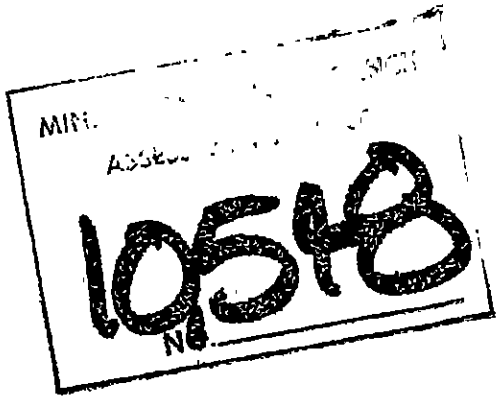
82-353



DIAMOND DRILL REPORT

ON THE

OLIVE CLAIM GROUP

CARIBOO MINING DIVISION
93 B 8

(LATITUDE 52° 31', LONGITUDE 122° 17')

OWNER AND OPERATOR

GIBRALTAR MINES LIMITED

McLEESE LAKE, B.C.

AUTHOR: M. R. SCHAUMBERGER SUBMITTED: May 17, 1982

TABLE OF CONTENTS

FIGURES

APPENDICES

1.0 INTRODUCTION

The Olive Mineral Claim Group is part of the Gibraltar Mines Limited permanent property. It is accessed along a mine haul road and lies approximately 1 3/4 miles (2.8 Km) from the plant site. The general location is shown in Figure 1.

The drilling project took place along the southern boundary of the Granite Lake Pit over an area which had been originally drilled by Canex in 1969. The 1982 drill hole locations are shown in Figure 2.

Drilling was carried out by G. & D. Diamond Drilling during the period April 14 to 20, 1982. Two vertical N. Q. wireline diamond drill holes were completed for a total of 1146 feet (349.30 m). Core is stored at Gibraltar Mines plant site.

2.0 MINERAL CLAIMS

The Olive Claim Group has mineral leases grouped with mineral claims. Particulars of each claim are listed below. Gibraltar Mines has full administrative rights over all the Cuisson Lake Mines Ltd. claims. Mineral claim locations are shown in Figure 3 (pocket)

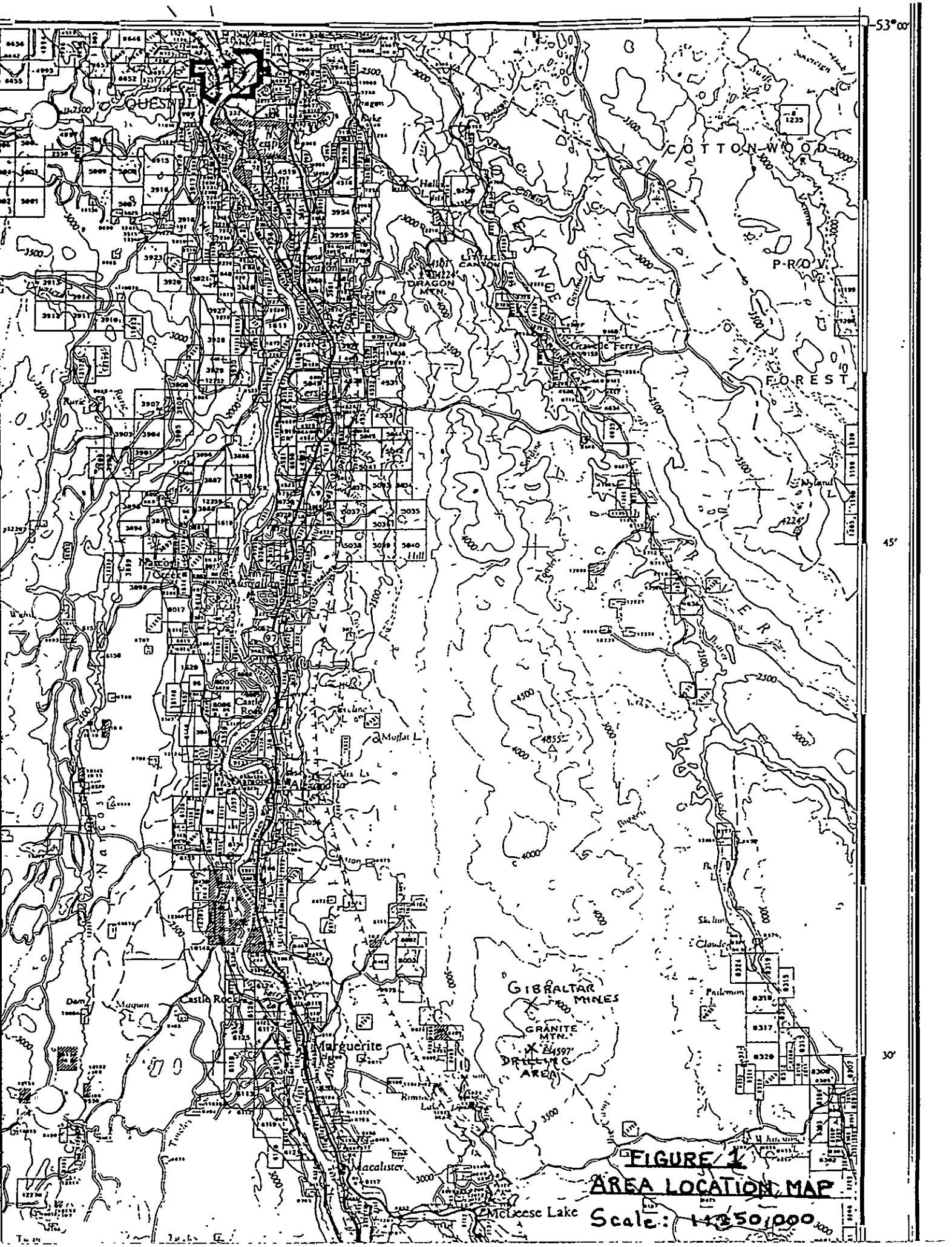


FIGURE 1
AREA LOCATION MAP
Scale: 1:250,000

OLIVE GROUP

Mineral Claim	Record #	Lot #	Lease	Anniversary Date	Ownership
Est 3 Fraction	62401	3604	M 42	July	Gibraltar Mines
EV 1	71594	4145	-	23 May	"
EV 2	71593	4145	-	23 May	"
EV 3	71588	4145	-	23 May	"
EV 4	71614	4145	-	23 May	"
LYNNE 3	36699	3604	M 42	July	"
RUM 80 Fraction	61406	3604	M 42	"	"
VE 1	34947	3604	M 42	"	"
VE 2	34948	3604	M 42	"	"
VE 3	34949	3604	M 42	"	"
VE 5	34951	3604	M 42	"	"
VE 7	34953	3604	M 42	"	"
BUD 1	71611	4145	-	23 May	"
BUD 2	71591	5145	-	"	"
BUD 3	71599	4145	-	"	"
BUD 4	71608	4145	-	"	"
FLO 1 Fraction	71603	4145	-	"	"
VE 4	34950	3713	M 51	July	"
VE 6	34952	3713	M 51	"	"
VE 8	34954	3713	M 51	"	"
VE 10	34956	3712	M 50	"	"
GIB 15 Fraction	64566	4145	-	3 Sep	"
GIB 20 Fraction	66782	4145	-	21 June	"
FI 4 Fraction	71602	4141	-	23 May	Cuisson Lk Mine
GJ 20 Fraction	71323	4144	-	8 Feb	"
SAP 1 Fraction	64567	4146	M 60	Oct	Gibraltar Mines
HAS 2	48026	-	-	16 October	Cuisson Lk Mine
12	48031	-	-	"	"
13	48032	-	-	"	"
14	48033	-	-	"	"
15	48034	-	-	"	"
16	48035	-	-	"	"
17	48036	-	-	"	"
18	48037	-	-	"	"
19	48038	-	-	"	"
20	48039	-	-	"	"

3.0 DRILL PROGRAM

3.1 OBJECTIVE

The purpose of this drill program was to test the extension of ore zones indicated by the 1969 diamond drill holes. The new drill holes decreased the drill spacing in this area to a 300 X 300 foot (91.44 X 91.44m) diamond pattern.

3.2 RESULTS

The drill hole locations are shown in Figure 2. The locations were obtained by chain and compass methods and are considered approximate. Drill logs are included in the pocket of this report. Both holes intersected narrow zones of ore grade mineralization. There was a weak limonite or oxidation effect noted in both holes but there was no evidence for a supergene effect. All copper values reported here and in the logs are for total copper. All molybdenum reported is MoS_2.

Hole 82-16 was cased to 30 feet. Between 190 and 330 feet, a 140 foot zone of 0.27% copper and 0.018% MoS_2 were intersected. The hole was drilled to 604 feet.

Hole 28-17 was cased to 37 feet. Between 340 and 500 feet, a 160 foot zone of 0.31% copper, 0.011% MoS_2 was intersected. The hole was lost in a fault zone at 542 feet.

3.3 INTERPRETATION

The ore zones intersected in this drilling appear to start abruptly under a fault, indicating a possible fault cut off and off-set. Previous drilling also supports this theory and structural analysis defines a fault plane with orientation 040°/30° N W. The mineralization outlined by this drilling appears to be porphyry - type mineralization and is hosted by epidote-chlorite altered "Mine Phase" quartz diorite and quartz-sericite-chlorite schist. Sulphide minerals are pyrite, chalcopyrite and molybdenite. Pyrite values are fairly low, generally slightly less than 1% (visual estimates). Higher molybdenite values correspond generally with higher copper values.

The ore zones intersected by these holes are possibly the fault-offset extension of the main "Granite Creek" ore systems mined in the original Granite Creek Pit. These ore systems were oriented 090/20° S.

4.0 STATEMENT OF EXPENDITURES

a) Site Preparation

TD 15 Bulldozer	Apr. 13-14	20 hrs. @ $66.75/hr.	$ 1,335.00

b) Drilling Costs

Drilling:	82-16	$7,852.00		
	82-17	7,046.00		
		$14,898.00	$14,898.00	
Man Hours (Moving, Water Lines)			978.00	
Materials			1,895.40	
			$17,771.40	17,771.40

c) Vehicle Costs

4 x 4 Suburban	Apr. 14-20	7 days @ $17.20/day	120.40

d) Assay Costs

108 assays @ $4.40/assay			475.20

e) Miscellaneous Costs

60 coreboxes @ $4.90/box		$294.00	
Sample bags, tags, etc.		25.00	
		$319.00	319.00

f) Core Logging and Supervision

M. R. Schaumberger	Apr. 22-23	16 hrs.		
	Apr. 26-28	24 hrs.		
		40 hrs. @ $21.88/hr.	$875.20	

Field Work and Organizing

E. Oliver	Apr. 14-16	4 hrs.		
	Apr. 19-20	4 hrs.		
		8 hrs. @ $20.00/hr.	160.00	
C. Johnston	Apr. 14-16	4 hrs.		
	Apr. 19-20	4 hrs.		
		8 hrs. @ $15.00/hr.	120.00	

Core Splitting

D. Tait	May 4-7	28 hrs.		
	May 10-11	16 hrs.		
		44 hrs. @ $12.50/hr.	550.00	
			$1,485.20	1,485.20

TOTAL DRILLING COST $21,726.20

5.0 CONCLUSION

Ore zones intersected by this drilling were slightly lower grade than expected. When combined with results from previous drillings, the ore zone appears to be weakening in an easterly direction. It is recommended that more holes be drilled to the west of 82-16 and 82-17 to test the westerly extension of this ore zone. Drill spacing should be maintained at a 300 X 300 foot (91.44 X 91.44m) diamond pattern.

Submitted by,

M R Schaumberger

M. R. Schaumberger
Mine Exploration Geologist

GIBRALTAR MINES LIMITED

APPENDIX I

STATEMENT OF QUALIFICATION

I, Madeline Schaumberger, of Gibraltar Mines Limited, McLeese Lake, B.C., do certify that:

1. I am a geologist.

2. I am a graduate of the University of British Columbia with a B. SC. 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 assisted in the supervision of this drill program, logging of the core and assessment of the results.

Madeline R. Schaumberger

Madeline R. Schaumberger

APPENDIX II

ABBREVIATIONS USED IN DRILL LOGS

alt^{n}	alteration
cal	calcite
carb	carbonate
chl	chlorite
cp	chalcopyrite
cren	crenulated
dissem	disseminated
dk	dark
ep	epidote
foln	foliation
gg	gouge
grn	grained
hem	hematite
incr	increase
lim	limonite
mal	malachite
mag	magnetite
mo	molybdenite
py	pyrite
Q. D.	quartz-diorite
QSP	quartz-sericite-py
qtz	quartz
rx	rock
ser	sericite
str	strong
stkwk	stockwork
v	very
w/	with
wk	weak

BIBLIOGRAPHY

Bysouth, G. D., Diamond Drill Report on the Olive and Yellow Groups., Cariboo Mining Division, 93 B 8, GIBRALTAR MINES LIMITED., August 31, 1979.

GRID ______ GIBRALTAR MINES LTD. HOLE NO. 82-16
SHEET No. 1 of 10

Approximate Location

LOCATION: Granite Lake st. II
DATE COLLARED: April 14, 1982
DATE COMPLETED: April 16, 1982
BEARING: 0°
LENGTH: 604'
DIP: -90°
LATITUDE: [illegible]
DEPARTURE: 53,175 E
ELEVATION: 3,992'
CORE SIZE: NQ Wireline
SCALE OF LOG: 1" = 10'
REMARKS:
LOGGED BY: MRS
DATE: April 22-26/82

ROCK TYPES & ALTERATION (Qtz. / Plag. / K-Spar / Mafic / Texture / Hardness)	∠ to Core Foliation	GRAPHIC LOG Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH 57' / SUP. DEPTH — / REMARKS	Footage Blocks	Estimated Core Recovery %	RQD	Sample Number	% Cu	% Mo		Estimated Grade
Cased to 30'		30			CB			30							
30-46 Mine Phase Quartz Diorite - mainly Sauc alt^n w/ minor chl. alt^n bands.	N.D. to 70° Mod	40	10° / 30° / 5° / 70 / 20 x 2 / 10	1/2 / 1/20 / hle / hle / hle + 1/20 / hle	qtz-carb / qtz-carb-chl-lim / carb-hem / carb-lim / qtz-carb-hem / chl-carb-lim	0%	Lim mod to wk to 57'. There is lim + hem below this but it is likely assoc. w/ faulting - fracturing.	35 / 39	60% / 100%	35%	84937	.01	.001	3950	.01%
46-71 Dark Chloritic Alt^n - incr. in chl.	N.D.	50	5° x 3 / 70 / 80 / 15	hle x 3 / 1/20 / hle / hle	carb-lim x 3 / carb-lim / carb-hem / carb-lim	0%	hem stain	47	92% / 48%	33%	84938	.01	<.001		.01%
Foliation v. wk to mod.	80 v wk to 40 Mod to Str.	60	5 / 30° / 5 / 15 / 10 / 30	hle / hle / 1/4 / hle / 3 / 1	carb / chl-carb-lim / qtz-chl-carb-py / carb-hem / qtz-carb vein-chl / chl-carb	.3%		52 / 57	60%	25%	84939	.04	.002		.01%
	60 to wk to Mod	70	70 / 60 / 60 / 5° / 5° x 2 / 60°	1/16 / 1/2 / 1/4 / 1/4 / hle x 2 / hle	qtz-chl-py / qtz-chl-carb / qtz-chl-[illegible]-py / qtz-chl-carb-py / carb-hem x 2 / carb-hem	1%	Disseminated pyrite	66 / 71	80% / 80%	10%	84940	.03	.003		.01%
71-76' Appears to be Mine Phase QD w/ mo sauc, weakly a sl incr. of chl. 76-79.5 Dk Alt^n = chl ser schist. 79.5-80 Leucocratic Zone	N.D. 80° Str. N.D.	80	20° / 5° / 30 / 30° / 80° / 10°	1/20 / hle / 3 / 1 / 3 1/2 / 7	qtz-chl-ep-py / carb / qtz-carb-hem / qtz-carb-chl / qtz-chl-ser-carb-py band & lim / Leucocratic Phase Qtz-ser-carb	2 1/2%		77	92%	30%	84941	<.01	.002		.01%

GRID ______

GIBRALTAR MINES LTD.

HOLE No. 82-16
SHEET No. 2 of 10

ROCK TYPES & ALTERATION (Qtz. / Plag. / K-Spar / Mafic / Texture / Hardness)	∠ to Core Foliation	GRAPHIC LOG (Foliation Alteration / Footage / Structure)	Veins ∠ to Core Axis	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH ____ SUP. DEPTH ____ REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo		Estimated Grade
80 - 101 Interlayered sauc-free [illegible] Phase GD + a dark alt^n w/ increased chl.	[illegible] to WK.	90	5° 65° 70 60 10° 40 50	hle 1/16 [illegible] hle hle 1/2 hle	carb qtz-[illegible] qtz-ep qtz-chl carb-lim qtz-chl-carb carb-lim	[illegible]		95.5	94%	40%	84942	.01	.002		.01%
	70-80° V. WK to Mod.	100	70 x 2 10 20 5° 80° 45°	hle x 2 1/4 1/4 1/2 1 1/2 2	carb-lim x 2 chl-qtz-carb qtz-carb-chl-lim-py qtz-carb-lim qtz-ser-carb-hem. lim stained qtz-chl-carb Zone.	.2%		95.5	96%	60%	84943	<.01	.002		.01%
101 - 117 Leucocratic Phase - seriate texture (a few zones w/ too much chlorite) ranging to a Qtz-ser Zone	70-80 WK to Str	110	30° 80° 80 60 80 x 3 60	1/8 1/2 1/16 1 1/2 1/8 x 3 1	qtz-carb & chl qtz-chl-carb-(ep) qtz-chl-carb-py Lim stained qtz-chl-carb Zone qtz-ser-(chl)-carb-py x3 chl-qtz-carb	.8%		106	92%	60%	84944	.04	.002		.01%
117 - 129 Dk. Chloritic Alt^n	70-5° [illegible] 70-80 Mod to Str	120	?, oval blob 70 80°	1/2 x 1" 2 1/2	qtz & carb. py dissem Qtz-chl-carb-py qtz-chl-carb-py	1%	Badly broken, some gg.	116 120	65% 60%	0%	84945	.03	<.001		.01%
Qtz-chl-carb Zone Mod foliation. 120 - 149	60 80 Mod	130	70° 10° 10°	1 hle hle	qtz-carb-chl. carb carb-hem-(lim)	0%	Badly broken core.	127	70% 50%	6%	84946	.02	.001		.01%
Dk Alt^n - ie no sauc sl. increase in Chlorite content Weakly foliated	80° WK.	140	15° x 2 15° x 2 5° 80	hle + 1/8 1/20 x 2 hle hle	qtz-carb x 2 qtz-carb-hem. chl-carb-hem. qtz-chl-ep.	0%	Badly broken core - some gg.	131 133 136.5	20% 45% 95%	10%	84947	.01	<.001		.01%

GRID ______

GIBRALTAR MINES LTD.

HOLE No. 82-16
SHEET No. 3 of 10

ROCK TYPES & ALTERATION	∠ to Core Foliation	Footage	Vein ∠ to Core Axis	Width of Vein	Mineralization	Estimated % Pyrite	Remarks (Ox. Depth / Sup. Depth)	Footage Blocks	Estimated Core Recovery %	R.Q.D.	Sample Number	Cu %	Mo %		Estimated Grade
	70° wk		5° 15 [illegible] 60 25	1/16 [illegible] 1/2 1/16	carb-hem [illegible] carb-chl qtz-carb qtz-carb-gg qtz-carb	.8%		143	92%	35%	84948	.01	.001		.01%
149-152.5 chl-qtz-ser-carb-py [illegible]	70 str.	150	70	12"	[illegible] py zone										
152.5-172 DK. [illegible] as above	WD.	160	70 [illegible] 5° 60 5° 65x2	13" [illegible] hle 1/4 1/20 [illegible]	chl-qtz-ser-carb py zone [illegible] py zone carb-hem qtz-chl-carb qtz-chl-ep qtz-carb x2	.7%	hem stain	152.5	95%	68%	84949	.02	<.001		.01%
	60° WK.	170	 80 70x2 55 20	15" 2" 1/20x2 1/16 hle	qtz-chl-carb vein stockwork gg qtz-carb x2 qtz-carb-ser carb-hem	0%		163	97%	48%	84950	.02	<.001		.01%
			5° 70°	15" 6'	chl-qtz-carb-py Broken core, very rich in carb - friable in places - gg in places	.3%		172	70%	12%	84951	.03	.004	x	.01%
178-196' Fault Zone.		180 190			Fault Zone: Gg + minor bx V. rich in carb. chl-hem.	0%		178	66%	0%	84952	.09	<.001		.01%
196-206 Mine Phase Q.D. seric. alt'd.		200	80° 5 60+70	1 1 1/10x2	qtz-chl-ser-ep-py qtz-chl-carb-ep qtz-chl-ser-py-ep x2	.3%		185.5 196	92% 82%	10%	84953	.39	.012		.20%

GRID ______

GIBRALTAR MINES LTD.

HOLE No. 82-16
SHEET No. 4 of 10

ROCK TYPES & ALTERATION (Qtz. / Plag. / K-Spar / Mafic / Texture / Hardness)	∠ to Core Foliation	GRAPHIC LOG (Foliation Alteration / Footage / Structure)	Veins ∠ to Core Axis	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH / SUP. DEPTH / REMARKS	Footage Blocks	Estimated Core Recovery %	RQD	Sample Number	% Cu	% Mo		Estimated Grade
206 – 211 DK Altn – No Sauc Altn Zones of [illegible] chl	ND	214	65 60 60 45 30 [illegible]	1/2 1/10 hlet 1/4 1/20 5 1/5 ?	qtz – cal – cp [illegible] qtz chl carb – cp – mo qtz chl – carb – cp x2 qtz – carb – chl – cp – qtz – chl – carb – <<cp>> Broken qtz chl carb vein	0%	2' of hem. staining	201.5 209	82%	15%	84954	.22	.012		.18%
211 – 214 Fault Zone ([illegible] Type) 214 – 240 Qtz. rich Phase w/ cp segregations / narrow zones of weak sauc alt[illegible]	[illegible]° WK	220	5° 25° 60 x 4 5° x 3	[illegible] 3' 1 2 1/20 x 4 hle x 3	carb Fault Zone Broken core – gg – chl – carb qtz. carb. qtz chl – cp py x4 carb.	.3%		214 220	80% 50%	0%	84955	.27	.010	3770	.09%
	ND	230	5° 60 10° [illegible] 60 x 2 [illegible]	hle 1/8 1/20 6" hle x 2 1 1/2"	chl – carb – hem qtz – chl – carb – cp. qtz – chl – py – cp. Gg – broken core – carb – hem. qtz chl – <cp> x2 Broken core – gg – carb – chl – hem.	.2%		223.5 226.5 230	60% 33% 72%	10%	84956	.11	.006		.06%
	ND	240	25 x 2 20° 70 25 70 80	hle x 2 1/8 3 1/10 1/16 1/20	chl – carb – hem x2 qtz – chl – carb – cp. Qtz – chl – ser – carb – cp – py Zone qtz – cp – <chl> qtz – chl – carb – py – <cp> qtz – chl – carb – py	.1%		237 240	70% 66%	15%	84957	.16	.010		.12%
240 – 256.5 Sauc Altd Mine Phase Quartz Diorite w/ dark altn veins	ND	252	30 x 2 [illegible] 50 x 2 15 30	1/10 + 1/8 1/6 + 1/10 [illegible] 1 1/8	qtz – chl – cp – <py> x2 qtz ser chl – cp x2 [illegible] – ser – py – cp x2 qtz – chl – carb – cp – py – gg qtz – chl – py – cp	1%		245 249.5	80% 90%	30%	84958	.18	.006		.18%
256.5 – 259 DK Altn Zone 259 – [illegible] Sauc Altd Mine Phase QD as above	[illegible] wk [illegible]	[illegible]	[illegible] 10 x 2 50 80 [illegible]	1/4 1/8 x 2 1/20 2.5' 1 1/20	carb gg qtz chl – carb – py x2 qtz – chl – carb – <cp> qtz – chl – ser – fsp – carb – cp – py [illegible] – carb – gg broken. qtz – chl – [illegible] – cp – py – <cp>	1%		253.5 259	50% 78%	15%	84959	.53	.008		.17%

GRID ______

GIBRALTAR MINES LTD.

HOLE No. 82-16
SHEET No. 5 of 10

Rock Types & Alteration	∠ to Core Foliation	Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	Estimated % Pyrite	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo		Estimated Grade
262-277 DK Alt^n Zone - incr. Chl. generally a lack of sau. [illegible] it resembles the qtz	60° 70 Wk to Mod.	270	70×4 70 70×2 65×3 66 70 70°	1/20×4 7 1/10×2 1/16×3 1 1/20 1	qtz-chl-py-cp×4 qtz-cp zone qtz-chl-cp×2. qtz-ser-chl-cp-py×3 qtz-carb-mo-<cp> qtz-chl-carb-py qtz-magnetite-carb-cp-mo>	7%	266	70% 81%	22%	84960	.27	.034	3725	.16%
rich phase w/ some [illegible]	ND	280	80×2 70×2 80° 70°×4 80	1/20×2 1/16 + hle 1/8 hle×2+[illegible] 1/2	qtz-chl-py×2 Broken core qtz-carb-<chl>-hem×2 qtz-carb-cp. qtz-chl-cp×4 qtz-chl-carb-cp	.3%	271.5 275	[illegible] 95%	[illegible]	84961	.29	.010		.18%
277-283' Sau. Alt'd Q.D. interlayered Qtz-Rich Phase w/ep-chl-segregation. 283-297' Qtz-Rich Phase/DK Alt^n Zones.	ND.	290	15 5° 80×3 85 70 5° 10°	2 1 hle×3 1/20 1/16 hle 1/16	qtz-chl-carb-<cp> qtz-chl-carb. qtz-chl-py-cp×3 qtz-chl-py qtz-chl-carb-mo-(cc?) carb-hem. qtz-chl-carb-cp.	.4%	283 285.5 289	55% 70%	12%	84962	.10	.040		.07%
297.307' DK Alt^n Qtz-Chl-Ser	ND.	300	60 80° 70×2	1/8 12" 15" 1/20×2	qtz-carb-chl-cp. Broken core - some cp+mo noted. Broken Qtz Vein-chl-carb-mag-cp-mo. Badly broken core - some gg. qtz-chl-cp×2	.2%	293 297 300	50% 50% 55%	0%	84963	.36	.054		.20% Good MoS₂
Schist Zone 307-371 Sau. Alt^d QD	80° S/W ND	310	88 80×2 30 80° 75	15" 1/8×2 1/1 1/20 1/8	Qtz Vein-carb-cp-mo qtz-mag-carb-chl-py-<cp>×2 qtz-carb-chl-cp qtz-chl-cp qtz-ser-chl-py	.9%	306	70% 90%	35%	84964	.38	.038	3680 X	.23% Good MoS₂
W/ dark alt^n veins,	NDi	320	70×2 5° 65×3 70°×5	1/20×2 1/8 1/20×3 (1/16×3)+(1/20×2)	qtz-chl-ser-carb-py-hem×2 qtz-carb-chl-py qtz-chl-carb-py×3 qtz-chl-ser-py-cp×5	.9%	312 318	50%	20%	84965	.20	.006		.11%

GRID______

GIBRALTAR MINES LTD.

HOLE No. 82-16

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH / SUP. DEPTH / REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo		Estimated Grade
	80° wk	330	65 30 x2 70° 70° 70x2 10	1/6 1/8 + 1/10 1/2 1 1/4 + 3/4 1/2	qtz-ser-carb-py-cp-mo. qtz-chl-carb-py-cp x2 qtz-carb-chl-mo-<cp> qtz-chl-carb-cp. qtz-chl-carb-cp x2. carb-hem-<py>	1%		324	90% 95%	40%	84966	.33	.012		.21%
	80° VWK	340	70° 65x2 15°x2 15° 80° 80° 70	1/20 1/20 1/20 x2 1/20 1/8 1/4 1/10	qtz-chl-carb-py qtz-chl-<cp>x2 qtz-ep-carb <chl>. qtz-carb-hem qtz-chl-ser-py-cp qtz-ser-chl-py qtz-chl-py	1.5%		334	96%	86%	[illegible]	.10	.002		.09%
	80° VWK to ND	350	80° 80 60 80 10 40	1/2 3" 1/16 1 1/4 1/4	qtz-chl-carb-mag-py-cp qtz-chl-carb-py-cp qtz-ser-py qtz-ser-chl-carb-py qtz-ep qtz-chl-carb-py-cp	2%		343 349	94%	25%	84968	.12	.005		.17%
	ND to 80 sh	360	80 20 10 80 80 80	1 1/4 1/8 1/2 10" 2 2	qtz-chl-carb-cp-mo qtz-ser-chl-cp-py qq-py-carb qtz-chl-ser-carb Zone qtz-carb-chl-mo-ser carbonate qq	1%		352 356.5	97% 44% 76%	20%	84969	.18	.060	3635 X	.12% Good MoS2
	80° 80° V. W.K.	370	60 15x2 70 60x3 80 60x4	1/8 1/8 + 1/20 1/16 x2 1/16 x3 1/2 1/20 x4	qtz-chl-py-cp qtz-ser-chl-carb-py x2 qtz-chl-ser-<carb>-py x2 qtz-chl-py x3 qtz-carb-<chl>-mo qtz-chl-ser-py x4	2%		362 370	90%	30%	84970	.20	.009		.07% Good MoS2
371-396 Dk. Chloritic Alt^n interlayered w/narrow bands of same alt^d QD and alt^n-rich phase which is rich in chl. + displays ep. cementation.	80° V.WK to St.K	380	60 80 60x3 80 x3 75	1/20 7 1/16 + 1/20 x2 1 1/4 + 1/4 1/20 x2	qtz-chl-ser-py. qtz-chl-ser-<mag>-cp-py-carb. qtz-chl-py x3 qtz-chl-carb-mag <py-cp> x3 qtz-chl-carb-py x2	.9		375	95% 94%	30%	84971	.18	.009		.17%

GRID ______

GIBRALTAR MINES LTD.

HOLE No. 82-16
SHEET No. 2 of 10

ROCK TYPES & ALTERATION (Qtz., Plag., Kspar., Mafic, Texture, Hardness)	∠ to Core Foliation	Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH / SUP. DEPTH / REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo		Estimated Grade
	ND.	390	8° 5° 80x2 5°x3 80 80+70 80	1/20 1/20 1/20x2 hlex3 1/16 1/16x2 1/10	qtz-ep qtz-carb-[illegible] ep qtz-chl-py [illegible]-carb-hem x3 qtz-chl-py [illegible] qtz-chl-py-<cp> [illegible] qtz-ser-chl-py	%	[illegible]	385 388.5	70%	30%	84972	.12	.004		.17%
396-414 Qtz rich Phase approaches a Leucocratic Phase in places + a Dk Chl Zone in others. Some epidote segregation.	Sh	400	80 70 75 80 (70x2) 80° 15°	1/20 1/8 1/10x3 6" 1/16	[illegible] qtz-[illegible] qtz-[illegible]-py-[illegible] Qtz-ser-cp-carb veins within Leucocratic Qtz-Ser rich zone qtz-ep.			394.5	75%	25%	84973	.27	.007	359.0	.21%
	ND.	410	80 30° 70° 5° 65	hee 3' hee 4 1/20 1/8	qtz-ser-py Broken core w/some py + cp noted - [illegible] qtz-chl-py Qtz-chl-ser-carb-py-<cp> qtz-chl-carb-py Gouge-carb-chl-hem.	1%		401.5 404.5 409	50% 98%	5%	84974	.20	.006		.12%
414-423 Weakly Sauc Alt'd Mine Phase Q.D.	70° Mod to ND.	420	60° 5° x2 [illegible]x2 80 80° 5°	1/4 1/20+1/10 1/16+1 3/4 1 1/40	qtz-chl-mag-carb-cp mo qtz-chl-carb-cp-py x2 qtz-ser-carb-chl-cp x2 qtz-chl-carb-ser-cp-mo qtz-carb-chl-ser-mag-<cp qtz-chl-ser-carb-cp-py	.3%		417	97%	35%	84975	.18	.039		.20% Good MoS2.
423-431 Qtz Rich Phase w/ cp segregation / Sauc Alt'd Q.D. / & Qtz Ser cp Zone.	ND [illegible]	430	60° 80 10 5°+30° 70x2 70 60	1/20 1/10 1/16 1/8x2 1/16x2 1/2 2	qtz-chl-py qtz-chl-py qtz-cp-chl qtz-chl-carb-py [illegible] qtz-chl-ser-cp x2 qtz-ser-chl-py-<cp> cp-pyrrhotite-mag-qtz-chl.	1%	Qtz-ser-chl schist	425	94% 85%	65%	84976	.28	.008		.40%
431-438 Weak Sauc Alt'd QD. 438-440 Dk Chl Alt'd	ND.	440	60 15 60x2 60 10 60	1 1/2 5 1/20x2 1/10 1/12	qtz-chl-carb-cp Qtz-ep qtz-ser-cp x2 qtz-chl-py qtz-chl-carb-cp-py Qtz-ser-chl-carb-mag-cp-py mo	.8%		432 437	90%	35%	84977	.25	.071		.27% Good MoS2.

GRID ____ GIBRALTAR MINES LTD. HOLE No. 82-16 SHEET No. 8 of 10

Ol.	Plag.	K-Spar	Mafic	Texture	Hardness	ROCK TYPES & ALTERATION	∠ to Core Foliation	Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH ____ SUP. DEPTH ____ REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo		Estimated Grade
						440-445 Same Alt of Q.D. Weak Alt 445-452 DK Alt approaching [illegible]			450		10 x2 70 x2 20 5 x2 5/35	1/6 + 1/20 lle 1/10 x2 1/10 x2	qtz-chl-carb cp x2 qtz-chl carb mo cp py x2 qtz chl-carb-py qtz-carb chl x2 [illegible] x2 Broken Core	¼%		443.6	94% 85%	30%	84978	.14	.009	3545	.09%
						Incr chl-ep segrg. 452-453 Qtz Ser Chl Carb Zone 453-455 Qtz Vein 455-459 Qtz-ser-chl Carb Zone, only slightly foliated	75° to. ND		460		50 60° ? 50	1/6 1½ 2' long x ? wide lle 1/21	qtz-chl-carb-cp-py Qtz-carb-chl Qtz Vein - carb - chl - mo - cp py carb Badly broken core - cp py cp noted qtz chl carb py x4	¼%		450.6 453	72% 75%	15%	84979	.21	.032		.18% Good MoS2
						459-465 Same Alt Q.D. Weak alt DK Veins 465-493 Str. Same Alt w/zones of qtz-	ND		470		30x3 60 30° 25x4 30 30x2 40°	1/16 + lle x3 1/4" 1½" 1 + (1/4 x2) 1/8 1/6 1/20 x2 1/8 1/6	qtz chl-carb-py Qtz Vein - chl-carb-mo-cp Qtz-ser-chl-carb-cp-py qtz-ser-cp qtz-ser-py-cp qtz-ser-carb-chl-py qtz-carb-chl-cp	1%		459 462.6 467	92% 82%	35%	84980	.08	.071		.28% Good MoS2
						rich phase w/ ep segregation.	ND		480		40° 20 25° 65 30 x2 60x3 60	1 lle 1/20 1 1/16 x2 lle x3 ?	qtz-chl-ser-carb-cp qtz-chl-ser-py qtz-chl-ser-carb-py qtz-chl-ser-cp-py - cp Zone qtz-chl-carb-py x2 qtz-chl-py x3 qtz-ep-chl-carb-cp	1%		477	99%	60%	84981	.06	.002		.09%
							ND		490		45 65 x2 30 x4 60 20° 15 x2 60x2 60 x4	1/16 1/16 x2 1/20 x4 1/2 1/20 1/20 x2 lle x2 1/20 x4	qtz-ep qtz-ser-chl-py-cp x2 qtz-ser-chl-py-cp x2 qtz-chl-ser-cp qtz-ser-cp qtz-chl-ser-cp x2 qtz-chl-ser-py-cp x2 qtz-chl-ser-carb-py-cp x4	1%		487	90%	72%	84982	.05	.001	3500	.17%
						493-499 Str. Same Alt of euhedral fsp. grains Mine Phase 499-520	ND		500		70x2 45x4 60 x2 60x2 60 x2 90	1/20 x2 1/16 x4 1/10 x2 1/2 x2 lle + 1/4	qtz-ser-chl-py x2 qtz-ser-chl-py x4 qtz-ser-chl-carb-cp x2 qtz-chl-ser-py x2 qtz-ser-carb-py-cp x2 Qtz-chl-ep-carb-cp-mo	1%		493.5	100% 81%	40%	84983	.07	.002		.18%

GRID ______ **GIBRALTAR MINES LTD.** HOLE No. 82-16 SHEET No. 9 of 10

ROCK TYPES & ALTERATION	∠ to Core Foliation	Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	Estimated % Pyrite	Remarks (OX. DEPTH / SUP. DEPTH)	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo		Estimated Grade
Saus Alt'd Mine Phase intermingled w/ Qtz-ser-chl zones.	80° Str. to ND.	510	45° 40x3 80 5°x2 30x2 20x2	1/10 1/20x3 1 1/10 + 1/4 1/8x2 1/8+1/20	qtz-chl-carb-py. qtz-chl-carb-py<cp>x3 Qtz-carb-chl-cp-py <mo> qtz-chl-ser-carb-py-cp x2 qtz-ser-[illegible] x 2 qtz-ser-chl-carb-py-cp x 2	1%		504 509	90%	43%	84984	.14	.006		.23%
	ND	520	30 60° 45° x2 20° 20° 25°	1/6 1/2 1/10 x2 1 1/16 1/10	qtz-ser-[illegible]-py. qtz-chl-ser-carb-py qtz-ser-chl-py-carb Qtz-carb-chl-cp-mo qtz-ser-chl-cp, qtz-chl-ser-carb-py	1.5%		515	91% 97%	15%	84985	.17	.002		.30%
	45-60° Str. to ND	530	45 80 80 25x5 66 30	9' 4 1/20 1/20x5 1 1/20	Qtz-ser-chl-py Zone - <cp> <mo> Qtz-cp-carb-hem-<py> qtz-chl-cp. qtz-chl-carb-py-cpx5 qtz-ser-chl-py-cp x 5 qtz-chl-ser-carb-py	1.5%		521 530	82%	42%	84986	.14	.002		.19%
539-549	ND	540	15x2 30 30x2 30 20x2 45° 20°	1/20x2 3 1/10x2 1/6 1/8 [illegible] 1/5	qtz-ser-chl-py x2 Qtz Vein-carb-mag-cp qtz-ser-py qtz-ser-py-cp qtz-ser-chl-py x2 qtz-ser-py Qtz-ser-py-[illegible]	1.5%		537	99%	85%	84987	.12	.004	X	.16%
Saus Alt of QD Mine Phase ? 549-565	ND	550	15° 75° 45 x2 30° 25° 00 + 70	1 1/4 1/6 x2 1/20 1/12 1/8 x2	Qtz Vein-chl-<carb> Qtz Vein qtz-chl-ser-py x2 qtz-chl-ser-py qtz-ser-py-cp qtz-ser-chl-py	7%		547	98%	95%	84988	.07	.002		.05%
Qtz-Chl-Ser Zones / Qtz-Ser-Chl Zones / Saus Alt of QD		560	70° 45° 5 45 20° 30° 10°	3 1/16 1/2 1/16 1/16 1/9 1/16	Qtz Vein-carb-chl-cp-mo. qtz-chl-py qtz-chl-carb-py-cp-mag, qtz-chl-py qtz-ser-chl-py-cp. qtz-chl-ser-carb. qtz-chl-py-cp	2%	[illegible]	553.5	100% 87%	55%	84989	.16	.005		.16%

GRID _____ GIBRALTAR MINES LTD. HOLE No. 82-16
SHEET No. 10 of 10

ROCK TYPES & ALTERATION							∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH / SUP. DEPTH / REMARKS	Footage Blocks	Estimated Core Recovery %	RQD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
Oil.	Pla.	K-Spar	Mafic	Texture	Hardness																		
										5		1/16	qtz-chl-carb-		hem stain	562							
										15°		Nil	chl-carb-hem										
										6"		6"	Broken core - sg										
							ND.			10° x 2		1/16 x 2	qtz-chl-carb-cp x2	.6%			77%	50%		.23	.004		.35%
										60°		3	qtz-ser-chl-cp										
										70°		2	qtz-chl-ser-mag-py										
										120°		1/20	qtz-chl-carb-cp			5x7							
										60		1/2	qtz-chl										
										15° x 3		1/4 x 2 + 1/2	qtz-chl-ser-py-cp x3										
							ND			15 x 3		1/10 + 1/8 x 2	qtz-chl-ser-py x3	1%			100%	76%	84991	.07	.003		.22%
										60		1	qtz-ser-py			577							
									580	60° x 2		1 + 1/8	qtz-ser-carb-py x2										
										15°		1/10	qtz-ser-carb-py-cp?										
										20 x 3		1/8 + 1/16 x 2	qtz-chl-py x3										
										80		1/16	qtz-chl-carb-py-cp?										
										60 x 3		Nil x 3	qtz-chl-ser-py x3	1%			88%	32%	84992	.06	.002		.09%
							ND			80		1/20	qtz-chl-carb-py			587							
										75		1/6	qtz-chl-ser-carb-py										
									590	80		1/4	qtz-ser-chl-carb-cp										
										20°		1/20	qtz-chl-carb-py										
										60° x 3		1/16 + Nil x 2	qtz-chl-carb-py x3	1%			75%	32%	84993	.05	.002		.03%
							80° WK			65 x 3		1/16 x 2 + 1/8	qtz-chl-carb-py x3			596							
										60°		1/8	qtz-chl-carb-py										
										65°		1	qtz-ser-clay-chl-py										
									600	50°		1/10	qtz-chl-carb-chl										
							80° WK			85°		1/8	qtz-chl-carb-py-cp				89%	8%	84994	.09	.002		.10%
									604	75°		1/4	qtz-chl-carb-py	1%									
										20		1/20	qtz-chl-carb-py-cp			604							

GRID ______ **GIBRALTAR MINES LTD.** HOLE No. 82-17 SHEET No. 1 of 9

Approximate Location

LOCATION [illegible]	BEARING	LATITUDE [illegible]	CORE SIZE [illegible]	LOGGED BY M.R.S.	
DATE COLLARED April 17, 1982	LENGTH 542'	DEPARTURE 53,175 E	SCALE OF LOG 1" = 10'	DATE Apr 26 - 28, 1982	
DATE COMPLETED April 19, 1982	DIP -90°	ELEVATION 4[illegible]	REMARKS		

OX. DEPTH 49'
SUP. DEPTH —

37'

Rock Types & Alteration	∠ to Core Foliation	Graphic Log Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	Estimated % Pyrite	Remarks	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	Cu %	Mo %		Estimated Grade
37-48 Mine Phase Q.D.	ND	37 40	5° 5	3" 1/8 hle	broken core - (mal - azurite) qtz-chl-carb-cp-mal carb-chl-lim-	0% Nat Cu	Lim weak to 49	37	88%	22%					.10%
Sauc Alt'd / Qtz Rich Phase w/ Ep Segregations increased chlorite 48-56	ND 70 75 str	50	70 60° 70 70 80 80	1/8 hle 1/10 1/20 3" 13"	qtz-chl-carb qtz-chl-ser-carb-lim-MnO2 qtz-chl-carb-lim-hem qtz-cp Qtz-chl-ser (hem) Zone Qtz-ser-py Zone	1%	Nat Cu	41	93%	60%	84887	.03	.002		.08%
Qtz-Chl-Ser Schist Qtz-Ser-Chl Schist interlayered 56-67' DK Alt w narrow zones of sauc-free QD	75 80 str to ND	60	80 x 2 80 x 2 15 45°	6' 1/4" 1/2 x 2 2" 1/16'	Qtz-ser-py Zone x2 qtz-chl-ser-py x2 qtz-chl-carb	1%		51	87%	20%	84888	.11	.002		.02%
Sl. incr in chl. content 67-79' Qtz-Chl-Ser Zones	ND to 80° str	70	80° 70 20° 60 70° 70	6" 1 1/4 1/6 15" 12"	Qtz-carb-sm chl-cp Qtz-chl-carb-py qtz-carb-(chl) qtz-carb-chl qtz-ser-py Zones w qtz-chl-ser-py Zones qtz-chl-ser-py Zone	5%	+ Qtz-carb-veins (cp)	58	90%	45%	84889	.12	.004	395	.09%
(Qtz-Ser Zones) 74-97' Dk Alt - incr in chl. content	45° 80° Mid to Wk	80	15° 50 15 10 10	1/10 1/20 1/20 1/4 1/2	qtz-chl-ser-py qtz-chl-ser-py-(cp) qtz-chl-carb qtz-chl-ser carb-py qtz-chl-carb-ser-py	1%		67 77	96%	50%	84890	.23	.002		.09%

GRID______

GIBRALTAR MINES LTD.

HOLE No. 82-17
SHEET No. 2 of 9

OX. DEPTH ______
SUP. DEPTH ______

ROCK TYPES & ALTERATION (Qtz., Plag., K-Spar, Mafic, Texture, Hardness)	∠ to Core Foliation	GRAPHIC LOG: Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	ESTIMATED % PYRITE	REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo	Estimated Grade
	80° Mod to Str.	90	5° 60 80 x 2 60 80 70°	1 1/2 1/2 x 1/4 1/8 hee hll	chl-qtz-ser-cp-<py>-ca.. qtz-chl-carb-py-<cp> qtz-chl-carb-.. py<cp> x2 qtz-chl-carb ..carb mal. carb-hem	1%		87	95%	35%	84891	.09	.002	.10%
97-133 Sauc. Alt^d Mine	10 wk to Mod.	100	25° 60 10° 30 45	1/8 1/8 1/10 1/20 3'	qtz-chl-carb qtz-chl-carb carb-hem qtz-chl-py-cp-<carb> Gg + broken Sauc Alt^d core.	.3%	hem stained	95 100	75% 50%	20%	84892	.02	TR	.03%
Phase Q.D./narrow zones of Dk Alt^n w/ Qtz Chl-Ser Schist Zones	60-70° wK.	110	5° 30 15° 80 60 30°	hee 1/16 1/2 7 1/2 1/8	carb qtz-chl qtz-chl-carb. sph? qtz-ser-carb-<chl> (Leucocratic Zone) qtz-carb-chl-ep qtz-chl-ser-ep	.3%		107	92%	62%	84893	.03	TR	.01%
	70-80 wK to Str.	120	80° 60° 70 x 2 60 80°	9 1/4 1/20 x 2 1/10 1/4	Qtz chl-ser-carb-py Zone qtz-chl ser-py-cp qtz-chl-ser-py-cp x 2 qtz-chl-ser-py-cp qtz-chl-ser-py-cp	1%	chl-py / Qtz-ser-chl zone	117	92%	71%	84894	.25	TR	.20%
	80° Str. to N.D.	130	80 70° 60 60 45°	15" 1/16 1/4 1/20 1/2	Qtz-chl-ser-carb-py-cp qtz-chl-carb qtz-ep-chl qtz-chl-ep qtz-chl-carb	1%		127	94%	70%	84895	.07	.002	.15%
133-139 Qtz-Chl-Ser Schist 139-142	30° 60° Str.	140	80 30 60 15 to 30° 15°	4 12 4 6 1/8	qtz-chl-ser-py Zone Qtz-chl-ser-carb-py-cp Zones Qtz-ser-chl-py-carb Zone Qtz-ser-chl/py-carb-<cp> Zone qtz-carb-chl-<ep>	3%		137	94%	55%	84896	.16	.012	.20%

GRID ______

GIBRALTAR MINES LTD.

HOLE No. 82-17
SHEET No. 3 of 9

Rock Types & Alteration	∠ to Core Foliation	Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	Estimated % Pyrite	Ox. Depth / Sup. Depth / Remarks	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo	Estimated Grade
Sauc. Alt'd Mine Phase GD. 142-149 DK Alt'n + Qtz-chl-Ser Schist 149-158	60°-80° WK to ND.	150	45 5° 60 80 15°	hle 6" 19" 1/2 1/16	chl-carb Qtz-chl-ser-py-ep Zone. Broken core w/ <py>-<ep> noted qtz-[illegible] qtz-chl-carb	1%		147	94% 62%	23%	84897	.09	<.001	.14%
Sauc. Alt'd Mine Ph. GD, (DK Alt'n Zones) 158-185'	60° [illegible] WK,	160	30° 80 70 20° 15°x3 80 15	hle 1/2 1/16 1/16 hle x3 1/2 hle	chl-carb-hem qtz-carb-[illegible] qtz-carb qtz-carb-chl. qtz-chl-carb-hem x3 qz carb	[illegible]%		153 157	75%	16%	84898	.03	.001	.01%
Sauc. Alt'd Mine Phase Quartz Diorite	N.D.	170	15° 15 20 15 20x2 10°	1/8 hle x2 1/6 1/10 hle x2 hle	qtz-chl-carb carb hem x2 qtz-carb qtz-carb-chl. carb-hem x2 carb	0%	} hem st.	167	90% 98%	68%	84899	.01	.002	<.01%
	ND	180	5° 70 60° 15° 20°	hle 5 1/10 hle hle	qtz-chl-ep-<py> Qtz-rich Phase w/ ep blotches qtz-carb-chl-ep carb qtz-chl-carb-mag	.1%		173.6	95%	62%	84900	.03	<.001	.02%
185-193 Qtz-chl-Ser Zone / DK Alt'n Zones	ND to 80° Str.	190	85 75x2 30 60°x2 80 80	1/4 1/20 + 1/16 1/20 1/16 x2 44 1	Qtz-chl-carb-ser-mag. Qtz-chl-carb x2 qtz-ep chl Qtz-chl-carb-ep-py x2 qtz-chl-carb-ser-py-<ep> Qtz-chl-ser-carb-ep-py-mag	1%		183	88%	40%	84901	.34	.002	.25%
193-197.5 Sauc Alt'd Mine Phase Quartz Diorite. 197.5- DK Alt'n / Sauc. Alt'n	ND to 70°-80° Str.	200	70-80 60° 10 15° 80 10°	8 1/8 1/16 1/8 1/2 1/16	qtz-chl-ser-carb-<ep> zone qtz-ser-carb-mag. qtz-carb-chl Qtz-chl-carb qtz-chl-ser-<ep> Zone. qtz-chl-carb	.1%		191 196	95% 95%	45%	84902	.03	<.001	[illegible]

GRID ______

GIBRALTAR MINES LTD.

HOLE No. 8217
SHEET No. 4 of 9

ROCK TYPES & ALTERATION (Qtz. / Plag. / K-Spar / Mafic / Texture / Hardness)	∠ to Core Foliation	Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH ____ SUP. DEPTH ____ REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	Cu %	Mo %		Estimated Grade
205 – 257	30 to 60 FL		210		6° 60° 5° 20° 80°, 45°	5" 1/2 hle 4" 8"	[illegible] chl-qtz-carb-mag-ep carb qtz-cu-carb-ep-<py> qtz vein-chl-carb-ep-py			206		62%	84903	.59	.004		.35%
Same Alt <Qtz. Rich Phase w/ Ep-sugr>	ND		220		80° 60 70 15° 80 20	1/2 1/2 1 1 1/16 hle	qtz-ep-chl qtz-carb qtz-ep-<chl> qtz-ep-chl qtz-ep qtz-ep	.1%		216		55%	84904	.01	.001		.01%
	ND to 60° to WK.		230		80 x3 30 70° 10° 30	1 + (1/8 x2) hle hle hle 1/4	qtz-ep-chl x3. carb-hem chl-carb-hem. qtz-ep-chl-<carb> qtz-chl-carb-hem	.1%		226	95%	57%	84905	.01	<.001		.01%
	ND		240		30° 10° 5° 30 30 x3 60°	6 1 1/2 hle 1 hle x3 1/2	Broken core-gg-carb-hem. Qtz Vein-<carb>-<chl> chl-carb. qtz Vein-carb-chl carb-hem x3 qtz-ep-<carb>-<chl>	0%		232 237	92% 95%	43%	84906	.01	.001		.01%
	70-80° to WK to N.D.		250		70° 5° 30 10 x2 5°	1/8 1/20 hle hle x2 1/20	qtz-ep qtz-ep-chl-carb carb-hem carb x 2 qtz-chl-carb	0%		247	90%	55%	84907	.01	.002	x	.01%
257-263 DK Alt	60°-80° VWK to WK		260		60 x2 30 5 x2 45° 5° x2	hle x2 1/16 1/16 + 1/8 1/16 1/20 x2	qtz-chl-ep x 2 qtz-carb-<chl> qtz-chl-carb x2 qtz-ep-chl qtz-chl-carb x2	0%	+ sericite altⁿ envelopes	257	94%	48%	84908	.02	.001		.01%

GRID ______

GIBRALTAR MINES LTD.

HOLE No. 82-17
SHEET No. 5 of 9

ROCK TYPES & ALTERATION (Ox., Plag., K-Spar, Mafic, Texture, Hardness)	∠ to Core Foliation	GRAPHIC LOG Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH / SUP. DEPTH / REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo		Estimated Grade
263 - [illegible] Qtz Chl Ser Schist / Qtz Ser (Chl) Schists	45°-60 Str.	270	30 15° 60	1/20 8" 6'	qtz ser-chl-py Qtz chl - [illegible] py - ((cp)) Zone	5%		264 267	88% 98%	36%	84909	.18	.001		.18% ?
272 - 276 [illegible] Chl. 276 - 279 Qtz Chl Ser Zone	[illegible] Str to ND	280	60 60 [illegible] 70 80° 60	1 1 1/3 1/20 1/4 2' 3"	Qtz chl carb - ser - py - cp Zone Qtz ser - (chl) - py - (cp) Zone carb - hem - py Qtz [illegible] ser - py Qtz chl ser. carb Zone Broken zone - carb on fract.	[illegible]		272 276	80% 82% 77%	7%	84910	.16	.001		[illegible]
279 - 283 Dk Altn / Qtz Ser / Sauc. Altn / 283 - 296 Sauc Alt'd Mine Phase Q.D. / Dk Altn Zones	ND	290	30 15 40 25 6 10 10	4 2 1/2 1 hle hle hle	qtz - chl - carb. qtz - chl - carb. qtz - ep qtz - chl - carb carb - hem chl - carb - hem. chl - ep - carb - hem.	0%		281 287	97%	78%	84911	.01	.001	3776 X	.01%
296 - 299 Qtz - ep Bx Zone	No.	300	70 60 60x2 60° 80°x2 ? 5°	2 1 1/8 x2 1/20 1/16 +1 3' 1/16	qtz - ep - chl - carb. qtz - ser - chl - py - (cp) qtz - ep x2 qtz - chl - py qtz - chl - carb - py x2 Qtz - Ep Zone (py) - (cp) qtz - chl - cp - py	.7%		297	95%	62%	84912	.18	.002		.20%
299 - 309 Dark Chl. Altn	70° 80° Mod	310	30° 50° 65 60° 45° 70	1/20 9 1/8 1 1/8 1/4	qtz - chl - cp qtz chl - carb - py qtz - chl - ser - chl - py - cp qtz - chl - ser - carb - mag - cp - py qtz chl - mag - cp qtz - chl - carb - cp	1%		307	88%	68%	84913	.23	.003		.30%
309 - 335.5 Sauc Altn Mine Ph. Q.D.	70° v. WK	320	30° 45x2 10° 60x3 20	2 hle x 2 hle hle x3 hle	qtz - chl - carb carb - hem. carb - hem carb - hem carb - chl	0%		317	90%	47%	84914	.01	.002		.01%.

GRID ______

GIBRALTAR MINES LTD.

HOLE No. 82-17

OX. DEPTH ______
SUP. DEPTH ______

ROCK TYPES & ALTERATION (Ox., Plag., K-Spar, Mafic, Texture, Hardness)	∠ to Core Foliation	Graphic Log: Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	Estimated % Pyrite	Remarks	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo		Estimated Grade
		330	80° 5° 20x2 80 20x3	hle hle x2 1/4 hle X3	chl-carb carb-hem x2 qtz-chl-cp-(py) qtz-chl-carb-hem x4	.2%		327	92%	80%	84915	.01	<.001		.01%
335.5 – 347.5' Fault Zone		340	45 30 30	hle 4½'	qtz-hem Gg-(Broken core of Qtz-chl-carb composition)	.3%	Hole is badly broken + some py + hem	335.5 340.5	90% 72%		84916	.07	.001	3630	
Mostly gg - Some broken core - No ..., Qtz carb chl Rock 347.5' – 370 Qtz-ser-chl-carb zone	7 1 80°	350	20 45x2	7.5' 1/10 1/20 x2	// qtz-ser-chl-carb-py qtz-chl-ser-carb-py-cp x2	1%	gougy from here to bottom of hole. Badly broken core	346	73% 80%	0%	84917	.26	.004		.5%
	Mod to Str	360	30° 30° 30° 30x2 30x3	1/8 1/2 1/2 1/10x2 horiz + 1/4	qtz-chl-carb-cp. qtz-ser-carb-cp-mo qtz-chl-carb-py qtz-chl-ser-carb-py-cp x2 qtz-chl-ser-carb-py x3	2%	Badly broken core.	351 355 357	55% 50%	0%	84918	.68	.017		.25%
Faulted	30° 7° wk	370	30°	1 5	qtz-chl-carb-ser-cp. Broken core + gg. Some cp + py ...	?	Faulted	366 370	44% 30%	10%	84919	.93	.010		~.15% .?
370 – 383 Sauc. Alt'd Mine Phase Q.D.	ND	380	20° 60° 15° 60 x2 60°	1/8 1/4 1/8 1/8 + 1/4 1/20	qtz-chl-carb-py-cp? qtz-chl-carb-py qtz-chl-py-cp. qtz-ser-py-chl x2 qtz-chl-ser-carb-py-cp	1%	Faulted.	374 378 380	50% 46% 70%	10%	84920	.17	.008	3635	? .13% ?

GRID ______

GIBRALTAR MINES LTD.

HOLE No. 82-17
SHEET No. 7 of 9

ROCK TYPES & ALTERATION (Ox. / Plag. / K-Spar / Mafic / Texture / Hardness)	∠ to Core Foliation	Foliation Alteration	Footage	Structure	Vein ∠ to Core Axis	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH ___ SUP. DEPTH ___ REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo		Estimated Grade
383 - 420 DK [illegible] w/ narrow [illegible]	8 WK		390		5 70 10° 45° 70	lle 2 1/8 1/4 3	carb qtz-carb-ser-py qtz-chl-[illegible] qtz-chl-carb [illegible] qtz-chl-[illegible]-carb-py	1%	core	384 387.2	62% 56% 60%	6%	84921	.10	.016		.09%
	[illegible] WK		400		5 45 60°	1/20 1/4 1/4	qtz-chl-carb-gg qtz-chl-[illegible]-py qtz-carb-chl-gg-py	.7%	core	392 397	55% 30%	[illegible]	84922	.23	.007		.14%
	70- 80° WK.		410		10 70° 80° 60° 50°	1/16 15 1/4 2 1/20 1/8	qtz-chl-carb. gg + rubble - poor recovery qtz-chl-carb-py qtz-chl-carb-ep 1% qtz-chl-carb py-ep qtz-chl-ser-carb-py-ep		Bad Broken core	402 408.6	84% 43%	3%	84923	.29	.020		.12%
	10°- 80° WK.		420		80° 5° 70° 10° 30 80° 5°	[illegible] lle 1/20 lle 1/4 1/20	qtz-chl-carb-ser-py zone carb-chl. qtz-chl-ep-py chl-carb-hem. qtz-chl-carb. gg qtz-chl-carb-ep.	.9%	Badly Broken Core	412 415 419	66% 70%	0%	84924	.27	.007		.08%
420 - 512 Same Alt & QP w/ narrow bands of DK. Alt	ND		430		80 30 70° 60 70	1/20 8 1/16 1/20 2	qtz-chl-carb qtz-ep (chl)-(carb)-(py) zone qtz-ep qtz-chl-ser-ep qtz (chl)-(carb)-(mo)	.6%	Badly broken core	423	70% 28%	3%	84925	.18	.029	3590 X	.10% Fair MoS2
	ND		440		5 15 x2 80 x2 70° 10° 20	1/16 lle x2 lle x2 lle 1/8 lle	qtz-carb-chl-py chl-carb. x2 chl-carb x2 qtz-chl-carb-ep qtz-chl-carb-ep-py chl-carb-hem	.8%	Drillers noted a fault @ 431' Badly Broken core.	431 435 438	55% 70% 60%	10%	84926	.16	.010		.17%

GRID ________ **GIBRALTAR MINES LTD.** HOLE No. 82-17 SHEET No. [illegible] of 9

ROCK TYPES & ALTERATION (Otz. / Plag. / K-Spar / Mafic / Texture / Hardness)	∠ to Core Foliation	Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH ____ SUP. DEPTH ____ REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo		Estimated Grade
	ND	450	10 65 55° 20 x 2 10° 10° 60	1/20 1/16 1/4 1/20 x 2 1/20 1/10 1/8	qtz-chl-carb-hem qtz-chl-carb-cp-py qtz-[illegible]-chl-mag-cp qtz-chl-carb-hem x2 qtz-chl-carb-hem qtz-chl-carb-py qtz-chl-carb-cp-py	.8%	Abundant hem along fractures	442 445 448	30% 70% 52%	8%	84927	.11	.002		.11%
	ND	460	10 10° x2 10° 10° 30°	1/8 hle 1/6 1/10 1/6	qtz-chl-carb-py-cp-hem chl-carb-hem x2 qtz-chl-carb-py qtz-chl-carb-py qtz-chl-carb-py	1%		451.6 457	64%	10%	84928	.23	.008		[illegible]
	ND	470	5° x3 20° x2 60	5' hle x3 hle x2 hle	Broken core - 5' - chl-hem-carb. carb hem x3 carb-hem. x2 qtz-chl-carb-cp?-hem	0%		465 467.6	30% 68%	0%	84929	.31	.020	35-45	.09%
	N-D.	480	40° 20° 20° x2 15°	3' 1/2 1 1/4 [illegible] x2 [illegible]	qq + Broken core carb-chl-hem qtz-chl-carb-mag-cp. qtz-carb-chl-cp-mo-mag qtz-[illegible]-chl-carb-cp-[illegible] qtz-chl-carb-py-cp?	.6%		472 474 476.5	28% 82% 80% 76%	15%	84930	.18	.013		.15%
	ND	490	20° 80° 30° 10° x2 30° 60°	1/16 [illegible] [illegible] 1/20 hle	qtz-chl-carb-cp. qtz-chl-[illegible]-cp qtz-mag-carb-cp qtz-chl-cp x2 qtz-chl-carb-cp qtz-chl-mag-carb-py-cp	.6%	DK. mineralized veins	482 488	77%	26%	8493[illegible]	.35	.006		.35%
	ND	500	60 x2 80° 60 60° 30° 28° 60 x2	1/4 + 1 hle 1 2' 1/4 1/4 1 1/4	qtz-chl-carb-[illegible]-mag-cp x2 qtz-chl-carb-cp qtz-[illegible]-chl-mag-cp Chalcocite Phase qtz-chl-carb-cp? qtz-carb-py-cp qtz-chl-[illegible]-cp	1%		494.6 497	82% 72% 50%	10%	84932	.43	.005		.20%

ROCK TYPES & ALTERATION	∠ to Core Foliation	Graphic Log Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	Estimated % Pyrite	Remarks (Ox. Depth / Sup. Depth)	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo		Estimated Grade
	ND.	510	30° 10° 45+60° 15 15 10°	1/2" 1/2 hle x2 hle hle hle	qtz-ser-carb-mag. qtz-carb-chl-cp-py. qtz-chl-py x2 chl-carb-py chl-ser-carb-py qtz-chl-carb-py	1%	hem-(chl)-cp-	501.5 507	90%	24%	84933	.14	.009		.20
512-518 Leucocratic Phase 518	ND.	520	15° 30 30 70 60° 30°	1/10 – 1/20 1 1/8 hle	qtz-cp-carb-chl Leucocratic Phase - carb hem qtz-chl-carb-py qtz-chl-py-(mo) qtz-mo chl-carb-hem	.4%		512.5 514.5 519.5	75% 80% 60%	10%	84934	.10	.007	3155	.15% Good MoS₂
Same Alt[d] ? Granite Mtn Phase? -sl. incr in qtz.	ND	530	30 20 70 10 70	hle 1/2 hle 1 1/4 1/2	qtz-chl-ser-carb-py Broken core-carb-cp carb hem qtz-carb-<chl> - silver acicular x/s ?? qtz-chl-carb-cp-<cp> qtz-chl-carb-cp-cp	1%		521.5 526 528.5	60% 67% 60%	6%	84935	.73	.010		.17%
537-542 Very large qtz grains, abundant	ND	540	5° 20°	hle hle	carb-hem carb Badly broken core -<99>	.2%		533 537	55% 20%	0%	84936	.10	.006		.03%
		542			Broken core			542	40%	0%					
E.O.H. @ 542															

M. R. Schwartzberger

GRID _____ GIBRALTAR MINES LTD. HOLE No. 82-17 SHEET No. 2 of 9

ROCK TYPES & ALTERATION: Oil.	Plag.	K-Spar.	Mafics	Texture	Hardness	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH / SUP. DEPTH / REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
						ND		450	10 65 55° 20° x 2 10° 10° 65°	1/20 1/16 1/4 1/20 x 2 1/20 1/20 1/8	qtz-chl-carb-hem qtz-chl-carb-cp-py qtz-carb-chl-mag-cpy qtz-chl-carb-hem x2 qtz-chl-carb-hem qtz-chl-carb-py qtz-chl-carb-cp Banded-chl-carb-cp-py		Abundant hem. along fractures	442 445 448	30% 70% 52%	8%	84921	.11	.002		.11%
						ND		460	10 10° x2 60° 10° 30°	1/8 1/16 1/16 1/10 1/16	qtz-chl-carb-py-cp-hem chl-carb-hem x2 qtz-chl-carb-py qtz-chl-carb-py qtz-chl-carb-py	1%		451.6 457	64%	10%	84928	.23	.008		
						ND		470	5°x3 20° x2 60	5' 1/16 x3 1/16 x2 1/16	Broken core - qtz - chl - hem - carb. carb-hem x3 carb-hem. x2 qtz-chl-carb-cpy-hem	0%		465 467.6	30% 68%	0%	84929	.31	.020	35 45	.09%
						N-D		480	70° 70° 70° 15° x2	3' 1/2 1 1/4 1/2 x2	gg + Broken core carb-chl-hem qtz-chl-carb-mag-cp qtz-carb-chl-cp-mo-mag qtz-chl-carb-cp-hem x2 qtz-chl-carb-py-cp	.6%		472 474 476.5	28% 82% 80% 76%	15%	84930	.18	.013		.15%
						ND		490	20° 80° 80° 10° x2 30° 60°	1/16 1/2 1 1/20 1/16	qtz-chl-carb-cp qtz-chl-sericite-cp qtz-mag-carb-cp qtz-chl-cp x2 qtz-chl-carb-cp qtz-chl-mag-carb-py-cp	6%	DK. mineralized veins	482 488	77%	26%	84931	.35	.006		.35%
						ND		500	60 x2 80° 60 60° 20° 20° 80 x2	1/4 +1 1/16 1 2' 1/4 1/4 1/16	qtz-chl-carb-cp-hem-mag-cp x2 qtz-chl-carb-cp-mag-cp qtz-sericite-chl-mag-cp Quiescent Phase qtz-chl-carb-cpy qtz-carb-py-cpy qtz-chl-sericite-cp	1%		494.6 497	82% 72% 50%	10%	84932	.43	.005		.20%

GRID ______ GIBRALTAR MINES LTD.

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

Rock Types & Alteration	∠ to Core Foliation	Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	Estimated % Pyrite	Remarks (Ox. Depth / Sup. Depth)	Footage Interval	Estimated Core Recovery %	RQD	Sample Number	Cu %	Mo %		Estimated Grade
	ND.		30°	1/2"	qtz-ser-carb-mag.	1%	[illegible] - chl - cp	501.5	90%	24%	84933	.14	.009		.20
			10°	1/2	qtz-carb-chl-cp-py.										
			45+60°	hle x 2	qtz-chl-py x2										
			15	hle	chl-carb-py										
			15	hle	chl-ser-carb-py			507							
		510	10°	hle	qtz-chl-carb-py				75%						
512-518 Leucocratic Phase	ND.		45°	1/10	qtz-cp-carb-chl	.4%		512.5		10%	84934	.10	.007	3155	.15% Good MoS2
			30		Leucocratic Phase - carb hem				80%						
			30	1/20	qtz-chl-carb-py			514.5							
			70	1	qtz-chl-py-[illegible]				60%						
			60°	1/8	qtz-mo										
518		520	30°	hle	chl-carb-hem			519.5							
Sauc Alt'd ? Granite Mtn Phase? - sl. [illegible] in qtz.	ND		30	hle	qtz-chl-ser-carb-py	1%		521.5	60%	6%	84935	.73	.010		.17%
			12	12	Broken core - carb-qz, carb hem				67%						
			20	hle	qtz-carb-<chl> - silver acicular xls ??			526							
			70	1	qtz-chl-carb-cp-<cp>				60%						
			10	1/4				528.5							
		530	70	1/2	qtz-chl-carb-cp-cp				55%						
	ND		5°	hle	carb-hem	.2%		533	20%	0%	84936	.10	.006		.03%
			20°	hle	carb										
537-542 Very large qtz veins, abundant		540			Badly broken core -<99>			537	40%						
		542			Broken core			542		0%					
E.O.H. @ 542															

M. R. [illegible]

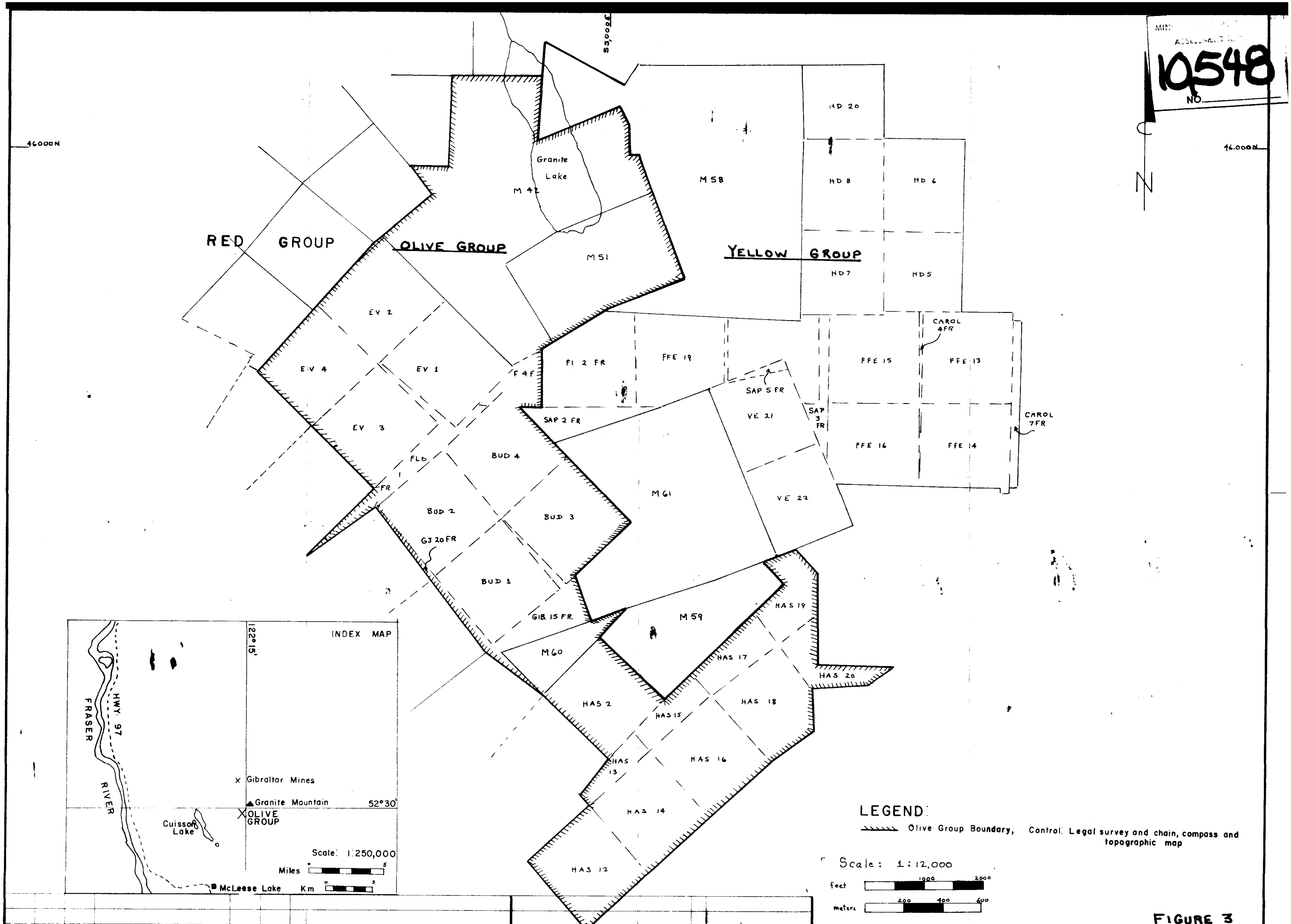


FIGURE 3

DWN.	CHECK	APPR.	ISSUED FOR	DATE	REV.	DESCRIPTION	SCALE	REFERENCE	No.	DWG. No.

GIBRALTAR MINES LIMITED

OLIVE AND YELLOW GROUPS

CLAIM LOCATION MAP

FILE No.


GRANITE LAKE PIT
GRANITE LAKE PIT
LYNNE
OLIVE GROUP
EST 3 FRACTION
VE 1
VE 2
VE 3
VE 4
VE 5
VE 6
VE 7
VE 8
VE 10
N
MINERAL RESOURCES BRANCH ASSESSMENT REPORT
10,548
FIGURE 2
LEGEND
Old drill hole sites, control: transit survey
New drill hole sites, control: chain and compass
Olive Group Boundary
Claim Boundary
Control: Legal Survey
SCALE 1:2,400
Feet
Meters
200 SCALE
GRANITE-LAKE DDH'S AS OF NOV 80
Updated: May 17, 1982