

83-#683-#11290

GEOLOGICAL BRANCH
ASBESTOS REPORT

11,290

DIAMOND DRILL REPORT

ON THE
GREY GROUP

Zephyr

Cariboo Mining Division

93 B/9W

(Latitude 52 33', Longitude 122 18')

OWNER AND OPERATOR
GIBRALTAR MINES LIMITED
McLEESE LAKE, B.C.

AUTHOR: G. D. Bysouth

Submitted: November 16, 1983

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	Hole 83-13.....	(In Pocket)
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	Hole 83-15.....	(In Pocket)
	Hole 83-19.....	(In Pocket)

1.0 INTRODUCTION

"The Grey Group lies west and northwest of the Gibraltar Mines concentrator and includes part of the tailings pond. In effect it forms a large part of the northwest boundary of the permanent Gibraltar Mines property. The general location of the group is shown in Figure 1.

Of particular interest are several older claims of the group which cover the western flank of the Gibraltar East ore body. During the exploration of Gibraltar East in 1969, some diamond drilling was done on these claims to reveal that they covered lower grade extensions of the main Gibraltar East ore zone. This earlier drilling indicated that part of the ore was a chalcocite blanket similar to that of the main zone but of considerably lower grade. However, during the mining of the Gibraltar East pit, the chalcocite blanket was found to be of higher grade than indicated by the diamond drill holes. This raised the possibility that the chalcocite blanket within the west wall could likewise be of higher grade than originally indicated, and during April 1983, two vertical N.Q. diamond drill holes were completed within the blanket as a preliminary test of such grade variations. Both holes intersected ore grades significantly higher than that of adjacent drill holes and accordingly, a larger drill program was undertaken during July - August, 1983.

This report covers the later program which took place during the period July 27 - August 7, 1983. A total 2241 feet (681.94m) of vertical N.Q. diamond drilling was completed in a series of holes, 197 to 200 - feet deep. Eight of these holes were located along the west wall of the pit and the remaining three along the north wall. The contractor was G. & D. Diamond Drilling of 5425 Dallas Drive, Kamloops, B.C. Core is stored at the Gibraltar Mines plant site.

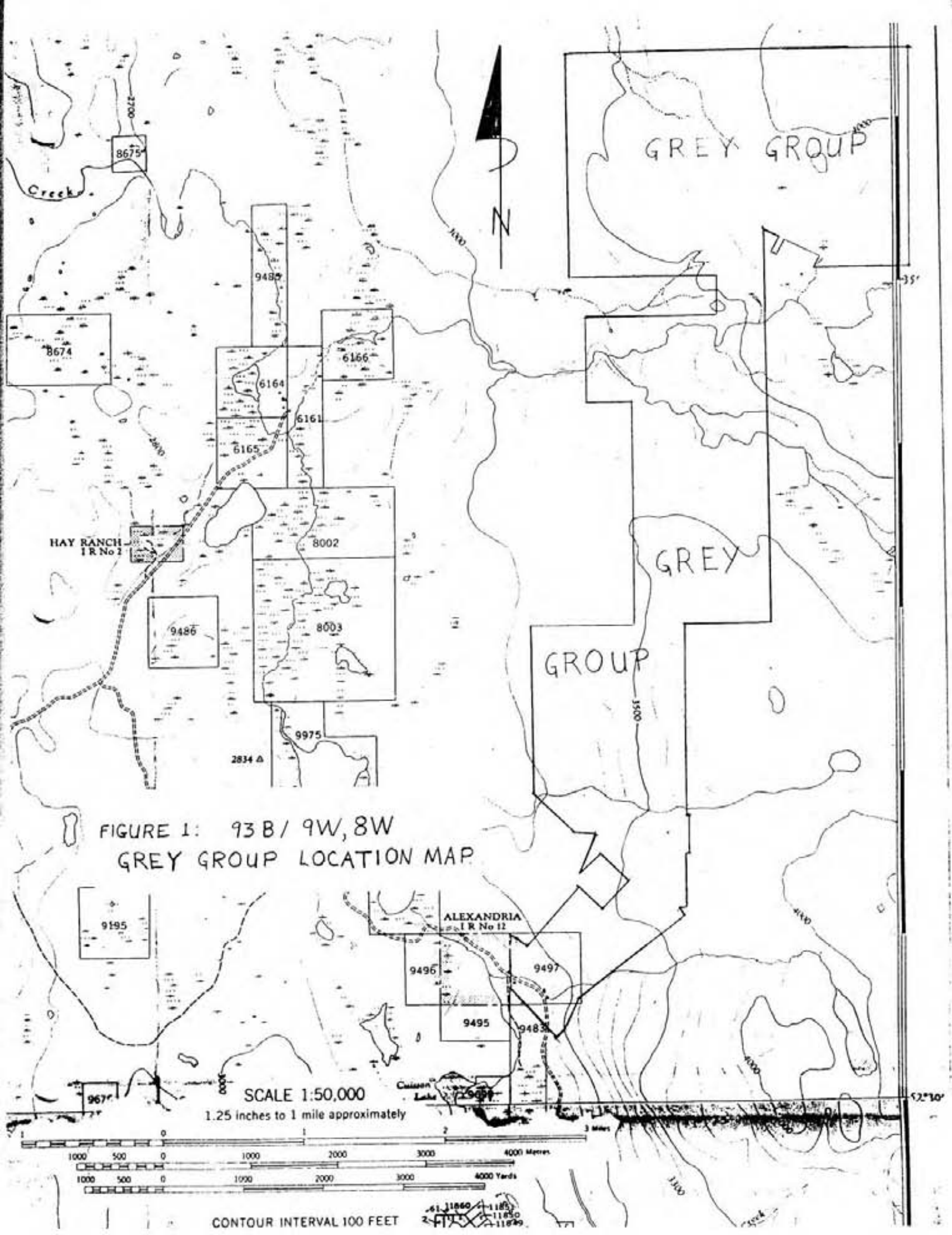


FIGURE 1: 93 B / 9W, 8W
GREY GROUP LOCATION MAP

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

CONTOUR INTERVAL 100 FEET

1180
1185
1190
1195

2.0 MINERAL CLAIMS

Claims and leases of the Grey Group are shown in Figure 2. Information on them is tabulated below.

GIBRALTAR MINES LIMITED
14-NOV-83

CLAIM GROUPS

GREY		GROUP MINERAL CLAIMS			MINERAL LEASE	
=====		RECORDED	RECORD	UNITS		
NAME		JDDMMYY	NUMBER			
HY	3	120680	01711	9		
HY	4	010589	00673	0		
HY	9	100680	01666	2		
HY	10	100680	01667	12		
HY	11	100680	01668	9		
HY	20	240331	03247	2		
ZE	1	220777	00458	20		
ZE	3	170881	03927	20		
DOT	N02	030388	34978	1	3596	M34
DOT	N03	030388	34979	1	3596	M34
DOT	N04	030388	34980	1	3596	M34
DOT	N05	030388	34981	1	3596	M34
EST	#5 FR	200571	62403	1	3596	M34
PAN	N04	040582	25794	1	3596	M34
PAN	N05	040582	25795	1	3596	M34
RUM	#79 FR	010670	58239	1	3596	M34
ZEPHYR	#1	090162	25574	1	3596	M34
ZEPHYR	#3	090162	25576	1	3596	M34
ZEPHYR	#5	090162	25578	1	3596	M34
GG	81	220485	29748	1	3597	M55
GIB	#7	200571	62410	1	3597	M55
ZEPHYR	#7	090162	25580	1	3706	M44
EST	#6 FR	200571	62404	1	4150	M65
GIB	21FR	210672	00784	1	4150	M65
JAN	#2 FR	220171	01461	1	4150	M65
PAN	N01	040582	25791	1	4150	M65

TOTAL UNITS 98

All of these claims belong to Gibraltar Mines Limited and the southern portion of these adjoins claims of the Gibraltar Mines permanent property.

3.0 DRILL PROGRAM

3.1 OBJECTIVE

The purpose of this drill program was to test the grade of the near-surface chalcocite blanket lying within the west wall and possibly the northwall of the Gibraltar East pit.

3.2 RESULTS AND INTERPRETATION

The drill locations are shown in Figure 3. All holes were in the typical Mine Phase Quartz Diorite host rock consisting of about 50% pale green saussaritized plagioclase, 15% dark green chloritized mafics, and 30% medium grey quartz. Pervasive pyrite mineralization was encountered in all holes and in most it greatly exceeded 1.0% below the leach cap. Alteration consisted mainly of various quartz-chlorite-sericite assemblages, often accompanied by carbonate, which were confined to various veins, shears and shear zones. The best grade ore appeared related to steep quartz-sericite-pyrite shear zones and vein systems, often associated with massive pyrite. These structures appear to cross-cut flatter, more pervasive, quartz-chlorite-pyrite structures.

Drill Holes 83-06 to 83-13 were located along the west wall of the pit. All holes except 83-12 and 83-13 intersected a similar oxide-supergene zoning pattern consisting of the following zones:

- (1) A leach cap in which over 90% of the sulfides have been leached out leaving a distinctive gossan of very low copper content.
- (2) A supergene zone which begins at the base of the leach cap and is marked by an abrupt increase in copper grade immediately below, or within 20-feet of, the base of the leach cap. This zone is characterized by random chalcocite coatings on pyrite and chalcopyrite, the amount of which gradually diminishes with depth. The greatest chalcocite enrichment occurs within 100-feet of the leach cap and appears partially controlled by any available open structures.
- (3) A limonite zone in which random limonite stained veins and shears occur dispersed among the fresh sulfides of the supergene zone.

The above intersections and those of previous drilling collectively define a broad chalcocite enriched zone 40- to 130-feet thick which is situated directly below a distinctive leach cap. The bottom of the leach cap, or conversely, the top of the ore, approximates the overlying surface topography and lies 60- to 90-feet below it. Overburden appears to be less than 60-feet thick except at the southern, or lower edge of the chalcocite zone where hole 83-06 suggests a deepening of both overburden cover and leach cap. Holes 83-12 and 83-13, which were located along the northern, or upper edge of the zone deviate from the normal zonal pattern in that the leach cap appears poorly developed and the ore-grade material lies well below the leach cap.

The oxide - supergene zoning outlined above is consistent with the oxidation - reduction phenomenon observed in other ore deposits. That is, oxidation and subsequent leaching of sulfides occurred above the water table to generate various iron oxides, sulfuric acid and free cupric ions. Below the water table, in a reducing environment, the free cupric ions replaced the iron component of pyrite and chalcopyrite to produce various degrees of chalcocite replacement. The weak limonite zone co-existing with primary and supergene sulfides below the leach cap suggest a rapid drop in the water table had occurred, possibly in response to the mining of the Gibraltar East pit.

Drill Holes 83-14, 83-15 and 83-19 were located within the north wall of the pit over a possible extension of the chalcocite zone. All three were collared within mined out portions of the pit; apparently, 83-14 and 83-15 were positioned below the leach cap. Chalcocite was widespread throughout the holes but not of sufficient concentration to significantly upgrade the predominately pyritic mineralization to form a continuous ore-grade chalcocite blanket.

Ore grades encountered on both walls appear somewhat erratic and can be best summarized as follows:

HOLE	INTERSECTION	WIDTH	% COPPER GRADE
83-06	130" - 197"	70"	.304
83-07	80" - 170"	90"	.260
83-08	80" - 170"	90"	.274
83-09	70" - 200"	130"	.417
83-10	80" - 180"	100"	.251
83-11	110" - 200"	90"	.338
83-12	90" - 200"	110"	.323
83-13	150" - 200"	50"	.338
83-14	100" - 180"	80"	.215
83-15	130" - 150"	20"	.235
83-19	30" - 70"	40"	.358

Rapid grade variations occur in most of the holes and can be related to the presence or absence of steep quartz-sericite-pyrite structures which seem to be enriched in both chalcopyrite and chalcocite. These zones and other chalcocite enriched zones tend to be highly broken or vuggy and, unfortunately, have almost invariably resulted in poor core recoveries; this, plus the very friable nature of strong chalcocite replacement mineralization, would most certainly be expected to result in a loss of copper values.

4.0 STATEMENT OF EXPENDITURES
July - August, 1983 Diamond Drilling, Grey Group

(a) Drilling Costs

Direct costs 2241' @ \$13.00/ft.	\$29,133.00
Lost steel and bits 83-06	3,253.70
	<hr/>
	\$32,386.70

(b) Vehicle Cost

4x4 1980 Suburban, 17 days @ \$20.00/day	\$ 340.00
--	-----------

(c) Assay Costs

192cu-MoS2 assays @ \$4.40/assay	\$ 844.80
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(d) Supplies

Core boxes, tags, bags, etc.	\$ 801.00
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(e) Personnel Costs

(1) Core logging and supervision	
G. Bysouth	July 28-29
	Aug. 3- 5, 8-10, 15, 16
	80 hrs. @ \$31.25/hr.
	\$ 2,500.00
(2) Field work and sample preparation	
E. Oliver	July 21, 22, 27-29
	Aug. 2-5, 8-11, 17-19
	117 hrs. @ 20.00/hr.
	\$ 2,340.00
	<hr/>
	\$ 4,840.00
	<hr/>

TOTAL DRILLING COST	\$39,212.50
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5.0 CONCLUSIONS

This drilling has confirmed the presence of a continuous ore-grade chalcocite blanket within the west wall of Gibraltar East. Due to the loss of chalcocite mineralization through the drilling process, the drill core assay results should be considered very conservative. More drilling is required west of holes 83-09 and 83-11 to test the westerly extent of high grade ore intersected by these holes.

No continuous ore grade zone was discovered in the northwall drilling. No more drilling is required in this area.

Submitted by,

G. D. Bysouth

G. D. Bysouth

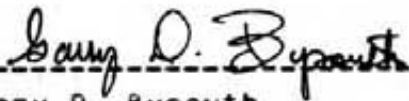
GIBRALTAR MINES LIMITED

APPENDIX I

STATEMENT OF QUALIFICATIONS

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

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



Garry D. Bysouth

wk.....weak
 stkwk.....stockwork
 str.....strong
 ser.....sericite
 rx.....rock
 qtz.....quartz
 QSP.....quartz-sericite-py
 py.....pyrite
 mag.....magnetite
 mal.....malachite
 lm.....limonite
 grn.....grained
 foln.....foliation
 ep.....epidote
 dissem.....disseminated
 cran.....crenulated
 cp.....chalcopyrite
 chl.....chlorite
 carb.....carbonate
 calcite.....calcite

ABBREVIATIONS USED IN DRILL LOGS

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-6
SHEET No. 1 of 3

LOCATION GIBRALTAR EAST-W. Wall
DATE COLLECTED July 27, 1983
DATE COMPLETED July 28, 1983

BEARING _____
LENGTH 197'
DIP -90°

LATITUDE 49320.60N
DEPARTURE 45,579.56E
ELEVATION 3365.57'

CORE SIZE V.O.V.I
SCALE OF LOG 1"=10'
REMARKS Rods stuck at 197'; hole abandoned
LOGGED BY G.D.B.
DATE July 28, 1983

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		Footlog Block#	Estimated Core Recovery %	R O D	ASSAY RESULTS				
									LEACH CAP	130'				Sample Number	% Cu	% Mo		Estimated Grade
	Casing to 90'						0 10 20 30 40 50 60 70 80 90											2225'
MINE PHASE QUARTZ DIORITE	(90'-197')	70 WK	90	50 x 4 70 x 3 45 x 2 + 10 x 2 50 + 45 + 30 x 2 20 x 3 + 5 x 2 5 x 3 45 20 x 2	1/20 - 1/10 x 4	lim x 4 lim x 5 lim x 5 lim - carb-sp x 2 + lim	0 10 20 30 40 50 60 70 80 90	0	Strong lim To 130' Sulfides + wk. cc Start @ 131'		75	33	85129	.06	.004		.05	
Saus. Alt'n	(90'-197')	60 Mod.	100	70 70 x 2 20-80 x 2 60 45 x 4 30 5 x 2	1/10 1/2"	qtz-chl-lim lim x 2 qtz-lim lim x 2 qtz-ep-lim lim-qtz x 2	0 10 20 30 40 50 60 70 80 90	0			85		85130	.03	.006		.05	
- 25% chl after hb. - 30% qtz - 40% saus. spar		70 WK- Mod	110	25 70 + 60 x 2 60 45 + 70 + 80 45 + 50 70	1/6 1/10 1/20 x 3 1/10 + 1/4 1/6	qtz-chl-lim lim x 2 lim-qq qtz-lim + qtz-chl x 2 lim-qq x 2 lim-qq-qtz	0 10 20 30 40 50 60 70 80 90	0			90		80	46567	.05	.002		.05
- med. grn (fine-med in zones of intense granulation by shearing)		70 WK	120	45 x 2 80 x 3 30 5 30 + 40 20 50	1/20 x 2 1/10 x 3 1/20 1/20 1/20 x 2 1/4 1/4	qtz-chl-lim (pt) x 2 qtz-lim-qq x 3 qtz-chl-lim qq-lim qtz + qtz-lim-qq qtz-chl qtz	0 10 20 30 40 50 60 70 80 90	0			95		30	46568	.03	.002		.05

LOGICAL BRANCH
ASSESSMENT REPORT

11,290

GRID _____

GIBRALTAR MINES LTD.

HOLE No. B³-6
SHEET No. 2 of 3

ROCK TYPES & ALTERATION			L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footage Diag.	Estimated Core Recovery %	R O D	ASSAY RESULTS			
										LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	% Cu
			60-70 Mod	140	50+30	1/8 3" 1/4 1/10 1/8	gg-lim-tho qtz-an (cc) zone qtz-chl (py) (cc) qtz-lim qtz-crst-fo qtz x2	0 10 20 30 40 50 60 70 80 90	<.5		131 139	75	30	46569	.24	.008	3230	.10
			50 Str.	150	45+50 80 45+40 45 40 5	1/8 1/8 1/10 x2 1/10 1/4 1/8	qtz-chl-lim qtz x2 chl qtz-chl (py) (cc) x2 lim-gg qtz qtz	0 10 20 30 40 50 60 70 80 90	<.5		147 60	85	37	46570	.29	.002		.08
			50 Str- Mod	160	30 20 30 20x2 5 50 30+40+35	2" 1/4 1/10-1/20 x2 1/20-1/10 12" 1/8 1/10 x3	blk u2 blk ag + ck qtz qtz-chl-ep-py (cc) Mno2-gg x2 qtz x2 qtz-ser-py-cc qtz-chl-ep-py (cc)	0 10 20 30 40 50 60 70 80 90	<.5		151 157	80	30	46571	.25	.004	28	.15
			70 Mod	170	40-70 20+45 70-80 70+45x2 60 45+55	12" 1/20 x2 1/20-1/10 1/20+1/10 x2 1/20 1/20 x2	qtz-chl-ep-py-cc qtz x2 qtz-chl-py-cc x3 qtz-chl-py (cc) qtz-chl-py-cc x2	0 10 20 30 40 50 60 70 80 90	<.5		167 90	75	43	46572	.35	.003		.25
			70-80 Mod	180	45 20x2 70x2 45 70 x2	1/10 1/10 x2 1/4 x2 1/10 1/10 x2	qtz-ep-py-cc gg x2 qtz-chl-py-ep x2 qtz-chl-py (cc) qtz-ser-py-cc x2	0 10 20 30 40 50 60 70 80 90	<.5		172.6 177	65	40	46573	.29	.002		.20
			70-80 Mod	190	40 40 x2 40+70 30+70 45 x3 70 70 x2 20	1/8 1/10 x2 2" + 1/4 1/10 + 1/4 1/8 + 1/20 + 1/10 1/20 + 1/10 1/4 + 1/4 1"	qtz-ser-py-cc qtz-chl-py (cc) x2 qtz-ser-py-cc x2 qtz-chl-ep + qtz-chl-py qtz-chl-py + qtz-chl-py (cc) x2 qtz-py-cc x2 qtz-py-ser-cc	0 10 20 30 40 50 60 70 80 90	<.5		183.6 189	95 95	37%	46574	.30	.010	3185	.30

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-07
SHEET No. 1 of 4

LOCATION GIBRALTAR EAST W. Wall
DATE COLLECTED July 28, 1983
DATE COMPLETED July 29, 1983

BEARING -
LENGTH 217'
DIP -90

LATITUDE 49,844.38 N
DEPARTURE 45,609.45 E
ELEVATION 3,479.94'

CORE SIZE N.O.W.
SCALE OF LOG 1" = 10'
REMARKS Very poor recovery

LOGGED BY G.D.B
DATE July 29, 1983

ROCK TYPES & ALTERATION	L to Core Foliation Alteration Footage Strike/slip	GRAPHIC LOG	Vena L to Core Axis	Width of Vena	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footage Blocks	Estimated Core Recovery %	R O D	ASSAY RESULTS				
								LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade	
Casing to 40'						0 10 20 30 40 50 60 70 80 90				40							
MINE PHASE QUARTZ DIORITE (40' -)	60 WK		45 80 40 x 2 + 30 + 20	1/4 1/2 1/20-hlx x 4	qtz-chl-lim qtz-chl lim x 4	0 10 20 30 40 50 60 70 80 90	0	82' 105'		10	0	85626	.03	.008		.05	
Normal mine phase - med. grn but generally finer grn than Gib. West.	60 WK		35 80 + 20 + 10 x 2	1/4 3/8 hlc-1/10 x 4	qtz-chl-lim qtz-ser-lim lim x 4	0 10 20 30 40 50 60 70 80 90	0			60	10	85627	.02	.008		.05	
- 30% quartz - 20% chl. - 50% savs. plag.	70- 80 WK		5 50 30 45 x 3 70 5 x 2 70-80 x 4 35 70	1/10 1/2 1/4 1/10 x 3 1 1/2" 1/2 x 2 1/10 x 4 3"	qtz-lim qtz-lim qtz-chl-lim qtz-chl-lim x 2 qtz-chl-ser-lim qtz-lim qtz-chl-lim qtz-chl-lim qtz-ser-lim	0 10 20 30 40 50 60 70 80 90	0			75	10	85628	.02	.020		.05	
Possible Fault Zone 70-81'	70 WK			1"	rusty qq	0 10 20 30 40 50 60 70 80 90	0			30	0	85629	.04	.018		.05	

GEOLOGICAL BRANCH
LABORATORY

11290

7' lost
Core

3410

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-07
SHEET No. 2 of 4

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG Foliation Alteration Feetage Structures	Veins L to Core Axis	Width of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feetage Block	Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	% Cu
	70 Wk	90	5 5+50+40	16" 2" 1/2" 12" 1/16 + 1/8 + 1/10	qq-lim qtz-lim (py) qtz-chl-qq qq-bx qtz-chl (py) (cc) - ser x 3	0 10 20 30 40 50 60 70 80 90	<.5		87	60	17	85630	.24	.012	.15	
	80 Wk	100	20+10x2+45 20+35 50-60x5 20 50 60 40	1/8 + 1/2 x 3 3/4 + 1/2 1/20 - hlx 5 3/4 1/10 1/4 + 1/2 2"	qtz-ser-py-cc x 3 qtz-ser-py-cc x 2 qtz-chl (py) (cc) x 5 qtz-ser-py-cc qtz-chl-cc-py qtz-cp-cc qtz-chl-py-cc qtz-chl-py (cc)	0 10 20 30 40 50 60 70 80 90	1.5		93 97	90 80	30	85631	.35	.004	.40	
Possible Fault 102'-106'	60 Wk- Mod.	110	30 50 60+50	2" 12" 1/4 1/10 + 1/8	qtz-chl (py) (cc) qq-bx qtz-py-Mo (cp) (cc) qtz-py-cp (cc) qtz-chl-py (cc) x 2	0 10 20 30 40 50 60 70 80 90	1.0	25' lost core	107	50	7	85632	.58	.140	.15	
	60- 70 Wk- Mod	120	5 50 10 40 30 15x2 30 60+70+50	3" 1/10 1/4 1/4 2" 1/20 + 1/10 1/4 1/10 x 3	qtz-chl-py (cp) (cc) - ser zone qtz-chl-py (cc) qtz-chl-lim qtz-cp-cc qtz-chl-py (cc) qtz-chl-py x 2 qtz-cp qtz-chl-py x 3	0 10 20 30 40 50 60 70 80 90	1.5		111 117	95	17	85633	.18	.014	3365 .15	
	60- 70 Wk- Mod	130	20 45-50 x 5 20x2 15 10x2 50	1/6 1/20 - 1/10 x 5 1/10 x 2 1" 1/10 x 2 1/8	chl qtz-chl-py x 5 qtz-chl-py x 2 qtz qtz-chl-py (cc) x 2 qtz (chl) (cp)	0 10 20 30 40 50 60 70 80 90	1.0		125 130	85 80	23	85634	.11	.004	.12	
	70 Wk- Mod	140	80x2 5 30x2 80x2+20	36" 1/8 x 2 30" 1/10 x 3 + 1/8 1/10 x 3 + 1/4	qq-bx qtz-chl (py) x 2 qtz-ser-py-chl-cp (cc) zone qtz-chl-py zone x 2 qtz-chl-py x 3	0 10 20 30 40 50 60 70 80 90	2.0		132 137	50 90	37	85635	.18	.002	.15	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-07
SHEET No. 3 of 4

ROCK TYPES & ALTERATION			L to Core Fellation	GRAPHIC LOG	V. to Core Axis	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				Sample Number	% Cu	% Mo	Estimated Grade
	70 WK			150	60x2	1/10 x 1/4	qtz-chl-py x2	0	1.0			145	90	50	85636	.056	.002	.10
					40x2	1/4 x 2	qtz-chl-py-(cp) x2	10										
					70	1/10	qtz-chl-py	20										
					60x3	1/10 x 3	qtz-chl-py x3	30										
					70	1/20 x 3	qtz-chl-py(ccc) x3	40										
					15x3	1/10 - 1/8 x 3	qtz-chl-carb(ccp) x3	50										
								60										
								70										
								80										
								90										
	60 WK- Mod			160	30	2"	qtz(chl)-carb-py(cc)	0	1.5			154	85	43	85637	.280	.006	.30
					10x2	1/4 x 2	qtz-(chl)(carb) x2	10										
					45x2	1/10 x 2	qtz-chl-py x2	20										
					40x2	1/10 x 2	qtz-chl-py-(cc) x2	30										
					75?	1/10 x 2	qtz(chl)-(ser)-py-cp(cc)	40										
					30	1/10	qtz-chl-py	50										
					60	2"	qtz-chl-py-cp	60										
					30+40x2+50x2	1/10 x 5	qtz-chl-py-cp(ccc) x5	70										
					35x3 + 80	1/10 x 2 + 1/10 x 1/2	qtz-chl-py x2 + qtz-cp + qtz-chl-py	80										
								90										
	50- 60 WK- Mod			170	5	3/4"	qtz-py-cp	0	1.5			167	90	57	85638	.406	.003	.35
					50+35+25	1/10 x 3	qtz-chl-py(ccp) x3	10										
					45	12"	qtz-chl-ser-carb-py-cp zone	20										
					45+80	1/10 x 2	qtz-chl-py x2	30										
					30	3/4	qtz-ser-py	40										
					45x2+80	1/8 x 2 + 1/4	qtz-chl-py x3	50										
					40	1/10	qtz-chl-py(cp)	60										
					45	1/4	qtz-py-cp	70										
								80										
								90										
	70 WK			180	60	1/8	qtz-chl-py	0	.5			175	80	27	85639	.175	.004	.10
					35x2	1/10 x 2	qtz-chl-(cp)(cp) x2	10										
					20	1/8	qtz-chl-py	20										
					45x3+40+70	1/20 - 1/10 x 3	qtz-chl-(py) x 4	30										
					20x2	1/20 x 2	qtz-chl-py x2	40										
					60+45	1/20 x 2	qtz-chl-py x2	50										
								60										
								70										
								80										
								90										
	60- 70 WK			190	40	1/4	qtz(chl)	0	1.5			184	100	43	85640	.060	.003	.12
					50	1 1/2"	qtz-(ser)-py-cp	10										
					60x2	1/10 x 2	qtz-chl-py x2	20										
					60x3	1/10 x 3	qtz-chl-py x3	30										
					20	2"	qtz-ser-py	40										
								50										
								60										
								70										
								80										
								90										
	50 Mod			200	20	2"	qtz-chl-(vug)	0	1.0			191	80	33	85641	.109	.003	.10
					60+45+44	1/8 - 1/10 x 5	qtz-chl-py x5	10										
					60	1/2	qtz-py	20										
					40	1/4	qtz-chl-py(cp)	30										
					35	1/4	qtz-chl-py	40										
								50										
								60										
								70										
								80										
								90										

GRID _____

GIBRALTAR MINES LTD.

HOLE No. B3-08
SHEET No. 1 of 3

LOCATION GIBRALTAR EAST W. Wall BEAMWD _____ LATITUDE 49.672.36 N CORE SIZE N.O.W. LOGGED BY G.D.B
DATE COLLECTED July 29, 1983 LENGTH 220' DEPARTURE 15.579.55 E SCALE OF LOG 1" = 10' DATE August 4, 1983
DATE COMPLETED July 30, 1983 DIP -90' ELEVATION 3.445.90' REMARKS _____

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footage Block.	Estimated Core Recovery %	R O D	ASSAY RESULTS			Estimated Grade
								LEACH CAP	78'				Sample Number	% Cu	% Mo	
Casing To 60'																
MINE PHASE QUARTZ DIORITE (60-220')	60 WK	60 70	35-50x8 45 45 80 50x4+5 60+70x3 60 5x3	1/10x8 1/8 4" 3" 1/2-1/4x4+1/8 1/2+1/10x3 1/4 1/10x3		qtz-chl-lim x 8 lim-qq qtz-lim qtz-ser-lim qtz-chl-lim x 5 qtz-chl-lim x 4 qtz-lim lim-qq x 2				60 64		27	46532	.04	.005	.05
- Saus Alt'n - Typical comp. and texture - 20 chl - 45% saus plag - 30% qtz	50- 60 WK- Mod	80	70x4 70x3 5x3 70+5 4x2 70 45	1/10x4 1/10x3 1/20x3 hler2 1/10+1/8 3/8 1/10		qtz-chl-lim x 4 qtz-chl-lim (qq) (py) lim x 3 lim x 2 qtz-chl-lim qtz-chl-py qtz-chl-py				76 76		40	46533	.07	.002	.05
	60 Mod	90	70 70 5+10 70 60 70-80x3 45 70x2	1/4 1/2 1/10x2 1/8 2" 1/20-1/10x3 3" 1/10x2		qtz-ser-lim qtz-ser-py qq-lim x 2 qtz-ser-py qtz-lim (py) qtz-chl-py x 3 qtz-py-cc qtz-chl-py (cc) x 2				80 80 80 80 80 80 80 80		27	46534	.21	.004	.20
	60 Mod- Int.	100	70+40+45x2 50 50 5+10x3 60x4+30 70 50 60-70x3	1/2+1/4+1/10x2 1" 1 1/2 1/10x3 1/10x4+1/4 2" 1/4		qtz-chl-py x 4 qtz-ser-py-lim qtz-(lim)(py)(cc) qq-lim qtz-chl-py-lim x 5 qtz-ser-py (cc) qtz-chl-py (cc) qtz-ser-py x 3				85 100 85		50	46535	.19	.002	.12

GEOLOGICAL BRANCH
 ASSESSMENT REPORT
 11290

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-08
SHEET No. 2 of 3

ROCK TYPES & ALTERATION		L to Core Foliation	GRAPHIC LOG Core Alteration	Feet Feet	Yield L to Core All	Width of Vial	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feet Disc.	Estimated Core Recovery %	P. O. D.	ASSAY RESULTS			
										LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	% Cu
60 Mod			110	5	1/2	qtz (v. var.)	0	.5			102	77	46536	.26	.006	.12		
				45	1/8	qtz-chl-py	10				106							
				70 x 3	1/10 x 3	qtz-chl-py x 3	20											
45+50	1/4 x 2	qtz-(chl)+py-cp x 2	30	107														
40	1/10	qtz-chl-py	40															
50	1/8	qtz-chl (cc)	50															
70 Wk- Mod			120	50	1/2	qtz-cp	0	.5			100	43	46537	.27	.001	.10		
				50	1/2	qtz-cp	10											
				50+45	1/8 x 1/4	qtz-chl (pv)	20											
70 Wk- Mod			130	45 x 2	1/4 x 3	qtz-(chl) (py) x 3	0	.5			90	13	46538	.26	.002	3320	.10	
				70 x 2	1/10 x 2	qtz-ser-py (cc) x 2	10											
				50?	2"	qtz-lim	20											
60 Wk- Mod			140	45	1/4	qtz-chl-ser-ep-py (cc)	0	.5			123	30	46539	.39	.010	.15		
				40	1"	qtz-ep	10											
				70 x 4	1/10 x 4	qtz-chl-py x 4	20											
60 Wk- Mod			140	60	1/10	qtz-chl-py	0	2.5			127	50	46540	.27	.002	.20		
				5	1/10	qtz-carb	10											
				70 x 2	1/8 x 2	qtz-chl (py) x 2	20											
50 Wk Mod			150	80	1/2	qtz-chl (py)	0	2.5			133	13	46541	.42	.004	.25		
				45 x 2	1/10 x 2	qtz-chl-py x 2	10											
				45	3"	qtz-py (cc)	20											
50 Wk Mod			150	40 x 2	1/8 x 2	qtz-chl-py (cc) x 2	0	2.0			138	13	46541	.42	.004	.25		
				45+80	1+2"	qtz (py) x 2	10											
				40 x 2 + 45 x 2	1/8 - 1/10 x 6	qtz-chl-py x 6	20											
50 Wk Mod			150	45 x 4	1/10 x 4	qtz-chl-py (cp) x 4	0	2.5			85	50	46540	.27	.002	.20		
				50 x 3	1/10 x 3	qtz-chl-py x 3	10											
				70	1/4	qtz-chl-py	20											
50 Wk Mod			150	70+50	1 1/2 + 1/2	qtz-chl-py-cp x 2	0	2.5			145	13	46541	.42	.004	.25		
				50 x 3	1/10 x 3	qtz-chl-py x 3	10											
				45+45 x 2	1/2 + 1/10 x 2	qtz-chl-ser-py x 2	20											
50 Wk Mod			150	45	1/2	qtz-ser-py (cc)	0	2.0			149	13	46541	.42	.004	.25		
				45-60 x 4	1/2 - 3/4 x 4	qtz-chl-py (cc) x 4	10											
				60+40 x 2	1/10 x 2	qtz-chl-py (cc) x 2	20											
50 Wk Mod			160	70+50	1/10 + 1/8	qtz-chl-py (cc) x 2	0	2.0			80	13	46541	.42	.004	.25		
				60 x 2	1/10 x 2	qtz-chl-py (cc) x 2	10											
				60	1/10	qtz-chl-py (cc)	20											
50 Wk Mod			160	30	2 1/2	qtz-ser-py	0	2.0			155	13	46541	.42	.004	.25		
				45	1/2	qtz-py-cp (cc)	10											
				80	1/4	qtz (py)	20											
50 Wk Mod			160	80 x 2	1/4 x 2	qtz-ser-py (cc)	0	2.0			157	13	46541	.42	.004	.25		
				45	1/2	qtz-ser-py (cc)	10											
				80	1/4	qtz (py)	20											

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-08
SHEET No. 3 of 3

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG Foliation Alteration Fracture Strike/Slip	Veins L to Core Ash	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % Pyrite	BOTTOM DEPTHS		Estimated Core Recovery %	P.O.D.	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE			REMARKS	Feetage Direct.	Sample Number	% Cu
60-70 Mod		170	30 40x2 80x70 45 35 35-60 45	1/10 1/4 + 1/10 1/2 x 2 1/4 6" 1/4	qtz-chl-py qtz-chl (py) qtz-chl-py x 2 qtz-ser-py x 2 qtz-ser-py qtz-ser-py-cc qtz-ser-py-cp (cc) qtz-chl-ser-py (cp)	0 10 20 30 40 50 60 70 80 90	2.0		163	37	46542	.20	.002	.20	
			5	3/8	qtz (chl)	100		169	3185						
70 Wk		180	80+5+80 20 5 30	1/4 + 1/4 + 1/4 1/2 1/10	qtz (chl) (py) qtz-py py qtz-chl-py	0 10 20 30 40 50 60 70 80 90	1.0		60	17	46543	.11	.002	.10	
			30	1/10	qtz-chl-py	177									
60 Mod. Int.		190	35 70 65-75x14 50 30 45-50x4	1/6 1/10 1/20 - 1/10 x 14 1" 1/4 1/10 x 4	qtz-chl-py (cc) qtz-chl-py qtz-chl-py x 14 qtz-ser-py (lim) qtz-chl-ser-carb-illm-py (cp) qtz-chl-py (cp) x 4	0 10 20 30 40 50 60 70 80 90	2.0		85	47	46544	.26	.008	.15	
			50 30 45-50x4	1" 1/4 1/10 x 4	qtz-ser-py (lim) qtz-chl-ser-carb-illm-py (cp) qtz-chl-py (cp) x 4	187									
70 Mod Int		200	40x2 45x80 80 45 30 40x4 50x10 20	1/4 x 2 1/10 x 2 2" 1/10 1/10 1/10 x 4 1/2 x 2 1/2	qtz-py (cp) (cc) x 2 qtz-chl-py x 2 qtz (py) (cp) qtz-chl-cp qtz-chl-py-cp qtz-chl-py x 4 qtz (py) (cp) x 2 qtz (chl)-py (cp)	0 10 20 30 40 50 60 70 80 90	2.0		100	63	46545	.17	.011	.20	
			50x10 20	1/2 x 2 1/2	qtz (py) (cp) x 2 qtz (chl)-py (cp)	197									
50-60 Mod. Int		210	15 20x14 20x4 30x80 20x2 2" 3"	1/4 1/10 x 2 1/10 x 4 1/10 x 10 1/10 2" 2"	qtz-cp qtz-chl-py (cp) x 3 qtz-chl-py (cp) x 4 qtz-chl-py x 2 qtz (py) (cp) (cc) qtz-chl-py (cc) qtz (cp)-py	0 10 20 30 40 50 60 70 80 90	2.5		90	27	46546	.27	.015	.25	
			20-30	5"	qtz-ser-chl-py (cp) 5m	207									
60 Mod. Int.		220	40x5 70 45x5 45x3 40 30 20x2	1/4 1/10 1/20 - 1/10 x 5 1/10 + 1/6 2" 1/10 x 2	qtz-chl-py x 3 qtz-chl-py x 2 qtz-chl-py (cp) x 5 qtz-chl-carb-py x 2 qtz-ser-py-cp qtz-py (cp)	0 10 20 30 40 50 60 70 80 90	2.0		90	33	46547	.23	.008	.25	
			40x5 45x3 40 30 20x2	1/4 1/10 1/20 - 1/10 x 5 1/10 + 1/6 2" 1/10 x 2	qtz-chl-py x 3 qtz-chl-py x 2 qtz-chl-py (cp) x 5 qtz-chl-carb-py x 2 qtz-ser-py-cp qtz-py (cp)	212 217		340							
		220							85						

E.O.H. 22a

A.D. Bysmark

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-09
SHEET No. 1 of 3

LOCATION GIBRALTAR EAST - W. Wall
DATE COLLECTED July 30, 1983
DATE COMPLETED July 30, 1983

BEARNG -
LENGTH 200
DIP -90°

LATITUDE 27 59 39 N
DEPARTURE 47 42 61 E
ELEVATION 2 420.35

CORE SIZE NQV
SCALE OF LOG 1" = 10'
REMARKS Core very soft & bleached throughout hole
LOGGED BY G.D.B
DATE August 3rd 1983

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	75'	LIM. ZONE			184'	SUPERGENE To E.O.H	Sample Number	% Cu	% Mo	% Cu Ox	Estimated Grade
Casing To 45' (see note)						0 10 20 30 40 50 60 70 80 90													
MINE PHASE	70 Mod	50	50-70 x 7	hlc hlc x 7	lim lim x 7	0 10 20 30 40 50 60 70 80 90			47			85643	.025	.007	.013	.05			
QUARTZ DIORITE (45'-200')	70 Mod	60	60 x 4 x 5 x 3 70 x 4 ?	hlc x 7 hlc x 4 6"	lim x 7 lim x 4 qq-bx	0 10 20 30 40 50 60 70 80 90	0		55.5		57	85644	.026	.006	.010	.05			
- Saus Alt'n - Med. Grn. - 20-25% chl - 45% saus. plag. - 30% qtz	70 Wk	60 45 70	70 x 4 50 x 2 60 45 6	hlc x 4 hlc x 2 1" 1/2" 3"	lim x 4 lim x 2 qtz-chl-lim qtz-ser-lim qq	0 10 20 30 40 50 60 70 80 90	0		61.5 85 69.5		23	85645	.025	.010	.008	.05			
	70 Mod	80	30 x 70 x 2 60 x 2 x 70 x 8 80 x 5 70! 80? x 5 100 x 100 x 5 25	hlc x 3 hlc x 4 hlc x 3 2 1/2" 2" x 1/4" hlc x 5 2 1/2"	lim x 3 lim x 4 lim x 3 qtz-ser-py (cc) qtz-ser-py-lim-cc x 2 lim x 5 qtz-ser-py-cc	0 10 20 30 40 50 60 70 80 90	1.5		78 95 77		17	85646	.010	.006	.027	.30			
	45 Str. Mod	90	5 20 x 10 70 5 25 50 5-30?	1/8 1 1/2 x 2 2 1/4" 2" 1/10 3/8"	qtz-chl-py-lim-cc qtz-ser-py-cc qtz-ser-(chl)-py-cc-sp qtz-ser-py-cc qtz-ser-py-cc qq-lim-qtz-ser-cc	0 10 20 30 40 50 60 70 80 90	2.0%		83 86.5		10	85647	.579	.016	.030	.40			

GEOLOGICAL BRANCH
ASSESSMENT REPORT
11,290

Footage block says casing 40' but definite core starts @ 45'

Faulted qtz-ser-py-sp zone?

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-09
SHEET No. 2 of 3

ROCK TYPES & ALTERATION			L to Core Foliation	GRAPHIC LOG	Y to Core Alt	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	P Q D	ASSAY RESULTS				
										LEACH CAP	LIM. ZONE			Sample Number	% Cu	% Mo		Estimated Grade
Fault?	45 Mod. Str.	100	30-70 (crst) 40 40+70	12" 2 1/2" 1/2 x 2	6'	qq-bx and lost core	qtz-ser-py-cp-(chl) zone qtz-ser-chl-py-cp qtz-chl-py (ccp)	0	1.0		96	55	33	85648	.330	.007	.017	.30
								10 20 30 40 50 60 70 80 90										
	50 Mod. Str.	110	45+60 30 70 45-30 25 5 45	1/8 x 2 1/8 1/4 20" 1/2 1/4 1/4		qtz-chl-carb-(py) x 2 qtz-ser-py-cc qtz (qtz)-chl-(ser)-(py) lim. zone 3000 qtz-ser-py (lim) qq qq-chl-py-cc	0	.5	} very soft cherty porous core	103 1/2	85	40	17	85649	.250	.004		.15
							10 20 30 40 50 60 70 80 90											
	50 Mod	120	30+80 20+30 20+5+10 5x2	1/2 x 2 1/4 x 3/8 1/10 + 1/4 + 1/8 1/2 x 2		qtz x 2 qtz-ser-py-cc x 2 qq x 3 qq x 2	0	2.5		112 1/2	75		20	85656	.150	.004		.12
							10 20 30 40 50 60 70 80 90											
Fault?	60 Mod	130	20 60 x 2 5 x 2 60 70 x 2 60	24" 12" 12" 1/10 x 2 1/20 + 1/10 1/2		qq-bx-hem bx bx (qq) qtz-chl-qq-cc x 2 qq x 2 qtz-ser-py-lim	0	<.5		125	50		23	85651	.175	.002		.15
							10 20 30 40 50 60 70 80 90											
	50 Mod. Str.	140	30 x 2 40 45	1/10 x 2 1/10 4'		qtz-carb-py-cp-cc x 2 qtz-py-lim-cc qtz-ser-chl-py-cc-lim zone qq x 2 qtz-chl-carb-py-cp (cc) qtz-carb-py-cp-cc	0	1.0		135	85		40	85652	.330	.006		.40
							10 20 30 40 50 60 70 80 90											
	40 Mod. Str.	150	30 20 10+20 50 50 45 20-30	1/2 1/10 1/20 x 2 2" 14" 20"		qtz-ser-py-cp qtz-chl-py qq x 2 qtz-chl-ser-mag. qtz-carb-(cp) qtz-chl-carb-(py)(cp) zone qtz-chl-ser-carb-py(lim)(cc)	0	2.0		147	100		53	85653	.276	.004	3275	.20
							10 20 30 40 50 60 70 80 90											

GRID _____

GIBRALTAR MINES LTD.

HOLE No. B3-09
SHEET No. 3 of 3

ROCK TYPES & ALTERATION			GRAPHIC LOG	Veins to Core Axis	Width of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feeling Direct.	Estimated Core Recovery %	R.O.D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	% Cu
			160	15 65+4 15+20 40-60 45+50 60 70-60x3	1/8 1/10 x 4 1/8 + 1/10 3 1/2" 1/4 + 1" 1/2 1/20 x 3	qq (new) - carb qq - carb x 4 qq - carb - hem x 2 qtz - ser - py - cc (cp) qtz - ser - py - lim (cc) qtz - ser - py qtz - chl - py	0 10 20 30 40 50 60 70 80 90	2.0		153.5 158.5	90 100	43	85654	.130	.002	.15	
				170	70 30? 15? 5-30 (cren) 70	1/8 8" 3" 4' 1/4	qtz - ser - py (cc) qtz - cp - (cc) (vuggy) qtz - cp (vuggy) qtz - chl - (ser) (carb) - py (cp) qtz - ser - py - lim	0 10 20 30 40 50 60 70 80 90	2.0		167	85	57	85655	1.160	.002	1.00
			180		50 20 30 5-60 (cren) 80? 20 80? 30 5-30 (cren)	3" 1/4 1/10 16" 3" 14" 12" 1/4 10"	qtz - chl - ser - py - cc qtz - py (cp) qtz - carb - (cp) (cc) - vuggy qtz - ser - py - cc qtz - ser - py - cp - cc qtz qtz - ser - py qtz - ser - (cp) (cc)	0 10 20 30 40 50 60 70 80 90	2.5		175	100 80	23	85656	.690	.010	.40
				190	5-30 (cren) 50 60 50 45 5	16" 1/8 1/4 1/10 1/4 1/4 14"	qtz - ser - cp - py - cc qtz - ser - lim qtz qtz - chl - py qtz - chl - py (cp) (cc) qtz - ser - py (lim) qtz - chl - ser - carb - py (cc) - lim	0 10 20 30 40 50 60 70 80 90	2.5		182 187	90	23	85657	.620	.012	.30
			200		45x2 3 45 5 3-10 30+40 7	1/10 + 1/8 1/2 12" 1/10 1/2 - 1" 1/10 x 2 24"	qtz - chl - py (cp) x 2 qtz - ser - py (cp) (lim) qtz - ser (chl) - py (cp) qtz - chl - py qtz - ser - py - cp qtz - chl - py (cp) x 2 qtz (chl) (cc)	0 10 20 30 40 50 60 70 80 90	3.0		196 200	95 75	40	85658	.520	.016	.30
E.O.H. 200																	

Gary D. Byrnes

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-10
SHEET No. 1 of 4

LOCATION GIBRALTAR EAST (W. Wall)
DATE COLLECTED July 30, 1983
DATE COMPLETED July 31, 1983

BEARING _____
LENGTH 203'
DIP -90°

LATITUDE 50 23.94 N
DEPARTURE 75 055.26 E
ELEVATION 2,524.23'

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

LOGGED BY G.D.B.
DATE August 10, 1983

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG	Veins L to Core All	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Footage Discard	Estimated Core Recovery %	R O D	ASSAY RESULTS					
								LEACH CAP	60'					Sample Number	% Cu	% Mo		Estimated Grade	
Casing To 21'																			
MINE PHASE QUARTZ DIORITE	ND	30	40+70+35x2 70 45-40x4 45x2 45x2 5	1/10+1/8+1/8x2 1/2 1/20-1/10x4 1/4x2 1/8x2 1/2	qtz-chl-lim qtz-ser-lim qtz-chl-lim x 4 qtz-chl-lim qtz-chl-lim lim		0				2	85	43	46514	.02	.008			05
(21'-203') Typical rx type 50% saus plag. 25% qtz 20% chlorite	ND	40	35+40 70+60 60 30 40-50 x5 50 45 40	1/10+1/8 1/10x2 1/8 1/8-1/10x5 1/4 1/4 1"	qtz-chl-lim qtz-lim x 2 qtz-ser-lim qtz-lim qtz-chl-lim x 5 qtz-ser-(py)-lim qtz-chl-lim qtz-ser-lim		<.5				34	95	60	46515	.02	.004	3500		05
	ND	50	5-60 5 20+5 50+60 30+50 45 90+20+60	10" 15" 1 1/2" 1/8x2 1/10x2 1/8x3	qtz-ser-lim qtz-ser-lim qtz-chl-lim x 2 qtz-chl-lim x 2 qtz-chl-lim x 2 qtz-ser-py lim x 3		<.5				44	98	50	46516	.03	.006			05
Small vertical fault.	ND	60	60 45+50 5 45x2+60 50 5	3/4 3/4+1/10 1/2 1/8x3 2" 2"	qtz-lim qtz-(chl)-lim x 2 qtz-ser-lim qtz-chl-py-lim x 2 qtz-lim qq-lim		<.5				54 70	70	50	46517	.02	.013			05

GEOLOGICAL BRANCH
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GIBRALTAR MINES LTD.

HOLE No. 83-10
SHEET No. 2 of 4

ROCK TYPES & ALTERATION			L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feet Discr.	Estimated Core Recovery %	R O D	ASSAY RESULTS			
										LEACH CAP					Sample Number	% Cu	% Mo	
			ND	20 4x+50+40x2 60 20 5 70 30	1/8 1/2+1/8+1/4+1/2 2" 1/2 1/10 1/4		qq-lim qtz-chl-ser-py x 4 qtz-ser-py (cc) qtz-chl-py (cc) qq-lim qtz-chl-py (cc)	0 10 20 30 40 50 60 70 80 90	1.5		66	85	37	46518	.04	.004		.15
			Fault? { 70 WK	15x2+40 50+2 50 10 80 15x2+70	1/5x2+1/10 1/4x2 1/10 3' 1/5x2+2/3		qtz-chl-py (cc) x 3 qtz (chl)-py (cc) x 2 qtz-chl-py qq (bx)-lim qtz-chl-py-lim x 3	0 10 20 30 40 50 60 70 80 90	1.0		71.6 77	65	27	46519	.07	.008		.12
			70 WK	15x2+50 45+40+50 45 40x2 90 35	1/5x2+1/10 1/8-1/10x3 3" 1/20x2 2"		qtz-chl-py (cc) x 3 qtz-chl-py x 2 qtz-carb (py) (cc) qtz-chl-py (cc) x 2 qtz-ser-py (cp)-cc	0 10 20 30 40 50 60 70 80 90	1.0		85 87	60	40	46520	.24	.014		.20
			70 WK	5? 60 5 30x2 50 60 100	2" 2" 6" 1"=1/4 1/10 1/10		qtz-ser-py-cc qtz-ser-py-cc qtz-ser-py-cc qtz-(ser)(chl)-py (cc) qtz-ser-py-cc qtz-ser-py-cc	0 10 20 30 40 50 60 70 80 90	2.0	one large piece of cc ~ 1 1/2 x 1 x 1/2"	97	85	33	46521	.57	.010		.90
			Fault? { ND	? 45 50 110	3' 1/10 1/10		bx (qq) qtz-chl-py-cp qtz-chl-py	0 10 20 30 40 50 60 70 80 90	1.0		107	60	10	46522	.15	.013		.12
			70 WK	30+70 45x2 120	1/10x2 1/10+1/8		bx. core qtz-ser-py (cc) qtz-chl-py	0 10 20 30 40 50 60 70 80 90	1.0		117	55 60	0	46523	.25	.011		.15

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-10
SHEET No. 3 of 4

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 %	P O D	ASSAY RESULTS			
										LEACH CAP	LIM. ZONE			Sample Number	% Cu	% Mo	Estimated Grade
70 Wx				5	1/8		qtz-chl-py (cp)	0	1.5		122	47	46524	.20	.016	3910	.12
				15	1/8 x 1/10		qtz-ser-py ((cc)) x2	10									
70 Wx- Med				30x2	1/8 x 2		qtz-ser-py ((cc)) x2	20	2.5		132	40	46525	.23	.010		.15
				30x3	1/8 x 1/2		qtz-ser-py-lim x2	30									
60 Med- Str				40x2+3+30x2	1/8 x 6		qtz-ser-py x 6	40	1.0	}	145	53	46526	.19	.012		.12
				50	1"		qtz-chl-carb-py ((cr))	50									
60 Med				20x2	1/8 x 1/8		qtz-chl-py (cp) x2	60	2.0	}	151	30	46527	.22	.008		.15
				40x2	1/8 x 2		qtz-chl-py (cc)	70									
40- 60 Med- Str				45x2	1/8 x 1/10		qtz-chl-ser-py ((cc)) x2	80	1.0	}	163	57	46528	.19	.008		.15
				50	1/10		qtz-chl-py	90									
45- Med				30	1/8 x 1/10		qtz-py (cp) x2	100	1.5	}	172	43	46529	.27	.018		.18
				40x2	1/8 x 2		chl (py)	110									
				50	1/8 x 2		qtz-chl-py-lim (cp) x2	120									
				60	1/8		qtz-py	130									
				80	1/8		qtz-carb-py	140									
				80	1/8		qtz ((cr))	150									
				25	1"		qtz-ser-py	160									
				80	8"		qtz-lin (vuggy)	170									
				10	30"		qtz-ser-py ((cp)) ((cc)) ((m))	180									
				30	1/4		qtz-ser-py ((cc))	190									
				25	2"		qtz-ser-py	200									
				80"	6"		qtz	210									
				40+50	1/10 x 2		qtz-chl-py x2	220									
				45+50x2	1/20 x 3		qtz-chl-py x3	230									
				80x2	1/10 x 2		qtz-ser-py (cp) x2	240									
				45x2	1/10 x 2		qtz-chl-py x2	250									
				50	1/8		qtz-chl-py ((cp))	260									
				50	1/8		qtz-py (cp)	270									
				30?	2"		chl (qtz)-carb-py (cp) ((cc))	280									
				40+30x2	1/10 x 3		qtz-chl-py (cp) x2	290									
				40+40+15	1/10 x 1/8 x 1/4		qtz-chl-py (cp) x3	300									
				80	3/8		qtz-cp	310									
				80	1/10		qtz ((cp))	320									
				30	1/8		qtz-chl-py-cp	330									
				40	1/8		qtz-ser-cp	340									
				60x2	1/8 x 2		qtz-py x2	350									
				5	1/8		qtz-chl-cp	360									

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GIBRALTAR MINES LTD.

HOLE No. 83-11
SHEET No. 1 of 4

LOCATION GIBRALTAR EAST (W. Wall)
DATE COLLECTED July 31, 1983
DATE COMPLETED July 31, 1983

BEARING _____
LENGTH 200'
DIP -90'

LATITUDE 50, 122, 27 N
DEPARTURE 75, 408, 60 E
ELEVATION 3,523.48'

CORE SIZE N.O.W.
SCALE OF LOG 1" = 10'
REMARKS _____

LOGGED BY G.D.B
DATE August 8, 1983

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Structure	Veins L to Core All	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footage Discard	Estimated Core Recovery %	R O D	ASSAY RESULTS						
								LEACH CAP	96' *				Sample Number	% Cu	% Mo	Estimated Grade			
Casing To 24'										24									
MINE PHASE	60 WK	30	80x2+45x3 50 20-40x7 40x2	hlc x5 2" X50-X10x7 X10x2	lim x5 qtz-ser-lim qtz-chl-lim x7 qtz-chl-lim (py) x2	0 10 20 30 40 50 60 70 80 90	0				95		85676	.02	.004			3500	.05
QUARTZ DIORITE (24' - 200') - 15% chlorite - 50% saur. plag. - 30% qtz.	60 WK	40	80+45x3 80+70+30 50 60 30x2 20	hlc x3 hlc x3 1/4 1/6 1/8	lim x3 lim x3 qtz-chl-py(cc) qtz-lim qtz-lim x2 qtz-chl-lim	0 10 20 30 40 50 60 70 80 90	0 1 2.5			31 36	100 95		85677	.02	.004				.05
~ slightly seriate texture with very conspicuous qtz.	ND	50	25 50 20 45+50+30 50+60 40 20+30 30 70-80x4	1/10 2" 1/10 hlc 1/10x2 1" 1/20x2 1" hlc x4	qtz-lim qtz-ser-py-lim lim lim x3 qtz-ser-lim-py qtz lim x2 qtz-ep lim x4	0 10 20 30 40 50 60 70 80 90	0 1 2.5			41 44 47	85 100		85678	.03	.002				.05
	ND	60	20 45+50 x2 40 3 70 50+60+70x2 60 50	1/10 1/20x3 1/10 1/20 1/4 hlc-1/10x4 1/2 1/10	qtz-lim-py qtz-chl-py x3 qtz-chl-py-lim qtz-lim qtz-chl-lim qtz-chl-py-lim x4 qtz-chl-lim (cp) qtz-chl-py (cc)	0 10 20 30 40 50 60 70 80 90	0 1 2.5			52 1/2	98		85679	.02	.003				.05
	50 WK	70	60x2+45x3 50 80 40x2 80x3 40	1/4 + 1/6 + 1/20x3 1/4 2" 1/10x2 1/10x2 1"	qtz-chl-lim qtz-chl-lim (py) qtz-ser-lim qtz-chl-lim x2 qtz-chl-lim x3 qtz-ser-lim	0 10 20 30 40 50 60 70 80 90	0 1 2.5			63	85		85680	.03	.005			3455	.05

GEOLOGICAL BRANCH
 ASSESSMENT REPORT
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Strongly leached section

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG	Value 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				Sample Number	% Cu	% Mo	Estimated Grade
								LIM. ZONE	SUPERGENE						
	60 Med. wk	25 70+45+80 80x2 45 35 80 80+60	1/2 1/10x3 1/8x2=1/8 1/8 1" 1/8x2 2"x2	1/2 1/10x3 1/8x2=1/8 1/8 1" 1/8x2 1/8+1/10	qtz-ser-py-lim qtz-chl-py-lim x 3 qtz-chl-py-(ep)-lim x 3 qtz-chl-py qtz-chl-ser-py (ep) qtz-chl-carb-py zone qtz-chl-ser-py x 2	0 10 20 30 40 50 60 70 80 90	<.5		71 85	53	85681	.08	.006	.05	
	70 wk	40+80 80 50x2+5 45 90	1/2x3 1" 1/8x2 1/8x2 35x2	1/2x3 1" 1/8x2 1/8x2 1/8+1/10	qtz-lim x 3 qtz-chl-py-lim qtz-chl-py x 2 qtz-ser-py-lim qtz-lim + 2" qtz-ser envelope (see note) qtz-chl-py x 2	0 10 20 30 40 50 60 70 80 90	.5		83 80	47	85682	.06	.012	.05	
	50 wk	50 50+60 35+70x2 50+60 45 45+10+45 60x2 60x2	1/10 1/8-1/8x3 1/8+2"x1/8 1/8+1/4 1/8 1/8x2=1/4 1/8x2	1/10 1/8-1/8x3 1/8+2"x1/8 1/8+1/4 1/8 1/8x2=1/4 1/8x2	qtz-chl-py (lim) qtz-chl-py (cc) x 3 qtz-chl-py x 3 qtz-chl-ser-py (cc) x 2 qtz-py-lim qtz-chl-py (cc) x 2 qtz (ep) x 2 qtz-ser-py-cc x 2	0 10 20 30 40 50 60 70 80 90	2.0		95	50	85683	.12	.006	.15	
	70 wk	35 50 50+60x3+70 60+70 45 x 3 45x2 45+60 35	1/4 1/8 1/10-1/8x3 1/8+1/10x2 1/8+1/10 1/8+1/10 1/8x2 1"	1/4 1/8 1/10-1/8x3 1/8+1/10x2 1/8+1/10 1/8+1/10 1/8x2 1"	qtz-chl-py-cc qtz-chl-py (cc) qtz-chl-py x 2 qtz-chl-py (cc) x 2 qtz-chl-py (cc) x 3 qtz-chl-py x 2 qtz-chl-py (cc) x 2 qtz-chl-carb-ser-py (cc)	0 10 20 30 40 50 60 70 80 90	2.0		98	60	85684	.15	.008	.20	
	60 wk	80+2 80+45 45+50+5 70 50+70 70x2 45 80+70 x 2 70	1/4x2 1/4+1/4 1/4x3 1" 1"+1/4 1/4x3 1" 1/8-1/4x2 1"	1/4x2 1/4+1/4 1/4x3 1" 1"+1/4 1/4x3 1" 1/8-1/4x2 1"	qtz-ser-py (cc) x 2 qtz-ser-py (cc) x 2 qtz-ser-py (ep) (cc) x 2 qtz-ser-py (cc) qtz-ser-carb-py-cc x 2 qtz-ser-py (cc) qtz-ser-py (ep)-cc qtz-ser-py (cc) qtz-ser-py (cc) x 2	0 10 20 30 40 50 60 70 80 90	3.0		90	43	85685	.47	.028	31.0 .35	
	60 wk	20+30 40x2+30 50 45+50+60+70 45x2+70 30+15+30+60 35	1/4x2 1/8x3+1/4 1/4 1/4 1/4 1/4 1/4 1/4	1/4x2 1/8x3+1/4 1/4 1/4 1/4 1/4 1/4 1/4	qtz-ser-py-cc x 2 qtz-chl-py (cc) x 3 qtz-chl-py (ep)-cc qtz-py-ep-cc qtz-ser-py (ep)-cc qtz-ser-py (ep) (cc) x 4 qtz-ser-py (ep) (cc) x 5 qtz-ser-py (ep)-cc	0 10 20 30 40 50 60 70 80 90	3.5		95	50	85686	.51	.020	.45	

This large qtz vein appears to have been heavily mineralized before leaching

abrupt incr in sulfides and cc

strong ser. zone - prob. chl.

intermixed with ser. (ie. med. dk grey ser.)

ROCK TYPES & ALTERATION			L to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Structure	Veins L to Core All	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	P. Q. D.	ASSAY RESULTS			
										LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Footage Discard	Sample Number
60 Wk- Mod	140	30 x 2 + 40	1" + 1/2"	qtz-ser-py-cp-cc + qtz-ser-py-cc	0	2.5	95	47	85687	.60	.024	.35					
		70 x 2	1/4 x 2	qtz-ser-py (cc)	10												
70 Wk	150	95 + 30 + 45	2" + 1/2 + 2"	qtz-ser-py (cp) (cc) x 3	20	2.5	70	13	85688	.24	.009	.25					
		60 x 2	2" + 1"	qtz-ser-py (cp) (cc) x 2	30												
60 Wk- Mod	160	30 + 40	1/2 + 1"	qtz-ser-py (cc) x 2	40	3.0	85	23	85689	.16	.004	.30					
		45	8"	qtz-ser-py (cc)	50												
70 Wk	170	45 x 3 + 70 x 2	3" + 2 1/2" + 1/2" + 1/2"	qtz-ser-py-cc x 4	60	4.5	90	23	85690	.17	.007	.20					
		15 + 20	1/4 x 2	qtz (chl) - py (cp) x 2	70												
ND	180	5	1/4	qtz-ser-carb-py (cc)	80	2.0	100	53	85691	.14	.017	.12					
		10	3" + 1/4	qtz-ser-py (cc)	90												
ND	190	5 x 2	1/2 x 3	qtz-ser-carb-py-cc x 2	10	3.5	90	13	85692	.21	.024	.15					
		45 x 3	1/10 + 1/8 + 1/4 + 1/10	qtz-chl-py x 3	20												
70 Wk	170	35 + 60 + 45 x 2	1/10 + 1/2	qtz-chl-py (cc) x 2	30	4.5	90	23	85690	.17	.007	.20					
		40 x 2	2" + 1/2 x 3	qtz-chl-ser-py (cp) x 2	40												
70 Wk	170	45 x 3 + 70	2 1/2" + 1/4 x 2	qtz-ser-py x 4	50	4.5	90	23	85690	.17	.007	.20					
		35 + 45 x 2	1/2 x 6	qtz-ser-py (cc) x 2	60												
70 Wk	170	85 - 50 = 6	1/2	qtz-chl-py x 6	70	4.5	90	23	85690	.17	.007	.20					
		45	1/4	qtz (cp) (cc)	80												
70 Wk	170	40	1/8 + 1/2 = 1/4	qtz-ser-py ((cp)) (cc) 30mc	90	4.5	90	23	85690	.17	.007	.20					
		5 + 50 x 2	1/4 + 1/10	qtz-chl-py x 3	10												
70 Wk	170	40 + 60	1/4 + 1/10	qtz-chl-py x 2	20	4.5	90	23	85690	.17	.007	.20					
		50 + 60 + 20 + 20	1/10 - 1/4 x 4	qtz-chl-py (cc) x 4	30												
ND	180	50	2"	qtz-chl-py-cp-cc	40	2.0	100	53	85691	.14	.017	.12					
		30	1/4	qtz (ser) - py	50												
ND	180	60 x 2	1/10 + 1/8	qtz-ser-py x 2	60	2.0	100	53	85691	.14	.017	.12					
		40 x 3 + 30	1/8 x 3 + 1/4	qtz-chl-py x 4	70												
ND	190	50	1/4	qtz-py	80	3.5	90	13	85692	.21	.024	.15					
		40	1/8	qtz-chl-py	90												
ND	190	20 + 15	1/4 x 2	qtz-ser-ohl-py (cc)	10	3.5	90	13	85692	.21	.024	.15					
		40 + 60	1/4 x 2	qtz-ser-py (cc) x 2	20												
ND	190	34 + 10 x 2	1/8 x 3	qtz (chl) - py x 2	30	3.5	90	13	85692	.21	.024	.15					
		20 x 4	1/8 + 1/4 x 3	qtz-chl-py x 3	40												
ND	190	45	2"	qtz-ser-py (cp) (cc)	50	3.5	90	13	85692	.21	.024	.15					
					60												

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GIBRALTAR MINES LTD.

HOLE No. 83-11
SHEET No. 4 of 4

ROCK TYPES & ALTERATION			L to Core Foliation	GRAPHIC LOG		Veins L to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	P. O. D.	ASSAY RESULTS			
				Foliation Alteration	Footage Structure						LEACH CAP	LIM. ZONE			SUPERGENE	Footage Discont.	Sample Number	% Cu
E.O.H. 200'			ND.	200	45 x 2	24 x 1/10	qtz.-chl.-py x 2	0	2.0			50	17	85693	.54	.014	.20	
					40	1/8	qtz.-carb.-chl.-py.-cp	10		11	194							
					30	1/20	qtz.-cp	20				85						
					60	1/4	qtz.-chl.-py((cc))	30	11									
					60+30	1/4 x 2	qtz.-chl.-py((cc)) x 2	40				200						
					45	3/8	qtz.-chl.-py((cc))	50	11									
					45+5+70	1/4 x 5	qtz.-chl.-py((cp))((cc))	60										
					60-70 x 4	1/20-1/8 x 1	qtz.-chl.-py((cp)) x 4	70	11									
					30+30+45	1/10-1/8 x 3	qtz.-chl.-py((cp)) x 3	80										
								90										
								0										
								10										
								20										
								30										
								40										
								50										
								60										
								70										
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								60										
								70										
								80										
								90										

B. D. Bysouth

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GIBRALTAR MINES LTD.

HOLE No. 83-12
SHEET No. 1 of 4

LOCATION GIBRALTAR EAST W. Wall
DATE COLLECTED July 31 1983
DATE COMPLETED August 1 1983

BEARING _____
LENGTH 201'
DIP -90°

LATITUDE 50.322.68 N
DEPARTURE 45.452.95 E
ELEVATION 3,535.38

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

LOGGED BY G.D.B
DATE August 4, 1983

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Stratigraphy	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	none? 28' 45' To. ED.H.			Sample Number	% Cu	% Mo	Estimated Grade		
Casing To 14'																	
leucocratic zone	60 WK	20	45x3+70x2 50x3 80-70x3 30+20+70x4	1/10x3 1/10+1/20x2 1/10x3 1/2+1/4+1/20x4	qtz-chl-lim(py) 5 qtz-py-lim x 2 lim-qq x 3 qtz-py-lim x 6	0 10 20 30 40 50 60 70 80 90	1.0	none? 28' 45'	14 17	80		85659	.03	.010		.05	
MINE PHASE QUARTZ DIORITE	60 WK	30	60-70x10 45 60 70 35-45x3 50+70x2+45x3 10 70x7	1/20-hlex20 1/2 1" 1/4 1/20-1/10x2 1/4+1/4x2+1/20x2 1/2 hlex7	qtz-py-lim x 10 qtz-lim(py) qtz-lim(py) qtz-ser-py qtz-chl-py x 3 qtz-ser-py-lim x 5 qtz-py lim x 7	0 10 20 30 40 50 60 70 80 90	2.5		24 27	95	10	85660	.03	.008		.08	
Typical rx (14' - 201')	60 Mod- WK	40	45x4 80+70 45+50 80 20 20	1/10-1/8x4 1/2+1/8 1 1/2" 1/2 1"	qtz-ser-py(lim) x 4 qtz-chl-py + qtz-chl-ser-py qtz((Wd))(py) qtz-ser-py qtz-chl-ser-py((cc))	0 10 20 30 40 50 60 70 80 90	1.5		31 37	95	10	85661	.02	.006	3500	.08	
	70 WK	50	55 70+45 45+5 70+50+60 80+10 45x2	1/3 1/10 x 2 hlex2 1/10x3 1/10+1/2 1/10x2	qtz-ser-py-lim qtz-chl-py x 2 lim x 2 qtz-chl-py qtz-chl-py(lim) x 2 qtz-chl-py x 2	0 10 20 30 40 50 60 70 80 90	2.0		47	95	20	85662	.03	.002		.08	
	70 WK	60	40+35+30 5 40+10 45+60+40 45 50+40+45 35+20+40	1/10 x 2 1/20 1/10+1/2 1/4+1/4x2 2"	qtz-chl-py x 3 qtz-chl-py qtz-hem x 2 qtz-chl-py((cc)) x 3 qtz-ser-py-cc qtz-chl-py x 3 qtz-ser-py(cc)	0 10 20 30 40 50 60 70 80 90	2.5		54	100	27	85663	.10	.004		.15	

GEOLOGICAL BRANCH
 ELEMENT REPORT
 11290

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-12
SHEET No. 2 of 4

ROCK TYPES & ALTERATION			GRAPHIC LOG	Value L to Core Axis	Width of Vain	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	P. O. D.	ASSAY RESULTS								
	L to Core Foliation	Foliation Alteration							LEACH CAP	LIM. ZONE			SLUPERGENE	REMARKS	Feet	Diag.	Sample Number	% Cu	% Mo	Estimated Grade	
			70	30+40+45 40 20+30 10 50 50+70 50x3 30 40	1/8+1/10x2 1/4 1" + 1/4 1/10 1/4 1/10x3 1/4 1/10	qtz-chl-py (cc) x 3 qtz-chl. (vug) qtz-chl-ser-py-cc x 2 qtz-chl-py qtz-ser-py (cc) qtz-chl-py qtz-chl-py (cc) x 3 qtz-chl-ep-py-cc qtz-chl-py (cc)	0 10 20 30 40 50 60 70 80 90	2.5		64	100	73	85664	.09	.002	.25					
				80	45+50+45 20 20 10 5+45+40 80 45x3+30+20 20x2+45x2	1/10x3 1 1/2" 1/10 1/8 1/8+1/10x2 1/4 1/8x4 1/8x4	qtz-chl-ep-py x 3 qtz-py-cc qtz-ser-py (cc) qtz-chl-carb-py-cc qtz-chl-ser-py-cc x 4 qtz-carb-cc qtz-ser-py-cc x 4	0 10 20 30 40 50 60 70 80 90	3.0	73	100	43	85665	.19	.006	.50					
					90	5 80+45+60 40x3 35+80 45+40	1/8 1/10x3 1/10x3 1/2+1/4 1/10x2	qtz-carb-cc qtz-chl-py x 3 qtz-chl-py x 2 qtz-chl-py-cc + qtz-carb-py-cc qtz-chl-py (cc) x 2	0 10 20 30 40 50 60 70 80 90	2.5	83	95	47	85666	.16	.014	.30				
						100	30+45+40 20 30+80 5x3 20x3 80 45	1/8-1/10x3 10" 1/10-1/8x3 1/10x3 1/2+1/10x3 1/8 1/4	qtz-chl-py (cc) x 3 qtz-ser-py-cc qtz-chl-py x 3 qtz x 3 qtz-chl-py (cc) x 3 qtz-carb-py-cc qtz-ser-py-cc	0 10 20 30 40 50 60 70 80 90	5.0	93	98	30	85667	.19	.010	.25			
							110	20 70+40+30 45+40+35 30-60 40x3 25x3+5	1" 1/4 x 3 1/4x2+1/10 2" 1/4x2 1/10x3+1/2	qtz-chl-py (cc) qtz-ser-py-cc qtz-ser-chl-py (cc) x 3 qtz-chl-py-cc x 3 qtz-ser-py-cc qtz-chl-py (cc) x 3 qtz-chl-py (cc) x 3	0 10 20 30 40 50 60 70 80 90	2.0	103	85	23	85668	.20	.008	.25		
								120	5 20x3 5+10 45	1/8 1/8x3 5' 1/4	qtz-chl-carb-py-cc qtz-chl-py-cc x 3 qtz-chl-carb-py-cc qtz-ser-py-cc	0 10 20 30 40 50 60 70 80 90	2.5	107x	95	117	10	85669	.81	.010	.80

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GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-12
SHEET No. 3 of 4

ROCK TYPES & ALTERATION			L to Core Foliation	GRAPHIC LOG	Yield L to Core Axis	Width of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	P. O. D.	ASSAY RESULTS				
										LEACH CAP	LIM. ZONE			SUPERGENE	Remarks	Sample Number	% Cu	% Mo
			ND	130	80 5+10 20+45+30 20 1+80+2 5 45+40+20 40	1/2 x 2 1/2 x 2 1/2 1/2 1/2 1/2	qtz-fy qtz-chl-py-cc x 2 qtz-chl-py-lim (cc) x 3 qtz-py-lim (cc) qtz-chl-py (cc) x 3 qtz-carb-chl-py-cc qtz-chl-py (cc) x 2 qtz-chl-py (cc) x 2	0 10 20 30 40 50 60 70 80 90	2.0		123 127	55 65	17	85670	.14	.005	3910	.35
			50 Wk- Mod	140	35-25 x 3 45+7 40 20 25+40 20 5+80	1/2 x 2 1/2 1/2 1/2 1/2 1/2 1/2 x 1/2	qtz-chl-ser-py-cc x 2 qtz-chl-py x 2 qtz-qq-cc qtz-silic qtz-chl-py (cc) x 2 qtz-cc (cc) (cc) qtz-carb-cc + chl-py (cc)	0 10 20 30 40 50 60 70 80 90	2.5		135	100	50	85671	.32	.013		.30
			50- 70 Wk- Mod	150	10+3+50 30 45 x 2 + 40 60+45+40+10 5 60 x 2 + 45 45 x 3 20	1/2 x 2 + 1/4 3" 1/2 x 1/2 + 1/2 1/2 x 2 + 1/2 1/2 x 3 1/2 x 3 1/2	qtz-chl-py (cc) x 3 qtz-ser-py-cc qtz-carb-py-cc x 2 qtz-chl-py (cc) x 4 qtz-carb-cc qtz-chl-py-cc x 3 qtz-chl-py x 2 qtz-carb-cc	0 10 20 30 40 50 60 70 80 90	4.0		145	98	37	85672	.41	.018		.70
			45 Wk- Mod	160	20 x 2 40 x 2 40+35 30+35 40+45 x 4 50+60 45+8	1/2 x 2 1/2 x 2 1/2 x 2 1/2 x 2 1/2 - 1/2 x 5 1/2 x 1/2 1/2 x 1/2	qtz-carb-py-cc x 2 qtz-chl-py-cc x 2 qtz-chl-py (cc) x 2 qtz-chl-py (cc) x 2 qtz-chl-py (cc) x 5 qtz-py-lim x 2 qtz-chl-py-cc x 2	0 10 20 30 40 50 60 70 80 90	3.0		155	95	50	85673	.13	.004		.45
			50- 70 Wk- Mod	170	50 45+30+65 50 60+90+70 20 x 2 + 40 x 2 45 15+20+45	1/2 1/2 x 3 1/2 1/2 x 2 + 1/2 x 2 1/2 1/2 1/2 x 2 + 1/2	qtz-carb-cc x 2 qtz-chl-py-cc x 3 qtz-carb-cc qtz-carb-lim-cc-py x 2 qtz-chl-py (lim) (cc) x 4 qtz-ser-py (cc) qtz-chl-py qtz-ser-py-cc x 2	0 10 20 30 40 50 60 70 80 90	3.5		164	100	57	85674	.22	.004		.30
			50 Wk	180	50 45 40 x 2 40 x 3 70 x 2 45 x 2 15-40 15 50+20+20	1/2 1/2 1/2 x 2 1/2 x 3 1/2 x 3/4 1/2 x 2 1/2 - 2" 1/2 x 2	qtz-chl-py (cc) (cc) qtz-chl-carb-py-cc qtz-chl-carb-ser-Mo-cc-lim qtz-chl-py x 2 qtz-chl-py (cc) x 2 qtz-chl-py (cc) x 2 qtz-carb-py-cc qtz-chl-py (cc) x 2	0 10 20 30 40 50 60 70 80 90	2.5		177	85	57	85675	.28	.008	3365	.50

vuggy core
with indistinct
steep and flat 1/2
veins (ie 2" x 40")

vuggy core - structure
not distinct - flat
and steep veinlets

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-12
SHEET No. 4 of 4

ROCK TYPES & ALTERATION			L to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Structure	Veins L to Core All	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footage Discr.	Estimated Core Recovery %	P. O. D.	ASSAY RESULTS			
										LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	% Cu
EOH 201	70 Wk- Mod	190	<p>45+25 60+70 70 80x2 45+50+55 60 45 45x3+50x2 60</p>	<p>1/10x2 1/6+1/6 1/10 1/8x2 1/8x3 1/6 1/10 1/10x3+1/6+1/6 1/6</p>	<p>qtz-chl-py-cc x2 qtz-ser-py-cc x2 qtz-carb-lin-cc qtz-carb-py-lin-cc x2 qtz-chl-py-cc x3 qtz-(py)(cc) qtz-chl-py-cc qtz-ser-py-cc x5 qtz-chl-py</p>	<p>0 10 20 30 40 50 60 70 80 90</p>	<p>2.0</p>	<p>186 1/2</p>		95	47	85131	.23	.008		.25		
EOH 201	70 Wk- Mod	200	<p>45x2 45x2 50+45 70 50+55+45 50 70</p>	<p>1/2+1/6 1/4+25 1/10x2 1/8+1/10x2 4" 1/2</p>	<p>qtz-chl-carb-py-cc x2 qtz-py-cp x2 qtz-ser-py-cc x2 qtz-py(cc) qtz-chl-py(cc) x3 qtz-carb-chl(py) zone qtz-chl-carb-cc</p>	<p>0 10 20 30 40 50 60 70 80 90</p>	<p>1.5</p>	<p>197</p>	<p>vuggy core - structure not distinct</p>	98	47	85132	.32	.022		.35		
			50	1/4	99-cc	0 10 20 30 40 50 60 70 80 90				201								
						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												
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						0 10 20 30 40 50 60 70 80 90												

G.O. Eyrarset

3320

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 89-13
SHEET No. 1 of 4

LOCATION GIBRALTAR EAST (W. Wall)
DATE COLLECTED August 1, 1983
DATE COMPLETED August 1, 1983

BEARNG _____
LENGTH 201
DIP -90°

LATITUDE 50° 51.6' 55" N
DEPARTURE 15° 43' 07" E
ELEVATION 3,566.19

CORE SIZE N.O.W
SCALE OF LOG 1" = 10'
REMARKS _____

LOGGED BY G.D.B.
DATE August 9, 1983

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG	Veins L to Core All	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Foliation Dip	Estimated Core Recovery %	R O D	ASSAY RESULTS					
								LEACH CAP	20'				Sample Number	% Cu	% Mo	Estimated Grade		
Casing To 14'																		
MINE PHASE	70 WK	20	60-70 x 8 80 x 3 80 x 10	1/20 - hlc x 8 1" x 2" x 1/2 2" x 3" x 1/20 x 8	lim x 8 qtz-ser-lim x 3 qtz-ser-lim x 10	0	0		14'	90		85694	.03	.008		.05		3545'
QUARTZ DIORITE (14-201) -30% qtz -20% chl -45% saos. plag.	70 WK	30	70 50 x 3 60 x 2 90 50 x 2 + 60 x 2 30 60 x 4 60	1/4 2" x 2" x 1" 1/10 x 2 1/4 1/10 x 4 1/10 1/20 - 1/10 x 4 1/2	qtz-ser-lim qtz-ser-lim-py x 3 qtz-ser-py (cc) x 2 qtz-ser-lim qtz-ser-chl-py x 4 qtz-chl-py (cc) qtz-ser-py-lim x 4 qtz-ser-py	5	5		27	70		23	85695	.06	.004		.10	
-grades to seriate texture in some sections.	70 WK	40	45 60 60-70 x 5 60-80 x 5	1/8 1/20 1/20 x 5 hlc-1/20 x 5	qtz-ser-py (cc) qtz-lim qtz-ser-py x 5 qtz-py (cc) x 5 qtz-ser-py (cc)	5	5		37	70		47	85696	.08	.010		.10	
	80 WK	50	70 60 30 45 30	1/2 1/6 1/4 1/8 1"	qtz-ser-py qtz-ser-py (cc) qtz-chl-py qtz-chl-py qtz-ser-py-cc	1.0	1.0		47	65		30	85697	.12	.004		.20	
	80 WK	50	30+20 35 40 60 50	1/6 + 1/4 1/4 1/20 1/10 1/6	qtz-chl-py x 2 qtz-ser-py-cc qtz-cc qtz-ser-cc qtz-chl-py (cc)	1.0	1.0		57	65		30	85698	.11	.004		.25	
		60	5	1/8	qtz-chl-py (cc)													

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,290

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-13
SHEET No. 2 of 4

ROCK TYPES & ALTERATION		L in Core Foliation	GRAPHIC LOG Foliation Alteration	Feather 33x33x1/2	Yehs L in Core Alt	Width of Vehs	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feather Diameter	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
										LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	% Cu
		ND		70	50+60+35 20-30x4 40+50 40 35x2 35x2+60 50	1/8+1/10x2 1/20-1/10x4 1/10x2 1/5 1/20+1/10 1/10x3 1/10	qtz-chl-py x2 qtz-chl-py x4 qtz-chl-py (cc) x2 qtz-carb-py (cp) qtz-chl-py x2 qtz-chl-py x3 qtz-chl-py	0 10 20 30 40 50 60 70 80 90	1.0		67	55	47	85699	.07	.004	3500	.12
		ND		80	60+50x2 60-70x3 50 35 40+30 35+40	1/10x3 1/10-1/10x3 1/4 1" 1/2+1/4 1"+1/6	qtz-chl-py x3 qtz-chl-py x3 qtz-lim-py qtz-chl-lim-py qtz-ser-py (cp)(cc) qtz-chl-py x2	0 10 20 30 40 50 60 70 80 90	1.5		73	95	50	46501	.11	.004		.12
		70 Wk		90	5+40+50x2 45x5 45+40+30 50x2 40+30 90	1/10x2+1/10x2 1/10x5 1/8+1/5+1/8 1/4x2 3"+2" 6"	qtz-chl-py x4 qtz-chl-py x2 qtz-chl-py qtz-ser-py qtz-ser-py (cc) qtz-chl	0 10 20 30 40 50 60 70 80 90	2.5		83	85	60	46502	.09	.003		.10
		60 Wk- Mod		100	5 35 30 40 45x3 60	2" 2" 1" 2" 1/4+1/2+1/8 1/2	chl (qtz) qtz-chl-ser-py qtz-chl-ser-py qtz-py qtz-ser-py x3 qtz-ser-py (cc)	0 10 20 30 40 50 60 70 80 90	3.0		93	90	30	46503	.12	.006		.10
		60 Wk- Mod		110	40 5 80 80	1/6 1/4 1/8x2 6"	qtz-chl-py qtz-chl-py qtz-ch-py qtz ((cp)) (cc)	0 10 20 30 40 50 60 70 80 90	1.5		103	85	27	46504	.17	.001	3455	.05
		50- 60 Wk- Mod		120	20 20	1/8 3"	qtz qtz-ser-py	0 10 20 30 40 50 60 70 80 90	1.0		113	80	23	46505	.08	.002		.05

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-13
SHEET No. 3 of 4

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		Feather Direct	Estimated Core Recovery %	R O D	ASSAY RESULTS			
										LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	% Cu
			60 Wk	130	5 40 60x2 30 20	1/20 1/10 1/2+1" 1/10 1/10	qq-lim qtz-chl-py qtz-ser-py x 2 qtz-chl-py qtz-chl-py	0 10 20 30 40 50 60 70 80	1.0		121	80	35	46506	.13	.002	.05	
			60 Wk	140	5 50 70	1/20 1/8 1/4	qq-lim. qtz-chl-py qtz-chl-py	0 10 20 30 40 50 60 70 80	1.0		137	85	43	46507	.12	.002	.05	
		Diorite dyke ~ 60% sauss plag ~ 30% chl - plag is latn-like & Subhedral	50- 60 Wk- Mod	140	40 50+10+60 45x3 50+5 60 45x2	1/4 1/8x3 2" + 1/10 1/2 1/8+1/4 1/2	qtz-chl-py-lim qtz-ser-py (cp)x3 qtz-chl-ser-pyx3 qtz-carb-py (cc)x2 qtz(lim) qtz-chl-py x 2 qtz-ser-py	0 10 20 30 40 50 60 70 80	3.0		147	75	47	46508	.08	.006	.12	
			10- 70 Str.- Mod	150	80 20 (green) 60 5+10	2" 15" 1/2" 1"+1/2	qtz-carb-py qtz-chl-ser-py (cc)-lim qtz-ser-py (cc) qtz-ser-py-lim x 2 qtz-chl-carb-py (cp)(cc)	0 10 20 30 40 50 60 70 80	5.0		157	80	43	46509	.52	.004	3910 .30	
			10- 60 Str.- Mod	160	5 6 4x 60-30 50	10" 12" 6" 8" 1/10	qtz-ser-py-cp-cc qtz-chl (py)(cp) qtz-ser-py (cp)(cc) qtz-chl-lim (cp) - vug. qtz-chl-py (cc)	0 10 20 30 40 50 60 70 80	6.0		167	85	40	46510	.57	.004	.35	
			50- 70 Mod	170	80 80 13 50+20	24" 6" 1/10 1/20	qtz-chl (py)(cc)-lim zone qtz (Mo) qtz-chl-cp qq-lim x 2	0 10 20 30 40 50 60 70 80	1.0		177	80	37	46511	.27	.004	.12	
				180							90							

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-13
SHEET No. 4 of 4

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		Feet Down	Estimated Core Recovery %	R O D	ASSAY RESULTS			Estimated Grade
			Foliation Alteration	Footings						LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	
Possible steep fault	40- 50 Mod- St.	190	70	1/10	qtz-chl-py	0		1.5			182	50	23	46512	.17	.002		10
			80 x 2	1" x 2	qtz	10					20							
E.O.H 201'	45 Mod	200	20	1"	qtz-chl-py (cc)	20		3.5			187	55	27	46513	.16	.014		3365'
			30	10'	qtz-chl-carb-py-cp (cc)	30					40							
			40	3"	qtz-chl-py-lim	40					191							
			40	6"	qtz-ser-py-carb-cp	50					201							
			40	1"	qtz-py	60												
			25+70	1/10 x 2	qtz-chl-py(cp) x 2	70												

B.D. Byrnes

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-14
SHEET No. 1 of 4

LOCATION <u>GIBRALTAR EAST (N. Wall)</u>	BEARING _____	LATITUDE <u>51,470.64 N</u>	CORE SIZE <u>N.Q.W</u>	LOGGED BY <u>G.D.B</u>
DATE COLLECTED <u>August 2, 1983</u>	LENGTH <u>201'</u>	DEPARTURE <u>46,154.56 E</u>	SCALE OF LOG <u>1"=10'</u>	DATE <u>Aug 15, 1983</u>
DATE COMPLETED <u>August 2, 1983</u>	DIP <u>-90°</u>	ELEVATION <u>3,596.31</u>	REMARKS _____	

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG	Veins L to Core Ash	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footage Blocks	Estimated Core Recovery %	R O D	ASSAY RESULTS					
								LEACH CAP	None				Sample Number	% Cu	% Mo	Estimated Grade		
<u>Casing To 10-foot</u>						0 10 20 30 40 50 60 70 80 90												
<u>MINE PHASE QUARTZ DIORITE</u> Typical saus. alt'd rx type. (10-201')	50- 70 Str.		70	1/2"	qtz-chl(vug)	0 III 10 II 20 I 30 40 50 60 70 III I 80 III 90	<.5			0 17	50	10	46548	.06	.001		.05	
	60- 70 Str.		70-80	6'	qtz-chl-carb zone (rusty voids)	0 10 20 I 30 40 50 60 III 70 III II 80 III 90 II	.5			27	45	7	46549	.09	.001		.10	
	70 Wk- Str.		70-80	8'	qtz-ser(chl)-py(cc) + leucocratic lenses.	0 II 10 I 20 I 30 I 40 II 50 60 I 70 III III 80 III III 90	2.0			37	70	33	46550	.14	.001		.12	
	45- 70 Wk- Str.		50x6 60 40x2 50 30x3 30-50x6 45 50	1/8x6 1/8 1/8+3/4 1/8 1/8x3 1/8-1/8x6 2" 1/8	qtz-ser-py x6 qtz-ser-py qtz-ser-py(cp)(cc) x2 qtz-ser-chl-py(cc) qtz-chl-py x3 qtz-chl-py x6 qtz-py(cc)(Mo) qtz-chl-py	0 II 10 20 30 40 II 50 60 I 70 III III 80 III III 90 II 10 II 20 III I 30 III I 40 III I 50 III I 60 III 70 III 80 III 90	3.5			43	50	50	46551	.21	.003		.12	
fine-med gra diorite dyke 40% chl + 45% saus.																		3546

GEOLOGICAL BRANCH
ASSESSMENT REPORT
11,290

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-14
SHEET No. 2 of 4

ROCK TYPES & ALTERATION			GRAPHIC LOG	Yvlns L to Core Alt.	Width of Vln	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENTLY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footage Direct.	Estimated Core Recovery %	P. O. D.	ASSAY RESULTS				
									LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	% Cu	% Mo
			70 Mod- Str	60	70 x 10	1/8 + 1/10 1/20 - 1/10 x 10	qtz-chl-py qtz-chl-py x 10	0 10 20 30 40 50 60 70 80 90	2.5		51	95	67	46552	.07	.002		.10
		grades to a leucocratic zone	60- 70 Mod- Int'd folded	60	70? x 2 50 10 8 70 x 10 5 + 4 x 2	1/10 x 2 1/8 3/8 1/20 - 1/10 x 10 1/10 x 3	qtz-chl-py (cp) x 2 qtz-chl-py (cp) qtz-chl-lim qtz qtz-ser-py x 10 qtz-ser-py (cp) x 3	0 10 20 30 40 50 60 70 80 90	3.5		67	90	20	46553	.08	.001		.12
			5- 60 Str -folded	80	50 x 2 + 30 5-20	1/10 x 3 4'	qtz-chl-py x 3 qtz-chl-ser-py-cc	0 10 20 30 40 50 60 70 80 90	3.0		77	65	17	46554	.13	.001		.40
			60 Mod- Str	90	50 x 2 60-70 x 12	1" + 1/8 1/10 - 1/8 x 2	qtz-chl-py ((cc)) x 2 qtz-chl-py ((cp)) x 12	0 10 20 30 40 50 60 70 80 90	3.0		86 1/2	35	20	46555	.10	<.001		.10
			60 Mod- Str	100	60 x 5 60	1/8 - 1/10 x 5 1/2	qtz-chl-py qtz-ser-py	0 10 20 30 40 50 60 70 80 90	1.5		94	55	30	46556	.10	.001	3500	.08
			60 Wk- Mod	110	60 60 x 4 5 70	3" 1/10 x 4 1/2 12"	qtz-ser-py ((cc)) qtz-chl-py x 4 qq qtz-ser-py-cc	0 10 20 30 40 50 60 70 80 90	1.5		106	60	17	46557	.19	<.001		.15

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-14
SHEET No. 3 of 4

ROCK TYPES & ALTERATION			L to Core Foliation	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	Footage Discard.	Sample Number	% Cu
			45-60 Mod. Str.	120	45 50"	3" 6'	qtz-chl-py qtz-ser-py (cc)	0 10 20 30 40 50 60 70 80 90	6.0		114	70	33	46558	.26	.004	.12
			45-55 Mod.	130	60+45 80 45 80?	1/10 + 1/8 1/8 1/8 8"	qtz-ser-py-cc x2 qtz-ser-py qtz-ser-py cp-py	0 10 20 30 40 50 60 70 80 90	2.5		121	80	30	46559	.20	.001	.15
		Leucocratic Zone	50 Mod	140	40 45 50 60?	1" 1/10 1/10 1/2	qtz-ser-py-cp-cc qtz-chl-py qtz-chl-py qq	0 10 20 30 40 50 60 70 80 90	2.0		131	50	3	46560	.22	.001	.15
			50-60 Mod- Str.	150	45x3 45x4 60 50x5 60 60x7 50	1/2x3 1/8 + 1/10x3 1/2 1/10x5 1/2 1/10x7 1/2	qtz-chl-py (cp) x3 qtz-chl-py (cp) x4 qtz-ser-py qtz-chl-py (cp) x5 qtz-py qtz-chl-py x7 qtz-ser-py-cc	0 10 20 30 40 50 60 70 80 90	3.0		147	80	20	46561	.16	.004	.12
			30? str	160	30-40cc 5x2 20x2 30x20	1/8-1/20x6 1/8x2 1/10x2 1/8 + 1/4	qtz-chl-py x6 qtz-chl-py (cc) x2 qtz-chl-py x2 qtz-chl-py (cc) x2	0 10 20 30 40 50 60 70 80 90	3.0		153	85	33	46562	.12	.002	.25
			30? str.	170	15-20x3 5x4 5x2 5x2	1/8 + 1/10x2 1/20-1/10x4 1/2 + 1/4 1 + 1/4	qtz-chl-py x2 qtz-chl-py x4 qtz-chl-py (cc) x2 qtz-chl-py (cc) x2	0 10 20 30 40 50 60 70 80 90			169	55	13	46563	.26	.002	.18

3455

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-14
SHEET No. 4 of 4

ROCK TYPES & ALTERATION			GRAPHIC LOG	Vein 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			
	L to Core Foliation								LEACH CAP				Feet	Feet	Sample Number	% Cu
	45-70 Mod-Str.	180	50	5'	qtz-ser-py (cc)	0-10 11 10 20 30 40 11 50 11 60 11 11 70 11 11 80 11 90	4.5%		171	50	17	46564	.31	.020		.30
	60-70 Str	190	45 45 45-50x10 80 80x2 5	1" 1/8 1/10 - 1/20x10 1" 1/4x2 1/8	qtz-ser-py (cc) qtz-chl-cp qtz-chl-py x 10 qtz qtz x 2 qtz-cp	0-10 11 10 20 1 30 1 40 11 50 11 60 11 11 70 11 11 80 11 11 90	.5		187	98	50	46565	.16	.001	3410	.10
small fault? hem step E.O.H 201	5-80 Mod-Str.	200	5" 80 x 2	30" 1/2 + 1"	qq-bx qtz.chl. (vsgg)	0-10 111 10 11 20 11 30 11 40 11 50 11 60 11 70 11 80 11 90	<.5		197	35	10	46566	.06	.001		.05
J. D. Bryant									201	65						

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-15
SHEET No. 1 of 4

LOCATION GIBRALTAR EAST (N. Wall) BEARING _____ LATITUDE 51 645.17 N CORE SIZE N.Q.W. LOGGED BY G.D.B.
DATE COLLECTED August 2, 1983 LENGTH 200' DEPARTURE 46, 280.87 E SCALE OF LOG 1"=10' DATE August 15, 1983
DATE COMPLETED August 2, 1983 DIP -90° ELEVATION 3,639.34 REMARKS _____

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS - FREQUENCY -	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R Q D	ASSAY RESULTS						
								LEACH CAP	None			Sample Number	% Cu	% Mo	Estimated Grade			
Casing To 15-feet																		
MINE PHASE	50 Mod	20	5-20 70	1/8 x 2 2k	qtz-chl-py (cc)		1.0	150 (very wk)	17	95		46596	.07	<.002			.10	
QUARTZ DIORITE - typical - ~ 30% qtz ~ 15% sauss plag ~ 20% chl	50-70 Mod-Str.	30	5x2+30+80	1/8 x 3	lim x 3	0 10 20 30 40 50 60 70 80 90	<.5	To E.O.H	27	80	30	46597	.04	.002			.05	
med grn. but often fine-med due to grinding during foliation. (15-200)	50 Mod-Str.	46	50-60 x 5	1/2	lim x 5	0 10 20 30 40 50 60 70 80 90			37	95	63	46598	.04	.002			.05	
Small steep fault?	45-60 Mod-Str.	50	5?	24"	qq-bx	0 10 20 30 40 50 60 70 80 90	.5		47	40	20	46599	.12	.010			.05	
Core stained reddish	70? Med	60	50	2k	qtz	0 10 20 30 40 50 60 70 80 90	<.5		57	85	47	46600	.03	<.002			.05	
				10"	qtz-py (Mo)	0 10 20 30 40 50 60 70 80 90												3580

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ASSAY REPORT
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indistinct zones of leucocratic material

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-15
SHEET No. 2 of 4

ROCK TYPES & ALTERATION			L to Core Foliation	GRAPHIC LOG		Veins L to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Foliate Dissect.	Estimated Core Recovery %	R.O.D.	ASSAY RESULTS			
				Foliation Alteration	Foliate Structure						LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	% Cu
reddish stained core	60- 70 Mod	70	50+45	1" + 1/4	chl(ep) x 2	0			<.5			95	73	46601	.02	<.002		.05	
			45	1 1/2	qts-ep	10													
			35	3"	qts-chl-ep(py)	20						67							
	60 Mod- Str	80	45 x 2	1" + 1/2	qts-chl (vug) x 2	30			.5			80	37	46602	.07	<.002		.10	
			60	2"	qts-ser-py(cc)	40													
			70+60 x 2	1" + 1/2 x 2	qts-ser-py(ccp)	50						77							
			50	1/10	qts-py	60													
			50	2"	qts-chl-(vug)	70													
			5	1/10	qq-carb-hem	80													
	60- 70 Mod- Str.	90	60	2"	qts-chl-py	10			3.0			90	47	46603	.06	.002		.15	
			5	1/10	qq	20													
			30"	2"	qts-ser-py	30						86%							
			50	13"	qts-ser-py(cc)	40													
			45	24"	qts-ser-chl-py(cc)	50													
	45- 60 Mod- Str.	100	50	2"	qts-chl-py(ccp)	60			3.0			85	40	46604	.14	.004	3545	.15	
			60	5"	qts-chl-py(vug) with 1" qts-ser-py incl.	70													
			70 x 2	2" x 2	qts-ser-(chl) py(cc) x 2	80						97							
	45- 60 Mod- Str.	110	70 x 2	2" + 1/10	qts-ser-py x 2	10			1.0			98	50	46605	.08	<.002		.10	
			60	2 1/2	qts-ser-py(cc)	20													
			30	1"	qts-chl(ccp)	30						107							
			25	1/4 + 1/10	qts-chl-py x 2	40													
	5- 40 Str.	120	45 x 2	1/10 x 2	qts-chl-py x 2	50			1.5			90	40	46606	.12	<.002		.15	
			30 x 2	1/20 x 2	qq-carb x 2	60													
			15+20	1/20 + hlc	qq-chl-lim x 2	70						116							
			5-20	5'	qts-chl-(ser)-(py)(cp)(lim)	80						90							

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-15
SHEET No. 3 of 4

ROCK TYPES & ALTERATION			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			Sample Number	% Cu	% Mo	Estimated Grade						
45-70 Mod	130	40 40 40+3=	2" 2" 1/10 x 2	2" 2" 1/2	qtz-ser-py (cp) qtz-chl-ser-py qtz-chl-py x 2 chl-gy	0	10	20	30	40	50	60	70	80	90	3.0	127	98	40	46607	.11	.002	.20
						10	20	30	40	50	60	70	80	90									
5-30 Str.	140	5-30	5-30	9'	a 5' qtz vein with zones of massive py (ccp) (cc) and qtz-chl + qtz-ser- py borders 1-3' wide	0	10	20	30	40	50	60	70	80	90	7.0	135	70	27	46608	.21	.008	.50
						10	20	30	40	50	60	70	80	90									
5-30 Str.	150	5-10°	5-10°	11'	qtz-ser-py (cc)	0	10	20	30	40	50	60	70	80	90	4.0	145	90	17	46609	.26	.002	.30
						10	20	30	40	50	60	70	80	90									
20-70 Str	160	5-10°	5-10°	5'	qtz-ser-py (cc) plus a center qtz-py (massive) vein ~ 2' thick	0	10	20	30	40	50	60	70	80	90	3.0	151	60	7	46610	.12	.002	.20
						10	20	30	40	50	60	70	80	90									
80- WK- Mod	170	70	2" 1 1/2	3" 1 1/2	qtz-chl-py qtz-chl-py qtz-ser-py	0	10	20	30	40	50	60	70	80	90	1.0	167	75	53	46611	.09	.009	.05
						10	20	30	40	50	60	70	80	90									
70 WK- Mod	180	70	8" 8" 1/2 x 3	8" 8" 1/2 x 3	qtz-ser-py qtz-ser-py qtz-chl-py (cp) x 2	0	10	20	30	40	50	60	70	80	90	3.0	177	100	73	46612	.10	.002	.10
						10	20	30	40	50	60	70	80	90									

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-15
SHEET No. 4 of 4

ROCK TYPES & ALTERATION			L to Core Foliation	GRAPHIC LOG	V. to Core Axis	Width of V. to	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Accuracy %	P. O. D.	ASSAY RESULTS			
										LEACH CAP	LIM. ZONE			Sample Number	% Cu	% Mo	Estimated Grade
			70 Mod		6" $\frac{1}{10} \times 4$ $1" \times \frac{1}{8}$ 1" 2"	qtz-ser-py (cp) qtz-chl-py x 4 qtz-ser-py ((cc)) x 2 qtz-ser-py	0 10 20 30 40 50 60 70 80 90	3.5			98	63	46613	.10	<.002	3455	.08
		E.O.H. 200'	60 WR- Mod		$\frac{1}{4} + 2\frac{1}{2}$ $\frac{1}{8}$ $\frac{1}{10} \times 2$ 8" $\frac{1}{10} \times 2$ 2"	qtz-ser-py x 2 qtz-chl-py qtz-chl-py x 2 qtz-ser-py ((cc)) qq x 2 qtz-chl (vug)	0 10 20 30 40 50 60 70 80 90	3.0			90	63	46614	.107	<.002		.10
<p><i>S.D. Pyson</i></p>																	

GIBRALTAR MINES LTD.

HOLE No. 83-19
SHEET No. 1 of 4

GRID _____

LOCATION GIBRALTAR EAST (N. Wall)
DATE COLLECTED August 6, 1983
DATE COMPLETED August 6, 1983

BEARING _____
LENGTH 201'
DIP -90°

LATITUDE 51,463.63 N
DEPARTURE 46,476.47 E
ELEVATION 3,649.82

CORE SIZE N.O.W.
SCALE OF LOG 1" = 40'
REMARKS _____

LOGGED BY G.D.B.
DATE August 15, 1983

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG	Veins 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	40'			LIM. ZONE	135'	Sample Number	% Cu	% Mo	Estimated Grade	
<u>Casing To 20-feet</u>																		
<u>BANDED QTZ- CHLORITE-(SER.) ZONE (20-141)</u>	30 Mod		10-30	7'	qtz-ser-lim zone					50	13	46636	.03	.002		.05		
				1/4	qq-lim-wno+					85								
				1/4	qtz-chl-lim					30 1/2								
~20-30% chl as bands, lenses and wispy layers ~25% qtz and	30- 70 Str.+ Cren		5-80 (a fold?)	4'	qtz-chl (vuggy)-lim					80	23	46637	.38	<.002		.05		
				3"	qtz-chl (vuggy)					37								
~45% sevs. plag., both showing strong cataclastic deformation no dark alth nor carbonate	10- 70 Str. Sl- Cren		45	1"	qtz-(ser)-py(cc)					70								
			40	3'	qtz-ser-py-cc					45	23	46638	.58	.002		.60		
			5	1/4	qtz-lim					95								
			60	2"	qtz-chl. (py(cc))-lim					50 1/2								
-this zone may be more cataclastic than metasomatic	5- 50 str. + Cren		35	6"	qtz-chl-lim					90	43	46639	.27	<.002		.05		
			50	5"	qtz-chl-lim					57								
			60 x 2	1" x 2	qtz + chl													35%

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GRID _____

GIBRALTAR MINES LTD.

HOLE No. 83-19
SHEET No. 2 of 4

ROCK TYPES & ALTERATION		L to Core Foliation	GRAPHIC LOG		Veins L to Core Att.	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footage Discard.	Estimated Core Recovery %	R O D	ASSAY RESULTS			
			Foliation Attitude	Footage						Strat.	LEACH CAP				LIM. ZONE	SUPERGENE	Sample Number	% Cu
		5-70 Str + Cren.	70	70	2"	qtz-lim	finely rusty voids all	0 10 20 30 40 50 60 70 80 90	.5			95	40	46640	.20	<.002		.05
		4s Str.	80	70	2 1/2"	qtz-chl-lim (vuggy)	thro core (sulfid leaching)	0 10 20 30 40 50 60 70 80 90	.5			95	50	46641	.13	<.002		.05
		5s Str.	90	50 60 50 70 x 5	2" 3/4 3" 1/2 + 1/16 x 2	qtz-ser-py-cc qtz-ser-py qtz-ser-py qtz-ser-py x 3		0 10 20 30 40 50 60 70 80 90	1.0			90	43	46642	.19	<.002		.15
		60-70 Str.	100	70 70 60	1/4 + 1/8 1/10 x 2 1/2	qtz-ser-py (cc) x 2 qtz-ser-py x 2 qtz-chl (vug)	weakly diss.	0 10 20 30 40 50 60 70 80 90	.5			95	43	46643	.07	<.002		.10
		60 Str.	110	70 45 25	8" 1/2 1/2	qtz-chl-lim (vug) chl qtz	py. along foln planes	0 10 20 30 40 50 60 70 80 90	.5			95	40	46644	.09	<.002	3545	.08
		5-60 Str. + Sl. Cren	120	45 70 70	3" 2"	qtz-lim (vuggy) qtz-lim qtz-ser-py (cc)		0 10 20 30 40 50 60 70 80 90	.5			90	33	46645	.07	<.002		.08

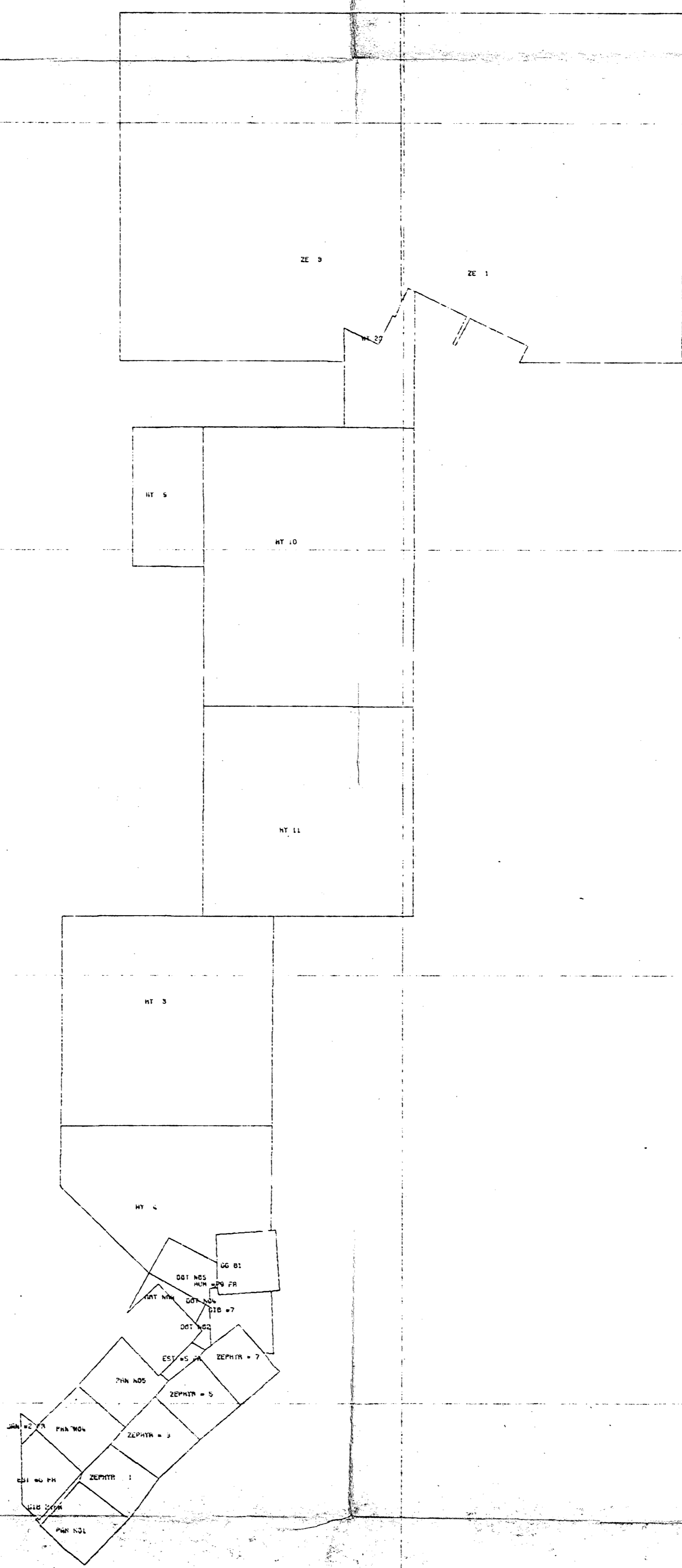


FIGURE 2
GREY GROUP
MINERAL CLAIMS
CIBOLA PAC MINES LIMITED
16-NOV-83 SCALE=1:25000

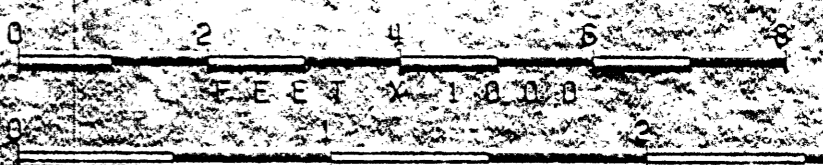
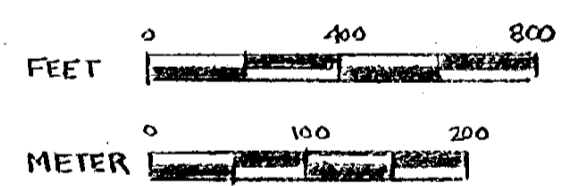
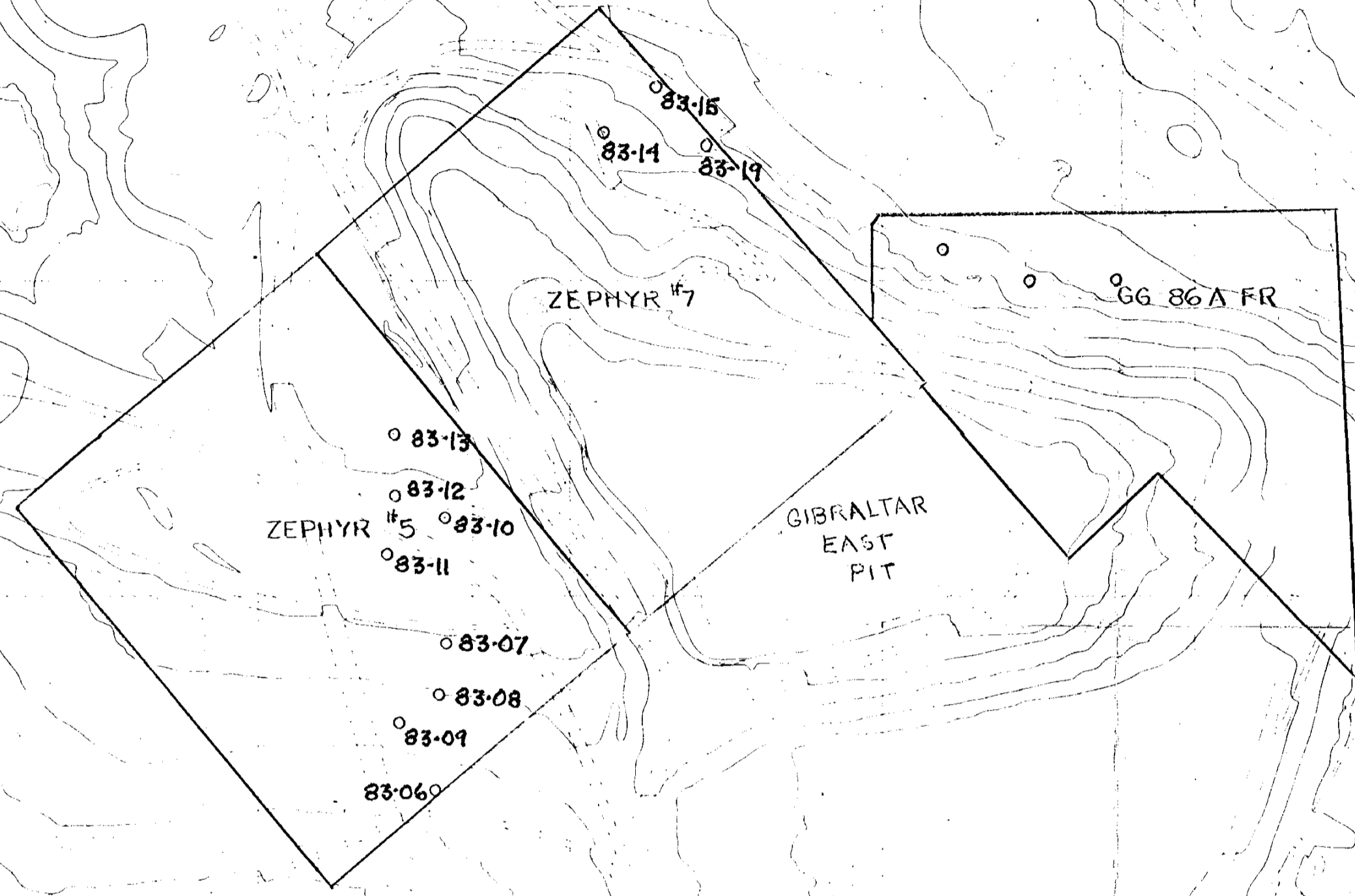


FIGURE 3
DIAMOND DRILL HOLE LOCATION
GREY GROUP
Scale = 1:4800



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