		30 50 20x2	6" 1" ⅛x2	qt3-ep qt3-chl-cp qt3-chl-py x2	.5		107	100	93	78530	.03	.001		.08
3.05	10			110													
			ND		10 10	⅛ 1/10	qt3-chl-py qt3-chl-py	.5		117	100	93	78531	.03	.001	.04 3680	.05
6.10	20			120													
			ND		20 20	1/10 1"	qt3-chl-py qt3-ep	<.5		127	100	90	78532	.04	.004		.05
9.14	30			130													
			45 WK		15x2 20	½+⅛ 1/10	qt3-chl-py x2 qt3-chl-py	<.5		137	100	87	78533	.03	.003		.05
12.19	40			140													
			45 WK		?	2'	gg-bx	<.5		147	98	60	78534	.03	.001		.05
15.24	50			150													
			ND		20 ? ?	2' 3" 2'	leucocratic zone gg-bx gg-bx	<.5		157	100	60	78535	.01	.003		.05
18.29	60			160													

GIBRALTAR MINES LIMITED

HOLE NO. 89-02
SHEET NO. 3 OF 7

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0	LEUCOCRATIC ZONE (160-171') fault bounded zone of white med. grn. quartz-feldspar rock - 45% qtz, 45% white spar and 5-10% 'ghost-like'	ND	170	?	1½'	gg-bx; barren leucocratic zone	0		167	95	43	78536	.03	.003	.03 3635	<.05
3.05	10	blotches of chl. - altered QD.??			?	2'	gg (bx)										
		MINE PHASE QUARTZ DIORITE (171' - 237') as before - a hard barren sauss. phase	ND	180	10 ?	8'	hem stain; zone of steep gg.y joints and broken rx.	<.5		177	98	7	78537	.02	.004		.05
6.10	20		ND	190	60 50	6" ⅛	gg-bx-hem qtz-cp	<.5		187	98	83	78538	.04	.001		.05
9.14	30		ND	200	60	¼	qtz	<.5		197	100	67	78539	.01	.004		.05
12.19	40		ND.	210	10?	9'	broken, gg.y section of leucocratic rx. and seriate phase - steep gg. slips and bordering broken rx	0		207	95	17	78540	.01	.002	.02 3590	.05
15.24	50	steep fault zone			?	8'	gg-bx	.5		217	90	7	78541	.02	.003		.03
18.29	60			220	50	2"	qtz-ser-py										

GIBRALTAR MINES LIMITED

HOLE NO. 89-02.
SHEET NO. 4 OF 7

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
			ND	230		10'	gg-bx (3', if solid gg)	0		227	80	0	78542	.05	.004		.05
3.05	10	Fault Zone (220'-237')															
			ND	240		7'	gg-bx	0		237	65	13	78543	.01	.002		.05
6.10	20	GRANITE MTN ?															
		PHASE (237'-350') a mixture of diff. rx. types - leucocratic zones, mine phase, seriate phase - down to 320'. From 320'	ND	250	?	4'	leucocratic zone with ep-rich contacts	0		247	95	83	78544	.03	.004		.05
9.14	30																
		to 350', the rx becomes a medium grn quartz-rich Q.D. Typically, - 40-45% qtz as interlocking grns	ND	260	40 30	2" 3"	qtz-ep qtz-py	<.5		257	98	87	78545	.02	.002	.03 3595	.05
12.19	40																
		- 20% chl. - 30-35% saus plag. ∴ this may be a hybrid form of the Granite Mtn Phase.	ND	270	50 ?	8" 2'	qtz-ser-py gg-bx	.5		267	85	67	78546	.06	.003		.05
15.24	50																
			ND	280	50	3' 6" 2½'	leucocratic phase with gradational boundary qtz-ep-py(cp) leucocratic phase } broken zone	<.5		277	60	40	78547	.06	.002		.05
18.29	60																

GIBRALTAR MINES LIMITED

HOLE NO. 89-02
SHEET NO. 5 OF 7

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
			ND	290	?	1½'	gg-bx } section of typical Granite with phase with coarse seg. qtz. } broken zone with vert. gg. slips	0		287	80	33	78548	.06	<.002		.05
3.05	10																
			ND	300	30	3"	gg-qtz-py	0		297	90	50	78549	.06	.002	.06	.05
					90	¼	ep(cp)									3500	
6.10	20				25	1/10	qtz-ser-cp										
						3'	leucocratic zone										
			60 Mod-Str.	310				0		307	95	73	78550	.02	.002		.05
9.14	30																
			60 Mod Str	320	55	4'	qtz-chl (py)	.5	gen. increase in dissem py and cp assoc. with incr. shearing	317	100	83	78551	.08	.002		.05
12.19	40																
			50 Mod-Str.	330	50	1/10	qtz-chl-py	.5		327	95	87	78552	.13	<.002		.08
					60	2"	qtz-cp										
15.24	50																
			65 WK	340	50	1/8	qtz-ep-ser-cp	1.0		337	98	73	78553	.10	<.002		.08
					45	6"	qtz-ser-(py)(cp)			340	65						
18.29	60																

GIBRALTAR MINES LIMITED

HOLE NO. 89-02
SHEET NO. 6 OF 7

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
			70 WK-Mod	350	50×3	1/10-1/8×3	qt3-chl-py(cp)×3	1.0			100	67	78554	.09	.002	.08 3455	.10
					65×2	1/8×2	qt3-ser-py×2										
					25	1/2	qt3 (cp))										
					75	2"	qt3 (ser)-cp										
					70	1/8	qt3-chl-py			347							
3.05	10	MINE PHASE (350'-395') medium grn. - appears as a hybrid between Mine Phase and Granite Mtn. Phase — ie ~ 35-40 o/o qtz - 45 o/o saus plag - 15 o/o chl.	70 Mod	360	80	2"	qt3-ser-(py)	1.0	dark altn zone		98	53	78555	.12	4.002		.10
					60×4	1/20×4	qt3-chl-cp×4										
					65×3	1/20×3	qt3-chl-py×3			357							
6.10	20																
			70 WK	370		1/4	broken qt3-cp.	.5		365	95	50	78556	.13	4.002		.05
					70	1/10	qt3-chl-py										
9.14	30										100						
			70 WK	380	80×2	1/10+1/4	qt3-chl-py×2	.5		375		83	78557	.05	.009		05
					70	1/10	qt3-chl-py										
					70	10"	qt3-cp (py)				98						
12.19	40																
			ND	390	60	1/10	qt3-chl-py	1.0		385		87	78558	.03	.002	.08 3910	.05
					50×2	1"×2	qt3-ser-py×2										
					70×2	1/10+1/20	qt3-ser-py×2				98						
15.24	50																
			ND	400	65	1/2	qt3-ser-py	1.5		395		87	78559	.15	.002		.14
					10	1/2	qt3-cp										
					50	2"	qt3-ser-py(cp) chl										
					60	3"											
					5	1/2	qt3-cp										
		GRANITE MTN PHASE? (395'-405') Same as 237-350'	70 Mod		70×6	1/10×6	qt3-chl-py×6										
18.29	60				75×2	1"+2"	qt3-ser-py										

GIBRALTAR MINES LIMITED

HOLE NO. 89-02
SHEET NO. 7 OF 7

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation	GRAPHIC LOG: Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP	BOTTOM DEPTHS: LIM. ZONE	BOTTOM DEPTHS: SUPERGENE	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	ASSAY RESULTS: % Cu	ASSAY RESULTS: % Mo	ASSAY RESULTS:	ASSAY RESULTS: Estimated Grade
0.00	0	EOH 405'						80 60 60	8" ½ ¼	chl (cp) qt3-cp qt3-py	.15					405	100		78560	.06	<.002	.19	.05
		Daug D. Byrnsmith																					
3.05	10																						
6.10	20																						
9.14	30																						
12.19	40																						
15.24	50																						
18.29	60																						

GIBRALTAR MINES LIMITED

HOLE NO. 89-03
SHEET NO. 1 OF 6

LOCATION Gibraltar East | BEARING — | LATITUDE ~ 51,230 | CORE SIZE N.Q. | LOGGED BY G.D. Bysouth
DATE COLLARED April 12, 1989 | LENGTH 407' | LONGITUDE ~ 47,215 | SCALE OF LOG 1"=10' | DATE April 13, 1989
DATE COMPLETED April 13, 1989 | DIP −90° | ELEVATION ~3715 | REMARKS this hole may intersect the Granite IIIa Phase

BOTTOM DEPTHS: LEACH CAP —; LIM. ZONE 290?; SUPERGENE 230 weak

Meters	Feet	ROCK TYPES AND ALTERATION	∨ TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0	Casing To 62-feet								62							
		62			70	4"	qtz-ser-py-lim		no leach cap lim and cc are weakly developed and erratic								
					70 x 10	1/20-1/10 x 16	qtz-ser-chl-py x 10										
					70	1/10	lim	2.5		67	80		78575	.28	.002		.08
					50-70 x 8	1/20-1/10 x 8	qtz-ser-py x 8										
3.05	10	MINE PHASE QUARTZ DIORITE (62'-151')			50	1/8	qtz-ser-py (cc)										
		typical Mine Phase			5-20 x 6	hle x 6	lim x 6										
		- 20% chl.			60 x 5	1/20 x 5	qtz-chl-py x 5										
		- 50% saus. plag	70		to	1/10	ep-py (cc)				98						
		- 25% qtz - interstitual to plag.	WK		90+40+50	hle x 3	lim x 3	3.0		77		73	78576	.31	.002	.130	.10
6.10	20				60-70 x 10	1/20-1/8 x 10	qtz-ser-py x 10									3635	
		-grn size 1/20-1/10", sl. seriate			70	3	qtz-ser-py (cc)										
					40	1/20	ser-py (cc)										
			70		60 x 8	1/10 x 8	qtz-ser-py x 8				90						
			WK		50	1/4	qtz-ser-py (cc)	3.0		87		37	78577	.26	<.002		.18
					to	3/4	qtz										
					50	1"	qtz-ser-py										
9.14	30				5	1/4	gg + bx										
					70 x 3	1/10+1/8 x 2	qtz-ser-py x 3										
					80	1/4	qtz-ser-py (cc)				98						
			70		30	8"	leucocratic dyke.	3.0									
			WK		25	2"	qtz-(cp)(cc)			97		73	78578	.33	<.002		.15
					70	1/8	ser-py (cc)										
12.19	40				70-80 x 8	1/10-1/8 x 8	qtz-ser-py (cc) x 8										
					65 x 3	1/8+1/10 x 2	qtz-ser-py-cc										
					75 x 15	1/20-1/8 x 15	qtz-ser-py ((cc)) x 15				95						
			ND		75+80	1/2 x 2	ser-py-lim x 2	3.5		107		27	78579	.27	<.002		.15
					70	1/8	py (cc)										
15.24	50																

GIBRALTAR MINES LIMITED

HOLE NO. 89-03
SHEET NO. 2 OF 6

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
		fault {	ND		80	1"	qt3-py										
					80x2	1/20x2	qt3-chl-py x2	2.0			85						
					?	3'	gg-bx			117		7	78580	.10	4.002		.12
3.05	10			120	80	2"	qt3										
					30	1/4	qt3-chl-py										
					65x2	1/2+1/10	qt3-ser-py(cc) x2				95					.23	
			70 wk		70	1/10	qt3-ser-py(cc)	1.5				67	78581	.13	<.002	3580	.15
6.10	20			130	65	1/10	chl-py			127							
					65+70x2	1/20x3	qt3-chl-py x3										
					60	1/10	qt3-chl-py				98						
			70 Mod					1.0				73	78582	.06	.002		.08
					60+75x2	1/20x3	qt3-chl-py x3			137							
9.14	30			140	30	1/20	qt3-chl-py										
					45	1/10	qt3-chl-py										
					40	1/4	qt3-ser-py				98						
			45 Mod		35	2"	qt3((cp))	.5				70	78583	.09	.002		.08
					35-45	2'	qt3-carb-chl-ser-py(cc)			147							
12.19	40			150													
		GRANITE MTN. PHASE (151'-252')			50x3	1/10x3	qt3-ser-py x3										
					50	7"	qt3-ser-py				90						
			45 wk.			12"	gg-bx	1.0				50	78584	.11	.002		.05
					50	6"	qt3-ser (py)			157							
15.24	50	a 1' wide leucocratic zone (fine grn) occurs		160													
		at the upper contact typical Granite Mtn Phase except chl is higher than normal and grain size is finer over.			50	1"	qt3-ser-py										
					50	2"	qt3-ser-carb (py)				98						
			65 Mod		50-60x6	1/10-1/4x6	qt3-ser-py x6	2.5				63	78585	.11	.002	.10	.05
					60	10"	qt3-ser-py			167						3545	
18.29	60			170	60x5	1/8x5	qt3-ser-py										

GIBRALTAR MINES LIMITED

HOLE NO. 89-03
SHEET NO. 3 OF 6

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0	qt_3 - 40-45% chl - 15% plag - 40% as rounded or subcrystal grn's in a metasis of qt_2.	70 WK	180	70×2 60-70×8 60-80×12 70×4 70	1/4×2 1/20-1/8×8 1/10-1/4×12 1/4+1/2+1×2 3"	qt_3-ser-py×2 qt_3-ser-py×8 qt_3-ser-py×12 qt_3-ser-py×4 qt_3-ser-py((cc))	4.0		177	98	70	78586	.13	<.002		.08
3.05	10																
6.10	20		70 WK	190	50-70×6 60 70	1/10-1/4×6 1/4 1"	qt_3-ser-py×6 qt_3-ser-py gg-bx-lim	2.0		187	98	63	78587	.12	<.002		.05
9.14	30		70 Mod	200	60	1/10	qt_3-ser-py.	<.5		197	100	80	78588	.02	<.002		.05
12.19	40		70 WK	210	45 30?+50 60	2 1/2 10"+3 3"	qt_3-chl qt_3-ep×2 qt_3(lim)	<.5		207	100	77	78589	.01	<.002		.05
15.24	50		80 WK	220	45	4 1/2	qt_3-cp	0		217	100	93	78590	.01	<.002	.06 3500	.08
18.29	60		70 WK	230	60	6" 3'	qt_3-ser-py((cc))(lim) gg-bx	.5		227	95	50	78591	.06	<.002		.08

GIBRALTAR MINES LIMITED

HOLE NO. 89-03
SHEET NO. 4 OF 6

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
			70 Mod		70	1/10	qt3-ser-py				95						
					70	1/20	qt3-ser-py	<.5									
					40	8"	qt3-cp			237		83	78592	.103	K.002		.05
3.05	10	from 230 to 252'		240													
		The rx grades to a med-fine grn. leucocratic zone; ie, an incr. in qt3, decrease in chl, and a decrease in grn size. - shear appears to incr.	70 Mod		70 x 5	1/10-1/8 x 5	qt3-ser-py x 5				98						
					70-80 x 10	1/20-1/10 x 10	qt3-ser-py x 10										
					30+70	2" ± 1"	qt3-ser-py (lim)	3.0		247		63	78593	.06	K.002		.05
6.10	20			250	70	14"	qt3-ser-chl-py (lim)										
		MINE PHASE? (252-407') not a typical Mine Phase - higher qt3 than normal (30-35%) - chl. enrich occurs over ~4' @ upper contact.	70 str.		70	1 1/2'	qt3-chl (py)				95						
					60	1 1/2"	qt3-carb-ser-py	2.5		257		63	78594	.12	K.002	.06	.08
					60	12"	qt3-chl-carb (py)									3455	
9.14	30			260	70	3"	qt3-ser-py										
			65 Mod		70	1/4	qt3-ser-py				95						
					70 x 2	4" ± 1"	qt3-ser-py x 2	3.5									
					70	1"	qt3-ser-py			267		90	78595	.10	K.002		.10
					70	2 1/2"	qt3-ser-py (cp)										
		- rx appears as a transition between normal Mine Phase and Granite Mtx Phase			70 x 6	1/10-1/8 x 6	qt3-ser-py x 6										
12.19	40			270													
			80 Mod		70 x 2	1/2 ± 1"	qt3-ser-py x 2				100						
					65	1/2	qt3-ser-cp										
					70 x 3	1/8 x 3	qt3-ser-py x 3	3.5									
					70	3"	qt3-ser-py-cp			277		93	78596	.09	K.002		.15
					80	2"	qt3-ser-py (cp)										
					30	1/4	chl-cp										
					70	1/10	qt3-chl-py										
15.24	50			280													
			70 wk		65	1/4	qt3-ser-py				98						
					5 x 2	tlm, >2	lim x 2										
					70	2'	qt3-chl-py	2.0									
					5	1/10	gyp-lim			287		47	78597	.14	K.002		.10
					65	2"	qt3-cp										
18.29	60			290													

GIBRALTAR MINES LIMITED

HOLE NO. 89-03
SHEET NO. 5 OF 6

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
			70 WK	300	5 50 50+60+5	1/16 2" hlex3	gyp-lim with 2' of broken lim stained core qt3-py-cp lim x3	.5		297	98	27	78598	.04	.002		.10
3.05	10																
			70 WK	310				<.5		307	98	77	78599	.01	.001	.08 3410	.05
6.10	20																
			70 WK	320	60 60x3	2" 1/8+1/4x2	qt3-ser-py qt3-chl(py)	.5		317	100	87	78600	.01	.001		.05
9.14	30																
			70 WK	330	20+60	1/2+1"	qt3x2	<.5		327	100	90	78601	.02	.001		.05
12.19	40																
			70-80 WK	340	70 70 80	2" 2" 3"	qt3-ser-py qt3-ser-py qt3-ser-py	.5		337	98	83	78602	.04	<.001		.05
15.24	50																
			70 WK	350	60-75x10 70	1/10-1/8x10 8"	qt3-chl-ser-py x10 qt3-ser-(py)	.5		347	100	87	78603	.03	.001	.02 3365	.05
18.29	60																

GIBRALTAR MINES LIMITED

HOLE NO. 89-03
SHEET NO. 6 OF 6

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0				15	1/4	qt3										
					60	10"	qt3-ser-py-cp										
			70 WK		55	8"	qt3-ser-py	1.5			100						
3.05	10			360	40	14"	qt3-chl-py-cp			357		63	78604	.15	.002		.15
			ND		55	2"	qt3	<.5			98						
6.10	20			370						367		70	78605	.09	.001		.05
					60	2"	qt3										
			ND		50	7"	qt3		hem stained gg'y section		98						
					40	2"	qt3	<.5									
9.14	30			380	80	1/2	qt3			377		30	78606	.01	.001		.05
					40	2"	qt3				100						
			ND					<.5									
12.19	40			390						387		83	78607	.02	<.001		.05
					5-10	1/4	qt3-chl-cp		dk alt'n zone		100					.06	
			5-80 Mod-str		80	1/4	chl(py)	<.5				80	78608	.07	.001	3320	.10
15.24	50			400						397							
		leucocratic zone			60	2"	qt3-chl				98						
			ND		30-50	6"	qt3-chl	<.5					78609	.01	<.001	.03	
		E.O.H. 407'								407							
18.29	60	Gary A. Bywater															

GIBRALTAR MINES LIMITED

HOLE NO. 89-17
SHEET NO. 1 OF 7

LOCATION Gibraltar Mines Ltd. BEARING _____ LATITUDE ~ 49,970 N CORE SIZE N.Q.W. LOGGED BY G.D. Bysouth
DATE COLLARED 30-Apr-89 LENGTH 467' LONGITUDE ~ 48,970 E SCALE OF LOG 1"=10' DATE May 5, 1989
DATE COMPLETED 02-May-89 DIP -90° ELEVATION ~3770 REMARKS shattered rx down to at least 300' Hole lost - rods tightened

BOTTOM DEPTHS: LEACH CAP 250' | LIM. ZONE 320' | SUPERGENE 460'(weak)

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0	Casing To 94'															
		MINE PHASE QUARTZ DIORITE		100				0			5?	0					0
3.05	10	(94 – 467') not typical - finer grn than normal and qtz lower than normal ie:		110				0			10?	0					0
6.10	20	- qtz 25 o/o - chl 20 o/o - saus plag 50 o/o - avg grn size 1/20-1/10" qtz is interstitual to plag - chl occurs as		120			3 one of broken rusty core and lost core - mostly pebble size - no gg.	0		115	10?	0	↑ 44153 (94 to 120)	.05 .030x	.002		0
9.14	30	rounded clots 1/10" dia usually of much larger grn size than plag. or qtz (ie ~1/10") - the chl appears to be after hb or book		130	45+5+65	hle x 3	lim x 3	0		127	10?	0	44154	.04 .040x	.001		0
12.19	40	bio		140		10'	broken, pebble size core - no gg. wk lim	0		137	40	0	44155	.06 .030x	.002	.05 3635	0
15.24	50																

GIBRALTAR MINES LIMITED

HOLE NO. 89-17
SHEET NO. 2 OF 7

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG Foliation	Alteration	Footage	Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																			
			?			150			10'	broken core - mostly pebble size - minor lim, mal, MnO_2	0		147	35	0	44156	.09 .060x	<.001		.05
3.05	10																			
			?			160			10'	broken pebble size core - minor lim, Mal MnO_2	0		157	40	0	44157	.09 .060x	.002		.05
6.10	20																			
			?			170			10'	broken pebble size core - strong lim. minor MnO_2	0		167	25	0	44158	.09 .060x	.002		.05
9.14	30																			
			?			180			10'	broken core - ~80% pebble size, strong lim	0	drillers comments: "large gravel" bed @ 177'	177	30	3	44159	.09 .070x	.002	.09 3590	.05
12.19	40																			
			?			190			7' 3'	broken pebble size core min lim sand seam	0		187	25	0	44160	.26 .170x	.003		.05
15.24	50																			
						200			10'	broken core (~1-3") str. lim, min mal	0		197	50	0	44161	.09 .060x	.002		.05
18.29	60																			

GIBRALTAR MINES LIMITED

HOLE NO. 39-17
SHEET NO. 3 OF 7

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
			ND	210	50 x 2 80 30 x 2 90 5	1/10 x 2 1" hle x 2 2" 1/20	lim-gg x 2 qt3 lim x 2 gg-mal lim	<.5	Core soft and bleached	207	70	13	44162	.05 .030x	.002		.05
3.05	10																
			ND	220	60 x 2 + 30 80 80	hle x 3 1/10 1"	lim x 3 qt3 qt3-lim	<.5		217	80	20	44163	.06 .040x	.001		.05
6.10	20																
			ND	230	5 5 x 6 30 + 70	3 1/2' 1/20 x 6 1/4 x 2	gg-bx-lim qt3-chl-lim x 6 qt3-lim	<.5		227	75	10	44164	.07 .030x	.014	.11 3545	.05
9.14	30																
			ND	240	30? 60 x 3	9' hle + 1/10 x 2	gg-bx-lim (some cuprite blebs) lim-qt3 x 2	<.5		237	80	0	44165	.20 .100x	.008		.05
12.19	40																
			ND	250	50 30 + 60 x 2	1/4 hle-1/20 x 3 6'	qt3-lim lim x 3 gg-bx (lim)	<.5		247	70	7	44166	.07 .040x	.006		.05
15.24	50																
			ND	260	45 x 3 + 5 x 2 50	2 1/2' 12" 1/20 x 5 1/2	gg-bx (lim) gg-bx (lim) lim x 5 gg-scr-lim			257	70	13	44167	.05 .030x	.009		.05
18.29	60																

GIBRALTAR MINES LIMITED

HOLE NO. 89-17
SHEET NO. 4 OF 7

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																		
			70 WK		270		60 60 20 70 70	1/3 1/2 1/4 1/3 1/4	qtz-cp qtz-lim qtz-lim-py qtz-lim scr-py(lim)	.5		267	85	10	44168	.21 .020x	.007	.12 3500	.05
3.05	10																		
			?		280			10' 14"	gg-bx-hem leucocratic zone	<.5		277	95	13	44169	.55 .130x	.003		.05
6.10	20																		
			ND		290		15x2 80 5x7	2' 1/8+1/10 1" hle x 7	gg-bx qtz-ser-py (cc) x 2 qtz green clay-cc? x 7	<.5		287	90	20	44170	.39 .060x	.006		.10
9.14	30																		
			ND		300		5x2 5x2	1/20 1/10 x 2	green clay-py x 2 qtz-chl-py(lim) x 2	<.5		297	95	17	44171	.25 .020x	.006		.08
12.19	40																		
			ND		310		5+70 ?	1/4 + 1/8 4 1/2'	py (cc) + qtz-cup. gg-bx-hem (cc?)(cup*)	.5	* bright red copper oxide - prob cuprite	307	90	7	44172	.61 .120x	.018		.50
15.24	50																		
			ND		320		5x6 65 60 30	hle x 6 2" 1/8 1/20	lim x 6 qtz-nat Cu qtz-cup (cc) qtz-chl-py (lim)	<.5		317	90	7	44173	.31 .030x	.006	.43/.08 3455 ox	.25
18.29	60																		

GIBRALTAR MINES LIMITED

HOLE NO. 89-17
SHEET NO. 5 OF 7

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
			ND	330	18 50 5×2	1½" 1/10 1/10×2	qt3-chl-mag(py)(cp) gg-nat.Cu gg-hem×2	<.5		327	90	10	44174	.17 .01 ox	.008		.15
3.05	10																
			ND	340	80 15	1/8 1/8×2	qt3 qt3-chl-carb(cp)×2	<.5		337	85	10	44175	.12	.002		.08
6.10	20																
			ND	350	20 50 50	1/3 1/8+1/20	qt3-mag qt3-ser-cp×2	<.5		347	95	23	44176	.12	.008		.10
9.14	30																
			ND	360	? 8'	1/4 broken zone	qt3-cp	<.5		357	95	13	44177	.22	.015	.17 3410	.05
12.19	40																
			ND	370	40 5 10 ? ?	1/8 12" 1" 3' 14"	qt3 gg-bx qt3-chl-carb-cp gg-bx qt3-chl-carb (vug)	<.5		367	85	7	44178	.20	.004		.12
15.24	50																
			ND	380	5 30 60 10	3" 2' 1/2 1/10	qt3-ep ((cp)) gg-bx qt3 qt3-cp	<.5		377	85	20	44179	.06	.004		.10
18.29	60																

GIBRALTAR MINES LIMITED

HOLE NO. 89-17
SHEET NO. 6 OF 7

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0				10×2	1/20	rem - carb ×2										
			ND		30	1/8	qt3-chl-py (cp)	<.5		387	95	33	44180	.11	.001		.08
3.05	10			390	20	1/10	qt3-chl-(cp)										
					15×3	1/10×3	qt3-hem ×3										
			ND		90	1/20	qt3(cp)	<.5		397	98	53	44181	.12	.001		.05
6.10	20			400	5	1/20	hem										
					40	1/10	qt3-chl-cp					12				.14	
			ND		5×2	hle ×2	hem ×2				98					3365	
					80+90	1/2+1/4	qt3×2	<.5		407		40	44182	.24	.004		.12
9.14	30			410	30	1/10	qt3-chl-cp										
					90	1/2	qt3-cp (vug)										
					45+10	1/10×2	qt3-chl-cp×2					12					
			5-20 Mod		5	7"	qt3-chl-carb	.5		417	95	40	44183	.24	.017		.12
12.19	40			420	5-20	11'	broken qt3-ser-(py)(cp)(Mo) zone.										
			5-20 Mod.					.5		427	80	0	44184	.29	.013		.10
15.24	50			430	40	1/8	qt3-cp										
							qt3-ser-(py)(Mo)										
			5 Mod					.5		437	70	20	44185	.26	.062		.08
18.29	60			440	80	3' 2"	broken zone qt3										

GIBRALTAR MINES LIMITED

HOLE NO. 89-17
SHEET NO. 7 OF 7

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0				30 70x2	4" 1/10x2	qt3-ser-chl (cp) qt3x2										
			70 Mod					<.5			95						
						3½'	broken core			447		17	44186	.22	.004	.25 3320	.08
3.05	10			450													
					?	14"	qt3-chl (vug)				95						
			70 WK		40x3 50x2	1/10+1/3+1/4 1/10x2	qt3-cp (cc) x3 qt3-chl-cpx2	<.5		457		30	44187	.31	.004		.25
6.10	20			460	40+45x2	1/20x3	qt3-chl-cpx3										
					60+70	1/10x2	qt3-chl-cp x2				70						
		E.O.H. 467'				18"	broken qt3-cp zone	<.5					44188	.16	.004	.24	.14
		Gary D. Bystedt			90	1/4	qt3-cp			467							
9.14	30																
12.19	40																
15.24	50																
18.29	60																

GIBRALTAR MINES LIMITED

HOLE NO. 89-18
SHEET NO. 1 OF 6

LOCATION Gib-East - NE corner | BEARING — | LATITUDE ~50,530 N | CORE SIZE N.Q. Wireline | LOGGED BY M. Thon
DATE COLLARED 02-May-89 | LENGTH 407' | LONGITUDE ~48,970 E | SCALE OF LOG 1"=10' | DATE May 30 - June 2/89
DATE COMPLETED 03-May-89 | DIP -90° | ELEVATION ~3832' | REMARKS

BOTTOM DEPTHS: LEACH CAP 132' | LIM. ZONE 155 | SUPERGENE —

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0	Cased to 112'					OB.										
3.05	10			112						112		112					
6.10	20	Normal Mine Phase Quartz Diorite - M. green saussuritized g.d.; med. grained ~30% qtz	ND.	120			Brkn g.d. - mal. stain; Qtz Vn - broken, Lim. Stain	0%		117	30%	0%	43853	.10 / .040x	.196		.02%
9.14	30	~20% chloritized mafics ~50% saus'd plag.	ND	130	20° / 40°	2"	Poor recovery (rubble) qtz-chl-ser-lim shear; qtz-chl-ser-lim shear	0%		127	15%	17%	43854	.07 / .040x	.047		.02%
12.19	40		ND.	140	20x5 / 6° / 20° / 45° / 20x4 / 60	hlex5 / 1/4 / 1/20 / 1/8 / (1/4"x2)+(1/16x2) / 1/2	lim x 5. gg-lim; qtz-chl-py-(lim); qtz-chl. ser-lim; qtz-chl-ser-lim x 4; qtz-ep	.02%	Exist sulphide.	137	73%	40%	43855	.04 / .020x	.008		.02%
15.24	50		ND.	150	20 x 3 / 15° / 50? / 20x6 / 20 / 30x2	1/16" x3 / 1/20 / 1/8 / hle x6 / 1/16 / 1/20 x2	qtz-ser-lim x3; qtz. chl-lim; qtz-chl-ser-py-lim. lim x6; qtz-chl-py-lim; qtz-ser-chl-py-(lim) x2	.05%	some epidote segregation	147	94%	71%	43856	.09 / .020x	.004	.08/.03 / 3680	.02%

GIBRALTAR MINES LIMITED

HOLE NO. 89-18
SHEET NO. 2 OF 6

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation	Alteration	Footage	Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0							10°	1/10	qtz-chl-ser-py-lim-<cc>										
								5°+30°	1/8 x 2	gg-hem. x 2				95%						
								30	hle	gg-chl-py-<cc>?										
			ND					10 x 2	1/16 x 2	qtz-chl-py x 2										
								40 x 3	1/16 x 3	qtz-chl-ser-py-<cp> x 3	. 1%									
								30 x 2	1/10 x 2	qtz-chl-ser-py x 2		some epidote segregation.								
3.05	10					160		10°	1/10	gg-hem			157		32%	43857	.18	.003		.04%
																	.010x			
		160-171'						30	1/20	qtz-gg-chl-py-<cp>										
		DK. Alt^n Phase ?						5°	1/16	gg-hem				86%						
		- more sericitic, v.	45°					45 x 4	1/4 + (1/20 x 3)	qtz-chl-ser-py x 4										
		sl. incr. in chlorite,	Mod. to					30°	1/16	qtz-chl-py-<cp>	. 5%									
		epid. segregation	Str.					45°	9"	Qtz-Ep-tr<py-cp>			167		40%	43858	.16	.003		.05%
6.10	20					170		25 x 6	(1/20 x 3) + (1/10 x 3)	qtz-chl-ser-py x 6							4.010x			
		171-197'						70	3/4	Qtz-chl-ser-py										
		N. M. P. Q. D, as						50°	1	Qtz-chl-ser-py				63%						
		above.	ND.					10 x 2	hle x 2	gg hem x 2										
			to 80°					30°	V8	qtz-chl-py	1%									
			v. WK					45 x 3	hle x 3	gg-hem x 3			177		30%	43859	.08	.002		.05%
9.14	30					180		45 x 4	(1/8 x 2) + (1/20 x 2)	qtz-ser-chl-py-<cp) x 4					180					
								5°	1/20	gg-hem-brkn. hem. stained cone.										
			ND					45° x 6	1/10 x 6	qtz-chl-ser-py x 6.				83%						
			to					30° + (45° x 4)	hle x 5	hem x 5	1%									
			45° v. WK					15 x 3	1/10 x 3	qtz-chl-py x 3			187		33%	43860	.10	.002		.03%
12.19	40					190		60 x 3	1/10	qtz-chl-py x 3					190		<.010x			
								70°	1/4	qtz-ser-<chl>-py-<cp>										
								60°	1/10	qtz-chl-ser-py				100%				.13/		
			ND					45°	1/2	qtz-ser-chl-ap-4py?								2.01 ox		
			to					45 x 2	1/8 x 2	qtz-chl-ser-py-<cp> x 2	2%							3635		
			60°					30	1/8	qtz-ser-py-<cp>			197		56%	43861	.12	.002		.05%
			v. WK.					15	1/9	qtz-ser-py-<lim>										
15.24	50	197-207'				200									200					
		A mixture of:						10 x 2	hle x 2	lim x 2										
		- Leucocratic Phase						45° x 8	1/20 x 8	qtz-ser-chl-py-cp x 8				99%						
		- seriate textured	ND					45°	1/8	qtz. chl-ser-py										
		qtz. rich rx (~25% to	to					30°	1/10	Qtz-mo										
		40%)	70°					45 x 2	1/5 + 1/10	qtz-chl-ser-py-<cp) x 2	2%		207		66%	43862	.09	.002		.06%
		207-282'						30°	1/16	qtz-chl-ser-py										
18.29	60	Mine Phase (?)	WK			210									210					

GIBRALTAR MINES LIMITED

HOLE NO. 89-18
SHEET NO. 3 OF 6

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0	This rock approaches a seriate texture Gran. Mtn. Phase. It is still med. grained w/ euhedral saus. alt'd plag. x/s. & has zones of chlorite enrichment. Qtz ~35% Chl. ~15-20% fsp ~45-50%	ND to 70° WK		220	70° x2	1/20 x2	qtz-chl-py (ep) x2											
						60° x2	1/4 + 1/8	qtz-ser-py x2											
						45 vs	1/16 x2	qtz-ser-chl-py-(lim) x2	1.5%										
						60°	1/6	qtz-ser-chl-py-(cp)											
						1 30	hle	qtz-dq-py-coated w/k native Cu)											
3.05	10					30°	1/10	qtz-chl. (py-highly tarnished to a copper red color)				217	97%	55%	43863	.05	.003		.05%
						60 x2	hle x2	qtz-chl-py x2						220					
						5°	hle	qtz-chl-py - some copper red tarnish.											
						45	1/20	" " " " "											
			ND to 70-80° V. WK.			35 x3	hle x3	qtz-chl-py x3					93%						
						60	1/8	qtz-ser-(chl)-cp (some tarnish)											
						45°	1/4	qtz-chl-ser-fsp-(py-cp)	1%			227		78%	43864	.03	.003		.08%
						30° x4	1/20 x4	qtz-chl-ser-py x4											
6.10	20				230	60°	1/10	chl-qtz						230					
						50°	1/8	qtz-chl-vug. lim-py			chloritic, vuggy zone.								
						30 x2	1/20 x2	qtz-chl-ser-py x2											
			70-80° WK.			30°	1/20	qtz-chl-ser-py-cp	1%			237	95%	70%	43865	.03	.002	.06	.05%
						5°	1/10	qtz-chl-py										3590	
9.14	30				240	45° x2	1/16 x2	qtz-chl-ser-py x2						240					
						35 x2	1/8 x2	qtz-chl-ser-py-(cp) x2											
			ND to 60-70° V. WK.			10°	1/10	qtz-chl-ser-py					91%						
						20 x2	1/20 x2	qg-hem x2	1%			247		70%	43866	.02	.001		.06%
						25°	1/10	qtz-ser-py			- epidote segreg.								
12.19	40				250	60°	1/8	qtz-ser-chl-py-(cp)						250					
		- coarser grained				20 x2	1/12 x2	qtz-chl-py x2											
			N.D to 70-80° V. WK.			70°	1/8	Qtz Vn. chl-ep-py					100%						
						20° x2	1/10 + 1/16	qtz. chl-py x2	1%			257		90%	43867	.04	.001		.05%
						50	1/20	qtz-chl-ep-py											
15.24	50				260	30°	1/8	qtz-chl-py-cp						260					
						60°	1/10	qtz-chl-py											
						45°	1/16	qtz-chl-ser-py-cp											
			N.D.			20 x2	1/200 x2	qtz-chl-py-(cp) x2					101%						
						5°	1/6	qtz. chl-ser-carb-py-cp	.5%			267		87%	43868	.09	.001		.06%
						15 x5	1/20 x5	qtz-ser-chl-py-cp x5			- epidote segregation								
18.29	60				270	15 x2	1/20 x2	qtz-ser-chl-py-cp x2						270					

GIBRALTAR MINES LIMITED

HOLE NO. 89-18
SHEET NO. 4 OF 6

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
			N.D.		5°	1/8	qtz-ep-(chl-py)				94%						
					20°	hair	qtz chl-py										
					60	1/4	qtz-ep-(chl)	1.3%		277		72%	43869	.03	.003		.03%
					5°	1/10	qtz-chl-ser-py										
3.05	10			280	20×3	1/10×3	qtz-chl-ser-py-(cp)×3					280					
		282-297			10°×2	1/40"×2	qtz-ser-chl-py-(cp)×2				82%				.05		
		Leucocratic Phase	N D		30°×3	1/20"×3	qtz-ser-chl-py-cp×3								3545		
		- white to lt grey qtz			20°	1/8"	qtz-ser-(cp)-py	.2%		287		62%	43870	.11	.002		.05%
		rich rock ~ 1% chl.			40	1/10"	qtz-ser-chl-vugs-cp-py										
6.10	20			290	75°	1/16"	qtz-ep					290					
		- v. little sauss. alt'n.			5°	1/8	qtz-ser-vugs-py-(cp)				93%						
		somewhat sericitic			25°	3	qtz-ser-py-(cp)										
			ND		50	1/8	qtz-ser-py-cp	1%		297		71%	43871	.12	.002		.10%
		Gradational			20×2	1/4×2	qtz-ser-py-cp×2										
		297-373'															
9.14	30	Seriate Phase.		300	5×3	1/10×3	qtz-ser-py-(cp)×3					300					
		Gran. Mtn. Phase.			10°×7	1/8×7	qtz-ser-(chl)-py×7				101%						
		Av. qtz. rich rock ~ 40-45%															
		w/ lt. green euhedral	NP		40	1/8	qtz-ser-ep	.6%		307		95%	43872	.07	.001		.03%
		plag. xls., v. few mafic															
		minerals.			10×3	1/10×3	qtz-ser-(chl)-py×3										
12.19	40			310								310					
					50	1/8	QtzVn-vugs-carb-cp										
					70°	5"	qtz-ser-chl-carb-(py)										
		Saussuritization becomes			10°	1/8	QtzVn-cp-mo				102%						
		weaker near the bottom	ND					.4%									
		of this zone			60°	1/16	qtz-chl-ep-py			317		98%	43873	.10	.003		.13%
					5°	1/20	qtz-ser-chl-ep-py										N. M.S₂.
15.24	50			320	30×2	1/20×2	qtz-ser-py×2					320					
					10×2	1/8×2	qtz-ser-plag-py×2				102%						
					45°	1/2"	Qtz-ser-carb-cp-py-(mo)										
			ND		30°	1/4	qtz-ser-ep-vugs-py-(cp)	.4%		327		95%	43874	.08	.002		.09%
					20	1/20	qtz-ser-py-cp								.09		
18.29	60			330	30×2	1/10×2	qtz-ep-py-cp×2					330			3500		

GIBRALTAR MINES LIMITED

HOLE NO. 87-18
SHEET NO. 5 OF 6

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0				10 x 2	1/20 x 2	qtz-ep x2										
					60	1/8	qtz-ser-ep-carb-py-cp				100%						
			N.D		70	5"	qtz-ser-chl-carb-(py)	.6%									
					60°	1/16	qtz-chl-ep-cp			337							
					30°	1"	qtz-ser-(chl)-ep-py										
3.05	10			340	25°	1/20	qtz-ser-cp-py					91%	43875	.07	.002		.08%
					5°	1/8	qtz-ser-chl-ep-py										
					10°	1/16	qtz-chl-ser-py				103%						
			N.D.		5°	1/20	qtz-chl-ep	.1%		347							
					50°	1/10	qtz-ep-(chl)					100%	43951	.03	.003		.02%
6.10	20			350													
					5°	1/20	qtz-ep-chl										
					70 to 45	1"to 3"	Qtz Vn-carb										
			N.D		5°	1/10	qtz-chl-ep-carb-(py)	.2%			102%						
					70 x 2	1" x 2	Qtz-carb Vnlts-ser-chl-ep	inenvel.		357							
					5 x 2	1/20 x 2	qtz-ser-py x2					67%	43952	.04	.001		.02%
				360	20°	1/8	qtz-chl-ser-py										
9.14	30																
					60	1/8	qtz-ep-ser-py										
					45°	1/8	qtz-ep-py				100%						
			ND		30 x 2	1/10 x 2	qtz-ser-py x2	.7%									
					70	6"	Qtz-Chl-Carb-Ep Vn			367		82%	43953	.02	.001		.02%
					45	5"	qtz-ser-chl-(py)										
				370	50	1/10	qtz-chl-ep-vugs-(py)										
12.19	40																
					5°	1/8	qtz-chl-ep-vugs-carb									.04	
					30	1/20	qtz-chl-ser-py-cp				100%					3455	
		373 - 407'			30	1"	qtz-ser-py-cp										
		A more chlorite-rich rock	ND		10	1/2	qtz-chl-ser-py-cp	.3%		377		77%	43954	.06	<.001		.08%
		similar to 207-282'															
		"Mine Phase (?)"															
15.24	50	- a hybrid zone?		380	10	1/8	Qtz Vn-chl-carb-vugs-py										
					60	2"	Qtz Vn - chl - ep - (ser)	stain-(py)	{ Dk. Chloritic Zone								
					5°	1/2	qtz-chl-ser shear				90%						
			N.D		70	6"	Qtz Vnlts - vugs - ser - ep - tr (py)	.1%		387		57%	43955	.04	.003		.02%
					10 x 30	1/8 x 2	qtz - chl - ser - ep - py x2										
					30	1/2	qtz-chl-ser-ep-tr (py)										
18.29	60			390	30	1/2	qtz-ser-chl-ep-py-vugs										

GIBRALTAR MINES LIMITED

HOLE NO. 89-18
SHEET NO. 6 OF 6

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0				20 x 2 30 45 30 10 50 x 3	1/2 x 2 1/4 1/4 5" 5" 1/2 x 1 (1/10 x 2)	qtz-chl-ep-<cp> x 2 qtz-cab-vugs py qtz-chl-ser-py qtz Vn-ser-mo-tr-cp qtz ser-py Shear qtz-chl-ser-vugs-py	1%			96%	70%	43056	.09	.007		.08% Hi MoS_2
3.05	10	N.D.	N.D.	400						397		400					
					60° 30 x 2 30 x 2 70 30°	1/2 1/20 x 2 1/20 x 2 1/10 1/10	Qtz-ser-(chl)-py-mo qtz-chl-ser-py x 2 carb-qtz-hem x 2 qtz-carb. qtz-chl-py	.5%	hematite stain.		94%	76%	43957	.06	.003	.06	.03 Fair Moly
6.10	20	E.O.H. @ 407'.		407						407		407					
9.14	30																
12.19	40																
15.24	50																
18.29	60																

MR Shaw

GIBRALTAR MINES LIMITED

HOLE NO. 89-19
SHEET NO. 1 OF 6

LOCATION NE Corner - 6 - East Pit | BEARING - | LATITUDE ~ 50,270 N | CORE SIZE NQ Wireline | LOGGED BY M.R. Thon
DATE COLLARED 03-May-89 | LENGTH 404' | LONGITUDE ~ 49,200 E | SCALE OF LOG 1"=10' | DATE May 16-18, 1989
DATE COMPLETED 04-May 89 | DIP -90° | ELEVATION ~3,843' | REMARKS

BOTTOM DEPTHS: LEACH CAP 230' | LIM. ZONE 245 | SUPERGENE 390

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
		Cased to 90'.		90			O.B.										
3.05	10									90		90					
		Normal Mine Phase - Quartz Diorite ~ 30% qtz ~ 20% chl. ~ 50% saussuritized plag med gr. 90 - 275'	ND to 70° V. WK.	100	45° 20° 45° 10°	1/8 hle hle 1/16	qtz-chl-gg-hem lim. lim qtz-ep	0%	lim + hem along fractures throughout Poor rec. some epid. segregation		35%	17% 100	43671	.04	.002		.01%
6.10	20																
			ND.	110	5° 20 20 26 x 4 70	hle 1/8 1/10 hle x 4 hle	lim - (MnO2) qtz-chl-ep-lim-sulp gg-lim lim x 4 hem-lim	0%		107'		30% 110	43672	.04	.002		.01%
9.14	30																
			ND	120	40 5 x 6 10 50 5°	1/8 hle x 6 1/4 hle 1/8	qtz-chl-lim lim - qtz (MnO2) x 6. qtz-chl-lim hem qtz-ep-gg-lim	0%	hem. stain.	117	90%	43% 120	43673	.12	.004	.07 3725	.01%
12.19	40																
			N.D.	130	50 25 60 20 x 2 10	1/20 hle 1/20 hle x 2 1/20	gg-lim gg-hem qtz-chl-lim. lim x 2 qtz-chl-ep-lim	0%	hem. stain.	127	88%	30% 130	43674	.06	.002		.01%
15.24	50																

GIBRALTAR MINES LIMITED

HOLE NO. 89-19
SHEET NO. 2 OF 6

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
			ND		80	hle	gg-hem.				97%						
					5°	hle	chloritic-sericitic gg										
					10	1/6	gtz-chl-ep-gg-hem.	0%	hem stain.			57%	43675	.03	.002		.01%
					60x2	hlexz	hem xz			137							
					30x3	hlex3	lim x3										
					5x2	hle	hem x2										
3.05	10			140	30	1/20	gtz-chl-lim					140	Note: Change				
					20	1/26	gg		hem. stain				in Sample # series				
			ND to 80° WK.		5°	1/8	gg-lim-gtz chl				99%						
					30	1/8	gtz-chl-ep-lim-(MnO_2)	0%				65%	43826	.05	.008		.01%
					20	1/20	gtz-chl-lim			147							
					80x2	hlexz	limxz										
6.10	20			150	30x3	hlex3	lim x3		lim. stain.			150					
					45x4	hlex4	limx4										
					20x2	hlexz	limxz				99%						
			ND		10	1/6	googy gtz-chl-lim-hm										
					30	1/10	gtz-chl-lim	0%				69%	43827	.10	.005		.01%
					60x2	hlexz	hemxz		Core is fresher now - more solid	157							
					45	hle	hem										
9.14	30			160	5°	hle	hem					160					
					30x2	1/20 x2	gg-limxz		- less googy alt^n								
					20	hle	lim		- much less lim + hem stain though still some on fractures		101%					.06	
			ND		5° x2	hlexz	gg-hem xz	0%				68%	43828	.06	.002	3680	.01%
					30°+15°	1/20 xz	gtz-ep xz			167							
					30°+20°	1/20 xz	gg-hem xz										
12.19	40			170								170					
					10x3	1/10 x3	gtz-chl-ep-vugs-limx3										
					45x3	hle x3	lim x3				111%						
			NP		10x2	1/10x2	gtz-chl-ep-limxz	0%				76%	43829	.05	.003		.01%
					45°	1/8	gtz-chl-gg-(hem)			177							
					6°	1/4	gtz-chl-lim										
15.24	50			180								180					
					10°	1/10	gtz-chl. vugs-(lim)										
					30	1	gtz-chl-ep				92%						
			ND		20	1/8	gtz-chl-lim	0%				72%	43830	.07	.004		.01%
					45x5	hlex5	hem x5			187							
					25	1/8	gtz-chl-lim										
18.29	60			190								190					

GIBRALTAR MINES LIMITED

HOLE NO. 89-19
SHEET NO. 3 OF 6

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation	GRAPHIC LOG: Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																			
			NP					20	1/4	qtz. chl- vugs · str. lim				93%						
								?	12"	Brecc core w/ lim-hem.										
								30	1/8	qtz. chl. <gg hem>	0%				48%	43831	.04	.003		.01%
								70	1/8	Qtz Vn. vugs-<chl>			197							
								20°	1/10	qtz- str. lim.										
3.05	10					200		20	1/16	qtz-chl-ep-lim					200					
								45°	1/8	Qtz Vn - vugs										
			N.D.					60°	1/8	qtz - chl - lim				88%						
								5°	hle	gg-lim-hem	0%				52%	43832	.11	.003	.07	.01%
								10°	2"	qtz- chl- lim - ep			207						3635	
								10°	hle	gg - lim										
6.10	20					210		20	2"	Qtz Vn - lim - vugs <(mal)>					210					
								20x3	1/20x3	lim x3										
			45-80°					45°	1	qtz. chl - ep - lim				88%						
			v WK.					45	1/8	qtz. chl-(lim - vugs)	0%		217		52%	43833	.10	.003		.01%
								20x2	1/16x2	qtz-chl. vugs-lim x2		<mal> noted.								
9.14	30					220		50	hke	lim - clay gg.					220					
								20° x2	1/10x2	qtz-chl. <lim> x2										
			60 V.wk					80°	1/20	qtz lim chl				78%						
			to					80 x9	1/16+(hlex3)	gg-<hem> x 9	0%		227		63%	43834	.07	.003		.01%
			N.D					20 x3	1/20 x3	gg- lim x 3										
12.19	40					230		30x2	1/20x2	qtz-chl-lim x2					230					
								70	1/10	qtz-chl-py-lim		1st sulphide,								
								88	1"	gg-rubble				95%						
			N.D.					45°	1"	Qtz Vn - lim.	.02%	str. lim.	237		61%	43835	.05	.004		.01%
								40	1/8	qtz-chl-ep-lim										
15.24	50					240		30	1/8	Qtz Vn. chl. vugs-lim					240					
								60x5	hle x 5	lim x5		chloritic fragment.								
								45° x5	hle x 5	lim x 5				88%						
			N. D.					45	12"	qtz. ser. py. lim <gg>										
			to					45x3	hle x 3	qtz. chl. tarnished cp. CC x3	.2%	cp here is tarnished.	247		33%	43836	.24	.010		.13%
			45°					10°	1/10	qtz-cl-vugs										
18.29	60		v. WK.			250		30°+50°	1/20 x 2	qtz-chl-ep-cp-<ccs-ba>					250					

GIBRALTAR MINES LIMITED

HOLE NO. 89-19
SHEET NO. 4 OF 6

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0	248-255' Dk Alt^n Zone w/ segregated chl tep. Aporrazzes a shear in places.	45-60° WK to Mod.	260	50 x 5	h/e x 5"	qtz. chl - tarnished cp-cc x5"										
					30 x2	1/20 x 2	qtz-chl. tarnished cp - cc x2				80%					.18	
					30 x 2	1/8 x 2	qtz-chl-vugs - <cp-cc) x2	.06%									
					16°	1	qtz Vn - mo										
3.05	10				5° x 4	1/8 (h/e x3)	qtz-chl-ep. tarnished cp-cc x4		qtz-chl-cp Vn cut by qtz-chl-cp Vn	257		47%	43837	.68	.015	3590	.18%
					45 x 4	1/10 x 4	qtz-chl-ep-py-cp-cc x4					260					
					60°	1/4	qtz-ser-py-<chl>										
			80-95° V. WK.		45°	1/20	qtz-chl-ser-py		-chloritic fragment.		98%						
					60 x 2	1/16 x 2	qtz-chl-ep-tarnished cp-cc x2										
					45°	1/10	qtz-chl-vugs-tarnished cp-(cc)	.3%									
					30	1	Shattered rock - gg		Broken, hem. stain.	267		30%	43838	.33	.002		.09%
					30 x 2	1/16 x 2	qtz-chl-py-cc - m x 2.										
6.10	20			270	5°	n/e	clay gg					270					
					45-30	12"	Badly brkn gougy qtz-chl-(ser) shear										
					45 x 2	1/20 x 2	qtz-chl-py-cc x2				92%						
			45° V. WK. to N.D.		30	1/10	Qtz Vn-chl. <native cu)	.1%									
		275-310' Seriate Textured QD. Qtz ~ 30-35%			20°	1/10	qtz-chl-cp-vugs-tarn. cp (nat cu?)			277		59%	43839	.35	.006		.09%
					10°	1/2	qtz-chl-ser-vugs-py-cp-cc										
9.14	30			280	10	1	Qtz Vn-vugs-chl-lim py-cc-(cuprite?)					280					
		fsps are euhed to sub-hed.			70	1/8	qtz-chl-cp-mag-(native cu)										
					30 x 2	1/8	qtz-chl-ep-<py-cc)										
					45 x 3	1/8 x 3	qtz-chl-<py-cp-cc) x3				103%						
			NP to 45° to 70° V. WK.		20°	1/8	qtz-chl-vugs-py-<cp-cc)										
					30°	1/8	qtz-ser-chl-py-lim-(cc)	.3%		287		77%	43840	.20	.001		.07%
					10°	1/10	qtz-chl-ser py										
					30 x 3	1/10 x 3	qtz-chl-vugs-py-cp-cc x3										
12.19	40			290	30°	1/10	qtz-chl-ser-py-<cc)					290					
					40°	1/8	qtz-chl-vugs-py-(tarn. cp-cc)										
					60	1/2	qtz-chl-<p. cc-py				105%						
					15°	1/8	qtz chl-vugs-py-(k tarn. cp))	.3%									
			ND		20	1	qtz vn-ser-vugs-py <tarn cp-cc)			297		93%	43841	.19	.001	.31	.09%
					30 x 2	1/20 x 2	qtz-chl-tarn. cp-cc x2									3545	
					30°	1/8	qtz-chl-py-cp-cc										
15.24	50	Qtz-chl-ser-Sh Shear		300	45	1/20	qtz-chl-py					300					
					30°	1/20	qtz. chl. py										
					80°	1	rubble-gg-lim										
					5°	1/10	qtz chl-ep-<tarn. cp)				104%						
			ND.		50 x 3	h/e x 3	lim x 3.	.1%		307		62%	43842	.27	.003		.06%
					5°	1/8	qtz-chl-ep-tarn cp-<cc-py)										
18.29	60			310	10°	1/20	qtz-chl-ser-py-cc					310					

GIBRALTAR MINES LIMITED

HOLE NO. 89-19
SHEET NO. 5 OF 6

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0	310 - 336' N.M.P.Q.D.	N.D.		20° LZ	hle x 2	hem x 2				103%						
					30°	1/10	qtz-chl-py-tarn cp-(cc)										
					30 x 3	1/10 x 3	qtz-chl-ser-py-(cc) x 3										
					20°	1/8	qtz-chl-py-cp-cc	.2%	trivial.	317		58%	43843	.20	.003		.11%
					45	1/8	qtz-chl-py-(cp-cc)										
3.05	10			320	30 x 2	1/8 x 2	qtz-chl-vugs-py-(cp-cc)		cp segregation			320					
					10 x 5°	1/20 x 3	qtz-chl-py-(tarn-cp-cc) x 5										
					10°	1/6	qtz vn-vugs-chl-py-(tarn-cp-cc)										
			N.D.		2	8 "	Brkn core				77%						
					80	1/2	qtz vn-py-(cc)										
					10	2"	qg-rubble-Co.	.3%		327		40%	43844	.29	.003		.18%
					5°	hle	hem-lim										
6.10	20			330	20°	1/2	qtz-chl-vugs-py-(cp-cc)					330					
					20 x 5	1/20 x 3	qtz-chl-py x 5										
			45°		30 x 10	1/16 x 10	qtz-chl-py-(cc) x 10										
			-80°		30	hle	qtz-chl-py-q	.3%			85%						
					30°	1/5	qtz vn-chl-vugs-py-tarn cp-cc-(cc)										
		336-342' qtz Ser. Shear/Leucocratic zone	Mod.		20 x 2	1/10 x 2	qtz-chl-py x 2			337		45%	43845	.28	.002		.10%
					5°	1/6	qtz-chl-py										
9.14	30			340	45 x 3	1/20 x 3	qtz-ser-py-cc x 3					340					
					60 x 2	hle x 2	qtz-ser-cp-cc										
					50 x 2	1/10 x 2	qtz-chl-tarn-cp-(py) yz										
		342-356 N M P Q D.	15-20°		20° x 2	1/8 + 1/16	qtz-chl-ser-py-tarn-cp-(cc) xz				83%			-28			
			Wk.		30°	1/16	qtz-chl-ser-py-cc	2%	345' to end of hole badly broken. Fault System.	347		26%	43846	.44	.001	3500	.19%
					45	1/10	qtz-chl-vugs-py-(cp-cc)										
12.19	40			350		5'	Broken core - (gg) - rubble					350					
					30 x 2	1/16 x 2	qtz-chl-ser-py x 2										
					5 x 2	hle x 2	hem-lim x 2				69%						
			N.D.		1	1	gg										
					10°	1/4	qtz-chl-py-tarn cp-cc	.2%		357		6%	43847	.35	.001		.10%
		356-404' Leucocratic Phase			10°	1/16	qtz vn-tarn cp-(cc-py)										
15.24	50			360	10°	1/2	qtz-chl-py-(cc)					360					
		~25% qtz. ~5% chl ~60% wh. tened play (sericite) - Med. grained, - subhedral to subhedral - hem. stain thru. out - badly broken			20°	1	qtz vn-(tarn cp-cc)										
					60	1	qtz-ser-chl-cp-py-cc		some shearing								
			45-60° Mod to NP		30°	1/20	qtz-ser-chl-py-cp				60%						
					10°	1	qtz-ser-cp-mo.	.2%		367		0%	43848	.48	.006		.20%
					10°	1/8	qtz-chl-ser-py-(cp-cc)										
18.29	60			370	45°	1	rubble-gg-lim.					370					

GIBRALTAR MINES LIMITED

HOLE NO. 89-19
SHEET NO. 6 OF 6

Meters	Feet	ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo		Estimated Grade
0.00	0																
			ND	380	5 x2 5° x2 1 51	1/20 x2 1/16 x2 rubble-fgg - lim-hem>	gtz-ser-chl-py-cp-cc-hem x2 gtz - chl-ser-cp-cc-<py> x2 FIt.	.1%		377	72%	28% 380	43849	.35	.003		.09% ?
3.05	10																
			N.D.	390	30 20° 5° 50 5°	1/10 lee 1/10 ?. 1/2 "?. 1	gtz-ser-py-<cp-cc> hem. qtz-py qtz vn-py-cp-cc) - rubble gg-hem. qtz vn. py-p-cc	.2%	Badly broken. hem stain	387	61%	10% 390	43850	.22	.004	.36 3455	.06? ?
6.10	20																
			ND	400	70 20 20 x2 15°	1/10 1/10 6" 1/8 1/10 x2 1/10	gtz-chl-cp gtz-chl-py-<cp> gg-rubble-hem. gtz-chl-cp gtz-chl-ser-py x2 gtz-chl-py-cp	.3%		397	65%	20% 400	43851	.22	.012		.19%
9.14	30																
			ND	404	5	1/20	gtz-ser-py	.1%		404	70%	4% 404	43852	.08	.001	.20	.03%
		E.O.H. @ 404'															
12.19	40																
15.24	50																
18.29	60																

GIB #8

GG #4

GG #8

GG #85

GG 85A FR

GG #6

45000 46000 47000 48000 49000

51000 50000 49000 48000

3590 3635 3545 3410 3365 3320 3275 3230 3185 3140 3095 3050 3005 2960 2915 2870 2825 2780 2735 2690 2645 2600 2555 2510 2465 2420 2375 2330 2285 2240 2195 2150 2105 2060 2015 1970 1925 1880 1835 1790 1745 1700 1655 1610 1565 1520 1475 1430 1385 1340 1295 1250 1205 1160 1115 1070 1025 980 935 890 845 800 755 710 665 620 575 530 485 440 395 350 305 260 215 170 125 80 35

0 2 4 6
FEET X 100

0 1 2
METERS X 100

GEOLOGICAL BRANCH
ASSESSMENT REPORT

18,829

Figure 3.
Drill Hole Location Map
June, 1989 1"=200'

Gib-East

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

EXPLORATION

Date ..... 6 JUNE ..., 19 89 ..

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2			
				89-18		
43951		.03	.003	340-350		
52		.04	.001			
53		.02	.001			
54		.06	<.001			
55		.04	.003			
56		.09	.007			
57		.06	.003	400-407		
				89-18		
43959		.08	.002	170-180		
				89-18		
43963		.05	.003	210-220		
64		.03	.003	230		
65		.03	.002	240		
66		.02	.001	250		
43969		.03	.003	270-280		
70		.11	.002			
71		.12	.002	-300		
43973		.10	.003	310-320		
43975		.07	.002	330-340		

cc: Assay Lab.

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

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

XPLORATION

Date ..... 6 JUNE ....., 19 89 .

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2			
				89-18		
43853	.04	.10	.196	112-120		
54	.04	.07	.047	130		
55	.02	.04	.008			
56	.02	.09	.004			
57	.01	.18	.003			
58	<.01	.16	.003	160-170		
43860	<.01	.10	.002	180-190		
61		.12	.002	200		
62		.09	.002	210		
43867		.04	.001	250-260		
68		.09	.001	270		
43872		.07	.001	300-310		
43874		.08	.002	320-330		

cc: Assay Lab.

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

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

EXPLORATION

Date .....5. JUNE..., 19.89.

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2		
43670		.18	.010	89-21 470 - 477'	
71		.04	.002	89-19 90 - 100'	
72		.04	.002	110	
73		.12	.004	120	
74		.06	.002	130	
75		.03	.002	140	
				89-19	
43826		.05	.008	140 - 150	
27		.10	.005	160	
28		.06	.002		
29		.05	.003		
30		.07	.004		
31		.04	.003		
32		.11	.003		
33		.10	.003		
34		.07	.003		
35		.05	.004		
36		.24	.010		
37		.68	.015		
38		.33	.002		
39		.35	.006		
40		.20	.001		
41		.19	.001		
42		.27	.003		
43		.20	.003		
44		.29	.003		
45		.28	.003		
46		.44	.001		
47		.35	.001		
48		.48	.006		
49		.35	.003		
50		.22	.004	290 - 300	

cc: Assay Lab.

Assayer .....

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

EXPLORATION

Date ..... 5. JUNE., 19. 89.

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	
				89-19
43851		.22	.012	390-400
52		.08	.001	400-409
				89-28
43896		.06	.001	250 - 260
97		.10	.002	
98		.22	.004	
99		.12	.005	
43900		.12	.003	
01		.10	.001	
02		.17	.004	
03		.11	.004	320-330
04				
43905		.16	.004	340-350
06		.13	.013	
07		.14	.004	
08		.14	.004	
09		.14	.003	
10		.14	.004	
11		.12	.003	
12		.14	.003	
13		.14	.003	
14		.12	.002	
15		.09	.002	
16		.14	.002	
17		.11	.001	
18		.09	.001	
19		.12	.003	
20		.09	.001	
21		.09	.002	
22		.08	.001	
23		.19	.002	520-530

cc: Assay Lab.

Assayer D.A.W.

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration

Date May 11, 19 89

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	89-17		
~~44181~~		.12	.001 —	390-405		
82		.24	.004 —			
83		.24	.017 —			
84		.29	.013 —			
85		.26	.062 —			
86		.22	.004 —			
87		.31	.004 —			
88		.16	.004 —	460-467		
45863-67	C.01	.34	.006			
45868-71	C.01	.25	.007			
45872-76	C.01	.21	.009			
45881-85	C.01	.39	.018			
45886-87	C.01	.27	.006			

cc: Assay Lab.

Assayer BB

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration

Date May 11 89

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	89-17
44153	.03	.05	.002	91 - 120
54	.04	.04	.001	120 - 130
55	.03	.06	.002	- 140
56	.06	.09	<.001	
57	.06	.09	.002	
58	.06	.09	.002	
59	.07	.09	.002	
60	.17	.26	.003	
61	.06	.09	.002	
62	.03	.09	.002	
63	.04	.06	.001	
64	.03	.07	.014	
65	.10	.20	.008	
66	.04	.07	.006	
67	.03	.05	.009	
68	.02	.21	.007	
69	.13	.55	.003	
70	.06	.39	.006	
71	.02	.25	.006	
72	.12	.61	.018	
73	.03	.31	.006	
74	.01	.17	.008	
75		.12	.002	
76		.12	.008	
77		.22	.015	
78		.20	.004	
79		.06	.004	
80		.11	.001	380 - 390

cc: Assay Lab.

Assayer JF

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

EXPLORATION

Date 20 APRIL, 19 89

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2		89-03	
78598		.04	.002	—	290-300	'
99		.01	.001	—		
78600		.01	.001	—		
01		.02	.001	—		
02		.04	<.001	—		
03		.03	.001	—		
04		.15	.002	—		
05		.04	.001	—		
06		.01	.001	—		
07		.02	<.001	—		
08		.07	.001	—	390-400	
09		.01	<.001	—	400-407	
10		.01	<.001	—	30-40	89-04
11		.02	.002	—		
12		.01	.001	—		
13		.07	.001	—		
14		.17	.001	—		
15		.16	.001	—		
16		.07	<.001	—		
17		.05	<.001	—		
18		.07	.001	—		
19		.02	<.001	—		
20		.03		—		
21		.02		—		
22		.01		—		
23		.02		—	(68)	
24		.02		—		
25		.05	<.001	—		
26		.07	.001	—		
27		.18	<.001	—		
28		.07	.001	—		
29		.04	.001	—		
30		.18	.001	—		
31		.04	.001	—	240-250	

cc: Assay Lab.

Assayer Connie

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration

Date Apr 19, 1989

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2		8902	
78547		.06	<.002	✓	270-280	
48		.06	<.002	—		
49		.06	.002	✓		
50		.02	.002	✓		
51		.08	.002	—		
52		.13	<.002	—		
53		.10	<.002	—		
54		.09	.002	—		
55		.12	<.002	—		
56		.13	<.002	—		
57		.05	.004	—		
58		.03	.002	—		
59		.15	.002	—		
60		.06	<.002	—	900-905	
					8903	
78575		.28	.002	—	62-70	
76		.31	.002	—		
77		.26	<.002	—		
78		.33	<.002	—		
79		.27	<.002	—		
80		.10	<.002	—		
81		.13	<.002	—		
82		.06	.002	—		
83		.09	.002	—		
84		.11	.002	—		
85		.11	.002	—		
86		.13	<.002	—		
87		.12	<.002	—		
88		.02	<.002	✓	190-200	

cc: Assay Lab.

Assayer

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration

Date Ap 19 89

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2		89-03
78589		.01	<.002	—	200-210
90		.01	<.002	—	
91		.06	<.002	—	
92		.03	<.002	—	
93		.06	<.002	—	
94		.12	<.002	—	
95		.10	<.002	—	
96		.09	<.002	—	
97		.14	<.002	—	280-290

cc: Assay Lab.

Assayer DD

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration

Date Apr 18, 19 89

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	89-02		
78526	.01	.02	.004	56-70'		
27	.06	.08	.002	80		
28	.02	.04	.005	90		
29	<.01	.03	.002			
30		.03	.001			
31		.03	.001			
32		.04	.004			
33		.03	.003			
34		.03	.001			
35		.01	.003			
36		.03	.003			
37		.02	.004			
38		.04	.001			
39		.01	.004			
40		.01	.002			
41		.02	.003			
42		.05	.004			
43		.04	.002			
44		.03	.004			
45		.02	.002			
46		.06	.003	260-270	21	

cc: Assay Lab.

Assayer .....

GIBRALTAR MINES LIMITED

PERMANENT PROPERTY AREA

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