

87-88 - 15849

DIAMOND DRILL REPORT

ON THE

RED GROUP

Cariboo Mining Division

93 B/~~104~~ 9W

(Latitude $52^{\circ} 30.7'$ Longitude $122^{\circ} 17.4'$)

OWNER AND OPERATOR

GIBRALTAR MINES LIMITED

FILMED

McLEESE LAKE, B.C.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

15,849

Author: G. D. Bysouth

Submitted: February 25, 1987



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1 INTRODUCTION

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

The 1986 drilling on this group covered in this report took place south of the Gibraltar East pit. Holes were drilled to test for ore systems parallel to the Gibraltar East structures. Drill locations are shown in Figure 3.

Drilling was carried out by Frontier Drilling Limited of Kelowna, B. C. during the period August 15 to September 9, 1986. Fourteen vertical N.Q. wireline diamond drill holes were completed for a total of 7,098 feet (2,163.5 m.). Core was not split. The whole core was sent to the assay lab for analysis. The ground core is stored at the Gibraltar Mines plant site for a period of one year.

2 MINERAL CLAIMS

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

RED GROUP MINERAL CLAIMS

NAME	RECORDED DDMMYY	RECORD NUMBER	UNITS
AL # 5	020764	28451	1
AL # 7	020764	28453	1
AL # 8	020764	28454	1
AL # 9	020764	28455	1
AL #10	020764	28456	1
AL #11	020764	28457	1
AL #12	020764	28458	1
EV # 9	191065	1062	1
EV #10	191065	1063	1
EV #11	191065	1064	1
EV #12	191065	1065	1
EV #13	191065	1066	1
EV #14	191065	1067	1
EV #15	170166	1739	1
EV #16	170166	1740	1
EV #18	170166	1742	1
EV #20	170166	1744	1
FLC #2 FR	290867	43173	1
FLC #3 FR	290867	43178	1
FLC #4 FR	290867	43180	1
STU #1 FR	180769	52928	1
STU #2 FR	180769	52929	1
STU #3 FR	180769	52930	1
STU #4 FR	180769	52931	1
STU #6 FR	120869	52111	1

RED GROUP MINERAL CLAIMS

NAME	RECORDED DDMMYY	RECORD NUMBER	UNITS	MINERAL LEASE
VAL #35	120869	55212	1	
VAL #36	120869	55213	1	
VAL #37	120869	55214	1	
VAL #38	120869	55215	1	
VAL #39	120869	55216	1	
VAL #40	120869	55217	1	
VAL #41	120869	55218	1	
VAL #42	120869	55219	1	
VAL #43	120869	55220	1	
VAL #44	120869	55221	1	
VAL #45	120869	55222	1	
VAL #46	120869	55223	1	
VAL #47	120869	55224	1	
VAL #48	120869	55225	1	
VAL #49	120869	55226	1	
VAL #50	120869	55227	1	
VAL NO 3	120869	55228	1	
VAL NO 5	120869	55229	1	
VAL NO 6	120869	55230	1	
VAL NO 7	120869	55231	1	
VAL NO 8	120869	55232	1	
VAL NO 9	120869	55233	1	
VAL NO10	120869	55234	1	
VAL NO11	120869	55235	1	
VAL NO12	120869	55236	1	
VAL NO14	180366	33862	1	
Z #2FR	030366	34969	1	
ZEPHYR # 2	090162	25575	1	3601 M39
ZEPHYR # 4	090162	25577	1	3601 M39
ZEPHYR # 6	090162	25579	1	3601 M39
ZEPHYR # 8	090162	25581	1	3601 M39
ZEPHYR # 9	090162	25582	1	3602 M40
ZEPHYR #10	090162	25583	1	3602 M40
ZEPHYR #11	090162	25584	1	3602 M40
ZEPHYR #12	090162	25585	1	3602 M40
ZEPHYR #13	090162	25586	1	3602 M40
ZEPHYR 5FR	030366	34974	1	3602 M40
GG # 9	281064	29241	1	3603 M41
GG #10	281064	29242	1	3603 M41
GG #15	281064	29247	1	3603 M41
GG #17	281064	29249	1	3603 M41
GG #18	281064	29250	1	3603 M41
GG #29	281064	29261	1	3603 M41
GG #50	281064	29262	1	3603 M41
GG #51	281064	29263	1	3603 M41
GG #52	281064	29264	1	3603 M41
GG 19	080667	42312	1	3603 M41
GIB #9	200571	62412	1	3603 M41
HT 14FR	080667	42311	1	3603 M41
ZEPHYR #15	090162	25588	1	3705 M43
AL #15	020764	28461	1	3711 M49
AL #17	020764	28463	1	3711 M49
AL #18	020764	28464	1	3711 M49
AL #19	020764	28465	1	3711 M49
AL #20	020764	28466	1	3711 M49
AL #21 FR	020764	28467	1	3711 M49
EST NO1 FR	200571	62399	1	3711 M49
EST NO2 FR	200571	62400	1	3711 M49
EST NO4 FR	200571	62402	1	3711 M49
ZEPHYR #14	090162	25587	1	3711 M49
ZEPHYR #16	090162	25589	1	3711 M49
AL #13	020764	28459	1	4147 M62
AL #14	020764	28460	1	4147 M62
AL #16	020764	28462	1	4147 M62
AL #22 FR	020764	28463	1	4147 M62
EV # 5	191065	31053	1	4147 M62
EV # 6	191065	31059	1	4147 M62
EV # 7	191065	31060	1	4147 M62
EV # 3	191065	31061	1	4147 M62
XATRE #1	230762	26004	1	4148 M63
XATRE #2	230762	26005	1	4148 M63
PAN NO2	040562	25792	1	4149 M64

TOTAL UNITS 97

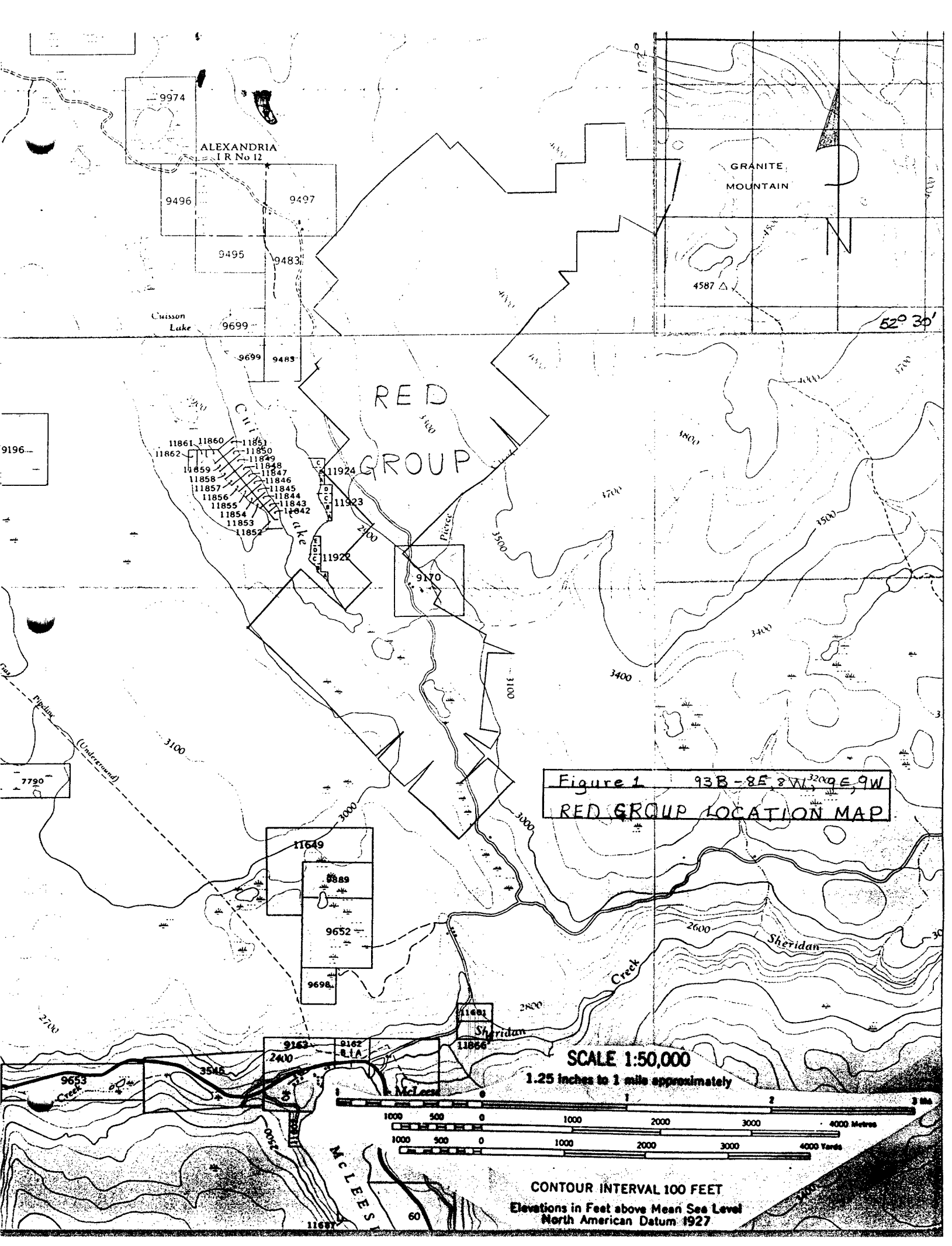
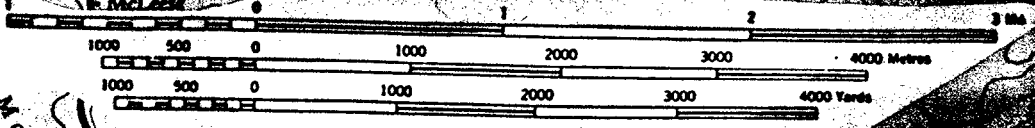


Figure 1 93B-8E 8W 3200 E 9W
RED GROUP LOCATION MAP

SCALE 1:50,000
1.25 inches to 1 mile approximately



CONTOUR INTERVAL 100 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927

3 DRILL PROGRAM

3.1 Objectives

Drilling was done south the the Gibraltar East pit and on strike with ore from the Gib-West pit in an attempt to prove up parallel ore systems. The volume and grade for an economic system were not found with this drill program. Ore systems appear to be too narrow and very steep.

3.2 Results

The drill hole locations are shown in Figure 3. The locations were surveyed with an E.D.M. AGA survey instrument. Drill logs are included in the pocket of this report. All copper values reported here are for total copper. The logs report total copper and, in some cases, oxide copper (included malachite and azurite), and chalcocite. All molybdenum reported is MoS₂.

The normal Mine Phase rock continued immediately south of the Gibraltar East pit with some holes showing variation in grain size and quartz content. Normal "Mine Phase Quartz Diorite" is comprised of about 30% to 35% quartz, 45% to 50% light green, saussuritized feldspar, and about 20% green chloritized mafics. This rock often shows some degree of segregation and alteration ranging from lighter zones of weaker saussurite alteration and darker zones of higher chloritic concentration to sericitic and chloritic shearing. Grain size is normally medium grained.

About 1500 feet south of the pit rim a new rock type with remnant hornblende crystals appears to dip quite steeply to the south. This rock type is extremely barren.

A tabulation of ore zones intersected in this drill program is listed below. Oxidized mineralization has been ignored, as well as ore systems less than 30-feet thick.

Hole No.	Collar Elev.	Depth	Casing	Ore Intersection		Width	%TCu	%MoS ₂
				From	To			
86-33	3591'	502'	115'	210	280	70	.31	.016
				320	360	40	.38	.008
86-34	3606'	493'	97'	290	340	50	.24	.006
86-35	3603'	508'	142'	-	-	-	-	-
86-36	3623'	508'	80'	-	-	-	-	-
86-37	3640'	495'	84'	220	300	80	.35	.007
				330	400	70	.25	.010
86-38	3616'	508'	103'	-	-	-	-	-

86-39	3605'	508'	80'	380	410	30	.45	.004
86-40	3603'	498'	92'	-	-	-	-	-
86-41	3620'	447'	84'	-	-	-	-	-
86-42	3478'	603'	80'	530	603	73	.25	.014
86-43	3448'	505'	100'	230	340	110	.28	.006
86-44	3459'	508'	100'	260	350	90	.37	.007
86-45	3465'	507'	128'	230 480	260 507	30 30	.51 .38	.002 .007
86-46	3382'	505'	50'	300	330	30	.30	.008

Hole 86-33 intersected an atypical Mine Phase quartz diorite rock down to 350-feet. This rock had less quartz than normal, about 20-25%, and was finer grained. Below 350-feet, rock composition and grain size was back to normal. A highly oxidized zone of copper mineralization at the top of the hole has not been included in the chart above. The recoverable copper (sulphide copper) in this zone is not sufficient to include it as an economic ore intersection. The mineralized zone from 210- to 280-feet contains chalcopyrite and minor chalcocite in narrow shears and chloritic veins. A large quartz vein from 267- to 275-feet contains minor chalcopyrite and accounts for some of the grade here. A second ore zone from 320- to 360-feet contains chalcopyrite in chloritic veins and in sericitic shears. Pyrite content is high in the sericitic shears and some zones display associated chalcocite mineralization. Chalcocite is also seen concentrated along several vertical fractures indicating that this is not part of the supergene zone, only chalcocite transported down the fractures. A weak chalcocite blanket extends down to about 260-feet.

Hole 86-34 displays variable amounts of saussuritic and chloritic alteration in a normal Mine Phase Quartz Diorite. This gives way to Quartz-Chlorite-Sericite-Magnetite shear zones from 416-feet to the end of the hole. A highly oxidized zone occurs at the top of the hole, down to 220-feet and mineralization is no longer economic. A weak supergene zone below this does not produce sufficient grade either. An ore zone does exist from 290- to 340-feet with chalcopyrite in quartz-chlorite veins and in quartz veins being responsible for most of the grade here. Grade increases in narrow quartz porphyry zones. One notation of bornite was made. Pyrite concentration is low throughout the hole.

The Mine Phase Quartz Diorite intersected in drill hole 86-35 is atypical in the same manner as in 86-33 - it is lower in quartz content, higher in chlorite content, and finer grained than normal. A major fault zone occurs from 255- to 292-feet. No rock change occurs across it. The zone from 378- to 448-feet is highly sheared and altered. Chlorite, sericite and saussurite are "molded" around rounded, almost augen-like quartz grains. Quartz content is high, around 60%. Carbonate is present with quartz and chlorite in small gash-like veinlets. Pyrite concentration was quite variable, generally showing an increase with increased sericite. No economic ore zones were intersected in this hole.

Hole 86-36 also intersected an atypical Mine Phase quartz diorite down to 400-feet. This rock however is not like that intersected in 86-33 and 86-35. It was finer grained, but quartz was very obvious as grain aggregates up to 3/4" in diameter (similar to Granite Mountain Phase quartz diorite). A typical Mine Phase Quartz Diorite continued from 400-feet to the end of the hole. A quartz-feldspar porphyry dyke was intersected from 467- to 473-feet showing sharp contacts and containing rounded inclusions of Mine Phase rocks. Pyrite content again fluctuated with the amount of sericite, but was generally low. No copper ore zones were intersected.

Hole 86-37 is drilled into normal Mine Phase Quartz Diorite with its normal variations in saussurite or chlorite alteration. Narrow zones show a fragmental nature and a few narrow zones of seriate textured Leucocratic rocks have been noted. A weakly mineralized zone of oxidation occurs down to 140-feet. No adjacent supergene zone is noted. Chalcocite that is noted deeper in the hole appears to be associated with a narrow steep fault zone at 200-feet. An ore zone from 220- to 300-feet is substantially enhanced by quartz vein mineralization. Chalcopyrite also occurs in chloritic veins. A second weaker ore zone extends from 330- to 400-feet and contains similar mineralizing structures. Pyrite is generally weak throughout the hole. A few higher grade intersections of pyrite correspond with increased sericite.

Hole 86-38 is drilled into normal Mine Phase Quartz Diorite with broad zones of shearing throughout varying between predominant chlorite and predominant sericite. Leach cap extends to 129-feet and oxidized mineralization extends to 150-feet. Only minor chalcocite has been noted below this and does not constitute a supergene "blanket". No economic zones of copper mineralization were intersected. Pyrite was weak throughout.

Hole 86-39 was collared in a possible different rock type, characterized by 20-25% subhedral to euhedral black hornblende crystals and 35-40% quartz as anhedral grains averaging 1/20" - 1/8" in diameter, and 30-40% weakly saussuritized plagioclase. This rock type is extremely barren. It grades into a normal Mine Phase Quartz Diorite at 185-feet at which point also begins

mineralized veins, in this case, though, only containing minor pyrite. A zone of carbonate alteration interrupts the Mine Phase rock from 248- to 413-feet. It is not a typical shear zone but is characterized by the partial replacement of plagioclase by a pale brown weathering carbonate. Quartz content amounts to about 45% and chlorite and magnetite account for 5-10%. This rock is in fault contact at its base with a normal Mine Phase rock. A narrow ore zone is contained at the base of this unit contained partially within the fault zone. Chalcopyrite is contained in quartz-carbonate veins and in sericitic shears. Pyrite concentration is low throughout the hole.

Hole 86-40 intersected a rock type similar to that in 86-39 with the characteristic hornblende crystals. Here, however, some zones show chloritization of the hornblende crystals. Quartz content appears quite variable, ranging from 30% to 45%. Some narrow shear zones were intersected. Both pyrite and chalcopyrite content were very low throughout the hole.

Hole 86-41 is similar to 86-40 with variable amounts of fresh hornblende crystals and chloritized crystals. Faulting is abundant with zones at 168- to 191-feet, 237- to 260-feet, and 321- to 324-feet. Pyrite and chalcopyrite content again, are extremely low.

Hole 86-42, near the edge of the Gibraltar East pit, was drilled in normal Mine Phase Quartz Diorite. Numerous narrow, steep faults were intersected as well as a major fault from 328- to 358-feet. A mineralized system from 530-feet to the end of the hole at 603-feet included zones of quartz-chlorite-carbonate shearing. Chalcopyrite was found within the shear zones as well as in chloritic veins and quartz veins. Pyrite content was generally low except in sheared areas and in zones of quartz-pyrite veins.

Hole 86-43 was drilled in a Mine Phase Quartz Diorite higher in chlorite and lower in quartz than normal. Faulting occurred at 328- to 340-feet, 410- to 420-feet, and possibly from 460- to 480-feet. An ore zone occurred from 230- to 340-feet with chalcopyrite noted in chloritic veins and narrow sericitic zones. Assays were generally higher than estimates indicating a possible fine grained background mineralization. Pyrite concentration was generally low with higher zones associated with sericitic shears.

Hole 86-44 was drilled in normal Mine Phase rocks. Leach cap extended to 110-feet and oxide to 120-feet. No supergene blanket was intersected. Numerous narrow shear zones were intersected. Faulting occurred at 195- to 205-feet. A rather sporadic ore zone was intersected from 260- to 350-feet with chalcopyrite and minor chalcocite occurring in narrow sericitic and sericite-chlorite shears. Mineralized quartz veins also contribute to the grade. Grades within the zone range from 0.06% total copper to 1.10% total copper over 10-feet. Pyrite content is generally higher in sheared areas.

Hole 86-45 was drilled in typical Mine Phase rocks. No oxide or supergene zones were intersected. Narrow shear zones were common. A small fault was intersected from 200- to 210-feet and a series of small faults from 300- to 370-feet may be part of a large fault system. Two 30-foot ore zones were intersected. The grade from 230- to 260-feet was mainly due to a strongly mineralized shear zone of quartz-sericite-chlorite-carbonate composition. The second zone, from 480-feet to the end of the hole, had chalcopyrite present in chloritic veins and a few narrow sericitic shears. Higher concentrations of pyrite in the hole were associated with zones of stronger shearing.

Hole 86-46 was drilled in Mine Phase Quartz Diorite. Leach cap extended to 117-feet and oxide continued to 160-feet. No supergene zone occurred. A 30-foot mineralized zone occurred from 300- to 330-feet with chalcopyrite present in shear zones, chloritic veins and Quartz veins. Minor native copper was noted in places in this hole. Pyrite concentration was weak throughout the hole.

3.3 Interpretation

The narrow, sometimes sporadic mineralized zones intersected in this drill program appear to be quite steep and therefore are not economic. A barren rock type to the south cuts off any possible economic systems in that direction.

4 STATEMENT OF EXPENDITURES

August-September, 1986 Diamond Drilling, Red Group.

(a) Drilling Costs

Direct Footage Charges:

86-33	502'	@ \$13.00/foot	=	\$ 6,526.00
86-34	493'	@ \$13.00/foot	=	\$ 6,409.00
86-35	508'	@ \$13.00/foot	=	\$ 6,604.00
86-36	508'	@ \$13.00/foot	=	\$ 6,604.00
86-37	495'	@ \$13.00/foot	=	\$ 6,435.00
86-38	508'	@ \$13.00/foot	=	\$ 6,604.00
86-39	508'	@ \$13.00/foot	=	\$ 6,604.00
86-40	498'	@ \$13.00/foot	=	\$ 6,474.00
86-41	447'	@ \$13.00/foot	=	\$ 5,811.00
86-42	603'	@ \$13.00/foot	=	\$ 7,839.00
86-43	508'	@ \$13.00/foot	=	\$ 6,604.00
86-44	508'	@ \$13.00/foot	=	\$ 6,604.00
86-45	507'	@ \$13.00/foot	=	\$ 6,591.00
86-46	505'	@ \$13.00/foot	=	\$ 6,565.00
	<u>7098'</u>			<u>\$92,274.00</u>

Man and Machine Hours

59 man hrs.	@ \$20./hr.	=	\$ 1,180.00
10 drill hrs.	@ \$30./hr.	=	300.00
21 tractor hrs.	@ \$40./hr.	=	<u>840.00</u>
			\$ 2,320.00

Lost Equipment

2 - 10' NW casing	@ \$136.64=	273.28
2 - NQ core bits	@ \$481.50 =	<u>963.00</u>
		\$ 1,236.28

Mud Charges

11 pails Alcomer mud	@ \$119.50	1,314.50
6 pails Gel	@ \$10.50	= <u>63.00</u>
		\$ 1,377.50

Water Lines

1200'	@ \$0.40/ft.	=	<u>\$ 480.00</u>
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Total Drilling Charges

\$97,687.78

(b) Vehicle Costs

1986 Rental 4x4 Pickup		
Aug. 26-29	8 days @ \$35.40	\$ 283.20

(c) Assay Costs

578 Cu - MoS ₂ assays	@ \$4.40/assay	\$ 2,543.20
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(d) Supplies
 Core boxes: 289 boxes @ \$6.00/box = \$1,734.00
 Tags, bags, etc. = 173.40
 \$ 1,907.40

(e) Personnel Costs

Core Logging

G. D. Bysouth

Aug. 19-20 8 hrs.
 Oct. 14-17 24 hrs.
 Oct. 20-24 40 hrs.
 Nov. 05-07 16 hrs.
 88 hrs. @ \$31.00/hr. = \$2,728.00

M. R. Thon

Oct. 02-03 12 hrs.
 Oct. 22-28 16 hrs.
 Oct 31-Nov 6 12 hrs.
 Nov. 07-10 10 hrs.
 Nov. 12 7 hrs.
 57 hrs. @ \$22.02/hr. = \$1,255.14

Field Work and Sampling

E. M. Oliver

Aug. 13-14 9 hrs.
 Aug. 20-22 10 hrs.
 Aug. 26-29 12 hrs.
 31 hrs. @ \$19.64/hr. = \$ 608.84

G. Warren

Aug. 18-22 23 hrs.
 Aug. 25-29 8 hrs.
 31 hrs. @ \$14.29/hr. = \$ 442.99

B. Locke

Aug. 25-29 40 hrs.
 Oct. 14 8 hrs.
 Oct. 16-17 16 hrs.
 Oct. 20-24 40 hrs.
 Nov. 03 8 hrs.
 Nov. 06-07 16 hrs.
 Nov. 10-12 16 hrs.
 144 hrs. @ \$14.29/hr. = \$2,057.76

Total Personnel Charges

\$ 7,092.73

TOTAL COST

\$109,514.31

5 CONCLUSIONS

Since volume and grade of the mineralization intersected in this program was low and considered uneconomic, it is recommended that no further work be done in this area.

Submitted by: Garry D. Bysouth

Garry D. Bysouth
Senior Geologist

APPENDIX I. Statement of Qualifications

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

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

Garry D. Bysouth

Garry D. Bysouth

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

1. I am a geologist.
2. I am a graduate of the University of British Columbia, with a B.Sc. degree in Geological Science in 1978.
3. From 1978 to the present I have been engaged in mining and exploration geology in British Columbia.
4. I personally logged some of the core and assessed the results of this drill program.

Madeline R. Thon

Madeline R. Thon

APPENDIX II. List of Abbreviations

ank.....	ankerite
bo.....	bornite
cal.....	calcite
carb.....	carbonate
chl.....	chlorite
cp.....	chalcopyrite
dissem.....	disseminated
ep.....	epidote
foln.....	foliation
gg.....	gouge
grn.....	grained
lim.....	limonite
mal.....	malachite
mag.....	magnetite
py.....	pyrite
qtz.....	quartz
rx.....	rock
ser.....	sericite
str.....	strong
stkwk.....	stockwork
wk.....	weak
Wt. Q.D.....	White Quartz Diorite = Leucocratic Phase

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-33
SHEET No. 1 of 7

LOCATION GIBRALTAR EAST BEARING - LATITUDE 47604.96 N CORE SIZE N. O. W. LOGGED BY G. D. B.
DATE COLLECTED 15-Aug-86 LENGTH 502' DEPARTURE 47293.47 E SCALE OF LOG 1" = 10' DATE Oct. 20, 1986
DATE COMPLETED 17-Aug-86 DIP -90° ELEVATION 3590.75 REMARKS see below

ROCK TYPES & ALTERATION	GRAPHIC LOG	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feather Blk.	Estimate Core Recovery %	R O D	ASSAY RESULTS						
							LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade			
							0	225'					350'					
Casing To 115'																		
MINE PHASE QUARTZ																		
DIORITE (115-502) not a typical Mine Phase - finer grnd than normal - avg. grn size ~1/2"				highly broken rusty core + (mal) (as.) (py)		<0.5				7	11001	.19	.002				15	OK
qtz not conspicuous - chl = 20% saus. plag - 55% qtz - 20-25%						<0.5				10	11002	.37	.004				15	OK
- a strong Cu oxide zone occurs down to ~200' - This also appears to have been a strong cp zone before leaching						<0.5				13	11003	.45	.008				12	OK
						<0.5				13	11004	.24	.002				20	OK

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-33
SHEET No. 2 of 7

ROCK TYPES & ALTERATION	L to Core Foliation Alteration Feet Feet Feet	GRAPHIC LOG	Values L to Core Axis	WIDTH of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	Feet Disc.	Sample Number			%	%	%	Estimated Grade
								LIM. ZONE								
60 Mod	170	[Graphic Log]	30 45-50x2+70x2 # x 3 10	3' 1/2 + 1/3 + 1/8 x 5 1/10 - 1/8 x 3 1/8	qtz-ser-gg-br-lim-ag-mal qtz x 7 gg-lim-mal-ag x 3 qtz-ser-chl-mal	0' 10' 20' 30' 40' 50' 60' 70' 80' 90'	<0.5	REMARKS	163	98	10	11005	.42 .310x	.002		.20 .0x
									168							
60 WK	180	[Graphic Log]	10 x 2 20 x 2 35 x 3 45-30 x 10 30 5	1/20 x 2 1/20 x 2 1/10 x 3 1/16 x 10 1/4 1/8	MnO ₂ + a ₃ x 2 gg-lim (a ₃) x 2 qtz-chl-lim (mal) lim-mal-ag x 10 qtz-lim qtz	0' 10' 20' 30' 40' 50' 60' 70' 80' 90'	<0.5	REMARKS	173	95	13	11006	.33 .260x	.002	.37 .280x 34/0	.15 .0x
									178							
60 WK	190	[Graphic Log]	60+80+20 ? 70 100x4 30+60 45	1/6 x 3 1" 1" 1/20 x 4 1/3 + 1	qtz x 3 qtz-chl (vug) qtz-lim lim x 4 qtz (cp)	0' 10' 20' 30' 40' 50' 60' 70' 80' 90'	<0.5	REMARKS	183	95	20	11007	.10 .080x	.002		.10
									188							
60 WK	200	[Graphic Log]	5 70 30 5 50 5 40 30	1/4 1/10 1/4 1/4 1/4 2" 1/10	qtz-lim qtz-chl chl-py-ag qtz (cp) chl-py qtz-ag qtz-lim qtz-chl-ag	0' 10' 20' 30' 40' 50' 60' 70' 80' 90'	<0.5	REMARKS	192	90	23	11008	.13 .100x	.002		.12
ND	210	[Graphic Log]	30 70 5 x 70 55 50 60+30 80	1/4 1/8 1/4 x 3 2' 6" 1/8 + 1/4 6"	qtz-chl (py) qtz qtz x 2 qtz-chl-ser-lim-mal-ag qtz-chl-mag-(cp)(mal) qtz-(lim) x 2 qtz-ser-chl-lim	0' 10' 20' 30' 40' 50' 60' 70' 80' 90'	<0.5	REMARKS	203	90	43	11009	.21 .090x	.002		.12
									208							
ND	220	[Graphic Log]	50 60 30 60 x 5 8 20 x 4 80 60	1/4 1/10 1/10 - 1/8 x 3 1/10 x 4 1/4 1/2 2" x 2	chl-lim-(mal) qtz-cp-cc qtz-chl-cp-lim (cc) qtz x 3 chl-lim qtz-chl-cp x 4 qtz qtz-chl-cp qtz-chl-mag (cp) x 2	0' 10' 20' 30' 40' 50' 60' 70' 80' 90'	<0.5	REMARKS	211	85	33	11010	.31 .030x	.018	.20 .100x 3365	.25
									216							

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-33
SHEET No. 3 of 7

ROCK TYPES & ALTERATION			GRAPHIC LOG	VEIN	WIDER OF VEIN	MINERALIZATION	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
	L to Core Facilitates	Alteration Footage							LEACH CAP				Footage	Sample Number	%	%
			LIM. ZONE	SUPERGENE	Cu	Mo										
225-260 dark chl-ncn core with good perp. structure	60 WK	230	60	6'	qtz-chl (py) (cc)	0	0.5			95	30	11011	.40	.012	.20	
			20	1/4	qtz-chl-py	10										
	60 WK	240	35	1/2	qtz-chl (cp)	10	0.5			95	37	11012	.33	.028	.45	
	60 WK	240	45	1/2	qtz-chl-cp	10										
	50 WK	250	60	10"	qtz-chl (cp)	10	0.5			90	33	11013	.38	.034	.35	
	50 WK	250	60	10"	qtz-chl (cp)	10										
	70 WK	260	60	1/2	qtz-chl-py (cp) (cc)	10	0.5			90	43	11014	.41	.008	.30	
	70 WK	260	60	1/2	qtz-chl-py (cp) (cc)	10										
	ND	270	60	8'	qtz-chl (cp)	10	1.0			80	33	11015	.12	.004	.35	
	ND	270	60	8'	qtz-chl (cp)	10										
	ND	280	60	8'	qtz (cc)	10	< 0.5			95	40	11016	.25	.008	.14	
	ND	280	60	8'	qtz (cc)	10										

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-32
SHEET No. 4 of 7

ROCK TYPES & ALTERATION			GRAPHIC LOG	V. to Core Angle	Width of V. to Core Axis	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS				
									LEACH CAP	LIM. ZONE			REMARKS	Sample Number	% Cu	% Mo	
			70 20-70 25 30+45 35 40 70 50 30	ND	1/2 1/2 1/2 + 1/2 1/2 1/2 1/2	qtz-chl-(cp) qtz-ser-py qtz-chl-cp qtz x 2 qtz-chl-(cp) qtz-chl-(cp) qtz-chl-cp qtz	0 10 20 30 40 50 60 70 80 90	0.5		98	40	11017	.17 2.01%	.010		.15	
			5x2 45 45x2 60+15 30+45 60 70 60+3 20 30 40 40 45	ND	1/8 x 2 1/3 1/8 x 2 1/10 x 2 1/10 x 2 1/10 8"	qtz-chl-carb x 2 qtz qtz-chl-(cp) x 2 chl-(cp) x 2 chl-(cp) x 2 qtz-chl-cp qtz-chl-(cp) x 3 qtz-chl qtz-chl-cp chl-cp qtz-ser-py qtz-mag + 1 qtz-ser envel.	0 10 20 30 40 50 60 70 80 90	<0.5		95	50	11018	.11 2.01%	.004		.14	
			60+3 20 30 40 40 45	ND	3" x 3 1/2 1/10 1/10 3" 1/2	qtz qtz-chl-(cp) x 3 qtz-chl qtz-chl-cp chl-cp qtz-ser-py qtz-mag + 1 qtz-ser envel.	0 10 20 30 40 50 60 70 80 90	<0.5		90	43	11019	.16 2.01%	.018		.17 3275	.12
			5 40+40 60 80 80 60	ND	3" 1/2 x 2 1/4 1/10 2'	qtz qtz x 2 qtz-chl-zone qtz-chl-cp qtz-ser-py	0 10 20 30 40 50 60 70 80 90	8.0		98	23	11020	.11 2.01%	.010		.10	
			50 45+50x2 45x2 50+45+35 60 x 3 30 40 30	ND	1/2 1/10 + 1/20 x 2 1" x 2 2 1/2 + 1 + 3/4 1/10 + 1/20 x 2 1/3 1/10	qtz-ser-py-cc qtz-chl-cp x 3 qtz x 2 qtz x 3 qtz-chl-cp x 3 qtz-chl-cp mag qtz-chl-cp	0 10 20 30 40 50 60 70 80 90	1.0		95	33	11021	.28 2.01%	.006		.25	
			45+35 40 35 35x2 81 5 40 45 x 2 60	ND	1/10 x 2 2" 1/4 1/2 + 1/2 1 1/2 1/2 1/2 1/4 x 2 2 1/2	qtz-chl-cp x 2 qtz-ser-cp qtz qtz-ser-cp x 2 qtz-ser-py(cc) qtz-ser-py-cc qtz-ser-py qtz-chl-cp x 2 qtz-ser-py zone	0 10 20 30 40 50 60 70 80 90	8.5		90	33	11022	.13 2.01%	.004		.30	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-33
SHEET No. 5 of 7

ROCK TYPES & ALTERATION		L to Core Foliation Alteration Fractures Silicification	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Sample Number	% Cu
grn size of host rock has incr. to normal @ ~ 350 (ie 1/20-1/10" dia grn) and the rx now resembles a normal		10-45 STR	350	10-45	9'	qtz-ser-py ((cc)) (cp) zone #1	0 10 20 30 40 50 60 70 80 90	10.0		344	60	17	11023	.43 .010x	.004	.18
Mine Phase Q.D.		ND	360	? 60x2 50+45 45x2 45 ?	14' 1/2 1/2 + 1/20 1/4x2 1/3x2 1/10	qtz-cp (Ho) * 2 qtz-chl-carb-cp qtz-chl-cp x 2 qtz-chl-cp x 2 chl-carb x 2 qtz-chl-carb-cp chl-carb hles & irreg. patches with dissem cp.	0 10 20 30 40 50 60 70 80 90	<0.5		354	90	30	11024	.38 .010x	.016	.32 3230 .25
gen. dark vuggy chl-carb-rich core with dissem cp		ND	310	60 60-80x6 45x2 50 50 60x2	1/4 1/10-1/4 x 6 1/4x2 1/3 1/3 1/2 1/2x2	chl-cp chl-carb (cp) x 6 qtz-chl-carb-cp qtz (mag) (cp) qtz-chl (vug) qtz-chl-carb (cp) qtz-mag x 2	0 10 20 30 40 50 60 70 80 90	<0.5		364	95	43	11025	.08 .010x	.002	.14
		45-60 Moq	380	60 80 70x2 45 30 20 ?	1/6 1/4 1/8x1/10 1/8 1/3 2 1/2	qtz qtz-mag qtz-chl-mag (cp) x 2 qtz-chl (cp) qtz qtz qtz	0 10 20 30 40 50 60 70 80 90	0.5		374	95	33	11026	.09 0.010x	.002	.12
		70 WK-MLH	390	35x2 60x5 60x2 90 80x2 25x2 45 40	1/8x2 1/8+1/4 1/10x2 1/2 1/2x2 1/6+1/4 1/2 1/2	qtz-chl-carb qtz-chl-carb qtz-chl (cp) x 2 qtz (cp) qtz x 2 qtz x 2 qtz-chl (cp) qtz	0 10 20 30 40 50 60 70 80 90	0.5		384	95	60	11027	.07 0.010x	.002	.12
		70 WK.	400	30 30 60x3 60 60x3 30+60+45 60x2 45+60	1 1/2 1" 1/10x3 3" hlex 3 1/2+1/2x2 1/4x2 1/2x2	chl-cp qtz qtz-chl-cpx3 qtz (cp) chl-cpx3 qtz x 2 qtz x 2 chl-cpx2	0 10 20 30 40 50 60 70 80 90	0.5		394	90	43	11028	.10 0.010x	.008	.12 3185

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-33
SHEET No. 6 of 7

ROCK TYPES & ALTERATION		GRAPHIC LOG	Values in Core Axis	Width of Vena	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
								Leach Cap	LIM. ZONE			SUPERGENE	REMARKS	Sample Number	% Cu
gn size of host rx appears to be increasing	70 Mod	410	80x2 20 70+80 40x60 20x40 45 60 70	1/10 x 2 1/2 1/6 x 2 1/3 x 2 2" x 2 1/4 1/2 1/8	qtz-ser-py-cp x 2 qtz qtz qtz qtz-mag x 2 qtz (cp) x 2 qtz-chl-cp qtz-chl-py-cp hbl-cp qtz-chl-cp	0 10 20 30 40 50 60 70 80 90	1.0		404	95	40	11029	.09 L.O.I.	.002	.16
			70 wk	420	70 70 70x2 20? 80x2 70	6" 2" 1/4 x 2 1/4 2" 1/2 x 2 7"	qtz-chl-(cp) zone qtz (cp) qtz qtz-Mo chl-cp x 2 qtz-chl (carb)-(cp) zone	0 10 20 30 40 50 60 70 80 90	<0.5	414	98	40	11030	.09 L.O.I.	.016
	70 wk	430	45 15+20+40 60 5 80 3 80x2 70 70	1/8 1/4 x 3 1/4 1/3 1/4 1/4 6" 1/4 x 2 2" 8" + 3" x 2	qtz qtz x 3 qtz-chl-carb qtz chl qtz qtz x 2 qtz-chl (cp) qtz x 3	0 10 20 30 40 50 60 70 80 90	<0.5	424	95	37	11031	.09 L.O.I.	.010	.12	
	70 wk	440	70+60 70 60 60 70	1/3 x 2 3" 1/8 4' 1/4	qtz x 2 qtz-ser-py qtz-ser-cp qtz-chl (carb) (cp) zone qtz-ser-cp	0 10 20 30 40 50 60 70 80 90	0.5	434	95	27	11032	.19 L.O.I.	.012	.20	
	50 str.	450	50	9'	qtz-chl-ser-py (cp) zone. qtz-(Mo)(cp)	0 10 20 30 40 50 60 70 80 90	2.0	444	90	27	11033	.25 L.O.I.	.070	.18 3140	
	5- 80 str + Cren.	460		8'	qtz-chl-(ser) ank* (cp) zone	0 10 20 30 40 50 60 70 80 90		454 458	95	43	11034	.13 L.O.I.	.006	.12	

* brown weathering carb.

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-33
SHEET No. 7 of 7

ROCK TYPES & ALTERATION	L to Core Foliation Foliation Alteration Faults Size of Vein	GRAPHIC LOG	Vein L to Core Alt.	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS				
								LEACH CAP	LIM. ZONE	SUPERGENE			Sample Number	% Cu	% Mo		Estimated Grade
dk alt zone (ch. carb enrich)	ND	[Graphic Log]	L to Core Alt.	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS			468	23	11035	.14	.004	.14	
								80	1/2 x 7"	chl-ep							0
								50+70	2"	qtz-mag (sp) x 2							10
								60	1/4 x 1/2	qtz (co)							20
								DD x 2	1/4 x 1/2	qtz-carb-chl x 2							30
host rx has now a med-coarse grn size (1/2"-1/8" dia grn) and resembles normal pit rx.	60 Med	[Graphic Log]	L to Core Alt.	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS			478	43	11036	.12	.002	.18	
								35+2+60+70	1/4 x 1/2	qtz-chl-cp (Mo)							40
								60	1/4 x 1/2	qtz x 4							50
								70	1/4 x 1/2	qtz-mag (sp)							60
								54+0+20	1/4 x 1/2	carb-pf							70
	70 WK	[Graphic Log]	L to Core Alt.	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS			488	40	11037	.06	.002	.10	
								30?	3"	qtz-chl-cp zone							0
								50+70 x 2	1/2 x 1/2	qtz x 3							10
								40+60	1/2 x 1/2	qtz x 2							20
								45+70+60+5	1/2 x 1/2	qtz x 9							30
E.O.H 502'	70 WK	[Graphic Log]	L to Core Alt.	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS			496	57	11038	.08	.002	.08	
								5	1/3	qtz							40
								5+70 x 4	1/2 x 1/2	qtz x 5							50
								60 x 5	1/2 x 1/2	qtz							60
								45 x 2	1/2 x 1/2	qtz x 3							70
S.O.B.		[Graphic Log]	L to Core Alt.	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	REMARKS			502						
								45+40+80	1/2 x 1/2	qtz x 3							0
								45	2 1/2"	qtz-mag (sp) + 2" qtz-ser envel.							10
								70-80 x 5	1/2 x 1/2	qtz x 5							20
								45+80	1/2 x 1/2	qtz x 2							30

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-34
SHEET No. 1 of 7

LOCATION GIBRALTAR EAST (South) BEARING _____ LATITUDE 17 190.98 N CORE SIZE N.G.W. LOGGED BY G.D.B. & M.R.T.
DATE COLLECTED 17 Aug 86 LENGTH 493' DEPARTURE 47,468.21 E SCALE OF LOG 1" = 10' DATE Aug 19 1986
DATE COMPLETED 18 Aug 86 DIP -90° ELEVATION 3,626.01' REMARKS _____

ROCK TYPES & ALTERATION	L to Core Feilite Foliation Alteration Footage Stippling	Vains L to Core Axis	Width of Vain	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footage Block	Estimated Core Recovery %	R O D	ASSAY RESULTS					
							LEACH CAP 120'	LIM. ZONE 220'				Sample Number	% Cu	% Mo	Estimated Grade		
<u>Casing To</u> <u>97'</u> <u>95'</u>																	
<u>MINE PHASE</u> <u>QUARTZ DIORITE</u> <u>(95' - 350</u> <u>typical Mine Phase</u> <u>230% qtz</u> <u>55% sauss. plag</u> <u>15% chl.</u>		60-70 x 6 66	1/16 x 6 1/8	qtz-chl-lim (mal) x 6 qtz-chl-qs-lim-mal		0	* no sulfides noted but strong Cu carb. min. - poss.				37	11151	.23 .190x	.004		.10 (ox)	
	70 Mod	80 x 2 5+10 x 6 60-70 x 7 45 x 50	1/10 x 2 1/10 x 3 1/20 - 1/10 x 7 1/10 x 4	qtz-chl-qs-lim x 2 qtz-chl-mal x 2 qtz-chl-lim (mal) x 7 qtz-lim-mal		0	low py ore zone?	108				11152	.12 .110x	.002	.17 3500	.15 (ox)	
med grn but sl. finer grnd than normal with a sl. cariate tex.	70 Mod	60 70 x 30 70 x 3 60 x 2 20 x 2	1/16 1/16 x 2 1/16 x 3 1/16 x 2 1/10 x 2	qtz-mal lim-mal-asur. lim x 3 MnO2-mal x 2 gg-lim-MnO2-asur. x 2		0		115	95		43	11153	.14 .120x	.002		.20 (ox)	
	60 Mod	60 x 45 80 x 3 45 x 50 5+45 50 5 60 60	1/16 x 3 1/16 x 3 1/10 x 2 1/10 x 2 1/10 1/16 1/10	qtz-chl-mal x 3 MnO2 x 3 lim x 2 MnO2-lim + lim-mal lim-asur. qtz-mal ((cp)) qtz-ser-MnO2-mal lim-asur		0		125	95		20	11154	.28 .260x	.002		.20 (ox)	
	60 Mod	55 60+50 x 20 5 10+30 x 60 20+70 5 20+45 x 2	12" 1/16 1/8 1/16 1/16 + 1/8 1/8 1/16 x 3	qtz-ser-mal ((cp)) lim-asur x 3 gg-MnO2 (mal) (asur) MnO2 x 3 mal + qtz-chl (cp) (mal) gg-MnO2-asur qtz-gg-MnO2-asur		0		132	90		30	11155	.24 .220x	.002		.25 (ox)	

GRID

GIBRALTAR MINES LTD.

HOLE No. 86-34
SHEET No. 2 of 7

ROCK TYPES & ALTERATION	L to Core Fallatioe	GRAPHIC LOG	Values L to Core Alt	Width of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feet Disc.	Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE				REMARKS	Sample Number	% Cu	% Mo
	70 Mod	150	5+80 60 40x3 2x3 40 70x3 4x 20x30	hlc x 2 1/4 1/10 x 1/8 x 2 1/4 + 1/8 x 2 1/10 1/8 x 3 2 1/2 x 2	MnO2 (mal) qq-ser-lim-mal qtz-chl (cp) x 3 qtz-chl (cp)(mal) x 3 qtz-chl qtz-chl (py) x 3 qtz qtz x 2	0 10 20 30 40 50 60 70 80 90 100	0		148	90	60	11156	.13 .120x	.002	.19 .170x 3455	2.0 (ox)
	70 Mod	160	60 55x3 5 70 60 60x2 30	12" 1/8 x 3 1 2" 2" 1/4 x 2 1/10	qtz-chl-lim-mal qtz-chl-lim x 2 qtz-MnO2-(mal) qtz-ser-chl-lim-mal-cp qtz-ser-mal qtz x 2 qq-MnO2-mal	10 20 30 40 50 60 70 80 90	0	158	98	33	11157	.41 .230x	.002		.15 (ox)	
	60 Mod	170	30x2+60x2 30 60 60x3 40 80 60	hlc x 4 2" 1/8 x 3 1/4 2" 14"	lim-MnO2-mal qq-ser-lim lim-qtz qtz-chl-lim-mal x 3 qtz-chl-py-lim qtz-lim qtz-chl-ser-py (cp)-lim zone	10 20 30 40 50 60 70 80	0	168	98	27	11158	.25 .160x	.004		.15 (ox)	
	80 Mod	180	30 30x4.5 70 45x2+6 70 35 60	6" 1/10 x 2 2" 1/4 x 3 1/4 hlc 6"	qtz-chl-lim (mal) qtz-chl-lim-py (mal) qtz-ser-py (cp) lim-mal qtz-chl-py-lim-mal qtz lim-mal qtz-chl zone	10 20 30 40 50 60 70 80	.5	178	95	53	11159	.36 .220x	.002		2.0 (ox)	
		190	70x2 60+70 40x2 30 30 80 70x4 40x60	1/4 x 3 1/10 x 3 1/10 x 2 1/2 2" 3/8 1/10 x 6 1/10 x 2	qtz-chl-lim-py-cp-mal x 3 qq-lim (mal) qtz-chl-py-cc qtz (mal) qtz-ser-carb qtz qtz-chl-py-lim x 6 qtz-ser-py-lim (cc)	10 20 30 40 50 60 70 80 90	.5	188	90	60	11160	.30 .110x	.002		1.5	
		200	25 60 60+70+40 60 40 40+60 60 70 40x50	hlc 1/4 1/4 + 1/8 x 2 2" 1/4 1/4 + 1/8 2" 30" 1/4 x 2	MnO2-mal qtz-lim qtz x 3 qtz qtz-chl-cp py (cc) x 2 qtz-ser-chl-py (cc) zone qtz-chl zone qtz-chl-py x 2	10 20 30 40 50 60 70 80 90	1.0	198	100	87	11161	.20 .050x	.002	.52 .170x 3470	2.0	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-34
SHEET No. 3 of 7

ROCK TYPES & ALTERATION	L to Core Foliation Alteration Feasible SIZES/1/2	GRAPHIC LOG	Vains L to Core Alt.	WIDTH of Vain	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE			SILPERGENE	REMARKS	Feasible Depth	Sample Number
	70 WK	50 40+25x2 40 60 45 70 80 80?	7" 1/4 x 3 1/2" 1/2" 1" 18" 2" 2"		qtz-chl (ep) zone qtz - Mn-O ₂ qtz-chl-(ep) chl (mal) qtz qtz-chl (ep) zone qtz (ep) qtz-ser-py (co) (mal. Cu) (lim)	0 10 20 30 40 50 60 70 80 90 100	1.5		100	208	83	11162	.10 .0201	.002	.20
	70 WK	80 70+3 60 50 70+3 70x2+50 45+50 60 35	1/2 hlex 2 hlex 2 lim x 3 1/8 x 3 1/8 x 3 1/8 x 3 1/8 x 3 1/8 x 3 1/8 x 3 1/8 x 3 1/8 x 3		qtz-CP (co) lim x 3 qtz-chl (ep) lim x 3 chl-ser-py x 3 qtz-chl-ep qtz x 3 qtz-chl-ep x 3 qtz-chl (co) lim	10 20 30 40 50 60 70 80 90 100	.5		90	215	30	11163	.29 .0104	.006	.18
	70 WK	70 x 2 40 30+45 60 60+80 30 35x2 45 40 35	1/2 1/4 x 2 1/4 1/8 1/8 1/8 1/8 1/8 1/8 1/8 1/8 1/8		qtz x 2 qtz x 2 qtz x 2 qtz-chl-ep qtz (ep) qtz qtz-chl (ep) qtz qtz (co) chl-mag	10 20 30 40 50 60 70 80 90 100	<.5		225%	95	70	11164	.10 .0104	.002	.12
	70 WK	70 70+80+40x2 45+40x2 45 70 80 70	1/4 1/8 x 4 1/8 x 2 2" 1/4 1/2 x 2 1/2		qtz (ep) qtz-chl (ep) qtz x 4 qtz qtz (vug) qtz (chl) (ep) qtz-chl-ep x 2 qtz-ep	10 20 30 40 50 60 70 80 90 100	<.5		235%	100	67	11165	.11 2.0104	.002	.16 3365
	NP	80 30+15 45 80 80 80+45+80x2 40x2+70	2" 1/8 x 2 1/8 3/8 x 2 1/8 x 2 1/8 x 2 1/8 x 2 1/8 x 2		qtz (vug) qtz x 2 qtz qtz-chl-ep qtz-chl (ep) x 5 qtz x 2 qtz-chl-ep-mag (ep)	10 20 30 40 50 60 70 80 90 100	<.5		24%	95	60	11166	.08 2.0104	.002	.12
	ND	80 70 75 30+5 80 80	1/4 1/4 3" 2" 1/8 1/8 1/8 1/8		qtz-mag qtz (ep) qtz-chl-ep zone qtz-chl-mag qtz-chl x 2 qtz-ser-py (co) zone qtz-ser-py (co) zone	10 20 30 40 50 60 70 80 90 100	1.6		25%	98	53	11167	.41 .0104	.004	.15

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-34
SHEET No. 4 of 7

ROCK TYPES & ALTERATION		L to Core Foliation Foliation Alteration Feasible SIZES	Vains L to Core Ain	WIDTH of Vain	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE	SUPERGENE			Feasible Blk. ft.	Sample Number	% Cu	% Mo
		ND	80 80 70 45 x 2 5 x 4	2" 8" 1/4 1/2 x 2 1/2 x 1	qtz-chl-py (Ca) qtz-chl-py qtz-(cp)(vug) qtz-mag qtz-chl x 2	0 10 20 30 40 50 60 70 80 90 100	5			266	98	26	11168	.29 .010x	.002	.12
		ND	70 x 2 80 x 2 70 60 60 45 x 2 x 2	1/2 x 1/2 x 1/2 1/2 x 1/2 1/4 1" 1/2 1/2 x 2	qtz x 2 qtz x 2 qtz-chl-cp-bo qtz qtz-chl (cp) qtz-mag + qtz x 2 *	0 10 20 30 40 50 60 70 80 90 100	<.5		276	98	70	11169	.10 <.010x	.002	.15	
		ND	60+70+15150 5 45-70 x B 48 70 x 4 80 70 60-70 x B	1/2 x 4 1/2 1/2-1/4 x B 1/4 1/2 x 4 1/2 1/2 1/2-1/4 x B	qtz x 4 qtz-mag qtz x B qtz-mag qtz x 4 qtz-cp qtz-mag qtz x B chl-op-bo qtz-chl (cp)	0 10 20 30 40 50 60 70 80 90 100	<.5		286	90	57	11170	.07 <.010x	.002	.20 3320	.08
		ND	70 80 70 60 80 80 300	1/4 1/2 1/4 1/2 1/2 1/2 4"	qtz qtz qtz qtz-cp qtz-ser-chl-py qtz-ser-py	0 10 20 30 40 50 60 70 80 90 100	1.5		296	98	33	11171	.37 <.010x	.004	.12	
		80 WR Mad	80 70 x 2 70 70 80 x 4 80 15170 20 x 2 x 5	1/2 1/2 1/2 1/2 1/2 x 4 1/2 1/2 x 2 1/2 x 2	qtz-chl (cp) zone qtz x 2 chl-cp qtz-cp qtz-chl-cp x 4 qtz-cp qtz-chl (cp) zone qtz x 2	0 10 20 30 40 50 60 70 80 90 100	<.5		306	98	47	11172	.29 <.010x	.002	.20	
		70 WR	70 80 70 80 60 x 2 x 70	1/2 1/2 1/2 1/2 1/2 x 2	qtz-ser-cp qtz x 2 qtz-chl (cp) qtz-chl zone qtz-ser-py (cp) (Mo) qtz x 2	0 10 20 30 40 50 60 70 80 90 100	<.5		316	95	57	11173	.13 <.010x	.006	.10	

12" Q13
P.p.

qtz
stock works

* The barren qtz clearly
x-cuts the qtz-mag.

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-35
SHEET No. 2 of 7

ROCK TYPES & ALTERATION		GRAPHIC LOG Feet Meters	V. in Core Angle	Width of V. in	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE			Sample Number	% Cu	% Mo	Estimated Grade
70 Wk		5 30x2 70 40?	12" 1/3x2 6" 12"		gg-hem-bx qtz-chl-py x2 qtz gg-hem gg qtz-chl qtz x2	0 10 20 30 40 50 60 70 80 90	0.5		90	20	10955	.02 1.01%	.001	.05	
60 Mod		20 30 60 60 ?	1 1/2" 3" 4 1/2" 3"		qtz-chl (cp) qtz-chl (py) qtz-carb (cp) qtz-chl (vug)	0 10 20 30 40 50 60 70 80 90	<0.5		80	37	10956	.02 1.01%	1.001	.05	
60 Mod		30 45 60 40-45x3 60x2 35+40	1/8x2 2" 1/2 1/2-1/8x3 1/2+1/4 1/2x2		qtz x2 qtz qtz qtz x3 qtz x2 qtz x2	0 10 20 30 40 50 60 70 80 90	<0.5		95	37	10957	.02 1.01%	.001	.05	
60 Mod		60 30x2 15	6" 1/10x2 1 1/2		qtz-chl (cp) qtz-chl x2 qtz-chl	0 10 20 30 40 50 60 70 80 90	1.0		90	33	10958	.05 1.01%	1.001	.05	
60 Wk		70 45+60 50 60x4 60x4 10+76 10	3" 1/2 1/2 1/20-hex4 1/20-hex4 1" 1" 2"		qtz-ser-py qtz-chl-py qtz-chl-py (cp) x2 qtz-chl-carb-py qtz-chl-py (cp) x4 qtz-chl-py x4 qtz x2 qtz	0 10 20 30 40 50 60 70 80 90	1.0		90	47	10959	.06 1.01%	1.002	.06	
60- 70 Mod		60x2 60x2 60x2 70x2 70	6"+8" 1/2x2 1/2+1 1/4+1/2 1/2 2"		qtz-chl-ep-py qtz-chl-py-cp x2 qtz x2 qtz-ser-py x2 qtz x2 qtz qtz-ser-py (cp)	0 10 20 30 40 50 60 70 80 90	2.0		80	30	10960	.12 1.01%	1.001	.15	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-35
SHEET No. 3 of 7

ROCK TYPES & ALTERATION		L to Core Foliation	GRAPHIC LOG	V. to Core Fault	Width of V. to Core Fault	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Sample Number	% Cu
255				70 80+50 60x2	6" 2'x2 1/2x2+1/3	qtz-chl-py qtz+2 qtz-chl(py)x3	0 10 20 30 40 50 60 70 80 90				85	20	10961	.10	.003	.08
	MAJOR FAULT ZONE (255-292)	?		260	10"	99	0 10 20 30 40 50 60 70 80 90	?			60	0	10962	.15	.005	?
	-This appears to be a series of steep faults separated by zones of broken rock and gouge slips - pass. the major dislocation occurs @ 255-260'	?		270	12"	99	0 10 20 30 40 50 60 70 80 90	?			55	0	10962	.15	.005	?
		?		280	3"	99	0 10 20 30 40 50 60 70 80 90	?			90	0	10963	.09	.002	?
		?		290	10"	99	0 10 20 30 40 50 60 70 80 90	?			80	0	10963	.09	.002	?
		?		290	1'	99	0 10 20 30 40 50 60 70 80 90	?			95	3	10964	.15	.002	?
292				300			0 10 20 30 40 50 60 70 80 90				80	53	10965	.21	.007	.08
	MINE PHASE QUARTZ DIORITE (292-)	70 Mod		10x3 50x2 70x2 1	1/4+1/3x2 1/2+1/4+1/2 1/8 1/4x2 3/8"	qtz-chl-carb-py (cp) x3 qtz x3 qtz-chl-py (cp) qtz-ser-py (cp) qtz-parp	0 10 20 30 40 50 60 70 80 90	2.0			298	53	10965	.21	.007	.08
	Same as above- no rock change across fault.			310	3'	qtz-chl-carb (py) zone	0 10 20 30 40 50 60 70 80 90	1.0			80	47	10966	.109	.003	.05
				70	6"	qtz-ser-(py)	0 10 20 30 40 50 60 70 80 90				308					

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 92-35
SHEET No. 4 of 7

ROCK TYPES & ALTERATION		GRAPHIC LOG	Yield to Core Axis	WIDE of Vial	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Sample Number	% Cu
60-70 Wk- Mod	320	60+10 60 70 80x2	1/3x2 10" 8" 1/4x2	qtz+2 qtz-chl-py zone qtz-chl-py zone qtz+2	0 10 20 30 40 50 60 70 80 90	1.5			95	33	10967	.10	.002	.08	
			70	3'	qtz-chl-py		100								
50-60 Str- Mod	336	70 60 45 55	3' 2' 6" 1/3	qtz-chl-carb-(py)(cp) zone qtz-chl-carb zone qtz-chl zone qtz	0 10 20 30 40 50 60 70 80 90	1.0			90	37	10968	.13	.002	.08	
			60	2'	qtz-chl-carb zone		100								
70 Mod	340	60 70 70x2+5 70 66 40	2" 2' 1/2x2+1/8 2" 6" 1/3 3'	qtz-ser-chl-py zone qtz-chl (carb) zone qtz-chl (py) qtz-ser-py-cp qtz-ser-py-cp qtz-mag qtz-chl-carb zone	0 10 20 30 40 50 60 70 80 90	1.5			95	56	10969	.14	.003	.12	
			60	2"	qtz-ser-chl-py zone		100								
55 Mod	350	60 66 55x20 70x2 60 60x2 50	1/10 1/4 1/3x2 1/10x2 1/8 1/10x2 1/8	qtz-ser-py-cp qtz-chl qtz-chl-carb x 2 qtz-chl-py x 2 qtz-chl-py qtz-chl-py x 2 qtz-chl-py	0 10 20 30 40 50 60 70 80 90	1.0			90	47	10970	.10	.003	.10	
			60	2 1/2	qtz-ser-py x 4		100								
60-70 Str.	360	60 60 5 70-80x5 60 50x4	1/10-1/8x4 2 1/2 3" 1/8-1/2x5 3' 1/8x4	qtz-ser-py x 4 qtz-ser-py (cp) qtz-chl-mag qtz x 5 qtz-chl-carb-py (cp) zone qtz-chl-py x 4	0 10 20 30 40 50 60 70 80 90	3.0			90	80	10971	.19	.013	.10	
			60	2 1/2	qtz-chl-carb-py (cp)		100								
60-70 Str.	370	70 60 60-70 x 5 45x2 20 40 60-80 x 5 60+50 50 70 x 3	1/10 1/2 1/4-1/2 x 5 1/2x2 1/5 1/8 1/4-1/8 x 5 1/10 1/4 1/2 x 3	qtz-chl-carb-py (cp) qtz-ser-py qtz x 5 qtz-chl-carb qtz-py (cp) qtz x 5 qtz-chl-py	0 10 20 30 40 50 60 70 80 90	2.5			95	50	10972	.11	.005	.10	
			60	1/2	qtz-chl-carb-py (cp)		100								

Strongly sheared
and alt'd section
grading to a
qtz-ser-chl-carb-py
zone

GRID _____

GIBRALTAR MINES LTD.

HOLE No. RA-35
SHEET No. 5 of 7

ROCK TYPES & ALTERATION	L to Core Fallies	GRAPHIC LOG Position Alteration Footage Slits	Vehs L to Core All	WIDTH of VEIN	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE			Sample Number	% Cu	% Mo	Estimated Grade
From 378-448 all plutonic tex. has been destroyed by shearing and alteration - although dark this alteration has a high qtz conc (~60%) with chl-ser and saus "molded" around rounded, almost augen-like qtz-grn's (~1/10" dia.) - the carb is gen. in small gash-like veinlets with qtz & chl.	45 Str.	380	70 70 x 5 45 60 + 70 x 2 45	1/4 1/4 x 5 3' 1/4 + 1/8 x 2 2'	qtz-chl-py qtz x 5 qtz-chl-carb zone qtz x 3 qtz-chl-carb zone	0 10 20 30 40 50 60 70 80 90	0.5			95	57	10973	.17	.009	.05
	40- 45 Str.	390	40	8' 2'	qtz-ser-py zone qtz-ser-chl zone	10 20 30 40 50 60 70 80 90	2.0			90	57	10974	.07	.001	.08
45- 60 Str.	400	60	10'	10'	qtz-ser-chl-py zone (+ some carb)	10 20 30 40 50 60 70 80 90	3.0			95	50	10975	.09	.002	.10
70 Str.	410	70	10'	10'	(qtz) chl-(ser) carb-(cp) zone (ie dark, vuggy chl- carb-rich core)	10 20 30 40 50 60 70 80 90	0.5			95	37	10976	.18	.008	.20
80 Str.	420	80	10'	10'	qtz-chl-carb-(cp) zone	10 20 30 40 50 60 70 80 90	1.0			95	33	10977	.19	.006	.30
70- 80 Str.	430	70-80	10'	10'	qtz-chl-carb(ser)(cp) zone	10 20 30 40 50 60 70 80 90	0.5			90	33	10978	.15	.006	.20

GRID _____

GIBRALTAR MINES LTD.

HOLE No. R6-35
SHEET No. 6 of 7

ROCK TYPES & ALTERATION			GRAPHIC LOG Feet Meters	Value to Core to Core to Core	Width of VIA	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feet Meters	Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	% Cu
			70 str	440	70	10'	qtz, chl. (ser)(carb)-cp zone	0 10 20 30 40 50 60 70 80 90	1.0		90	50	10979	.12	.009	.25	
			70 wk- mod	450	70 5+2+80 80	2 1/2' 2" 1/2 x 1/2 3/4	qtz-chl-carb zone qtz qtz qtz x 3 qtz-cp	0 10 20 30 40 50 60 70 80 90	2.0		90	50	10980	.11	.006	.12	
			55 str- mod	460	70+35 55	1/8 1/2+2"	chl-carb qtz x 2	0 10 20 30 40 50 60 70 80 90	1.5		90	43	10981	.14	.006	.10	
			60 wk- mod	470	60 70? 60 80+3 76 20	4' 6" 1/2 x 2 3"	qtz-chl-ser (cp) zone qtz-carb-py (Mo) qtz-ser-py-cp qtz x 2 qtz-ser-py qtz-chl-carb	0 10 20 30 40 50 60 70 80 90	3.0		85	27	10982	.17	.008	.14	
			80 wk	480	60 45 10+60+10 80 80 60-Pox 5 70	2" 1/2 1/2 x 3 14" 5" 1/2 x 2 1/10	qtz-ser-py (cp) qtz qtz x 3 qtz-ser-chl-py qtz-py-cp (Mo) qtz x 5 chl-cp	0 10 20 30 40 50 60 70 80 90	1.5		90	50	10983	.15	.012	.15	
			70 mod	490	70 10+60+30 60 70 80 90	4' 1/2 x 2 1/10 2	qtz-chl-carb zone qtz x 3 qtz-chl-cp qtz-porp	0 10 20 30 40 50 60 70 80 90	0.5		95	27	10984	.05	.004	.10	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-35

SHEET No. 7 of 7

ROCK TYPES & ALTERATION			L to Core Feet/Inch	GRAPHIC LOG Feet/Inch	Veins L to Core Angle	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Feet/Inch	Estimated Core Recovery %	R O D	ASSAY RESULTS			
										LEACH CAP	LIM. ZONE	SUPERGENE				REMARKS	Sample Number	% Cu	% Mo
			70 WK	50 50 45 80 50x60x2 70x7 80 500	1' - 1/2 x 2 2' 1/3 1/4 1/4 x 1/3 x 2 1/10		qtz x 3 qtz (chi) (cp) qtz qtz-carb-chl qtz x 3 qtz-chi-cp x 2 qtz	0 10 20 30 40 50 60 70 80 90	<.05			498	95	43	10985	.05	.004		.12
			70 WK	60 80x2 x 40 60 45x2 70x2 x 60	2" 1/4 x 2 + 1' 1/3 1/3 x 1/4 1/2 x 1/3 x 3		qtz-cp qtz x 3 qtz-chi-carb-cp qtz (cp) x 2 qtz x 3	0 10 20 30 40 50 60 70 80 90	<.05			508	80		10986	.08	.008		.14
EOH		500'																	

b.o.B.

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-36
SHEET No. 1 of 8

LOCATION <u>GIBRALTAR EAST</u>	BEARING <u>-</u>	LATITUDE <u>47°19.91N</u>	CORE SIZE <u>N.O.W.</u>	LOGGED BY <u>G.D.B.</u>
DATE COLLECTED <u>21-Aug-86</u>	LENGTH <u>508'</u>	DEPARTURE <u>47733.83E</u>	SCALE OF LOG <u>1"=10'</u>	DATE <u>Oct 23, 1986</u>
DATE COMPLETED <u>23-Aug-86</u>	DIP <u>-90</u>	ELEVATION <u>3622.95'</u>	REMARKS <u>* see below</u>	

ROCK TYPES & ALTERATION	L to Core Foliation Foliation Alteration Feet Feet Feet	GRAPHIC LOG Feet Feet Feet	Veins L to Core Alt	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS						
								LEACH CAP 120'	LIM. ZONE 200'			Sample Number	% Cu	% Mo	Estimated Grade			
Casing To <u>82' 80'</u>																		
MINE PHASE QUARTZ DIORITE (83-508')	60 WK	80	10+60+45	1/2 x 3	lim x 3													
not a typical Mine Phase - avg. grn size 1/20-1/10 which is finer than normal - 30-35% qtz - 15-20% chl	60 WK	90	20x4+40	1/2 x 4 + 1/3	qtz-ser-lim qtz-chl(lim) qtz-chl-lim x 6 qtz-ser-lim		0	- Strong oxidation and leaching down to 120'	87	90		10701	.05	.005		.05		
-- 50 saws plug this rx is not like that of 86-33, however as it has very obvious qtz which occurs as grn aggregates up to	60 WK	100	60 x 4 45 40+45 ?	1/10 x 4 7" 1/2 x 2" 3"	qtz-chl-lim x 4 qtz qtz x 2 qtz		0	- The leach and oxide zones in this hole show strong structure - this pass was a strongly min. zone.	97	80	17	10702	.02	.001		.05		
1/4" dia like Granite mtn Phase). At ~ 400' the rx grades to a typical Mine Phase (pit rx.)	60 WK	110	45-55x7 70x2+20 60 50 20+30 60 x 5	1-2" x 7 2" x 1/2 1 1/2" 1 1/2" 1/20 x 2 1/10 x 4 x 5	qtz-lim x 7 qtz-lim x 2 qtz-chl 3000 qtz-chl lim x 2 qtz-chl-lim x 5		0	- This hole has intersected strong barren qtz veining - in places form up to 40% of the section (qtz flooding) and often occurring as coarse stock works. - also common are qtz-mag veins ∴ is this the low sulfide high qtz edge of an ore system?	108	95	33	10703	.02	.001		.05		
	60 WK	120	60x2 30+20 60+30 15x2 60 25	1/4 x 8 1/10 x 2 1/8 x 1/10 1/2 x 2 6" 1"	qtz-chl-lim x 2 30-lim x 2 30-lim x 2 qtz x 2 qtz-chl-lim qtz-chl-ser-lim		0		115	90	23	10704	.03	.001		.05	.03	2500

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-36
SHEET No. 2 of 8

ROCK TYPES & ALTERATION		L to Core Foliation	GRAPHIC LOG	Values L to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Feet Blot.	Sample Number
50 WK	130	35	12°	qtz-chl-ser-lim	0	0	12.2	80	27	10705	.05	.001	.05			
		40	3"	qtz (py)	10											
60 WK	140	60+70	10°	qtz	30	0	13.4	95	17	10706	.11	.001	.10			
		60+70	1/10 + 1/8	qtz-chl-lim x 2	40											
ND	150	80+2	1/2	qtz	50	2.0	14.4	90	17	10707	.13	.009	.10			
		60+2	2" + 1"	qtz x 2	60											
ND	160	10	1/2	qtz-lim-mal	70	0	15.7	80	20	10708	.09	.001	.12			
		25	1/4	lim-MnO ₂	30											
ND	170	30+40	12°	qtz-lim x 2	40	2.0	16.3	80	17	10709	.20	.009	.11 3455			
		40+35	1"	qtz (lim) x 2	50											
35- 50 Str	180	30+60+2	1/4	qtz-ser-py	60	2.0	17.1	95	30	10710	.12	.002	.12			
		40+5	6° + 1/20	MnO ₂ -mal x 2	70											
		20	10°	qtz-chl-lim + lim-mal	80	20.5	17.8	95	30	10710	.12	.002	.12			
		35	14°	qtz-chl zone	90											
		40	1/10	qtz-chl-carb (mal) zone	100	20.5	17.8	95	30	10710	.12	.002	.12			
		50	12°	qtz-py-lim	110											
				qtz-chl-lim zone	120	20.5	17.8	95	30	10710	.12	.002	.12			
				qtz-chl-lim zone	130											

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-36
SHEET No. 3 of 8

ROCK TYPES & ALTERATION			GRAPHIC LOG	Veins ∠ to Core Alt.	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS				
									LEACH CAP	LIM. ZONE			Sample Number	% Cu	% Mo		Estimated Grade
			60 WK	5x4 60 10 15 60	1/2 1/6 1/3 1/3	Mab2 - Mal x + qts - mag - lim qts - chl - cp qts - mag qts - chl	0 10 20 30 40 50 60 70 80 90	<0.5		186	90	27	10711	.13	.002		.14
			70 WK	20 5 4x 5 30x2	1" 1/10 2" 1/6 1/20x2	qts - lim qts - chl - cp qts qts - chl - lim chl - cp x 2	0 10 20 30 40 50 60 70 80 90	<0.5		195	95	17	10712	.24	.009		.12
			70 WK	4" 2x 60 5x2 ? 8x7x60 4x5	3" 1" 2" 1/4x2 3' 1/2 + 1/2 + 2 1/20x2	qts (cp) qts - cario - chl - py - cp qts qq x 2 qts - porp - bx qts x 3 qts - chl - cp x 2	0 10 20 30 40 50 60 70 80 90	1.0		lost block?	95	20	10713	.19	.005	.16 39/10	.12
			ND	50 45x70 45x3x60 50x4 70x60x60 60x70	14" 1/2 + 1" 1/3x2 + 2" + 1/3 1/2x4 1/2x3 2" + 1/2	qts - ser - chl qts x 2 qts x 4 qts x 4 qts x 5 qts x 5 qts - ser - (py) (cp)	0 10 20 30 40 50 60 70 80 90	0.5		208	90	27	10714	.16	.002		.10
			ND	5 50-60x4 60x2 45x2 45 30-60x30 60x4 5	1/10 1/2x4 1/2 + 1 1/2 + 1/4 1/4 1/4 x 2 1/2 x 4 1/10	qts - chl - cp qts x 4 qts x 2 qts x 2 qts - chl - cp qts x 2 qts x 4 qts - chl - cp	0 10 20 30 40 50 60 70 80 90	<0.5		225 227	100	13	10715	.16	.003		.12
			ND	5 40x60 50 50x90 5x2x40 30x40 5	1/10 1" x 1/4 2" 1/2 + 1/4 1/2 + 1/10 x 2 1/10 + 1/2 1/10	qts - chl - cp qts x 2 qts qts x 2 qts - chl - carb - cp x 2 qts - chl - cp qts - chl - cp	0 10 20 30 40 50 60 70 80 90	<0.5		233	95	30	10716	.22	.006		.16

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-36
SHEET No. 4 of 8

ROCK TYPES & ALTERATION			GRAPHIC LOG	Values L to Core Alt	WIDTH OF VEIN	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feet Blind	Estimated Core Recovery %	R O D	ASSAY RESULTS															
									LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	% Cu	% Mo		Estimated Grade									
				5+60x4 50+45x2 30	1 + 1/2 x 4 1/2 x 2 1/8	qtz x 5 qtz x 3 chl-cp	0 10 20 30 40 50 60 70 80 90	40.5			244	90	30	10717	.05	.002	.15	.08											
				15+90	2" x 2	qtz x 2															248								
				60 x 2 70	3" x 4"	qtz-ser-py x 2																95							
				70	6"	qtz-ser-py															258			40	10718	.15	.003	.3365	.08
				45+90x3	1/2 x 1/4 x 3	qtz x 3																95							
				10+50x2+45	3/4 x 1/4 x 3	qtz x 4																							
				5	1"	qq																							
				x	1/2	qq																							
				5x4	1/4 x 4	qq x 4																266			10	10719	.19	.006	.06
				70 40	1/4 3"	qtz-ser-py-cp qtz																							
			45+80 70	12" 1/2 x 1/4	qtz-ser-py qtz-mag x 2																								
			30-60 x 7	1/8 x 7	qtz qtz x 7																								
			40 15 40	2" 1/2 3"	qtz-chl qtz-chl-cp qtz																								
			25 40	6" 6"	qtz-chl-ser-py (cp) zone qtz-chl (cp) (py)																								
			50-60 x 4 10 x 3	1/4 x 4 1/4 x 3	qtz x 4 chl x 3																								
			15 x 2 + 70 x 3 5	1/4 x 2 + 1/2 x 3 1/10	qtz x 2 qtz-chl-carb-py-cp																								
			70+50 ? 20?	1/2 x 1/8 2"	qtz x 2 qtz-chl-ser-py																								
			50 x 2 20	1" x 1/2 2"	qtz x 2 qtz-ser-chl zone																								
			60+45+50x2	1/4 x 4	qtz x 4																								

hem. stained core

.15
3320

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 90-36
SHEET No. 5 of 8

ROCK TYPES & ALTERATION	L to Core Foliation Alteration Feilite Sill	GRAPHIC LOG	Values L to Core Alt	Width of Vial	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS				
								LEACH CAP	LIM. ZONE			Sample Number	%	%	Estimated Grade	
								REMARKS								
	ND		45 50+80 20 45+46+35 5-10+2 5 60-70+6 5	1/2 1/2+1/3 3" 1 1/2 x 1/4 1" x 1/4 2" 1 1/2 x 1/4 x 6 1/2	qtz-chl-mag qtz qtz-chl-cp-Mo qtz-xz qtz-xz qtz-chl-carb-py-cp-Mo qtz-ser-py (cp) qtz-xz qtz-py (cp) (Mo)	0 10 20 30 40 50 60 70 80 90	1.5		303	33	10723	.12	.046		.14	
	ND		50-60+10 40 30 20 25 20+3	1/10-1/2x10 1/2 1/3 1/2 1"	qtz-x10 qtz-mag qtz qtz-ser-cp qtz	10 20 30 40 50 60 70 80 90	0.5		313	90	20	10724	.15	.006		.12
	20 Str.		5 20 20 20 20 20 30 40	1/10 1/2 3" 6" 2" 12" 1/8" 1/2"	qtz-chl-cp qtz qtz-ser-cp zone qtz-chl-cp zone qtz-chl-ser (cp) zone qtz qtz-chl-cp qtz-chl-carb-mag (cp)	0 10 20 30 40 50 60 70 80 90	0.5		326%	98	13	10725	.44	.010		.45
	40 60 Str.		40 80+10+90 60 60	3' 1/2+3/4 1" 2 1/2 2"	qtz-chl-ser (cp) zone qtz-xz qtz-chl-ser - zone qtz	0 10 20 30 40 50 60 70 80 90	<0.5		337	95	27	10726	.12	.002		.14
	ND		45 40 70 30+3 5 60+30 50	8" 2 1/2 10" 1/2 x 3 1/4 1/10 x 2 6"	qtz-ser-chl-carb qtz qtz-chl-mag. qtz-xz qtz-chl-cp qtz-chl (cp) xz qtz-chl (cp) xz qtz-chl-carb (mag)	0 10 20 30 40 50 60 70 80 90	<0.5		347	95	33	10727	.16	.002	.20 3275	.12
dark soft core grading to a chl-carb zone	80 wk Mod.		5 45 35 10 60 80	1/10 1/4 2" 1/8 1/2 1/10	qtz-carb-py qtz-chl-mag qtz-chl-mag (cp) qtz-chl-carb-cp qtz-chl-cp chl-py	0 10 20 30 40 50 60 70 80 90	0.5		353%	98	17	10728	.29	.002		.18
			40+80	1/2 + 2"	qtz-chl-mag xz	0 10 20 30 40 50 60 70 80 90			90							

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-36
SHEET No. 6 of 8

ROCK TYPES & ALTERATION			GRAPHIC LOG	Yield -L to Core All	WIDEN of VIA	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PIRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Sample Number	% Cu
60 Wk	Small fault zone	370	60 60x2 to 60	1" 1/4 2"	1" 1/4 2"	qtz qtz-mag qtz-mag (cp) qtz-carb-chl-py (cp)	0 10 20 30 40 50 60 70 80 90	0.5		363	45	3	10729	.14	.002	.12
			90	2"	99	broken 85% zone + lost core (~ 3 1/2')	0 10 20 30 40 50 60 70 80 90		370							
60 Mod		380	? 50+80 50x2+45 70 70	1/2+1/4 1/2x2+1" 1/2 1/2	broken 93% core	qtz-ser-chl (cp) x 2 qtz-ser-mag x 3 qtz-chl-mag (cp) qtz-mag	0 10 20 30 40 50 60 70 80 90	<0.5		375	90	37	10730	.10	.002	.10
60 Mod		390	30+15+70 60x2 70 70x3 60	1/2 x 3 + 1/4 1/2 + 1 1/4 1/8 x 3 1/2		qtz x 4 qtz x 2 qtz-mag qtz-mag x 3 qtz-chl (mag)	0 10 20 30 40 50 60 70 80 90	<0.5		385	90	50	10731	.05	.004	.05 .15 3230
60 Mod		400	60-70 x 10 60+70 60 25	1/10-1/4 x 10 1/4 x 2 1/2 6"		qtz (chl) x 10 qtz x 2 qtz qtz-chl-carb zone	0 10 20 30 40 50 60 70 80 90	<0.5		395	95	33	10732	.03	.002	.05
60 Wk		410	50 5+60x2+30 70+50+30+20	1" 1/4-1/3 x 4 1/4-1/3 x 4		qtz-porp qtz x 4 qtz x 4	0 10 20 30 40 50 60 70 80 90	<0.5		404		53	10733	.03	<.002	.05
Nd		420	40 30 90+50+30 80+70 x 2 + 10 60 x 3 50 35+30 60	1/2 2" 1/2x2-1/8 1/4 x 4 1/4 x 3 1/2 1/10 x 2 1/4		qtz-chl-mo (cp) qtz qtz x 3 qtz x 4 qtz x 3 qtz-mag qtz-ser-cp x 2 qtz-chl (cp)	0 10 20 30 40 50 60 70 80 90	<0.5		414	90	27	10734	.12	.016	.05

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GIBRALTAR MINES LTD.

HOLE No. 86-36
SHEET No. 7 of 8

ROCK TYPES & ALTERATION			L to core Foliation Alteration Feet Strat	GRAPHIC LOG	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS													
									LEACH CAP	LIM. ZONE			SUPERGENE	Feet	Diap.	Sample Number	% Cu	% Mo		Estimated Grade						
			450	5+80+4	1/4-1/8 x 5	qtz x s	0	<0.5			95	40	10735	.08	.008		.05									
				5	1/4	qtz	10																			
				10	3"	qtz-mag	20																			
				35	2" x 2	chl-ep	30																			
				18+5+60 x 2	1/2-1/8 x 5	qtz x 2	40																			
				60	1/2	qtz x s	50																			
				70 x 2	1/2 x 1"	qtz-chl (mag)	60																			
						qtz	70																			
						qtz	80																			
						qtz	90																			
			440	44	36"	qtz-ser-py (Mo) (cp)	0	4.0			95	33	10736	.05	.010	2/25	.14									
				45	2"	qtz (Mo)	10																			
				50	1"	chl	20																			
				45	1/3	qtz-chl	30																			
				60-70 x 3+45	1/4-1/3 x 4	qtz x 4	40																			
				50 x 3	1/4 x 1/2	qtz x 3	50																			
					2 1/2	qtz (Mo)	60																			
						qtz	70																			
						qtz	80																			
						qtz	90																			
			450	60 x 2	1/4 x 2	qtz x 2	0	2.0			95	20	10737	.21	.006		.15									
				60	1/2	qtz-chl-py	10																			
				70	3 1/2'	qtz-chl-ser-py (cp) (Mo) zone	20																			
				80+50+2-70	1/2-1/2 x 4	qtz x 4	30																			
						qtz	40																			
						qtz	50																			
						qtz	60																			
						qtz	70																			
						qtz	80																			
						qtz	90																			
			460	40	1/2-1/3	qtz	0	0.5			85	33	10738	.07	.006		.08									
				70+60	1/4-1/8	qtz x 3	10																			
				50+30	1/4	qtz x 2	20																			
				20	2"	qtz-chl-carb-ep	30																			
				30	1"	qtz-chl-carb (cp) (py)	40																			
				60 x 2	1" x 2	qtz (cp) x 2	50																			
				60	2"	qtz-chl (vug)	60																			
				40	1"	qtz	70																			
						qtz	80																			
						qtz	90																			
			470	70 x 2 + 80 x 2	1" + 1" x 2 x 2	qtz-chl (vug) x 4	0	<0.5			100	60	10739	.02	.002		.18									
				60 x 2	2" - 3"	qtz-chl (vug) x 2	10																			
				?	2"	qtz-chl (vug)	20																			
				20+60	1/2 x 2	qtz-chl x 2	30																			
				40 x 2	1/2 + 1/10	qtz-chl-mag + chl-Mo	40																			
				45	1/4	qtz-chl-cp	50																			
						qtz	60																			
						qtz	70																			
						qtz	80																			
						qtz	90																			
			480	60 x 2	1/4 x 2	qtz x 2	0	<0.5			80	30	10740	.07	.003		.06									
				50	1"	qtz-chl	10																			
				35	1/4	qtz-carb-chl-cp	20																			
				50 x 3	1/4 x 3	qtz x 2	30																			
				60	1"	qtz	40																			
				50+60	1/2 + 1/8	qtz	50																			
						qtz x 2	60																			
						qtz	70																			
						qtz	80																			
						qtz	90																			

qtz-spr. pnc.
typical GPP dyes
has sharp contours
and contains white
Phase inclusions
(rounded)

.09
3140

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 96-36
 SHEET No. 8 of 8

ROCK TYPES & ALTERATION			Z to Core Feet Alteration Feet SHALEY Feet	Values Z to Core Alt	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Feet Dip	Sample Number
			60	60	2" $\frac{1}{4}$ "	qtz	0 1	<.0.5			90	37	10741	.10	.002	.05
			49		$\frac{1}{2}$ x 2	qtz-chl (veg)	0 10			488						
			NO	50	$\frac{1}{2}$ x 2	qtz x 2	10 20	<.0.5			85	39	10742	.03	.004	.05
				50	$\frac{1}{4}$ x 3	qtz x 3	20 30			438						
					$\frac{1}{2}$ x 3	qtz x 2	30 40									
					$\frac{1}{2}$ x 4	qtz x 2	40 50									
					$\frac{1}{2}$ x 2	qtz x 2	50 60									
					$\frac{1}{4}$ x 4	qtz x 4	60 70	<.0.5			95		10743	.02	.004	.05
					$\frac{1}{2}$ x 4	qtz-chl	70 80			508						
					$\frac{1}{2}$ x 4	qtz x 4	80 90									
					2"	qtz	90 100									
							100									

F.O.H. 508'
 B.D.B.

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GIBRALTAR MINES LTD.

HOLE No. 86-37
SHEET No. 1 of 8

LOCATION <u>GIB - S Wall</u>	BEARING _____	LATITUDE <u>46,842.80 N</u>	CORE SIZE <u>NQ Wireline</u>	LOGGED BY <u>MRT</u>
DATE COLLECTED <u>23 Aug, 1986</u>	LENGTH <u>495'</u>	DEPARTURE <u>47,750.99 E</u>	SCALE OF LOG <u>1" = 10'</u>	DATE <u>23-28 Oct-86</u>
DATE COMPLETED <u>25 Aug, 1986</u>	DIP <u>-90°</u>	ELEVATION <u>3,640.00'</u>	REMARKS _____	

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG Foliation Alteration Feet SILICIFY	Veins L to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS					
								LEACH CAP	LIM. ZONE			Sample Number	% Cu	% Mo	Estimated Grade		
Casing to 84'																	
Mine Phase = QD. 89-94 qtz-chl-ser-Shear Zone.	60° Str.	84 160' x 10 145° 130°		1/8 x 10 1/8	lim + MnO ₂ x 10 chl-gtz-smal-cpy-lim. lim-MnO ₂ -mal		0%	Mod to Str Lim to 130' WK Lim continues to 164' mainly in fract.	84	20%	8%	10826	.15	.002		(.08) (.15) ox	
94-122 DK Alt ⁿ Phase - no souls alt - incr in chl - wk to mod fol	60° Str WK	90 150 140 130 120		1/8 x 10 1/8 1/8 1/8 1/8	lim-MnO ₂ x 2 gtz-chl-calc-lim-mal-cpy lim-mal-MnO ₂ lim-mal-MnO ₂ gtz-chl-mal gtz-ser-calc-lim-mal-cpy gtz-chl-MnO ₂ -mal-lim		0%	Lots of lim ⁿ on fract	90	66%	10%	10827	.26	.007		.007 ox	
	60° X WK Mod	110 130 x 4 145 x 2 130 120		1/8 x 4 1/8 x 2 1/8 1/8	lim-MnO ₂ x 4 lim-MnO ₂ -mal x 2 gtz-chl-cpy-lim. lim-MnO ₂ gtz-ser-calc-MnO ₂ -lim-mal		0%		109	68%	10%	10828	.23	.009		.08 ox	
	80° VWK to Str.	120 80 80 x 3 45 80 x 2 80		1/8 x 2 1/2 1/16 1/16 1/8 x 2 1/8	gtz-chl-lim-mal gtz-chl-lim-mal gtz-chl-lim-mal gtz-ser-shor-lim-stear MnO ₂ -lim-mal x 2 gtz-ser-mal-MnO ₂ -lim		0%		111	90%	28%	10829	.18	.002		.05 ox	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-37
SHEET No. 2 of 8

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG	Value L to Core Axis	Width of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE			Feet	Block	Sample Number	% Cu
122-144' ? - less chlorite - no sauss - altered appearance	ND	[Graphic Log]	50	1/4	gtz - chl - lim - mel - MnO ₂	0	0%			68%	12%	10830	.18	.002	.09
			45	1/8	gtz - chl - lim - mel - fsp	10									
			5-30°	N2 x 7	lim (str) X 7	20									
			38°	1/8	gtz chl - mel - lim	30									
			45°	hls	lim - MnO ₂	40									
- few narrow gtz - ser - chl - show zones	70° wk	[Graphic Log]	60°	hls	gtz ser - lim - MnO ₂ mel	0	0%			42%	130	10831	.09	.002	.09
			45°	1/10	gtz - chl - mel - lepr - lim	10									
			70°	1/8	gtz - chl - lim - ep - mel	20									
			125°	1/8	gtz - carb - lim - ep	30									
			45°	hls	gtz chl - ser - carb - ep	40									
149-184 NWK Same Alt. grading towards a shear - a greyish ss	60-80° wk to Str.	[Graphic Log]	70 x 2	1/8 x 2	gtz - chl - ser - lim - MnO ₂	0	15%			91%	150	10832	.15	.002	.09
			5°	N2	lim - MnO ₂	10									
			70 x 2	1/8 x 2	gtz - chl - (carb) - ep - py	20									
			80°	3/11	gtz - chl - ser - lim - ep - py	30									
			80°	1/4	gtz - carb - ep - py	40									
60 x 2 45° 70° 70 x 2 70° 70 x 5	80° Mod	[Graphic Log]	100°	hls	lim	0	3%			96%	160	10833	.22	.012	.12
			60 x 2	1 1/2	gtz - Vns - lim - chl - lepr - py	10									
			45°	1/4	gtz - chl - carb - ep	20									
			70°	1/16	gtz - chl - ser - py - ep	30									
			70 x 2	1 x 2	gtz - chl - ser - py - ep	40									
45 x 4 160 50° 60° 70° 70 x 2 45 x 2	60-70° Mod to str.	[Graphic Log]	45 x 4	1/20 x 1	gtz - chl - ser - lim - MnO ₂	0	15%			100%	170	10834	.17	.008	.09
			160	hls	chl - mo - carb - lim	10									
			50°	1/16	gtz - chl - ser - py - ep	20									
			60°	1/16	gtz - chl - ser - py - ep	30									
			70°	1/16	gtz - chl - ser - py - ep	40									
80 x 2 30 x 2 44 70 x 4 45°	70° Mod	[Graphic Log]	80 x 2	1/16 x 2	gtz - chl - ser - carb - ep - py	0	10%			97%	180	10835	.12	.004	.09
			30 x 2	1/16 x 2	gtz - chl - ser - carb - ep - py	10									
			44	1/16	gtz - carb - chl - ser - ep	20									
			70 x 4	1/8 x 4	gtz - chl - ser - py - ep	30									
			45°	1/16	gtz - chl - ser - py - ep	40									

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-37
SHEET No. 3 of 8

ROCK TYPES & ALTERATION	L to Core Foliation Alteration Feet Structure	GRAPHIC LOG	Y-axis L to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feet Block	Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade
184-221 WK Same Qtz -anhydral, weathy foliated	70° Mod	190	45	1/4	Qtz-Vn-carb chlt-ep	0	3%	ep blotter	182	91%	50%	10836	.10	.002	.09%	
			70	1/8	Qtz-chl-ep-carb	10										
			70°	8"	Qtz-Vn-Qtz-sav-chlt-py	20										
			60°	1/2	Qtz-Vn-Qtz-sav-chlt-py	30										
221-225 Zone of no Saus after 10 Dk Atm -ep stringer	70° WK	200	60°	1/2	Qtz-sav-chl-py-ep-lim-ep	40	2%	cch coating py	MR	96%	40%	10837	.08	.002	.13%	
			45°	1/20	Qtz-sav-chl-py-ep-lim-ep	50										
			55°	1/10	Qtz-chl-ser-py	60										
			70°	1/8	Qtz-chl-ser-py	70										
			30°	1/10	Qtz-chl-ser-py-lim-ep	80										
			60°	1/12	Qtz-chl-ser-py-lim-ep	90										
			60°	1/4	Qtz-Vn-chl-carb	100										
			55°	1/8	Qtz-sav-chl-py	110										
			60°	1/20	Qtz-chl-ser-py	120										
			60°	1/20	Qtz-chl-ser-py	130										
221-225 Zone of no Saus after 10 Dk Atm -ep stringer	70° WK	210	20-20°	15"	Small fault zone - rubble	140	.3%		201	99%	67%	10838	.10	.002	.09%	
			50°	1/16	Qtz-sav-chl-py	150										
			60°	1/16	Qtz-chl-py-lim-ep	160										
			50°	1/2	Qtz-chl-ser-ep-carb-ep	170										
			45°	1/4	Banded Qtz-Vn-chl-carb-ep	180										
			45°	1/4	Banded Qtz-Vn-chl-carb-ep	190										
			30°	1/16	Qtz-chl-ser-py	200										
			70°	1/2	Qtz-sav-chl-carb-py	210										
			70°	1"	Qtz-Vn-chl-ser-carb-ep	220										
			70°	1/4 x 1	Qtz-chl-ser-py	230										
225-228 Qtz chlt ser. show -anhydral	ND 60° SH	220	40	1/20 x 2	Qtz-sav-chl-py	240	.25%		218	75%	35%	10839	.13	.004	.13%	
			60	1/20 x 2	Qtz-sav-chl-py	250										
			60	1/20 x 2	Qtz-sav-chl-py	260										
			60	1/20 x 2	Qtz-sav-chl-py	270										
			60	1/20 x 2	Qtz-sav-chl-py	280										
			60	1/20 x 2	Qtz-sav-chl-py	290										
			60	1/20 x 2	Qtz-sav-chl-py	300										
			60	1/20 x 2	Qtz-sav-chl-py	310										
			60	1/20 x 2	Qtz-sav-chl-py	320										
			60	1/20 x 2	Qtz-sav-chl-py	330										
229-235 V WK to no Saus Atm -ep stringer	ND 60° WK	230	45 x 2	1/8 x 2	Qtz-Vn-mag-chl-ser-py-ep	340	.4%		228	88%	45%	10840	.30	.008	.12 .12 .12 .12 .12 .12 .12 .12 .12 .12	
			30 x 2	1/8 x 2	Qtz-sav-chl-carb-ep-ep-py	350										
			70°	1	Qtz-chl-ser-py	360										
			60°	1/4	Banded Qtz-Vn-sav-chl-py-ep	370										
			60°	1/2	Qtz-mag-ser-chl	380										
			70°	1/2	Qtz-sav-mag-chl-ep-py	390										
			70°	6"	Qtz-Vn-lim-ep-ep-ep	400										
			70°	1/2	Qtz-Vn-lim-ep-ep-ep	410										
			70°	1/2	Qtz-Vn-lim-ep-ep-ep	420										
			70°	1/2	Qtz-Vn-lim-ep-ep-ep	430										
235-237 V WK to no Saus Atm -ep stringer	ND 60° WK	240	45 x 4	1/2 x 4	Qtz-chl-ser-py-ep-py	440	.2%		238	86%	45%	10841	.20	.005	.20%	
			60	3/4	Qtz-sav-chl-py-ep-py	450										
			70°	1/4	Qtz-chl-carb-ser-py-py	460										
			60°	1/10	Qtz-chl-carb-ser-py-py	470										
			60°	1/10	Qtz-chl-carb-ser-py-py	480										
			60°	1/10	Qtz-chl-carb-ser-py-py	490										
			60°	1/10	Qtz-chl-carb-ser-py-py	500										
			60°	1/10	Qtz-chl-carb-ser-py-py	510										
			60°	1/10	Qtz-chl-carb-ser-py-py	520										
			60°	1/10	Qtz-chl-carb-ser-py-py	530										

- some chlorite segregation
" " depletion

GRID

GIBRALTAR MINES LTD.

HOLE No. 86-37
SHEET No. 4 of 8

ROCK TYPES & ALTERATION		GRAPHIC LOG Footage	Veins to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Feet/Block	Sample Number
		250	60x2	3 1/2" x 1/2"	gtz ser. chl. ep gtz ch. py gtz ch. py-ep gtz ch. carb. ep gtz carb. mag. lep gtz ser. chl. py-ep gtz Vn. ser. chl. py-ep		1%		245	83%	56%	10842	.23	.018	.45%
	249-255 gtz ser. chl. shear zone v.w.k. to No. 298 no. min. in det.	250 260	60x2	7 1/2" 1/4 1/8 1/4 1/2 1/2 1/8 1/2 1/4	gtz Vn. chl. ser. carb. ep-ep gtz ser. carb. ep gtz chl. ser. py-ep gtz chl. carb. ep gtz chl. carb. mag. ep gtz Vn. ser. chl. carb. ep-ep gtz chl. carb. py-ep gtz chl. carb. ep-mag		7%		259	99%	65%	10843	1.08	.006	.70%
	255-298 v.w.k. to No. 298 no. min. in det.	260 270	60x2	1/4 1/2 1/4 1/2 1/4 1/8 1/2 1/4 1/2 1/4 1/2 1/4 1/2	gtz chl. ser. ep-py gtz carb. chl. ser. ep-ep gtz chl. ser. py-ep gtz Vn. carb. py-ep gtz Vn. mag. carb. ep-ep gtz chl. ser. py-ep gtz chl. ser. py-ep		3%		268	96%	74%	10844	.25	.006	.30%
	260-270 v.w.k. to No. 298 no. min. in det.	270 280	60x2	1/2 1/4 1/2 1/2 1/4 1/2 1/4 1/2 1/4 1/2 1/4 1/2	gtz Vn. carb. mag. ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep		1%		278	92%	70%	10845	.31	.004	.36%
	270-280 v.w.k. to No. 298 no. min. in det.	280 290	60x2	1/2 1/4 1/2 1/2 1/4 1/2 1/4 1/2 1/4 1/2 1/4 1/2	gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep		2%		288	100%	77%	10846	.21	.004	.30%
	280-290 v.w.k. to No. 298 no. min. in det.	290 300	60x2	1/2 1/4 1/2 1/2 1/4 1/2 1/4 1/2 1/4 1/2 1/4 1/2	gtz Vn. mag. chl. carb. ep-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep gtz chl. ser. py-ep		20%		298	95%	60%	10847	.21	.006	.16%

60x4
1/35
no. min. in det.

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-37
SHEET No. 5 of 8

ROCK TYPES & ALTERATION		GRAPHIC LOG	Value	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS - FREQUENCY -	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS			Estimated Grade
								LEACH CAP	LIM. ZONE	SUPERGENE			Sample Number	% Cu	% Mo	
- few zones of more normal textured zone. all'd QD	60° UNK H.D.	310	170 x 4	1/10 x 4	gfa. chl. ser. cp 44	0	.01%			98%	37%	10848	.13	.006	.16%	
			60 x 2	3/4 x 1/10	gfa. chl. ser. cp 42	10										
			15°	1/8	gfa. chl. ser. cp 43	20										
			30°	1/16 x 3	gfa. chl. ser. cp 43	30										
60° UNK Mod	320	140	1/4	gfa. chl. ser. cp	40	.00%			88%	65%	10849	.23	.014	.28%		
		120	1/4	gfa. chl. ser. cp 44	50											
		70	1/16	gfa. chl. ser. cp 44	60											
		30 x 3	1/8 x 3	gfa. chl. ser. cp 44	70											
80° UNK	330	145°	1/4	gfa. chl. ser. cp	80	0%			100%	47%	10850	.18	.004	.35%		
		60	1"	gfa. chl. ser. cp 44	90											
		60 x 4	1/10 x 4	gfa. chl. ser. cp 44	100											
		70 x 3	1/8 x 3	gfa. chl. ser. cp 44	110											
320-346 DK. Chl. in Alt. Zone	60° 70° UNK Str.	340	150	1/8	gfa. chl. ser. cp	0	.2%			90%	47%	10651	.24	.008	.30%	
			150	3"	gfa. chl. ser. cp 44	10										
			70	1"	gfa. chl. ser. cp 44	20										
			150 x 3	1/16 x 3	gfa. chl. ser. cp 44	30										
346-355 Chl. Ser. + Chl. Ser. Chl. Ser.	UNK Str.	350	150	1/8	gfa. chl. ser. cp	40	.2%			84%	23%	10652	.26	.006	.21%	
			150	1/8	gfa. chl. ser. cp	50										
			150	1/8	gfa. chl. ser. cp	60										
			150	1/8	gfa. chl. ser. cp	70										
355-360 Highly Altered. Remnants of original vein (see column) + some secondary alteration	UNK Str.	360	145°	1/8	gfa. chl. ser. cp	80	.05%			120%	60%	10653	.13	.006	.22	
			145°	1/8	gfa. chl. ser. cp	90										
			145°	1/8	gfa. chl. ser. cp	100										
			145°	1/8	gfa. chl. ser. cp	110										

GRID

GIBRALTAR MINES LTD.

HOLE No. 86-37
SHEET No. 6 of 8

ROCK TYPES & ALTERATION	GRAPHIC LOG	Vein to Core Alt.	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS				
							LEACH CAP	Feet Disc.	Sample Number			%	%	%	Estimated Grade	
							LIM. ZONE									Cu
360-371 Qtz. Ser. Chl Shear. Some H. colored remnants of seriate texture RX	60-45° Str.	60 70 100 115 145 x 2 150	1/4 1/4 1/2 1/2	Qtz. ch. ser. - cp. m. - Qtz. ser. - cp. m. - Qtz. carb. - cp. Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. -	0 10 20 30 40 50 60 70 80 90	3%			100%	35%	10659	.40	.014	.40%	Hi MoS ₂	
371-394 A mixture of Qtz. Ser. Chl Shear as above - some dk. affm + - some salt d - seriate textured Wk. Saus. Q.D.	70° Med.	120 130 140 150 160 170 180 190 200	1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2	Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. -	0 10 20 30 40 50 60 70 80 90	4%			96%	40%	10655	.28	.006	.37%		
	70° Med to RD	210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390	1/8 3/11 1/10 1/2 3/11 1 1/2 x 3 1/4	Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. -	0 10 20 30 40 50 60 70 80 90	0%			91%	20%	10656	.16	.006	.17%	Hi MoS ₂	
Full Contact. 911-415 Mainly a Qtz. chl - Saus Shear Zone	ND to 70° Str.	400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600	1/8 1/2 1/10 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2	Qtz. ch. ser. - cp. m. - Qtz. ch. ser. - cp. m. -	0 10 20 30 40 50 60 70 80 90	0%			94%	16%	10657	.23	.024	.22%	Hi MoS ₂	
- grades into dx affm in places & some fragmental. bot. qd qd - weakly saus.	60° to Med	610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800	1/8 1/2	Qtz. mag. - chl. Qtz. ch. ser. - cp. m. -	0 10 20 30 40 50 60 70 80 90	0%			86%	20%	10658	.19	.008	.26	.12%	3230
415-438 Anomalous Phase - Saus texture	75° Str to RD	810 820 830 840 850 860 870 880 890 900	1/8 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2	Qtz. mag. - chl. Qtz. ch. ser. - cp. m. -	0 10 20 30 40 50 60 70 80 90	1.1%	lots of x-cutting Qtz.		88%	18%	10659	.10	.004	.10%		

GRID

GIBRALTAR MINES LTD.

HOLE No. 86-37
SHEET No. 7 of 8

ROCK TYPES & ALTERATION		L to Core Failure Alteration Footage SIZES	GRAPHIC LOG	Veins L to Core Axis	WIDTH of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS							
									LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Feetage Block.	Sample Number	% Cu	% Mo	Estimated Grade	
	Qtz. Chl. Ss. Show w/ narrow zones of mishand rx. wkms alt.	ND		60x4	1/20 x 9	qtz. on. ch. cp. - thin x 9	0													
		ND		27, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100	31, 1/16, 1/2", 1/4"	Basal conc. rubble - carb. qtz. on. cp. Rubble - carb. - horn stain Other dis. conc. - sep. 7	0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100	0%		65%	9%	10660	.13	.004			.10%			
		ND		15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100	5, 1/4, 1/2, 3/4, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100	Mag. - quartz - clays qtz. ch. carb. - sp. (com) qtz. ch. mag. - sep. 7 qtz. ch. carb. - sp. (com) qtz. on. cp. - phos. Basal ch. carb. - sp. (com)	0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100	1%		50%	9%	10661	.16	.002			.15%			
		60° Slk.		15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100	5, 1/20, 1/4, 1/2, 3/4, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100	qtz. on. carb. - py - (cp. m) qtz. ch. cp. qtz. on. carb. - py - mo qtz. on. carb. - mag. - cp qtz. on. carb. - sp. (com) qtz. on. carb. - sp. (com) qtz. on. carb. - sp. (com)	0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100	1%		80%	43%	10662	.32	.014			.20%			
		70° Slk.		15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100	1/2, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100	qtz. on. py - p. - ch. carb. qtz. on. ch. cp. qtz. on. mag. - carb. - py qtz. on. ch. cp. - mo qtz. on. carb. - sp. (com) qtz. on. carb. - mag. - cp qtz. on. carb. - sp. (com)	0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100	11%		89%	23%	10663	.25	.014			.17%			
	40-43 Ss. Alt. to 70. - 80. - 90. - 100.	ND		15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100	1/2, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100	Basal ch. carb. - sp. (com) qtz. on. carb. - mag. - cp qtz. on. carb. - sp. (com) qtz. on. carb. - sp. (com) qtz. on. carb. - sp. (com) qtz. on. carb. - sp. (com)	0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100	4%		70%	43%	10664	.15	.004			.13%			
	43-49 Ss. Alt. to 70. - 80. - 90. - 100.	70° Slk.		15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100	1/2, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100	Basal ch. carb. - sp. (com) qtz. on. carb. - mag. - cp qtz. on. carb. - sp. (com) qtz. on. carb. - sp. (com) qtz. on. carb. - sp. (com) qtz. on. carb. - sp. (com)	0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100	10%		105%	60%	10665	.11	.004			.30%			
	QD - no carb. sp.	ND		15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100	1/2, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100	Basal ch. carb. - sp. (com) qtz. on. carb. - mag. - cp qtz. on. carb. - sp. (com) qtz. on. carb. - sp. (com) qtz. on. carb. - sp. (com)	0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100	5%		25%	45%									

GRID _____

GIBALTAR MINES LTD.

HOLE No. 86-37
SHEET No. 8 of 8

ROCK TYPES & ALTERATION		∠ to Core Foliation	GRAPHIC LOG		Veins ∠ to Core Axis	WIDTH of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS							
			Foliation Alteration	Structure						LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Feet	Feet	Sample Number	% Cu	% Mo	Estimated Grade
		70° Wk to Sh	70°	70 X 2	1/2	6" + 7"	Ch. Vn - mag. dl. sp. cp	0													
			80°	80 X 2	1/10	11"	gt. dl. sp. cp	10													
			70°	70	10"	10"	gt. dl. cp	20													
			80 X 2	80 X 2	3/4 X 2	3/4 X 2	gt. dl. sp. cp	30													
			80°	80°	18"	18"	gt. dl. sp. cp. carb.	40													
			80°	80	5"	5"	gt. dl. sp. cp. shear	50													
			80°	80	1	1	gt. Vn. dl. sp. carb.	60	0%		485	56%	10666	.20	.004					.31%	
			80°	80				70	2.1%		68%	490	36%	10667	.20	.010	.20			.30%	
			80°	80				80				495									
								90													
								10													
								20													
								30													
								40													
								50													
								60													
								70													
								80													
								90													
								10													
								20													
								30													
								40													
								50													
								60													
								70													
								80													
								90													
								10													
								20													
								30													
								40													
								50													
								60													
								70													
								80													
								90													

E.H. 8 195

M.R. Horn

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-38
SHEET No. 1 of 8

LOCATION <u>G18E - South</u>	BEARING _____	LATITUDE <u>46 24.16 N</u>	CORE SIZE <u>N.O. Wireline</u>	LOGGED BY <u>M.R.T.</u>
DATE COLLARED <u>25-Aug-86</u>	LENGTH <u>508'</u>	DEPARTURE <u>47525.27 E</u>	SCALE OF LOG <u>1"=10'</u>	DATE <u>31-Oct-86</u>
DATE COMPLETED <u>26-Aug-86</u>	DP <u>-90</u>	ELEVATION <u>3616.25</u>	REMARKS _____	

ROCK TYPES & ALTERATION	GRAPHIC LOG L to Core Foliation Alteration Feet Structure	Veins L to Core Ash	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS						
							LEACH CAP	LIM. ZONE			Sample Number	% Cu	% Mo	Estimated Grade			
Cased to 103.																	
Mine Phase QD. 103-123 OK. Alt. - incr. in	103 60. 70. 5th	170 120 65 145 60	hlc SM hlc 1/2	gta-obl. mal-lim lim gta. mal. lim. sh. car gta. chl. mal gta. Va. vugs - lim stain		0%	lim. str to 141' mal to 152' wk to 175'	103	103	82%	21%	95951	.18 1130x	.002	.03%	4x	
Chl. over normal mix phase - no sous. chl.	110 60. M.H.	145 130 120 130 120 130 120 152/110	1/4 1 1/8 1/8 1/8 1/8 1/8 1/8	gta. Va. lim. Mn. O ₂ gta. Va. lim. Mn. O ₂ gta. Va. lim. Mn. O ₂ chl-gta. Mn. O ₂ gta. chl. carb. Mn. O ₂ gta. chl. Mn. O ₂ . mal. gta. chl. vugs - Mn. O ₂ x 2		0%	affected by chloritic carb. ...	113.5	110	78%	53%	95952	.08 170x	.001	.15 110x 3500	.02%	4x
123-170 Chl. Ser. & thin Sh. car	120 70. 5th	125 160 120 111 130x 140	1/4 1/8 1/8 1/8 1/8 1/8	Mn. O ₂ gta. - S.C. gta. chl. lim gta. chl. vugs - lim gta. chl. (Mn. O ₂) lim. Mn. O ₂ gta. lim. x 2 gta. ser. chl. thin sp. x 2		10%		122	120	100%	22%	95953	.20 120x	.002	.01%		
	130 70. 5th	125 120 120 120 140	1/4 hlc	gta. Va. lim gta. chl. lim - mal		35%		122	130	87%	8%	95954	.29 240x	.002	.06%	0x	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-38
SHEET No. 2 of 8

ROCK TYPES & ALTERATION			GRAPHIC LOG	Value ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feolage Obsc.	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
	∠ to Core Foliation	Foliation Alteration							LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade
			SUPERGENE	REMARKS	Feolage Obsc.	Estimated Core Recovery %	Sample Number	% Cu	% Mo	Estimated Grade							
			70x2 110° 60 x 6 80 70° 60 150	1/16 x 1/2 1/10 x 6 6" 1/4 1/4	gtz-blk chd? - py-esp-lim gtz-sar-py-lim gtz-pur-chl-py X6 Otz Va. sp-lim-py Otz Va. py-lim Otz mag	0-100-100°	30%			47	52%	20%	95955	.40 .10x	.006	.08%	
			50° 45° 70 165 130° 160	1/8 2 1/2 1/4 1/4 1/8	gtz-sar-py-chl-wug Otz Va. mag-esp-lim gtz-sar-chl-esp-py gtz-sar-py gtz mag-esp	0-100-100°	25%			158	91%	60%	95956	.05 .11x	.003	.124 3455	.10%
			160 160 130 145 170	1/16 1/4 2 1/10 1/16 x 1/2 1/10 1/2	gtz-sar-mag-py-ep gtz-chl-esp-lim-py-esp Otz Va. - chd-esp gtz-pur-mag lim x gtz-sar-chl-py-esp gtz-chl-mag-esp	0-100-100°	2			168	95%	56%	95957	.05	.002	.09%	
		170-230 Otz-Sr Chl to Otz-Chl-Sr stear zone.	150x2 70 80 60 65 70 180	1/10 x 2 1 + 1/4 1/16 1/20 10" 2'	gtz-sar-mag-esp-py gtz-chl-esp-py gtz-chl-sar-ep gtz-pur-chl-py-esp gtz-chl-esp-mag-esp-py gtz-chl-sar	0-100-100°	3%			178	95%	68%	95958	.20	.005	.13%	
			155 145 170 150 190	1/8 1/2 1/8 1 1/10 x 2	gtz-chl-sar-py gtz-chl-sar-py gtz-sar-chl-esp-py gtz-sar-chl-esp-py gtz-chl-sar-esp-py	0-100-100°	3%			158	103%	97%	95959	.06	.007	.05%	
			130 165 168 160x3 140 200	2 1/10 1/2 1/16 x 3 7" 1/16 x 2	gtz Va. chl-mag-esp-py gtz-chl-sar-py gtz-sar-lim-ep-py-esp gtz-chl-sar-ep gtz-pur-chl-py-esp gtz-blk-py	0-100-100°	2%			198	101%	87%	95960	.03	.003	.05%	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-38
SHEET No. 3 of 8

ROCK TYPES & ALTERATION			GRAPHIC LOG L to Core Foliation Alteration Footage Size/Scale	Values L to Core Axis	Width of Vain	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footage Block.	Estimated Core Recovery %	R O D	ASSAY RESULTS				
									LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	% Cu	% Mo
			60-70 Stv	70° 68° 70° 75° x 2 80 x 3	1/10 1/8 1/20 1/6 1/16 x 2 1/8 x 3	gts. chl. - sa carb - py gts. chl. - sa carb - py gts. chl. - sa carb - py Dys. V. carb - tal. chl + f. carb gts. chl. - v. ugo - py x 2 gts. chl. - sa carb - py x 3	0 10 20 30 40 50 60 70 80 90	30			203	93%	53%	95961	.08	.003	.3410	.06?
			60-70 Stv	80 x 3 80° 70° 70° 70° 70°	1/10 x 3 1/2.4 1 1/4	gts. chl. - sa carb - py x 3 Dys. V. - py carb - chl gts. chl. - sa carb - py - cp gts. chl. - sa carb - py - cp gts. chl. - sa carb - py - cp gts. chl. - sa carb - py - cp	10 20 30 40 50 60 70 80 90	30%			218	93%	80%	95962	.32	.002		.13?
			60-70 Stv	70 x 4 75° 75 x 4 80° 80°	1/20 x 4 2" 1/6 x 4 1/8	gts. chl. - sa carb - py x 4 gts. chl. - sa carb - py - chl gts. chl. - sa carb - py gts. chl. - sa carb - py Dys. V. - py carb - chl	10 20 30 40 50 60 70 80 90	15%			228	100%	82%	95963	.17	.005		.26?
			80 Mid to Str.	230-241 Less sheared zone -ADK Alt. w/ zones of v. wk same alt. grading into	80 80 80 75° 70 x 2 75 80	1/4 1/4 1/2 1/8 1/16 x 2 1/8 1/8	gts. chl. - sa carb - py gts. chl. - sa carb - py gts. chl. - sa carb - py gts. chl. - sa carb - py gts. chl. - sa carb - py gts. chl. - sa carb - py gts. chl. - sa carb - py Dys. V. - py carb - chl	10 20 30 40 50 60 70 80 90	2%		238	104%	92%	95964	.09	.004		.16?
			70 Mid	241-271 v. wk same Alt. AD	80 70 70 100 80 x 2 750	1/2 1/4 1 1/10 1/4 x 2 1/8	gts. chl. - sa carb - py gts. chl. - sa carb - py gts. chl. - sa carb - py gts. chl. - sa carb - py gts. chl. - sa carb - py gts. chl. - sa carb - py gts. chl. - sa carb - py gts. chl. - sa carb - py	10 20 30 40 50 60 70 80 90	30%		248	96%	70%	95965	.11	.002	.16	.24?
			70-80 Mid	firm ground	60 x 2 70 x 2 70° 60 x 2 70 x 2 70 60	1/16 x 2 1/16 x 2 1/2 1/8 x 2 1/8 x 2 1/4 1/2	gts. chl. - sa carb - py gts. chl. - sa carb - py gts. chl. - sa carb - py gts. chl. - sa carb - py gts. chl. - sa carb - py gts. chl. - sa carb - py gts. chl. - sa carb - py gts. chl. - sa carb - py	10 20 30 40 50 60 70 80 90	25%		258	100%	81%	95966	.15	.004		.25?

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-38
SHEET No. 4 of 8

ROCK TYPES & ALTERATION		GRAPHIC LOG Feet Meters	Vein to Core Alt.	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feet Meters	Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade
60-70° Mod		270	80° 75° 70x6 70° 75° 60° 80° 65°	1/2 1/8 1/16 1/8 3/16 1/4 1/4 1/8	gta. chl. carb. mag. - cp gta. chl. carb. py gta. chl. carb. py - cp gta. chl. carb. py - cp gta. chl. carb. py - cp gta. chl. carb. py - cp gta. chl. carb. py - cp gta. chl. carb. py - cp	0 10 20 30 40 50 60 70 80 90	.3%			268	105%	63%	95967	.18	.006	.20%
		270	60° 70° Mod	60 80x6 150° 160° 165° 155x2 160°	1/4 1/16x6 1/2 1/2 3/4 1/8x12 1/2	gta. chl. carb. ser. py - p gta. chl. carb. py x 6 gta. chl. carb. py - cp gta. chl. carb. py - cp gta. mag. chl gta. chl. carb. cp x 2 gta. chl. carb. cp x 2		0 10 20 30 40 50 60 70 80 90	.1%							
60-70° Mid	Mainly sheared material w/ some remnants of the above rock	280	60° 70° 60° 70x 70x2 70° 60°	1/4 1/2 1/8 1/4 1/20x2 1/2x2 1/2 1/8	gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py	0 10 20 30 40 50 60 70 80 90	.3%				288	97%	68%	95969	.12	.005
		290	60° Stk	15° 70° 80x2 70° 70° 80° 60°	1/2 12" 3" x 1/2" 4 2 1/2 1/2	gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py		0 10 20 30 40 50 60 70 80 90	.1%							
60° Stk	295-343 Ch. Ser. Chl. Shear. Mag. to Ch. chl. in Shear	300	50° 45° 80° 70x2 60° 60x5 130°	1/2 1/2 1/16 1 - 1/2 1/2 1/2x5 1/2	gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py	0 10 20 30 40 50 60 70 80 90	.5%				308	105%	78%	95971	.16	.005
		310	60-70° Stk	180° 140° 60x10 70°x2 75x2 70x3	1/4 1/8 1/16x10 1/8x2 1/8x2 1/4x3	gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py gta. chl. carb. py		0 10 20 30 40 50 60 70 80 90	.5%	cp. on ch. in 1/2 py						

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-38
SHEET No. 5 of 8

ROCK TYPES & ALTERATION		GRAPHIC LOG Alteration Footage Stratigraphy	Vein to Core Alt.	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feetage Discrep.	Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE				REMARKS	Sample Number	% Cu	% Mo
			70° Str.	70 70x6 70 70x2	1/2" X 1/2" 1/2" 1/2" X 1/2" 1/8" X 2"	2 1/2" to 1" - lep - mo carb. gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep	12			328	102%	88%	95973	.07	.002	.16%
			60-80° Str.	100 150 130 170 180 145 180x2	1/4 1/2 1/4 1 1/2 1/8x2	gt. chl - carb - py - ep carb. carb. gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep	2%			338	99%	73%	95974	.16	.003	.28%
			60-80° Str.	180 130 70x3 170 1919	1/8 1/4 1/2x3 1/10x4 1/8	gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep	2%			348	90%	60%	95975	.05	.002	.11%
			60-80° Str.	180 180 170 160 180 170 150	1/8 1 3/4 1/2 1/2 1/2 1/2	gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep	4%			358	99%	70%	95976	.09	.002	.23%
			60-80° Str.	140x3 70x3 70 70 170 160x4	1/2x3 1/2x3 1/8 1 1 1/20x8	gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep	10%			368	100%	80%	95977	.06	.002	.26%
			70° Str.	140 160x3 130x6 170 170 170	3 1/8x3 1/2x6 1 2 1/8	gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep gt. chl - carb - py - ep	20%			378	102%	87%	95978	.09	.002	.21%

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-38
SHEET No. 6 of 8

ROCK TYPES & ALTERATION			GRAPHIC LOG Z to Core Foliation Alteration Feet Stk	Vein Z to Core Act	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS				
									LEACH CAP	LIM. ZONE			Sample Number	% Cu	% Mo	Estimated Grade	
			60° Stk	15 16 15 15 150 x 2 60 x 3 390	1/2 1/8 1/4 1/4 1/4 x 2 1/10 x 3	qtz. br. mag qtz. mag gg. rubble carb. py qtz. chl. py. cp qtz. sil. chl. carb. py. cp x 2	0 10 20 30 40 50 60 70 80 90	15%		85%		34%	95979	.08	1.002	3230	.03%
			60-80° Stk	60 x 4 70° 80 x 3 160° 180° 120° 120° 400	1/16 x 4 1/2 1/10 x 3 1/8 1/8 1/8 1/8	qtz. chl. carb. py. cp qtz. chl. carb. py. cp qtz. chl. carb. py. cp x 3 qtz. chl. py qtz. chl. carb. py Banc qtz. chl. carb. py. cp	0 10 20 30 40 50 60 70 80 90	15%		90%		58%	95980	.03	.002		.11%
			70-80° Stk	70° 55° 195° 18° 170° 70° 410	1/5 1° 1/10 1/8 1/2 1/10 1/20	qtz. chl. carb. py qtz. chl. carb. py qtz. chl. carb. py qtz. chl. carb. py qtz. chl. carb. py qtz. mag. carb. qtz. chl. py	0 10 20 30 40 50 60 70 80 90	5%		92%		70%	95981	.11	1.002		.20%
			70-80° Stk	70° 80° 80 x 2 165 x 4 80° 70° 420	1/4 1/10 1/10 x 2 1/10 x 4 1/2 1/16	qtz. chl. carb. py qtz. chl. carb. py qtz. chl. carb. py x 2 qtz. chl. carb. py x 4 qtz. chl. cp qtz. chl. py	0 10 20 30 40 50 60 70 80 90	2%		105%		95%	95982	.04	1.002		.10%
			70° Stk	160° 160° 160° 70° 70° 430	1/2 1/16 1/4 1 1/4 1/4	qtz. chl. carb. py qtz. chl. carb. py qtz. chl. carb. py qtz. chl. carb. py qtz. chl. carb. py qtz. chl. carb. py	0 10 20 30 40 50 60 70 80 90	5%		103%		78%	95983	.08	1.004	.07	.19%
			70-80° Stk	150° 15° 145° 170° x 2 180° 150° 440	1/20 1/8 1/8 1/2 x 2 1/16 1/16	qtz. chl. carb. py qtz. carb. mag. cp qtz. chl. carb. cp qtz. sil. chl. carb. py. cp x 2 qtz. sil. chl. carb. py. cp	0 10 20 30 40 50 60 70 80 90	2%		103%		88%	95984	.07	.002		.19%

435-445
Same All 2 CAD. ~35% light
Subsided sp.

GRID

GIBRALTAR MINES LTD.

HOLE No. 86-38
SHEET No. 7 of 8

ROCK TYPES & ALTERATION		L to Core Foliation Alteration Footage STRENGTH	GRAPHIC LOG	Value L to Core All	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE			Percentage Bleach.	Sample Number	% Cu	% Mo
495-497 Limonitic Dyke	70° str ND	450	70° x 2	160	4 x 2	gtz - an. chl. py. sp. x 2	0	2%		447	100%	50%	95985	.04	<.002	.16%
497-962 Bivalve sand rock w/ dk alt. in envelope around small veins When these veins are quite thick they become chloritic or sericitic shales	50° 70° 40° ND	460	70°	150	1/16	gtz - chl. an. py. sp.	10	.6%		453	70%	450	95986	.05	.004	.23%
462-468 Bivalve sand shale zone w/ a few remnant limonite of gtz with Sausad.	70° str	470	70°	140	1/2	gtz - an. chl. cp	10	.2%		463	85%	470	95987	.16	.006	.18%
472-476 Limonitic Dyke 1 1/2" surrounded by gtz - sand. Gtz. Ch. sh.	70° wf	480	70°	130	1/4	gtz - an. chl. cp	10	.9%		478	89%	480	95988	.18	.002	.28%
476-505 Saus Alt'd Q.D. w/ dk. alt. envelope around it.	70° wk + mid	490	70°	145 x 3	1/8	gtz - an. chl. cp	10	<.1		988	80%	490	95989	.17	.002	.15%
UNS. (25-90% gtz) - rock looks new & good in places - sl. sh.	70° wk + mid	500	70°	150 x 3	1/8	gtz - an. chl. cp	10	.6%		498	92%	500	95990	.09	.002	.27%

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GIBRALTAR MINES LTD.

HOLE No. 84-38
SHEET No. 8 of 8

ROCK TYPES & ALTERATION		GRAPHIC LOG Δ to Core Foliation Alteration Fracture Discontinuity		Values Δ to Core Axis	Width of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS					
									LEACH CAP	LIM. ZONE	SUPERGENE			Sample Number	% Cu	% Mo		Estimated Grade	
505-508' - <i>Ortho-chl. Sch.</i> <i>Calc Shear</i> E OH @ 508'		60° 70° Mod to SH		165 170 180 190 200	1/2 5 1/2 1/8	<i>Ortho-chl. Sch. b. 100g-1p</i> <i>Ortho-chl. Sch. calc. 1p-1p</i> <i>g.f. chl. Sch. - r</i> <i>Ortho-chl. Sch.</i> <i>g.f. chl. Sch. - r</i>	0 10 20 30 40 50 60 70 80 90	1.1%			508	95%	45%	95991	.06	.004		.15%	
							0 10 20 30 40 50 60 70 80 90											.12 30%	
							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												

711. R. Show

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-39
SHEET No. 1 of 8

LOCATION <u>GIBRALTAR EAST</u>	BEARING <u>---</u>	LATITUDE <u>46,260.89 N</u>	CORE SIZE <u>M.Q.W.</u>	LOGGED BY <u>G.D.B.</u>
DATE COLLECTED <u>27-Aug-86</u>	LENGTH <u>508'</u>	DEPARTURE <u>47,250.38 E</u>	SCALE OF LOG <u>1"=10'</u>	DATE <u>Nov. 6, 1986</u>
DATE COMPLETED <u>28-Aug-86</u>	DIP <u>-90°</u>	ELEVATION <u>3604.86'</u>	REMARKS <u>this shows some unusual rock types and alteration phases.</u>	

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG	Vains L to Core Ash	WIDEN OF VAIN	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS						
								LEACH CAP	LIM. ZONE			SUPERGENE	Sample Number	% Cu	% Mo		Estimated Grade	
Casing To 80'																		
MINE PHASE QUARTZ DIORITE? definitely not a typical Mine Phase - poss. a different rx type - this rx. is also exposed along the south side of Granite l. pit. Chief characteristic is a 20-25% subhedral to euhedral black hb. xtls and 35-40% qtz as anhedral grains approx 1/20-1/8" dia. Pky. appears weakly conc. and forms a 30-40% of the rx. - in shear rx it occurs as stringers and wisps interstitial to qtz hb. The blk hb. appears distinctive altd but complete / similar to blk. as in the thermal Mine Phase (80-248) - but see note @ 180'	70 wk						0		no limonite	100	87	96101	.01	<.002			0	
	70 wk						0			100	87	96102	.01	<.002			0	
	80 wk						0			95	93	96103	.01	<.002	.01	2500	0	
	70 wk						0			98	90	96104	.01	<.002			0	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 26-29
SHEET No. 2 of 8

ROCK TYPES & ALTERATION			L to Core Foliation	GRAPHIC LOG		Vains L to Core All	width of Vain	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS			
				Foliation Attitude	Fracture Attitude						LEACH CAP	LIM. ZONE	SUPERGENE			Sample Number	% Cu	% Mo	
			70 wk		130				0				95	83	96105	.01	<.002		0
			70 wk		140				0			128	90	87	96106	.01	<.002		0
	2 1/2 leucocratic zone		80 wk		150			barren core no structure	0			148	98	80	96107	.01	<.002	.01 3455	0
			70 wk- Mod		160	4s	6"	gg-bx	0			158	95	67	96108	.01	<.002		0
	small fault.		70 mod		170	4s	2'	gg-bx + 4s' lost core.	0			168	50	23	96109	.01	<.002		0
			70 mod		180	4s	5'	sp-qtz	0			175	85	40	96110	.01	<.002		0

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GIBRALTAR MINES LTD.

HOLE No. 86-39
SHEET No. 3 of 8

ROCK TYPES & ALTERATION		L to Core Feilite Foliation Alteration Footage STRENGTH	V. line L to Core Alt.	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footage Discrep.	Estimated Core Recovery %	R O D	ASSAY RESULTS				
								LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	% Cu	% Mo
From 185-190' the rx grades to a typical Mine Phase with the loss of the blk hb. and a reduction in qtz.	60 WK	185-190	60	6"	gg-bx	0	<0.5			186	98	23	96111	.01	<.002		.05
			40	1/20	qtz-chl-py	10											
25% chl. as ragged green frags. 50% savs plag. 25% qtz. ∴ it should be noted, also min. and vein structure also begins with the change in rx. type.	60 WK	190-200	38 x 2	1/10 + 1/10	qtz-chl-py x 2	20	<0.5			191	90	40	96112	.01	<.002	34/0	.05
			20 + 40 + 15	1/10 - 1/20 x 3	qtz-chl-py x 3	30											
dx with zone + min. core.	80 WK	200-210	60 x 2	1/10	ep-qtz-zone	40	<0.5			203	90	7	96113	.01	<.002		.05
			30 x 2	1/10 x 2	qtz-chl-py x 2	50											
strong carb alt.	80 WK	210-220	5'		} broken gg'y core	60	<0.5			211	90	28	96114	.01	.002		.05
			15	1/10	qtz-chl-py.	70											
strong carb alt.	80 WK	220-230	5 x 3	1/20 x 3	gg x 3	80	<0.5			219	100	23	96115	.01	.002		.05
			5	1/10	qtz-chl-py	90											
strong carb alt.	80 WK	230-240	50 + 40	1/2	qtz	100	<0.5			228	80	24	96116	.01	.002	.01	.05
			5	1/2	qtz-carb	110											
strong carb alt.	80 WK	240-250	50 + 40 + 70	1/2 - 1/2 x 3	qtz-carb	120	<0.5			238	80	24	96116	.01	.002	.01	.05
			5	12"	gg-bx.	130											
strong carb alt.	80 WK	250-260	?	2 1/2'	ser-qtz-carb zone +	140	<0.5			238	80	24	96116	.01	.002	.01	.05
			5	2 1/2'	ser-qtz-carb zone +	150											

3365

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GIBRALTAR MINES LTD.

HOLE No. 86-39
SHEET No. 4 of 8

ROCK TYPES & ALTERATION		L to Core Foliation Foliation Alteration Feetage SILICIFICATION	V. to Core Alt.	WIDTH of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Sample Number	% Cu
		60 str 248	60-70 ?	12' 2 1/2' 3'	qq + 3' lost core qts-ser-chl-carb zone qts-cp	0 10 20 30 40 50 60 70 80 90	<.05		17 24+	27	96117	.40	.002	.40	
CARR. ALTERATION ZONE (248-413) not a typical shear zone alth but rather the partial replacement of plag. by brown (pale) weathering carbonate plus an increase in qts to about 45% - also present is ~ 5-10% ragged chl. + mag - gen. plutonic Tex. of the rx is preserved.		35 str 260	70-82	1/4 1 1/2"	qts (vug) qts (carb) +	0 10 20 30 40 50 60 70 80 90	<.05		94 254	20	96118	.06	.002	.05	
- most of the rx shows weak dissem. py-cp generally assoc. with mag. - The mag may form up to 5% of the rx.		50 Mod 270	80 85 50 60 70+80 80	1/4 1" 1/2-3/4 1"	qts chl-carb bx zone (series of 45' veinlets of vuggy carb. plus intervening bx wall rx healed with chl.) ats-chl-py qts-carb qts-carb +	0 10 20 30 40 50 60 70 80 90	<.05		26+	50	96119	.10	.002	.05	
		60 Mod 280	80 L0	1/2 3"	qts qts	0 10 20 30 40 50 60 70 80 90	<.05		27A	84	96120	.05	<.002	.05	
		70 Mod 290	80 85	30" 2" + 1/2"	broken qts (cp) qts-carb	0 10 20 30 40 50 60 70 80 90	<.05		28A 28B	25 90	96121	.07	<.002	.11 3320 .08	
		70 Mod 300	80 85 85	1/2 1/2 1/2	qts qts-chl-mag (cp) qts-chl-mag (cp)	0 10 20 30 40 50 60 70 80 90	<.05		100 298	53	96122	.04	.002	.08	

finely
dissem
mag +
(cp)
along slips
& tile
shears

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GIBRALTAR MINES LTD.

HOLE No. 86-39
SHEET No. 5 of 8

ROCK TYPES & ALTERATION		GRAPHIC LOG L to Core Footage Successive	Value L to Core Alt	Width of Vail	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
	L to Core Footage							Leach Cap	LIM. ZONE			SUPERGENE	REMARKS	Feetage Block.	Sample Number
	45- 60 Mod. Str.	310	40x2	hlex2	mag x2	0 10 20 30 40 50 60 70 80 90	<0.5			95	65	96123	.04	.002	.08
	35- 45 Str. SI. OPEN	320	30 45 45 35	1/10 1/2 1/8	qtz-chl-py (mag) mag (cp) qtz-chl-carb-py (cp) qtz-mag-cp chl-py (cp)	0 10 20 30 40 50 60 70 80 90	<0.5		308	83	33	96124	.10	.002	.10
	35- 60 Str. Crev.	330	30 50-60x2 30x2	1/4 1/3+1" 1/2+1"	mag x2 qtz-chl-carb-mag qtz-mag (cp) x2 qtz-carb-cp-py	0 10 20 30 40 50 60 70 80 90	0.5	finely disse- mag. (cp) along hix shear	318	85	60	96125	.16	.004	.14
	?	340	80 80	1" 14" 20"	qtz-carb-chl-py-mag broken qtz-cp-py broken qtz-carb 3g + 6" of lost core.	0 10 20 30 40 50 60 70 80 90	1.5		328 329	18	0	96126	.29	.002	.18
	70 Str.	350	70 60+50 70 70x2 60 70	1/2 1/8x2 1/3 1/10x2 1/4 1/10	qtz-chl-carb-py (cp) qtz-carb-py (cp) qtz-mag qtz-carb-py-cp qtz-mag (cp) qtz-chl-py x2 qtz-mag chl-py	0 10 20 30 40 50 60 70 80 90	0.5		328	58	92	96127	.14	.002	.15
	70 Mod	360	40 60 45+60+80 70 40 70	1/10 1/8 1/2+1/2 1/10 1/2 1"	qtz-mag qtz-cp qtz-carb-cp qtz-mag x2 qtz-carb-py-cp qtz qtz-chl-py zone	0 10 20 30 40 50 60 70 80 90	0.5		342	100	65	96128	.12	.002	.12

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GIBRALTAR MINES LTD.

HOLE No. 86-39
SHEET No. 6 of 8

ROCK TYPES & ALTERATION		L to Core Foliation Foliation Alteration Fracture SILICIFICATION	V. line L to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feather Block.	Estimated Core Recovery %	R O D	ASSAY RESULTS				
								LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	% Cu	% Mo
		70 60x3 46+70 55 10+5 40 7 30x3 80	370	1/8 1/20-1/10x3 1/8 x 2 1" 1" + 1/8 1/2 1/2 1/2x2 1/2	qtz qtz-chl-pyx qtz-carb-mag (cp)+z qtz-carb qtz-carb-py-cp + carb-cp carb-py (cp) qtz-carb-ser-py (cp) qtz-carb-py-z qtz-carb (cp)	0 10 20 30 40 50 60 70 80 90	1.5			368	88	59	96129	.24	.020		.20
		80 70 80x2 70 20+10 5 60+10	380	1/2 3" 1/2 1/2x2	qtz-carb-mag carb-ser-py-mag (cp) qtz-mag-z qtz qtz-z	0 10 20 30 40 50 60 70 80 90	0.5			378	95	73	96130	.14	.002	.19 3230	.12
		45+60 100+10 70 40 45+60 30x3 5+10	390	1 1/2 x 1/2 1/2 + 1 2" 1" 1/2 + 1/2 1/2 + 1/2 x 2 2" + 1/2	qtz-z qtz-carb-mag-cp-z qtz-carb-py qtz qtz-z chl-carb-py qtz-carb-py-cp	0 10 20 30 40 50 60 70 80 90	1.5			388	92	78	96131	.29	.002		.30
		70 25 70 60-30	400	1" 1/2 1/2 2 1/2	qtz qtz-carb-cp qtz-mag qtz-ser-cp-py	0 10 20 30 40 50 60 70 80 90	1.5			396	98	40	96132	.86	.002		.50
			410	6'	gg-bx	0 10 20 30 40 50 60 70 80 90				401	60						
			420	3"	qtz	0 10 20 30 40 50 60 70 80 90	0.5			406	54	12	96133	.20	.009		.10
			410	2"	qtz	0 10 20 30 40 50 60 70 80 90				70							
		413		3'	gg-bx (+ some qtz cp frags)	0 10 20 30 40 50 60 70 80 90				413							
	MINE PASS QUARTZ DIORITE (413-508')	70 WE 45+60	420	1" 1/2 1/2x2	qtz qtz-chl (cp) qtz-chl-mag-z	0 10 20 30 40 50 60 70 80 90	<0.5			418	94	28	96134	.13	<.002	.34 3185	.12

fault zone

fine disse-
Mag (cp)
along tiny
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- mag may
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GIBRALTAR MINES LTD.

HOLE No. 86-59
SHEET No. 8 of 8

ROCK TYPES & ALTERATION			L to Core Foliation	GRAPHIC LOG Foliation Alteration Feolite Siltstone	Veins L to Core Alt	Width of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feolite Direct	Estimated Core Recovery %	R O D	ASSAY RESULTS			
										LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade
			NO.	70+60+70 4+40+2+70+2 35+3 4 55 70+40 12 30+35 40+30	1/3 x 3 1/2 x 5 1/2 x 3 2" 1/8 7/8 x 2 1/10 1/2 x 1/4 1/2 x 2	qfs-mag (cp) x 3 qfs-mag (cp) x 5 qfs-mag (cp) x 2 qfs qfs-cp qfs-mag x 2 chl-cp qfs x 2 qfs-mag x 2	0 10 20 30 40 50 60 70 80 90	< 0.5		488	78	66	96141	.13	.002	.16		
			60-70 Mod-Str.	490 80 80 5 10-15 35 70 60 500	3" 15" 1" 12" 1/2 2" 14"	qfs qfs-chl-mag (cp) zone qfs-carb-chl-cp qfs-chl-py (cp) zone qfs-mag qfs qfs-chl-mag-cp zone	10 20 30 40 50 60 70 80 90	1.0		494	99	30	96142	.14	.002	.18		
			60 Mod-Str.	60 60-70 60 60-70 70 40 50	1/2 3" 1/10 1/2 x 2 6" 1/2	qfs-mag qfs-(chl-mag) zone chl-cp qfs-mag x 2 qfs-ser-py (cp) qfs-(mag)	10 20 30 40 50 60 70 80 90	0.5		502	86	70	96143	.12	.006	.12		
										508							.12	
																	3095	

E.Q.H. 508'
S.O.B.

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GIBRALTAR MINES LTD.

HOLE No. 86-40
SHEET No. 3 of 8

ROCK TYPES & ALTERATION	L to Core Fallacies	GRAPHIC LOG	Dip to Core Axis	Width of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE			Feet Block.	Sample Number	% Cu	% Mo
Str. Saus alt ~ 35% gtz. - L. minor remnant hbl. mainly chloritized	50° -70° Str	[Graphic Log]	70°	1/4	carb-gtz v	0	20%		198	99%	99%	96161	.01	<.001	2.0%
			70°	1/6	gtz-chl-calc-lim-hyp	10									
202-208 Weaker Saus Alt - ep stringers - j. minor hbl. 208-211 - Str. Saus. + chl. alt.	45° Str	[Graphic Log]	70°	1/20	gtz-chl-carb.	0	0%		208	102%	95%	96162	.01	2.001	0%
			70°	1/20	gtz-chl.	10									
211-215 No. Saus alt - Looks sw. at c - Carb. v. calc. in chl. 215-222 Fract Zone limst brkn core + gtz - carb. v. chl.	45° Str	[Graphic Log]	70°	1/8	gtz-chl-carb-lim	0	0%		218	78%	36%	96163	<.01	<.001	0%
			70°	1/4	gtz-carb-lim (90% hbl. 10% gtz)	10									
222-230 Gtz-chl-fp-zalc-ep Shad - some folding + Str.	30° -60° Str	[Graphic Log]	70°	1	gtz v. carb-lim.	0	0%		222	70%	13%	96164	<.01	<.001	0%
			70°	1/4	Gtz-chl-carb-lim lim gg-carb.	10									
230-257 Variable v. wk. to str. Saus. alt (minor ~ 2931) Str. chl. alt.	70° M.D. + Str	[Graphic Log]	70°	1/8	gtz-chl-carb-lim.	0	0%		232	80%	46%	96165	<.01	<.001	0%
			70°	1/6	carb	10									
	70° WK	[Graphic Log]	70°	1/16	gtz-chl-lim.	0	6%		248	101%	84%	96166	.02	<.001	.05%
			70°	1/20	gtz-lim carb carb-lim-hbl	10									

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GIBRALTAR MINES LTD.

HOLE No. 86-40
SHEET No. 7 of 8

ROCK TYPES & ALTERATION			GRAPHIC LOG	Vein ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footage Blocks	Estimated Core Recovery %	R O D	ASSAY RESULTS			
	∠ to Core Reflection	Vein Alteration Footage							LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade
287-310' Increase in gtz (35-40%) - Again variably w/ to str. bands + zones of dr. All to gr. chl ep. ser. carb. shear - In str. bands zones top are subparallel to cuboidal. - v. minor remnant hbl remains	90° WK	280	70 x 10 20 140	1/16 hls x 10 hls 6"	gtz. chl. carb. - horn carb (horn) x 10 carb (horn) Qtz Vn - chl. lim. ep. mal	0 10 20 30 40 50 60 70 80 90	0%	256	85%	52%	96167	.50	.001		.09%		
		280	45 x 4 45 55 50	hls x 4 1/8 1/8 1/4	gtz. horn x 4 gtz. carb. chl. horn gtz. ep. chl. carbagg gtz. carb. - chl	0 10 20 30 40 50 60 70 80 90										0%	266
60 WK to Mod	70° V. WK	270	45 146 130	1/8 1/8 1/16	gtz. ep. chl. gtz. ep gtz. chl. ep	0 10 20 30 40 50 60 70 80 90	0%	276	100%	97%	96169	.01	2.001		0%		
		280	130 130 170 160	1 1/8 2" 1/8	gg. carb. chl. gtz. ep. chl. gtz. chl. ep carb. gtz. chl. ep	0 10 20 30 40 50 60 70 80 90										0%	284
Mod to Str.	90° Str.	290	50 x 4 30 150 130 x 2 145	1/8 x 4 1/2 hls 1/4 x 2 1/4	gtz. chl. ep x 4 Scale Qtz Vn carb Qtz. chl. carb x 2 gtz. ep. chl	0 10 20 30 40 50 60 70 80 90	0%	294	76%	75%	96171	2.01	2.001		0%		
		300	150 x 2 195 160 120 60	hls x 2 1/8 hls 1/4 1/8	carb x 2 gtz. ser. carb gtz. ep carb. lim gtz. ep	0 10 20 30 40 50 60 70 80 90										0%	304
60° 70° WK	90° WK	310	195 160 120 60	1/8 1/10 hls 1/4 1/8	gtz. ser. carb gtz. ep carb. lim gtz. ep	0 10 20 30 40 50 60 70 80 90	0%	304	85%	15%	96172	.01	2.001		0%		

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GIBRALTAR MINES LTD.

HOLE No. 86-40
SHEET No. 5 of 8

ROCK TYPES & ALTERATION		L to Core Foliation	GRAPHIC LOG Alteration Feet	Yelns L to Core Alt	Width of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feet Discr.	Estimated Core Recovery %	R O D	ASSAY RESULTS									
									LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade						
310-331 A foliated wk sau. act'd rx w/ remnant hbl (some chl. all?) -gtz - 10-95%	80° wk to mod	80°	320	45°	1/16	gtz-ep	0	%			312	96%	88%	96173	.01	<.001	%						
				50	1/16	gtz-ep	10		20	30								40	50	60	70	80	90
				60	1/16	gtz-ep	10		20	30								40	50	60	70	80	90
80° Mod to Str.	80°	330	60	1/2	gtz-ep-dl. sau	0	%			328	101%	77%	96174	.01	<.001	%							
			70°	1/2	ag-bronze-carb. hem	10		20	30								40	50	60	70	80	90	
			70°	1/2	gtz-ep-dl. sau	10		20	30								40	50	60	70	80	90	
331-348 Mixture of mod sau. -wk sau to DK AH -becomes sericitic & approaches phasing	70° Mod to Str	340	125°	1/20	gtz-chl	0	%			338	104%	80%	96175	<.01	<.001	%							
			125°	1/20	gtz-ep-chl.	10		20	30								40	50	60	70	80	90	
			130°	1/20	carb. hem. hem	10		20	30								40	50	60	70	80	90	
-blanched mod	80° Str.	350	130°	1/20	carb. hem	0	%			348	102%	86%	96176	<.01	<.001	%							
			130°	1/2	gtz Vn - lch. carb	10		20	30								40	50	60	70	80	90	
			130°	1/2	gtz-ep-chl.	10		20	30								40	50	60	70	80	90	
348-367 Same as 310-331	70° Str.	360	70°	2	gtz-ep-chl.	0	%			357	97%	73%	96177	.01	<.001	%							
			50° X 2	1/2 x 2	carb. x 2	10		20	30								40	50	60	70	80	90	
			80°	5	fine ground dyke.	10		20	30								40	50	60	70	80	90	
367-382 Wk sau - hem hbl - all chl. & v	70- 50 Str	370	60 X 3	1/20 X 3	gtz-ep X 3	0	%			367	97%	48%	96178	.01	<.001	%							
			60°	1/2	gtz-ep-chl	10		20	30								40	50	60	70	80	90	
			80° X 3	1/2 X 3	carb. hem X 3	10		20	30								40	50	60	70	80	90	

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GIBRALTAR MINES LTD.

HOLE No. 2640
SHEET No. 7 of 8

ROCK TYPES & ALTERATION	L to Core Foliation Alteration Feet Stratigraphy	GRAPHIC LOG	Veins to Core Alt.	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Feet Block	Sample Number
F31-440 WK to Mod Saus ch - fine gr; well foliated - few narrow zones Dk Alt	60 Mod to Str.	190	30	nee	carb. (crubly conch)	0	0%			82%	20%	96185	.01	1.001	.0%
			5	1/20	gtz	10									
			52	1/20 x 2	gtz-chl-carb x 2	20									
			80	1/10	gtz-ep	30									
			85	lee	carb	40									
			90			50									
			95			60									
			100			70									
			105			80									
			110			90									
440-168 Mainly a gtz. an (ch) rock w/ ep blotches & stringers but w/ remnant zones of saus d x x with remnant hbl xls. Grad into mainly saus rock w/ minor hbl xls. fine gr. str. fol	60 Mod to Str.	450	40	nee	gtz-chl-py	0	.1%		94%	60%	96186	.01	1.001	.01%	
			60 x 4	1/20 x 4	gtz-chl-ep-py 19	10									
			70	lee	gtz-chl-carb-py-ep	20									
			75	1/6	gtz-ep	30									
			80	1/20 x 6	gtz-ep	40									
			85			50									
			90			60									
			95			70									
			100			80									
			105			90									
Zones of saus d x x with remnant hbl xls. Grad into mainly saus rock w/ minor hbl xls. fine gr. str. fol	68 Str.	460	30	1/16	gtz-carb	0	.05%		95%	76%	96187	.01	1.001	.0%	
			60	1/20	gtz-chl-carb	10									
			75	1/20	gtz-chl-py	20									
			80	1/20	gtz-chl-py	30									
			85			40									
			90			50									
			95			60									
			100			70									
			105			80									
			110			90									
60-972 Dk Alt w/ ep stringers & blotches w/a few narrow lighter zones	60 Str.	470	60 x 3	1/20 x 3	gtz-chl-py v 2	0	.1%		100%	82%	96188	.01	1.001	.03%	
			45 x 10	1/20 x 10	gtz-chl-py x 10	10									
			60	1/20	gtz-chl-py-ep	20									
			75	1/20	gtz-chl-ep-py-ep	30									
			80			40									
			85			50									
			90			60									
			95			70									
			100			80									
			105			90									
70-145 WK to Mid	70 WK to Mid	480	60 x 3	1/20 x 3	gtz-an-py x 3	0	.15%		103%	80%	96189	.02	1.002	.01%	
			45 v 2	1/8 x 1/6	gtz-ep	10									
			45	1/20	gtz-chl-carb-py	20									
			45 x 2	1/20 x 2	gtz-an-chl-py x 2	30									
			50 x 2	1/2 x 2	gtz-an-ep-chl-py x 2	40									
			55	1/5	gtz-ep	50									
			60			60									
			65			70									
			70			80									
			75			90									
130 x 2 145 75 145	60 WK to ND	490	30 x 2	1/10	carb-gtz v 2	0	.21%		102%	72%	96190	1.01	1.004	.01%	
			45	nee	gtz-chl-py	10									
			75	1/20	gtz-an-chl-py	20									
			145	1/20	gtz-an-chl-py	30									
			150			40									
			155			50									
			160			60									
			165			70									
			170			80									
			175			90									

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-41
SHEET No. 2 of 7

ROCK TYPES & ALTERATION		L to Core Foliation	GRAPHIC LOG Foliation Alteration Footings Stratigraphy	Values L to Core Alt	Width of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footings Discontin.	Estimated Core Recovery %	R O D	ASSAY RESULTS					
									LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo		Estimated Grade	
				126°	1	qtz-chl-Vn	0												
		80° Str		70°	2	qtz-chl-ep	10	0%	some lim staining.	128	92%	33%	96205	.01	<.002		%		
			80°	4x	lim	20													
			80°	4x	carb-lim.	30													
			120°	4x	lim	40													
			130°	4x	lim	50													
		70° Sh		70°	1	gtz-ep	0	0%		138	88%	83%	96206	.01	<.002		%		
			70°	1/10	gtz-ep	10													
			70°	1/10	gtz-ep	20													
			70°	1/2	gtz-ep	30													
			140°	1/2	gtz-ep	40													
		70° WK		140°	1/2	gtz-ep	50	108%		148	95%	77%	96207	.01	<.002		%		
			70°	1/2	gtz-ep	60													
			80°	1/2	gtz-ep	70													
			80°	1/2	gtz-ep	80													
			150°	1/2	gtz-ep	90													
		ND WK		150°	1/2	gtz-ep	0	0%		155	72%	17%	96208	.01	<.002		%		
			30°	1/2	carb xz	10													
			50°	1/2	gtz-ep	20													
			80°	1/2	gtz-ep	30													
			80°	1/2	gtz-ep	40													
		ND WK		160°	1/2	gtz-ep	50	108%		162	83%	160					%		
			70°	1/2	gtz-ep	60													
			70°	1/2	gtz-ep	70													
			70°	1/2	gtz-ep	80													
			170°	1/2	gtz-ep	90													
		ND WK		170°	1/2	gtz-ep	0	108%		168	91%	28%	96209	.01	<.002		%		
			70°	1/2	gtz-ep	10													
			70°	1/2	gtz-ep	20													
			70°	1/2	gtz-ep	30													
			170°	1/2	gtz-ep	40													
		80° WK		180°	1/2	gtz-ep	50	0%		174	35%	0%	96210	.01	<.002		%		
			70°	1/2	gtz-ep	60													
			70°	1/2	gtz-ep	70													
			70°	1/2	gtz-ep	80													
			180°	1/2	gtz-ep	90													
		80° WK		180°	1/2	gtz-ep	0	0%		178	75%	0%	96210	.01	<.002		%		
			70°	1/2	gtz-ep	10													
			70°	1/2	gtz-ep	20													
			70°	1/2	gtz-ep	30													
			180°	1/2	gtz-ep	40													

139-143 to altered version
of the above rx. less
remnant hb1 (chloritized)
- ep. stringers - str. c. 1/2 in
143-145 white qtz
Fsp. Rock
145-149
Altered rock matrices
are chloritized

- fsp are clustered &
concentrated in some
areas + stained w/
lim
- some ep. segregation

(169-191
Fusion Zone
broken core + gg)

Broken
core
+ gg.

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-91
SHEET No. 3 of 7

ROCK TYPES & ALTERATION		L to Core Foliation Attraction	GRAPHIC LOG Feet Meters	Value L to Core Alt	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feet Meters	Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade
		ND	190	30° 70°	1/4	carb - km, qtz - ep	0 10 20 30 40 50 60 70 80 90	0%		188	4%	4%	96211	.01	<.002	0%	
191-224 Epy Saus - rich QD - color - red mafic, where epistromatic are common - sauls is gone.	80° Mod.		200	50° 60° 70° 80°	1/20 1/20 1/20 1/16	qtz - ep. qtz - ep - (py) qtz - chl - ep (py) qtz - chl - (py) qtz - ep.	0 10 20 30 40 50 60 70 80 90	23%		197	90%	67%	96212	.01	<.002	0%	
	80° Mod		210	70° 80° 90°	1/20 x 2 1/16	qtz - chl - py x 2 qtz - chl - py	0 10 20 30 40 50 60 70 80 90	100% schistic fragment		208	96%	80%	96213	.01	<.002	0%	
	80° Wk to mod		220	70° 75° 70° 80°	1/10 1/20 1 1/8	qtz - chl - py qtz - chl - py qtz - ep - chl qtz - ep - chl - py	0 10 20 30 40 50 60 70 80 90	1%		218	100%	80%	96214	.05	<.002	0%	
224-251 Less sauls act in more abundant - ep Striking common	80° Wk to mod		230	70° 80° 80°	1/16 1/8 4	qtz - chl - py x 6 qtz - chl - py x 6 qtz - chl - py	0 10 20 30 40 50 60 70 80 90	1%	228-230 Fault	228	99%	65%	96215	.01	<.002	0%	
237-260 Fault Zone	80° Wk.		240	90° 60° 90° 45°	1/16 5" 1/4	qtz - chl - py qtz - ep - py qtz - chl qtz - ep	0 10 20 30 40 50 60 70 80 90	100%		236	68%	26%	96216	.01	<.002	0%	
										240	40%						

B-Kn core 499

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-91
SHEET No. 4 of 7

ROCK TYPES & ALTERATION			GRAPHIC LOG	Values Δ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS			
	Δ to Core Foliation	Alteration							LEACH CAP	LIM. ZONE	SUPERGENE			Sample Number	% Cu	% Mo	Estimated Grade
	30° wk		25	12		qtz - chl - lim - cpy	0-100	0%			242	50%	0%	96217	.03	<.002	0%
	7°	251-258 more altered rock. Very few distinct ds. - some wk. lim. staining - zones of segregation. - qtz - sil - ep - chl	25	10°	1/2	Brkn Core - gg	0-100	0%			246	37%	0%	96218	.02	<.002	0%
	ND.		25	10°	1/2	carb - hem	0-100	0%			247	33%	260	96219	.01	<.002	0%
	ND.		25	10°	1/2	qtz - carb - hem x 2	0-100	0.02%			249	80%	270	96220	.02	<.002	0.03%
	70° Mod.		270	10°	1/8	qtz - chl - py qtz - sil - cpy qtz - sil - carb - lim qtz - carb - hem	0-100	0%			274	94%	280	96221	.01	<.002	0%
	70° Mod.		280	45°	5	qtz - chl - carb - lim - py	0-100	0%			284	99%	290	96222	<.01	<.002	0%
	90° Mod.		280	80°	1/2	qtz - chl - ep - snat - cpy	0-100	0%			289	100%	290	96222	<.01	<.002	0%
	80° Mod.	258-261 G.D.W. / hbl xls + ~35% qtz - mod sil - chl - py - lim - cpy	290	70°	1/2	qtz - ep - snat - cpy	0-100	0%			294	100%	300	96222	<.01	<.002	0%

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-41
SHEET No. 5 of 7

ROCK TYPES & ALTERATION			L to Core Foliation Alteration Footage	GRAPHIC LOG Strike Dip	V. to Core Alt.	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footage Block	Estimated Core Recovery %	R O D	ASSAY RESULTS			
										LEACH CAP	LIM. ZONE				Supergene	REMARKS	Sample Number	% Cu
			80° wk.	80° x 3 70° 125 x 2 310	1 x 3 19 120 x 2 100	gtz. ep x 3. gtz. ep gtz. ep gtz. ep - chl - ep	0 10 20 30 40 50 60 70 80 90	0%			305	85%	96223	<.01	<.002	0%		
			70° wk.	125 80 130° 320	tbl 10" 1/16	chl - carb. gtz. chl - ep. gtz. carb - lim	0 10 20 30 40 50 60 70 80 90	0%			313 318	90% 95%	310 320	63%	96224	<.01	<.002	0%
		321-32A - Fault Brkn cone + gg 326-330 Fault Brkn cone - gg Weaker zone -greyer t-x	70° 30° v. wk.	15° 60° 5° 330	tbl 1/16 x 3 1/20 1/4	carb - lim. gtz. ep x 3 gtz. lim gtz. ep	0 10 20 30 40 50 60 70 80 90	0%			324 329	100% 88%	320 330	32%	96225	<.01	<.002	0%
			70° 80° v. wk.	15° 160 120 340	tbl 1 120	gtz. ep gtz. chl - carb	0 10 20 30 40 50 60 70 80 90	0%			337	91%	340	70%	96226	.01	<.002	0%
		341-399 More altered version of the above	70° wk.	115° 60 120 x 2 350	tbl 1/4 tbl x 2 tbl	tbl - chl - carb - lim carb - lim gtz. ep - lim carb - lim x 2 carb - lim	0 10 20 30 40 50 60 70 80 90	0%			345	100%	350	63%	96227	<.01	<.002	0%
			70° wk. Mod.	45° 80 x 2 130° x 2 360	1/4 2' + 1" 120 x 2 1/2	gtz - carb - lim (tbl) gtz - ep gtz. chl - py x 2 gtz - ep	0 10 20 30 40 50 60 70 80 90	0.01%			355	97%	360	70%	96228	<.01	<.002	0%

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GIBRALTAR MINES LTD.

HOLE No. 86-41
SHEET No. 6 of 7

ROCK TYPES & ALTERATION			GRAPHIC LOG	Vein to Core Alt.	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PIRITE	BOTTOM DEPTHS		Feetage Direct.	Estimated Core Recovery %	R O D	ASSAY RESULTS			
									Leach Cap	Lim. Zone				Supergene	Remarks	Sample Number	% Cu
finer grained mic. in remnant	70° wk to Mod	370	70°	1/8	gtz-ep	0	0%	368	96%	76%	96229	<.01	<.002	0%			
			15 x 2	1/2	carb-lim.	10									20	30	40
hbl. xls.	70° wk to Mod	380	70°	1/8	gtz-ep. carb-lim.	0	0%	375	80%	52%	96230	<.01	<.002	0%			
			5"	1/2	carb-lim.	10									20	30	40
	70° Mod.	390	70°	1/10	gtz-ep.	0	0%	385	102%	82%	96231	.01	<.002	0%			
			1/2"	1/10	carb-gtz	10									20	30	40
399-409 Mainly D.K. Alt + w/ ep stringers + vein - minor wk sans alt qd in places	80° wk	400	80°	1/20	gtz-ep. carb-lim.	0	0%	403	98%	50%	96232	.02	.004	0%			
			1/2"	1/20	gtz-ep	10									20	30	40
109-111	90° wk to Mod	410	90°	1/8	gtz-ep	0	0%	413	90%	82%	96233	.02	.002	103%			
			1/20	1/8	gtz-ep	10									20	30	40
mineral of observed & weakly observed qd w/ some remnant hbl xls. - some wk to mod - some D.K. Alt zones w/ ep. vns.	80° wk to Mod	420	80°	1/8	gtz-ep	0	0%	418	100%	97%	96234	.01	<.002	0%			
			1/2"	1/8	gtz-ep	10									20	30	40

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-41
SHEET No. 7 of 7

ROCK TYPES & ALTERATION		GRAPHIC LOG		Value ∠ to Core Axis	width of VIA	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS			Estimated Grade
		∠ to Core Foliation	Foliation Attitude						Leach Cap	LIM. ZONE	SUPERGENE			Sample Number	% Cu	% Mo	
		80° wk to Mod		50 x 6	1/20 x 6	gtz-ep x 6		0%			105%	97%	96235	<.01	<.002	0%	
		80° wk to Mod		80 60 70	1/10 1/10 1/2	gtz-ep gtz-ep gtz-ep		0%			105%	80%	96236	.01	<.002	0%	
		70-80 Mod		80 70	5 1	gtz-ep (clde) gtz-ep (clde)		0%			105%	90%	96237	.01	<.002	0%	
				447 80°	2	gtz-ep w/ep clst						447					

Hole lost @ 447

M.R. Shaw

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-42
SHEET No. 1 of 10

LOCATION <u>GIBRALTAR EAST</u>	BEARING _____	LATITUDE <u>47°36.87' N</u>	CORE SIZE <u>N. Q. W.</u>	LOGGED BY <u>G.D.B.</u>
DATE COLLECTED <u>01-Sep-86</u>	LENGTH <u>603'</u>	DEPARTURE <u>46800.45 E</u>	SCALE OF LOG <u>1" = 10'</u>	DATE <u>Oct 22, 1986</u>
DATE COMPLETED <u>03-Sep-86</u>	DIP <u>-90</u>	ELEVATION <u>3477.77'</u>	REMARKS _____	

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG Foliation Alteration Fracture SLEWED	Veins L to Core Axis	WIDTH OF VEIN	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Fracture Block.	Estimated Core Recovery %	R O D	ASSAY RESULTS				
								LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade	
Casing To 80'		80				0 10 20 30 40 50 60 70 80 90				80							
MINE PHASE QUARTZ DIORITE (80-328')	ND	90 80 20x3 90	1/8 1/4 1/2	1/8 1/2	qtz-lim qtz-py lim x3 qtz-chl-lim	0 10 20 30 40 50 60 70 80 90	<0.5	lim zone is weak - lim is confined mainly to gg-bx zones and open fractures - post-mining oxidation	80 87 89	80 95	7	10901	.08 .04ox	<.002		.12	
typical Mine Phase except that down to ~150' it is finer grn'd than normal (ie similar to 86-33) - grn size 1/10-1/16 - from 160 to 500' inc grn size is normal 1/10-1/16.	ND	60 60-45 60x4 30x2 100	1/2	1/2	qtz qtz (mal) x 2 mal-MnO2 x 4 qtz-chl	0 10 20 30 40 50 60 70 80 90	<0.5	- most of this hole appears weakly min. and lacks strong ore structure - in contrast to adjacent 1986 holes (ie 86-33)	93 98	60 85	17	10902	.06 .05ox	<.002		.12	
~20% chl 30% qtz 45-50% saul plag.	ND	70+5+60 7 50-60 x5 30 7 110	1/2 1/2 1/2	1/2	qtz-chl-py (mal) gg-bx qtz-chl (py) x5 qtz-chl-lim gg-bx (lim) qtz	0 10 20 30 40 50 60 70 80 90	<0.5		125 80	95	13	10903	.10 .07ox	<.002		.14	
	70 wk	40-45 x4 60 x5 60 70 40 120	1/2 1/2 1/2 1/2	1/2	qtz-chl (py) x4 qtz (sp) x2 qtz-chl-cp (mal) qtz (mal) qtz-chl gg-bx-mal qtz-ser-gg-lim	0 10 20 30 40 50 60 70 80 90	<0.5		110 90	90	27	10904	.15 .12ox	<.002	.09 33%	.12	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-42
SHEET No. 2 of 10

ROCK TYPES & ALTERATION			GRAPHIC LOG	Yates - 1/2 to Core Axis	Width of VIA	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feetage Direct.	Estimated Core Recovery %	R O D	ASSAY RESULTS				
									LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	% Cu	% Mo
ND			130	5+60x3 to	3' 2'	qq-bx-lim-mal gg-bx-hem	0' 10' 20' 30' 40' 50' 60' 70' 80' 90'	20.5			123	85	0	10905	.18 .11%	.004		.10
ND			140	60' 80x4+25 70x3 5+30 60+80 40 35 20	2" 1/2x1+1/4 1/8x3 1/10x2 1/8x2 1/4 1/4	qtz-ser-py qtz-chl-py qtz-ser-py qtz-chl-py qtz-chl-cp qtz qtz	0' 10' 20' 30' 40' 50' 60' 70' 80' 90'	0.5			130	95	20	10906	.14 <.01%	.009		.15
60 Mod			150	70 5 70 20 6+ 35	1/4 1/10 1/10 1/10	qtz qtz-chl-py-cp qtz-chl-py qtz-cp qtz-chl-cp qtz-ser-cp	0' 10' 20' 30' 40' 50' 60' 70' 80' 90'	0.5			144	95	23	10907	.13 <.01%	.006		.14
SS WK			160	40 50x2 60	30" 1/10x2 1/4	qtz-ser-py-cp qtz-chl-py-cp qtz-chl-py	0' 10' 20' 30' 40' 50' 60' 70' 80' 90'	1.0			148	80	30	10908	.40 <.01%	.006	.21 3320	.16
ND			170	50 45+60+70 20 70 55x2	1/2 1/8x2 1/4 1/8 1/10x2	qtz-mag qtz-chl-cp qtz-chl-ser-cp qtz-chl-cp qtz-chl-cp	0' 10' 20' 30' 40' 50' 60' 70' 80' 90'	0.5			158	80	37	10909	.12 <.01%	.004		.15
ND			180	20+30 25 60+3+70 60 50 70x2	1/2x2 1/2 1/4 1/4 1/8x2	qtz-ser-cp qtz-chl-cp qtz-chl-cp qtz-ser-cp qtz-chl-cp qtz-chl-ser-cp	0' 10' 20' 30' 40' 50' 60' 70' 80' 90'	0.5			174	75	50	10910	.20 <.01%	.002		.12

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-42
SHEET No. 4 of 10

ROCK TYPES & ALTERATION			L to Core Foliation	GRAPHIC LOG	Value L to Core Alt.	WIDTH of VIA.	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS				
										LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Feet/Block	Sample Number	% Cu
			70 WK	70+60 80	70-60-50 70 80+70+40+35 60-70x2	1/2+1/3 1/3 12"	qtz-mag xz qtz (qq)-bx	0 10 20 30 40 50 60 70 80	<0.5		247	80	43	10917	.09	.002	.16 3230	.05
			ND	90 60+90+40 80+60 60 60x2	90 60+90+40 80+60 60 60x2	1/4 1/4x3 1/2+1/2 1" 1/2+1	qtz-chl-cp-pf qtz x2 qtz-mag xz qtz-ser-(cp) qtz x2	0 10 20 30 40 50 60 70 80 90	<0.5		255	90	30	10918	.13	.003		.05
			ND	10-90 20+5 60x3 10x2 50 80x2	10-90 20+5 60x3 10x2 50 80x2	1/8+1/4 1/2x2 1/20x3 1/4x2 1/3 1/4x2	qtz x2 qtz-chl x2 qtz-chl-op x3 qq x2 qtz-chl-cp qtz x2	0 10 20 30 40 50 60 70 80 90	<0.5		264 268	98	30	10919	.08	.002		.08
			ND	45+50 15 5	45+50 15 5	1/10 x2 2" 1/2	qtz-chl x2 qq chl (cp)	0 10 20 30 40 50 60 70 80 90	<0.5		276	90 95	37	10920	.15	.005		.05
			ND	45 ? 45? 45	45 ? 45? 45	1/4 4" 6"	qtz-cal (cp) qtz-spar-porp. qtz-cal (vug)	0 10 20 30 40 50 60 70 80 90	<0.5		282 286	85 85	13	10921	.10	.005		.05
			ND	? 80	? 80	1' 2'	qz-bx qtz-chl-ser (py)(cp) zone qq-bx	0 10 20 30 40 50 60 70 80 90	0.5		293 298	90	17	10922	.12	.003	.12 3185	.08

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-92
SHEET No. 5 of 10

ROCK TYPES & ALTERATION	GRAPHIC LOG	L to Core Foliation Alteration Fracture	Yield L to Core Alt.	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimate Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE			Sample Number	% Cu	% Mo	Estimated Grade
		60 WK	310	1/10 1/8 6" 1/4 1/4 x 1/8 x 2 8" 1/8 x 2	qtz-chl-cp qtz gg-bx qtz-chl-mag-cp qtz gg-bx qtz x 2	0 10 20 30 40 50 60 70 80 90	<0.5		307	95	10	10923	.07	.001	.05
		ND	320	80 70 40 20	qtz-chl-py qtz-chl-py qtz-chl qtz-chl	10 20 30 40 50 60 70 80 90	<0.5		312 318	85 95	40	10924	.06	.003	.05
		ND	328	60 50 x 2 60 70 70 x 2 5	qtz qtz x 2 qtz qtz-mag qtz-chl x 2	10 20 30 40 50 60 70 80 90	<0.5		328	95	27	10925	.07	.003	.05
MAJOR FAULT			330	10"	qq	10 20 30 40 50 60 70 80 90			328						
ZONE (328-358) a 30' zone of soft bleached highly broken rock and gg. zones - most re frag. are less than 1" in dia. but appear to be crushed in situ without much displacement or rotation - this is prob. a series of small faults (see gg zones)		?	340	3' 8"	qq qq	10 20 30 40 50 60 70 80 90	?		333 337	60 70	0	10926	.13	.009	.09 3190
		?	350	6" 12"	qq qq	10 20 30 40 50 60 70 80 90	?		344 348	70 85	0	10927	.11	.005	?
separated by zones of broken rock - fine pale color of the rock and softness (H1-4) suggest some supergene altn.		?	358	4'	qtz qtz	10 20 30 40 50 60 70 80 90	?		355	70	10	10928	.12	.004	?
			360	1/2 2"	qtz-mag qtz-py	10 20 30 40 50 60 70 80 90			80						

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-42

SHEET No. 6 of 10

ROCK TYPES & ALTERATION		L to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Slits	Veins L to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE			Sample Number	% Cu	% Mo	Estimated Grade
MINE PHASE QUARTZ DIORITE (358' - 603')	Co Mod	370	35 30 45 40 70x2 60 20 ?	1/8 1/4 1/2 6" 1/8 2" 3'	qtz-chl(cp) qtz-chl-mag qtz-mag qtz-ser-cp chl-cpx qtz-chl-mag qtz(cp) gg-bx	0 10 20 30 40 50 60 70 80 90	<0.5	REMARKS	364	95	13	10929	.39	.016	.14	
																368
as above - no change across fault.	60 Wic	380	? 60x2 60 60+50 ? 70 60x2	12" 4' 1/4 1/2 1/2x2 2"	qtz broken rx qtz x2 qtz-chl-cp qtz x2 qtz-mag(cp)	0 10 20 30 40 50 60 70 80 90	<0.5		374	90	7	10930	.19	.009	.12	
																380
small fault	55 Mod- Str.	390	80 60x2 80x2 45 30x2 55x2	1/2 1" x 1/2 1/2 1" 1/2x2 1/2x2 12"	qtz-chl-cp qtz-mag(cp) x2 chl-cp x3 qtz(cp) qtz x2 qtz x2 gg-bx (+ 3' lost core)	0 10 20 30 40 50 60 70 80 90	<0.5		388	95	63	10931	.13	.005	.19 3095	.08
	70 Mod	400	80 10" 12"	10" 12"	qtz-carb-py-cp qtz-chl-carb gone gg gg-bx	0 10 20 30 40 50 60 70 80 90	<0.5		398	70	10	10932	.24	.005	.08	
																400
		410	80 60 60+45 60+50+20 50-60x3 60	2" 12" 1/2x2 1/2x2 1/2x2 1/10x2	qtz-hem qtz-porp qtz-cz qtz x3 qtz-chl-cp x3 qtz-chl-cp	0 10 20 30 40 50 60 70 80 90	<0.5		408	98	40	10933	.16	.010	.12	
																410
		420	80x2 60x2 50 60x2 60x2	10" x 6" 1/10x2 1/2 1/10x2 1/6x2	qtz-spar-porp * qtz-chl(cp) x2 qtz-chl qtz-chl-cp-py-cp x2 qtz-chl(cp) x2 qtz-chl	0 10 20 30 40 50 60 70 80 90	<0.5	* a true dyke with sharp - chilled borders	418	90	27	10934	.11	.005	.10	
																420

GRID _____

GIBRALTAR MINES LTD.

HOLE No. B6-42
SHEET No. 7 of 10

ROCK TYPES & ALTERATION			GRAPHIC LOG	Veins ∠ to Core Axis	Width of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Sample Number	% Cu
from 420' to 510' cp occurs in hlc- yio veins spaced at wide intervals (15') with little or no significant	70 Wk	430	40x2+50	1/10x2 + 1/2	qtz-chl-cp + qtz	0	<0.5			428	95	33	10935	.23	.010	.18
			50x2	1/10x2	qtz-chl-cp x2	10										
			45	1/10	qtz-chl-cp (Mo)	20										
			80	1/4	qtz-chl-cp	30										
			50	1/10	qtz-chl-cp	40										
			35	1/3	qtz-mag	50										
			40	1/4	qtz-chl-carb(cp)	60										
						70										
						80										
						90										
background values being apparent - hence, the low est grades.	60-70 Wk- Mod	440	35+60	1/2x2	qtz-chl-cp x2	0	0.5		438	95	33	10936	.18	.005	.15	
			60	3"	qtz-ser-py	10										
			2	2"	qtz-chl-cp	20										
			50	1/3	qtz-chl-cp-py	30										
			5	1/4	qtz-chl-cp-py	40										
			60x2	1/2	qtz-chl	50										
			60	1/10x2	qtz-chl-cp x2	60										
			70x2	1/10	qtz-chl-cp	70										
						80										
						90										
60 Wk- Mod	450	70x2	1/2 + 1/3	qtz-chl(cp) x2	0	<0.5		448	95	80	10937	.09	.002	.12		
		60	1/8	qtz-chl-cp	10											
		45	1/10	qtz-chl-cp	20											
		45	1/20	qtz-chl-cp	30											
					40											
					50											
					60											
					70											
					80											
					90											
60 Wk	460	60x2	1/8x2	qtz x2	0	<0.5		458	90	57	10938	.14	.005	.08		
		30	1/10	qtz-chl-cp	10											
		10	1/8	carb-cp-cp	20											
		50+70	1/10x2	qtz-chl(cp) x2	30											
		55x2	1/10x2	qtz-chl(cp) x2	40											
					50											
					60											
					70											
					80											
					90											
60 Wk	470	60	1/10	qtz-chl(cp)	0	<0.5		468	95	33	10939	.08	.009	.10		
		60	1/10	qtz-chl(cp)	10											
		60	1/10	qtz-chl(cp)	20											
					30											
					40											
					50											
					60											
					70											
					80											
					90											
60 Mod	480	60+60	1/10x2	qtz-chl(cp) x2	0	0.5		478	90	17	10940	.16	.018	.13 2005 .10		
		60	1"	qtz-cp-ser-py	10											
		2	1"	qtz-cp	20											
		20	1/20	cp-cp	30											
		20	1/10	qtz-chl(cp)	40											
		45	1/10	qtz-cp	50											
		20	1/2	chl(cp)	60											
					70											
					80											
					90											

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-42
SHEET No. 8 of 10

ROCK TYPES & ALTERATION			GRAPHIC LOG	Values L to Core Axis	Width of Vain	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS				
									LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Sample Number	% Cu	% Mo
			60 wk	50 60 60+50 60+70 60x2+50	1/10 1/20 1/10x2 1/10x2 1/10x3	qtz-cp chl-cp qtz-chl(cp) qtz-chl(cp)x2 qtz-chl(cp)x3	01 10 20 30 40 50 60 70 80 90	<0.5			95	53	10941	.16	.008		.08
		dk alth zone	60 wk	70+50 38 50 55x2 60 60 70	1/10x2 1/8 hlc 1/10x2 1/10 1/8 1/10	qtz-chl-py qtz-carb-chl-cp qtz-ep-cp qtz-carb-chl-cpx qtz-chl-cp qtz-chl-cp qtz-chl-py	0 10 20 30 40 50 60 70 80 90	0.5			95	50	10942	.16	.002		.20
			60 Mod	80 70 45 60? 60x2	2" 1" 1/4 8"	qtz qtz-ser-py-cp qtz(cp) qq qtz-chl-pyx2	0 10 20 30 40 50 60 70 80 90	0.5			95	27	10943	.08	.004		.12
		dk alth zone	80 str.	70x2 70x2 70 80	1/8x2 1/10x2 1/10 5'	qtz-chl-py(cp)x2 qtz-chl-carb(cp) chl-py qtz-chl-carb(cp)((py)) zone	0 10 20 30 40 50 60 70 80 90	0.5			95	53	10944	.15	.003	.14	.10
			80 Mod. Str.	70 80	10'	qtz-chl-carb((cp)) zone	0 10 20 30 40 50 60 70 80 90	0.5			90	27	10945	.17	.041	296	.08
			80 Mod. Str.	70 80	2'	qtz-chl-carb((cp)) veins	0 10 20 30 40 50 60 70 80 90	1.5			80	7	10946	.27	.061		.10

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GIBRALTAR MINES LTD.

HOLE No. 26-42
SHEET No. 9 of 10

ROCK TYPES & ALTERATION			GRAPHIC LOG	WIDE OF VINA	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS				
								LEACH CAP	LIM. ZONE			Feet	Feet	Sample Number	% Cu	% Mo
			60 Mod	50-50	16" 2"	qtz-ser-py (cp) qtz-chl-carb-cp qtz-ser-chl-py-cp	0-100			541	85	10	10947	.40	.011	.12
			60 Mod	550	2'	qtz-ser-py	0-100			548	80					
	dk alt. ie chl-carb enriched zone		60 Mod	560	1/4" 1/4" 6" 12"	chl-carb (cp) qtz-chl (wg) qtz qtz-carb-chl	0-100			554	90	20	10948	.23	.009	.10
			50-70 str + crn.	570	7' 4'	qtz-carb-chl-py ((ms)) zone qtz-chl-carb ((cp))	0-100			563		33	10949	.22	.007	.16
	dk alt. zone		ND	580	2 1/2" 1/4" 1" 2" 1" 1/2" x 1/16" 1/2" x 1/16"	qtz-py qtz-py-cp qtz-cp qtz qtz ((ms)) qtz-chl (cp) x 2 qtz-chl (cp) x 2	0-100			573	95	40	10950	.22	.005	.12
			ND	590	70 x 2 x 80 50 x 3 70 30 80 x 30 x 2	1/10 x 3 qtz-chl-cp x 2 qtz-chl-cp qtz-chl (cp) qtz-chl-cp x 3	0-100			583		47	10876	.20	.006	.20
			ND	600	45 x 80 30 70 50-60 x 5 25 45 x 35	1/10 x 3 1/2" 1/10 1/10 x 5 1/10 chl-carb-cp x 2	0-100			593	95	43	10877	.21	.006	.25

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-42

SHEET No. 10 of 10

ROCK TYPES & ALTERATION			GRAPHIC LOG L to Core Failure Faulting Alteration Footings Structural	YOUNG L to Core Axis	WIDTH OF VEIN	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS					
									LEACH CAP	LIM. ZONE	SUPERGENE			Feet Blot.	Sample Number	% Cu	% Mo	Estimated Grade	
E.O.H. 603'				50% 70	1/8 + 1/10 1/10	qtz-chl-py+xz qtz-chl-cp	0 10 20 30 40 50 60 70 80 90												
S.O.B.							0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300												

.21
2870

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-43
SHEET No. 1 of 8

LOCATION <u>GIBRALTAR EAST</u>	BEARING _____	LATITUDE <u>47°12.53' N</u>	CORE SIZE <u>N.O.W.</u>	LOGGED BY <u>G.D.B.</u>
DATE COLLECTED <u>03 Sep-86</u>	LENGTH <u>505'</u>	DEPARTURE <u>46 362.95 E</u>	SCALE OF LOG <u>1"=10'</u>	DATE <u>Oct 16, 1986</u>
DATE COMPLETED <u>09 Sep-86</u>	DIP <u>-90</u>	ELEVATION <u>3448.19</u>	REMARKS _____	

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG Foliation Alteration Fracture SILICIFICATION	Veins L to Core Alt.	WIDTH of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS						
								LEACH CAP	0			Sample Number	% Cu	% Mo	Estimated Grade			
<u>Casing To 100'</u>																		
<u>MINE PHASE QUARTZ DIORITE (101' - 505')</u>	70 WK		90 to +5 80 to 70 x2	1/4 x 3 1/20 x 3	qtz + 3 qtz-chl-py x 2		<.5		REMARKS no limonite zone	80	37	11476	.05 L.010x	.001		.05		
20-25% qtz 20% chl 50% saxs plag med grn (<1/16" dia) this vt appears higher in chl and lower in qtz than normal.	ND		60 50 80	1/8 1"	qtz-ser-py qtz-chl-carb(py) qtz(cp)		0.5			90	43	11477	.16 1.010x	.009		.05		
in the core of this hole shows a slight and in some places a disseminated log described in boundaries of the core is thick - much of it is suggy and soft - and fract. dissem. by deep are common.	ND		70 x2 70 70 x2 50 45	1/8 x2 6" 1/8 x2 2" 14"	chl-cp x2 qtz-chl-carb qtz+2 chl-qtz qtz-tourmaline (scattered)		<.5			95	33	11478	.02 L.010x	.003	3320	.08		
	80 WK- PART		70 70 90	2" 1/4 2"	qtz-chl(py) qtz-cp qtz-chl-py		0.5			98	50	11479	.11 L.010x	.006		.08		

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-43
SHEET No. 2 of 8

ROCK TYPES & ALTERATION	L to Core Feilites	GRAPHIC LOG	Vains L to Core Axis	Width of Vain	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feilites Biotite %	Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade
	80 Str		80 70 70 x 2 70 60 70 70 70	6° 1/4 1/8 + 1/10 1/4 1/4 6°	qq qtz-cp qtz-chl-carb-py qtz-chl-carb zone qtz qtz-chl-ep (py) zone qtz-ser-py-cp	0 10 20 30 40 50 60 70 80 90	1.5			148	95	50	11480	.16 <.010%	.005	.10
From 110 to 200' the core is variously sheared and crushed with dislocations 'healed' by qtz-chl-ep - dk alth halos are common and pervasive with no clearly defined boundaries	80 Mod		80 x 2 70 x 2 80 80	1/2 + 1/8 1/2" hex z 1/10	qtz-z qtz-cp chl-cpx qtz-chl-ep-py qtz-chl-py	0 10 20 30 40 50 60 70 80 90	0.5		157	90	40	11481	.12 <.010%	.001	.08	
																REMARKS
	80 Wx- Mod		50 60 70 70 x 2 70	1/10 1/2 1/3 1/10 x 2 6°	qtz-chl-py qtz-chl-ep (py) qtz-chl-carb-cp chl-(py) z qtz-chl-ep-carb zone	0 10 20 30 40 50 60 70 80 90	0.5		163 168	90 95	40	11482	.10 <.010%	.002 .12	.10 3275	
																REMARKS
	80 Wx		70 60	1/2 1/3	qtz-chl-py qtz-chl-carb-cp	0 10 20 30 40 50 60 70 80 90	0.5		178	85	43	11483	.16 <.010%	.005	.10	
																REMARKS
	80 Wx		80 80 80 80 70	1/2 3° 50" 2" 24°	qtz qtz-chl-ser(py) qtz-por-p qtz-ser-py(cp) qq-bx	0 10 20 30 40 50 60 70 80 90	1.5		188	98	33	11484	.23 <.010%	.003	.08	
																REMARKS
	80 Mod		80 5 70 5	2" 2" 1/2 10"	qtz-ser-py qtz qtz-chl-carb-py qtz (cp)	0 10 20 30 40 50 60 70 80 90	1.0		195	95	47	11485	.20 <.010%	.007	.08	
																REMARKS

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-43
SHEET No. 3 of 8

ROCK TYPES & ALTERATION			GRAPHIC LOG	Y-axis - To Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE			SILPERGENE	Feeling	Sample Number	% Cu
			7	80 60 70 80 210	10" 1" 1/3 1/8	qtz-chl zone qtz qtz-carb chl-py } gg'y broken core	0 10 20 30 40 50 60 70 80 90	4.5		205 210	90 85	13 11486	.13 L.01%	.002		.05
			70 Mod	90+70 70 80 220	1/10+1/3 1/4 1/8 1/2 1/2	qtz-xz qtz qtz-chl (sp) (cp) qtz-chl (sp) qtz (Mn)-py qtz-carb qtz } dk vuggy core	0 10 20 30 40 50 60 70 80 90	0.5		218	98	33 11487	.14 L.01%	.007	.18 3230	.08
			ND	70+90 80+20+90 80 230	1/4+1/8 1/4x2+1 1/2 2%	qtz-xz qtz-xz qtz qtz-chl-(vug) (cp)	0 10 20 30 40 50 60 70 80 90	40.5		228	98	60 11488	.16 L.01%	.003		.05
			70 Mod	50 20 80 65 70 70 240	1/8 1/4 1 1/2 1 1/2 1 1/2	qtz-ep-py qtz-chl-py (cp) qtz (Mn)-py qtz-ser-py qtz-ser-py qtz-carb-py qtz-carb-cp	0 10 20 30 40 50 60 70 80 90	3.0		238	95	10 11489	.44 L.01%	.009		.15
			ND	3x2 60 60 60 250	1/4+1/2 1/8 1/8 4"	qtz-xz qtz-ep-chl qtz-chl-py qtz-chl (cp)	0 10 20 30 40 50 60 70 80 90	1.0		248	95	23 11490	.27 L.01%	.011		.12
			70 WH	4x 55x2 40+2 70 50 60+3 60+50 260	1/4 1/10x2 1/10x2 8" 1/8 2"-1 1/2" 1/4x2	qtz-chl-py qtz-py-xz qtz-chl-py-xz qtz-ser-py-cp chl-cp qtz-chl-x3 qtz-xz	0 10 20 30 40 50 60 70 80 90	1.0		258	90	50 11491	.31 L.01%	.003	.28	.14 3185

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GIBRALTAR MINES LTD.

HOLE No. 86-43
SHEET No. 4 of 8

ROCK TYPES & ALTERATION			GRAPHIC LOG	Values L to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE	SUPERGENE			Sample Number	% Cu	% Mo	
60 Wk	270	60	35	1/4	qtz-chl(ep) qtz-(Mn)	0	0.5			268	95	47	11492	.15	.003		.08
		60x2	35	1/2 x 1/4	qtz x 2	10											
60 str	280	70	70	1/2	qtz-chl-ser-py(ep) chl-pyxz	0	1.0			278	95	63	11493	.29	.005		.14
		70x2	70	1/4	qtz x 2	10											
60 Wk	290	70	70	1/2 + 1/8	qtz-chl-py x 2	0	1.0			284	90	70	11494	.18	.009		.12
		70	70	12"	qtz-chl-py	10											
60 Wk	300	60	60	2"	qtz-ser-py	0	1.0			284	60	70	11494	.18	.009		.12
		60	60	2"	qtz-ser-py(ep)	10											
60 Wk	310	60	60	1/2	qtz-ser-ep(ar)	0	2.0			298	60	20	11495	.39	.006		.14
		60	60	6"	qtz-chl-ep	10											
60 Mod	315	60	60	1/2	qtz-ser-ep	0	2.0			308	95	57	11496	.22	.004	.25	.14
		60	60	12"	qtz	10											
60 Mod	320	60	60	1/2	qtz-chl-ser	0	1.5			318	90	50	11497	.21	.005		.13
		60	60	1/2	qtz-ser-ep	10											

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-43
SHEET No. 5 of 8

ROCK TYPES & ALTERATION			GRAPHIC LOG	Yield to Core Axis	Width of Yield	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Sample Number	% Cu
			70 Mod	60 60 60x3 70x2	1/3 1/3 1/2 + 1/3 + 2" 1/4 + 2"	qtz qtz-py qtz x 3 qtz x 2	0 10 20 30 40 50 60 70 80 90	0.5		328	85	23	11498	.23 4.01%	.003	.05
	small strong fault zone		?	?	q'	gg (b1) - hem (~ 5' of solid gg)	0 10 20 30 40 50 60 70 80 90	?		336	60	3	11499	.37 4.01%	.003	?
			70 wk	90 80 70	1/4 3" 2" 16"	qtz-ser-py qtz-ser-py qtz-ser-py qtz-ser-py (cp)	0 10 20 30 40 50 60 70 80 90	6.0		345	90	33	11500	.19 4.01%	.010	.12 3.05%
			NO	70 60 60-70 x 3 70 80 x 2	2" 1/3 1/10 1/10 1/10 x 3	qtz-ser-py-cp qtz-chl-cp (Mo) qtz-chl-cp qtz-chl-py x 3 chl-cp qtz-chl-carb (py) x 3	0 10 20 30 40 50 60 70 80 90	1.5		355	95	40	11501	.17 4.01%	.008	.14
			80 Str	70 70 70 80 x 3 70 x 2	5" 8" 6" 1/8 x 3 1/8 x 2	qtz-ser-carb qtz-ser-chl-carb qtz-ser-chl-cp qtz-carb x 3 qtz-carb-py x 2	0 10 20 30 40 50 60 70 80 90	0.5		365	95	33	11502	.22 4.01%	.007	.15
			80 Str	30 + 70 x 2 50 80 80	1/3 + 1/4 + 1 1/2 1/2 8"	qtz x 2 qtz (cp) qtz qtz-chi-ser-py	0 10 20 30 40 50 60 70 80 90	1.5		375	95	57	11503	.18 4.01%	.006	.08

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-43
SHEET No. 6 of 8

ROCK TYPES & ALTERATION			GRAPHIC LOG	Yield L to Core Axis	WIDTH of VEIN	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS			
	L to Core Foliation								LEACH CAP	LIM. ZONE	SUPERGENE			REMARKS	Sample Number	% Cu	% Mo
	80 Mod		10-30 x 4 30 390	1/4 x 4 1/2	99 x 4 qtz-py	99-y broken core due to a 0.5' small fault.	0 10 20 30 40 50 60 70 80 90	0.5			90	13	11504	.12 0.01x	.003	.05	
	?		45 60 5-45 5 400 70 70	1/3 1/2 1/4 x 2 3' 7" 1/16	qtz-carb qtz 99 x 2 99-bx qtz-ser-py-co qtz-chl-co		0 10 20 30 40 50 60 70 80 90	1.0			90	17	11505	.13 0.01x	.001	.17 380	.12
	70 str		40 x 30 50 70 70 410 80	1/4 x 2 1/8 2" 1/16 1/16	qtz qtz-chl qtz-ser-co qtz-chl-py qtz-chl (ep)		0 10 20 30 40 50 60 70 80 90	0.5			95	67	11506	.16 0.01x	.002	.10	
small fault	70 wk		30-60 420	10'	99-bx		0 10 20 30 40 50 60 70 80 90	?			90	0	11507	.06 0.01x	.002	?	
	70 Mod		30 40 5 60 x 10 x 40 70 220 80 x 60 20	1/2 10" 2" 1/4 x 1/2 x 2 1/2	qtz qtz-ser-py (ep) qtz-chl (ug) qtz-z qtz-chl (ep)		0 10 20 30 40 50 60 70 80 90	3.0			90	30	11508	.11 0.01x	.003	.10	
	50		80 x 60 20 10 50 5 40 30 440 30	1/2 x 1/3 3" 1/8 1/4 1/2 1/16 6"	qtz 99-bx qtz-ser-py-co qtz-co (ho) qtz chl (ep) qtz-chl-co		0 10 20 30 40 50 60 70 80 90	1.0			95	47	11509	.08 0.01x	.002	.11 3005	.12

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-43
SHEET No. 7 of 8

ROCK TYPES & ALTERATION	L in Core Feathered	GRAPHIC LOG	Values L in Core Alt	WIDTH of VIA	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feather Depth	Estimate Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade
	80 Wk- Str		80	3'	qtz-ser-carb-pj (cp) zone	0 10 20 30 40 50 60 70 80 90 100	1.0			444	95	43	11510	.15 <.01%	.012	.12
	95- 60 Wk- Mod		60	3"	qtz (cp)	0 10 20 30 40 50 60 70 80 90 100	0.5			454	90	33	11511	.12 <.01%	.004	.08
no well defined Fault - poss. this hole lies near a vert. or steep fault zone - ie subsidiary fract. systems.	70 Wk		60	3"	qtz-cp	0 10 20 30 40 50 60 70 80 90 100	0.5			464	75	10	11512	.20 <.01%	.001	.08
			70	14"	qtz-ser (cp)	0 10 20 30 40 50 60 70 80 90 100				467						
	80 Wk		60	3"	qtz (cp) (pr)	0 10 20 30 40 50 60 70 80 90 100	0.5			477	65	3	11513	.23 <.01%	.014	.10
	ND		70-50	7'	qtz (cp) x2	0 10 20 30 40 50 60 70 80 90 100	0.5			486	75	40	11514	.14 <.01%	.001	.17 .12
	ND		80	1/2	qtz-carb (ch) - cp	0 10 20 30 40 50 60 70 80 90 100	0.5			496	95	27	11515	.30 <.01%	.006	.12
	ND		70	1/2	qtz-chl-carb-cp	0 10 20 30 40 50 60 70 80 90 100	0.5			496	60					
	ND		60	6'	qtz-chl-pj (cp)	0 10 20 30 40 50 60 70 80 90 100	0.5			496	60					
	ND		60	6'	gg-bx	0 10 20 30 40 50 60 70 80 90 100	0.5			496	60					



GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-44
SHEET No. 1 of 8

LOCATION GIBRALTAR EAST BEARING _____ LATITUDE 17399.37 N CORE SIZE N.O.W LOGGED BY G.D.B
DATE COLLECTED 05-Sep-86 LENGTH 508' DEPARTURE 46064.58 E SCALE OF LOG 1"=10' DATE OCT. 14, 1986
DATE COMPLETED 06-Sep-86 DIP -90 ELEVATION 3459.33' REMARKS _____

ROCK TYPES & ALTERATION			GRAPHIC LOG	Vains ∠ to Core Ash	Width of Vain	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS					
									LEACH CAP	ILD	LIM. ZONE			120	SUPERGENE	340 *	Feet/Block	Sample Number	% Cu
Casing To <u>+02' 100'</u>							0												
MINE PHASE QUARTZ DIORITE (102-508)			80 WK	60 Box 2	1/8 1/8 x 2	qtz-lim qtz-lim-zz qtz	0				100 102'								
med grn-si. finer gr'd than normal qtz-35% chl-15-20% sav. plag 45-50% grn size ~ 1/20-1/16 - typical mine phase			70 STR	60 5	1/2 2'	qtz-lim-py qtz-ser-lim	10				90	23	11527	.07	.002		.05		
			80 STR	70	10'	qtz-carb-chl-ser(py) zone		1.0 +1.0% mag.			60	40	11528	.09	.004		.08		
			80 STR	80	10'	qtz-carb-chl-mag (py) zone		1.0 (2.0% Mag)			95	63	11529	.09	.009		.08		

* Not a supergene blanket.

lim. gen. wk.

dx vuggy core

This zone appears as a hard med-pale grey alt'd and sheared zone with

ovoid qtz-carb grains up to 1/2" dia and wispy chl.
chl ~ 20%
carb ~ 30% (antkenite)
qtz ~ 40%
plag ~ 100%

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-44
SHEET No. 2 of 8

ROCK TYPES & ALTERATION		GRAPHIC LOG	Yield to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feeling Direct.	Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE				REMARKS	Sample Number	% Cu	% Mo
70 Mod	150	70	9'	chl-carb (ep) (py) zone (not a strong zone - grades to a typical dk. alth zone)	1.0	0'	146	95	50	11530	.12	.009	.12			
						10'								20'	30'	40'
60 wk- Mod	160	70	1/2	chl (qtz)	.5	0'	156	98	63	11531	.05	.002	.08			
						10'								20'	30'	40'
60- 70 wk	170	70 x 8	1/10 - 1/8 x 8	qtz	1.0	0'	166	95	57	11532	.04	.004	.08			
						10'								20'	30'	40'
70 wk	180	70 x 4	1/10 - 1/8 x 4	qtz-chl-py x 4	0.5	0'	176	98	57	11533	.04	.002	.05			
						10'								20'	30'	40'
70 wk- Mod	190	40	10"	qtz-bx	0.5	0'	186	95	13	11534	.12	.002	.05			
						10'								20'	30'	40'
Small strong fault zone	200	70	1/2	qtz-chl-o; (ep)	0.5	0'	195	80	10	11535	.11	.002	.05			
						10'								20'	30'	40'

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-4A
SHEET No. 4 of 8

ROCK TYPES & ALTERATION			GRAPHIC LOG	Yield % to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS				
									Leach Cap	LIM. ZONE	SUPERGENE			Feet Disc.	Sample Number	% Cu	% Mo	
			70 Wk. Med	60 x 2 60 70 40 70	1" x 2 6" 1/2" 12" 26"	qtz-ser-py-cp x 2 qtz-ser-py-cp qtz-chl-cp qtz-chl-ser-py-cp qtz-chl-carb-py(cp)	0 10 20 30 40 50 60 70 80 90	2.5			268	98	67	11542	.40	.014		.45
			70 Wk	50 60 70+80 50 50 50	2" 1" 2" x 1/4 2" 3" 4"	qtz-ser-chl-py qtz-chl-py qtz x 2 qtz-chl-py qtz-ser-chl-py-cp qtz-ser-chl-py(cp)	0 10 20 30 40 50 60 70 80 90	3.0			278	98	67	11543	.21	.004	.21 3/85	.20
			45-70 Str.	45-70	7 1/2'	qtz-ser-chl-py (cp) zone	0 10 20 30 40 50 60 70 80 90	7.0			288	98	53	11544	.21	.008		.25
			70 Wk	45-55 60 5 x 3 40 x 2 45 x 3 60 60 70	1/2" x 1/2" 1/20-1/10 x 3 1/10 x 2 1/10 x 2 6" 7" 1/2"	qtz-chl-py x 2 qtz-ser-py qtz-chl-carb x 3 qtz-chl-cp x 2 qtz-chl-py (cp) x 2 qtz-chl-py qtz-ser-py-cp qtz-chl-py (cp)	0 10 20 30 40 50 60 70 80 90	2.0			298	90	40	11545	.13	.004		.15
			60 Wk	40 60 50 x 2 60 60 70 60	1/2" 1/8 x 2 6" 3" 8" 10"	qtz-cp qtz-chl-py-cp chl-py-cp x 2 qtz-ser-py (cp) qtz-ser-chl-py-cp (cc) qtz-ser-chl-py qtz-ser-py (cp)	0 10 20 30 40 50 60 70 80 90	5.0			308	95	57	11546	.34	.004		.25
				45 80 45 45 45-60 x 4 60 45 45	1 1/4" 1/2" 2 1/2" 1/10-1/8 x 4 60 45 45	qtz-ser-py-cp (cc) qtz (cp) qtz-chl (vug) qtz-chl (cp) (py) x 4 qtz-chl (cp) qtz-ser-py-cp qtz-ser-py-cp	0 10 20 30 40 50 60 70 80 90	3.5			318	95	40	11547	1.10	.010	.42 3/140	.50

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-44
SHEET No. 5 of 8

ROCK TYPES & ALTERATION			GRAPHIC LOG	Vein ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS				
									LEACH CAP	LIM. ZONE			Sample Number	% Cu	% Mo	Estimated Grade	
				1/2 1/4	2 1/2 x 2 1/2 1/2 x 2 1/2	barren qtz-rich section	0 10 20 30 40 50 60 70 80 90	c.s		32%	90	57	11548	.06	.002		.05
60	WK																
				2" 1/2	1/10 x 3 1/2 1/2 1/2 3" 1"	qtz-chl chl-ep-py qtz-chl-py-ep x 3 qtz-(mag)(ep) qtz-ep-py(cc) qtz-ser-py qtz-car-py(ep) qtz-chl-ep	0 10 20 30 40 50 60 70 80 90	3.0		33%	95	40	11549	.53	.010		.30
60	WK																
				1/4 1/10 1/4 1/4	1/4 x 1/6 1/2 x 3 2"	qtz-ser-py qtz-chl-carb-py(ep) qtz-chl-ep qtz-chl-py-ep chl-ep	0 10 20 30 40 50 60 70 80 90	3.5		34%	95	47	11550	.32	.004		.25
60	WK																
				1/2 1/4 2" 1/2	1/2 x 1" 1/2 x 2 1/2 1/8 1/4 1/8	py-carb(ep) chl-py(ep) qtz x 2 qtz chl-ep qtz-ser-py qtz-chl-py-ep qtz-chl-py	0 10 20 30 40 50 60 70 80 90	3.0		35%	95	40	11551	.13	.009		.15
70	Mod																
				1/3 1/10 2" 1/4 x 2 3/8	chl-py-ep x 2 1/2 x 3 2"	py-carb(ep) chl-py(ep) qtz x 2 qtz chl-ep qtz-ser-py qtz-chl-py-ep qtz-chl-py	0 10 20 30 40 50 60 70 80 90	2.0		36%	95	50	11552	.16	.002	.25 <u>30%</u>	.18
70	WK																
				1/10 2" 1/2	1/2 x 2 1/3 1/2	chl-ep qtz-ser-py-ep qtz qtz-carb(ep) x 2 chl-carb-ep chl(ep)	0 10 20 30 40 50 60 70 80 90	2.0		37%	90	40	11553	.22	.004		.16
70	WK																

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-44
SHEET No. 6 of 8

ROCK TYPES & ALTERATION			GRAPHIC LOG	Vein ∠ to Core Alt.	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PIRITE	BOTTOM DEPTHS		Feather Blotch	Estimated Core Recovery %	R O D	ASSAY RESULTS					
									LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	% Cu	% Mo	
			60 5	6" 12"		qtz-ser.chl-py (cp) gg-bx	0 10 20 30 40 50 60 70 80 90					98							
	70 Wk		60x2 60 70 70x2	1/4 1/8 1/8x3 1/8x2		chl-py x2 qtz-cp chl-py (cp) qtz-chl-py x2		1.5		384		95	30	11554	.15	.006			.12
	70 Mod		80x2 60 70 70	1/2 x 1 1/2 2" 1"		qtz x2 qtz-ser-py qtz-ser-py (cp) qtz-ser-cp	10 20 30 40 50 60 70	1.5		394		98	77	11555	.22	.002			.30
	70 Str.		70+20 60	1/4 x 2 2"		qtz (chl)-py (cp) x2 qtz (cp)	0 10 20 30 40 50 60 70	1.5		404		95	53	11556	.21	.006		.20 3050	.15
	70 Mod		60 60x2 80 60x2 50x3 60 70x80x2 80	3" 1/2 1/2 1/10 x 2 1/5 1/5 x 1/2 x 2 1/2		chl-(cp) qtz-chl-py (cp) qtz-chl-py (cp) x2 qtz-chl-carb-cp qtz-chl-cp x2 qtz-cp x3 qtz-chl-carb-py (cp) qtz x2 qtz-chl-py	0 10 20 30 40 50 60 70 80 90	1.0		414 418		100	50	11557	.14	.009			.30
	70 Mod		70 60-70 x 4 60 70	1/2 1/2 x 4 1" 10"		qtz qtz-chl-py (cp) x4 qtz-chl-py-cp qtz-ser-py	0 10 20 30 40 50 60 70 80 90	3.0		428		95		11558	.11	.006			.12
	70 Wk		60 70 60-70 x 5 60 45	6" 1/0 1/2 x 5 1/8 1/0		qtz-chl-cp qtz-ser-py qtz-chl-py (cp) qtz-chl-py-cp x4 qtz-chl-py-cp qtz-chl-py-cp	0 10 20 30 40 50 60 70 80 90	1.5		438		98		11559	.07	.002			.14

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 84-44
SHEET No. 7 of 8

ROCK TYPES & ALTERATION			L to Core Foliation	GRAPHIC LOG	VIA L to Core Axis	WIDTH OF VIA	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS			
										LEACH CAP	LIM. ZONE	SUPERGENE			Sample Number	% Cu	% Mo	
			60 Mod	450	42 80 50 50 50	1/2 7" 10" 4"	qtz - chl (vug) qtz - chl (vug) qtz-ser-py qtz-ser-py qtz-ser-py	0 10 20 30 40 50 60 70 80	4.0			98	47	11560	.07	.002		.10
			70 Mod- wk	460	60 70 60 80 50 80	1/8 1" 2" 1/2 1/2 1/4	qtz-chl-py qtz-ser-py (cp) qtz-ser-py qtz chl-carb qtz (cp)	0 10 20 30 40 50 60 70 80 90	1.5			90	30	11561	.10	.004	3005	.08
			ND	470	60 70 45 60 x 3 50 50 x 2	3" 7" 3" 1/2 - 1/10 x 3 1/10 1/4 + 1/3	qtz-ser-py qtz-ser-py qtz-ser-py qtz-chl-py x 3 qtz-chl-py	0 10 20 30 40 50 60 70 80 90	4.0			95	70	11562	.09	.002		.08
			ND	480	60 x 2 70 55 60+50 60	1" + 1/10 1/10 3" 1/4 x 2 1/8	qtz-ser-cp x 2 qtz-chl-cp qtz-ser-qtz-cp qtz x 2 qtz-chl-py (cp)	0 10 20 30 40 50 60 70 80 90	2.0			98	53	11563	.08	.002		.18
			ND	490	70 80 x 3 45 50	1" 1/4 x 3 1/8 2"	qtz qtz-chl (py) x 3 qtz-chl-py qtz-chl-ser-py (cp) (mag)	0 10 20 30 40 50 60 70 80 90	1.5			95	40	11564	.16	.004		.4
			ND	500	80 60 x 2 70 50 x 2 70 45 70 x 2	1/2 1/2 + 1/2 1/4 1/2 + 1/4 1" 1/2 1" + 1/4"	qtz-cp qtz x 2 qtz-chl-cp qtz-chl-carb (cp) x 2 qtz qtz-chl-carb-py qtz-chl (vug)	0 10 20 30 40 50 60 70 80 90				98	50	11565	.09	.004		.12

2960

GRID _____

GIBRALTAR MINES LTD.

HOLE No. B6-44
SHEET No. 8 of 8

ROCK TYPES & ALTERATION			GRAPHIC LOG				WIDTH of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS			
			∠ to Core	∠ to Core	∠ to Core	∠ to Core					Leach Cap	LIM. ZONE	SUPERGENE			Feet	Diag.	Sample Number	% Cu
F.O.H. 508 B.D.B.	70 WK	[Vertical lines]	[Vertical lines]	[Vertical lines]	[Vertical lines]	8"	qtz-chl-py (cp) qtz-chl-ser-py qtz qtz-chl-(cp) qtz-ser-py	0	1.5				95		11566	.21	.002	14	
						10													
						20													
						30													
						40													
						50													
						60													
						70													
						80													
						90													
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90																			

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-45
SHEET No. 1 of 7

LOCATION <u>GIBRALTAR EAST</u>	BEARING _____	LATITUDE <u>47224.93 N</u>	CORE SIZE <u>N.Q.W.</u>	LOGGED BY <u>G.D.B.</u>
DATE COLLECTED <u>06-Sep-86</u>	LENGTH <u>507'</u>	DEPARTURE <u>45883.06 E</u>	SCALE OF LOG <u>1" = 10'</u>	DATE <u>OCT 17, 1986</u>
DATE COMPLETED <u>07-Sep-86</u>	DIP <u>-90°</u>	ELEVATION <u>3465.45'</u>	REMARKS _____	

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG	Veins L to Core Alt.	WIDEN OF Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS						
								LEACH CAP	LIM. ZONE			Sample Number	% Cu	% Mo		Estimated Grade		
Casing To 128'																		
MINE PHASE QUARTZ DIORITE (128-507')	80 Mod	130	60+70	1/4x2	qtz-chl (cp) x 2					70	60	11426	.08	.002			05	
- typical Mine Phase ~ 30% qtz ~ 20% chl. 45% sand diag. med. grn - aug. grn size 1/16 - 1/8"	80 wk	140	5x3	1"	qtz-ser-py		1.0			90								
This core doesn't appear as variscosity alt'd, oxidized and cracked as 86-43 and 86-44.	80 wk- Mod.	150	45 60 80	1" 3"	qtz-chl (aug) qtz-ser-chl (py) (cp)		0.5			95	30	11427	.12	.002		.10	.12	
	80 wk- Mod.	160	5x2 90x2	1/2x2 1/2x2	qtz-ser-py-cp hem-agg x 2		0.5			98	33	11428	.15	.002		3320	.12	
	80 wk	170	60x3 90 70x3 60 58 70 70x2 80x3	1/2-1/16x3 1/4 1/2x3 1/8 1/2 1/2-1/16 1/2x2-1/16	qtz-chl-py x 2 qtz-cp qtz-chl-py x 3 qtz-chl-py qtz-ser-py-cp qtz-ser-py (cp) qtz-ser-chl-py x 2 qtz-ser-chl-py (cp) x 3		2.0			95	60	11429	.14	.004			.14	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-15
SHEET No. 2 of 7

ROCK TYPES & ALTERATION			GRAPHIC LOG	Values - to Core Alt	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS				
									LEACH CAP	LIM. ZONE	SUPERGENE			Feet	Sample Number	% Cu	% Mo	
			Bo Mod.	10 20 30 40 50 60 70 80 90 100	1/4" 1/2" 2"	qtz-chl-py-cp qtz qtz-ser-py (cp) qtz-cp-chl-carb (py)	0 10 20 30 40 50 60 70 80 90	1.0			177	95	73	11430	.11 2.01%	.002	.10	
			Bo str. Mod.	80 90 100	1/2" 2 1/2" 1 1/2"	qtz-chl-py qtz-ser-chl (py) zone qtz-chl (ser) (py) (cp) zone	0 10 20 30 40 50 60 70 80 90	1.0			187	95	63	11431	.10 2.01%	.004	.10	
			70 Str. Wk.	60 70 80 90 100	2" 6"	qtz qtz-ser-py (cp)	0 10 20 30 40 50 60 70 80 90	1.5			196	90	67	11432	.10 2.01%	.004	.13 3275	.08
		Small fault	?	200 210	6" 3" 1" 10"	qtz-ser-py-cp qs-hem-bx qq qq qq-hem-bx	0 10 20 30 40 50 60 70 80 90	?			206	95	13	11433	.15 2.01%	.006	.05	
			Bo Mod	70 80 90 100	2" 1/2" 1/10 1/10 1/3	qq qq-hem qq qtz	0 10 20 30 40 50 60 70 80 90	<0.5			215	90	30	11434	.08 2.01%	.002	.05	
		Finer grade re type 100"-1/2" dia gras - ~ 60% calc plag ~ 20% chl and ~ 20% interstitial qtz.	60- 70 str. Mod	60 70 80 90 100	2" 2" 2" 5" 3"	qtz-ser-chl-py qtz-chl (veg) qtz-ser-cp qtz-chl (veg) qtz-ser-chl-py-cp	0 10 20 30 40 50 60 70 80 90	1.0			225	95	67	11435	.10 2.01%	.002	.08	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-45
SHEET No. 3 of 7

ROCK TYPES & ALTERATION			GRAPHIC LOG	Values ∠ to Core Alt	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS				
									LEACH CAP	LIM. ZONE	SUPERGENE			REMARKS	Sample Number	% Cu	% Mo	
70 str Mof	240	70	80	2"	1/10 x 3	qtz-ser-py-ep	01	1.0			235	98	57	11436	.21	.002	.13	.10
			90	4"		qtz-chl-py x 3	10											
5- 80 Str	250	5-80	5-80	10'		qtz-ser-chl-carb-py-ep zone	10	2.0			245	90	30	11437	.112	.002		.50
			60	30-80	3'	qtz-chl-ser-py (ep) zone	0											
70 str	260	70	80	6"	1/4 x 3	qtz-car-py-ep	30	3.0			255	95	77	11438	.20	.002		.15
			80x3	10"	qtz x 2	40	50											
70 str	270	70	60x3+40	3"	1/4 x 3 + 1/2	qtz-ser-py	30	0.5			265	90	80	11439	.07	.002		.08
			70	12"	qtz-chl-ep	40	50											
60- 70 str	280	60-70	60	8"	1/10 x 3	qtz-ser-py	0	3.0			275	95	60	11440	.15	.008		.12
			60x3	1/10	qtz-chl-py x 2	10	20											
70- 20 str	290	70-20	70x2	1/8	1/2 x 3"	qtz-ep	40	2.5			283	98	37	11441	.10	.002	.35	.10
			60	2"	qtz-ser-ep-py (ep) zone	50	60											
			?	12"		qtz	60				288							
			20x2	1/2 x 2		qtz x 2	70				290	95						

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GIBRALTAR MINES LTD.

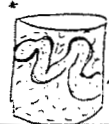
HOLE No. 86-45
SHEET No. 4 of 7

ROCK TYPES & ALTERATION			GRAPHIC LOG	Yield L to Core Axis	Width of Vial	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Feeling Directly	Sample Number
Notes the small faults and broken core from 300 to 370' may represent a single fault system	60 Mod	300	60	2"	qtz-cp	0'	1.0	90	47	11442	.11	.002	.08			
			45	1/8	qtz-chl-py (cp)	10'								30	70	70
small strong fault	30- 60 Mod	310	30	7'	gg-bx (+ 4' core lost)	10'	0.5	30	10	11443	.12	.008	.05			
			60	2"	qtz-chl-cp (pr)	20'								30	40	50
small fault	45- 70 Mod	320	45	1/4"	qtz	0'	0.5	100	10	11444	.11	.002	.14			
			70	2"	qtz-ser (pr)	10'								20	30	40
small fault	45 Mod	330	45	5'	gg-bx	0'	0.5	95	40	11445	.10	.002	.10			
			50	12"	qtz-ser	10'								20	30	40
small fault.	50 Mod	240	50	1/20 x 3	qtz-chl-py x 3	0'	1.0	90	17	11446	.14	.002	.08			
			80	6"	qtz-gg	10'								20	30	40
small fault.	?	350	80	1/4"	qtz-chl-cp	0'	?	80	10	11447	.07	.002	?			
			85	3"	qtz-chl-py	10'								20	30	40

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GIBRALTAR MINES LTD.

HOLE No. 86-45
SHEET No. 5 of 7

ROCK TYPES & ALTERATION	L to Core Foliation Alteration Faulting Strat. Lvl	GRAPHIC LOG	Veins L to Core ALT	WIDEN of VEIN	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimate Core Recovery %	R O D	ASSAY RESULTS				
								LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Sample Number	% Cu	% Mo
	60 Mod	360	50 x 3 70 45160 70 26	1/8 x 3 1/8 1/8 x 3 1/4 1/4	qtz-chl-py x 2 qtz (cp) qtz-chl-carb-py qtz (cp) qtz	dk vuggy core	0.5			95	33	11448	.04 L.O.I.x	.002	.08	
Small fault	?	370		q'	gg-bx (+ 6' of core lat)		?			50	7	11449	.08 L.O.I.x	.004	?	
	45- 80 Mod	380	50 x 70 80 x 70 60	1" x 2 1/2 x 1 1/2 1'	qtz x 2 qtz x 2 qtz-chl-ser zone*		<0.5			85	40	11450	.08 L.O.I.x	.002	.08 3095	.05
	60 Mod	390	60 70 80 80 x 70	1/8 2" 2" 1/2 x 2"	qtz-chl-ep qtz qtz x 2		<0.5			95	27	11451	.05 L.O.I.x	.002	.08	
	60 Str.	400	60 x 2 60 60 60 40 60 x 2	1/10 x 2 1/10 6" 1/20 1/2 1/10 x 2	qtz-chl-py qtz-chl-py qtz-ser-ep (cp) zone chl-ep qtz-chl-carb-py-(cp) qtz-chl-py-ep x 2		1.5			95	27	11452	.11 L.O.I.x	.001	.10	
	45- 50 Str	410	45 45 80 80	35" 12" 1/2 6"	qtz-ser-chl-py (cp) qtz-carb-chl qtz qtz-chl (vsg)	dk carb- chl. xit'd core	2.0			85	40	11453	.19 L.O.I.x	.006	.10	

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GIBRALTAR MINES LTD.

HOLE No. 86-45
SHEET No. 6 of 7

ROCK TYPES & ALTERATION			L to Core Foliation Alteration Feilage SILICIFICATION	GRAPHIC LOG	Veins L to Core Allt	Width of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTNS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
										LEACH CAP	LIM. ZONE			Feilage Discont.	Sample Number	% Cu	% Mo
			70-80 Mod	420	80x3 80 60x2 60	1/20-1/10x3 2" 3/4 1/4x2 4"	qtz-carb-chl-py (G) x 3 qtz-chl qtz qtz x 2 qtz-ser	0 10 20 30 40 50 60 70 80 90	<0.5		95	43	11454	.14 L.O.I.F.	.002 .12 3050		.05
			70 WK	430	80 60 60 30 80x30x90 50	1/4 1" 4" 8" 1/2x3x2 30"	qtz qtz qtz qtz-chl (vug) qtz x 3 qtz-ser-ep-py	0 10 20 30 40 50 60 70 80 90	1.0		90	43	11455	.36 L.O.I.F.	.001		.25
			60-70 Str	440	80x2 60 30 45 50x2	1/10x2 1/10 1/4 6" 1/3 - 1/10	qtz-chl-carb-ep x 3 qtz-chl-ep qtz-carb-chl-ep qtz-ser-py qtz-carb-ep x 2	0 10 20 30 40 50 60 70 80 90	2.0		90	33	11456	.22 L.O.I.F.	.002		.25
			50-60 Str	450	50 60 60	3' 10" 16"	qtz-ser-chl-py (ep) qtz-chl-carb qtz porp.	0 10 20 30 40 50 60 70 80 90	1.0		90	47	11457	.10 L.O.I.F.	.001		.10
			60 WK	460	60 70 70 60	1/10 2" 1/2 1/4	qtz-chl-py qtz qtz qtz-carb-ch	0 10 20 30 40 50 60 70 80 90	<0.5		95	60	11458	.07 L.O.I.F.	.001		.05
				470	50 35 40 5 60 60 70	1/2 1/10 1/8 1/10 30"	qtz qtz-chl-ep qtz-carb-chl-py qtz qtz-ep-chl qtz v.s	0 10 20 30 40 50 60 70 80 90	<0.5		95	47	11459	.12 L.O.I.F.	.007 3005	.18	.05

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-46
SHEET No. 1 of 8

LOCATION Gib-East Sand BEARING _____ LATITUDE 49 009.71N CORE SIZE N.G. wireline LOGGED BY MRT
DATE COLLECTED 7-Sep-86 LENGTH 505' DEPARTURE 45860.38E SCALE OF LOG 1"=10' DATE 02-03 Oct-86
DATE COMPLETED 9-Sep-86 DIP -90° ELEVATION 3382.36' REMARKS _____

ROCK TYPES & ALTERATION	L to Core Foliation Alteration Feet Strike	GRAPHIC LOG	Vains L to Core Alt	WIDEN OF VAIN	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Foliation Dip	Estimated Core Recovery %	R O D	ASSAY RESULTS					
								LEACH CAP	117'				Sample Number	% Cu	% Mo	Estimated Grade		
								LIM. ZONE	160'								SULPERENE	-
<u>Cased to 50'</u>																		
<u>Mine Phase QD. 50-93 -wk to Mod Saps Alt -f. to med. grd -subhedral to subhedral -wk to mod fol.</u>	45-60° wk to Mod	50 30° 60x3 60x4 30° 60x3 60x2 60°	1/16 1/16x3 1/8x4 1/10 1/4x3 1/20x2 1/20		gtz-chl-lim gtz-chl. ep x3 gtz-ep-chl x4 gtz-chl-lim-MnO2 lim-MnO2 x3 gtz-ep-chl-lim x2 gtz-ep-lim-MnO2		0%			50	50							
	75° wk to Mod.	60 150° 16° 120° 130x3 110° 130°	1/4 1/4x10 1/6 1/20 1/4x3 1/8 1/4		gtz-chl-lim-MnO2 lim x10 gtz-chl. ep-lim gtz-chl-lim lim-MnO2 x3 gtz-chl gtz-chl-ep-lim		0%			58	60							
<u>75-79 Apparatus a (DK. Alt. Zone)</u>	45-60° wk to Mod.	70 110° 140° 70° 45° 60° 60° 80°	1/16 1/4 1/4 1/10 1/8 1/10 1/16 1/20x3 1/4		gtz-chl-lim gtz-chl-ep-lim gtz-ep-chl gtz-chl-lim-MnO2-lim gtz-chl-MnO2 lim x3 gtz-chl-lim lim x2 gtz-ep-lim-vug lim gtz-chl-ep-lim gtz-chl-lim gtz-chl		0%			78	70							
	60° wk to Mod.	80 110° 60x2 130° 60° 130° 135° 130°	1/4x2 1/4 1 1/20 1/16 1/20 1/4		lim x3 gtz-chl-lim lim x2 gtz-ep-lim-vug lim gtz-chl-ep-lim gtz-chl-lim gtz-chl		0%			88	80							

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GIBRALTAR MINES LTD.

HOLE No. 86-46
SHEET No. 2 of 8

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG Alteration Percentage	Values L to Core Alt.	Width of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Sample Number	% Cu
93-144 Core is still the same composition but appear somewhat more alt. - subalt. esp. more zones of dk alt.	15° NW to WK	100	30x3	1/3x3	gtz. chl. ep x3	0	0%		98	90%	78%	11680	.02	.001	.01%
			15x3	1/3x3	gtz. chl. ep x3	10									
			45x2	1/16x2	gtz. chl. ep x2	20									
			70°	1/16	MnO ₂ -lim	30									
			50	1/20	gtz. chl.	40									
			15°	1/16	gtz. chl. - vug.	50									
			70x5	1/16x5	MnO ₂ -x5	60									
			145°	1/2	gtz. chl. - ser. MnO ₂	70									
			160	1/4	gtz. chl. - ep	80									
			105	1/4	gtz. chl. - lim. MnO ₂	90									
Var. to -W Mod	95° NW to Mod	110	105	1/4	gtz. chl. - ep	0	0%	* H 1/2	108	99%	72%	11681	.02	.001	.01%
			85	1/4	gtz. ep - chl	10									
			125	1/20	gtz. chl. - vug. - lim	20									
			85	1/20	gtz. chl. - vug.	30									
			70	1/20	gtz. chl. - li. sh	40									
			130	1/2	gtz. chl. - ser.	50									
			130	1/2	Crystallized gtz. chl. - ep. v.	60									
			160	1/4	gg. - friable case	70									
			130x3	3	chl. - ep. - vug.	80									
			145	1/8x3	gtz. chl. - py - lim	90									
60° WK	120	150	145	1/8	gtz. chl. - lim	0	.2%	-1st Sulphides @ 117'	118	102%	75%	11682	.12	.001	.01%
			150	1/10	gtz. chl. - lim MnO ₂ -py	10									
			120	1/16	lim	20									
			140	1/16	gtz. chl. - lim	30									
			60	1/2	gtz. vug. - vug.	40									
			130	1/100	gtz. chl. - lim - py - Lep. - cc	50									
			1450	1/6	gtz. - py - chl	60									
			15	1/20	gtz. - py - chl	70									
			160	1/10	gtz. - chl. - lim	80									
			144-134 Stronger Saus Alt coarser grain	130	140	145x2									
130	1/2	gtz. chl. - lim				10									
30x3	1/16x3	gtz. chl. - lim				20									
30x2	1/16x2	gtz. chl. - vug. x2				30									
120°	1/8	gtz. chl. - ep - MnO ₂				40									
80°	1/10	gtz. vug. - vug. - lim				50									
120°	1/8	gtz. chl. - lim				60									
130	1/20	gtz. chl. - lim				70									
130	1/20	gtz. chl. - lim				80									
130	1/20	gtz. chl. - lim				90									
144-134 Stronger Saus Alt coarser grain	140	150	130	1/20	gtz. chl. - lim	0	.3%		138	103%	72%	11624	.03	.001	.01%
			130	1/20	gtz. chl. - lim	10									
			130	1/20	gtz. chl. - lim	20									
			130	1/20	gtz. chl. - lim	30									
			130	1/20	gtz. chl. - lim	40									
			130	1/20	gtz. chl. - lim	50									
			130	1/20	gtz. chl. - lim	60									
			130	1/20	gtz. chl. - lim	70									
			130	1/20	gtz. chl. - lim	80									
			130	1/20	gtz. chl. - lim	90									
144-134 Stronger Saus Alt coarser grain	140	150	130	1/20	gtz. chl. - lim	0	0%		148	95%	71%	11685	.04	.001	.01%
			130	1/20	gtz. chl. - lim	10									
			130	1/20	gtz. chl. - lim	20									
			130	1/20	gtz. chl. - lim	30									
			130	1/20	gtz. chl. - lim	40									
			130	1/20	gtz. chl. - lim	50									
			130	1/20	gtz. chl. - lim	60									
			130	1/20	gtz. chl. - lim	70									
			130	1/20	gtz. chl. - lim	80									
			130	1/20	gtz. chl. - lim	90									

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GIBRALTAR MINES LTD.

HOLE No. 86-46
SHEET No. 3 of 8

ROCK TYPES & ALTERATION	L to Core Foliation Alteration Faulting	GRAPHIC LOG Foliation Alteration Faulting	Values L to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE	SUPERGENE			Sample Number	% Cu	% Mo	
152-175' Same as 93-144.	45-60 wk to Mod.	160	30	1/8	qtz-chl-ep	0	.68	156	90%	35%	11686	.07	.001	.02%		
			50	1/20	qtz-chl-ep-py											
			60	1/2	qtz-chl-ep-py											
			70	1/2	ep-hem-llh											
			80	1/20 X2	Sericitic gg + lim											
			90	1/4	chl.											
			100	1"	Broken-gangue core lim											
			110													
			120													
			130													
45-60 wk to Mod.	170	165	15 X2	1/2 X2	Sericitic gg. X2	0	0%	165	80%	160	11687	.04	.001	.01%		
			20	1/2	hem											
			30	1/2	Rubble-gg											
			40	1/2	Rubble tag											
			50	1/20	qtz-chl-vvpy											
			60	1/2	qtz-chl-vvpy											
			70													
			80													
			90													
			100													
- a few zones of Cse gr. core & some fig. dyke? etc	60 wk to Mod.	180	170	1/2	qtz-chl-ep	0	0%	174	75%	170	11688	.10	.001	.03%		
			180	1/16	qtz-chl-ep											
			190	1/2	qtz-chl-ep											
			200	1/2	qtz-chl-ep											
			210	1/2	qtz-chl-ep											
			220	1/2	qtz-chl-ep											
			230	1/2	qtz-chl-ep											
			240	1/2	qtz-chl-ep											
			250	1/2	qtz-chl-ep											
			260	1/2	qtz-chl-ep											
182- Same as 93-144 - 30-35% qtz.	45-60 wk to Mod.	190	150	1/2	qtz-chl-ep	0	.3%	190	90%	59%	11689	.04	.001	.02%		
			160	1/2	qtz-chl-ep											
			170	1/2	qtz-chl-ep											
			180	1/2	qtz-chl-ep											
			190	1/2	qtz-chl-ep											
			200	1/2	qtz-chl-ep											
			210	1/2	qtz-chl-ep											
			220	1/2	qtz-chl-ep											
			230	1/2	qtz-chl-ep											
			240	1/2	qtz-chl-ep											
45-60 wk to Mod.	200	198	120 X2	1/4 X2	qtz-chl-ep X2	0	.3%	198	80%	70%	11690	.05	.001	.02%		
			145	1/20	qtz-chl-ep											
			160 X2	1/20 X2	qtz-chl-ep											
			170	1/2	qtz-chl-ep											
			180	1/2	qtz-chl-ep											
			190	1/2	qtz-chl-ep											
			200	1/2	qtz-chl-ep											
			210	1/2	qtz-chl-ep											
			220	1/2	qtz-chl-ep											
			230	1/2	qtz-chl-ep											
50-60 Mod to Str.	210	208	170	1"	qtz-chl-ep	0	.3%	208	98%	77%	11691	.09	.002	.02%		
			180	1/10	qtz-chl-ep											
			190	1/10	qtz-chl-ep											
			200	1/10	qtz-chl-ep											
			210	1/10	qtz-chl-ep											
			220	1/10	qtz-chl-ep											
			230	1/10	qtz-chl-ep											
			240	1/10	qtz-chl-ep											
			250	1/10	qtz-chl-ep											
			260	1/10	qtz-chl-ep											

Driller's Note:
Last circulation @ 186'
Had to mud up to
stabilize hole

These zones are Kyanite
etc.

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GIBRALTAR MINES LTD.

HOLE No. 86-46
SHEET No. 4 of 8

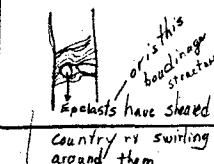
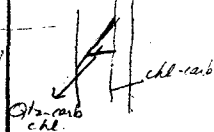
ROCK TYPES & ALTERATION	L to Core Foliation Relict Alteration Feet Structure	GRAPHIC LOG Vein to Core to Core Alt.	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS																																																																														
							LEACH CAP	LIM. ZONE			Percentage Blended	Sample Number	% Cu	% Mo	Estimated Grade																																																																										
60-70° WK.	85 145 30x2 80 40° 20' + 60° 120 200	116 113 1/20 + 1/8 1/3 1/16 x 3 1/16 1/16 x 3	116 113 1/20 + 1/8 1/3 1/16 x 3 1/16 1/16 x 3	Chl-Vn. Gr-Vn. dl. su. cp-mo qtz-dl. vup. ll mal qtz Vn shows bounding str. lin-smal x 3 gr-mal-dl-pj qtz-dl-gab-cp x 3	0 10 20 30 40 50 60 70 80 90 100	.3%		218	98%	88%	11692	.08 .020x	.001	.08% exh.																																																																											
															60-70° WK.	145 160x2 170 170 170 170 170 170 170 170 230	1110 1112 1/20 x 2 1/20 1/20 1/20 1/20 1/20 1/20 1/20 1/20	1110 1112 1/20 x 2 1/20 1/20 1/20 1/20 1/20 1/20 1/20 1/20	qtz-dl (pr-cp-carb) qtz-cht-qtz F.g. dioritic dyke qtz-chl-cp qtz-dl-carb-lin-py-qp qtz-chi-qp qtz-carb-py-bear	0 10 20 30 40 50 60 70 80 90 100	.3%	-Native cu noted when core broken open.	228	100%	75%	11693	.08 .020x	.003	.11%																																																												
																														70° WK.	170 170 170 170 170 170 170 170 170 170 240	1111 1/20 x 2 1/20 1/20 1/20 1/20 1/20 1/20 1/20 1/20 1/20	1111 1/20 x 2 1/20 1/20 1/20 1/20 1/20 1/20 1/20 1/20 1/20	qtz-dl-ed-hem qtz-dl-py-lin. (lim) hem-mal. qtz-dl-py-py x 2 qtz-dl-cp. qtz-dl-lim-py-mal qtz-dl-lim	0 10 20 30 40 50 60 70 80 90 100	.3%		238	99%	66%	11694	.10 .030x	.004	.05% K.Ox.																																													
																																													ND	170x2 180x2 170x4 130 180 170 170 250	1112 1/20 x 2 1/16 x 3 1/16 1/10 1/16 1/4	1112 1/20 x 2 1/16 x 3 1/16 1/10 1/16 1/4	1112 1/20 x 2 1/16 x 3 1/16 1/10 1/16 1/4	0 10 20 30 40 50 60 70 80 90 100	.4%		248	107%	60%	11695	.09 .020x	.002	.04%																														
																																																												ND	170 170 170 170 170 170 170 170 170 170 260	1113 1/20 x 2 1/16 x 2 1/2 1/2 x 2 1/2 x 2 1/2 x 2 1/2 x 2 1/2 x 2 1/2 x 2 1/2 x 2	1113 1/20 x 2 1/16 x 2 1/2 1/2 x 2 1/2 x 2 1/2 x 2 1/2 x 2 1/2 x 2 1/2 x 2 1/2 x 2	1113 1/20 x 2 1/16 x 2 1/2 1/2 x 2 1/2 x 2 1/2 x 2 1/2 x 2 1/2 x 2 1/2 x 2 1/2 x 2	0 10 20 30 40 50 60 70 80 90 100	.5%	Lots of chloritic vms. ↓	258	106%	80%	11696	.12 L.O.I x	.002	.13%															
																																																																											70° WK.	145 160 170 170x2 170x2 170x2 170x2 170x2 170x2 170x2 270	1114 1/10 1/10 1/20 x 2 1/20 x 2 1/20 x 2 1/20 x 2 1/20 x 2 1/20 x 2 1/20 x 2 1/20 x 2	1114 1/10 1/10 1/20 x 2 1/20 x 2 1/20 x 2 1/20 x 2 1/20 x 2 1/20 x 2 1/20 x 2 1/20 x 2	1114 1/10 1/10 1/20 x 2 1/20 x 2 1/20 x 2 1/20 x 2 1/20 x 2 1/20 x 2 1/20 x 2 1/20 x 2	0 10 20 30 40 50 60 70 80 90 100	.7%	E Face of carb. Driller's note: 248-128-V. hard ground	268	103%	61%	11697	.10 L.O.I x	.00	.1%

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-46
SHEET No. 5 of 8

ROCK TYPES & ALTERATION		L to Core Collection Footage	GRAPHIC LOG Scale Feet	Values L to Core Alt	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS																																																																																																																										
									LEACH CAP	LIM. ZONE			Sample Number	% Cu	% Mo	Estimated Grade																																																																																																																							
267-322 WK Saus Alt & ad w/ lots of chl slugs in places - grades in Saus of a gte- chl-carb-sulf-shear in places	70 30 WK	280	80 90 70 70 80 80 80 80 80 80	1/2 1/2 1/4 1/2 x 2 6 1/16 1/2	1/2 1/2 1/4 1/2 x 2 6 1/16 1/2	qtz-chl-ep qtz carb- chl qtz chl-carb-ep qtz chl-carb-ep gg-rust-ble qtz chl-ep qtz chl-ep	0 0 0 0 0 0 0 0 0 0	4%	276	100%	44%	11698	.15	.005	.10%																																																																																																																								
																80 mod	290	80 80 70 x 5 30 80 x 2 80 x 3 60 80 x 2	1/10 x 3 2 1/20 x 5 3/4 1/4 x 2 1/20 x 5 1/4	1/10 x 3 2 1/20 x 5 3/4 1/4 x 2 1/20 x 5 1/4	qtz-sulf-py-ep qtz-sulf-py-ep qtz-chl-ep x 5 qtz Vn-boudinaged + x-cut qtz chl-carb-ep qtz chl-ep x 3 qtz Vn-sulf-ep-boudinaged	0 0 0 0 0 0 0 0 0	6%	286	106%	89%	11699	.11	.002	.14%																																																																																																									
																															80 WK to Mod	300	80 60 45 45 60 75 80	1/4 1/4 1/3 1/20 x 4 1/2 1/2 1/2	1/4 1/4 1/3 1/20 x 4 1/2 1/2 1/2	qtz-chl-ep qtz chl-carb-mag-ep qtz chl-carb-py-ep qtz chl-py-ep x 4 qtz chl-ep qtz Vn-carb qtz chl-carb-ep	0 0 0 0 0 0 0 0	1%	296	97%	78%	11700	.10	.002	.16%																																																																																										
																																														70 mod	310	60 70 70 x 2 130 130 80 80	1/10 1/8 1/2 1/16 1/2 1/2	1/10 1/8 1/2 1/16 1/2 1/2	qtz-chl-ep qtz chl-carb-ep qtz chl-py-ep x 2 qtz chl-carb-ep qtz chl-carb-ep qtz chl-ep	0 0 0 0 0 0 0	2%	307	96%	62%	11701	.21	.014	.17%																																																																											
																																																													60 Mod	320	70 60 60 70 70 70 70	1/2 1/2 1/2 1/2 1/2 1/2 1/2	1/2 1/2 1/2 1/2 1/2 1/2 1/2	qtz-chl-ep qtz chl-ep qtz chl-ep qtz chl-ep qtz chl-ep qtz chl-ep qtz chl-ep	0 0 0 0 0 0 0	2%	317	103%	68%	11702	.37	.007	.22%																																																												
																																																																												85 Str	330	160 80 70 85 x 2 70	1/2 1/2 1/2 1/4 x 2 1/16	1/2 1/2 1/2 1/4 x 2 1/16	qtz-chl-ep qtz chl-ep qtz chl-ep qtz chl-ep qtz chl-ep	0 0 0 0 0	5%	324	93%	52%	11703	.31	.002	.36%																																													
																																																																																											85 Str	330	160 80 70 85 x 2 70	1/2 1/2 1/2 1/4 x 2 1/16	1/2 1/2 1/2 1/4 x 2 1/16	qtz-chl-ep qtz chl-ep qtz chl-ep qtz chl-ep qtz chl-ep	0 0 0 0 0	5%	324	98%	52%	11703	.31	.002	.36%																														
																																																																																																										85 Str	330	160 80 70 85 x 2 70	1/2 1/2 1/2 1/4 x 2 1/16	1/2 1/2 1/2 1/4 x 2 1/16	qtz-chl-ep qtz chl-ep qtz chl-ep qtz chl-ep qtz chl-ep	0 0 0 0 0	5%	324	98%	52%	11703	.31	.002	.36%															
																																																																																																																									85 Str	330	160 80 70 85 x 2 70	1/2 1/2 1/2 1/4 x 2 1/16	1/2 1/2 1/2 1/4 x 2 1/16	qtz-chl-ep qtz chl-ep qtz chl-ep qtz chl-ep qtz chl-ep	0 0 0 0 0	5%	324	98%	52%	11703	.31	.002	.36%



This core has a good strong background in the chl. grains & some red ch.

GRID

GIBRALTAR MINES LTD.

HOLE No. 86-46
SHEET No. 6 of 8

ROCK TYPES & ALTERATION		L to Core Foliation	GRAPHIC LOG	Veins L to Core Alt	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE	SUPERGENE			REMARKS	Sample Number	% Cu	% Mo
		85°	335-346	85 X 20 10 x 2 70 70 30	1/4 x 2 1/4 1/4 1/4	Stz Vn - chl-carb-ep chl-ep X 20 Stz chl-ep Stz chl-carb-py-ep Stz chl-carb-ep Stz chl-carb-ep	0 10 20 30 40 50 60 70 80 90	.7%			93%	33%	11704	.14 2.010x	.003	.30%	
	DK Alt to WK Same Alt - a disjunct altered a pyrite - ep 346-369 Saus Alt'd qd	60° WK		160 115 x 3 80 x 15 120 150 130 125 140	1/4 x 3 1/10 x 2 1/16 1/8 1/8 1/4 1/2	Stz Vn - chl-carb-ep carb Stz chl-carb-ep Stz chl-ep Stz Vn - chl-ep Stz chl-ep Stz chl-ep Stz chl-ep	0 10 20 30 40 50 60 70 80 90	.4%			92%	56%	11705	.05 2.010x	.002	.25%	
	Med to coarse gr N25 qtz	ND		70 160 x 2 145 180 195 150 x 2 145	1 1 + 1/2 1/20 1/20 1/12 1/10 x 2 1	Stz Vn - chl-carb-ep Stz chl-carb-ep Stz chl-ep Stz chl-ep Stz chl-ep Stz chl-ep Stz chl-ep	0 10 20 30 40 50 60 70 80 90	.1%			110%	77%	11706	.09 2.010x	.001	.2%	
		ND to 90° WK		80 120 70 80 50 80 80	1/2 1/8 2 10 1/20 1 1/4	Stz Vn - chl-carb-ep Stz chl-ep Stz chl-ep Stz chl-ep Stz chl-ep Stz chl-ep Stz chl-ep	0 10 20 30 40 50 60 70 80 90	2%			94%	70%	11707	.18 2.010x	.001	.17%	
	F. gr. Q. Dis - Saus Alt'd - essential ep 375-405 Same as 346-369	ND		145 140 130 145 130 x 3 120	1/20 3/4 1/2 1 1/20 x 2 1/2	Stz Vn - chl-carb-ep Stz Vn - chl-carb-ep Stz Vn - chl-carb-ep Stz Vn - chl-carb-ep Stz Vn - chl-carb-ep Stz Vn - chl-carb-ep	0 10 20 30 40 50 60 70 80 90	.6%			100%	81%	11708	.05 2.010x	.001	.12%	
	- in the same qtz. in Saus - a Saus zone of alt - a faulting envelope on qtz Vn.	ND		80 80 x 2 145 145 x 2 160 130 130	1/2 1/2 x 2 1/20 1/20 x 2 1 1 1/8	Stz Vn - chl-carb-ep Stz chl-ep Stz chl-ep Stz chl-ep Stz chl-ep Stz chl-ep Stz chl-ep	0 10 20 30 40 50 60 70 80 90	0%			100%	62%	11709	.07 2.010x	.003	.15%	

GRID

GIBRALTAR MINES LTD.

HOLE No. 86-46
SHEET No. 7 of 8

ROCK TYPES & ALTERATION	L to Core Feet/Inches	GRAPHIC LOG Feet/Inches	Veins L to Core All	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE			Sample Number	% Cu	% Mo	Estimated Grade
405-407. F. gr. Leucocratic Rz - Srs. Srs. - 405 407-411 W.K. Srs. All	ND	400	110	1/10	gts chllan-py-ep	0	8%	0	392	96%	47%	11710	.17	.006	.25%
			60x4	1/16x4	gts chl-py-ep	10									
			145	1/2	gts chl-cbl-srs-ep	20									
			70	1/2	gts chl-srs-ep	30									
			70	1/2	gts chl-srs-ep zone	40									
			70	1/2	gts chl-carb-py	50									
			70	1/2	gts chl-srs-ep	60									
			70	1/2	gts chl-srs-ep	70									
			70	1/2	gts chl-srs-ep	80									
			70	1/2	gts chl-srs-ep	90									
411-423' Cbl - chl - Srs. Carb Zone somewhat sheared.	80' mod to str	410	130	1/20	gts chl-ep	0	5%	0	404	98%	42%	11711	.07	.001	.20%
			145	1/16	gts chl-ep	10									
			160x2	1/20x2	gts chl-cbl-ep	20									
			145	1/20x2	gts chl-ep	30									
			130x2	1/4	gts chl-ep	40									
			130	1/8	gts chl-srs-py-ep	50									
			130	1/8	gts chl-ep	60									
			130	1/8	gts chl-ep	70									
			130	1/8	gts chl-ep	80									
			130	1/8	gts chl-ep	90									
423-448 Mainly a Srs. All 'd' ad - some 20% of dk all	80 W.K.	430	110	1/10	gts chl-ep	0	1%	0	422	90%	50%	11713	.13	.004	.21%
			160	1	gts carb-chl-ep - blk	10									
			160	1	gts chl-ep	20									
			160	1	gts chl-srs-carb-py-ep mix!	30									
			160	1/2	gts chl-carb-ep	40									
			160	1/2	gts chl-carb-ep	50									
			160	1/2	gts chl-carb-ep	60									
			160	1/2	gts chl-carb-ep	70									
			160	1/2	gts chl-carb-ep	80									
			160	1/2	gts chl-carb-ep	90									
448-457 Srs. Srs. Carb Srs. Srs.	80 W.K.	440	110	1/10	gts chl-ep	0	2%	0	438	99%	67%	11714	.06	.001	.25%
			160	1/10x3	gts chl-ep	10									
			160	1/16	gts chl-ep	20									
			160	1/16	gts chl-ep	30									
			160	1/16	gts chl-ep	40									
			160	1/16	gts chl-ep	50									
			160	1/16	gts chl-ep	60									
			160	1/16	gts chl-ep	70									
			160	1/16	gts chl-ep	80									
			160	1/16	gts chl-ep	90									
448-457 Srs. Srs. Carb Srs. Srs.	80 W.K.	450	110	1/10	gts chl-ep	0	1%	0	448	102%	80%	11715	.07	.002	.25%
			160	1/2	gts chl-ep	10									
			160	1/2	gts chl-ep	20									
			160	1/2	gts chl-ep	30									
			160	1/2	gts chl-ep	40									
			160	1/2	gts chl-ep	50									
			160	1/2	gts chl-ep	60									
			160	1/2	gts chl-ep	70									
			160	1/2	gts chl-ep	80									
			160	1/2	gts chl-ep	90									

Sp. Srs. Srs.
Srs. Srs. Carb Srs. Srs.
by the gts chl-ep vns.

GRID

GIBRALTAR MINES LTD.

HOLE No. 86-46
SHEET No. 8 of 8

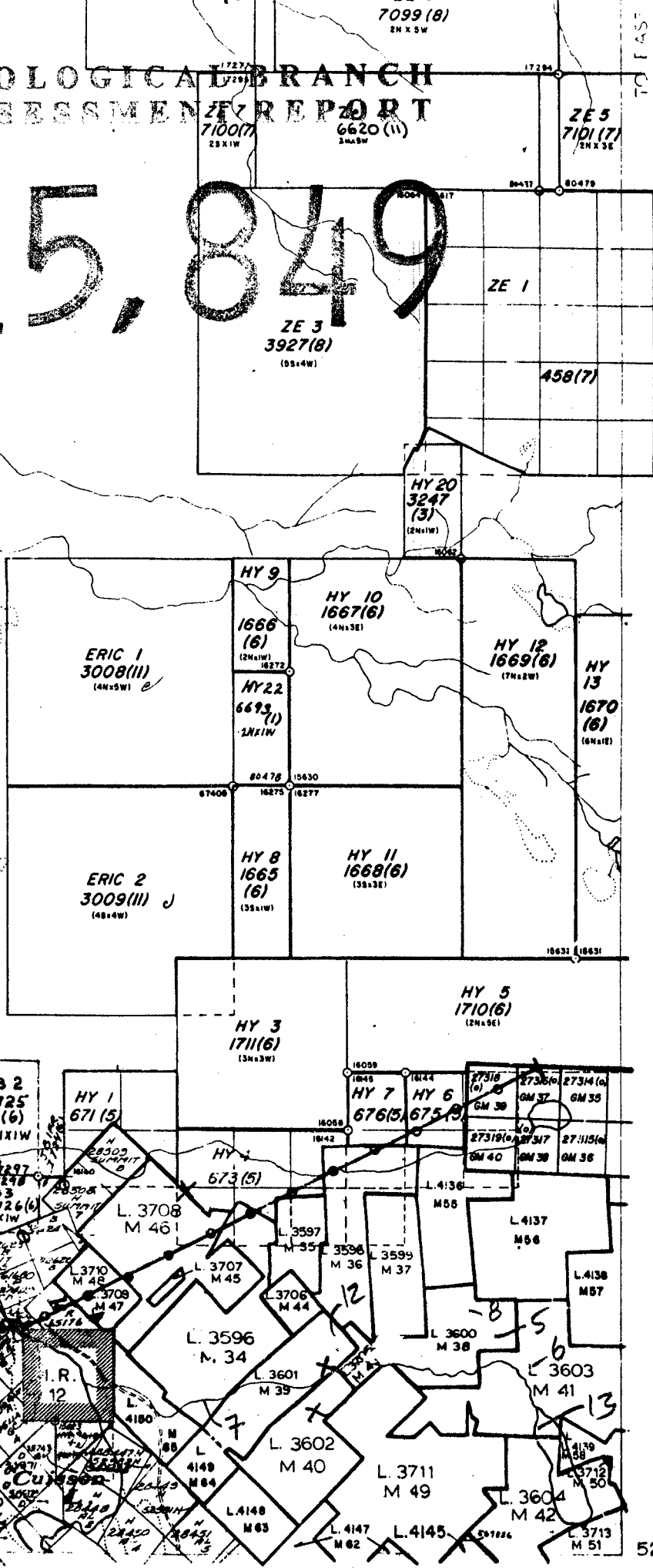
ROCK TYPES & ALTERATION		L to Core Foliation Foliation Alteration Feet Size	GRAPHIC LOG	Vein L to Core Alt	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Sample Number	% Cu
157-494 A Mixture of - Soss Alt'd QD. - WK Soss Alt. - DK Alt. - Leucocratic figs qtz-ser RX.	80° Str	160	180x3 85° 25° 55° 80°x2 45° 70 70	1/16 x 3 2" 2" 1/4 1/20 x 2 1/10 1/8	qtz-chl-carb-cp x3 qtz-ser-chnl-cp-act qtz-chl-ser-py-cp qtz-chl-ser-cp qtz-dig-ser-py-cp x2 qtz-chl-carb-py qtz-chl-cp qtz-chl-carb-cp-py	0 10 20 30 40 50 60 70 80 90	7%			80%	38%	11716	.11	.002	.23%	
	90° Str to ND	470	160x2 35 60 80 60 45	1/8 x 2 5 1/8 1 1/2 1/10	qtz-chl-ser-cp qtz-ser-chnl-py-cp qtz-va-carb-ser-cp qtz-ep-cp	10 20 30 40 50 60 70 80 90	1%			110%	76%	11717	.15	.003	.33%	
991-505 Qtz-Chl. Ser. Carb Shear Zone.	80° WK	480	160x4 130x3 70x4 80 160 120x3	1/20 x 4 1/20 x 3 1/20 x 4 6" 1/8 1/16 x 3	qtz-chl-ser-chnl-cp qtz-chl-cp x4 qtz-chl-cp x3 qtz-chnl-cp x4 qtz-ep-chnl-carb qtz-chnl-ep-py-cp qtz-chnl-ep-py-cp	0 10 20 30 40 50 60 70 80 90	6%			97%	70%	11718	.13	.003	.25%	
	40° WK	490	160 165x2 60 130x3 85 160 150	1/4 1/8 x 2 1/16 1/8 x 3 1/8 1/2 1/4	qtz-va-cp-chnl qtz-chnl-cp x2 qtz-chnl-ep qtz-chnl-ser-py-cp x3 qtz-chnl-cp qtz-chnl-carb-va qtz-chnl-ep	0 10 20 30 40 50 60 70 80 90	3%			92%	70%	11719	.05	.001	.17%	
R.O.H @ 505	85° Str	500	150x8 145 70 80 80x5 85x2.5	1/20 x 3 1/20 1/20 1/4 1/8 x 5 1/8 x 5	qtz-chnl-cp x3 qtz-chnl-carb-cp qtz-chnl-cp qtz-chnl-carb-cp (no) qtz-chnl-cp x5 qtz-chnl-cp x3	0 10 20 30 40 50 60 70 80 90	0%			82%	78%	11720	.13	.002	.27%	
	85° Str	505	80x5 85x6	1/8 x 5 1/8 x 6	qtz-chnl-cp x5 qtz-chnl-cp x6	0 10 20 30 40 50 60 70 80 90	8%			67%	0%	11721	.26	.006	.20%	

M.R. [Signature]

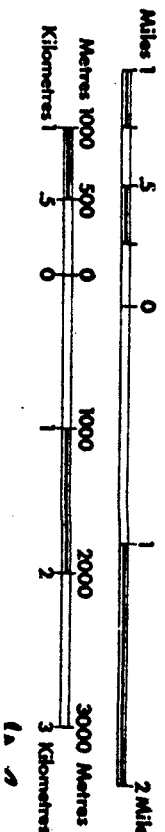
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

15,849

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50393	603274	ED	100
50394	603275	ED	100
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50396	603277	ED	100
50397	603278	ED	100
50398	603279	ED	100
50399	603280	ED	100
50400	603281	ED	100



GENERAL CLAIM
ERIAL CLAIM
L CLAIM
MINER POST



UNLESS VERIFIED OR SURVEYED, THE MAP POSITION OF A
LEGAL CORNER POST IS BASED ON THE LOCATOR'S SKETCH FOR FUR-
THEIR INFORMATION, APPLY TO THE OFFICE OF THE MINING DIVISION
CONCERNED.
DATE OF MICROFILM: 86-09-18

**N
4
93B/9W**

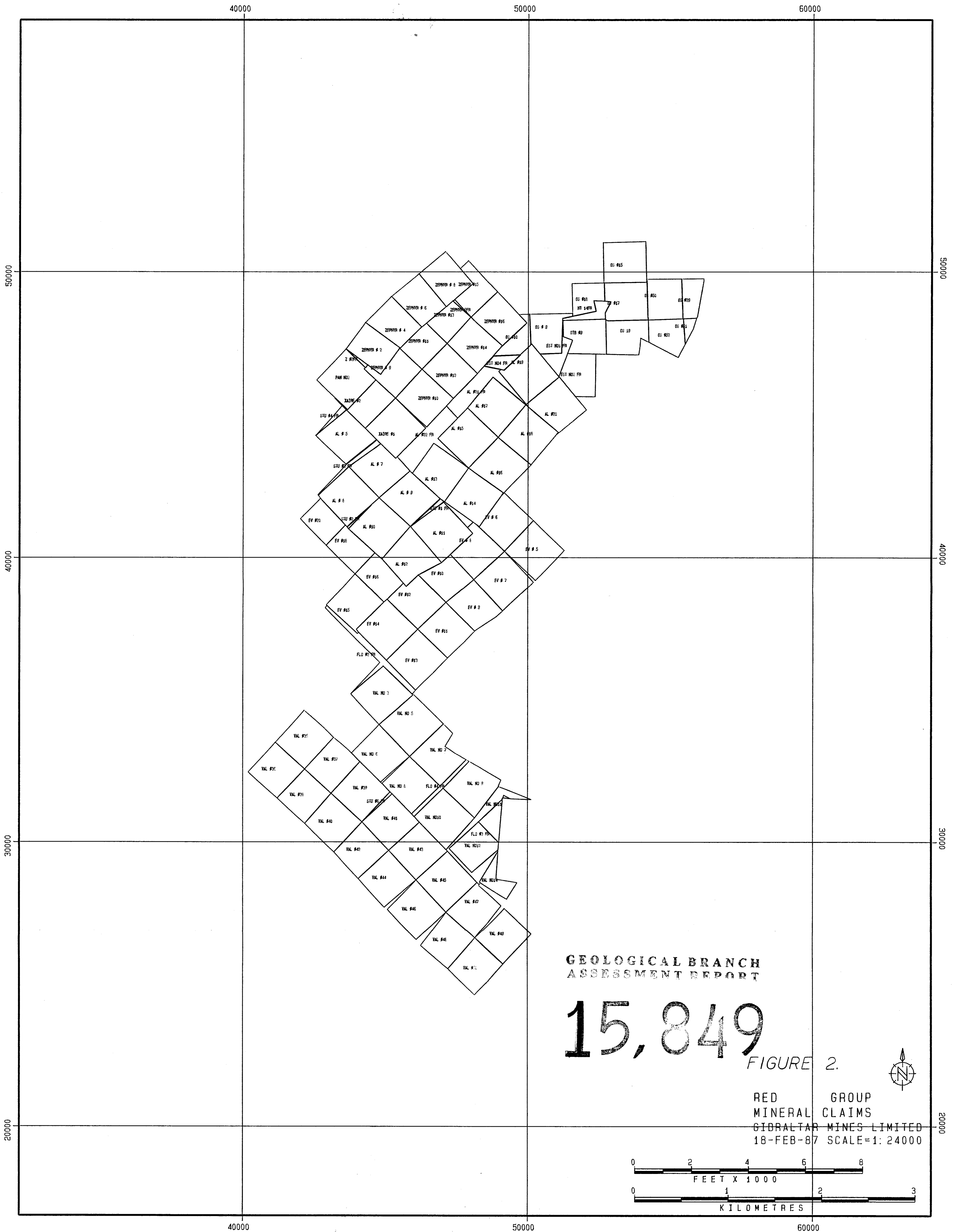
Production by G. W. ...
Ministry of Energy, Mines and Technical Surveys



TO EAST

52° 30'

122° 15'

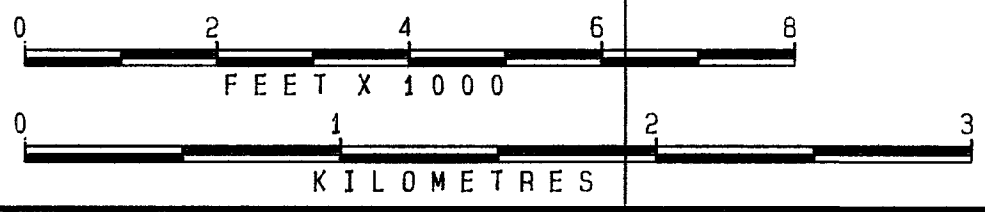


GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,849

FIGURE 2.

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



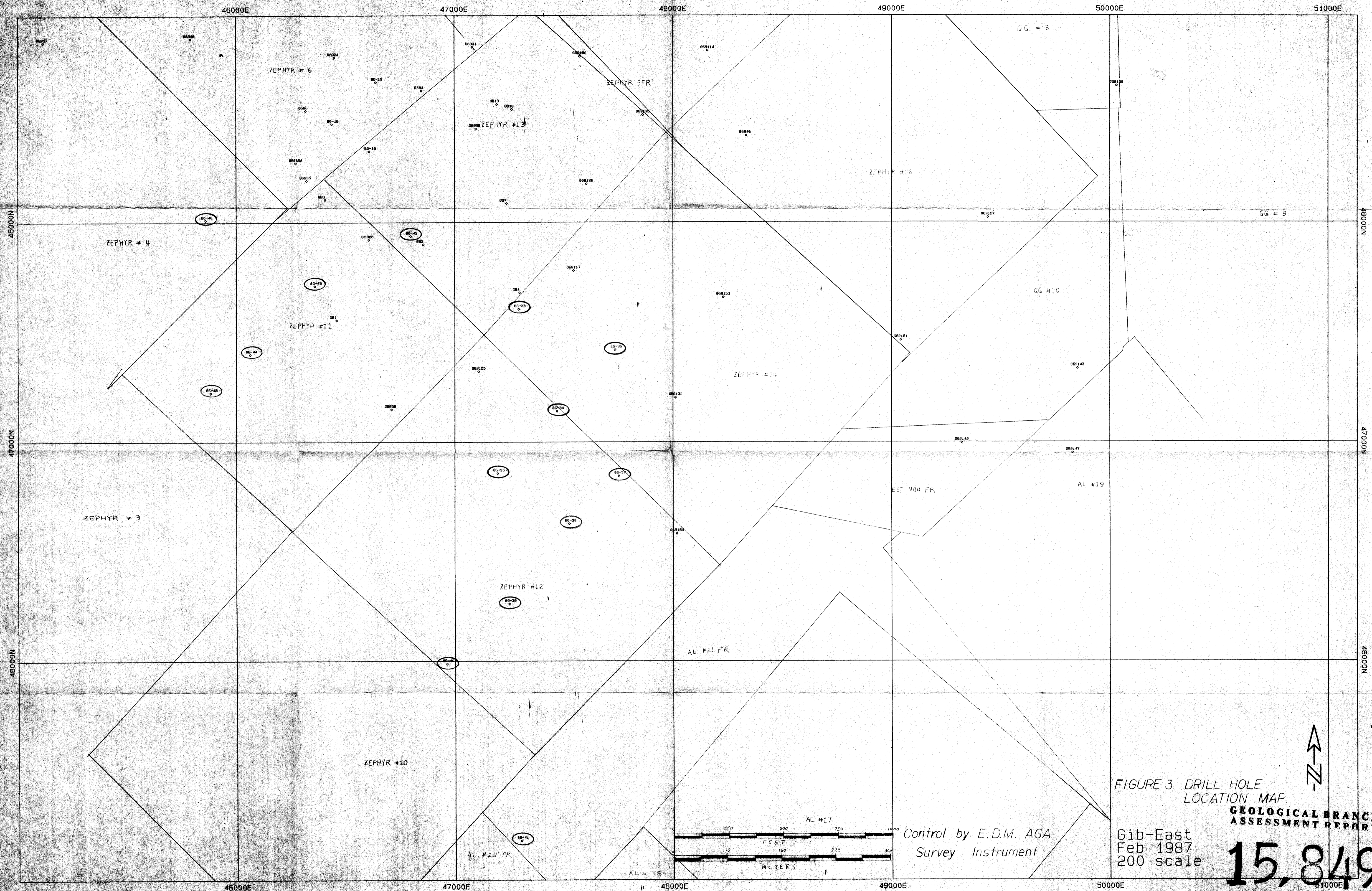
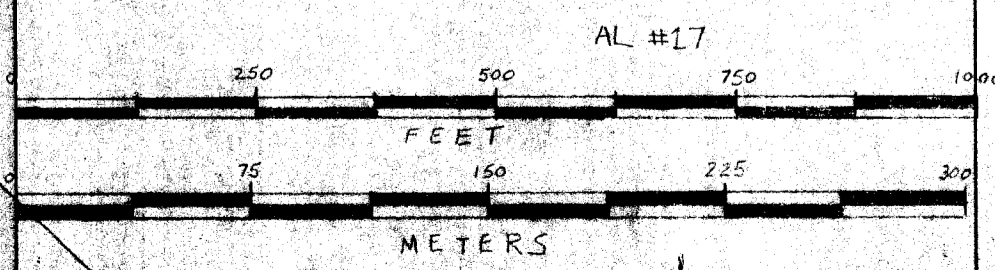


FIGURE 3. DRILL HOLE LOCATION MAP.

GEOLOGICAL BRANCH ASSESSMENT REPORT

Gib-East
Feb 1987
200 scale

15,849



Control by E.D.M. AGA
Survey Instrument

