DIAMOND DRILL REPORT

ON THE

SAWMILL ZONE

Cariboo Mining Division

93 B 8

(Latitude 52 30', Longitude 122 15')

OWNER AND OPERATOR

GIBRALTAR MINES LIMITED

McLEESE LAKE, B.C.

Author: G. D. Bysouth

Submitted: February 25, 1987

PRINCE GEORGE

FAME REPORT (M22) 15712

Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources

ASSESSMENT REPORT
TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S): DRILLING

TOTAL COST: 137,523.00

AUTHOR(S): G.D. Bysouth

SIGNATURE(S):

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED: Feb. 26/87

YEAR OF WORK: 1986

PROPERTY NAME(S): Gibraltar Mines

COMMODITIES PRESENT: Cu, Mo, Ag, Au

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN: 93B-12

MINING DIVISION: Cariboo

N.T.S.: 93B/9W

LATITUDE: 52°33'

LONGITUDE: 122°18'

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property (e.g. number of claims, 112 units) PHOENIX (Lot 1706, Mineral Lease M 123, Mining or Certified Mining Lease ML 12 (claim's two year...

Gib #4, #6, Hy 1, 4

OWNER(S)

(1) Gibraltar Mines Ltd (2)

MAILING ADDRESS

OPERATOR(S) (that is Company paying for the work)

(1) as above

MAILING ADDRESS

as above

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size and attitude):

Ore bodies occur within a quartz diorite phase of an intrusive pluton. Mineralization is chalcopyrite and molybdenite within veins and along foliation planes.

REFERENCES TO PREVIOUS WORK:

A.R. 15611, 12452, 10567

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	COST APPORTIONED
GEOLOGICAL (scale, area)			
Ground			
Photo			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for ....)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core DIAD	1000.0 m; 7 holes; NQ	Gib #4, #6, Hy 1, 4	137,523.00
Non-core			
RELATED TECHNICAL			
Sampling/assaying SAMP	653; Mo	" "	
Petrographic			
Mineralogic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY/PHYSICAL			
Legal surveys (scale, area)			
Topographic (scale, area)			
Photogrammetric (scale, area)			
Line/grid (kilometres)			
Road, local access (kilometres)			
Trench (metres)			
Underground (metres)			
		TOTAL COST	137,523.00

FOR MINISTRY USE ONLY	NAME OF PAC ACCOUNT	DEBIT	CREDIT	REMARKS:
Value work done (from report) 137,523.00				
Value of work approved				
Value claimed (from statement)				
Value credited to PAC account				
Value debited to PAC account				
Accepted Date Feb 23/88	Rept No. 15712			Information Class (2)

TABLE OF CONTENTS

1 INTRODUCTION

The Sawmill Group lies about 4.0 miles (6.44 km.) south of the Gibraltar Mines concentrator, along the southern flank of Granite Mountain at approximately the 3500-foot elevation. Access is via a network of old logging roads which link the property to the paved road leading to Gibraltar Mines. General location of the claims is shown in Figure 1.

The first claims of the Sawmill Group were staked in 1978 to cover a large I.P. anomaly and several older copper prospects. Of the prospects, the most important was the Iron Mountain property on which the first recorded work dates back to 1925. The chief focus of work for Gibraltar Mines was the I.P. anomaly which was located west of Iron Mountain over an area of very limited rock exposure. The anomaly had been outlined in 1967 and was attributed to a graphitic source rather than sulfide mineralization. Diamond drilling in 1979 by Gibraltar Mines however, revealed that extensive pyrite and chalcopyrite mineralization occurred within the I.P. zone, and by 1981, approximately 30 million tons of open pit inventory had been outlined, which graded at 0.28% total copper and 0.022% molybdenite. More diamond drilling and I.P. surveys followed from 1982 to 1985, but little change was made in the inventory. Most of the above work is covered in Minister of Mines Reports and assessment work reports. (See attached bibliography.)

This report covers a diamond drill program conducted in 1986 within the main area of mineralization. Eleven vertical N.Q. diamond drill holes, totalling 5,485-feet (1,673 meters) were completed. Drilling was done by J. T. Thomas Diamond Drilling Ltd. of Smithers, B.C. during the period August 15 to August 28, 1986. The whole core was assayed except for a two-inch segment per ten-foot section which was retained and stored at Gibraltar Mines for future reference.

2 MINERAL CLAIMS

The mineral claims of the Sawmill Group are shown in Figure 4 (in pocket). Information on these claims is tabulated below:

CLAIM NAME	RECORD NO.	NO. OF UNITS	ANNIVERSARY DATE
Tim 1	815	2	28 Aug 78
Cole 1	816	9	28 Aug 78
Geoff 1	1009	9	29 May 79
Ryan 1	1048	1	26 Jul 79
Aaron 1	1049	1	26 Jul 79

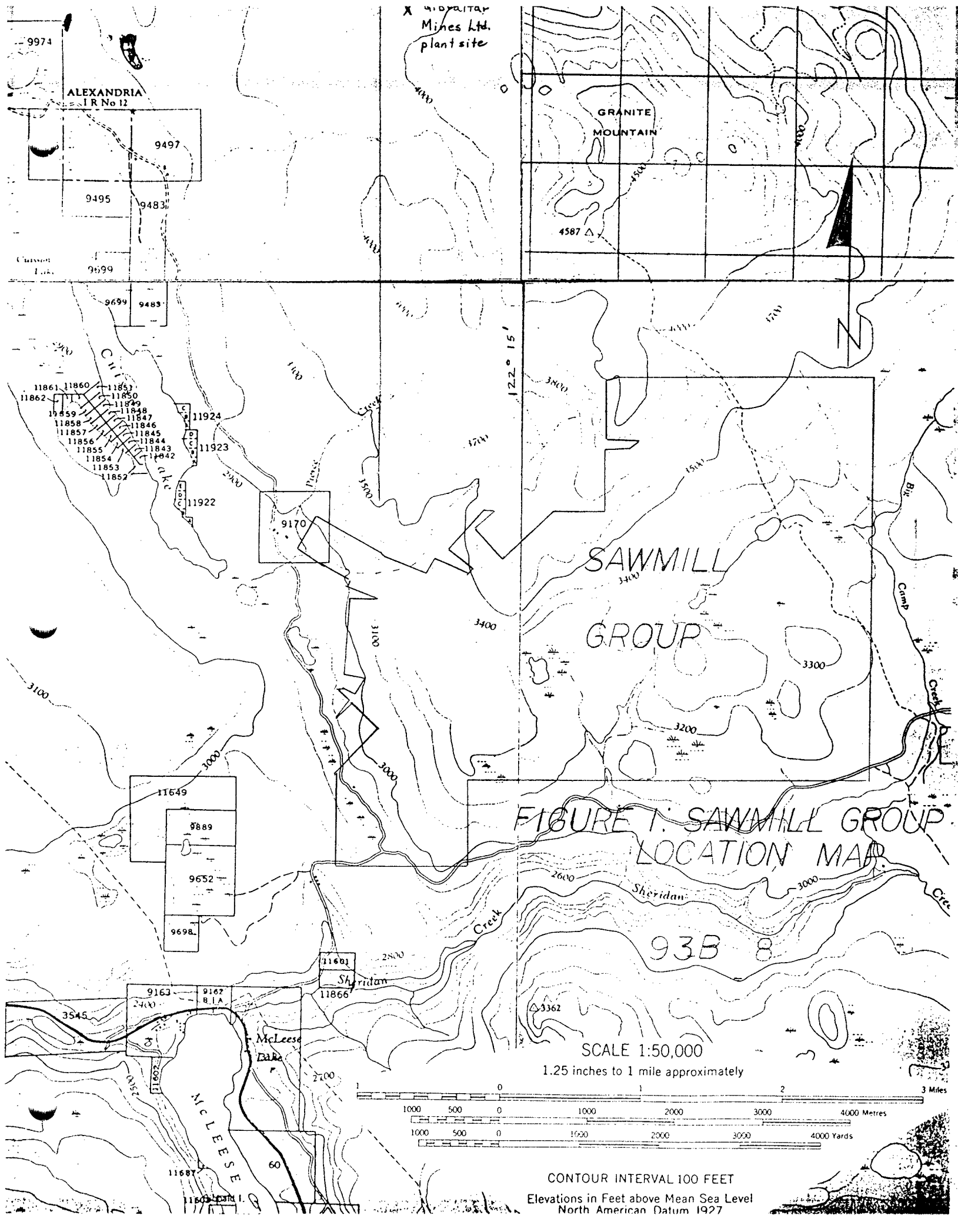


FIGURE 1: SAWMILL GROUP LOCATION MAP

Doug 1	1047	3	26 Jul 79
Brent 1	1330	6	14 Nov 79
Barb 1	1329	12	14 Nov 79
Janis 1	1331	3	14 Nov 79
Kate 1	3799	12	29 Jun 81
WD 1	3800	6	29 Jun 81
Bruce 1	3801	12	29 Jun 81
Paul 1	3802	12	29 Jun 81
Sheridan 1	4068	9	15 Sep 81

3 GEOLOGY

The Sawmill Group covers a broad contact zone formed between the Permian Cache Creek Group and the Upper Triassic Granite Mountain pluton. Within the claim area, the Cache Creek Group consists of volcanic flows, tuffs, breccia and sediments mainly of andesitic to dacitic composition, with minor interbeds of graphitic schist and impure limestone. These rocks have been regionally metamorphosed to the Greenschist Facies and have undergone a much higher grade of metamorphism along the contacts of the Granite Mountain pluton. The plutonic rocks underlying the Sawmill Group consist mainly of diorites of variable texture and composition which have been collectively referred to as the Border Phase Diorite. As the name implies, an assimilative origin is assumed for these rocks. The actual contact zone, which is about a mile wide, consists of a bewildering array of dioritic rocks and recrystallized andesitic and dacitic rocks of the Cache Creek Group, all having a similar composition and texture. To add to this complexity, two other plutonic rock types have been recognized along the northwestern side of the claim group. One is a white quartz porphyry which has been interpreted to be a hypabyssal intrusion related to some period of acidic vulcanism. It forms a small body along the northeast side of the Sawmill ore zone, and also occurs as small dykes scattered throughout the property. The other is a quartz diorite which forms a large body along the northern edge of the deposit. It is correlative with the Mine Phase Quartz diorite which is the host rock for the Gibraltar ore body, and is of particular interest because it is closely associated with the best grade mineralization of the Sawmill ore zone.

A large pyrite zone has been outlined within the Sawmill Group. It covers all rock types but appears strongest along the Cache Creek side of the contact. Chalcopyrite and molybdenite

occur throughout the pyrite zone and in a general way the copper and molybdenite grades increase as pyrite concentrations decrease. In the Sawmill ore zone, which is located along the northwestern edge of the pyrite zone, the best grade ore occurs when the pyrite concentrations decrease to below three percent. This figure is taken as the boundaries of the pyrite zone.

The ore and gangue mineralogy of the Sawmill ore zone is very similar to that of the Gibraltar deposits. Pyrite, chalcopyrite and molybdenite occur in veins and shears accompanied by various combinations and concentrations of quartz, chlorite, carbonate, sericite and epidote. There is however, one ore type not found at Gibraltar. This has been referred to as a quartz-gypsum zone which is characterized by gypsum veins and often strong chalcopyrite mineralization accompanied by minor bornite. Pyrite is invariably weak or absent, and the zone is interpreted to represent the extreme low sulfide end of the pyrite-chalcopyrite zoning system.

Structural controls have not yet been worked out for the Sawmill ore zone. Much of the ore is confined to westerly and northwesterly striking shear zones which dip southerly, but the gross configuration of rock units and ore types also suggest fold structures have been operative. In a general way, the ore zone lies along the contact formed between the Mine Phase Quartz Diorite and the older rocks. The ore is not confined to any one rock type but is best developed in the Mine Phase and weakest in the Quartz Porphyry.

The Sawmill ore zone is cut off towards the northwest by a large fault system which has been referred to as the West Boundary Fault. This fault is considered to be a wide complex north trending system with numerous individual zones separating wedges and blocks of displaced rock.

4 DRILL PROGRAM

4.1 Objectives

1. Drill holes 86-21 and 86-22 were located to test the grade of a possible massive sulfide zone situated within the ore body.

2. Drill holes 86-23 to 86-29 were located to determine the westward extent of the outlined ore.

3. Drill holes 86-30 to 86-31 were located to define the northern boundary of the ore.

4.2 Results

The drill hole locations are shown in Figure 2. An outline of the Sawmill ore zone is shown in Figure 3. All copper values reported here and in the logs are for total copper. All pyrite concentrations are visual estimates. An outline of pertinent results is provided in the following table and descriptions.

Hole No.	Collar Elev.	Depth	Casing	Ore Intersection From	To	Width	%TCu	%MoS2
86-21	2914'	507'	40'	300	507	207	.22	.013
86-22	2982'	504'	61'	100	180	80	.26	.003
				340	504	164	.31	.013
86-23	2898'	506'	85'	280	350	70	.25	.022
				400	506	106	.37	.022
86-24	2962'	597'	80'	80	140	60	.21	.010
86-25	2958'	507'	47'					
86-26	2903'	507'	66'	66	290	224	.37	.020
86-27	2895'	351'	131'					
86-28	2896'	503'	125'	440	503	63	.28	.010
86-29	2915'	501'	54'	300	430	130	.29	.020
86-30	2972'	497'	30'					
86-31	3001'	507'	65'	65	90	25	.60	.013

Drill hole 86-21 was confined entirely to metavolcanic rocks of the Cache Creek Group. The top of the pyrite zone was intersected at 90-feet and the bottom at 470-feet. The best grade ore occurred below the pyrite zone.

Drill hole 86-22 went through the same sequence of metavolcanic rocks but intersected the Mine Phase Quartz Diorite at 375-feet. The pyrite zone was encountered from the rock surface to 370-feet. The best copper grades were again located below the pyrite zone but in this case in a quartz Diorite host rock.

Drill hole 86-23 was in metavolcanic rocks of the Cache Creek Group down to 112-feet. From 112-feet to 265-feet it went through the West Boundary Fault Zone and into Mine Phase Quartz Diorite. From the base of the fault at 265 feet to the end of the hole at 506-feet, the quartz diorite showed the typical

quartz-gypsum mineral assemblage; that is, low pyrite, abundant chalcopyrite, minor bornite, strong quartz veining and abundant gypsum veins.

Drill hole 86-24 was confined to the pyrite zone but, except for 20-feet of oxide ore, did not indicate any significant ore grade rock. Quartz Diorite was encountered down to 300-feet and then a Border Phase Diorite to the end of the hole.

Drill hole 86-25 also intercepted barren pyrite mineralization. The hole was confined entirely to Border Phase Diorite which had been cut by numerous quartz-sericite-carbonate and quartz-chlorite-carbonate shear zones.

Hole 86-26 went through the West Boundary Fault Zone down to 91-feet and into the Mine Phase Quartz Diorite from 91-feet to the end of the hole. Strong chalcopyrite mineralization was intercepted down to 290-feet. A pyrite zone was encountered from 230- to 320-feet.

Hole 86-27 also went through the West Boundary Fault Zone and into the Mine Phase Quartz Diorite at 289-feet. Unfortunately, the hole was abandoned at 351-feet just as the quartz-gypsum zone was being intersected.

Hole 86-28 passed through a sequence of Cache Creek Group rocks, including limestone, and into the West Boundary Fault Zone from 390-feet to 468-feet. From 468-feet to the end of the hole at 503-feet, an ore-bearing quartz-gypsum zone was intersected in a Mine Phase host rock.

Hole 86-29 was confined entirely to Mine Phase Quartz Diorite. Two pyrite zones were encountered: one at 160- to 300-feet and the other at 410- to 503-feet. The ore zone was found between the two pyrite zones at 300- to 430 feet.

Hole 86-30 encountered quartz porphyry down to 405-feet and Cache Creek metavolcanics from 405-feet to the end of the hole at 497-feet. Chalcopyrite and molybdenite mineralization was noted throughout the hole but no significant ore grade sections were found.

Hole 86-31 encountered a fine grained diorite, or quartz diorite, down to 91-feet and Border Phase Diorite for the remainder of the hole. The fine grained rock is of particular interest since it contains the only ore grade mineralization found in the hole, and it may represent the outer "chilled" margin of the Mine Phase Pluton.

Oxide and supergene effects appeared negligible in most of the holes. Some supergene enrichment was noted in the upper ore zone of hole 86-22. The near surface ore grade zones found in 86-24 and 86-31 were due to oxide and supergene enrichment.

4.3 Interpretation

The 1986 diamond drill program has confirmed the basic geological model but has changed the previously projected ore configuration. Drill holes 86-21 and 86-22 both indicate an ore zone underlies the pyrite zone and hole 86-22 also indicates the Mine Phase Quartz Diorite lies beneath the pyrite zone. This supports original geological projections for the southern and southeastern side of the ore body which involves a south dipping pyrite zone and underlying ore zone being controlled by the south dipping Mine Phase contact. These holes, however, did not intersect the projected massive sulfide zone which may indicate it has a much steeper dip than originally predicted. Drill holes 86-30, 86-31, 86-24 and 86-25, along with earlier holes, define the north eastern boundary of the deposit, which now appears as a sharp, relatively straight, northwest trending ore cut-off. This interpretation negates some earlier northward ore projections. Drill hole 86-29 also removes some tonnage from the original inventory; this hole is particularly disappointing because it suggests a large area of waste lies between the main ore body and the northwest extension. Drill holes 86-23, 86-26, 86-27 and 86-28, serve to define and enlarge the northwest ore extension, which was discovered last year by hole 85-76. The new ore addition now appears to be about 1,000-feet long and 300-feet thick, with a northwest strike and 40- to 50-degrees southerly dip. The gain in tonnage here would more than compensate for losses experienced elsewhere in the ore body. These holes also delineate the West Boundary Fault Zone and indicate the ore body is cut off by the fault with a possibly large displacement. That is, no indication of the ore body has been found along the west side of the fault zone, neither in this program nor in previous drilling. The fault may be complex with numerous individual zones separating wedges of displaced rock. That part of the fault zone cutting off the ore body has a strike of 350-degrees and a dip of 40-degrees westerly.

5 STATEMENT OF EXPENDITURES

August, 1986 Diamond Drilling, Sawmill Group.

(a) Drilling Costs

Direct Footage Charges:

86-21	506'	@ $13.25/foot =	$ 6,704.50
86-22	504'	@ $13.25/foot =	$ 6,678.00
86-23	506'	@ $13.25/foot =	$ 6,704.50
86-24	597'	@ $13.25/foot =	$ 7,910.25
86-25	507'	@ $13.25/foot =	$ 6,717.75
86-26	507'	@ $13.25/foot =	$ 6,717.75
86-27	351'	@ $13.25/foot =	$ 4,650.75
86-28	503'	@ $13.25/foot =	$ 6,664.75
86-29	500'	@ $13.25/foot =	$ 6,625.00
86-30	497'	@ $13.25/foot =	$ 6,585.25
86-31	507'	@ $13.25/foot =	$ 6,717.75
	5,485'		$72,676.25

Machine Hours
Cat Hours: 12.5 hrs. @ $40.00 = 500.00

Materials Lost
3 NQ Bit @ $508.00 = 1,524.00
Total Drilling Costs $74,700.25

(b) Site Preparation
Aug 15 TD20C 7 hr. @ $80.25 = 561.75
Aug 15 Lowbed 7 hr. @ $60.00 = 420.00 $ 981.75

(c) Vehicle Costs
Rental 4x4, 1986 Pick-up
Aug 14-29 6 days @ $35.40 $ 212.40

(d) Assay Costs
447 Cu - MoS2 assays @ $4.40/assay $ 1,966.80

(e) Supplies
Core boxes: 242 boxes @ $6.00 = 1,452.00
Bags,tags,etc. = 145.00 $ 1,597.00

e) Personnel Costs

Core Logging, Sample Preparation, Interpretation

G. D. Bysouth

Aug 20-22	16 hrs.
Aug 26	4 hrs.
Sep 08-09	16 hrs.
Sep 12-16	24 hrs.
Oct 27-31	40 hrs.
Nov 04-05	16 hrs.

Nov 14	8 hrs.		
Nov 17-19	20 hrs.		
Nov 26-27	16 hrs.		
Dec 01-02	16 hrs.		
Feb 11-13/87	24 hrs.		
	200 hrs.	@ $31.00/hr.=	$6,200.00

Field Work and Sample Preparation

E. M. Oliver			
Aug 14	2 hrs.		
Aug 20-22	10 hrs.		
Aug 25-29	16 hrs.		
Oct 6	2 hrs.		
	30 hrs.	@ $19.64/hr.=	589.20
G. Warren			
Aug 15	8 hrs.		
Aug 18-22	19 hrs.		
Aug 26-29	12 hrs.		
	39 hrs.	@ $14.29/hr.=	557.31
B. Locke			
Sep 03	4 hrs.		
Oct 06	2 hrs.		
Oct 27-31	40 hrs.		
Nov 04-05	16 hrs.		
	62 hrs.	@ $14.29/hr.=	885.98

Total Personnel Charges	$ 8,232.49
TOTAL COST	$87,690.69

6 CONCLUSIONS

Although some additional reserves have been outlined, this drill program has not substantially changed the mining feasibility of the Sawmill Zone. It remains at this date, a sub-economic ore deposit.

More drilling is required west of the West Boundary Fault Zone to search for the displaced portion of the Sawmill Zone.

Submitted by: G. D. Bysouth

G. D. Bysouth
Senior Geologist

7 BIBLIOGRAPHY

1. B.C. Minister of Mines Annual Reports
   - 1925, pp. 156
   - 1956, pp. 33
   - 1957, pp. 16
   - 1972, pp. 135

2. Assessment Reports - Gibraltar Mines Ltd., Cariboo Mining Division

   (1) Bysouth, G. D., Diamond Drill Report on the Cole Claim, August 1979.

   (2) Bysouth, G. D., Diamond Drill Report on the Cole Claim, April, 1980.

   (3) Bysouth, G. D., Diamond Drill Report on the Ross Group, November, 1980.

   (4) Walcott and Associates Limited, A Report on an Induced Polarization Survey, Sawmill Claims, February, 1982.

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

Garry D. Bysouth

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
gyp	gypsum
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

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-21
SHEET No. 1 of 9

LOCATION SAWMILL ZONE | BEARING - | LATITUDE ~32,276.00 N | CORE SIZE N.Q.W. | LOGGED BY G.D.B
DATE COLLARED 15-Aug-86 | LENGTH 507' | DEPARTURE ~48,757.00 E | SCALE OF LOG 1" = 10' | DATE Nov. 4, 1986
DATE COMPLETED 16-Aug-86 | DIP -90° | ELEVATION ~ 2919.00 | REMARKS Bottom of the pyrite zone occurs @ 470'
Quartz Diorite Contact not intersected

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

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	REMARKS	Footage Blasts.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
Casing To 40			40								40							
META VOLCANIC UNIT (40'-130') This is interpreted to be a recrystallized sequence of volcanic rx.s, chiefly of dacite and andesitic comp.	45 Mod		50	35+45 / 50	1/10 x2 / 1/5		carb-py x2 / qtz-tour.		0.5		42 45 47 48	40 90 90 95 70	13	96051	.09	<.002	.09 2870	.05
- a typical type is a fine grn. med. grey equigranular rx consisting mainly of chl and sauss. py - avg. grn size is 1/20" - interbedded with this rx are	45 Mod		60				highly broken core		0.5		51 54 55 58 60	55 90 30 40	3	96052	.06	.002		.05
2-10' zones of pale greyish green siliceous zones (acid - dacitic tuff?) and dk green chloritic zones (basalt?) it should be noted that this rx is quite common along the			70	6n 30x3 50x2	10" 1/20 x3 1/10 x2		chl-py (cp) zone chl-carb-py chl-carb-py (cp) x2		1.5		66	45	7	96053	.08	.002		.08
Southern part of the Sawmill Zone in most respects, it resembles a fine grn diorite			80	35-60 x 7 25 60 60 60 70x2 65	1/10-1/20 x7 1/2 1/2 1/2 1/2 6"-3" 1/8		chl-py (cp) x7 chl-carb-py (cp) ser-qtz-py chl-carb-py chl-carb-py qtz-py-cl (vug) chl-carb-py		1.5		75	90	33	96054	.10	<.002		.10

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-21
SHEET No. 2 of 9

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

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	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
- py is disseminated throughout this unit - only the larger, more distinct veins are reported - some of the veins appear to be breccia fillings rather than true veins (ie. angular changes in direction as if around large rx fragm's)	ND		90	5-15 x 5 45 50+30+60 90 20+30+60 25 60	1/20 x 5 1/8 1/20-1/10 x 3 1/4 1/10-1/8 x 3 1/3 1/4 1/2	chl-py x 5 chl-py chl-carb-py qtz-carb-py chl-carb-py x 2 qtz-chl-carb-py qtz-chl-carb-py	0 10 20 30 40 50 60 70 80 90	1.5		85 98	100	53	96055	.08	.002	.08 2825	.10
	ND		100	80 90? 60 35 x 10 45+50+35 x 2	1/2 1" 12" 1/20-1/10 1/10-1/20 x 4	qtz-carb-py (cp) qtz-carb-py (cp) qtz-ser-carb-chl-py (cp) chl-carb-py (cp) x 10 chl-carb-py (cp) x 4	0 10 20 30 40 50 60 70 80 90	3.0		92 97	95	53	96056	.12	<.002		.14
	ND		110	5 20-30 x 4 45+40 30 10 60+40	1/20 1/20-1/10 x 4 1/10 x 2 1/2 1/8 1/4+1/8	chl-py chl-carb-py x 4 chl-py (cp) x 2 ser-chl-py qtz-cp chl-carb-py	0 10 20 30 40 50 60 70 80 90	2.5		107	100	50	96057	.13	<.002		.10
	ND.		120	60+35 40 5? 35 40	1/10 x 2 1/8 1/2 1' 1/8 2"	chl-py x 2 chl-carb-py (cp) chl-carb-py (cp) zone of broken and lost core chl-carb-py chl-qtz-py	0 10 20 30 40 50 60 70 80 90	2.0		113 117 120	90 50 85	10	96058	.07	.002		.12
130	ND		130	20+30 50+60 5 60 20 60 5+40+30	1/20 x 2 2' 1/4 x 2 1/2 1/2 1 1/2' 1/2-1/3 x 3	chl-carb-py x 2 zone of broken core qtz-carb x 2 chl-py (cp) qtz-chl-carb-py (cp) qtz-carb-py qtz-carb-py chl-py x 3	0 10 20 30 40 50 60 70 80 90	6.0		122 126	40 95	40	96059	.08	.002		.10
META ANDESITE UNIT (130-206') mainly a dk green fine to med grn (1/20-1/10") dioritic rx consisting of ±	45 WK		140	25 x 2 40 + 5 + 90 15 x 2 30+40 35 40+80	1/10 x 2 1/8 + 1/10 + 1/3 1/3 x 2 1/8 x 2 1/8 1/10 x 2	chl-py x 2 chl-carb-py x 3 chl-carb-py (cp) x 2 chl-carb-py x 2 chl-carb-py (cp) chl-carb-py x 2	0 10 20 30 40 50 60 70 80 90	4.0		136	95	40	96060	.12	.002	.10 2780	.12

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-21
SHEET No. 3 of 9

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
~ 20% ep as ragged clots upto 1/3" dia ~ 30% chl ~ 40% saus plag ~ 10% interstitual qtz	ND		150	10 x 3 20 x 2 10 x 2 3 x 2 10 x 2 5-10 x 4	1/10 x 3 1/3 - 1/4 1/10 x 1/2 1/4 + 1/8 1/10 x 1/4 1/20 - 1/10 x 4	chl-carb-py (cp) x 3 qtz x 2 chl-carb-py (cp) x ~ chl-carb-py (cp) x 2 chl-carb-py (cp) x 2 chl-carb-py x 4	0 10 20 30 40 50 60 70 80 90	3.5		147	95	47	96061	.09	.002		.10
- grn size and texir are variable but much of the rx grades to a typical Border Phase Diorite.	ND		160	5 60 40 x 3 5 38 x 2 30 20 25 x 2	1/10 1/4 1/10 x 3 1/2 1/10 x 2 6' 1/10 1/10 x 2	chl-py (cp) chl-ep-py chl-py x 3 qtz-py (cp) chl-py x 2 qtz-ser-py chl-py chl-py x 2	0 10 20 30 40 50 60 70 80 90	4.5		157	90	77	96062	.07	.004		.08
	ND		170	25 x 2 70 45 50 45 + 40 40 + 10 + 5 10 20 15 stkwks	1/10 x 2 1/2 1/10 10" 1/10 x 2 1/8 + 1/10 x 2 1/2 1/2 1/4 1/2" zone	chl-py x 2 ep-py (cp) chl-py (cp) qtz-chl-py (cp) 3 one qtz-chl-py (cp) x 2 chl-py (cp) x 3 chl-py ser-py chl-py chl-py	0 10 20 30 40 50 60 70 80 90	5.5		167	95	80	96063	.12	.002		.14
quartz porp.	ND		180	15 + 45 70 x 2 20 85 x 2 30-35 x 2 + 20 x 4 40 x 2 10 x 3 60	1/8 x 2 1/10 x 2 1/8 1/8 + 1/10 1/8 - 1/10 x 2 + 1/8 x 4 1/10 x 2 1/10 x 3 8"	qtz-chl-py x 2 chl-carb-py (cp) x 2 qtz-py-cp qtz-chl-py (cp) qtz-chl-py x 6 chl-py-cp x 2 chl-py x 3 qtz-chl-ep-py (cp) zone	0 10 20 30 40 50 60 70 80 90	5.0		177	98	80	96064	.09	.002	.10 2735	.16
	ND		190	10 + 20 + 40 20 20 15 60 + 15 10 15	1/10 x 2 + 1/10 1/3 1" 1" 1/4 + 1/8 1/8 1/3	chl-carb-py (cp) x 3 qtz-chl-carb-py qtz-ser-py qtz-ser-py chl-ser-py (cp) x 2 qtz-chl-py qtz-chl-py	0 10 20 30 40 50 60 70 80 90	5.0		185	95	40	96065	.07	.004		.12
	ND		200	40 30 + 50 80 x 2 90 15 x 3	1/4 1/10 x 2 1/8 + 1/10 1/4 1/10 x 3	qtz-chl-py (cp) qtz-chl-py x 2 ep-py x 2 ep-py (cp) py-chl x 3	0 10 20 30 40 50 60 70 80 90	2.0		195	95	73	96066	.12	.006		.08

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-21
SHEET No. 4 of 9

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	Core Recovery %	Sample Number	% Cu	% Mo		Estimated Grade
BRECCIA UNIT (200' – 279') -this is a complex unit which may be a sheared and res. volcanic conglomerate, or a volcanic	98	96067	.12	.002		.12
polymictic breccia. in part, it is the typical ep-chl-bx found in other holes, consisting of ragged ep clots up to 1" dia in a swirled chl. matrix but also contains	60	96068	.14	.002		.10
rounded Q.F.P. frags., and rounded diorite frags up to 6" dia. plus other vx frags (ie qt$_3$ pebbles)	85	96069	.13	.004	.11 2690	.14
	98	96070	.12	.004		.12
	90	96071	.12	.004		.14
	95	96072	.12	.004		.15

Footage	Alteration	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	Fracture Angle to Core Axis – Frequency –	Estimated % Pyrite	Footage Discr.
210	ND	35 30 15 50 45 45	⅓ 1/10 ⅓ ¼ ⅓ 16°	chl-ser-py chl-py qt$_3$-carb-py(cp) qt$_3$-chl-py chl-carb-qt$_3$-py-cp qt$_3$-chl-py		2.0	205
220	ND	20×2 30×2 5 30+20 45 90×3	⅓×2 1/20×2 ¼ ¼-1/10 ¾ 1/10×3	chl-carb-py(cp)×2 chl-py ×2 qt$_3$-carb-py(cp) qt$_3$-chl-py×2 qt$_3$-py qt$_3$-chl-py×2		3.0	211 215
230	ND	45 45+90+30 50 45 30 90+30	1" 1/10×2 ½ ½ 1" 1/10×2	qt$_3$-py qt$_3$-chl-py×3 qt$_3$-ser-py qt$_3$-chl-ser-py(cp) qt$_3$-chl-carb-py(cp) qt$_3$-chl-py(cp)×2		3.0	225
240	ND	70 50×2+40 40 40 90×2+10 30+50+40 45+40	1/8 1/10×2 1" 1/10 1/10×2 1/8×3 1/10×2	qt$_3$-chl-py qt$_3$-chl-py×2 qt$_3$-py(cp) qt$_3$-chl-py qt$_3$-chl-py qt$_3$-chl-py(cp)×3 qt$_3$-chl-py×2		3.0	235
250	ND.	30+45+60×4 90×2 35 20+40 40 35+10 90	1/10-1/8×6 1/10×2 1/10 1/3+1/10 ¼ 2"+½ ⅛	chl-carb-py(cp) chl-carb-py×2 chl-py qt$_3$-chl-carb-py(cp)×2 qt$_3$-chl-py(cp) chl-ser-carb-py(cp)×2 qt$_3$-chl-py(cp)		3.5	245
260	ND	90 10+15 10+50+2 10×2 45+35+20 45 30+40	⅛ ⅓+½ ⅓+1/10×2 1/10×2 ⅛×3 1/10 1/10×2	qt$_3$-chl-ser-py qt$_3$-chl-carb-py(cp) + qt$_3$-py(cp) qt$_3$-chl-py(cp) ×3 qt$_3$-chl-py(cp)×2 qt$_3$-chl-py(cp)×2 qt$_3$-chl-py(cp) qt$_3$-chl-py	vuggy core	6.0	251 257

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-21
SHEET No. 5 of 9

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

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	REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	ND		270		20 40 90 80 20+50	1/8 1/4 2" 1" 1/4 x 2	chl-ser-py chl-ser-py qtz ep-py chl-carb-py (cp) x2		3.0		261 267	90	40	96073	.14	.004	.13 26.45	.12
279	80 Mod		280		10 60 60x2+30x2 10 45x3 90	1/8 1/4 1/16 x 4 1/2 1/16 x 3 1/4	qtz-chl-py qtz-carb-chl-py qtz-chl-py x 4 qtz-carb-py chl-carb-py (cp) x 3 chl-carb-py		2.5		277	98	37	96074	.20	.006		.10
	70 str.	BANDED QUARTZ SER.-CHL.-CARB. ZONE (279'-309') bands and laminae of qtz-carb up to 1/2" thick in a finely laminated background of ser-chl-carb-qtz ; this may be a meta. finely banded tuff of dacite to rhyolite composition. - carb. is brown weathering	290		70-80	12'	qtz-carb-chl (py)(cp) 3one (cp-py dissem along folo planes and as massive clots within qtz-carb veins)		4.5	highly broken gg' zone but no def. fault	284 287	90 100	3	96075	.14	.007		.16
	80 str.		300		80	10'	qtz-carb-chl-ser (py)((cp)) 3on< (cp-py as above)		4.0		297	95	27	96076	.13	.005		.12
	80 str.	grades to a ep-chl lst.	310		80 50 x 2	9' 1/3 x 2	chl-carb-ep (py)(cp) chl-ser-carb-py x 2		3.5		307	95	33	96077	.30	.013		.18
	80 s/x	META ANDESITE UNIT (309'-332') Same as 130'-200'	320		45x3 60x2+30 50x4 60+30+45 30 40 30-40 x 5 60+20	1/10 x 3 1/10 x 3 1/10 x 4 1/8-1/10 x 3 1/4 1/2 1/10 x 5 1/2 x 2	qtz-chl-py-cp x 3 qtz-chl-py (cp) x 3 qtz-chl-py x 4 qtz-chl-py x 2 chl-carb-py qtz-chl-carb-py qtz-chl-py x 5 qtz-chl-carb-py (cp) x 2		5.0		317	95	70	96078	.17	.009	.19 2.600	.14

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-21
SHEET No. 6 of 9

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
	ND		330		10 +30+2 60 60+35+30 20-30×6 25 20-30×5	1/2 + 1/4 + 1/8 3" 1/4 + 1/10×2 1/20-1/8×6 1/3 1/10-1/8×5	qtz-chl-py(cp) ×3 qtz-chl-py(cp) qtz-chl-py(cp) ×7 qtz-chl-py ×6 chl-ep-py(cp) qtz-chl-py(cp)×5		4.5		327	98	53	96079	.17	.005		.14
333'					30+35 20 5+20	1/10×2 4" 1/10×2	qtz-chl-py×2 qtz(chl)-py qtz-chl-py×2											
CHL-EP. BRECCIA (333'-383') rounded to angular clots of cp up to 1½" dia in a chl. rich matrix - in places this is a dioritic matrix - fairly typical rx. type.	ND		340		35 20×2 30×2 25×6 60	1/8 1/10×2 1/10×2 1/10×6 1/10	qtz-chl-py qtz-ep-py(cp) qtz-chl-py×2 qtz-chl-py(cp)×6 qtz-chl-py		4.0		327	98	50	96080	.15	.004		.10
	ND		350		20×2 30×2 5+50 10+30 90?	1/10×2 1/10×2 1/8×2 1/3+1/4 1/4	qtz-chl-py×2 qtz-chl-py×2 chl-carb-py(cp)×2 qtz-chl-py(cp)×2 chl-ep-py(cp)		3.5		347	95	53	96081	.31	.029		.14
	ND		360		10-30×10 50 40 30+40 5+45 10×2 45 25	1/10-1/8×10 1/3 1/8 1/3+1/4 1/6+1/4 1/3-1/8×2 1/4 1/3	qtz-chl-py×10 qtz-chl-py(cp) qtz-Mo qtz-Mo qtz-chl-py×2 qtz-chl-py×2 qtz-chl-py chl-carb-py(cp)	vuggy Mo-rich section	4.0		357	95	76	96082	.29	.038	.23 2555	.18
	ND		370		80 60+70 40 40+35×2 5×2 30+10+40 80+90 35×2 20+15+50	1/2 1/2+1/6 1" 1/4+1/10×2 1/3×2 1/3×2 1/3×2 1/4×2 1"+1/3	qtz-carb-chl-py-cp qtz-carb-py×2 chl-carb(py)(cp) zone chl-carb-py(cp)×3 qtz-carb-cp-py×2 qtz-carb-py-cp×3 qtz-carb-py-cp×2 qtz-chl-carb-py(cp)×2 qtz-chl-carb-py(cp)×3		5.0		367	95	73	96083	.22	.018		.22
	ND		380		5+45×4 45 35 15 45×5 ? 10 45	1/10×5 1/10 3" 1/2 1/3+1/10×4 3" 1/4 1/4	qtz-chl-py(cp)×5 qtz-chl-py(cp) qtz(chl)-py qtz(chl)-py qtz-chl-py(cp)×3 mag-py nodule? qtz-carb-py chl-carb-py		5.0		377	98	87	96084	.17	.008		.14

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-21
SHEET No. 7 of 9

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
388					80+60	½	qt3-py											
META ANDESITE UNIT (383'-507')	ND				30	¼	qt3-chl-py x2											
same as 130'-200'					40	¼	qt3-chl-py		3.5			95	57	96085	.08	.004		.12
			390		45	¼	qt3-py (cp)				387							
					40 x 3	⅛ x 3	qt3-chl-py x 3											
					60	⅓	qt3-carb-chl-py											
					20	⅒	qt3-chl-py											
					45	¼	carb-chl-py-(cp)											
					10	½	carb-chl-py (ccp))											
					45	¼	ep-py (cp)											
					30+40x2	⅒ x 2	carb-chl-py					95						
	ND				10+40x2	⅛+¼+⅒	qt3-chl-ep-py x 3		4.5		397		30	96086	.12	.003		10
					30	⅓	qt3-chl-ep-py											
			400															
					10	1"	qt3-py (Mo)											
					5 x 3	½ + ⅛ x 2	qt3-chl-carb-py (cp) x 3											
					20	2"	qt3-py (cp)(Mo)	strong qt3 system										
					20	2"	qt3-py											
	ND				15+10 x2	3"+2½ x2	qt3-(chl)(carb) py (cp) x 3		6.0		407	95	73	96087	.35	.035	.17 2510	.25
					20	1"	qt3-chl-ser-py-cp											
					5	3"	qt3 ((chl))											
			410		40 x 2	1" + ¼	qt3 (chl)-py (cp) x 2											
					?	5"	qt3-py (cp)(Mo)											
					40	⅒	qt3-chl-ep-py (cp)											
					5 x 2	½ + ⅓	qt3-py x 2											
					5	1"	qt3-py (cp) (Mo)					98						
	ND				90 x 2	⅛ x 2	ser-py-(cp)		3.5		417		80	96088	.16	.022		.14
					90+20	⅓ + ⅒	qt3-chl-ser-py (cp) x 2											
meta-basalt? ~ 30% hbl. augite, 10% chl.					30	½	chl-carb-py (cp)											
and ~ 20-30 interstitial plag.			420		30+10+40	1" x 3	qt3 x 3											
					40 x 20	⅓ + ¼	qt3 x 2											
	ND				60	¼	ser-chl-py		2.5		427	95	83	96089	.04	.003		.10
as above					35	½	ep-qt3-chl-py											
			430		25+30+45x5	¼ / 1/20-⅒ x 7	ep-py / ep-(cp) x 7											
					15	½	chl-carb-py											
					6	3"	qt3-carb-chl-py (cp)											
					5	¼	chl-carb-py					98						
	ND				5-10 x 3	1/20-⅒ x 3	ep-qt3-py (cp) x 3		3.0		437		83	96090	.19	.005		.10
					70	⅒	ep-carb-py (cp)											
					40-45	⅒ x 2	ep-carb-py (cp) x 2											
			440		13 x 2	⅒ x 2	ep-qt3-py x 2											

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-21
SHEET No. 8 of 9

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
there appears to be a progressive change with depth to a more plutonic-looking rx. -the rx also became harder with short siliceous sections	ND		450		40-30 5-10 30 45 60 70+45+35 80+20 45-60 x 10	12" ½ ½0 1" ½ ½0 ⅛+½0 ½0-⅛ x 10	qtz-chl-carb-(hlb)(cp) zone chl-carb-py (cp) qtz-ep-cp qtz-ep-py(cp) qtz-chl-py qtz ep-py qtz-ep-py ep-py x 10		3.0			117	95	63	96091	.13	.028	.15 2465	.12
-the rx at the bottom of the hole is a typical Border Phase Diorite - grn size ~ ½0"-⅛" -	ND		460		80 35x2+60 15 20 40 35 45	⅛ ⅛x2 ½ ⅛ 2" ¼ 1"	chl-carb-py ep-py x 3 ep-carb-py qtz-chl-py chl-(cp) qtz-chl-py chl-py (cp)		3.0			156	100	80	96092	.14	.003		.10
	45 Mod		470		35+40 40+30 30 60 45 35x 7 45 50	⅛ x 2 ½0 x 2 1" 2" 12" ½0x6+¼ 2" 3'	chl-carb-py (cp) x 2 chl-carb-py (cp) x 2 qtz-carb-py-cp qtz-ser-chl-py qtz-chl-py-carb (cp) zone qtz-(py) x 6 + qtz-chl-carb-py (cp) qtz-chl-py (cp) chl-carb-py (cp) zone		4.5			466	90 80	23	96093	.25	.009		.20
pale grn fine grn siliceous zone	50 wk		490		80 10 50 60	2" ¼ 12" 3"	qtz-py qtz-py qtz-chl-py (cp) zone chl-carb-cp		2.5			471 477	95	27	96094	.44	.026		.16
	70 wk		499		80 60 15 40+70 90 ? 60 ?	2" 8" ½ ½ + ¼ ½0 14" 3" ¼	chl-py (cp) chl-carb-py (cp) chl-carb-cp chl-carb-mag (cp) x 2 chl-carb-py (cp) chl-carb-py (cp) zone qtz-mag qtz-cp	vuggy zone	1.5			497	95	40	96095	.40	.015		.20
	80 mod		500		10 x 2 70 30 20 x 2	½0 x 2 1" ¼ ½0 x 2	qtz-chl-cp x 2 chl-carb-py qtz-cp ep-qtz-py x 2		1.5			497	95	17	96096	.23	.007	.30 2420	.15

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-21
SHEET No. 9 of 9

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
EOH 507	60 WK	90+ 30 x 2 90 90 20 15	1/20 x 3 1/4 1/10 1/8 1/3	ep-carb-cp x3 carb-cp ep-carb-cp chl-carb-cp chl-carb-py	0 10 20 30 40 50 60 70 80 90	1.0		507	70	96097 →		.28	.004		.90
					0 10 20 30 40 50 60 70 80 90											
					0 10 20 30 40 50 60 70 80 90											
					0 10 20 30 40 50 60 70 80 90									.26 2375		
					0 10 20 30 40 50 60 70 80 90											
					0 10 20 30 40 50 60 70 80 90											

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-22
SHEET No. 1 of 8

LOCATION SAWMILL ZONE | BEARING - | LATITUDE ~ 32,604.00N | CORE SIZE N.Q.W | LOGGED BY G.D.B
DATE COLLARED 17 Aug-86 | LENGTH 504' | DEPARTURE ~ 49,080.00E | SCALE OF LOG 1"=10 | DATE Oct. 27, 1986
DATE COMPLETED 17 Aug-86 | DIP -90° | ELEVATION ~ 2982' | REMARKS * see page 2 - base of pyrite zone @ ~ 810'
- Quartz Diorite intersected at 375'

BOTTOM DEPTHS: LEACH CAP -; LIM. ZONE 72'; SUPERGENE 180'

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Silicification	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
Casing To 61'			60															
61											61							
EPIDOTE - CHLORITE BRECCIA (61 - 125') a complex rx unit consisting mainly of rounded to subangular clots of epidote-rich material in a largely dark green chloritic matrix. The clots range from 1/16 - 2" dia. and often are ragged, corroded and entrained in the chloritic matrix. The chloritic matrix also appears fragmental. Other fragments are present but form <10% of the rx - mainly quartz, chlorite, clastic, fine grn diorite - also present are thin (1"-2") beds of fine grn med green finely laminated material - bedding @ 70°-80°	80 WK		70	70+60+90 70 x 4 70 45 x 2 35 45 40 20 25 x 2 35 + 20 20 x 4 40 20 30 20 10 60 15 80 20 20 60 x 2 30	1/10 x 3 1/10 x 4 1/8 1/8 x 2 2 1/2 1/10 1/4 1/2 1/10 x 2 1/10 x 2 1/50 - 1/10 x 4 1/10 1/8 1/8 1/4 1/10 1/2 1" 1 1/2 1/10 2" 1" + 1/8 1/2	qtz-chl-py-lim x 3 qtz-chl-py-lim x 4 ser-py-lim chl-carb-py (cp) chl-carb-py-lim chl-carb-py chl-carb-py (qtz)-chl-py (cp) (cc) qtz-carb-py (cp) x 2 chl-carb-py-(cp) x 2 chl-carb-py-cp x 4 qtz-chl-py-cp qtz-chl-py-cp qtz-chl-py (cp) qtz-chl-py-cp qtz-py-cp qtz-py (cp) qtz-carb-py (cp) ep-(cp)(cc) chl-py (qtz)-ser-py-cp carb-chl-py-cp x 2 qtz-py	3.5 4.0 3.5 3.0	- weak lim. zone - weak supergene cp appears to be confined to the x-cutting veins - mainly those with carb - and appears sparse in the dissem. fraction	67 74 84 94	90 90 90 98	40 40 93 90	10776 10777 10778 10779	.10 .01 ox .14 .02 ox .10 .01 ox .17 .01 ox	.002 .002 .002 .002	10 29/5	10 .12 .18 .20

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-22
SHEET No. 2 of 8

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Silicification	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
: This is a common rock in the Sawmill Zone and is considered to represent a meta. volcanoclastic unit- Prob. a volcanic conglomerate.	60 WK-Mod		110	5 40×5 35 20 15-20 15 5 5×2	⅛ ⅛×5 ⅛ ⅛ ⅛ 1" ⅛×2		qt3-carb-py-cp qt3-chl-carb-py-cp×5 qt3-ser-py-cp (cc) qt3-chl-py (cp) qt3-chl-py (cp) qt3-carb-py (cp) qt3-carb-chl-py	0 10 20 30 40 50 60 70 80 90	5.5	* This hole intersects a strong py. zone which has an erratic copper grade - the best grade occurs at the base of the py zone (ex ≥ 3.0%) - ie uniform copper grade + higher Mo - the best ore occurs at the bottom 50' of the hole.	104	98	97	10780	.21 .010x	.002	.15 2870	.20
: this unit contains finely dissem py throughout - only the larger x-cutting veins are recorded.	60 WK		120	5 45×2 60 30 20+60+50 5+60+30 70+50 10	¼ ⅛ ⅛×2 2" + ¼×2 ¼×3 ½+1" ½		qt3-chl-carb-py (cp)×2 qt3-carb-py (cp) qt3-chl-py (cp)×2 qt3-chl-carb-py (cp) qt3-ex-py-cp ×3 qt3-chl-carb-py-cp qt3-chl-carb-py-cp×2 qt3-carb-chl-py-cp	0 10 20 30 40 50 60 70 80 90	5.0		114	98	73	10781	.44	.002		.35
DARK GREEN META ANDESITE (125 - 170') - mainly a dense dark green fine grn to aphanitic rx of prob. andesitic composition. - also contains beds	60-70 WK		130	20+30 10 90 60 60 45 60	¼×2 ⅛ ⅛ 1" ¼ ½ ¼		chl-carb-py×2 qt3-chl-carb-py-cp qt3-carb-vug (cc) qt3-carb-py qt3-cp qt3-carb-py qt3-carb-chl-py	0 10 20 30 40 50 60 70 80 90	4.0		125	95	33	10782	.12	.002		.15
	60 WK		140	50 60 45 60 45 20×2 40×2 60×2	¼ ⅛ ⅓ ½ ⅛ ¼-½ 2×2 1"×2		qt3-carb-py qt3-chl-carb-py (cp) chl-carb-py (cp) qt3-chl-carb-py (cp) chl-carb-cp qt3-chl-carb-cp qt3-chl-carb-py (cp)×2 chl-carb-py (cp)×2 chl-carb-py (cc)×2	0 10 20 30 40 50 60 70 80 90	5.5		135	90	20	10783	.25	.002		.18
similar to the ep-chl bx above but not as coarse grn'd. - This rx is considered to be a fine grn volcaniclastic unit of chiefly andesitic comp.	55 WK		150	25 50×2 40 5-10 20 60+40 45+60+50 30+45+30	⅓ ½×2 ⅛ 1½ 1" 1"×2 ½-¾×3 ¼×3		chl-carb-py chl-carb-py×2 chl-cp qt3 carb-py (cc) carb-py (cp)×2 carb-chl-py×3 chl-carb-py (cp)×3	0 10 20 30 40 50 60 70 80 90	4.5		140 147	90	17	10784	.20	.008		.12
-Contact with overlying unit appears gradational over ~20'	50 Mod.		160	5×2 60 40 90+70+45 15×3 50 60 60×3=20	⅛×2 3" ½ ⅛×3 ¼-½×3 4" 4" ½-¾×4		carb-py×2 chl-carb-py qt3-carb-py carb-py (cp)×3 qt3-carb-py×3 qt3-ser-carb-py (cp) qt3-chl-py qt3-carb-py×4	0 10 20 30 40 50 60 70 80 90	7.0		157	95	23	10785	.32	.002	.28 2825	.12

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-22
SHEET No. 3 of 8

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Structures	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
170	50-70 Mod	170		60 70 x 3 80 60 x 7 50 10 20	1" 1/20 x 3 2" 1/5-1/10 x 7 1" 2" 1/10	qtz-ser-py (cp) chl-cp-py x 3 qtz-carb-py qtz-carb-py x 7 qtz-carb-py chl-carb-py chl-carb-py (cp)	0 10 20 30 40 50 60 70 80 90	6.0	- a zone of highly broken rx and lost core occurs at 175-210 but no fault gouge is present - this may be a shatter zone rather than a fault.	162 167	80 98	0	10786	.24	.004		.10
FINE-MED GRN META ANDESITE UNIT (170-285) a complex unit consisting of several rock types all of andesitic to dacitic composition but varying in terture - most common are,	50 Mod	180		10 x 2 5 70 20 30 +20	1/3-1/6 1/8 1/2 1/2 1" x 1/2	qtz-chl-carb-py x 2 chl-py (sp) carb-py (cc) qtz-py qtz-carb-py x 2	0 10 20 30 40 50 60 70 80 90	5.5		176	80	3	10787	.20	.002		.12
(1.) a cp-chl bx similar to 61'-125' but finer frags (~1/2")	50-60 wk-Mod			10+5 40 50 60+30 40+2 25 5 30+15+60x2	1/3+1/4 3" 1/4 1/4 x2 1/8 x2 1/6 1/2 1/2 + 1/3 + 1/4 x2	chl-carb-py x2 ser-chl-py (cp) qtz-py-cp qtz-py (cp) x2 chl-carb-py (cp) x2 qtz-py (cp) qtz-py qtz-chl-carb-py x 4	0 10 20 30 40 50 60 70 80 90	7.0		183	95	10	10788	.19	.004		.10
(2) a dk green andesit		190		20+5	1/3 x 2	qtz-carb-py (cp) x2				190	90						
, some as 125-170				45 10	2" 1/3	chl-carb-py (cp) chl-carb-py	0 10 20										
(3) a grey med. grn dacite?, consisting of qtz, spar + chl	50 ?			10 x 2	1/4 x 2	qtz-carb-py x2	30 40			194	65	3	10789	.13	.002	.20	.08
(4) a med. green fine grn. andesite (1/4"-1/2" dia grn ovoids) which in places approaches a diorite		200		9 x 2 25	1/3 x 2 1/2	qtz-carb-chl-py x2 qtz-chl-carb-py	50 60 70 80 90	6.0			55					2780	
- contacts are generally obscur - units are ~ 1-10' thick - most common is unit 4.	50 Mod			20 x 4 15 x 3 40 x 5 3	1/20-1/10 x 4 1/10 x 3 1/10 x 5 1/4	ser-py x 4 carb-chl-py x 3 qtz-chl-py x 5 carb-py	0 10 20 30 40 50 60 70 80 90	6.0		201 203 206 210	50 50 65	3	10790	.10	.006		.08
This is considered to be an interbedded sequence of volcano-clastic rx.s		210		45 20 x 2 35 25 x 3 10 + 15 x 2 50 x 3 6	1/8 1/3-1/2 1" 1/4 x 3 1" x 1/3 x 2 1/8 x 3 1/2	chl-carb-py chl-carb-py x2 qtz-ser-py chl-carb-py (cp) x3 chl-carb-py x 3 chl-py x 3 ch-carb-py	0 10 20 30 40 50 60 70 80 90	7.0		217	95	23	10791	.18	.008		.10

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-22
SHEET No. 4 of 8

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration	GRAPHIC LOG Footage	GRAPHIC LOG Stratified	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
	ND		230		5+15 x2 50 30 x2 5 x3 15 x5 50 5+10 x2	1"+¼ x2 ½ 2"+½ ¼ x3 2"+½ 1" ⅛+⅛ x2	qtz-cal-carb-py x2 ser-py (cp) qtz-ser-py (mo) x2 chl-carb-py x3 ser-py x2 ser-py (cp) chl-carb-py x3	0 10 20 30 40 50 60 70 80 90	6.0		227	95	20	10792	.32	.008		.10
	ND		240		13 x2 15 20+50 20 15	½ x2 ½ ½ x2 ¼ ⅓	chl-carb-py x2 chl-carb-py (cp) chl-carb-py x2 chl-carb-py chl-carb-py	0 10 20 30 40 50 60 70 80 90	6.0		235	95	13	10793	.20	.004		.12
	ND		250		25 x3 5 18 x2 5 x2 30 x2	⅒ x3 1" 3' ½ + 1 ½ x2 ¼ x2	chl-py x3 carb-py gg-bx qtz-chl-carb-py x2 chl-carb-py x2 chl-carb-py x2	0 10 20 30 40 50 60 70 80 90	5.0		244 247	55 40	17	10794	.22	.006	.20 2735	.08
	ND		260		35 5 x3 60 x3 50 x2 35 x2 40 5+45 30?	⅛ ⅛ x2 ½ + ⅓ + ¼ ½ + 2" ⅛ x2 ¼ ¼ + ⅓ 2"	chl-py chl-carb-py x2 chl-carb-py x3 chl-carb-py x2 chl-carb-py ((cp)) x2 chl-carb-py (cp) chl-carb-py x2 carb (qtz) py (cp)	0 10 20 30 40 50 60 70 80	5.6		257	95	43	10795	.12	.004		.12
	ND		270		20 20 40 5 20-40 5 x2 + 10 60	2" ¼ ¼ ¼ 6" ⅓ + ½ + ½ 6"	chl-carb-py (cp) chl-carb-py chl-carb-py chl-carb-py chl-carb-py (cp) chl-carb-py (cp) x3 chl-ser-py 3mm	0 10 20 30 40 50 60 70 80 90	5.5		267	95	46	10796	.14	.008		.12
	ND		280		60 15 x3 30-40 x5 50 x2 5 20 x2 40 x3 20 x60	¾ ¼-⅓ x3 ¼-1/10 x5 ½ + ¼ ¼ ½ + ⅓ 1/10 x3 ½ + ⅛	qtz-carb-py chl-carb-py x3 chl-py (cp) x5 chl-carb-py (cp) x2 carb-py-cp chl-carb-py (cp) x2 chl-carb-py (cp) x3 carb-py x2	0 10 20 30 40 50 60 70 80 90	5.0		277	90	47	10797	.22	.006		.14

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-22
SHEET No. 5 of 8

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Blocks	Estimated Core Recovery %	RQD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
285 FINE TO MED GRN META ANDESITE	70 Mod		296		20 60 x 2 5 x 2 20 + 5 5 15 x 3 5 x 2 5 x 4	3/8 1/3 + 1/4 1/8 x 2 1/4 x 2 1/2 1" & 1/8 x 2 1/3 x 2 1/10 x 4	chl-carb-py carb-qtz-chl-py-cp x 2 carb-py x 2 carb (chl)-py x 2 carb-qtz-py (cp) qtz-carb (chl) py ((cpl) x 2 carb (chl)-py x 2 chl-py x 4	0 10 20 30 40 50 60 70 80 90	4.5	287	90	37	10798	.19	.006	.17 2693	12
UNIT (285-332) very similar to the above unit with no obvious contact between the units - this unit however, is more uniform in texture and comp.	60 Mod-Str.		300		20 5 + 45 + 30 5 x 2 15 x 2 10 45 15	1/2 1/8-1/10 x 3 1/8 1/8 x 2 1/10 1/10 1/2	qtz-chl-py carb-chl-py x 3 carb-chl-py x 2 qtz-chl-carb-py x 2 qtz-chl-py qtz-chl-py qtz-py	0 10 20 30 40 50 60 70 80 90	3.5	297	90	37	10799	.19	.006		.10
and grades in many places to a medium grain diorite-appearing rx. - a typical rx type of this unit is fine grn (1/20-1/10"), contains ~ 40% chl 35% plag and ~ 20% epidote as stringers + clots - some qtz (10%?) can be seen with magnif. : this unit is interpret. To be a metamorphosed sequence of flows + volcanoclastic sedts. of	60 wk		310		60 + 30 30 5 45 + 5 60 20	1/10 x 2 1/3 1/10 1/10 x 2 1/10 1/8	chl-py x 2 qtz-carb-py-cp chl-ep-py chl-ep-py x 2 chl-py qtz-chl-py	0 10 20 30 40 50 60 70 80 90	3.0	307	95	30	10800	.10	.004		.08
chiefly andesitic comp.	ND		320		5 60 x 3 45 45 90 5 20 + 5	1/10 1/10 x 3 1/8 1/8 1/10 1/10 1/2 + 1/4	qtz-chl-py chl-ep-py x 3 qtz-carb-py chl-py carb-ep-py chl-ep-py chl-carb-py (cp) x 2	0 10 20 30 40 50 60 70 80 90	3.5	315	98	47	10801	.23	.010		.08
	ND		330		5 + 30 15 15 35 x 3 10 x 2 15 5	1/10 x 2 1/4 1/2 1/10 x 3 1/3 + 1/4 1/4 1/3	chl-ep-py x 2 qtz-carb-py chl-carb-py chl-carb-py x 3 qtz-mag-(cp) + qtz-chl-py carb-py chl-carb-py	0 10 20 30 40 50 60 70 80 90	4.0	325	95	27	10802	.11	.012		.06
	ND		340		20 x 2 40 x 3 20 + 35 5 60 x 4 40 x 5 5 + 40 + 35 40	1/3 x 2 1/10 x 3 1/4 + 1/10 1/3 1/10 x 4 1/10 x 5 1/10 x 3 1"	chl-carb-py (cp) x 2 chl-ep-py x 3 chl-py (cp) x 2 chl-carb-py chl-ep-py x 4 qtz-chl-py x 3 chl-py x 3 qtz-py (cp) ((Mo))	0 10 20 30 40 50 60 70 80 90	3.5	333 337	90 98	37	10803	.14	.008	.17 2695	.08

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-22
SHEET No. 6 of 8

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE | REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	ND	350	90 + 60 45 90 0 15 45 40 35 x 2 15 x 2 45 10 x 2	1" + 1/8 1/2" 10" 1" 1" 1/4 1/8 1/8 x 2 1/4 + 1 2" 1/8 x 2	qtz-cp + qtz-carb-py chl-py qtz-carb carb-cp carb-cp qtz-py-cp (Mo) chl-carb-py (cp) qtz-carl-py (cp) x 2 qtz-chl-py (cp) x 2 qtz-carb-py (cp) carb-py (cp) x 2		3.5		345	98	33	10804	.34	.008		.16
352			35 + 45 + 50 50 x 2 60	1/4 x 2 + 1/3 1/4 x 2 12"	chl-py x 3 carb-chl-py (cp) x 2 carb-chl-py (cp) zone					95						
EP-CHL BRECCIA AND DARK GREEN META ANDESITE	ND	360	60 x 3 70 x 2 45 + 40	1/10 x 2 1/10 x 2 1/10 + 1/8	chl-carb-py (cp) x 3 chl-carb-py (cp) x 2 chl-carb-py x 2		3.0		355 359	90	23	10805	.19	.006		.14
Similar to the breccia of 61'-125' and the dk green andesite of 125-170'. Contacts are gradational. (352-375')	60-70 Mod	370	45 + 5 x 2 60 + 45 50 70 x 3 50 x 2 70 45 60 x 3 50 x 2	1/8 x 3 1/10 x 2 1/8 1/10 x 2 1/2 + 1/4 1/4 10" 1/10 x 3 1/4 x 2	chl-py (cp) x 3 chl-py (cp) x 2 carb-cp carb-chl-py-cp x 3 chl-carb-py-cp x 2 carb-py (cp) carb-qtz-py (cp) zone chl-carb-py (cp) x 3 chl-carb-cp x 2		3.0		367	98	23	10806	.26	.010		.25
375	60		25 45 45 60	1/8 1/10 1/10 1/8	chl-qtz-carb-cp chl-cp chl-py (cp) qtz-chl-cp	Chl-rich zone	1.5		375	95	20	10807	.42	.012	.28 2600	.40
FINE TO MED. GRN QUARTZ DIORITE	Mod	380	70 x 4 55 60 5	1/10 - 1/10 x 4 1/4 1/2 2"	chl-carb-py-cp x 4 chl-carb-cp chl-cp mag (carb)-cp											
this rx. is sheared and alt'd, making it's identification diff. - The rel. unalt'd rx appears to be a diorite or quartz diorite - ie grn size 1/20-1/10"	60 str	390	60 65 60 60 60	12" 3/4" 2" 2' 5'	chl-carb-py (cp) zone carb-chl-py (cp) chl-(carb) py (cp) zone chl-carb-py-cp zone qtz-chl-carb (py)((cp)) zone		2.0		385	95	53	10808	.33	.054		.25
~ 20 o/o qtz ~ 20-30 o/o chl ~ 50 o/o saus plag ∴ This may not be Mine Phase. (375'-504')	55-60 str	400	55-60		qtz-ser-chl-carb (py)((cp)) 3 zone (py-cp occur as fine disem.'s along fold planes)		3.0	carb weathers to a pale brown color	395	95	70	10809	.23	.016		.18

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-22
SHEET No. 7 of 8

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	60-70 Str		410	60-70 35	q' 1"	qtz-chl-carb-(py)(cp) zone qtz-ser-chl-py(cp)(wall)			1.5	405	90 85	47	10810	.40	.010		.25
	60 Mod		420	80+35+45 60 60x5 50 35-60 35x4 40+45 60x2+5 60x2	¼+1/10 ½ 1" ¼ile-1/20x5 2" 3' 1/10x4 1/8x2 1/10x2+1/8 1/10x2	chl-cp-py + qtz-ser-py-cpx2 chl-carb-py-cp chl-cpx5 chl-carb-cp ? vuggy core with lamina and clots of chl-cp, qtz-carb-cp chl-carb-cp-pyx4 chlcp-pyx2 ep-chl-cpx2 + qtz-cp cp-chl-py-cpx2			1.5	415	90	40	10811	.48	.010		.35
	45-60 Mod		430	40+5 70 30+35 40+50 20x2 40 60 45x2 30 ?	1/10 x2 1/10 1/10x2 ½ x ¼ 1/3x2 1/8 1/10 1/8x2 1/8 2"	chl-cp x2 chl-ep-cp chl-carb-cpx2 qtz-ser-py + qtz-chl-py qtz-magx2 qtz-chl-mag-cp chl cp qtz-chl-cpx2 chl-cp chl-cp			1.0	422 427	90 95	13	10812	.34	.012	.37 2555	.25
	45-55 Mod		440	50 40x2 60 40 45 55	2" 1/10x2 8" 1/8 8" 2½'	qtz-chl-mag-cp chl-epx2 chl-carb (py)(cp) chl-carb-py-cp ep-chl-py zone (qtz)chl-carb-py zone			3.0	433 437	90	20	10813	.21	.018		.15
	60 Mod		450	55 ? 60 90+5+60 80x2 40 40x2 90	2' 12" 6" ¼x3 1/10x2 2" 1/10x2 1"	chl-carb-py zone ser-carb-py zone chl-carb-py zone qtz x3 chl-py(cp)x2 qtz-py chl-py(cp)x2 qtz			2.5	445	95	30	10814	.14	.006		.14
	50 Str		460	60+2+30 50 50 60x2	¼x3 5' 1/10 1/10x2	qtz-carb x3 qtz-carb-chl-py((cp)) zone chl-carb-cp chl-carb-cpx2	vuggy core		2.0	455 457	95	17	10815	.19	.004		.15

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-22
SHEET No. 8 of 8

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	60 Mod		470		5 45+60 90+60+5 90+45+60 5 45x2	½ ½10 ⅛ x3 1/10 x3 ¼ ½ x2	qtz(cp) qtz-chl-cp x2 qtz-chl-carb-(cp) x3 chl-Py qtz-mag(cp) chl-carb-Py x3	broken vuggy core + dissem cp	1.0		465	90	10	10816	.33	.014	.23 2510	.20
	60 Mod		480		45+10 10 20+45 x2 20 60 70 45 50 70 60	½+¼ ½ 2"+½ x2 1" ½ 1½ 1" 1" ¼ 1"	qtz-mag-cp qtz-chl-carb-py-cp qtz-mag-cp x3 qtz-mag-cp qtz-chl-mag(cp) chl-carb-(cp) qtz-mag qtz-(cp) qtz-carb-chl-(cp) qtz(cp)	dk core + dissem cp	0.5		472 477	95	10	10817	.42	.018		.25
	60-70 Str		490		70 60-70	¼ 9'	qtz-mag-cp qtz-carb-chl-ser-(py)(cp) zone		2.0		487	90	23	10818	.33	.010		.20
	60-70 Str,		500		60-70	10'	qtz-carb-chl-ser-(py)(cp)(mag) zone		1.0	cp, py & mag are in small concordant veins and dissem. along foln planes – carb. is pale brown weathering	496	85	50	10819	.33	.010		.18
EOH 504'	70 Str				70	4'	Chl-carb (mag)(cp) zone		< 0.5	also a few specks of bo	504	98		10820	.22	.010	.33	25
B.O.B																	2465	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-23
SHEET No. 1 of 8

LOCATION Sawmill Zone | BEARING – | LATITUDE ~ 33,487.00N | CORE SIZE N.Q.W. | LOGGED BY G.D.B
DATE COLLARED 18-Aug-86 | LENGTH 506' | DEPARTURE ~ 47,812.00E | SCALE OF LOG 1"=10' | DATE Oct. 30, 1986
DATE COMPLETED 18-Aug-86 | DIP -90° | ELEVATION ~ 2,878.00 | REMARKS *this hole intersects the West Boundary Fault.

BOTTOM DEPTHS: LEACH CAP –; LIM. ZONE –; SUPERGENE –

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	REMARKS	Footage Blocks	Estimated Core Recovery %	RQD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
Casing To 85'											85							
DARK GREEN META ANDESITE (90'-112')	?		90			5	gg-bx		<0.5	no limonite zone	87	90		96001				.05
- dense dk green andesite grading to a ep-chl-bx due to an increase of ep clots and stringers - med. grn diorite occurs between 97-101			100	5 30 5		¼ 7" 2"	qtz qtz qtz-chl (vug)		<0.5		90 97	90 60	10	96001	.01 <.01 x	.001		.05
-	?		110	60 40 70		¼ ⅛ 1¼	carb-py carb-py carb-py		2.0		102 110	85	7	96002	.05 <.01 x	.001		.08
MAJOR FAULT ZONE (112'-167')	?		120	45		2' 8'	chl-ep-carb-py-(qp) zone (scarn?) (gg)-bx - lost core		5.0		120	45	3	96003	.28 <.01 x	<.001	.11 2780	.25
- consists mainly of broken gouge bx. with only minor gg. zones - most of the broken zone is well mineralized with py	?		130			10	bx (gg) ~ 4½' core lost.		3.0		123 127	40 40 50	0	96004	.09 <.01 x	.001		.10

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-23
SHEET No. 2 of 8

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE | REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Diesel.	Estimated Core Recovery %	RQD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
main dislocation prob occurs @ ~163-167' as here the frag's change from meta-andesite to gypsum-bearing quartz diorite. This is also a zone of greatest gouge development.	?	140	?	10'	broken gg-y rx.	0 10 20 30 40 50 60 70 80 90	3.0	131 / 135 / 138	60 / 20	0	96005	.02	<.001		.08?
	?	150		10'	gg-bx ~ 7' core lost	0 10 20 30 40 50 60 70 80 90	6.0	147 / 149	25 / 40	0	96006	.16	<.001		.12?
	?	160		10'	(gg)-bx ~ 6' core lost	0 10 20 30 40 50 60 70 80 90	5.0	151 / 153 / 155 / 157	0 / 50 / 25 / 50	0	96007	.12	<.001		.08?
	?			7'	gg-(bx)	0 10 20 30 40 50 60 70 80 90	3.0?	161 / 165 / 167 / 169	70 / 20 / 90	0	96008	.17	.006	.09 / 2735	?
FINE GRN.		170	80×2 / 50	1/8×2 / 1/4	qtz-py-cp ×2 / qyp										
QUARTZ DIORITE a soft fine grn (2 1/4") qtz-diorite cut by numerous qyp and qtz veins - appears sheared and clay alt'd due prob. to the fault. ~25 o/o qtz ~50 o/o sauss plag ~15-20 o/o chl ~5-10 o/o cpy. (167 - 201)	70 WK	180 / 190	60 20 70 20 60 / 70 60 70 / 50 70 60×2 70 80 90	1/10 1/4 1/4 1/4 1/4 / 1/8 1/10 1/4 / 1/10 1/8 2" 1/4 1/4 1/2	qyp / qyp qtz-py qyp qtz qtz py-cp qtz / qtz-carb-cp qyp qtz-chl×2 qyp qyp qtz	0 10 20 30 40 50 60 70 80 90	0.5 / <0.5	177 / 187	90 / 90	17 / 20	96009 / 96010	.21 / .18	.008 / .005		.10 / .08

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-23
SHEET No. 3 of 8

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
	50 Wk		200		40 ±5 ± 40 50+60	½ ¼ ⅛ 1/10 ⅛<2	qtz qtz-chl-py gyp qtz-chl-py qtz×2		0.5		197	90	17	96011	.15	.004		.05
201											201	80						
MAJOR FAULT ZONE ? (201'-241')	?		210			10'	(gg) bx		2.0?		206	55	0	96012	.17	.007		?
- this could be a series of small faults but there is a rock change across it.											208	50					.18	
- no strong gg. zones - mainly broken gouge rock and lost core	?		220			10'	(gg) bx		?		210	65					2690	
- main gg zone occurs @ 235-241'	60?		230			10	(gg)-bx		3.0?		212	75	3	96013	.09	.006		?
	?		240			11'	gg-bx		?		216	45						
											218	60						
											222	70	0	96014	.11	.009		?
											227	85						
											232	55	0	96015	.10	.006		?
											239	50						
241											241	60						
LEUCOCRATIC ZONE (241-258') Pale grey fspar phenos, up to ¼" dia (anhedral) and occasional py's phenos	ND		250		35 20 20	1/10 1" 1/20	qtz-Mo-(cp) qtz qtz-cp-Mo		<0.5		247	90 95	7	96016	.16	.020		.10

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-23
SHEET No. 4 of 8

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 Discs.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
up to ¼" dia in a darker grey seriate quartzo-feldspathic matrix - also ≈ 5% chl. as scattered, ragged tiny (<1/20") grns	ND				30+20 35	hle x2 ¼	Mo-cp x2 qt3	0 10 20 30 40 50 60 70 80 90	<0.5		252 260	85	0	96017	.18	.012	.12 ≥695	08
FAULT ZONE			260															
(258'-265')					?	7'	(gg)-bx.	0 10 20 30 40 50 60 70 80 90	<0.5		262 265	40 60	13	96018	.20	.010		.10
265																		
MED. GRN QUARTZ DIORITE	ND				45x3+60x2 40x2 45x2 45 10	⅛x5 ¼x2 ⅛x2 1 ¼	qt3x5 qt3x2 qt3x2 qt3-cp-Mo gyp-hem					95						
(265'-370') this rx. is likely Mine Phase - it was not encountered above - - grn size ≈ 1/10" or larger - 20% chl - 50% plag. - grey or	15 str.		280		15+30x2+60+40 60+40 70x4 60-70x5 50x2+60x2 35 45x5 15	⅛-⅛x6 ⅛+1/10 1/10x4 ⅛-1/10x5 ¼x2+1/10x2 1/10 ⅛-1/10x5 4'	qt3x6 gyp x? qt3x4 qt3x5 qt3x4 gyp qt3x5 qt3-carb-chl-gyp	cp(ba) occurs along chl-qt3 hle shears as tiny blebs	<0.5		275	95	43	96019	.13	.006		.14
only weakly sauss. - 20-25% qt3 - 5% cp. - this core is soft and has an earthy odour when wet - argillic alt'n? - it is also dark (weak sauss) and st. vuggy	to str.		290		40 50x30 50x3 40+55x2 40-60x10 45+60x4 70x2 5+45+60+45 50x4 60-70x4 80x5	⅛ 1/10x2 ¼x3 ⅛-1/10x10 2"+⅛x2 1/10x2 1"-1/10x2-¼ ⅛+⅛x2 1/10x4 ¼x5	qt3-chl-carb-cp (Mo) gyp x2 qt3x3 qt3x3 qt3x10 qt3x3 gyp x? qt3-cp x4 qt3-cp x3 gyp qt3x5	cp(ba) as above.	<0.5	this is a qt3-gyp. zone with qt3. stockworks - only a small portion of the	285	95	33	96020	.40	.016		.35
	to mod. str.		300		80x4+45x3 60x3 45x2 40+60+45+50 35 40+35x2 30-60x4 35 20+15 50 50	⅛-1/10x4 1/10x3 ¼x2 ⅛-1/10x4 ¼ ¼-⅓x3 1/10x4 ⅛ ⅛x2 ⅛	qt3x4 gyp x? qt3x4 qtp x4 qt3-cp qt3x2 qtp x4 qt3-cp qt3-cp(Mo) x? qtz-chl-gyp-carb-cp(Mo) qtz-carb-cp (cheap)	cp(ba) as above	<0.5	qt3 veining is shown - qt3 may form 60% of the core.	295	98	33	96021	.31	.087	.25 2600	.25
	to wk		310		30 x2 30x4+45x2 60x2 50x2 30+60x4+50x2 40 20 60-70x4	1/10 x2 ⅓-⅛x6 ⅛+⅛ ¼x2 ½x7 6" ¼ ⅓-¼x4	qt3-chl-cp x2 qt3x6 qt3x2 qt3-chl-carb-cp qt3x7 gyp-chl-gg-bx chl-gyp qt3x4		<0.5		306	95	30	96022	.25	.012		.12

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-23
SHEET No. 5 of 8

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration	Footage	Structures	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Discr.	Estimated Core Recovery %	R Q D	ASSAY RESULTS Sample Number	% Cu	% Mo		Estimated Grade
	fo wk		320	60x3 50+60 60-70 x 10 45 50 45-70 x 12 45x3 5+05+4 35+20 30 80-60	¼+3 ½+⅒ ⅛x10 ⅒ ⅒ ¼-⅒x12 ¼-⅒x3 ⅒x4 ½+¼ ½ ⅛x2		qt3x3 qt3-chl-cp-mag x2 qt3x10 qt3-chl-cp qt3-mag qt3x12 gypx2 gyp-hem x4 qt3-chl-cp x2 qt3(cp) gypx3	0 10 20 30 40 50 60 70 80 90	<0.5		316	95	27	96023	.20	.019		.14
	ND		330	45 30 10+40-60x3 45 45+30+35 50x2 45+60 5 45+50 20	⅛" ⅒ ⅛+⅒x3 9" ⅛x2 ⅒x2 ½+¼ ¼ ⅒x2		leucocratic zone * qt3-chl-cp qt3-chl + qt3x3 leucocratic zone qt3x2 gypx2 qt3-mag-cp x2 qt3-chl-cpx gypx2 qt3 (cp)	0 10 20 30 40 50 60 70 80 90	<0.5	* same as 241'-258'	327	90	37	96024	.12	.009		.15
	ND.		340	80+50 50-60x3 35+30 35+40x3 30 60+50+45 70 5 45x4 20x3	¼x2 ¼-⅓x3 ¼x2 ¼+⅛x2 ⅛ ⅛+¼+⅒ ⅛x2 ¼ ⅓-⅛x4 ⅓+¼x3		gyp-hem x2 qtyx3 qt3-magx2 qt3-cp + qt3-magx3 qt3-chl-cp qt3x3 gypx2 qt3-chl-cp(Mo) qt3x4 qt3-chl-cp x3	0 10 20 30 40 50 60 70 80 90	<0.5	qt3-gyp zone similar to page 2 but core is sl. harder - no argillic odour - and sauss. is greater but the core is still dark - gyp. is sl. less abundant - qt3 is still in stkwork form - cp(bo) occurs in small veins + niles throughout the core causing in effect a disseminated background	337	98	43	96025	.21	.012		.18
	ND		350	40x2 20 50-60x3 30 3 25-30 x 6 10 30x2	⅒+⅛ ⅓ ⅓-¼x3 ⅛ ⅛ ¼-⅛x2 ⅓ ⅛x2		qt3-chl-cpx2 qt3-chl-cp qt3x3 qt3-mag qt3-mag-cp qt3x6 qt3-mag gypx2	0 10 20 30 40 50 60 70 80 90	<0.5		347	95	30	96026	.25	.004	.20 .2555	.14
	ND		360	45-65x12 30 40x2 20x2 45-50x3 40+45 40x2 35+50 45-60+40+70x2 20	¼-⅛x12 ½ ⅒x2 ¼x2 ¼-⅒x3 ¼+⅛ ⅛x2 ⅓-½ ⅛-⅛x6		qt3x12 qt3-chl-mag-cp gypx2 qt3-chl-cpx2 qt3x3 qt3-chl-cp + qt3-mag(cp) gypx2 qt3-chl-cpx2 qt3 + gypx2 qt3-chl-cp(bo)	0 10 20 30 40 50 60 70 80 90	<0.5		357	98	50	96027	.13	.010		.16
	qo vol-stc		370	35+45 40 20x2 15 60x2 60x4 60+70+40 60-70x4 60	⅓x2 ½ ⅓+¼x2 ½ ⅒x2 ⅛x4 ¼-⅒x4 ⅒-⅛x4 14"		qt3x2 qt3-chl-cp(bo) qt3x2 qt3-chl-mag-cp gypx2 qt3x4 qtyx4 qt3x4 qt3-ser-carb-chl zone	0 10 20 30 40 50 60 70 80 90	<0.5		367	95	50	96028	.18	.008		.12

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-23
SHEET No. 6 of 8

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Discus.	Estimated Core Recovery %	R Q D	ASSAY RESULTS Sample Number	% Cu	% Mo		Estimated Grade
QUARTZ PORPHYRY (370'-405') 30% angular qtz. phenos Y10-1/8" dia in a pale grey to pale greenish aphanitic to seriate	ND		380		20 20 ? 40	1" hlc 3' Y10	qtz((cp)) cp qq-bx qtz(Mo)		<0.5								
			377								90						
qtz- feldspar matrix. - typical Q.P. for this area - upper contact is finer grn with some spar phenos suggesting some contact chilling - lower contact may be faulted.	ND		390		90 70 45 5 80 80	1" Y10 Y2 1/8 1" 2'	qtz qtz-cp qtz-cp(Mo) qtz-Mo qtz-Mo qtz-ser-carb(Mo)((cp)) zone		<0.5	381 387	98	50	96030	.13	.008	.16 2510	.10
	85 Str		400		85	10'	qtz-carb-ser-(cp)(mag?)*		<0.5	397	98	47	96031	.15	.010		.14
Poss. fault contact.	80-85 Str.		410		85	2½' 2½'	qtz-carb-ser-(cp)(mag.)* qq-bx		<0.5	405	95	10	96032	.38	.018		.20
MINE PHASE QUARTZ DIORITE (405'-431') Same as 265'-370'	80 Mod		420		90x2 90 80	1/4 x 2 16" 1/4	qtz + gyp qtz-chl-carb-cp qtz-chl-cp										
					80x2 70+20 30 40 45 55 70 40	Y2+Y3 1/8x2 1" 12" Y2 1/8 Y2 1/8 Y2	qtz-chl-cpx2 gypx2 qtz qq-bx qtz-carb gyp qtz-chl-cp(bo) qtz-chl-cp gyp	fine cp+bo disseminations chloritic streaks and qtz-chl veinlets	<0.5	415	95	20	96033	.22	.008		.22
	80 Mod		450		40+70+80x2 90 80+70 80 70-80x5 25+5 25+60x2+70 35-55x6	Y3-Y10x4 Y4 1/8x2 2" Y10-Y8x5 Y4+Y2 Y10-1/8x4 1/8x6	gypx4 qtz-cp(Mo) qtz-chl-cpx2 qtz-chl-carb-(cp) gypx5 qtz-chl-cp + qtz gyp-hematx4 qtzx6	- strong gyp veining - qtz stockwk not as strong as above	<0.5	426	95	53	96034	.26	.020		.30

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-23
SHEET No. 7 of 8

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation, Alteration, Footage, Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
			5+40+50	1"-½"×2	qt3×3										
QUARTZ-FELDSPAR PORPHYRY (431'-451') 30% pale grey sper phenos ⅛'-¼" dia, anhedral and 30% pale grey angular qtz phenos ⅛"-⅛" dia in a pale green seriate matrix. Upper contact @ ∠ 30° and sharp but not chilled.	ND	440	40	2"	wall rx-cp				98						
			45-70×3	½×3	gyp×5										
			60	½	qt3-cp		<0.5	436		50	96035	.28	.014	.26 2465	.25
			20	¼	qt3-cp										
			5+60	½+⅓	qt3-(cp)×2										
	ND?		30×2	⅛×2	qt3-py×2				95						
			80	1½	qt3										
			20	1¼	qt3-chl-cp		<0.5	446		53	96036	.36	.018		.30
			20×2	1/20×2	chl-cp×2										
		450	40	½	qt3-cp										
			15	1/10	qt3-chl-cp										
			60	⅓	chl-(cp)										
451			30	¼	qt3-cp										
			50	⅓	qt3				98						
MINE PHASE (451'-506') Same as 263'-370'	45 Mod		45×2	⅛×2	qt3-chl-cp×2										
			45	½	qt3-cp										
			15	½	qt3-cp										
			45×2	1/10×2	gyp-hem×2		<0.5	456		47	96037	.26	.008		.22
			45-55×6	1/10×6	gyp×6										
			5+60×2	¼+⅛×2	qt3×3										
		460	5+	⅛	qt3-chl-cp										
	50-60 Mod		45	1/10	qt3-chl-cp				95						
			45	1/11	qt3-cp										
			40?	30°	gg-bx	fine dissem cp. along chloritic fdn planes									
			45	3"	qt3-carb-cp										
			70+90	⅛	chl-py		<0.5	466		40	96038	.76	.020		.25
			50+35	1/32×2	gyp-hem×2										
			20	⅛×2	qt3-chl-cp×2										
		470		⅛	qt3-chl-cp										
small strong fault	60 Str.		?	7'	gg-(bx)				90						
			60×3	⅛-1/10×3	qpp×3										
			70×3	1/10×3	qt3(chl)-cp×3		<0.5	476		37	96039	.23	.056	.38 2420	.18
			45	⅛	qt3-Mo										
		480	60×4	¼-1/10×4	qt3-chl-carb-cp×4										
	65 Str.		65	11'	qt3-chl-carb(gyp)(cp)(py)		0.5	486	95	50	96040	.41	.050		.30
		490													

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-23
SHEET No. 8 of 8

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation, Alteration, Footage, Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	60 Stn	500	70 x2 80 70 65 63 x2 45 45 65 x3	1/8 x2 1/10 1/10 1" 1/10 x2 1/10 1" 1/8 x3	gtp x2 qtz-chl-cp qtz-chl-cp qtz-chl-gtp-cp qtz-chl-cp x2 qtz-chl-cp qtz-cp gtp x3	fine cp(py) disseam. along chlorite calm planes.	0.5	496	98	77	96041	.66	.020		.40
EOH 506'			60 x2 80+80 80 60 x2 60 x2 50 x2	1/8 1/4 x2 1/10 1/8 x3 1/10+1/4 1/10 x2	gtp qtz x2 qtz-chl-cp qtz-chl-cp x2 gtp x2 qtz-chl-cp x2		0.5	506	95		96042	.31	.012	.46	.30

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-24
SHEET No. 1 of 9

LOCATION SAWMILL ZONE | BEARING – | LATITUDE ~33, 921.00N | CORE SIZE N.Q.W. | LOGGED BY G.D.B.
DATE COLLARED 19-Aug-86 | LENGTH 597' | DEPARTURE ~48, 249.00E | SCALE OF LOG 1"=10' | DATE August 20, 1986
DATE COMPLETED 20-Aug-86 | DIP -90° | ELEVATION ~2962.00 | REMARKS

BOTTOM DEPTHS: LEACH CAP –; LIM. ZONE 102'; SUPERGENE 112'

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
Casing To 30'			80								80							
MEDIUM GRN QUARTZ DIORITE ~35% dk green chl 25% qtz_3 ~35-40% med. grey plag.	60 str		90				broken rusty core minor mal. and py.		<2.5		87 91	85 90	13	11177	.14	.002	.14 2.87 oz	.10
- rx is strongly sheared with original text. largely indistinct - grn size 1/20-1/10" - contains disseminated py along foln planes, only the larger veins and stringers are noted in log. - the py often contains small inclusions of qtz (lenticular in tex)	35 str		100		1/10×3 1/10×2 1/10×3		qtz_3-chl-py-lim qtz_3-chl-py-lim mal-lim-cuprite ±		1.0		99	85	13	11178	.31	.006		.15 oz
	35 str		110		1/10 1/2-1/10×10 1/8 1/20×2 1/10 ± 1/4		lim-ser chl-py×10 qtz_3-chl-py (ex) chl-py×2 chl-py×2		2.0		103 105	98 98 90	20	11179	.32	.012		.12
	45 str		120		1/8 1/4 1/5 1/6 1"		qtz_3-chl-py (ex) qtz_3-chl-py (ep) qtz_3 (ep) qtz_3-chl-py qtz_3-py		3.5		111 117 119	80 98	33	11180	14	.014		.10

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-24
SHEET No. 2 of 3

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	EST. % PYRITE	Footage Blocks	Estimated Core Recovery %	RQD	ASSAY RESULTS Sample Number	% Cu	% Mo		Estimated Grade
	35 str.	130	25 30 30 35×3 45	¼ 3" 1/10 1/30×3 1½	qt3(chl)-py(cp) qq qt3-chl-py qt3-chl-py ×3 qt2-(cp)(py)((mo))	0 10 20 30 40 50 60 70 80 90	3.0	122 127	80 95 98	33	11181	19	010		.12
	35 str	140	25 60	12" 3"	qt3-carb-ser-py qq zone of broken and lost core	0 10 20 30 40 50 60 70 80 90	3.0	132 136 140	30 10	0	11182	.16	.009	.23 2825	.10
Fault Zone 146-151	20-30 str.	150	30 40 50 60 60 ?	6" 12" ¼ 1" ½ 2½'	banded chl-carb-qt3-py(cp) zone qt3-carb-chl. zone carb-py((cp)) qt3-carb-chl-py qt3-carb-py solid gg	0 10 20 30 40 50 60 70 80 90	3.5	146 148 151	85 98 98	7	11183	.13	.007		.10
total zone of broken rx and gougy shears extends from 141' to 158'	35 str.	160	50 15 ? 15 60 55	⅕ ¼ 3' ⅓ ½ ⅛×2	qt3-((cp)) qt3-chl-py((mo)) qq+bx qt3-py qt3-carb-py qt3-chl-carb-py((cp))	0 10 20 30 40 50 60 70 80 90	4.0	156 160	90 98	17	11184	08	.009		.10
	30 str	170	30 30 60 25 ? 50	1/10 1" 2" 1/10 2' 1½"	qt3-chl-py qt3-carb-py (cp) - a discordant vein qt3-carb qt3-carb-py QFP dyke with disseminated Py. qt3-carb-py	0 10 20 30 40 50 60 70 80 90	4.0	165 168 170	80 80 75	10	11185	09	.005		.14
	40 str	180	5+60 75×2 5 15 5 90	1/64+1/10 1"×2 1¼ 2" 2" ¼	qtz-chl-py×2 qt3-chl-carb×2 qt3((cp))((mo)) qt3-carb-py qt3-py chl-carb-py	0 10 20 30 40 50 60 70 80 90	4.0	175 178	95 98	13	11186	08	.007	.10 2780	.12

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-24
SHEET No. 3 of 3

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

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	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	30 Str.		190		5 20 80 20 15 5 20+3 90	½ ⅛ 2" ¼ x 2 2½ 2" ¼ + ⅛ x 2 ¼	qt3-carb-py (cp) qt3-chl-py qt3-chl-carb (vug) qt3-chl-py qt3-py qt3-carb-py qt3-chl-py x 3 qt3	0 10 20 30 40 50 60 70 80 90	3.5	184 186 189	98 85 80	10	11187	06	008		.10
	30 Str.		200		90 5 x 2 5 5 + 70 50 ?	2" ⅛ + ½ ¼ ½ ⅛ ¼ 6" 30"	qt3 (cp) qt3-carb-chl-py x 2 carb-py qt3-carb-py qt3 qt3-chl-py qt3-carb (py) gg-bx	0 10 20 30 40 50 60 70 80 90	3.0	196 200	85 80	7	11188	08	007		.12
	60 Mod		210		70 60 80	6' 1" ½ 1"	broken core qt3 qt3-chl-py qt3	0 10 20 30 40 50 60 70 80 90	2.0	205 210	60 85	0	96401	.11	.006		.10
	80 mod		220		45 5 80	¼ ½ ¼ 5'	qt3-chl-py (cp) qt3-carb-chl-py chl-carb-py chl-carb-py ((cp))	0 10 20 30 40 50 60 70 80 90	2.5	215 219	80 95	0	96402	.11	.004		.12
fairly weak metasom effects ie = zone/s atg-carb-chl intrusion - might appear as res-mag/	30-35 Str.		230	30-80 45	3' +'	qtz-carb-chl-ser-py Chl-carb-py zone		0 10 20 30 40 50 60 70 80 90	2.0	224	75 98	40	96403	.07	.006	.09 2735	.10
be due to shearing rather than metasom. mtlw.	45-80 Str		240	45-80	10'	chl-carb-py zone		0 10 20 30 40 50 60 70 80 90	3.0	234	95	33	96404	.12	.008		.10

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-24
SHEET No. 4 of _____

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

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	Footage Diesel.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	35-45 Mod		250		35-45	10'	qtz-carb-ser(chl)-py zone	0 10 20 30 40 50 60 70 80 90	2.0	241	90	23	96405	.13	.006		.08
prob. an alt'd qtz-porp - gen composition is ~5 o/o chl. 10 o/o ser 10 o/o carb 50 o/o qtz 25 o/o plag.	45-60 Mod.		260		45-60	10'	qtz-carb-ser-py zone	0 10 20 30 40 50 60 70 80 90	1.5	247	95						
					45-50	4'	qtz-carb-ser-py	0 10 20 30 40 50 60 70 80 90		254	95	50	96406	.12	.002		.08
a dk green fine gen	45 80 Mod		270		60-80	6'	chl-carb-py zone		1.5	264	90	50	96407	.04	.002	.10	.06
zone - the dk color may be due to an incr. in chl. and a decr. in grn size due to shearing - that is, there is some metasom. alt'n (chl+carb) but not as great as first appear. would suggest	70 Mod		280		50 15	8' ½ ½	chl-carb-py zone qtz-carb-py qtz-carb-py	0 10 20 30 40 50 60 70 80 90	2.0	275 277	90	20	96408	.07	.002	2690	.08
	70 Mod		290		5+15 70+80 45 5+70 80+15 80+45+60	2'+½ 2"x2 4" ¼x2 ⅛x2 ⅛+¼x2	qtz-carb-py x2 qtz x2 qtz(chl)-carb-py qtz-carb-py x2 qtz-chl-py x2 qtz-chl-py x2	0 10 20 30 40 50 60 70 80 90	3.5	287	90	53	96409	.07	.006		.08
	70 Mod		300		15 45x2 70 70	⅓ ⅛x2 ½ 4'	qtz-carb-py qtz-carb-py x2 qtz-chl-carb-py chl-carb-py zone	0 10 20 30 40 50 60 70 80 90	4.0	297	95	20	96410	.11	.006		.05

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-24
SHEET No. 5 of 9

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 / LIM. ZONE / SUPERGENE	REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
BORDER PHASE DIORITE (300'-329') a dk green med grn (1/16"-1/8" dia) rx ~40 o/o chl ~ 50 o/o saus plag.	70 Mod		310	45+30x2 40 15 15 20 20	1/10x3 1/8 1/3 1/3 1/3 1/2		qtz-chl-py x3 qtz-chl-py qtz-carb qtz-carb-py qtz-chl-carb-py qtz-carb-py	0 10 20 30 40 50 60 70 80 90	3.5			304 309	90 95	23	96411	.07	.009		.05
- sl. bx. tex. with clots of saus. plag. in chl. matrix	50-60 Mod		320	45 x2 45+50 60+70 5 60x3 40	2½+½ ¼+⅓ ¼+⅓ ¼ 1/10x3 ⅓		chl-carb-py x2 chl-carb-py x2 qtz-carb-chl-py qtz-carb-py (cp) qtz-chl-py x3 qtz-carb-py	0 10 20 30 40 50 60 70 80 90	3.0			317	95	3 27	96412	.09	.002	.08 2695	.08
Pass. fault contact 329'	60 Mod		330	25 30 ? 40 15?	12" ½ 2' 10" 14"		qtz-chl-carb-py qtz-carb-py (cp) qq-bx. qtz-carb-chl-py zone qq	0 10 20 30 40 50 60 70 80 90	3.5			324	90 85	3 10	96413	.07	.004		.05
MED. GRN DIORITE (329-597) a med grn (1/20-1/10 dia) diorite which may grade to Q.D. ~ 20-25 o/o bleached chl ~ 20 o/o interstitial qtz ~ 50 o/o saus. plag. - grn. size varies, port. between 329-370, and finer grn sizes are common - ie ≤ 1/20" ∴ this may be the typical rx underlying the north side of the ore zone.	50 Mod		340 350 360	40 25+60x3 45+60x10 45 45-60x12 50 45-60x10 10+25 50-60x8' 50 20 60+20 40+45 15+20+30 45x2	30" ½+1/10x3 ¼+1/10-1/20x10 3" 1/20-1/8x12 2½ 1/20-1/10x10 ½x2 1/20x8 1' 3" 1/20-1/10x20 1/10x2 1/12+1½ 1/20x2		qtz-chl-(ser)-py qtz-chl-py x4 qtz-chl-py x11 qtz-chl-carb-py qtz-chl-py x12 qtz-chl-carb-py qtz-chl-py x10 qtz-carb-py x2 qtz-chl-py x8 qtz-carb-py (cp) qtz-carb-py qtz-chl-py x20 qtz-chl-py x2 qtz-carb-py x3 qtz-chl-py x2	0 10 20 30 40 50 60 70 80 90	7.0 4.0 4.0			335 340 347 353 360	85 95 80 95 90	67 60 47	96414 96415 96416	.07 .08 .11	.010 .004 .01	 .08 2600	.10 .10 .08

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-24
SHEET No. 6 of 9

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 / REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS Sample Number	% Cu	% Mo		Estimated Grade
	60 Mod		370		60 x 10 25 + 20 x 3 45 50 + 5 40 + 5 35 x 2 30 15	1/20 x 10 1/4 + 1/10 x 3 1/8 1/8 1/4 x 2 1/10 1/3 1/4	qtz-chl-py x 10 qtz-chl-py x 4 qtz-chl-py-cp qtz-chl-py qtz-chl-py x 2 qtz-chl-py x 2 qtz-chl-carb-py qtz-chl-carb-py		4.0		367	80	43	96417	.11	.002		.08
	50-Wk-Mod		380		15 70 60 - 70 x 8 45 40 - 45 x 10 45 x 3 45 x 3 60	1/8 1/2 1/20 - 1/10 x 10 1/8 1/20 x 3 1/6	qtz-chl-py qtz-(Mo)((cp)) qtz-chl-py x 8 qtz-chl-py qtz-chl-py qtz-Mo(cp)-py x 2 qtz-chl-py(cp) x 2 qtz-chl-py		3.5		377	98		96418	.18	.010		.10
	45 Wk		390		45 x 4 ? 40 x 4 ? 5 - 10 x 2 20	1/8 + 1/10 x 3 10" 1/20 x 4 6" 2" x 2 1 1/2	qtz-chl-py x 3 qtz qtz-chl-py x 4 qtz-py qtz-chl-carb-py(cp) x 2 qtz-carb-py		4.5		387	98		96419	.11	.002		.12
	45 Wk		400		5 x 10 10 5 5 x 2 5 x 10 40 5	1/3 + 1" 14" 2" 1/2 + 1/4 1/10 - 1/20 x 10 6" 1/8	qtz-carb-py((cp)) x 2 chl-carb-ser-py((cp)) zone qtz-carb(chl)-py qtz-chl-carb-py qtz-chl-py x 10 carb(qtz) qtz-chl-carb-py(cp)		7.5		397	95		96420	.12	.002		.10
	ND		410		15 20 x 2 5 5 x 2 5	2" 1/8 + 1/10 1/4 1/4 + 1/6 1/10 + 1/20	qtz-chl-py qtz-chl-py x 2 qtz-chl-carb-py(cp) qtz-chl-py x 2 qtz-chl-py x 2		4.5		407	100	40	96421	.13	.002	.13 2555	.08
	ND		420		15 5 x 2 15 40 15 x 4	1/2 1/4 + 1/8 1/8 12" 1/10 - 1/4 x 4	qtz-chl-py qtz-chl-py x 2 qtz-chl-py qq-bx-hem qtz-carb-chl-py x 4		3.0		413	95 90	57	96422	.05	.002		.06

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-24
SHEET No. 7 of 9

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Discrepancy	Estimated Core Recovery %	ROD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	ND		430		20 5×4 20+30	1/10 1/20-1/10×4 1/10×2 2'	qtz-chl-py hem-gg } broken zone qtz-carb-py (cpx) ×2 highly broken zone	0 10 20 30 40 50 60 70 80 90	2.5		423 425 429	90 90	13	96423	.03	<.002		.05
	70 str.		440		70	10'	qtz-carb-(chl)-ser(py) zone (pale brown weathering carb)	0 10 20 30 40 50 60 70 80 90	2.0		435	50 80	27	96424	.07	.002		.06
	ND		450		60 50-40×4 20 70 70 5	4' 1" 1/20×4 1/4 1/3 2' 1/2	broken gg'y zone qtz-carb-py (cp) chl-py×4 qtz-carb-chl-py qtz-carb-py qtz-ser-carb-zone qtz-carb } zone of chl-carb-alt'n (dk zone)	0 10 20 30 40 50 60 70 80 90	1.5		441 447	60	17	96425	.06	.001	.06 2510	.08
	ND		460		35 +5+30+20+50 30+20 +5 60+70 20+50	1/2 1/2-1/4×4 1/4×2 1" 1/3×2 1/4-1/3	qtz-carb-py qtz-carb×4 qtz-carb-py (cp)×2 qtz-carb-py (cp) qtz-tour. qtz-carb×3	0 10 20 30 40 50 60 70 80 90	2.0		457	90	60	96426	.07	.003		.10
	5-70 str.		470		5-70	12'	qtz-carb-ser-py (cp) zone (first coarse cp)	0 10 20 30 40 50 60 70 80 90	4.0		467	100	53	96427	.12	.004		.18
Small fault	?		480			6'	gg-ba	0 10 20 30 40 50 60 70 80 90	1.5?		477	70	10	96428	.05	.001		.05?

GRID ______

GIBRALTAR MINES LTD.

HOLE No. 86-24
SHEET No. 8 of 9

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 / Remarks	Footage Blocks	Estimated Core Recovery %	RQD	Sample Number	% Cu	% Mo		Estimated Grade
	ND	490	45-40 x 5 5 5 5	1/20 x 5 2' 2" 1/2 1/2 4'	qtz-chl-py x5 qq-bx qtz-carb-py qtz-carb py qtz-carb-py (cp) gg-bx-hem.		4.5		484 488	70 95	17	96429	.11	.004		.08
	ND	500	60 5 50	1/2 1/3 1/10 3'	qtz qtz-carb-py carb-hem broken core		1.0		494 500	85 80	13	96430	.06	.001	.08 2465	.05
	ND	510	 20 15 30 25 x 3 ? 40-30 x 10 70 x 2	3' 2" 1/2 1/4 1/10 x 3 8" 1/20 x 10 1/8 + 1/10	broken core qq qtz-carb-py qtz-carb-py qtz-chl-py x 3 qtz-chl-ep-carb qtz-chl-py (cp) x 10 qtz-tour.		2.5		507	90	27	96431	.03	<.001		.08
	N)	520	5 + 20 30 5 x 2 20 60 40 x 2	1/4 + 1/2 1/10 1/10 x 2 1/3 2" 1/20 x 2	qtz-carb-chl-py x 2 qtz-chl-py-cp qtz-chl-py x 2 qtz-py qtz-py qtz-chl-py x 2		3.5		513	95 98	37	96432	.05	<.001		.10
	40 Mod	530	45 x 3 55 40 x 20 45-70 x 5 15 + 20 x 2 60	1/8 x 3 2" hle-1/20 x 20 1/20-1/10 x 5 1/10 x 3 1/2	qtz-chl-py-carb x 3 qtz ((Mo)) chl-py x 20 qtz-chl-py x 5 qtz-chl-py x 3 qtz-chl-carb-py		3.0		523 527	95	27	96433	.05	.001		.08
	50 Mod	540	70 30-60 x 5 60 50 x 2 50	1/4 1/20 x 5 1/10 1/4 x 2 3'	qtz qtz-chl-py x 5 qtz-chl-py qtz-chl-carb-py x 2 chl-carb-py (cp) zone		2.6		535.6	95 95	20	96434	.07	.001	.05 2420	.12

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-24
SHEET No. 9 of 9

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 / LIM. ZONE / SUPERGENE / REMARKS	Footage Discrs.	Estimated Core Recovery %	R O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	45 Mod			40-80	5'		chl-carb-ep-py((cp)) zone		2.0		541	95	43	96435	.07	.001		.12
			550	50 20×2	1/8 1/10×2		qtz-carb-py qtz-chl-carb-py×2				547							
dk, vuggy chl-carb alt'd core	50 Mod			20 ? 15 3×2 5-80	3' 6" 12" 1/3 + 1/4 3'		chl-carb-(qtz) (py)((cp)) zone qtz-chl-carb-py qtz-chl-carb-py (cp) qtz-chl-ser-py zone		3.0		585	98	27	96436	.05	.002		.12
			560	60-70×5	1/4×5		qtz-carb-py(cp)×5											
	50 Mod			70×3	1/3×3		qtz-carb-py(cp)×3		2.5		565	98	53	96437	.05	<.001		.15
				20-50	1/10×2		qtz-chl-py×2											
			570	? 20	12" 3"		qtz-chl-carb-py zone qtz-py (cp)											
	No			5 15×2	1/4 1/8×2		qtz-pied-py qtz-chl-py×2		1.5		575	100	50	96438	.06	<.001		.05
			580															
	50 wk			60 25	1/10 1/2		qtz-chl-py qtz-py (cp)		1.0		586	95	33	96439	.04	.001	.06 2375	.08
			590	40	1/4		qq-bx qtz-chl-carb-py											
EOH 597				50+40 35	1/10×2 6" 5'		qtz-chl-py×2 qq broken + lost core		1.0		594 597'	95 <10		96440	.03	<.001	.03	.05
6 DDHs.																		

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-25
SHEET No. 1 of 9

LOCATION SAWMILL
DATE COLLARED 21-Aug-86
DATE COMPLETED 21-Aug-86
BEARING —
LENGTH 507'
DIP -90°
LATITUDE ~34,223.00N
DEPARTURE ~47,950.00E
ELEVATION ~2,958.00'
CORE SIZE N.Q. Wireline
SCALE OF LOG 1"=10'
REMARKS this hole intersects rx's similar to that of 79-18
LOGGED BY G.D.B.
DATE Nov. 26 1986

BOTTOM DEPTHS
LEACH CAP 75'
LIM. ZONE 100'
SUPERGENE 110'

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Silicify	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
No Footage Marker – casing prob starts @ ~47'																		
47'																		
QUARTZ-CARB.	?		50						0		47?		50					.05
SERICITE-CHLORITE ZONE (47'-137') Typical alt'd shear zone – strongly sheared and in places folded and crenulated.	30-40 sl Green								0	– strong leaching to 75' but only weak limonite to 100' – cc zone is weak and confined to fractures.	57	20?	0%	96451	.07	.006		.05
~ 20 o/o brown weather. carb. as clots, veins and discontinuous laminae ~ 30 o/o qtz as fine (<1/16") grns ~ 20 o/o pale grey plag ~ 30 o/o combined chl+	30-45 Str		60		30-45	28'	zone of strong leaching broken core and lost core plus minor gg zones. Heavy pervasive limonite staining, minor Mn+, and no malachite		0		60'	57%	60					
Ser. – the ratio of chl- to ser varies depending on original host rx -ie, dioritic and quartz-porp. -tex. consists of cataclastic qtz-spar grns 1/64-1/8" in a sericitized matrix of chl-ser-carbo	45 c Str		70		40-45	5'	qtz-carb-ser-py		0		67	30%	0%	96452	.13	.011		.05
			80						2.5		75	8%	70					
											78	65%	10%	96453	.17	.009		.08
													80					

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-25
SHEET No. 2 of 9

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
Py occurs throughout the zone mainly along fole planes associated with chl + ser. or with larger x-cutting qtz-carb. veins ("gash" veins?) Cp occurs in only minor amounts as tiny isolated gyns or as microscopic intergrowths with py.	5-40 Str. folded + sl. cren		90		5-40	10'	qtz-carb-ser-(chl)-py((cp))	0 10 20 30 40 50 60 70 80 90	4.0		82	65%		96454	.10	.002	.12 2870	.10
	5-30 Str. + folded		100		5-30 5-20 5-15	2½' 2' 4' 1½'	qtz-carb-ser (chl) -py gg-bx qtz-carb-ser-py-((cp))((cc)) gg-bx.	0 10 20 30 40 50 60 70 80 90	4.0		87 93	108% 97%	58% 90	96455	.10	.001		.12
	45-50 Str.		110		45-50	10'	qtz-carb-ser-chl-py((cc))	0 10 20 30 40 50 60 70 80 90	4.5		100 105	84% 76%	20% 100	96456	.05	.003		.10
	5-30 Str. folded		120		5-50	10'	qtz-carb-ser-py	0 10 20 30 40 50 60 70 80 90	3.5		108 119	72% 37%	10% 110	96457	.03	.004		.12
	5-50 Str folded sl. cren.		130		5-50	10'	qtz-carb-ser (chl.) -py((cp))	0 10 20 30 40 50 60 70 80 90	4.0		118 125	80% 100%	35% 120	96458	.05	.003		.14
137	35 Str		140		35	7'	qtz-chl-carb (ser)-py	0 10 20 30 40 50 60 70 80 90	3.0		135	94% 95%	73% 130 70% 140	96459	.09	.003	.05 2825	.08

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-25
SHEET No. 3 of 9

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation, Alteration, Footage, Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Blocks	Estimated Core Recovery %	RQD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
FINE-MED. GRN. DIORITE (137'-296') This is not Border-Phase Diorite but rather the typical	35 Mod	150	35±10 50x2 5+20 5-20 5	Y/10x2 Y/8 + Y/10 Y/8x2 3' Y/4	qt3-carb-py x2 qt3-chl-py x2 qt3-carb-py x2 qt3-chl-ser-carb-py qt3-carb-ser-py	0 10 20 30 40 50 60 70 80 90	4.0	143 145	95%	82%	96460	.09	.003		.08
diorite to quartz diorite rx occurring along the north side of the Sawmill Zone ~25 % chl ~10-20% qt3 ~15 % plag 10-20 % carb	30 Mod	160	25 5 3x3 20 20	Y/10 3" Y/2x2+1 12" 2'	qt3-chl-py qt3-ser-py qt3 qt3-ser-py qt3-ser-carb-py	0 10 20 30 40 50 60 70 80 90	4.0	155 168	98% 93%	35%	96461	.05	.005		.05
- This rx appears to have a pervasive carb. alt'n which shows up after the rx has been exposed for several weeks (brown weathering carb.)	30 wk-Mod	170	30	2'	qt3-ser-py	0 10 20 30 40 50 60 70 80 90	2.5	162 169 176	90% 25% 53%	12%	96462	.03	.002		.05
- the carb occurs in veinlets and as dissem. grns having a squarish euhedral outline - similiar alt'n was seen in hole 86-24 - sauss. alt'n of plag is weak to absent.	45 Mod	180	35x3 10 45x6 35-60x5 60x2	Y/10x3 Y/8 Y/8-Y/10x6 Y/10x5 Y/3+Y/4	qt3-chl-py x3 qt3-carb-py qt3-chl-py x6 qt3-chl-py x5 qt3-carb-py (sp) x2	0 10 20 30 40 50 60 70 80 90	3.0	171 175 178	95% 60% 90%	23%	96463	.04	.002	.06 2780	.06
	45 Mod-wk	190	35x5 5 30+35 15 15x3	Y/20x5 1" Y/3+Y/10 Y/3 Y/3x3	qt3-chl-py (sp) x5 qt3 qt3-carb-chl-py x2 qt3-carb-chl-py qt3-carb-chl-py x3	0 10 20 30 40 50 60 70 80 90	3.0	183 185.6	90% 96%	52%	96464	.04	.002		.10
	40 wk-Mod	200	90 35x3 15+20 30+30+45 20	1" Y/10x3 Y/10 x2 1"+Y/2+Y/4 2'	qt3-py qt3-carb-py x3 qt3-chl-py x2 qt3-carb x2 qt3-ser-carb-py zone	0 10 20 30 40 50 60 70 80 90	2.5	195.6 197	82% 160% 96%	50%	96465	.04	.002		.08

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-25
SHEET No. 4 of 9

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

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	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
				15		12"	qtz-chl-carb-py (cp)			201							
	35 Mod			35		8'	qtz-carb(ser)-py zone		2.5	207	73%	47%	96466	.06	.002		.10
			210	40		1/3	qtz-carb-py					210					
strong pervasive qtz-carb. alt'n	45 Wk			45 x 2		1/10 + 1/20	qtz-chl-py x 2										
				10 x 2		1/10 x 2	qtz-chl-py				98%						
				35 x 3		1/20 - 1/10 x 3	qtz-chl-py x 3		1.5			80%	96467	.04	.001		.10
				15		1/8	qtz-carb-py (cp)			217							
			220	20		1/10	qtz-chl-py (cp)				100%	220					
				0 x 20		1/4 x 2	qtz-carb-py (cp) x 2			221							
	5-50 Mod-Int.			50 - 5		9"	qtz-chl-ser-carb (py)((cp)) zone		2.0			75%	96468	.04	.002	.04 2235	12
			230								88%	230					
	5-60 Str. fold & Cren.			5-60		10'	qtz-ser-carb-chl. py ((cp)) zone		8.0	237		75%	96469	.02	.003		.14
			240								74%	240					
small fault				5		2'	qtz-ser-carb-py (cp)			242							
	5-50 Str-Mod			10		2'	qq-bx			245	67%						
				5		1 1/2'	qtz-carb-chl-py (cp)		3.0			12%	96470	.05	.002		.15
			250	50 x 2		1/20 x 2	qtz-chl-py x 2			250	74%	250					
				50 x 5		1/20 x 5	qtz-chl-py x 5										
	50-60 Mod			60 x 2		1/20 x 2	qtz-chl-py (cp) x 2				86%						
				70		1/20	qtz-chl-cp		2.5			51%	96471	.05	.002		.12
				50-60		1'	chl. carb - py zone			257							
			260									260					

GRID ____

GIBRALTAR MINES LTD.

HOLE No. 86-25
SHEET No. 5 of 9

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	45-50 Mod		270		45-50	10'	qtz-chl-carb (py) zone		2.0		267	92%	58%	96472	.05	.001	.04 2690	.08
	50 wk		280		45×2 50 50	1/10×2 1/8 1/2 4'	qtz-chl-carb-py×2 qtz-carb-py qtz-carb highly broken core		1.0		270 273 277 279	93% 100% 60%	38%	96473	.08	.002		.05
	ND		290		20 25×6 15×3 40×2 60 5 60-70×10	30" 1/10-1/20×6 1/20×3 1/10×2 1/8 1/8 1/20-1/8×10	qtz-ser-carb-py (cp) zone qtz-chl-py×6 qtz-chl-py×3 qtz-carb-py (cp)×2 qtz-carb-py qtz-chl-py (cp) qtz-carb-chl-py (cp)×10		3.5		280 287	75%	50%	96474	.07	.003		.12
296 SAUS. ALT'D FINE	ND.		300		? 20? 10+20+15×3 40×3	30" 3' 1/10×5 1/20-1/10×3	chl-pied-ep (pl) zone chl-pied-ep (py) zone qtz-chl-carb-py ((cp)×5 qtz-chl-py (cp)×3		2.5		290 295.6	98% 96%	67%	96475	.05	.002		.14
MED GRN DIORITE (296'-420') This may be a diff rx type - composition appears similar but tex. is diff. plus the rx shows strong saus	45 wk		310		15+5×2 20×4 30×2 5 5 5×2	1/10×3 1/10×4 1/8 1/4 1/3	qtz-chl-py (cp)×3 qtz-chl-py qtz-chl-py qtz-py qtz-carb-py (cp) qtz-carb-py (cp)		2.0		300 305.6		70%	96476	.05	.001		.10
- tex. consists of saus. plag porphyroblasts, rounded and up to 1/2" dia, in a seriate matrix of saus. plag, chl. and interstitial qtz. Caug. grn size of matrix is ~1/8" dia			320		30-40×6 35×5 45×4 45	1/20×6 1/10-1/20×5 1/20×4 1/10	qtz-chl-py×6 qtz-chl-py (cp)×5 qtz-chl-py×4 qtz-chl-py (cp)		1.5		310 315.6	75% 111%	70%	96477	.05	.001	.06 2645	.10

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-25
SHEET No. 6 of 9

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

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	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	45 WK		330		45 45+60+40 40 45 x2 40-50 x5	12" 1/20 x3 1/10 1/8 + 1/10 1/20 x5	qtz-chl-ep qtz-chl-py x3 qtz-chl-py qtz-chl-py x2 qtz-chl-py x5	0 10 20 30 40 50 60 70 80 90	1.5	324	102%	86%	96478	.09	.001		.08
	40 WK-Mod		340		40 x3 45 30 45 x3	1/20 x3 1/10 1/10 1/20 x3	qtz-chl-py x3 qtz-chl-py qtz-chl-py qtz-chl-py x3	0 10 20 30 40 50 60 70 80 90	1.0	331 335	98% 80%	44%	96479	.06	.002		.05
	ND		350		35 ? 5 x2 ?	1 1/2' 2 1/2 1/4 + 1/8 3'	qtz-chl-carb (py) zone ep (qtz) (carb) - py - cp zone qtz-chl-py x2 chl-ep (py)	0 10 20 30 40 50 60 70 80 90	2.5	342 347	92%	62%	96480	.09	.002		.14
	45-55 Str.		360		50 x3 60 + 30 + 5 45-55	1/20 x3 1/8 + 1/10 x2 4'	qtz-chl-py (cp) x7 qtz-carb-chl-py x3 qtz-carb-chl-(mag)(py)((cp))	0 10 20 30 40 50 60 70 80 90	2.0	357	95%	63%	96481	.06	.002	.06 2600	.12
	60-70 Str		370		60-70	10'	qtz-carb-chl-(py)((cp))	0 10 20 30 40 50 60 70 80 90	1.5	367	90%	8%	96482	.14	.001		.12
	80 Str.		380		80	10'	qtz-carb-chl (py)	0 10 20 30 40 50 60 70 80 90	1.0	376	90%	46%	96483	.03	<.001		.10

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-25
SHEET No. 7 of 9

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Discr.	Estimated Core Recovery %	RQD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	70 WK		390		45 x 2 80 80 45 x 2 80 x 2	½ x 2 ¼ x 2 3' ½ x 2 "+½ x 2	qtz-chl-py x 2 hem-carb-qtz x 2 carb-chl-py-cp qtz-chl-py x 2 qtz x 2	0 10 20 30 40 50 60 70 80 90	1.0	385 388	94% 70%	45% 390	96484	.06	.001		.12
	70 WK		400		70 70 45 80+70 25	½ ½ ¼ ¼ x 2 ¼ x 2	qtz qtz qtz-chl-carb qtz x 2 qtz-carb x 2	0 10 20 30 40 50 60 70 80 90	0.5	397	92%	75% 400	96485	.04	.002		.05
	60 WK		410		35 70-80 x 10 35+70 45	6" hle-½0 x 10 ¼ + ⅓ ½0	qtz-carb-chl qtz-chl-py x 10 qtz-carb cutting + displacing qtz. qtz-chl-py	0 10 20 30 40 50 60 70 80 90	0.5	407	100%	92% 410	96486	.04	.001	.04 2555	.05
	70 WK		420		15 70 x 3 80+70 x 2 60-70 x 6	½ hle-½0 x 3 ¼ + ⅓ x 2 ½0 x 6	qtz-hem qtz-chl-py qtz-chl-py + qtz-chl-py(cp) x 2 qtz-chl-py x 6	0 10 20 30 40 50 60 70 80 90	1.0	417	102%	85% 420	96487	.05	.004		.05
FINE-MED GRN. DIORITE (420'-507') same as 137'-298' - that is, sans. alt'n is weak or absent - most of the core shows	80 Mod		430		70 x 2 80	½0 x 2 7'	qtz-chl-py x 2 qtz-carb-chl(py)	0 10 20 30 40 50 60 70 80 90	0.5	427	93%	52% 430	96488	.03	.006		.06
chl-carb alt'n either pervasive or in strong zones accompanied by strong shearing and incr. sulfides.	80 WK		440		80 50 45	6' 3" ½0	chl-qtz-carb-py(cp) massive py chl-carb-py(cp)	0 10 20 30 40 50 60 70 80 90	5.0	437	100%	70% 440	96489	.09	.004		.12

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-25
SHEET No. 8 of 9

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 / LIM. ZONE / SUPERGENE	REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	ND		450		25 +20 60 50 10±2	½ + ¼ ⅛ ⅒ ½±½	qtz-chl-ep-py (cp) x 2 qtz-chl-py qtz-py qtz-carb-chl-py (cp) x2	0 10 20 30 40 50 60 70 80 90	1.0			447	100%	77%	96490	.11	.001	.07 2510	.12
	ND		460		? 45 60 60 45 45 + 90	12' ⅒ 1" 2" ⅛ ¼ + ⅒	chl-ep-carb-py (cp) qtz-chl-carb-py qtz qtz chl-ep-py-cp qtz-chl-carb-py x 2	0 10 20 30 40 50 60 70 80 90	1.0			457	100%	76%	96491	.14	.001		.14
ND to 80 sx			470		Box s 80	hle x s 3½'	chl-py x s qtz-chl-carb-ser (py)	0 10 20 30 40 50 60 70 80 90	2.0			467	94%	72%	96492	.05	.001		.07
80 mod-str.			480		80	10'	qtz-chl-carb-ser (py) ((cp))	0 10 20 30 40 50 60 70 80 90	3.0			477	100%	70%	96493	.17	.001		.08
80 str.			490		80 50	7' 2"	qtz-chl-carb-ser (py) qtz-ep-carb-py (mag)	0 10 20 30 40 50 60 70 80 90	1.5			487	100%	75%	96494	.08	<.001		.12
5-70 str. Cren			500		5-70	10'	qtz-carb-ser (py) mag* (cp)	0 10 20 30 40 50 60 70 80 90	0.5 + ~2.0% Mag.		* mag occurs as trains of microscopic grains which lie along foln planes - associated with ep -	497	92%	56%	96495	.04	<.001	.10 2465	.14

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-25
SHEET No. 9 of 9

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 / LIM. ZONE / SUPERGENE / REMARKS	Footage Discon.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
		E.O.H 507'	5-60 Str Cren				5-60	7'	qtz-carb-ser-mag(py)(cp)	0 10 20 30 40 50 60 70 80 90	0.5 ~3.0 mag.		507	100%	76%	96496	1/2	.001	.09	.14
		RDH.								0 10 20 30 40 50 60 70 80 90										
										0 10 20 30 40 50 60 70 80 90										
										0 10 20 30 40 50 60 70 80 90										
										0 10 20 30 40 50 60 70 80 90										
										0 10 20 30 40 50 60 70 80 90										
										0 10 20 30 40 50 60 70 80 90										

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-26
SHEET No. 1 of 8

LOCATION Sawmill Zone | BEARING — | LATITUDE ~33,996.00N | CORE SIZE N.Q.W. | LOGGED BY G.D.B
DATE COLLARED 22-Aug-86 | LENGTH 507' | DEPARTURE ~41,738.00E | SCALE OF LOG 1"=10' | DATE August 26 1986
DATE COMPLETED 22-Aug-86 | DIP -90° | ELEVATION 2,903' | REMARKS *this hole intersects the footwall of the West Boundary Fault

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 / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
Casing To 66'			66								66							
MAJOR FAULT ZONE (66'-91')			70								70	75		11201				
	ND		80			17'	"Solid gg"		?		72	0						
											76	25	0	11201	.31	.022	.31	?
											79	98					2825	
	ND		90			10'	gg + bx		?		81	98						
											85	70	0	11202	.24	.019		?
											87	90						
BROKEN & ALT'D ZONE soft clay alt'd qtz diorite with numerous bx zones and gg zones	55 Str	? Co	100		5" ⅟₀		qtz-cp* qtz-chl-cp		?	*def .15 o/o Cu equiv	90	75						
											93	95						
											99	98	3	11203	.40	.022		.30
- structure and rx types gen. not distinct					2'		99				100	75						
- This is the foot wall of the fault zone (91-125)	55 Str		110		1'		99		<.5%		107	40	0	11204	.43	.040		.15?
											110	98						

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-26
SHEET No. 2 of 8

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
	45 Str	120	60 x 2 80 ? 70 45 80	2" + 1 6" 14" 1/20 1/10 1/10	qt3 x 2 99 99 MoS2 qt3-chl-cp qt3(cp)	0 10 20 30 40 50 60 70 80 90	?		113 120	98 85	0	11205	.33	.024		15
125	45 Str					0 10 20 30 40	.5		121 122 125.6	98 98 90	3	11206	.50	.018	37 2780	20
FINE-MED GRN MINE PHASE		130	5 60 20 90 x 2	1/8 3" 1/8 1/10 x 2	qt3-cp-carb-cp cp-py(cp) chl-cp chl-cp x 2	50 60 70 80 90			127 130	98 98						
QUARTZ DIORITE (125'-318') 20-30% qt3 50-60% sauss plag. 15-20% chl 1-5% cp clots	35	140	50 40 x 2 30 35	1/10 1/10 x 2 1/20 1/4	chl-cp qt3-chl-cp(mag) chl-cp qt3-chl-cp	0 10 20 30 40 50 60 70 80 90	0.5		134 135.6 138	98 98 98 75	6	11207	.45	.014		.25
grn alt'n 1/20-1/10" -rx is soft and mod. vuggy with fine dissem py-(cp) or py-(cp) along foln planes - only the larger veins are shown in the structure-min. columns	40	150	5 40 x 2 35 30 x 25 20	1/10 1/8 x 2 1/2 1/10 x 2 1/8	qt3-chl-py(cp) qt3-chl-py-cp + qt3-carb-py-cp qt3-chl-py-cp qt3-chl-carb-cp x 2 qt3-(py)	0 10 20 30 40 50 60 70 80 90	1.0		142 147 149	75 98	6	11208	.48	.018		25
poss small steep fault	?	160	5' 45 x 2 5	5' 1/8 x 2 2'	highly broken zone qt3(cp) x 2 gg-bx	0 10 20 30 40 50 60 70 80 90	?		152 155 159	85 50 75	0	11209	.44	.040		?
	43 Str	170	5 x 2 60+25 x 2+45 20+60+45 20+30 25 x 2+10	1/20 x 2 1/8 x 4 1/10 x 3 1/4 x 1/10 1/8 x 2 + 1/4	chl-cp x 2 qt3-chl-py-cp x 4 chl-py-cp qt3-chl-cp x 2 qt3-chl-cp x 2 + qt3-cp	0 10 20 30 40 50 60 70 80 90	1.0		161 165 167 170	90 75 98 85	27	11210	.47	.020	.46 2735	.35

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-26
SHEET No. 3 of 8

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

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	Footage Discr.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	30 Str.		180	45 30 30 30 0 30 x 2 35 x 2 30 40	1/20 1/10 1/8 1/4 1/4 1/4 x 2 1/8 x 2 1/8 1/10	chl-carb-cp qt3-chl-cp qt3-cp (Mo) qt3-chl-cp qt3-chl-cp qt3-chl-cp (Mo) x 2 qt3-chl-carb-py-cp x 2 qt3-cp qt3-chl-py-cp		1.0		175 178	98 85	27	11211	.55	.038		.40
@ ~ 190' the rx becomes st. finer grd and more sheared - it is still a QD but no longer resemb a Mine Phase QD.	25 Str.		190	15 15 30 35 15 60 + 45 45 40 x 2	1/8 1/4 1/10 1/10 1/2 1/8 x 2 1/2 1/10 x 2	qt3-chl-cp qt3-chl-cp qt3-chl-cp chl-cp-py qt3-chl-cp chl-cp x 2 qt3-chl-cp qt3-chl-py x 2		1.0		185 190	90 90	20	11212	.54	.024		.40
	30 Str		200	35 25 15 + 20 20 15 x 2 20 25 35	1/2 1/8 x 2 1/10 x 2 1/2 1/4 + 1/8 1/8 1/4 1/8 - 1/4	qt3-chl-cp qt3-chl-py-cp x 2 qt3-chl-py-cp x 2 qt3-chl-carb-py-cp qt3-chl-carb-py-cp chl-cp qt3-chl-cp qt3-chl-py-cp		1.0		196 199	95 98	23	11213	.50	.028		.30
	30 Str		210	40 + 20 + 15 40 x 2 35 x 2 50	1/8 x 3 1/10 x 2 1/4 x 2 1/4	qt3-chl-py-cp qt3-chl-py-cp x 2 qt3-chl-cp chl-py (cp)		1.0		205 210	98 40	17	11214	.42	.018		.25
	?		220	45 30 60	1/8 1/4 1/3	qt3-cp qt3-chl-cp qt3-carb-(cp)	broken + last core	0.5		212 217 221	50 40 0	0	11215	.64	.018	.52 2nd	.25
	60		230	20 + 40 60 60	1/8 + 1/4 30" 12"	qt3-carb-py (cp) x 2 qt3-carb (py)(cp) zone chl-py-(cp) zone		1.0		224 230	70 75	3	11216	.26	.014		.20

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-26
SHEET No. 4 of 8

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 O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	40 Str.	240	50 45-50 x 10 20 25 x 3 35 x 3 5 x 3 + 45 x 4	12" 1/10-1/8 x 10 1/8 1/8 x 3 1/4 + 1/8 + 1/10 1/10 x 7	chl-carb-py(cp) zone qt3-chl-py(cp) x 10 qt3-chl-py(cp) qt3-chl-py-cp x 3 qt3-chl-carb-py(cp) x 3 qt3-chl-py(cp) x 7	0 10 20 30 40 50 60 70 80 90	4.0		234 239	95 95	3	11217	.22	.012		.15
	30 Mod	250	15 x 5 45+60+30+20 15 x 2 30-60 x 10 40 x 2 30 x 2 60	1/8 x 5 1/10-1/8 x 4 1/2 x 2 1/20-1/10 x 10 1/8 x 2 1/4 + 1/8 x 2 1/4	qt3-chl-py(cp) x 5 qt3-chl-py x 4 qt3-(Mo) + qt3-py(Go) qt3-chl-py x 10 qt3-chl-py(cp) x 2 qt3-chl-py x 3 qt3-carb-py	0 10 20 30 40 50 60 70 80 90	4.0		244 249	95 98	10	11218	.19	.012		.13
	25 Str.	260	20 15 x 2 5 10 x 3 5 x 2	1/10 x 3 1/2 + 1/5 1/4 1/4 x 3 1/10 x 2	qt3-chl-py x 3 qt3-chl-carb-py(cp) x 2 qt3-carb-cp-py qt3-chl-py x 3 qt3-chl-carb-py x 2	0 10 20 30 40 50 60 70 80 90	3.5		254 257 260	95 35 98	20	11219	.21	.008	.27 2695	.12
	25 Str	270	45 x 3 10 x 2	1/10 x 3 1/4 x 2	qt3-chl-ser-py x 3 qt3-carb-py(cp) x 2	0 10 20 30 40 50 60 70 80 90	3.5		266 270	98 98	27	11220	.19	.010		.12
	25 Str	280	35 x 3 70 40 15 40 x 6 20 5-10 x 9 20 x 2 5-45	1/20 x 2 1" 1/3 1/10 1/10 x 6 1/5 1/4 x 9 1/4 x 2 1/10 + 1/4	qt3-chl-py x 3 qt3 qt3-chl-py qt3-chl-py(cp) qt3-chl-py x 6 qt3-chl-py(cp) qt3-chl-py(cp) x 9 qt3-chl-py(cp) x 2 qt3-chl-py(cp) x 2	0 10 20 30 40 50 60 70 80 90	4.6		272 276	95 98	20	11221	.22	.018		.14
	30 Str.	290	4 5 5 40 x 3 30+45+30 20 x 2 20+15+2+30	1/4 1/8 3/4 1/10 x 3 1/10 x 4 1/8 x 2 1/10 x 3	qt3-chl-py-cp qt3-chl-carb-py-cp qt3-chl-carb-py-cp qt3-chl-py x 3 qt3-chl-py x 4 qt3-chl-py(cp) x 2 qt3-chl-py(cp) x 4	0 10 20 30 40 50 60 70 80 90	4.0		287	98 95	33	11222	.24	.012		.25

GRID —

GIBRALTAR MINES LTD.

HOLE No. 86-26
SHEET No. 5 of 8

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE | REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation, Alteration, Footage, Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	30 Str.	300	35 20+2 5+2 30 5+2 5+30	½ ⅛×2 1/10×2 ½ ⅛×2 1/10×2	qtz-chl-sp-py(cp) qtz-chl-py ×2 qtz-chl-py ×2 cp qtz-chl-py ×2 qtz-chl-py ×2	0 10 20 30 40 50 60 70 80 90	2.5	292 297	95 95	33	11223	.09	.007		.10
	40 Mod	310	80 5+20+15 45+80 20+15+60 30+2	2" 1/10×3 ¾+1 ⅛×3 ⅛×2	qtz qtz-chl-py×3 qtz-sp-py cut by qtz(vug) qtz ×3 qtz-chl-carb-py(cp)×2 } 3' broken zone	0 10 20 30 40 50 60 70 80 90	2.5	304 307 310	40 30	23	11224	.12	.007	.18 2600	.14
319	40 Str.	320	15+10+30 20+15 5 40 30 45 45	1/10×3 ¼×2 ½ 10 ¼ 1/5 14"	qtz-chl-py×2 + qtz-carb-py qtz-chl-py×2 qtz-(chl) py-cp qtz-chl-py 3one qtz-chl-py(cp) qtz-cp chl-carb-py zone	0 10 20 30 40 50 60 70 80 90	3.0	315 319	45 90	13	11225	.18	.004		.15
QTZ-CHL.-SER-CARB. SHEAR ZONE (319-381') a zone of alt'n, shearing and minor	60-70 Str sl. Cren	330	60-70	10'	qtz-chl-carb(ser)-py(cp) zone	0 10 20 30 40 50 60 70 80 90	2.0	322 327	90 95 95	20	10626	.16	.005		.12
crenulation - proportions of alt'n minerals vary from qtz-ser-carb to chl-carb over >5' intervals	65 Str.	340	65	10'	qtz-ser-carb-(chl)-py(cp) zone	0 10 20 30 40 50 60 70 80 90	2.0	332 337 339	40 45	7	10627	.21	.006		.10
- a finely dissemblk mineral is present - poss. Tourmaline - fine py(cp) dissem. occur throughout zone, often along foln planes.	70	350	70	10'	qtz-ser-carb-py(cp)	0 10 20 30 40 50 60 70 80 90	2.0	347	85 80	13	10628	.19	.009	.18 2555	.14

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-26
SHEET No. 6 of 8

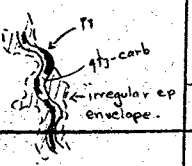
ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS / LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	80 Sl. Cren.	360	80	3' / 7'	qtz-carb vein; carb-chl-py(cp) zone *		1.5	* in places the chl. is bright green (like manipositte)	351 missing blk.	90	27	10629	.08	.004		.10
	45-60 Str.	370	45-60	10'	qtz-chl-carb-ser-py		2.5		367	98	23	10630	.05	.002		.10
	45-70 Str Cren	380	45-70; 70	8'; 2'	qtz-chl-carb-ser-py(cp); chl-carb zone		3.0		372	98	30	10631	.06	.005		.12
381' FINE-MED GRN DIORITE (381-452) grades To a QD in places but is distinctly different from The Mine Phase Q.D. – 20-30% chl. 50-60% saus plag 10-20% qtz	ND	390	40×2; 30; 80; 30; 60; ?	1/16×2; 1/16; 1"; 1/8; 2"; 2'	qtz-chl-carb-py×2; qtz-chl-carb-py; qtz; qtz-chl-carb-py; qtz-py(cp); ep-chl zone		1.0		380	98						
									387	98	13	10632	.08	.003		.08
		400	5×3; 45; 5×2; 40+30; 20; F	1/20×3; 1"; 1/16+1/8; 1/16×2; 1/8; 1/2	hem-qtz×3; qtz(chl); qtz-ep-py×2; qtz-chl-py×2; qtz-ep-py; qtz-ep-py		1.0		392	98	37	10633	.06	.003	.07 2510	.08
+ in places large clots and stringers of ep rx has a seriate tex. with large (1/16-1/8") plag. pheno's in a matrix of finer grns (cataclastic deform.?)		410	30; 45+30; 50+60+30; 5×2; 90+45	1/16; 1/16+1/8; 1/8×3; 1"+1/16; 1/16×2	qtz-chl-py; qtz-chl-ep-py×2; qtz-ep-carb-py×3; carb-ep-py×2; qtz-chl-py×2		2.0		397	98						
									402	98	53	10634	.09	.004		.05

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-26
SHEET No. 7 of 8

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 Block	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
This rx also shows much ep as envelopes around qt3 and qt2 carb py veins* – two distinct vein types are present: qt3 carb-py with ep halo's and qt3-chl-py. Most of the ep veins are steep	ND	ND	420		5 5 5-15 x 4 20 x 15	1" ¼ 1/10 x 4 1/10 x 2	qt3-carb-ep*-py qt3-carb-ep-py qt3-chl-ep-py x 4 qt3-chl-py (ep) x 2	0 10 20 30 40 50 60 70 80 90	1.0		417	98	50	10635	.06	.003		.08
	ND		430		15 x 2 + 20 15 + 50 10 30 - 10 x 4	1/8 x 2 + ¼ 1/10 x 2 ½ 1/10 x 4	qt3-chl-carb-py x 3 qt3-chl-py x 2 qt3-chl-ep-py (cp) qt3-chl-py x 4	0 10 20 30 40 50 60 70 80 90	1.5		427	98	67	10636	.09	.002		.08
	ND		440		5 x 2 + 50 x 2 5 20 x 2 5 + 10	1/10 x 4 ⅕ 1/10 x 2 ⅛ + 1/10	qt3-chl-py x 4 qt3-chl-py qt3-chl-py x 2 qt3-chl-py x 2	0 10 20 30 40 50 60 70 80 90	1.0		432 440	98 95	53	10637	.08	.003	.08 2465	.05
	ND		450		60 10 5 + 20 5 x 3 70 + 45	1" ¼ ⅛ x 2 ⅛ x 3 1/10 x 2	qt3 qt3-chl-py qt3-ep-py x 2 qt3-ep-py x 3 qt3-cp x 2	0 10 20 30 40 50 60 70 80 90	1.5		447	95	53	10638	.12	.004		.05
452 QTZ-CHL-CARB (SER) SHEAR ZONE (452 - 482) similar to 319-381'	80 str		460		80 /	3'	chl-carb(py) zone	0 10 20 30 40 50 60 70 80 90	1.0		457	98	23	10639	.05	.002		.08
	80 str Cren		470			18'	qt3-carb-chl-ser(py) zone	0 10 20 30 40 50 60 70 80 90	1.0		467	98	37	10640	.06	.003		.10



GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-26
SHEET No. 8 of 8

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 Discs.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	15-75 Str.	480	45-75	12'	chl-carb(py) 3onc	0 10 20 30 40 50 60 70 80 90	2.0		476	95	63	10641	.07	.003		.12
482										85						
DARK GREEN FINE GRN DIORITE (482-507)	80 Mod	490	60×3 60+30+40	Y10×3	qt3-chl-py×3 qt3-chl-py×3	0 10 20 30 40 50 60 70 80 90	2.0		483 486 488	95 98	57	10642	.06	.007	.07 .290	10
similar to the above diorite but with ~ 30-40 o/o chl. and no visible qt3. - also sl. bx. tex. with ep. clots in chl matrix - in this respect.	80 wk	500	60 5×3 60-90×5 60+45	Y10 Y10×3 Y10-Y8×5 Y8×2	qt3-chl-py carb×3 qt3-carb-chl-py×5 qt3-chl-carb-py×2	0 10 20 30 40 50 60 70 80 90	2.5		497	75	3	10643	.06	.009		12
The rx in places approaches Cache Crk meta-andesite. EOH 507' BDB			70 5-60×6 70-80×4 80 90×3	Y2 Y6-Y4×6 Y10×4 2" Y8 Y10×3	carb carb×6 qt3-chl-py(cp)×4 qt3 (cp) qt3-chl-py(cp) qt3-carb-chl-py×3	0 10 20 30 40 50 60 70 80 90	2.0		507	94		10644	.09	.003		14
						0 10 20 30 40 50 60 70 80 90									.07	
						0 10 20 30 40 50 60 70 80 90										

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-27
SHEET No. 1 of 5

LOCATION SAWMILL ZONE | BEARING — | LATITUDE ~33,779 N | CORE SIZE N.Q.W. | LOGGED BY G.D.B.
DATE COLLARED 23-Aug-86 | LENGTH 351 | DEPARTURE ~47,531 E | SCALE OF LOG 1" = 10' | DATE Nov. 14 1986
DATE COMPLETED 23-Aug-86 | DIP -90° | ELEVATION ~2,895' | REMARKS hole was abandoned at 351' and did not intersect the projected ore zone. See below *

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
Casing To 131'										LEACH CAP — / LIM. ZONE — / SUPERGENE —								
131' MAJOR FAULT ZONE (131'-175')	?		140			10	(gg)-bx		?	no limonite; * this hole intersects the West Boundary Fault Zone at ~250'-290' - another fault occurs at 131'-175'	131 / 133 / 137 / 140	50 / 30 / 40	0	96251	.01	<.002		?
main gg zone occurs at 140'-163' - this also crosses a rx change from mainly Cache Crk frags above to mainly pale diorite frags below	?		150			10'	gg ((bx))		?		145	20 / 85	0	96252	<.01	<.002		?
- that is, the main dislocation may take place at ~160'.	?		160			10'	gg (bx)		?		152 / 157	20 / 90	0	96253	<.01	<.002	<.01 / 2735	?
	?		170			10	gg-bx		?		164	30	0	96254	.01	<.002		?

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-27
SHEET No. 2 of 5

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Discr.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
175'	ND					5'	gg-bx	0 10 20 30 40 50 60 70 80 90	0		171	25	0	96255	<.01	<.002		0
BLEACHED DIORITE (175'-188')			180			5'	broken rock				175 / 177 / 179	85 / 90						
a pale grey med-coarse grn rx having a bleached appear. ~25% chl. ~10-15% interstitual qtz ~60-65% white plag	ND			70		1"	qt3	0 10 20 30 40 50 60 70 80 90	0		185 / 187	90 / 50	3	96256	<.01	<.002		0
- the chl. appear chalky and poorly defined - this rx is a common type well exposed south of 79-11	?		190			12'	gg-bx	0 10 20 30 40 50 60 70 80 90	?	rock change occurs @ ~ 196'	194 / 198	75 / 85	0	96257	<.01	<.002		?
FAULT ZONE (188-200')			200															
EPIDOTE - CHLORITE PIEDMONTITE BRECCIA a mottled chl-green epidote green and pink rx. consisting of ep-pied. clots up to 3" dia in a predominately chloritic matrix. (200-216')	ND		210			10'	broken core	0 10 20 30 40 50 60 70 80 90	<0.5		205 / 208	85 / 50	3	96258	<.01	<.002	<.01 / 2690	.05
	ND					8" / 3" / 6" / 7"	carb qt3 carb qt3	0 10 20 30 40 50 60 70 80 90			217	85	7	96259	<.01	<.002		
BLEACHED DIORITE (206'-231')	30-80 str.		220				zone of strong shearing and poss silicification											
similar to (175-188)	ND		230	70 / 70		¼ / 2"	qt3 qt3	0 10 20 30 40 50 60 70 80 90			227	98	13	96260	.01	<.002		

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-27
SHEET No. 3 of 5

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation, Alteration, Footage, Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Estimated Core Recovery %	RQD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
			60	1/8	qtz (blue)	0			231							
EPIDOTE - PIEDMONTITE CHLORITE BRECCIA (231'- 251') Similar to 200-216 but less piedmontite	NP	?		2"	qtz	10 20 30 40 50 60 70 80 90	0		235	45	0	96261	<.01	<.002		0
		240							239	60						
and also contains zones of bleached diorite - The matrix also appears to be less chloritic and more fragmental - this is poss. a meta-vol. pebble conglomerate	ND				highly broken core	0 10 20 30 40 50 60 70 80 90	0		247	85	16	96262	<.01	<.002	<.01 #695	0
		250								74						
CLAY ALT'N ZONE (251-289') same as above but the rx is soft, appears crushed and is clay	ND					0 10 20 30 40 50 60 70 80 90	0		252							
		260							254	75						
									257	100	20	96263	.01	<.002		0
alt'd - is this part of the fault zone? - The core is laroely intact but appears to be a jumble of angular frag's in a clayey matrix - the can easily be	ND				no vein str. or mineralization numerous 70-90° clayey shears	0 10 20 30 40 50 60 70 80 90	0		267	98	23	96264	<.01	<.002		0
		270														
broke by hand usually along flat lying clayey shears. - actual gg. occurs @ 285-289 at the contact - This zone is very likely a fault zone	ND				as above except random patches of dissem py	0 10 20 30 40 50 60 70 80 90	0.5		277	92	28	96265	<.01	<.002		0
		280														
as a major rock change occurs at its base!			70?	4'	qtz-bx	0 10 20 30 40 50 60 70 80 90	0		287	83	4	96266	<.01	<.002		0
289																
		290														

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-27
SHEET No. 4 of 5

ROCK TYPES & ALTERATION	∠ to Core	Foliation	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
QUARTZ DIORITE (289'-351') - Prob. Mine Phase - ~25% chl. - ~25% qtz - ±15% ep clots - 25-50% wk. sauss plag. - a soft dark med-grn (1/10" dia) rx which when coarser grn'd does resemble Mine Phase - soft, sheared and broken from ~289' to 310' due likely to the fault but this is also an area of pre-fault shearing and alt'n. - weak gyp-qtz-mag begins at 289' and increases towards EOH - the main gyp-qtz	80 Str 45-80 str. sl. Crsn. 45-80 WK		300 310 320	80 45-80	10' 10'	qtz-chl-carb (mag)(py)((cp)) 3one + random gyp. veins qtz-chl-carb(ser)(py)((cp)) 3one + random gyp. veins qtz-chl-carb 3one qtz((cp)) x 3 qtz-mag-cp chl-mag-cp gyp x 2 chl-carb-gyp 3one qtz-mag	1.0 1.0 0.5		295 305 315	70 94 91	14 20 38	96267 96268 96269	.17 .14 .20	.002 .004 .004	.02 2600	.10 .12 .14
3one has not been reached and the high Cu values from the associated mag-cp(bo) are not expected. Py is still present in the intersected 3one and Therefore, The mag-cp(bo) zone is expected to lie at a deeper level.	45 Mod		330 340 350			qtz-carb x 5 gyp x 2 gyp py qtz-mag chl-gyp gyp x 2 qtz-py-cp qtz-py-cp qtz-chl-mag-cp x 2 gyp qtz x 3 qtz x 3 qtz x 3 py(cp) gyp x 2 qtz-(chl)(carb-3one qtz x 2 qtz-chl-cp-mo qtz(cp) x 2 qtz x 5 qtz-mag qtz-chl-cp gyp qtz x 5 qtz-mag qtz-chl-cp	1.5 1.0 0.5	beginning of qtz stockworks and fine dissem. cp.	325.6 335.6 346	92 98 100 90	28 55 64	96270 96271 96272	.13 .07 .24	.006 .006 .014	.14 2555	.15 .12 .20

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-27
SHEET No. 5 of 5

ROCK TYPES & ALTERATION			∠ to Core Foliation	GRAPHIC LOG: Foliation / Alteration / Footage / Silicified	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
		EOH 351'			45°	1/8"	tr sp-chl-cp tr sc mag	0 10 20 30 40 50 60 70 80 90										
								0 10 20 30 40 50 60 70 80 90										
								0 10 20 30 40 50 60 70 80 90										
								0 10 20 30 40 50 60 70 80 90										
								0 10 20 30 40 50 60 70 80 90										
								0 10 20 30 40 50 60 70 80 90										

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-28
SHEET No. 1 of 8

LOCATION SAWMILL ZONE | BEARING — | LATITUDE ~34,049 N | CORE SIZE N.Q.W. | LOGGED BY G.D.B
DATE COLLARED 21-Aug-86 | LENGTH 503' | DEPARTURE ~47,253 E | SCALE OF LOG 1"=10' | DATE Dec. 1, 1986
DATE COMPLETED 25-Aug-86 | DIP -90° | ELEVATION ~2,896' | REMARKS * see remarks column.

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 0; LIM. ZONE 0; SUPERGENE 0; REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
Casing To 125'																		
FAULT ZONE (125'-149') most rx frags are	60 Mod		130			5'	broken & lost core		0	This hole intersects a good section of Cache Creek rxs, including ~70' of limestone, and extends through the West Boundary Fault and into the Mine Phase Q.D. - another fault zone was intersected at the surface (125'-149') - this may suggest major fault systems are present west of the W. Boundary Fault - considering the amount of broken and gg'y rx in this hole between the two faults - other holes drilled to the west support this idea - note that two faults were also intersected in 86-27, an upper zone and a lower zone with broken gg'y rx in between.	126							
fine to aphanitic brown weathering rx. but changes within 140-149' to the underlying meta-andesite - this zone is also one of greatest core lost + gg. development and may be the zone of major dislocation	55-60 str.		140			10'	broken & lost core		0		129	40	0					.01
	50° str.					9'	(gg)-bx + ~7' lost core		0		134	30	7					.01
149 DARK GREEN META ANDESITE (149'-239') a typical rx. of the local Cache Creek Grp. - a fine grn rx showing banding imparted by alternating dk green chl.-rich bands and dk grey feldspathic bands, or bands of light gy-carb. laminae usually varies between 1/10 and 1/2" thick. - in a few places, dark grey chert bands (1/2") were noted with disseminated magn.	45-50 Str		150	45		1/2"	chert-mag		0		141							
											145	5						
				50		2'	chert-mag				147	30	7					.01
				10		6"	chert-mag				149	20						
			160									55						
											153							
											155	50	7					.01
												60						
											159							
grey	45-70 Str		170			10'	highly broken core		0		167	20	0					.01
												45						

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-28
SHEET No. 2 of 8

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
; this unit is interpret to be a metamorph. sequence of tuffs & volcanic seds. chiefly of andesitic comp.	80 str.					5'	broken + lost core	0 10 20 30 40 50 60 70 80 90	0	171	30	3					.01
- this unit is heavily			180			3'	gg-bx			174	50						
faulted and difficult to log (see R.Q.D.) - it may be a series of fault wedges related to the West Boundary Fault zone - at 225' the rx. changes somewhat	70 str					2'	gg-bx.	0 10 20 30 40 50 60 70 80 90	0	177	45						
			190		5-80	2'-4'	chert-hem (spec.)			180	40	0					.01
becomes more massive and in places contains clots of ep.	40-45 str			80		1'	chert-hem (spec)	0 10 20 30 40 50 60 70 80 90	1.5	183	30						
- the chert-mag and chert-spec. bands are of interest - could this be of exhalative origin?				5-20		3'	chert (carb) ((py))			187	50						
			200							189	20	3					.01
										194	40						
	45-60 str							0 10 20 30 40 50 60 70 80 90	0	199	80	7					.01
			210	?		4'	(gg)-bx-hem			206	50						
	35-40 str			40		5'	gg-bx-hem	0 10 20 30 40 50 60 70 80 90	0	208	55	0					.01
			220	?		30"	gg-bx			215	60						
	?			?		6'	gg-bx	0 10 20 30 40 50 60 70 80 90	0	218	85						
			230							220	60	7					.01
										225	80						

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-28
SHEET No. 3 of 8

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
239	80? WK		240			4'	highly broken core + minor gg	0 10 20 30 40 50 60 70 80 90	0		231	40	3					.01
						5'	broken - hem stained zone				234	80						
											240							
BANDED QTz-CARB. CHLORITE - SERICITE UNIT (239'-315') - Typical Cache Creek Group rxs for this area. - assumed to represent	50 str		250		50	6'	grey cherty zone	0 10 20 30 40 50 60 70 80 90	0		243	90	0					.01
						4'	qt_3-carb-ser				245	80						
											249	70						
a sequence of meta-sedimentary rx.s chiefly of volcanic origin and ranging from rhyolitic to andesitic - the andesitic members differ from the over-lying unit in that they are strongly banded	60-80 sl. Cren		260		60-80	7'	qt_3-carb-ser	0 10 20 30 40 50 60 70 80 90	0		257	90	10					.01
					60-70	3'	qt_3-carb-ser-chl											
with equal laminae of chl. and qt_3-carb. The laminae in this unit ranges from 1/20 to 1/2" thick which the qt_3-carb. bands tending To be lensoid with. The chloritic and sericitic	60-70 str		270		20?	3'	qt_3-carb-ser-chl	0 10 20 30 40 50 60 70 80 90	< 0.5		267	90	3					.01
					?	12"	qt_3											
						30"	chert. carb. - mag(py) band											
						4'	qt_3-carb-chl											
material molded around each lens. The carb. is usually light brown weathering	80 str sl. Cren		280		60	12"	qt_3-carb (cp)	0 10 20 30 40 50 60 70 80 90	0	core is soft and friable	277	90	10					.10
					80	9'	qt_3-chl-carb											
							dk grey chl - not the usual dk green also - white carb not brown weathering											
	80-90 str		290		80-90	10'	qt_3-chl-carb	0 10 20 30 40 50 60 70 80 90	0		287	75	0					

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-28
SHEET No. 4 of 8

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 / LIM. ZONE / SUPERGENE / REMARKS	Footage Diagnost.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	70-80 str		300		70-80	10'	qt3-chl-carb	0 10 20 30 40 50 60 70 80 90	0		297	85	0					.01
	60-70 str		310		60-70	10'	qt3-chl-carb	0 10 20 30 40 50 60 70 80 90	0	core is soft & friable	307	85	0					.01
315	10-60 str				10-60			0 10 20 30 40 50 60 70 80 90	0		317	98	17					.01
GREY LIMESTONE UNIT (315-351') a pale to med grey fine grn rx with fine micaceous parting - lk color is due to a dk grey "dust" scattered throughout the rx and in places defining a weak foln - also present is finely dissem py.	ND		320															
- The rx fizzes readily in wk HCl. + this appears to be a limestone not marble + the mica parting prob. represent bedding planes - that is, attitudes in this foln column may be bedding angles.	60-70 wk.		330					0 10 20 30 40 50 60 70 80 90	Z 0.5		327	95	50					.01
	70-80 wk		340					0 10 20 30 40 50 60 70 80 90	Z as		337	95	63					.01
	80 wk		350					0 10 20 30 40 50 60 70 80 90	Z 0.5		351	95	17					.01

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-28
SHEET No. 5 of 8

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Veins	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Blocks	Estimated Core Recovery %	RQD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
351																	
MIXED CALCAREOUS UNIT (351'-370') a mixture of the overlying limestone and other impure calcareous sediments - possibly cut by various qtz-carb	80				30 / 40 / ?	12" / 6" / 2½' / 2'	scarn? - (py)(sphal.)(cp) - fine diss'm. in scarn. / gg-bx / qtz-chl-ep-carb / chl-scarn		0.5	357	95	20					.01
360											95						
vein systems - also includes some white marble - foln angles are clearly bedding angles	80-90 WK			?	TO-80	12" / 3'	ep-pied-chl scarn / brown carb-chl. zone		2 0.5	362	90	20					.01
370			370	?		2'	brown-carb-qtz zone			367							
WHITE MARBLE (370'-390') - a white pure rx which readily fizzes in acid. - no structures or bed. planes - contains qtz which	ND					3'	broken zone		0	375	90	33					.01
380											45						
is also white and diff. to estimate %'s - at 390' the marble passes abruptly into a dk green chl.-ep bx., assumed to represent a meta-volcanic conglomerate (typical rx type here). This is not considered to be a fault contact!	ND					7' / 3'	highly broken zone / healed bx? (marble appears shattered & healed with WK material)		0*	383	20	20					.01
390										387							
MAJOR FAULT ZONE (390'-968') This is a highly broken zone which several strong gg. zones and short sects of intact but friable rx.	?			?		8'	solid gg		?	397	85	0	96551	.02	<.002		?
400																	
Most of the rx appears to belong to the chl-ep bx unit with some scarn and typical meta-andesite - a white qtz-porp (pl) unit occurs @ 437'-447'				?		10'	gg-bx (dissem py in some frags.)		?1.0?	407	80	0	96552	.06	<.002		?
410																	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. B6-28
SHEET No. 6 of 8

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE | REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration, Footage, Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
-the main dislocation appears to be at 447' with the abrupt change to med. grn. qtz-diorite frag.'s -this change could also have taken place	?	420	?	10'	gg-bx + ~4' of lost core	0 10 20 30 40 50 60 70 80 90	1.0?		413	60						
									418	65	0	96553	.01	<.002		.05?
at 437' with the first appearance of qtz-porp. depending on whether the Q.P. belongs to the Cache Crk rx's or to the qtz-diorite - assay values may resolve this	?	430		10'	bx (gg) - strong dissem py in scarn frags.	0 10 20 30 40 50 60 70 80 90	2.5?		423	60						
										90	0	96554	.01	<.002		.05
	?	440		10'	gg-bx	0 10 20 30 40 50 60 70 80 90	3.0?		431							
									437	80	0	96555	.05	.002		.05
	?	450		10'	bx-gg + ~5' lost core (strong dissem. py with Q.P.)	0 10 20 30 40 50 60 70 80 90	3.0?		447	60	0	96556	.20	.010		.08
										50						
	?	460		10'	bx-gg + 5'-6' lost core (first cp seen in frags)	0 10 20 30 40 50 60 70 80 90	2.0		451							
									457	40	3	96557	.25	.014		.18
	?	470 60 x 2 70	½ o x 3 ½	7'	bx-gg + ~3' lost core qtz-chl-cpx ± qtz-carb-Sp	0 10 20 30 40 50 60 70 80 90	1.0	~⅛" solid cp	467	55	0	96558	.39	.014		.25

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-28
SHEET No. 7 of 8

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS	Footage Blocks	Estimated Core Recovery %	RQD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
FINE-MED GRN. QUARTZ DIORITE (468-503) -typical Q.D. as intersected in nearby holes (ie 86-28) but slightly finer grn'd.	60-70 WK		480		60 60 ? 45 45	½ ½ 12" 1" ¼	qtz qtz-chl-cp gg-bx qtz-mag(cp) qtz-chl-cp } fine dissem. cp(bo)	0 10 20 30 40 50 60 70 80 90	<0.5	~¼" solid cp	473 477	80 30	0	96559	.39	.014		.25
~25 % ~20 % chl ~40 % plag (wk sauss) ~15 % cp as clots + stringers ∴ this rx is within or close to the qtz-mag-bo-cp zone as intersected in 86-28.	60-70 WK		490		? 5 ?	2" ⅛" 12"	gg-bx qtz-mag (cp) qtz (cp) gg-bx	0 10 20 30 40 50 60 70 80 90	<0.5		483 487	25 20	0	96560	.33	.010		.15?
	70 WK		500		30×2 80 70 70×2 80×2+60 60+70 70 45+70 80 70 80×2	⅛×2 ¼ ⅛×2 1/10×3 ⅛×2 ⅛ 1/10×2 ½ ⅓ 2"+¼	qtz + qtz-mag gyp qtz (cp) qtz×2 gyp×3 qtz×2 qtz-mag (bo) gyp-hem×2 qtz-chl-cp qtz (cp) qtz×2 } fine dissem cp (bo)	0 10 20 30 40 50 60 70 80 90	<0.5	~¼" solid cp.	493	85 98	20	96561	.21	.004		.25
EOH 503' B.D.B.					45×3 40×2	1/20-hle×3 1/10×2	chl-cp×3 gyp-hem×2	0 10 20 30 40 50 60 70 80 90			503			96561	.21	.004		.30
								0 10 20 30 40 50 60 70 80 90										
								0 10 20 30 40 50 60 70 80 90										

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-29
SHEET No. 1 of 8

LOCATION SAWMILL ZONE | BEARING — | LATITUDE ~ 33,509.00 N | CORE SIZE N.QW. | LOGGED BY G.D.B.
DATE COLLARED 26-Aug-86 | LENGTH 501' | DEPARTURE ~ 48,442.00 E | SCALE OF LOG 1"=10' | DATE NOV. 17, 1986
DATE COMPLETED 26-Aug-86 | DIP -90° | ELEVATION ~ 2915' | REMARKS very low recovery and low R.Q.D throughout most of the hole.

BOTTOM DEPTHS: LEACH CAP —; LIM. ZONE —; SUPERGENE

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Stockwork	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
Casing To 54'											54							
QUARTZ DIORITE (54'-501')	30 Mod		60		? 15+5 20 30+2 20 5	2" ⅛+⅛ 2" ½2 2" ⅛	qtz-py; qtz-chl-carb(cp)(cc) + qtz; chl-cp-py; qtz-carb-(py)x2; qtz-carb-chl(py)(cp); qtz-carb-py		1.5	no limonite zone	57	90		96326	.14	.004		.18
												85						
- med-fine grn size ~ ⅛0 aug-dia - could easily be called a diorite as qtz is not conspicious (2 ⅛0" dia) ~ 30 o/o chl ~ 20 o/o interstitual qtz	35 mod-str		70		30 25+2 15+20 20 50 10 30	⅛0 ⅛0x2 ½x2 ½ ⅛ ½ 12"	chl-cp; chl-py x2; qtz-py x2; qtz(cp); qtz-chl-cp; qtz-chl-carb-py; chl-carb(py)(cp) zone		2.0		61							.20
											67	90	27	96327	.20	.009		
												80						
~ 35-40 o/o wk. saus plag 10-15 o/o ep as clots and stringers - core has a soft vuggy appear. and contains finely disseminated py(cp) which is often with vuggy ep clots or stringers.	50-70 Mod		80		70 80 70+80 70+30 70 5 70x3 25	½ ⅓ ¼+½ 70x2 2/8 ⅛ ⅛0x3 ⅛0	qtz; chl-carb; qtz(cp)x3; qtz-chl-cpx2; qtz; qtz; chl-pyx3; qtz (cp)		1.5		73	85	27	96328	.19	.004		.18
											77							
- @ ~150' to EOH the core becomes dark with the inc. in carbt chl. and a decrease in ep. - saus is still present however. - is this the reverse of zoning seen in 79-17 etc	45 wk		90		35+30 30 50 90 15 80 30+2 7-20 x3	⅛0 + ⅛ ⅛0 ½0 ⅛ ⅛0 ¼ ⅛0x2 ⅛0x3	chl-py + qtz-chl-py; qtz(cp); chl-py(cp); qtz-chl-cp; chl-py; qtz-carb-cp; qtz-chl-pyx2; qtz-chl-pyx3		2.0		87	95	50	96329	.07	.005	.16	.16
																	2825	
	40 wk		100		13+90 45+70 30 5+60x2 5 35+40+45 60 5-2 ?	⅛0x2 ⅛0x2 ½ ⅛0x3 ½ ⅛ ⅛0x2 ⅛	qtz-chl-py x2; chl-carb-cp x2; qtz-mag(cp); qtz-chl-py (cp)x3; qtz; qtz-chl-carb-py-cp x7; ser-py; qtz-chl-py(cp)x2; carb-cp		2.0		94	98	30	96330	.16	.28		.15
												100						

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-29
SHEET No. 2 of 8

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
50 WK-Mod			110	45x4 60x2 20 15 5 10x3 60x3 50x2 45+60+80	1/10-1/20 x4 1/10x2 1/8 1/3 2" 1/10x3 1/10x3 1/4x2 1/3+1/4+2"	qtz-chl-py x4 chl-py x2 chl-carb-py qtz-chl-carb-py (cp) qtz qtz-chl-carb-py (cp) x3 qtz-chl-py (cp) x3 carb-chl-py x2 qtz (py) x3	0 10 20 30 40 50 60 70 80 90	2.5		101 107	90	23	96331	.14	.016		.15
70 Mod			120	60 60 60x5 5x2 70 5+60+40 40x2 40x2	1/4 20° 1/20-1/10x5 1/4x2 1/8 1/10x3 1/8x2 1/8x2	qtz-carb (py) qtz-chl-carb-py (cp) zone qtz-chl-py (cp) x5 qtz ((cp)) x2 qtz-chl-py qtz-chl-py (cp) x3 qtz (cp) + qtz-chl-py qtz-chl-carb py x2	0 10 20 30 40 50 60 70 80 90	2.5		114	90 95	23	96332	.12	.009		.14
70 Mod			130	50x2 80 10 5 70 20+20+15+3 5 40	1/4+1/10 1/3 1/2 1" 1/10 1/10-1/20x5 1/4 1/2	qtz-chl-carb-py x2 qtz-ser-py (cp) qtz-(mag) (cp) qtz-mag (cp) qtz-cp qtz-chl-py x5 qtz-chl-py (cp) qtz-chl-carb-py	0 10 20 30 40 50 60 70 80 90	2.0		121 125	90 95	17	96333	.31	.008		.15
50-60 Mod			140	5' 40 40+45	1/4 1/10x2	broken core qtz qtz-chl-py	0 10 20 30 40 50 60 70 80 90	1.0		131 137 140	90 60	3	96334	.12	.004	.18 2780	.08
50 Mod			150	5' 10 35 x2 40x3+80 45	1/4 1/8x2 1/10x3 1/3	broken core qtz (cp) qtz-chl-py x2 qtz-chl-py x3 qtz-mag (cp)	0 10 20 30 40 50 60 70 80 90	2.0		150	50	7	96335	.18	.009		.10
45-35 Mod			160	50 - 60+45 10-30x5 40	1/4 1/4 1/4x2 1/20-1/10x5 1/2	qtz qtz-carb-cp qtz-cp qtz-chl-py x5 qtz-chl-cp	0 10 20 30 40 50 60 70 80 90	1.5		155 160	60 95	17	96336	.15	.007		.14

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-29
SHEET No. 3 of 8

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 / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocked	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	50-60 WK		170		20×2 20+80 15×3 20×2 30+80 45+50	Y3+Y4-0 Y4+Z" Y10-Y8×3 Y10×2 Y8×2 Y10×2	qt3-chl-py ×2 qt3×2 qt3-chl-py×3 qt3-chl-py×2 qt3-carb-py(cp)×3 qt3-chl-py(cp)×2	0 10 20 30 40 50 60 70 80 90	2.5		165 168	85 30	27	96337	.12	.009		.12
	50 Mod		180		60 20 40-45×4 40+35 20 15	Y8 Y4 Y10×4 Y8×2 Y4 Y4	qt3-mag qt3-chl-py(cp) qt3-chl-py(cp) qt3-chl-py qt3-chl-py qt3-chl-py(cp)	0 10 20 30 40 50 60 70 80 90	3.0		173 177	60 90	10	96338	.16	.013	.15 2735	.10
	50 Mod		190		60 45+50×4 30+35 20×2 30 15 25	Y4 Y2u×5 Y10×2 Y10×3 Y4 Y3 Y10	qt3-ser-py qt3-chl-py×5 qt3-carb-py-cp×7 qt3-chl-py×2 qt3 (cp) qt3-carb-ser-py(cp) qt3-chl-py	0 10 20 30 40 50 60 70 80 90	3.0		183 187 196	85 75 98	13	96339	.15	.018		.14
	30 WK		200		5×2 10 10 35+40+80×2 40 40×3	Y10×2 Y3 Y8 Y10×2 Y8 Y10×3	qt3-chl-py×2 qt3-chl(cp) qt3-chl-py qt3-chl-py×3 qt3-Mo-py qt3-chl-py×3	0 10 20 30 40 50 60 70 80 90	3.0		194 195 200	60 95 90	17	96340	.16	.011		.12
	35-45 WK		210		25 20×3 15×4+45 30×6 5 4×2	Y8 Y10×3 Y8-Y10×5 Y10×6 Y8 Y10×2	qt3 qt3-chl-py(cp) qt3-chl-py×5 qt3-chl-py×6 qt3-chl-py qt3-chl-py	0 10 20 30 40 50 60 70 80 90	3.5		200 210	70 90	33	96341	.13	.007		.10
	40 WK		220		40 20×2 15 25-30×6 45	Y10 Y10×2 2" Y20-Y10×6 4'	qt3-chl-carb-py-cp qt3-chl-py×2 qt3-ser-chl-py qt3-chl-py×6 qt3-carb-chl-py zone	0 10 20 30 40 50 60 70 80 90	4.0		216	85	10	96342	.15	.005		.10

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-29
SHEET No. 4 of 8

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 Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	45-30 Str.	230	45-30	6'	qt3-carb-chl-py((cp)) zone	0 10 20 30 40 50 60 70 80 90	3.0		222	80	23	96343	.15	.013	.15 2690	.12
			40	1/4	qt3-Mo				226	85						
									227	98						
										95						
	40 Str	240	40	1/4	qt3-py	0 10 20 30 40 50 60 70 80 90	3.5		233	90	10	96344	.13	.007		.12
			45	1/8	qt3-carb-cp				236	90						
			30-45 x 6	1/16 x 6	qt3 x 6				239							
			45	1/8	qt3-chl-py											
			20	1/4	qt3-carb-chl-py											
			30+60+45	1/4-1/8 x 3	qt3(mag) x 2											
			40	1/10	qt3-chl-ser-py											
	15 Str	250	25	1/10	qt3-ser-py x 2	0 10 20 30 40 50 60 70 80 90	2.0		249	70	0	96345	.13	.009		.08
				8'	highly broken core				246	70						
									249	75						
	50-55 Str	260		10'	highly broken core + ~ 5' lost core	0 10 20 30 40 50 60 70 80 90	2.0		255	80	3	96346	.11	.006		.08
									260	20						
	15 Str	270	50	12"	chl-carb-py (cp)	0 10 20 30 40 50 60 70 80 90	4.0		266	95	40	96347	.16	.012	.13 2695	.12
			5	1/4	qt3-chl-py (cp)											
			50 x 10	1/20-1/10 x 10	qt3-chl-py (cp) x 10											
			60 x 2	1/4 x 2	qt3 x 2											
			60 x 2	1/10 x 2	qt3-chl-py x 2											
			60	1/3	qt3-carb-chl-py (cp)											
			50-60 x 5	1/3-1/4 x 5	qt3-chl-py x 5											
			50	2"	qt3-chl-carb-py											
			45 x 3	1/10 x 3	qt3-chl-py (cp) x 3											
	35 Str.	280	30	1/8	qt3-chl-py (cp)	0 10 20 30 40 50 60 70 80 90	3.5		276	95	57	96348	.17	.012		.10
			60	1/10	qt3-chl-py											
			35 x 6	1/20-1/10	qt3-chl-py x 6											
			40 x 2	1/4 x 2	qt3-ser-py x 2											
			35 x 4	1/6-1/4 x 4	qt3-chl-ser-py x 4											
			20 x 3 + 25	1/10 x 3	qt3-chl-py x 3											
			30	1/4	qt3-chl-cp					100						

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-29
SHEET No. 5 of 8

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 Block	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	35-60 Str.		290	15 20+35+30 x 3 60 x 3 30 30 45 20 15 25	1/8 1/10 x 3 + 1/8 x 2 1/8 + 1/10 x 2 1/4 12" 1/4 10" 1/8 30°	qtz-chl-py qtz-chl-py x 5 qtz-chl-py x 3 qtz-chl-py-cp qtz-chl-carb-py zone qtz-chl-py-Mo (cp) qtz-chl-carb-py (cp) zone qtz-chl-py qtz-chl-carb-py (cp) zone	0 10 20 30 40 50 60 70 80 90	3.5			283 287	98	47	96349	.15	.009		.14
	35-50 Str.		300	30 40 x 2 45 x 2 50 60 30 35 x 3	1/4 1/8 x 2 1/10 x 2 1/3 1/6 3' 1/20 - 1/10 x 5	qtz-chl-carb-cp qtz-chl-py x 2 qtz-chl-py (cp) x 7 qtz-ser-py qtz-py-Mo qtz-chl-carb-py zone qtz-chl-py (cp) x 5	0 10 20 30 40 50 60 70 80 90	4.0			296 297	100 100	20	96350	.17	.014		.14
	45-60 Str.		310	50 60 x 2 45 60	4' 8" 1/10 x 2 1/8 12"	highly broken core chl-carb (py) (cp) zone chl-carb-cp x 2 chl-carb-cp chl-carb-cp zone	0 10 20 30 40 50 60 70 80 90	2.0			301 305 309	75 80 85	3	96351	.31	.025		20
	45-55 Str. sl. arem		320	45-55	10'	qtz-chl-carb-py (cp) zone - zone of broken and lost core	0 10 20 30 40 50 60 70 80 90	2.5			315 317	50 50	3	96352	.21	.017	.21 .2600	.25
	45-60 Str.		330	45-60 50 60 x 2 45 x 3 80 x 70	6' 1/8 1/10 x 2 1/10 x 3 1/2 x 2	chl-carb-py (cp) zone chl-cp qtz-chl-carb-cp x 2 qtz-chl-py (cp) x 2 qtz (cp) x 2	0 10 20 30 40 50 60 70 80 90	2.5	broken vuggy core + inter. to dissem py-cp		323 327	65 85	0	96353	.29	.020		.30
	35-45 Str.		340	45 x 2 60 35-20 40 35 x 2 20	1/10 x 2 1/10 1/2 x 1 1" 1/3 x 2 1/2	qtz-chl-py (cp) x 2 qtz-chl-cp qtz-musc-cp x 2 qtz-chl-py (cp) qtz-chl-py (cp) x 2 chl (cp)	0 10 20 30 40 50 60 70 80 90	2.0			337	65	0	96354	.26	.014		.25

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-29
SHEET No. 6 of 8

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE

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	REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS Sample Number	% Cu	% Mo		Estimated Grade
	45-50 Mod		350		30 +40 x 60 35 50 80 35 45 45x3 40 40x3 +60 45x3 30	1/20-1/10 x 3 1/10 1/2 1/4 1/10 1/8 1/10x3 1/10x4 1/20x3 1/2	qtz-chl-cp-py x3 qtz (cp) qtz-chl-py-cp chl-carb-cp qtz-chl-cp qtz-chl-cp qtz-chl-py-cp x 3 qtz-py-cp qtz-chl-cp x4 qtz-chl-py-cp x3 qtz-chl-cp		1.5		349 350	80 85	0	96355	.47	.030		.40
	40 Mod		360		45 60x2 40 45x3 60 50 40 x2	1/8 1/10 x 2 1/4 1/10 x 3 1/4 1" 1/4 x 2	qtz-chl-cp-py qtz-chl-cp x 2 qtz-carb-cp qtz-chl-py x 3 qtz-chl-carb-py(cp) qtz-chl-carb-py-cp qtz-chl-carb-py-cp x 2	dk carb. rich core	2.0		357	80	0	96356	.30	.027	.33 2555	.25
	40 Str		370		40 40 40	12" 7' 2'	qtz-chl-carb (mag) py ((cp)) zone qtz-carb-ser-py (cp) zone qtz-carb-ser-chl-py (cp) zone		3.0		364 368	85 70	26	96357	.07	.020		.20
	45-60 Str		380		45-60	10'	carb-chl-py (cp) zone		2.0	py-cp occurs as fine disseminations along foliation planes and within qtz-chl-carb veinlets (concordant)	377	80	0	96358	.28	.017		.30
	45-60 Str		390		45-60 ?	9 1/2 12"	qtz-carb-chl py (cp) zone qtz-pegmatite		3.0		382 387	76 72	15	96359	.23	.016		.20
	50 Str		400			9 1/2	chl (qtz) carb - py (cp) zone		3.0		393 397	83 65 75	3	96360	.22	.13		.20

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-29
SHEET No. 7 of 8

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
	45-50 Str			410		45-50	10'	(qt3) chl-carb-py (cp) zone	0 10 20 30 40 50 60 70 80 90	2.5			401	68	14	96361	.30	.012	.28 2510	.25
	40 Str			420		40 45 45x2 30 10 15+20 40	1/4 12" 1/4 x 2 1/2 1/8 1/8+1/10 10"	qt3-carb-chl-py chl-carb-py-cp zone qt3-carb-chl-py x 2 qt3-carb-chl-py qt3 (cp) qt3-chl-py-cp x 2 chl-carb-py-cp zone	0 10 20 30 40 50 60 70 80 90	3.0			407 413	85	3	96362	.23	.017		.18
	50 Str			430		45x2 45 40x4 35+5+40 50 30 40x6 60	14" 1/8+1/10 1/4 1/10 x 4 1/8+1/10+1/4 14" 1/4 1/20 x 6 1/4	qg-bx-hem qt3-(chl) cp x 2 qt3-chl-py qt3-chl-py x 4 qt3-chl-py x 3 qt3-ep-ser-py zone qt3-chl-py qt3-chl-py x 6 qt3-py (cp)	0 10 20 30 40 50 60 70 80 90	1.0		vuggy core - cp occurs as fine grns in vuggy ep alots and stringers	420 424 428	60 95	50	96363	.22	.023		.15
	45-50 Mod			440		35 35+60x2 30 x 3 60 30-50 x 6 45 x 4	2 1/2" 1/10 x 3 1/10 x 3 1/2 1/20-1/10 x 6 1/10 x 4	qt3-ser-py qt3-chl-py x 3 qt3-chl-py x 3 qt3-chl (cp) qt3-chl-py x 6 qt3-chl-py x 4	0 10 20 30 40 50 60 70 80 90	4.0			433	86 80	18	96364	.11	.007		.10
	40 Mod			450		35 45x2 30 5° 30x2 40x10 30+30+40 25x2+5	1/8 1/8 x 2 1/2 1/4 1/4-1/2 1/20-1/10 x 10 1/8+2+1/2 1/4+2+1/2	qt3-chl-py (cp) qt3-chl-py x 2 qt3-chl-py qt3-chl qt3-chl-py x 2 qt3-chl-py x 10 qt3-chl-py x 3 qt3-chl-py x 3	0 10 20 30 40 50 60 70 80 90	5.5			441 447	83	36	96365	.12	.009	.18 2445	.08
	40-45 Mod			460		15+40+25 45 30 35 35-40 x 10 60 20+2	1/2+2+1" 1/2 1/2 24" 1/20-1/10 x 10 1" 1/4+2	qt3-chl-carb-py x 3 qt3-chl-py qt3-py qt3-chl-py (ser) zone qt3-chl-py x 10 qt3-py qt3-chl-py x 2	0 10 20 30 40 50 60 70 80 90	6.0			451 459	86 66	15	96366	.09	.010		.08

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-29
SHEET No. 8 of 8

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
					35	1/2	qt3-ser-py											
					35	1/4	qt3-py											
					20 +60	1/3 + 1/2	qt3-py x2											
	45 Str.																	
					35+40	1/4+1/3	qt3-chl-py		4.0									
from 460-501 the rx. is strongly sheared and variously alt'd by ep, qt3, chl and carb. and has lost its plutonic appearance			470		40x5	1/20-1/10 x5	qt3-chl-py x5				465	95	20	96367	.13	.009		.08
	45 Str.				45	12"	qt3-chl-py zone				469	55						
					50	10"	qt3-carb-chl-py zone				472	73						
					60	2"	qt3-carb-cp											
					45	3 1/2'	qt3-chl-carb-py ((cp)) zone		5.0			70	15	96368	.16	.011		.12
			480		?	14"	qq-bx				477	80						
					45	3'	qt3-chl-ep-py ((cp)) zone				480							
					30x4	1/4+1/20+1/8	qt3-chl-py ((cp)) x3											
	45 Str				10	1"	qt3-chl-carb-pv					84						
					40+50	1-2"	qt3x2		6.0		486		30	96369	.09	.017		.10
					5+30+45	1/8x3	qt3-chl-py x3											
			490		30-45x8	1/20-1/10 x8	qt3-chl-py x8											
					45 x5	1/8x2	qt3-chl-py x2					90						
					20+10+5x2	1/8-1/4 x4	qt3-chl-py x4											
					15x2	1/6+1/4	qt3-chl-py x2				499					.11		
	45 Str				20-25x6	1/10-1/8 x5	qt3-chl-py x5		6.5				26	96370	.08	.010	-.120	.10
					15x3	1/10 x3	qt3-chl-py x3					60						
			500		50	1/2	qt3				501							
501																		
B.O.B.																		

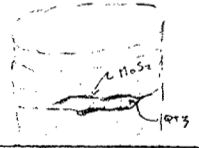
GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-30
SHEET No. 1 of 9

LOCATION SAWMILL ZONE | BEARING - | LATITUDE N 32,988.00' | CORE SIZE N.Q.W | LOGGED BY G.D.B.
DATE COLLARED 27-Aug-86 | LENGTH 497' | DEPARTURE ~49,567.00' | SCALE OF LOG 1"=10' | DATE SEPT. 12, 1986
DATE COMPLETED 27-Aug-86 | DIP -90° | ELEVATION N 2,972.00' | REMARKS

BOTTOM DEPTHS: LEACH CAP 0 | LIM. ZONE 0 | SUPERGENE *0

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	REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
CASING TO 30'			30							* a strong cc zone occurs nr. bottom of hole @ 487' but no cc seen above this level.	30							
QUARTZ PORPHYRY - a pale grey to white rx with ovoid qtz pheno's 1/20 - 1/4" dia in a sl. foliated	50 wk		40		30+40 20 70 10x2	1/10 + 1/2 1/10 12° 1/10 + 1/8	qtz-(Mo) x 2 qtz-Mo-cp qtz((cp)) qtz-(Mo)(cp) x 2		0.5	most of the veins in the Q.P. are lens-like or have indistinct borders;	37	95	40	11226	.09	.006		.12
white to pale green quartzo-feldspathic matrix. Qtz pheno's comprise about 40% of the rock. - contains fine dissem. Py + cp - total ≈ 1.5%; these appear to be	50 wk		50		80 5+80 35x8 40x2 45x2 25 30	1/8 1/8x2 1/8x2 1/10+1/8 1/8x2 1/8 6°	qtz-py qtz-py x 2 qtz-py-(cp)(Mo) x 2 qtz-py x 2 qtz-py x 2 qtz-py-Mo qtz-Mo-py((cp))		1.5		47	95	47	11227	.12	.004		.10
true dissem's and not along foli planes. (30 - 405') ∴ MoS2 is common	45 Mod		62		25+30x4 40 35x2 50+40x2 20+70	1/8+1/16x3 1/10 1/8+1/10 1/8+1/10x3 1/4x2	qtz-py x 5 qtz-Mo-py qtz-py(cp) x 2 qtz-py(cp)+qtz-py(Mo) qtz-py((Mo)) x 2		1.5	 - poss. sheared while the rx was in a plastic state...?	57	98	57	11228	.08	.004	.08 2915	.08
throughout the hole but only with qtz veins not as dissem's	50 wk		70		40x3+80 60+90 50x3 50+60 50x3	1/10x4 1/2-1/4 1/10x3 1/4x2 1/20x2	qtz-py(Mo) qtz-py(Mo) qtz-py x 3 qtz-py-Mo-cp x 2 qtz-py x 3		1.0		67	98	83	11229	.06	.012		.08

GRID ____ **GIBRALTAR MINES LTD.** HOLE No. 86-30 SHEET No. 2 of 9

BOTTOM DEPTHS — LEACH CAP: ____ LIM. ZONE: ____ SUPERGENE: ____

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation & Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS	Footage Blocks	Estimated Core Recovery %	RQD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
at ~ 290' to 375' the qt3 porp becomes a pale green and in sections develops a pea green coloration - sericite alth ??	60 Wk		80		50×2 50 50 60+5 5 60 5	⅛×2 ¼ 14" ⅛ ¼×2 1" 1/10 ¼	qt3- Mo×2 qt3-ser-py qq (bx) qt3-ser-py qt3-py (cp)(Mo)×2 qt3-ser-py-cp qt3-py qt3-py	0 10 20 30 40 50 60 70 80 90	1.0		74	90 98	87	11230	.07	.008		.10
	50 Mod		90		45 60×4 50×5 45×3 70 15	⅛ 1/10×4 1/10×5 1/10×3 ⅕ ½	qt3-ser-py qt3-py (Mo) qt3-py×5 qt3-py (Mo)×3 qt3-cp-Mo qt3-(cp)(Mo)	0 10 20 30 40 50 60 70 80 90	1.0		84 95	95	50	11231	.09	.006		.14
	60 Mod		100		20 40-50×4 5 45×2 70 45	⅓ 1/20-1/10×4 12" 1/10×2 ⅕ ⅛	qt3-cp-ser qt3-py (Mo)×4 qq (bx) qt3-cp×2 qt3-ser-py-cp qt3-ser (Mo)	0 10 20 30 40 50 60 70 80 90	0.5		91 95	95 95	13	11232	.12	.004		.12
	45 Mod		110		60×3 80 45×2+50 50 40×5 35×2	1/10 1/10 1/10×2=¼ 1/10 1/20-1/16×5 1/10×2	qt3-py (cp) qt3-Mo qt3-chl-py (cp)(Mo)×3 qt3-cp qt3-py (cp) (Mo)×5 qt3-cp×2	0 10 20 30 40 50 60 70 80 90	0.5		106	95 98	60	11233	.09	.008	.09 2970	.15
	50 Mod		120		60-5 20 5 45	1" ¾ ¼ ½	qt3-Mo chl-qt3-py (cp) qt2-Mo-qq qt3-Mo	0 10 20 30 40 50 60 70 80 90	<.5	Poss 1% MoS_2	114 118	95	30	11234	.17	.078		.10
	40 Str		130		45 35 45	⅛ ¼ 6" 2' 2½	qt3 (Mo) (cp) qt3-chl-py-cp chl-qt3 (py) (cp) zone qq-bx qt3-chl-carb-py (cp) zone	0 10 20 30 40 50 60 70 80 90	1.0		124 128	90 90	17	11235	.24	.015		.12

GRID ____

GIBRALTAR MINES LTD.

HOLE No. 86-30
SHEET No. 3 of 9

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 O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	40 Mod	190	60 60 60 30+60 10+5 40×2 5 5×50	1" 2' 6" ⅛×2 ⅛+⅛ 1/10×2 ¼ 1/10×2	qt3-carb-carb-py-cp 3one qt3-carb-chl-py-cp 3one qt3-ser-py(cp) 3one qt3-chl-py-cp (Mo)×3 qt3-Mo ×2 qt3-chl-py (cp) ×2 qt3-cp qt3-cp-py		2.0	high chl 3one - pass wall re inclusion	134 139	90 95	17	11236	.27	.009		.18
	40 wk	150	5 30+45×2 45 30 15×45×2	1/10 1/10×3 ¼ ⅛ 10" 1/10×3	qt3-cp-py qt3-py-cp×2 qt3-chl cp (Mo) qt3 (cp) qt3 qt3-chl-py-cp×3		1.0		147 149	95 100	30	11237	.14	.008	.19 2825	.14
small fault	50 wk	160	50 35 35 30 30 10?	2" ½ 1/10 hle ⅛ 4'	qt3 qt3-chl-carb-py qt3-py qt3-chl-cp qt3-chl-cp 99		1.0		157 161	85 60	23	11238	.16	.008		.12
	45 wk	170	? 60+5 70 60 55×2 30 45+30+50	12" 1/10×2 ¼ ½ ⅛×2 ¼ 1/10-1/10×2	qt3(cp) qt3-Mo×2 qt3-cp qt3-cp qt3-cp×2 qt3+py qt3-py(cp)×3		0.5		167	70	30	11239	.21	.026		.20
	45 Mod	190	70+60 60+70+80 30×2 60×4 60×2 70 80×3 5 45×2+50 10	1/10-1/10 ⅛×3 ¼+⅛ hle-1/10×4 1/10×2 ⅛ 1/10-1/10×3 ¼ 1/10+⅛×2 ⅛	qt3-py-cp(Mo)×2 qt3-Mo-cp×3 qt3-cp-Mo qt3-Mo×4 qt3(cp)(Mo)×2 qt3-Mo qt3-py-cp qt3-Mo qt3-Mo-cp qt3-Mo(cp)		0.5		176	98	50	11240	.18	.020		.15
	40 Mod	199	5 60 60 45×2 40	⅛ ⅛ ½ ¼ 1/10	qt3-Mo-py-cp qt3-Mo qt3-cp-cp qt3-py(cp) qt3-Mo(py)		0.5		196.6	98	60	11241	.12	.006		.14

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-30
SHEET No. 4 of 9

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE

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	REMARKS	Footage Blocks	Estimated Core Recovery %	R O D	ASSAY RESULTS Sample Number	% Cu	% Mo		Estimated Grade
	50 Mod	200	3 x 2 50 65 50 x 10 45 30 x 2 60 50 x 3	1/8 + 1/10 1/4 2" hle - 1/10 x 10 1/4 1/10 x 2 2" 1/20 - 1/10 x 3	qt3-Mo-Cp x 2 qt3-py (Mo) qt3-ep-chl-py-cp qt3-(Mo)(py)(cp) x 10 qt3-carb-py-cp qt3-py x 2 qt3-ser(Mo) qt3-Mo(cp)(py) x 3	0 10 20 30 40 50 60 70 80 90	0.5	Note: most of the veins are concordant with fols - those that are not are steep @ ± 15°-5° and of rich in Mo-cp	197	98 70	53	11242	.19	.010	.17 2780	.12
	60 Mod	210	60 60 60 x 3 50 60 x 3 60 x 2 30 x 2	1/10 1/4 1/10 x 3 1/2 1/10 x 3 1/20 x 2 1/20 x 2	qt3-cp qt3-ser-cp qt3-(cp)(Mo) x 3 qt3-ser-py qt3 (cp)(Mo) x 3 qt3 (cp)(Mo) x 2 qt3-(cp) x 2	0 10 20 30 40 50 60 70 80 90	0.5		201 207	98 98	70	11243	.11	.006		.10
	50 Mod	220	45 60 60-70 x 4 45 60 x 3 60 x 2	1/8 1/4 1/20 x 4 1/10 1/20 x 5 1/10 x 2	qt3-Mo qt3-py qt3-py (Mo) x 4 qt3-cp (Mo) qt3 (py)((Mo)) x 5 qt3 (Mo)(cp) x 2	0 10 20 30 40 50 60 70 80 90	1.0		217	98 90	43	11244	.11	.008		.08
	50 WK	230	60 x 12 45 + 50 x 2 80 60 45	hle - 1/20 x 12 1/20 x 3 1/8 1/10 1/2	qt3 (py)((Mo)) x 12 qt3-Mo x 3 qt3-chl-py-cp qt3-ser-py-cp chl-py-cp	0 10 20 30 40 50 60 70 80 90	0.5		222 226	85 85	17	11245	.10	.008		.10
	45 WK	240	45-60 x 7 45 x 2 50 45 x 2	1/20 x 7 1/20 x 2 1/10 hle - 1/20 x 2	qt3-Mo-cp-py x 7 qt3-Mo-py x 2 qt3-cp-Mo qt3-(Mo)(cp) x 2	0 10 20 30 40 50 60 70 80 90	0.5		234	95	80	11246	.08	.002	.11 2735	.10
	45 WK	250	60 60 60 x 3 50 60 45 + 60 x 2 50 x 3	1/10 1/10 hle x 3 1/8 1/10 1/10 x 3 1/10 x 3	qt3-Mo (cp) qt3-cp qt3-py-cp-Mo x 3 qt3 (cp)(py) qt3-Mo qt3-Mo-cp qt3-cp (Mo) x 3	0 10 20 30 40 50 60 70 80 90	0.5		244	95	77	11247	.09	.013		.12

GRID ____

GIBRALTAR MINES LTD.

HOLE No. 86-30
SHEET No. 5 of 9

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Blocks	Estimated Core Recovery %	RQD	ASSAY RESULTS Sample Number	% Cu	% Mo		Estimated Grade
	60 WK		260		30+50 60 30 40 40+35+45 50±2 " 35 35±2	1/4×2 1/8 1/8 1/8 1/20×3 1/20× 1/8 12" hle×2	qt3-cp ×2 qt3-Mo qt3-cp (almost massive - cp) qt3-ser (cp) qt2-py-cp qt3-cp×2 qt3-cp ser zone Mo×2	0 10 20 30 40 50 60 70 80 90	0.5	254	98	60	11248	.20	.010		.20
	50 WK		270		" 60 50 80 60×3	10" hle 1/4 1" 1/10×3	qt3 Mo qt3-py-cp qt3-chl qt3-py ((Mo)) ×3	0 10 20 30 40 50 60 70 80 90	1.0	262 267	95 98	23	11249	.09	.008		.08
	50 WK		280		60×3 35×4 40×2 80×2+20 45+60	1/10×3 1/20×4 1/20×2 1/20×3 1/10+1/8	qt3-cp×3 qt3 (Mo) ×4 qt3-(cp)(Mo)×2 qt3-py (cp)((Mo)) ×3 qt3-Mo×2	0 10 20 30 40 50 60 70 80 90	1.0	273	95	47	11250	.17	.011		.12
	60 WK		290		45×4 60×5 50 60×3	1/20×4 1/20×5 1/10 1/20×3	qt3-py×4 qt3-py×5 qt3-py qt3-py×3	0 10 20 30 40 50 60 70 80 90	1.0	281 287	95	67	11251	.08	.003	.13 2690	.05
	60 WK		300		5+60 60 60×2 60 45	1/8×4 1/20 1/5×2 1/8 1/10	qt3-Mo-cp-py qt3-carb-cp carb-chl-cp-py×2 qt3-carb-cp qt3-Mo	0 10 20 30 40 50 60 70 80 90	0.5	294	90 98	33	11252	.11	.010		.08
	60 WK		310		25 45 60 45+30×3 50 70×3	1/2 1/10 1/8 1/10+1/20×3 hle 1/10+1/20×3	qt3-py qt2-py qt3-py qt3-py×4 cp-Mo qt2-py×3	0 10 20 30 40 50 60 70 80 90	1.0	301 307 310	95 95	43	11253	.07	.004		.05

GRID _____ **GIBRALTAR MINES LTD.** HOLE No. 86-30 SHEET No. 6 of 9

ROCK TYPES & ALTERATION	∠ to Core	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 %	RQD	Assay Results: Sample Number	% Cu	% Mo		Estimated Grade
	70 WK	320	60 x 5 50 60+50x4 45 60 x 6	hle-Y40x5 Y10 Y10-Y20x4+Y10 Y8 Y40-hlex4	qt3-py-cp-Mo x 5 qt3-py(cp) qt3-py-cp(Mo) x 5 qt3-cp Mo qt3-py-cp(Mo) x 6	0 10 20 30 40 50 60 70 80 90	1.0		317	90	40	11254	.15	.014		14
	60 WK	330	60x3+5 70 50 60-70 x 4 50+60+70 80+70	1/10 x 4 1/8 1/8 1/20x4 1/2+1/10x2 1/20x2	qt3-py-cp (Mo)x 4 qt3-py-cp qt3-py (Mo) qt3-Mo x 4 qt3-py-cp x 3 qt3-Mo-cpx2	0 10 20 30 40 50 60 70 80 90	1.5		324	90	60	11255	.13	.018	.11 2645	.12
	60 WK	340	70+50 60 60+3 70 70 x 10 70 70x3 70	1/4+1/8 1/4 hlex3 1/2 1/20x10 hle 1/20x3 1/2	qt3-Mo x2 qt3-ser-py Mox3 qt3-carb-cp qt3-py x 10 Mo qt3-py x 3 qt3-py(Mo)x	0 10 20 30 40 50 60 70 80 90	2.0		333	98	60	11256	.11	.017		.10
	70 Mod	350	70 70 70-80 70	30" 1/2" 3" 6'	py-cp(Mo) in pea green sheared rx qt3-ser-py-cp(Mo) qt3-chl-carb-py shear zone py-cp(Mo) in pea green rx	0 10 20 30 40 50 60 70 80 90	5.0	This is an aphanitic pea green sheared rx with abundant sulfides along foln planes.	343 350	95	37	11257	.27	.025		.30
	60 Mod	360	50 70x3 60 60 60 60x3 60 80 70	1/4 1/10x2 1/10 1H 1/8 1/20-1/10x3 1/8 1/8 1/10	qt3-cp qt3-py x 3 qt3-Mo qt3-cp qt3-cp qt3-py(Mo) qt3-Mo qt3-cp-Mo qtz-cp-Mo	0 10 20 30 40 50 60 70 80 90	1.5		357	90 98	53	11258	.15	.016		.18
	70 WK	370	70x10 60x2 70 c 70 70x3 70x8 60 60x2	hle x 10 1/10+1/5 1/4 1/8 14" 1/20x3 hle-1/20x6 1/8 1/8+1/20	qt3-py x 10 qt3-Mo + qt3-Mo-cp qt3-py-cp)(Mo) qt3-chl-cp cp-py in aphanitic pea green zone qt3-Mox3 qt3-py-Mo x 6 qt3-py qtz-py x 2	0 10 20 30 40 50 60 70 80 90	1.5		365 370	98 95	57	11259	.15	.021		.20

GRID ____

GIBRALTAR MINES LTD.

HOLE No. 86-30
SHEET No. 7 of 9

ROCK TYPES & ALTERATION	∠ 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 Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	80 Mod			380		60×3 70 ? ? 80	1/20×3 30" 4" 6" 15"	qt3-py-cp×3 py-cp-Mo in pea green aphanitic tx. qt3-py(Mo) qt3-(chl)(cp) qt3-chl-carb zone	0 10 20 30 40 50 60 70 80 90	2.0		377	80	47	11260	.11	.013	.16 2600	.12
	70 Mod			390		80×4 80 ? 80 80 70 5	1/20×4 1/2 2' 2" 9" 1' qt3 qt3 qt3	qt3-py-cp×4 qt3 broken qt3 ((cp))(Mo)(cpy) zone qt3 qt3 qt3	0 10 20 30 40 50 60 70 80 90	1.0		387	90	27	11261	.06	.007		.08
	60 WK			400		50 60×2 60 70×3	1/10 1/10-hle×2 1/10 hle×3	qt3-Mo-cp qt3-py-Mo×2 qt3-py Mo×3	0 10 20 30 40 50 60 70 80 90	0.5		394 398½ 400	95 80 50	13	11262	.06	.006		.05
Contact is a zone of broken and lost core - poss. fault 405	?								0 10 20 30 40 50 60 70 80 90	0.5		405	30	13	11263	.09	.007		.12
DARK GREEN FINE-MED. GRN META ANDESITE (405 - 497)	50-70			410		50-70	8'	banded qt3-carb-chl-py((cp)) zone	0 10 20 30 40 50 60 70 80 90	10.0		412	95						
~40% chl. 15% ep (as clots + stringers) 10-15% qt3 30-35% plag.	70 Mod			420		80×3 80 60 60×2 60	1 + 3/4 + 1/3 1/3 1/4 1/4×2 2"	qt3×2 qt3 py(chl) qt3-chl-carb-py((cp))×2 qt3-chl-carb-py	0 10 20 30 40 50 60 70 80 90	2.0		417	90	50	11264	.07	.009	.07 2555	.10
avg. grn. size ~1/10" dia qt3 not visible without mag. - mod-str. sheared - in places grades to a fine grn diorite				430		60×2 5+60×2 80+60	1/10×2 1/10×3 1/10×2	qt3-py×2 qt3-chl-py×3 qt3-py×2	0 10 20 30 40 50 60 70 80 90	1.5		427	98	70	11265	.07	.004		.08

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-30
SHEET No. 8 of 9

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation, Alteration, Footage, Silicify's	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 O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	80 Mod	440	60+30 30 30 45+60	1/10x2 1/4 1/8 1/10x2	chl-py x2 qt3-chl-py chl-py chl-py x2	0 10 20 30 40 30 60 70 80 90	2.0		437	100	60	11266	.09	.003		.08
	80 Mod	450	80 5 80	1/3 1/3 1/4	qt3-carb-py-cp chl-carb-(cp) py (chl-carb)	0 10 20 30 40 50 60 70 80 90	1.5		447	95	40	11267	.14	.005		.05
	80 str	460	60 x2 70 80 70	1/4 x2 1/10 1/20 1/10	chl-py x2 chl-py chl-py chl-py	0 10 20 30 40 50 60 70 80 90	1.0		457	95	63	11268	.06	.004		.05
	80 str	470	50 80 x 4 70 70 60	1/3 1/20 x 4 2" 1/4 1/20	qt3-chl-py (cp) chl-carb-py ((cp)) x 4 qt3-(cp) chl-py chl-py	0 10 20 30 40 50 60 70 80 90	2.5		467	90	40	11269	.12	.005	.10 25/0	.12
	70 Mod	480	70 80 70 x 2	1/3 1/5 1/20 x 2	qt3-py qt3-py qt3-chl-py x 2	0 10 20 30 40 50 60 70 80 90	1.0		477	95	33	11270	.10	.003		.05
		490	70 60 30 50	1/10 1/2 6" 1/10	chl-ep-py qt3 (cp) cc qt3-cp-cc* qtz-chl-py (cp)	0 10 20 30 40 50 60 70 80 90	1.0	*at least 1" solid cp.	487	90	47	11271	.49	.003		.40

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-30
SHEET No. 9 of 9

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 Discrt.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	70 Nod.		90 70×2 50×2	¼ ¼0×2 ¼0×2	qtz-py-cp py×2 qtz-chl-py×2	0 10 20 30 40 50 60 70 80 90	1.0		497	95		11272	.07	.003		.10
EOH 497'																
B.O.B.																
						0 10 20 30 40 50 60 70 80 90									.22 2965	
						0 10 20 30 40 50 60 70 80 90										
						0 10 20 30 40 50 60 70 80 90										
						0 10 20 30 40 50 60 70 80 90										
						0 10 20 30 40 50 60 70 80 90										

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-31
SHEET No. 1 of 8

LOCATION SAWMILL ZONE | BEARING — | LATITUDE ~ 33,438 N | CORE SIZE N.Q.W. | LOGGED BY G.D.B.
DATE COLLARED 28-Aug-86 | LENGTH 507' | DEPARTURE ~ 49,128 E | SCALE OF LOG 1"=10' | DATE Oct 29, 1986
DATE COMPLETED 28-Aug-86 | DIP -90° | ELEVATION ~ 3001' | REMARKS

BOTTOM DEPTHS: LEACH CAP —; LIM. ZONE 86; SUPERGENE 86

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	REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
65'											65							
FINE GRN DIORITE ?	50 Mod		70		70 +60 +35 45 x 2	1/10 x 3 1/20 x 2	chl-py-tim chl-py x 2		0.5			70		95901	.32 .05 ox	.006		.05
(65'-91') may grade to a quartz diorite but qtz is gen. obvious without magnif. Avg. grn. size ~1/20" - equigranular	60 Mod		80		60 45 60 45	1/10 1/8 1/10 1/8	chl-py qtz-chl-py qtz-chl-py qtz-chl-py-cc		1.0		73 77	90 75	18	95902	.63 .02 ox	.028		.05
gen. foliated - 25% chl 50% saus plag. 10-20% ep. (clots) 5-15% qtz - poss. a border phase of the Q.D. pluton which it resembles	60 Mod		90		60 30+45 60+30	1/10 1/10 x 2 1/10 x 2	ep(py) zone qtz-chl-py (cc) qtz-chl-py qtz-chl-py x 2		1.0		81 86	85 95	37	95903	.84 .02 ox	.006	.96 2915	.10
except for lower qtz content					60	1/8	qtz-carb-py											
COARSE GRN DIORITE (91'-112') this is unlike anything seen here to date. Chief chars are euhedral black (1/16 dia) book hb. (10%) scatters in a swirled matrix of chl. (60%) and qtz-spar (15-%) which appears to be sheared and granulated to a fine grn. size, in which the hb occurs as phenocrysts. Also as phenos are anhedral	60 wk		100		40 50 35	1" 1/4 2"	qtz qtz qtz		<0.5		96	95	65	95904	.37 .01 ox	.002		.05
	50 wk		110		70	3"	qtz-tour		<0.5		104	90 90	41	95905	.09 .01 ox	.006		.05

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-31
SHEET No. 2 of 8

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core	Foliation	GRAPHIC LOG: Foliation/Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
grns of saus. plag up to 1/8" dia (15%) 112																		
FINE GRN. DIORITE (112'-507')	70	Mod			5	1/4	qt3-py(cp)											
					60	2"	cp-qt3-py(cp)											
					5?	1"	cp-carb-cp			1.0	114							
Same as 61-91'				120	60	1/10 x 3	qt3-chl-py x 2					95						
- except This zone contains numerous ruggy qp. clots and stringers which often contain py-cp; This type of mineralization was first seen at the bottom of the ore zone intersected by 79-17 - is	70	Mod			80 x 2	4" x 2	qt3-carb-ep x 2											
					25?	2'	qq-bx			<0.5	123							
												75						
											127		36	95907	.12	.009	19 2870	.05
This further evidence of the poss. fold over turn - that is, the py zone may underlie the re intersected in This hole.	70	WK		130	35	1/10	qt3-chl-py					90						
					60	2"	ep			<0.5	135		44	95908	.10	.002		.05
				140	45	1"	ep					70						
	60	WK			60	1/10	qt3-py			0.5	144		60	95909	.17	.006		.65
					10	1/4	ep-qt3-py					90						
				150	70	3"	qt2											
	50	WK			90	1/10	qt3-chl-py (cp)			1.0	155		68	95910	.17	.010		.12
					50+70	1/3-1/4	qt3 ((cp))					100						
					30	1/10	ep-qt3-py											
					35	6"	qt3											
				160	30-60 x 4	1/2 x 4	qt3-py-cp x 4											
					45	1/3	qt3-Mo											
	60	Mod			5? 60	1/2 x 2	qt3-chl-carb + qt3-MO			0.5	165		50	95911	.16	.032		.10
					30+40+45	1" + 3 1/2	qt3-Mo x 3					100						
					5	1/10	qt3-carb-chl-cp											
				170		1/10	qt3-chl-py					76						

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-31
SHEET No. 3 of 8

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE | REMARKS

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	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	60 WK		180		35	1/8	qt3-py-cp	0 10 20 30 40 50 60 70 80 90	0.5	174	94	48	95912	.17	.006	.15 2825	.08
					45	1/10	qt3-chl-py										
					45-50	1/20	cp-chl-py x2										
	70 WK		190		30	2"	ep-chl	0 10 20 30 40 50 60 70 80 90	6.5	185	98	80	95913	.14	.019		.12
					20	1/8	qt3-chl-cp										
					60	1/20	chl-cp										
					60	1/20	ep-cp										
					5 x2	1/4 x2	qt3-cp + qt3(cp)										
					50	1/10	ep-py										
grades to a chl-ep br - ie, angular ep clots up to 1/2" in a largely chloritic matrix	ND		200		80	1/20	carb-py-cp	0 10 20 30 40 50 60 70 80 90	1.0	195	93	68	95914	.17	.020		.14
					15	1/4	qt3-py-cp										
					60 x2	1/10 x2	qt3-chl-py x2										
					50	tr	qt3-cp										
					50	1/4	qt3-py										
					60 x2	1/8 x2	qt3(cp) x2										
					45	1/10	qt3-cp										
	ND		210		5	1"	qt3-cp	0 10 20 30 40 50 60 70 80 90	1.0	204	100	78	95915	.16	.026		.12
					45	1/20	qt3-cp										
					50	1/3	qt3-cp(Mo)										
					30	1/8	chl-carb-py(cp)										
					50	1/3 + 1/6	qt3 x2										
					45	1/20	qt3-cp										
					20	2"	qt3-chl-carb-py										
	ND		220		20 x2	1/2 + 1/2	qt3-py x2	0 10 20 30 40 50 60 70 80 90	1.0	214	96	64	95916	.19	.023	.17 2790	.05
					50 x2	1/3 x2	qt3-py x2										
					45	1/10	qt3-py										
						3 1/2	chl-qt3-carb zone			220							
	ND		230		60	2"	qt3	0 10 20 30 40 50 60 70 80 90	0.5	227	71	42	95917	.18	.005		.12
					20	1/4	carb-py										
					20	1/4	qt3 (cp)										
					60	1/8	qt3-(cp)										
					45	1/6	qt3(cp)										
					25	1/10	qt3-chl-cp										

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-81
SHEET No. 4 of 8

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE | REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Discr.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	ND		240	45		1/20	chl-cp x2	0 10 20 30 40 50 60 70 80 90	0.5	237	95	53	95918	.19	.006		.10
				60		1/10	qt3-cp										
				35 + 5		1/4 x2	qt3 x2										
				45		1/8	qt3-chl-cp										
dk chl-carb rich zone	ND		250	30+40		1/8 x2	qt3-cp	0 10 20 30 40 50 60 70 80 90	<0.5	245	91	43	95919	.17	.010		.05
				20		1/2	chl-carb										
				60 + 50		1/4 x2	carb x2										
	ND		260	40		1"	qt3-chl-py	0 10 20 30 40 50 60 70 80 90	0.5	255	88	18	95920	.15	.014		.08
				30-30 x6		1/8 x6	qt3(cp) x6										
				40		1/2	qt3-py(cp)										
				10		1/2	qt3-chl-py(cp)			260	80						
				70+45		1/4 x2	qt3 x2										
				50		1/4	qt3(cp)										
	ND		270	60+45 x2		1/20 x3	qt3(cp) x3	0 10 20 30 40 50 60 70 80 90	<0.5	267	86	42	95921	.11	.008	.15 2735	.10
				60		1/3	qt3((cp))										
				<		1/2	qt3-carb										
				50		1/4	qt3-(cp)										
				25		1/8	qt3-chl-py										
	ND		280	30+45		1/10	qt3-chl-py x2	0 10 20 30 40 50 60 70 80 90	<0.5	277	88	13	95922	.08	.014		.05
				70+35		1/8 x2	qt3 x2										
				5		1/4	qq-hem										
				20+70 x2		1/3 x3	qt3 x3										
	ND		290	60+50		1/20 x2	qt3-chl-py x2	0 10 20 30 40 50 60 70 80 90	0.5	287	99	80	95923	.07	.006		.08
				60+3		1/10 x3	qt3-cp x3										
				45		1/10	qt3-cp										
				5		1/8	carb-py										

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-31
SHEET No. 5 of 8

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Sizevein	Vein ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS	Footage Discon.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	ND.			50		1/16	qt3-chl-carb-cp											
				35		1½	qt3-Mo											
				45		1/8	qt3		1.0			100						
				50		¼	qt3				297		68	95924	.05	.006		.05
				45x3		1/10x3	qt3-chl-py x3											
			300	3		⅛	qt3-carb-py											
	ND			45x2		1/20x2	qt3-chl-py x2					90						
				45x2		1/20x2	qt3-chl-cp x2				304							
				35		1/20	qt3-cp		0.5			90	43	95925	.13	.006	.09	.08
			310	60x3		1/20x3	qt3-chl-py x3				307						2690	
				50		½	qt3					82						
				50		½	qt3-py				312							
				90		⅛	qt3-tour.											
	60 WK			50		½	qt3		0.5			100	50	95926	.08	.009		.05
				60		1/10	qt3-cp				317							
			320	45		¼	qt3-chl-py											
				60		1/10	qt3-py					90						
				90		1"	qt3				325							
	60 WK			30		1/10	qt3-chl-py		0.5				40	95927	.04	.002		.05
			330	70x3		1/10x3	qt3-py x3				330	95						
				30		1/10	qt3-chl-py					70						
				20		⅛	qt3-chl-py				334							
	60 WK			50		½	qt3		1.0			70	10	95928	.04	.002		.05
				35		⅛	qt3-chl-py } highly broken zone				338							
			340									60						
				15		1"	qt3				342							
	60 WK-St.			10		½	qt3-carb-py					80						
				60		2'	qt3-chl-carb-py zone		2.0		345		16	95929	.07	.008		
				30		1"	qt3-carb-ser-chl-py					80						
			350	50		2'	0				349							

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-31
SHEET No. 6 of 8

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Discr.	Estimated Core Recovery %	RQD	ASSAY RESULTS Sample Number	% Cu	% Mo		Estimated Grade
	ND		360		90 80 60×3	10" 1/8 1/10 1/20×3	Qtz-Porp. qtz hem qtz-chl-py×3	0 10 20 30 40 50 60 70 80 90	<0.5	353 357	100 95	38	95930	.06	.006	.06 2695	.05
	60 WK		370		5+70 45+35 30 60 5	1/3×2 1/4×2 1/4 2' 1/4	qtz-carb-py ×2 qtz-carb-py qtz-carb-chl-py chl-carb-py carb-py	0 10 20 30 40 50 60 70 80 90	1.0	367	95	33	95931	.07	.029		.05
	60 WK		380		50 45+40 20 60×3 60 5	1/3 1/10×2 1/8 1/10×3 1/4 1/10	qtz qtz-py qtz-carb-chl-py (cp) qtz-py×3 qtz (Mo) hem-gg	0 10 20 30 40 50 60 70 80 90	1.0	377	98	33	95932	.05	.013		.05
	60 WK		390		40 35 45 50×2 90	1/8 1/8 1/3 1/2×2 1/4	qtz-cp qtz qtz-carb-py qtz×2 qtz	0 10 20 30 40 50 60 70 80 90	1.0	383 387	90 95	27	95933	.14	.019		.05
	ND		400		80 70×3	2" 1/20×2	qtz-(cp)((ml))	0 10 20 30 40 50 60 70 80 90	1.0	396	90	37	95934	.06	.012	.08 2600	.05
	ND		410		45 60 40+60 5	2" 1/4 1/3+1/2 1/4	qtz qtz qtz-carb-py×2 qtz-carb-py	0 10 20 30 40 50 60 70 80 90		406	98	40	95935	.08	.019		.05

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-31
SHEET No. 7 of 8

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core	Foliation	GRAPHIC LOG: Foliation	Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Diesel.	Estimated Core Recovery %	R O D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	80 WK				420		5 15 60 60 50	1/2 1/4 1/20 14" 1 1/2	qt3-carb-py qt3-chl-py py qt3-carb (py) qt3-carb	0 10 20 30 40 30 60 70 80 90	0.5	415	98	43	95936	.04	.005		.05
	70 Mod				430		80 80 45	1"x2 9" 1/10 x2	qt3-(Mo) chl-ep-bx-py qt3-chl-py x2	0 10 20 30 40 50 60 70 80 90	1.5	425	95	37	95937	.11	.010		.05
	70 Mod				440		90 70 x2 70 45	1/2 1/3 - 1/10 7" 1/10	qt3 ((Mo)) qt3 (cp) chl-carb-py qt3-chl-py	0 10 20 30 40 50 60 70 80 90	1.0	435	100	33	95938	.12	.015		.05
	70 WK				450		80 30 60 50 90	1/20 1/20 1/8 1/4 1/2	cal-py chl-py qt3 (Mo) qt3 qt3	0 10 20 30 40 50 60 70 80 90	0.5	445	95	47	95939	.12	.024	.09 2555	.05
	80 WK				460		80 80	1/2 2 1/2 1"	qt3-py qq-qt3 (Mo)-bx qt3-ser-py	0 10 20 30 40 50 60 70 80 90	1.0	457	90	23	95940	.12	.027		.05
	80 WK				470		90 45 80 50 45 30 35	1/10 1/10 1/10 1/8 1/4 1/8 1/4	qt3-py qt3-chl-py qt3-py qt3-ser-py qt3-chl-py qt3-chl-py qt3-chl-py	0 10 20 30 40 50 60 70 80 90	2.5	467	95	23	95941	.08	.008		.08

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-31
SHEET No. 8 of 8

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS	Footage Blocks	Estimated Core Recovery %	RQD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
- the host rx. at this depth is the same as at the surface - qtz still remains at 25-15 o/o - the rx. is still a diorite	80 WK		480		60	¼	qtz-py		1.5		477	90	57	95942	.09	.010		.05
					60 x 5	½0 x 5	qtz-chl-py x 5											
					50	⅕	py											
					60	¼	qtz (Mo) (cp)											
					45	¼	chl-py											
					60 x ?	½0 x ?	qtz-chl-py											
	ND		490		80	⅛	chl-py		1.5		487	90	60	95943	.10	.007	.10	.05
					70 x 2	⅓ x 2	qtz-py x 2										25/0	
					70 x 2	⅓ + ¼	qtz-chl-py x 2											
					70	¼	qtz-ser-py											
					80	hle	cp											
	80 WK		500		80	1/10	qtz-chl-py		8.0		497	90	57	95944	.13	.019		.05
					70	⅓	qtz-py (Mo) (cp)											
					60 + 30	⅓ + ½	qtz-chl-py x 2											
					50	¼	qtz-py (Mo)											
						2'	chl-carb-py											
						1/10	chl-py											
EOH 507' B.D.B.	80 WK				30 + 90	6"	qtz-py (Mo)		1.5		507	80		95945	.18	.091		.05
					?	½0 x 2	qtz-chl-py x 2											
						4'	qq-bx											
																	16	

2465

40000
50000
60000
70000
40000
30000
20000

PAUL 1
NO 1
DOUG 1
JEFF 1
EARL 1
BRUCE 1
KATE 1
SHERT 1
JAMES 1
JAMESDAM 1

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,712

PART 1 OF 2

FIGURE 1.

SAWMILL GROUP
MINERAL CLAIMS
GIBRALTAR MINES LIMITED
18-FEB-87 SCALE=1:24000

0 2 4 6 8
FEET X 1000

0 1 2 3
KILOMETRES

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,712

PART 1 OF 2

46000E 47000E 48000E 49000E 50000E 51000E 52000E

35000N 34000N 33000N 32000N

BUD #6 · BUD #8 · BUD #5 · BUD 7 · HA #1 · VAL N021 · GREEN GROUP · VAL NO 5 · TIN 1 · VAL N019 · VAL N022 · VAL N020 · AARON 1 · VAL NO 7 · FLO 64 FR · VAL NO 3 · SAWMILL GROUP · RED GROUP · COLE 1

0 250 500 750 1000 FEET
0 75 150 225 300 METRES

SAWMILL
AUGUST 86
1:2400

FIGURE 2

DRILL HOLE LOCATION MAP
Control by chain and compass

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,712

PART 1 OF 2

34000 N

48000 E

WEST BOUNDARY FAULT ZONE

SAWMILL ORE ZONE

QUARTZ PORPHYRY

PYRITE ZONE

85-28 86-25 86-28 86-26 86-24 86-27 82-20 80-4 85-76 81-36 86-29 80-3 86-31 81-35 85-75 80-2 79-15 79-18 80-7 86-30 85-31 79-14 80-1 79-16 81-38 80-5 79-17 86-22 79-13 81-34 82-22 81-37 79-19 86-21 80-6 79-11 82-21

50 40 60 15 60 30 35 40

Scale :

0 200 400 500 Feet

0 50 100 150 200 Meters

FIGURE 3

DWN. CHECK APPR.	ISSUED FOR	DATE	REV.	DESCRIPTION

REFERENCE No. DWG. No.

SCALE 1 inch = 200 feet G.D.B.

GIBRALTAR MINES LIMITED

SAWMILL ORE ZONE

2690 LEVEL : ORE OUTLINE (.18% Cu Cut off)

FILE No.

NCI 210 GML