

DIAMOND DRILL REPORT
ON THE
SAWMILL GROUP

CARIBOO MINING DIVISION
93 B 8

(Latitude 52° 30', Longitude 122° 15')

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

Author: G. D. Bysouth

Submitted: 28 June 1982

7

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1.0 INTRODUCTION

The Sawmill Group lies approximately 4 miles (6.44 km.) south of the Gibraltar Mines concentrator, along the southern flank of Granite Mtn. at approximately the 3500 - foot elevation. Access is via an old logging road which links the claims to the Gibraltar Mines road on the west. General location of the claim group is shown in Figure 1.

The claims are underlain by a schistose suite of metamorphic rocks which appear to represent an original sequence of andesitic to dacitic volcanics and volcano-clastic sediments containing minor lenses of silty limestone and graphitic shale. These rocks have been tentatively correlated with the Permian Cache Creek Group. Northward, towards the Gibraltar ore deposits, they increase in grain size and grade into a complex suite of dioritic rocks containing minor lenses of scarn and mica-schist. Over 90-percent of the area is covered by overburden which is probably several hundred feet deep in the major valleys but relatively thin at higher elevations.

The Sawmill Group covers the old Iron Mtn. property and the recently discovered sulfide zone on the Cole claim. Work on Iron Mtn. began in 1925 and has extended, on an intermittent basis, to the present. Chief focus of activity has been discontinuous zones of epidote-chlorite-garnet scarn containing magnetite-chalcopyrite mineralization. The Cole sulfide zone was discovered in 1979 by Gibraltar Mines during the diamond drill exploration of a large I. P. zone, originally outlined

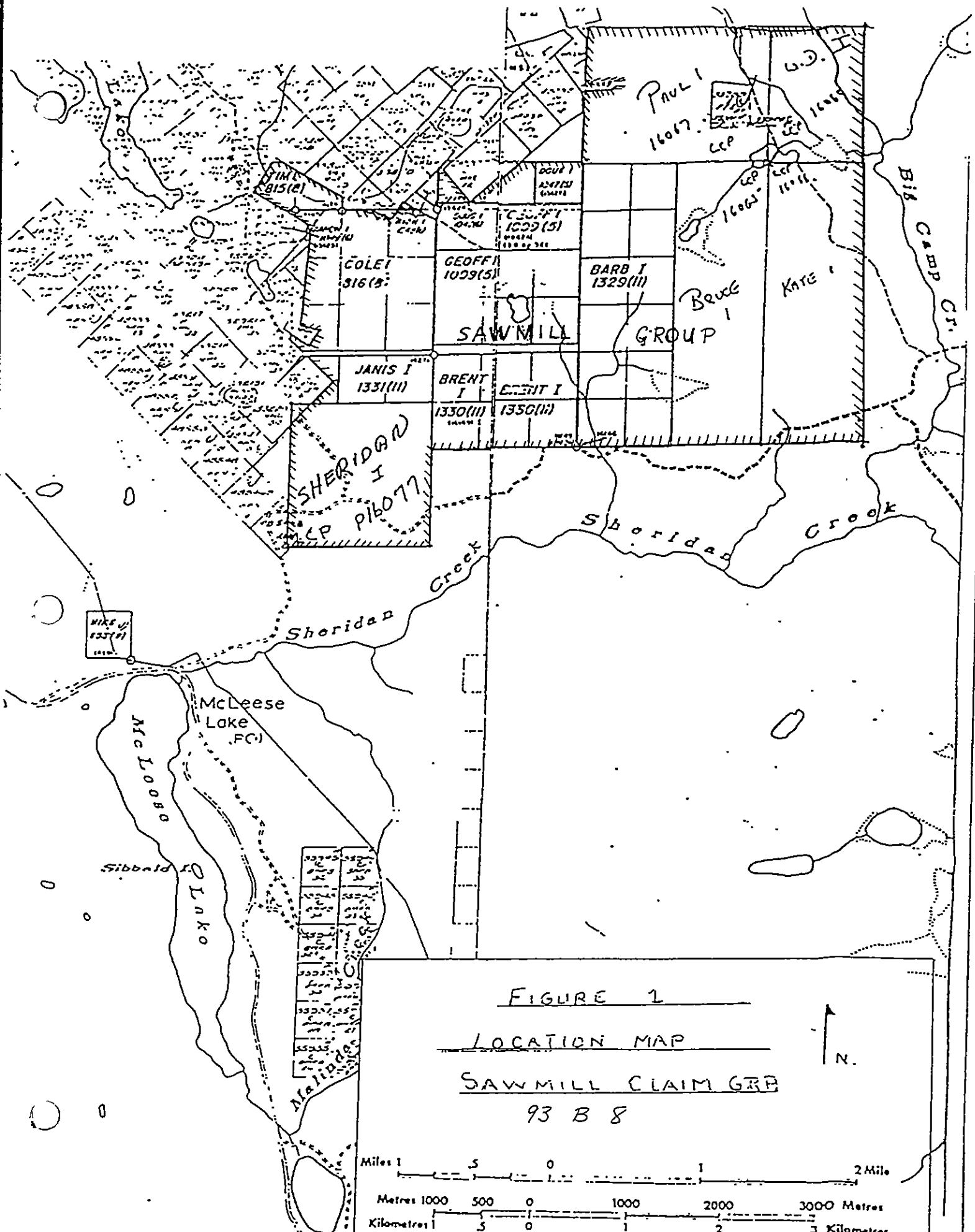
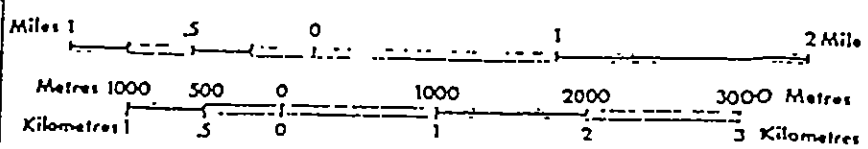


FIGURE 1

LOCATION MAP
 SAWMILL CLAIM GRP
 93 B 8



in 1967. Subsequent drilling in 1980 revealed extensive but low grade concentrations of chalcopyrite-molybdenite mineralization. In late 1981, a I. P. survey was completed southeast of the 1967 survey and two anomalous zones were outlined. One anomaly corresponds with the original Iron Mtn. scarn zone and the other lies on low ground to the south. The above work is documented in Minister of Mines Reports and various assessment work reports. A list of references is provided with the report.

This report covers a diamond drill program aimed at evaluating the two 1981 I. P. anomalies and providing further grade definition within the Cole sulfide zone. Five vertical N. Q. diamond drill holes, totalling 2640 feet were completed during the period April 26 to May 5, 1982. G & D Diamond Drilling was the contractor. Core is stored at the Gibraltar Mines plant site.

2.0 MINERAL CLAIMS

The mineral claims of the Sawmill Group are shown in Figure 2. Information on these claims is tabulated below.

<u>CLAIM NAME</u>	<u>RECORD NO.</u>	<u>No. OF UNITS</u>	<u>ANNIVERSARY DATE</u>
Tim I	815	2	28 Aug 78
Cole I	816	9	28 Aug 78
Geoff I	1009	9	29 May 79
Ryan I	1048	1	26 July 79
Aaron I	1049	1	26 July 79
Doug I	1047	3	26 July 79
Brent I	1330	6	14 Nov 79
Barb I	1329	12	14 Nov 79
Janis I	1331	3	14 Nov 79
Kate I	3799	12	29 June 81
WD I	3800	6	29 June 81
Bruce I	3801	12	29 June 81
Paul I	3802	12	29 June 81
Sheridan I	4068	9	15 Sept 81

3.0 DRILL PROGRAM

3.1 OBJECTIVES

Drill holes 82-21, 82-22 and 82-23 were designed to test the eastern half of the Cole claim I. P. anomaly. Drill hole 82-24 was designed to test the Iron Mtn. I. P. anomaly while hole 82-25 was to test the anomaly to the south.

3.2 RESULTS

The drill hole locations are shown in Figure 2. In all holes, oxide and supergene effects appear negligible. Drilling conditions for holes 82-21, 82-22 and 82-23 were considered very good with core recoveries averaging over 90%. Blocky ground was experienced in holes 82-24 and 82-25. All copper values reported here and in the logs are for total copper, all pyrite concentrations are visual estimates and all molybdenum values are for MoS_2 . Holes 82-21, 82-24 and 82-25 appeared essentially barren and were not assayed.

Hole 82-21 was cased to 11.6 feet. A medium grained bleached diorite was intersected from 11.6 to 237 - feet and a metasedimentary unit was intersected from 237 - feet to the end of the hole at 426 feet. Sulfide concentrations were negligible. Tiny vugs containing bornite and chalcopyrite were noticed between 360 and 370 - feet. An unusually large concentration of pink epidote (piedmontite) was noted in the diorite unit, associated with quartz veins.

Hole 82-22 was cased to 67 feet. A meta-andesite unit was encountered from 67 to 337 feet and quartz-porphyry from 337 feet to the end of hole at 607 - feet. The porphyry is assumed to be an intrusive plug or dyke with

border breccia zones. Copper concentrations appear erratic with the best grades in the meta-andesite near the porphyry contact; a 110 - foot zone here averaged .22% copper. Molybdenum concentrations throughout the hole appear low and erratic. Pyrite averaged about 3% for the total hole.

Hole 82-23 was cased to 41 feet. A meta-andesite unit was intersected from 41 to 574 feet. The quartz porphyry contact was intersected at 574 to the end of hole at 607 - feet. The meta-andesite was similar to that of hole 82-22 except for an abundance of medium grained variations which have been referred to as border phase diorite in previous work. Persistent chalcopyrite mineralization was evident throughout the hole but no significant ore grade intervals were achieved. Molybdenite concentrations were erratic with some enrichment at the quartz porphyry contact. Pyrite averaged about 2.5% for the total hole.

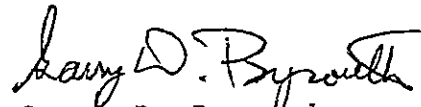
Hole 82-24 was cased to 31 feet. From 31 to 313 - feet, a complex dark rock assemblage was intersected which probably represents metamorphosed andesitic volcanics and associated sediments. Below 313 - feet to the end of hole at 603 feet the rock was lighter in color and probably represents a predominately dacitic assemblage. No significant mineralization or sulfide concentration was noted - the core was not assayed.

Hole 82-25 was cased to 11 feet. A calcareous meta sedimentary unit was encountered to 211 feet which included a black graphite schist from 11 to 63 feet. below 211 - feet to the end of hole at 397 feet, a dark green rock unit was intersected which probably represents an andesitic volcanic unit or equivalent volcanoclastic sediments. The hole appeared essentially barren and was not sampled.

3.3 CONCLUSIONS

Hole 82-21 failed to intersect the Cole sulfide zone and therefore, provides a partial cut off to the southern extension of the zone. Hole 82-22 and 82-23 both intersected the Cole sulfide zone as evident from the heavy pyrite concentrations and persistent chalcopyrite-molybdenite mineralization encountered; however, the lack of significant ore grade mineralization rules out the possibility of an ore body being present in this part of the zone. No obviously conductive material was found in hole 82-24 and therefore, the Iron Mtn. I. P. anomaly cannot be considered adequately explained. The 62 feet of graphite schist intersected at the top of hole 82-25 strongly suggests a graphite source for the anomaly to the south.

Submitted by,



Garry D. Bysouth

Senior Geologist

GIBRALTAR MINES LTD.

GB/pl

4.0 STATEMENT OF EXPENDITURES

MARCH, APRIL, MAY 1982 DIAMOND DRILLING, SAWMILL GROUP.

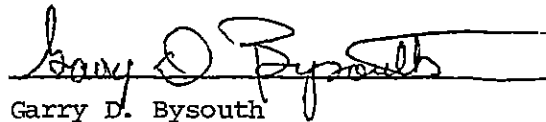
a) Site Preparation	TD 20 Bulldozer April 20-22 30 hrs. @ \$89.25		\$ 2,677.50
b) Drilling Costs	Moving: Double H Carriers	\$407.86	
	Drilling: 82-21 426' @ \$13.00/ft.	\$5,538.00	
	82-22 607' @ \$13.00/ft.	7,891.00	
	82-23 607' @ \$13.00/ft.	7,891.00	
	82-24 603' @ \$13.00/ft.	7,839.00	
	82-25 397' @ \$13.00/ft.	5,161.00	
		<u>\$34,320.00</u>	\$34,320.00
			<u>\$34,727.86</u>
			34,727.86
c) Vehicle Costs	4 x 4 1980 Suburban Apr. 13-28 7 days @ \$20.00/day		140.00
d) Assay Costs	111 assays @ \$4.40/assay		488.40
e) Miscellaneous Costs	132 coreboxes @ \$4.90	\$646.80	
	Sample bags, tags, etc.	50.00	
		<u>\$696.80</u>	696.80
f) Personnel Costs			
	<u>Core Logging and Supervision</u>		
	G.D. Bysouth May 6-7 16 hrs.		
	May 11-12 16 hrs.		
	June 11 8 hrs.		
	June 16-17 16 hrs.		
	June 18 8 hrs.		
		64 hrs. @ \$31.25/hr.	\$2,000.00
	<u>Field Work and Organizing</u>		
	E. Oliver Apr. 13 8 hrs.		
	Apr. 15 8 hrs.		
	Apr. 21 4 hrs.		
	Apr. 22 8 hrs.		
	Apr. 26-28 24 hrs.		
		52 hrs. @ \$20.00/hr.	1,040.00
	C. Johnston Apr. 13-15 20 hrs.		
	Apr. 21-22 12 hrs.		
	Apr. 26-28 24 hrs.		
		56 hrs. @ \$15.00/hr.	840.00
	<u>Core Splitting</u>		
	D. Tait June 1-3 24 hrs.		
	June 5-7 24 hrs.		
		48 hrs. @ \$12.50/hr.	600.00
			<u>\$4,480.00</u>
			<u>4,480.00</u>
		TOTAL DRILLING COSTS	<u>\$43,210.56</u>

APPENDIX A

STATEMENT OF QUALIFICATION

I, Garry D. Bysouth, 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 B.C., 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 B.C.
4. I personally supervised this drill program, logged the core and assessed the results.


Garry D. Bysouth

APPENDIX B

ABBREVIATIONS USED IN DRILL LOGS

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

0 7

BIBLIOGRAPHY

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

 2. Assessment Reports - Gibraltar Mines Ltd., Cariboo Mining Division
 - (1) Bysouth G. D., Diamond Drill Report on the Cole Claim, August 1979.
 - (2) Bysouth G. D., Diamond Drill Report on the Cole Claim, April 1980.
 - (3) Bysouth G. D., Diamond Drill Report on the Ross Group, November 1980.
 - (4) Walcott and Associates Limited, A Report on an Induced Polarization Survey, Sawmill Claims, February 1982.
- 1)
- 5)

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Vains L to Core Ave	Width of Vain	Mineralization	ESTIMATED % PYRITE	OX. DEPTH		Feology Blacks.	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Gr.	Plot.	K-Spec.	Malle.	Texture	Hardness							SUP. DEPTH	REMARKS				Sample Number	% Cu	% Mo	
					<u>BLEACHED</u> <u>DIORITE</u> (11.6-237')	S str		5°	13'	qtz-chl-ep-pied-(carb) zone tr of ep-pf	< 5			117	93	95				.02
						S str		40 40	2" 1/4 x 2	qtz-ep-pied qtz-ep-pied	0			127	95	93				Tr.
						E		30 40 x 5	2 1/2 1" - 1/2 x 1/2	qtz-chl-carb qtz-pied-ep x	< 5			137	95	50				Tr.
						ND		30 50 x 4	1/2 1/10 x 4	qtz-ep-pied qtz-ep-pied (py)	0			147	95	70				Tr.
						ND		60 x 2	2 1/2" x 1/2	qtz-ep-pied (py) x	0			154	97	72				Tr.
						ND		30	1/10	qtz-ehl-ep	0			164	97	70				Tr.
						ND		30 x 5 70	1/10 - 1/20 x 5 1"	white qq x 5 qtz-ep-pied	0			170	93	70				Tr.

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-21
SHEET No. 4 of 8

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Ave	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH		Footage Blended	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Qtz.	Plas.	X-Spec.	Melle	Texture	Horizons							SUP. DEPTH	REMARKS				Sample Number	% Cu	% Mo	
					BLEACHED DIORITE (11.6 - 237) med-fine grn diorite (meta-andesite)	ND	180	45 50	4" 36"	qtz-chl(vug) dyke cut by numerous 1/4-hlc qtz-ep-pied vein	0		173	95	65					Tr.
					med-fine grn diorite or meta-andesite	ND	190	5+20	1/10 x 2	qtz-chl-z	0		183.5	97	65					Tr.
						45-60 Med	200	60	10'	dyke cut by numerous 4-60" 1/2-hlc qtz-ep and qtz-chl veins qtz-pied-ep x 3	0		197	97	77					Tr.
						ND	210	80 40 80 x 5	1/16 - 1" 14" 1/10 x 5	qtz-chl qtz-carb-pied zone qtz-pied x 5	0		207	97	87					Tr.
						ND	220	20+80 60 60 70 70	1/10 + 1/4 8" 4" 1/4"	qtz-pied x 2 qtz-carb-pied qtz-chl qtz. qtz-pied-ser	0		217	97	75					Tr.
						ND	230	80 30 50 60 70	7" 1/4 x 2 1" 14" 3"	qtz-carb-pied qtz-ser x 2 qtz-ser-pied qtz-chl-ser-carb-qq qtz-chl			227	95	55					Tr.

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-21
SHEET No. 6 of 8

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core A to	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____		Feolage Direct.	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Oil.	Plat.	K-Spr	Malle	Texture	Hardness							SUP. DEPTH _____	REMARKS				Sample Number	% Cu	% Mo	
						80-90 str	300				0			297	96	10				Tr
						5-90 str sl. Cren.	310				0			307	99	45				Tr
						20-90 str & sl Cren	320	80	4"	qtz((sp))	0			317	98	73				Tr
						5-90 str & sl. Cren	330	80	12"	qtz-ser-py - parallel to folia	20%			327	96	40				.10
						5-80 sl. Cren	340	80	2"	qtz-carb	0			337	95	35				.02
						70-80 Str					0			347	92	40				
							350													

PALE BROWN
QTZ SER.-
CARR. ZONE
(288-349)

also banded with
pale brown
laminae alternating
with qtz-carb
bands and veins
- the brown may

be fine garnet
mixed with ser.
and qtz
- from 288-310, the
rx contains 5-20%

Piroxene ?? as 1/10-1/8"
scattered equant &
squat grains of
dk green material
often strung out
along plane at
30% to folia.

(relict bedding?)
∴ this zone prob
represents altered
limy siltstones.

349

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-21
SHEET No. 8 of 8

ROCK TYPES & ALTERATION						GRAPHIC LOG		Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____ REMARKS	Footage Block.	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Oil.	Flas.	K-spar.	Malle.	Tenere	Hardness	↳ to Core	↳ to Core								Sample Number	% Cu	% Mo	
						60 Mod	5 x 2 40 30 40+30	1/4 x 2 8" 3' 1/8 x 2	carb x 2 qtz-ser-carb qtz-ser-carb zone qtz-carb x 2	0		416.6	90	56				Tr
						50 Str	50+80 40 40	1/2 x 2 2' 2 1/2'	qtz-(ser) x 2 qtz-ser-carb zone qtz-carb-py	0.5		425	90	31				Tr.
50 Pyrite																		

50H 426'

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core A to	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____		Footwall Block.	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Oil.	Plin.	K-Spec.	Mollic	Toulers	Hardness							REMARKS	Sample Number				% Cu	% Mo		Estimated Grade	
						60 Med- Str.	15 15 30x2 30 40x2 90+30	2" 1" 1/8-1/10 2" 1/10+1/20x2 1"x2		qtz-ep-pied qtz(ep) qtz-chl-py(ep) x2 qtz-ep-pied. qtz-chl-pyx2 qtz-chl-ep-pied x2	5			87	95		85052	03	002		.10
						60 Med- Str.	40x2 30 15 30+35	1/8x2 1/8 1/10 1/20+1/10		qtz-chl-pyx2 qtz-chl-py qtz-chl-py qtz-chl(ep)	5			97	99		85053	08	.001		.08
						60 Med- Wk	45 50x4 45 40?x2 50	1/8 1/10-1/20x4 1/20 12"x2 24"		qtz-chl-sec-py qtz-chl-pyx4 qtz-chl-py(ep) qtz-chl-ep-pied bx zone x2 banded chl(ep)(py)(cc) zone	5			107	98		85054	.066	002		.12
						50 Wk- Med	20 5 20 20 40-50x4 20 20 30	13" 1/4 1/2 1/4 1/20x4 1" 1"		qtz-carb-chl(py)(cc) banded zone qtz-tour qtz-chl-py(ep)(cc) qtz-chl-tour-py(ep) qtz-chl-pyx4 qtz-chl-py(ep)-vug qtz-tour	1 1/2			117	95		85055	09	004		12
						50 Wk- Med	50 45 40x3 60 80 20x2 60	1/8 1/4 1/10x3 1/8 2" 10" 1/20x2 1"		qtz-chl-py qtz-chl-py-carb qtz-chl-py-carb x3 chl-ep-py(ep) tour-chl-ep-py(ep) chl-ep-pied zone qtz-chl-carb-py(ep)x2 qtz-tour	2.5			127	96		85056	09	004		.15
						130	15 15 70+35+40 60x2	1/4 1/8 1/10x3 1/10x2		qtz-chl-carb-py(ep) qtz-chl-carb-py qtz-chl-pyx2 qtz-tour x2	1.5			137	95		85057	02	006		.10
						140	20	1/10		chl-py					98						

106
META-ANDESITIC
UNIT (106-343)

Fine grn diorite or
andesite containing
many coarser grn
mafic-rich bx
phases, and
occasional dyke?
of border phase
diorite.

ep bx -
frags of
plag-ep in
60% chl matrix

12" dyke of
med-course grn
border phase

X

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Vein L to Core Ash	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH		Footage Discr.	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Qtz.	Plag.	K-Sp.	Mafic	Texture	Metam.							SUP. DEPTH	REMARKS				Sample Number	% Cu	% Mo		Estimated Grade
							22 5 80 80 222 150	1/10+1/4 1/10 1/4 1/4 1/10+1/2	qtz-tour x2 qtz-chl-lim-py (ep) qtz-chl-py qtz-mag qtz-chl-py + chl-garnet-py-ep	1.0%			197	95		85058	04	002		.12	
						ND	15 26 10+90 45 45 80 160	2" 4" 1/8+1/2 1/10 1/8 1" 12" 1/2"	chl-lim chl-ep-py(ep) qtz-chl-carb-py(ep) x2 qtz-chl-py chl-garnet qtz-tour chl-ep(ep)	1.5			157	93		85059	05	002		.10	
						70 WK	80 60 x2 70 45 70 70 170	1/10 1/4 x2 1/4 1/4 1/4 6" 1/10 x3	qtz-py (ep) chl-tour. qtz qtz-py qtz-tour. qtz-chl-py zone cp x3	1.0%			167	97		85060	06	004		.08	
						50 Mat	80 x2 + 45 50+40+80 20 30 45+40+35 40 50 80 180	1/20 x3 1/10 x2 + 1/4 6" 3" 1/4 x3 3/8 1/2 4" 6"	qtz-chl-py x3 qtz-chl-py x3 qtz-carb-ep-chl-py (ep) zone qtz-chl-carb-py qtz-chl-py (ep) (M2) x3 qtz-py (ep) (M2) qtz-carb-chl-py chl-ep-py (ep) zone chl-ep-py zone	2.0%			177	96		85061	09	008		.12	
						50 WK	80 80 20 x2 140	6" 2" 1/4 x2 12"	chl-ep-py zone chl-py qtz x2 chl-ep (py) (ep)	1.0%			187	80		85062	08	002		.10	
						60 WK	25 45 x3 70 60 70 70 10+30+35 200	1/4 1/10-1/20 x3 2" 1/2 1/10 1/4 1/10-1/20 x3 24"	qtz-chl-py qtz-chl-py (ep) x3 chl-garnet (py) qtz-carb-py qtz-chl-py chl-ep-qtz-carb qtz-chl-py qtz-chl-carb-ep (py) zone	2.0%			191 197	88 90		85063	08	004		.12	

border phase
- sharp 45° contacts

48

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG Foliation Alteration Folios Structure	Veins L to Core Aft	Width of Vein	Mineralisation	ESTIMATED % PYRITE	OX. DEPTH _____		Footage Block.	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Qtz.	Plas.	K-Sp.	Melle	Texture	Hardness							SUP. DEPTH _____	REMARKS				Sample Number	% Cu	% Mo		Estimate Grade
						ND	40 70 40 45-60x4 30x20 50 30x2 70 80x2 70x2	1/8 1/2" 1/10x4 1/10x2 1/10 1/10x2 1/10 2" + 1/2" 1/10x10	qtz-chl-py (cp) chl-py qtz-carb-chl-py-cp qtz-carb-chl-py-cp x4 qtz-chl-py x2 qtz-py (cp) (Mn) qtz-chl-py x2 qtz-chl-py (cp) chl-py x2 qtz-chl-py (cp)	2%			2055	95		85064	.10	.004		.15	
					med	ND- 80 Wx	70x2 50x2 50 80x5 21-30x4 50 45 80x2 45x2 45	1/20-3/8 2" 1/10-1/20x5 1/20x4 1/8 2" 6" + 24" 3" + 7" 1/10x2	qtz-chl-py + qtz-mag qtz-py (cp) (Mo) qtz-chl-py (cp) x5 qtz-chl-py (cp) x4 qtz-py (cp) chl-carb-py (cp) qtz-carb x2 qtz-carb-tour x2 qtz-chl-py x2	2%			212	93	58	85065	.14	.048		.15	
						ND	5x2 80 45-70x6 70 20+30x10 80x2 30+90x2 50	1/10x1/8 1/8 1/20x6 1/2 1/2x2 1/4x2 1/4x3 4"	qtz-chl-carb-py (cp) qtz-py (cp) qtz-chl-py x6 qtz qtz-chl-py x3 qtz-chl-py x2 qtz-tour x3 qtz-carb-cp	1%			227	85	38	85066	.09	.014		.10	
						ND	70 50+80 50 30 80+5x5 60x1-5x6 20-15x10 60	2" 1/8-1/10 1/10 1/4 1/4 + 1/10x5 1/10x8 1/10-1/20x10	chl-carb qtz-cp-py (vug) x2 qtz-chl-py qtz-chl-py qtz-chl-py x6 qtz-chl-py x8 qtz-chl-py x10	3.5%			237	92	48	85067	.10	.030		.12	
						ND	25+80 25x4+45x3 20+30 35 20-30x4 20x3 10	1/4x2 1/20x7 1/10x2 1/4 1/10-1/8x4 1/4x3 1/2	qtz-py-Mo-cp qtz-chl-py (cp) x2 qtz-chl-py x7 qtz-py x2 qtz-py (cp) qtz-chl-py x4 qtz-chl-py (cp) (Mo) qtz (cp) (Mo)	3%			247	95	60	85068	.14	.014	X	.15	
						ND	15x4 15 20-10x12 30x2 30x4 5-15x6 25 20-40x15	1/8x2 + 1/10x2 1/4 1/20-1/10x12 1/10x2 1/10x4 1/10-1/8x6 1/8 1/20-1/8x15	qtz-chl-py qtz (cp) (Mo) qtz-chl-py x12 qtz-py (cp) (Mn) x3 qtz-py x4 qtz-chl-py (cp) x2 qtz-chl-py (cp) qtz-chl-py x15	50%			257	99	96	85069	.16	.010		.15	
							260								91						

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Ash	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH		Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Qtz.	Plas.	K-Spar.	Melle	Texture	Hardness						L to Core Foliation Alteration	Footage Structure			REMARKS	SUP. DEPTH	Footage Block.	Sample Number
						ND	40x6 30-10x10 5x2 40x6 30x15 5 15x3	1/10-1/2x6 1/20-1/10x10 1/4x2 1/10-1/20x6 1/20-1/10x15 1/4 1/4-1/2x3	qtz-chl-py 16 qtz-chl-py (ep) x16 qtz-py (ep) x2 qtz-chl-py x6 qtz (chl)-py x15 qtz-chl-py (ep) qtz (chl)-py x5	4.5		40	58	85070	.12	006	.12	
						ND	30x3 30x2 70 20x3 10-15x4 40x3+80x4 15x2 20 20x3	1/4x3 1/4+3/8 3" 1/10x3 1/8-1/10x1 1/10x3+1/2x4 1/8x2 1/4 1/2+1/4+1"	qtz-carb-py (ep) x3 qtz-py x2 qtz (ep) ep qtz-chl-py x3 qtz-chl-py x4 qtz-chl-py x2 qtz-chl-carb (ep) py qtz-chl-py qtz-chl-py (ep) (Wd) x3	4.5		92	65	85071	.12	006	.12	
						ND	10 5 5x2 15x5 80 80 5+80 15 40x3	2" 3/8 1/10x2 1/10x5 2" 1/4x2 1/4x3	qtz (chl) py qtz-chl-py qtz-chl-py (ep) x2 qtz-chl-py x5 qtz-ep-py chl-carb qtz-chl-py (ep) x2 ep-qtz qtz-chl-py (ep) x2	5.0		96	287	85072	24	009	.14	
						ND	5+90 20x5 60 5x2 80x4 30x2 80+40 80 5+30 30-50x2	1/4+3" 1/20x5 6" 1/10x2 1"+2x3 1/10x2 1/4+1/8 1/8 1/8x2 1/4x2	qtz-py (ep) + qtz-ep qtz-chl-py (ep) x5 qtz-carb-ep qtz-chl-py (ep) x2 qtz-ep (Wd) qtz-chl-py-ep x2 qtz-chl-py (ep) x2 qtz-py (ep) (Wd) qtz-carb-ep (ep) x2	5.0		98	291	85073	12	010	.12	
							60 90 90-50 50x2+70 30 45 45x2 30	6" 1/10 2"x2 2"+1x2 1/4 1/4 1/4x2 3"	qtz-chl-py qtz-chl-py chl-py-garnet x2 chl-garnet-py qtz-chl-py (ep) (Wd) qtz-chl-py-ep qtz-chl-py (ep) x2 qtz-py (ep) (Wd) qtz-carb-ep (ep) x2	4.0		98	307	85074	23	.028	.18	
							40 80 60x2 40+60 40+45x2 45 45 55x4 20x2	3/8 2" 3"x2 1/10x2 1/4+1/8x2 1/4 1/10 1/10x4 1/2x2	qtz-ep-py qtz-four-ab qtz-ep+chl qtz-carb-py (ep) qtz-chl-carb-py (ep) x3 qtz-chl-py (ep) qtz-chl-py qtz-chl-py x2	4.0		95	317	85075	04	003	10	
							30	1/4	qtz-py-ep (Wd)			71						
							320		qtz-chl-py			72						

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Asth	width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____		Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Qtz.	Plas.	K-spr.	Malle	Tacture	Hardness						Foliation Alteration	Footlog			Mineralization	REMARKS	Feolops Direct.	Sample Number
							50-40x15 70 40x2 50 30?	1/10 x 1/8 x 15 2" 1/4 x 2 1/4 3/8	qtz-chl-carb-py 15 qtz-ab. qtz-chl-py x2 qtz-chl-py qtz-carb-py	3.0%			9.9	85076	.09	.004	.08	
							90	2 1/2"	banded chl-carb zone		327		35					
							0 45x2 5 80 70 40x2 30 70	2 1/2" 1/10x2 2" 1/11 1/10x2 1/2"	banded chl-carb-bx zone qtz-chl-carb-py (cp) x2 chl-carb-py-ep zone chl-carb-garnet py-ep zone chl-carb-py-ep zone qtz-chl-py (cp) chl-carb-py (cp)	3.5%		9.5	85077	.15	.002	.18		
				contact?			343				337		75					
							60x20x4 45x3 40 40x2 45x4 40 45x6 50x2	1/10 x 1/10 x 4 1/4 x 1/10 x 4 1/2 x 2 1/10 x 4 1/2" 1/10 x 20 x 6 1/10 x 2	qtz-carb-py (cp) + qtz-chl-py x4 qtz-carb-py (cp) x5 qtz-chl-carb-ep-py qtz-chl-carb-py (cp) x2 qtz-chl-py x4 qtz-chl-carb-ep-py (cp) qtz-chl-py x6 qtz-chl-py-ep x2	3.5%		9.5	85078	.18	.005	.25		
							70 Wx				347		73					
							20 15 40x3 10 50+35+45x2 40x4 35+45+50	1/8 1" 1/6 x 1/10 x 2 1" 1/10 x 10 x 4 1/10 x 4 1/10 x 10 x 3	qtz-chl-ep qtz-chl-ep (ung) qtz-chl-py-ep (Mn) x3 qtz-chl-py-mag-ep qtz-chl-py qtz-chl-py (cp) x4 qtz-chl-py	3.0%		9.9	85079	.17	.007	.20		
							70 Mx				351		90					
							40 50x2x10 50 20 45-50 x4 60x2 60x2 70-80x5	1/20 x 3 1/10 x 3 1/2 1/2 1/8 x 4 3/16 x 1/4 1/10 x 2 1/10 x 5	qtz-chl-py x3 qtz-chl-py (cp) x3 qtz-chl-py qtz-py (cp) qtz-chl-py x4 qtz-mag-py (cp) x2 qtz-chl-py (cp) x2 qtz-chl-py x5	2.5%		9.5	85080	.11	.006	.15		
							370				361		70					
							45x2 50x2 45 40 40 30 45x3 45 40x5	1/40 x 2 1/8 x 2 1/2 1/2 1/4 1/2 1/4 1/4 1/4 x 5	qtz-chl-py x2 qtz-chl-py (cp) (Mn) x2 qtz-ep-cp-pied qtz-ep-chl-py zone qtz-ep-chl-py (cp) zone qtz-ep-chl-pied-py zone qtz-chl-py (cp) x3 qtz-pied-cp qtz-chl-py x5	3.0%		9.5	85081	.12	.003	.20		
							380				371		65					

incr chl-ep
grading to ep-chl
bx zones

BORDER PHASE
DIORITE (with
minor fine grn
meta-andesite
zones.) (343-466)

The border
phase is med.
grn. def. plutonic
textured except

for weak chl-rich
banding along
foliation - often
contains rounded
ep blebs 1/4-2"
dia giving a

bx aspect as
the conc. of blebs
reaches > 20%

Y

ROCK TYPES & ALTERATION						L to Core Foliation Foliation Alteration Feather Structure	GRAPHIC LOG	Value L to Core Aft	Width of Vain	Mineralization	ESTIMATED % PYRITE	OX. DEPTH		Feather Direct.	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Qtz.	Plas.	K-Sper.	Mafic	Texture	Hardness							SUP. DEPTH	REMARKS				Sample Number	% Cu	% Mo		
							390	20 70 45-60 x 3 45-75 70 60 40+50+80 50 x 2 10 x 2 + 10	1/2 7" 1/20-1/10 x 2 1/4 x 2" 3/4 1/2 1/10 x 2 1/6 x 1/10 1/10 x 2 + 2"	qtz-ep-cp qtz-chl-ep-pied-py((cp)) qtz-chl-py(cp)x2 qtz-ep-pied(py)(cp)x2 qtz qtz-cp qtz-chl-py(cp)x2 qtz-chl-py x2 qtz-chl-py x2 + qtz-chl-carb	3.0 %			381	95	60	85082	13	003		.18
							400	80? 45 ? 60 x 2 45+60 50 45 x 3 50 60 x 2	12" 1/8 36" 1/10 x 2 1/2 + 1/10 1/4 1/20 x 3 1/8 1/20 x 2	chl-ep zone qtz-chl-carb-py chl-ep(qtz) py b. zone qtz-chl-carb-py-cp x2 qtz-chl-carb-py-cp x2 qtz-cp qtz-py(cp)x3 qtz-mag-py(cp) qtz-py x2	3.5%			391	96	62	85083	12	.006		20
							410	50 x 6 45 45 10 x 80 35 x 2 20	1/10 x 6 1" 2" 1/10 x 2 1/10 x 2 1/10	qtz-chl-py x2 qtz-mag-cp chl-py-cp qtz-chl-py-cp + qtz-cp qtz-chl-py qtz-chl-py	2%			401	95	72	85084	.22	.002		25
							420	80 60 70 80 45 5 x 4 80 x 3 80 50	6" 1/10 1/2 1/4 1/8 + 1/20 x 3 1/8 x 3 1/2 1/8 1/2	banded-qtz-chl-carb qtz-chl-py chl-py qtz-ep-chl bx qtz-mag-py(cp) qtz-chl-py(cp)x2 qtz-chl-py x2 qtz-tour-qb((cp)) qtz-chl-py(cp) qtz-ep-chl.	1.5			411	98	70	85085	.32	.008		.15
							430	70 40 5 20 5 45 20 20 x 2 50	1 1/2 1/10 3/8 3/8 1/2 1/2 1/10 1/10 + 1/2"	qtz((H0)) qtz-ep-cp(vug) qtz qtz-chl(tour)-py(cp) qtz-chl-py(cp) qtz-chl-ep-py(cp) qtz-chl-py qtz x2 qtz-chl-py-cp	1.0			421	95	65	85086	.12	.008	f	.12
							440	50 x 2 50 35 x 60 45 60 50 45 x 2 30	1/10 x 2 1/2 1/20 + 1/10 1/10 1/2 1/20 x 2 3"	qtz-chl-py x2 qtz-chl-py qtz-chl-py-cp x2 qtz-chl-py qtz-chl-py chl-py(cp) qtz-chl-py(cp)x2 qtz-ep-py-chl	1.5%			431	98	52	85087	.12	.002		14
							440	45 x 2	1/4 + 1/10	qtz-chl-py((cp))x2				438							

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Value L to Core Alt	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX DEPTH		Footage Discrete	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Gr.	Plas.	K-Spar.	Malle.	Texture	Hardness							SUP. DEPTH	REMARKS				Sample Number	% Cu	% Mo		Est.
						70 Med	40x5+70 45+70 50x3 70x2 30x2 50x2 45 45x6	1/4 x 5 1/10 x 1/8 1/10 x 3 1/10 x 2 1/8 x 2 1/2 x 1/4	qtz-chl-py (cep) x 3 qtz-chl-py (cp) qtz-chl-py x 3 qtz-chl-py (ep) x 2 qtz-chl-py (ep) x 2 qtz-chl-carb-py x 2		1.0%			447	99	48	85088	.11	.004		.10
						70 Med	80 40x2 45 40 45x3 40 5 45 45x2	1/8 1" x 2 1/2" 1/10 x 3 1/8 x 2 2" 1"	chl (ep) qtz-py x 2 qtz-chl-py (cp) qtz-py (cep) qtz-chl-py x 2 qtz-chl-py (ep) x 2 qtz-chl-carb qtz-chl-carb chl-py x 2		3.0%			457	92	34	85089	.11	.004		.12
						60 Med	50x3 70 50x4 45 5 40x7	1/10 x 3 2" 1/2 x 1/3 x 1/10 x 1/10 1/10 1"	qtz-chl-py (ep) x 3 qtz qtz-chl-py (ep) x 2 qtz-chl-py (ep) chl (ep)		3.5%			467	85	42	55090	.12	.010		.16
						50 Str	35-45x6 50x2 30-50x8	1/10 x 6 1/8 x 2 1/2-1/10 x 8	qtz-chl-py (ep) x 3 qtz-chl-py (ep) x 6 qtz-chl-carb-py (ep) x 2 qtz-chl-carb-py-ep x 2					477	92	35	85091	.24	.008		.30
						50 Str	25x3 70x30x45 25x50 70x2 60x2 45 20x2 45x5 50x6 60	1/10 x 3 1/2 x 1/10 x 2 1/2 x 3/8 1/10 x 2 1/8 x 2 1/10 x 2 1/20 x 2 1/20 x 1.5 1/20 x 1.5 1/2	qtz-chl-py-ep x 3 qtz-chl-py (ep) x 3 qtz-py (ep) chl-ep x 2 qtz-chl-py (ep) x 2 qtz (ep) qtz-chl-py (ep) qtz-chl-carb-py-ep x 5 qtz-chl-py-ep x 2 qtz-rag-ep		4.0%			477	92	35	85091	.24	.008		.30
							70 50x10 30 40 50-60x8 40x3	1/10 1/10-1/20 x 10 1/2 1" 1/2-1/8 x 8 1/10 x 3	qtz-chl-py qtz-chl-py x 10 qtz qtz-carb qtz-ep (py) x 8 qtz-chl-py x 3		1.0%			487	93	67	85092	.10	.004		.08
							20 80 90x4 70x5 50 45 50x2 70	1/2" 1/10 1/10 x 2 1/10 x 5 1/2 1/8 x 2 1/10 x 2 1/2	qtz qtz-carb chl-py x 4 qtz-chl-py x 5 qtz-py qtz-chl-ep-py-ep x 2 qtz-chl-py x 3 qtz		1.5%			497	93	50	35093	.12	.008		.08

CHL. EP. BX. ZONE
(466-478)

rounded 1/4-2" ep
frags in swirled
chl-carb matrix

BORDER PHASE
(478-530)

ROCK TYPES & ALTERATION						GRAPHIC LOG	Value L to Core A to	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX DEPTH SUP. DEPTH	REMARKS	Feetage Blacked	Estimated Core Recovery %	R Q D	ASSAY RESULTS						
Qtz.	Plas.	K-spr.	Malle	Tacture	Hardness											Alteration	Feetage Structure	Feetage Structure	Sample Number	% Cu	% Mo	
							60 x 8 60 + 45 45 50 + 80	1/10 x 8 1/4 1/2 1/4 + 1/2	qtz-chl-py (cp) x 8 qtz-py-chl-py x 2 qtz-chl-py qtz-chl-py (cp)	2 1/2%				95		85094	.17	.016		15		
							70 x 6 40 + 80 30 45 x 4	1/20 x 6 1/4 + 1/10 1/4 1/10 x 4	chl-py (cp) x 6 qtz-chl-py x 2 qtz qtz-chl-py (cp) x 2				507		52							
							Dumeyrols minor chl-ep by zones 70 x 4 60 x 2 50 x 6 40 + 40 - 50 70 + 40 45 x 2 70 x 5	1/10 x 4 1/4 x 2 1/10 x 6 1/3 + 1/10 x 2 1/4 + 1/2 1/10 x 2 1/10 + 1/20 x 5	qtz-chl-py x 4 qtz-py (cp) qtz-chl-py x 6 qtz-chl-py x 3 qtz-chl-py (cp) x 4 qtz-chl-py (cp) x 2 qtz-chl-py x 5	2.5%			517		97		85...	.16	.010	Y	.10	
							40 60 70 80 x 3 40 40 45 x 2 40 x 3	1 1/2" 1/10 - 1/8 x 12 1/2 1/3 1/10 - 1/8 x 2 1/8 1/2 1/2 x 6" 1/8 x 3	chl-qtz-ep zone qtz-chl-py x 2 qtz-py qtz-chl-py-cp qtz-chl-py-carb-cp (cp) x 3 qtz-chl-carb-py-cp qtz-chl-py chl-py (cp) x 2 qtz-chl-py-cp x 3	25%			527		95		70 Str	.30	.008		.25	
							70 x 10 60 x 2 80 x 2 60 70 x 3	1/20 - 1/8 x 10 1/4 + 1/8 1/10 x 3 1/10 - 1/20 x 5 1/4 1/20 - 1/10 x 6	qtz-chl-py x 10 qtz-chl-py qtz-chl-py-cp x 2 qtz-chl-py x 5 qtz-chl-carb-cp qtz-chl-py x 6	2.5			537		94		70 Str	.11	.006		.15	
							70 x 4 45 + 50 x 2 45 x 6 70 60 60 x 3 60 x 3	1/10 x 4 1/10 x 2 1/10 - 1/20 x 6 1/2 1/4 1/10 x 3 1/4 + 1/10 x 2	qtz-chl-py x 4 qtz-chl-py qtz-chl-py x 6 qtz qtz (cp) qtz-chl-py (cp) x 3 qtz-chl-py (cp) x 3	2 1/2%			547		97		70 Str	85.45	.17	.019		.12
							50 20 x 3 20 + 50 70 x 2 - 45 40 50 - 45 x 6 70 45 x 3 70	1" 1/10 x 3 1/8 x 2 1/10 x 3 1/8 1/20 - 1/10 x 6 2" 1/10 x 3 1/4	qtz-chl-py qtz-chl-py (cp) x 2 qtz-chl-py-cp x 2 qtz-chl-py x 3 qtz-chl-py qtz-chl-py x 6 qtz-py (cp) x 3 qtz-chl-py x 3 qtz-py (cp)	3 1/2%			557		97		70 Str	85.19	.10	.014		.12
							530 540 550 560															

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ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Structure	Value L to Core All	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH		Footage Discor.	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Oil	Pls	K-Spec.	Malle	Texture	Hardness							SUP. DEPTH	REMARKS				Sample Number	% Cu	% Mo		
						70 Str.	80 60 70 50+60 70 80 45 60x2+45x3	1/10 3/10 1/20-2 1/8 1/4 1/4 1/10x3		qtz (py)-carb qtz-chl-py (ep) qtz-ser-chl (py) qtz-chl-py-cp qtz-py qtz-chl-py	2.5%			567	96		85100	16	015		10
						70 Str.	70 70x4 70-60x5	1/5 1/8+1/10x3 1/10x5		qtz-py (ep) (2/3) qtz-chl-py qtz-ent-py	2%			577	97		85101	12	014		12
						70 Str.	70x10 50+60x2 70 80	1/20-1/10 1/10x2 1/4		qtz-chl-py x 10 qtz-chl-py x 3 qtz-py (ep)				577			72				
						70 Str.	50 20x3 45 70x3 15 80x10 60x3	1/3 1/20x3 1/6 1/10x2 1/3 1/10-1/10x10 1/8-1/2x1/10		qtz-chl-cp qtz-chl-py qtz-py (ep) (2/3) qtz-chl-ser-py-cp x 3 qtz-cp-1/10 qtz-chl-py x 10 qtz-chl-py-cp x 3	2%			587	93		85102	35	031		16
						70 Str.	30 45 70x6 35-45x9	1/4 1/4 1/10-1/20x6 1/10x9		qtz-chl-py (ep) qtz-chl-py (ep) qtz-chl-py x 6	2%			597	95		85103	12	015		14
						70 Str.	5x60 70x3 60 70 70	1/10x2 1/10x3 1/8 1/10 1/2		qtz-chl-py (ep) x 2 qtz-chl-py-cp x 3 qtz-chl-cp qtz-chl-py qtz-py	1%			607	90		85104	15	008		16

Handwritten signature

ROCK TYPES & ALTERATION						L to Core Foliation Alteration Fracture Structure	GRAPHIC LOG	Veins L to Core Alt	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____		Footage Block	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Qtz.	Plat.	K-Spat.	Meltic	Tactite	Horstite							REMARKS	Sample Number				% Cu	% Mo	Estimated Grade	
					Bas c zone ~ 50% chl + ~ 50% spar	MA	80 45 6- 70+30x4 4- 80x3 3 80x2	2" 1/4 2" 1/8+1/16x4 1/4 1/2x2 1/2 1/2 + 1/20		qtz-chl-carb qtz-chl-carb-py-cp-Mo qtz-chl-py (cp) qtz-ep-chl-(py) qtz-chl-py xs qtz-chl-py (cp) qtz-spar qtz-chl-py qtz-chl-py xs	2%		117	95		84999	.05	.003	.10	
						ND	80 x 2 70-80 x 5 80 70 80 5 80 80 30?	2" 1/2 x 1" 1/2 x 5 12" 1" 2" 1" 1/4 1" 30"		qtz-spar xs chl-py xs qtz-chl-carb-py zone qtz-chl-py qtz-chl-carb-py-cp-Mo qtz-pied-cp qtz-chl-py (cp) qtz-spar - 700v. qtz-ep-pied-chl-py (cp) b zone	3%		127	95	78	85000	.09	.012	.15	
						ND	70 3x3 2 70 5+90x2 70-80x5 20 80	1/4 1/20x3 2" 3/4 1/20x3 1/20x5 1" 1"		qtz-chl-py (cp) chl-py xs qtz qtz (chl)-py qtz-chl-py xs chl-py xs qtz-chl-py qtz-spar-tact.	3%		137	96	85	85001	.07	.002	.08	
					Segregations to course grn "white" diorite (~ 5-10% chl.)	ND	5x4 + 30-40x10 80 5 60 70	1/8x4 + 1/16x10 1/2 1/8 3" 1/2		qtz-chl-py qtz-chl-py qtz-chl-py chl-py qtz-carb-py-cp	3%		147	94	76	85002	.06	.002	.10	
						ND	70 60-80x5 50x3 30 80 80 80x4 80x3 80x4+5	1" 1/20x5 1/20x2 10" 1/2 1/2 1/2 + 1/16x2 1/10x3 1/2 + 1/16x4		chl-py (cp) qtz-chl-py xs qtz-chl-py (cp) xs qtz-chl-carb (sp) zone qtz (chl)-cp qtz-Mo qtz-chl-(py) (cp) x 4 qtz-chl-cp-py (cp) x 3 qtz-chl-py (cp) x 5	3%		157	95	50	85003	.11	.013	.20	
							20 5-20x4 60 30 35+50 40+50+60x5 40 40+60x4	1/4 1/16x4 2" 1" 1/20x2 1/16x2 + 1/16x5 1/8 1/8-1/4 x 5		qtz-chl-carb-py qtz-chl-py x 4 qtz-ep-py qtz qtz-chl-py xs qtz-chl-py (cp) x 7 qtz-chl-py (cp) qtz-chl-carb-py (cp) xs	3.5%		167	95	70	85004	.09	.011	.14	

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Structure	Vein L to Core All	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH		Footage Block	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Oil	Plin	K-Spar	Melle	Texture	Hardness							SUP. DEPTH	REMARKS				Sample Number	% Cu	% Mo	
					170-230 rx becomes sl. finer grn with incr in chl to 35%	ND	80+30x3 20 80x3 50x3 80 70+80 60+50 40 40x3 50	1/4+1/2x3 1/20 1/2+1x2 1/10x3 1/2 1/4x2 10 1/10x3 1/2	qtz-chl-py x 4 qtz-chl-py-cp qtz-spar qtz-chl-py x 3 qtz-tour. qtz-chl-py qtz-chl-py-cpx qtz-chl-py zone qtz-chl-py qtz-chl-py-cp	2.5%		def 1/4" epuro cp	177	95	83	85005	.22	.003		.25
						ND	70 20 70 4+60 70 60+70 80 60 55-45 x 6 45	1/2 1/2 1/10x2 1/2 1/10x2 1/2 1/8-1/2 x 26 12"	qtz-cp qtz-chl-py qtz qtz-chl-py x 2 qtz-ep (cp) qtz-chl-py qtz-ep (troué) qtz-ep-chl-py qtz-chl-py	3%			187	95	75	85006	.07	.006		.12
						ND	45+50+40 60x10 4+22 60 70x4 80+25 40 80x2 80x2 35	1/4+1/2x10 1/2u-hlx10 1/10x2 1/2 1/10+1/4+1/8x2 1/2x2 2" 1/2+1"x2 2x2 3"	qtz-chl-py (cp) x 3 qtz-chl-py (cp) x 10 qtz-chl-py (cp) x 2 qtz-chl-py (cp) qtz-chl-py (cp) x 4 qtz-carb-ep + qtz-chl-py (cp) qtz (chl)-py (cp) chl-py (cp) x 3 qtz-chl-py (cp)	3.5%		← should get Ag Assays	197	95	82	85007	.12	.002		.20
						ND	30+80x2 45-70 30x2 30x2 30 30x2 70x3+30	2-3"x3 1/20x2 1/8x2 1/8-1/2 6" 1/2x2 1/20x3 + 1/2	qtz-spar x 3 qtz-chl-py-cpx qtz-chl-py x 2 qtz-chl-py (cp) qtz-chl-carb-py qtz-chl-carb-py qtz-chl-py + qtz-py (cp)	4%		← blue patches in qtz vein	207	96	70	85008	.08	.003		.20
						ND	70 35+50 40 20	8' 1/10x2 1/4 1/2	qtz-ep-chl-carb-py (cp) bc zone - clots of ep in a swirled chl-rich matrix cut by qtz-carb veins qtz-chl-py (cp) qtz-chl-py (cp) qtz-chl-carb-py (cp)	4%		← occasional tour 1" frags	217	97	70	85009	.11	.004		.20
						70 Med	30x3 70 30+80 40 45+80x3 60 40x4 20 20 70?	1/10x3 2" 1/10x2 5" 1/10x4 1/2 1/20-1/10x4 2" 3" 2"	qtz-chl-py (cp) x 3 qtz-chl-garnet-mag-py (cp) qtz-chl-py x 2 qtz qtz-chl-py x 4 qtz-chl-carb-py qtz-chl-py x 4 qtz-chl-carb-garnet-py (cp) qtz-chl-ep (cp) qtz-carb-chl-py	4%			227	97	50	85010	.09	.004		.15

ROCK TYPES & ALTERATION						GRAPHIC LOG	Value L to Core A to	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH SUP. DEPTH	REMARKS	Footage Discard.	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Qlr.	Ploc.	K-Spec.	Melt	Texture	Hardness											L to Core Foliation Alteration	Footage Structure	Microstratification	% PYRITE	OX. DEPTH
						70-80 Str.	45 45-55 x 10 35 x 2 55 x 4 35-55 x 15 3 x 22 5 x 70 50-60 x 10	1/4 1/10 x 10 1/4 x 1/2 1/2 x 2 x 1/2 x 2 1/20 x 10 x 15 1/4 x 2 1/4 x 2	qtz-carb-chl-py (cp) qtz-chl-carb-py x 10 qtz-(chl)-carb-py (cp) x 2 qtz-chl-carb-py (cp) x 4 qtz-chl-carb-py (cp) x 15 qtz-chl-carb-py (cp) x 2 qtz-chl-carb-py (cp) x 2	5%			237	97		85011	16	006	Y	25
						40-80 Str.	45 40 25-40 x 3 50 5 x 15 + 50 x 2 25 x 2 + 40 x 2 40 x 2 45 40	3/8 1/2 1/4 x 4 3" 1/2 x 4 1/4 x 2 + 1/2 x 4 1/2 x 2 1" 10"	qtz-chl-py (cp) qtz-tour. qtz-chl-carb-py (cp) x 4 qtz-chl-carb-py (cp) qtz-carb-py-cpx + qtz-chl-py (cp) x 6 qtz-chl-py (cp) x 2 qtz-chl-py (cp) qtz-chl-br-py qtz-tour.	9%			247	96		85012	25	003		30
						50 Str.	45 40 60 45 20 40 x 10 60 45 20 50	1" 3" 1/4 1/2 1/2 1/20 x 10 1/2 1/2 1/2 1/2	qtz-tour. qtz-chl-py qtz-tour-carb-py (cp) qtz-chl-py-cp qtz-chl-py (cp) qtz-chl-carb-py-cp qtz-py (cp) qtz-(chl)-cp (py) qtz-py (cp) qtz-chl-carb-py (cp)	9%	~ 1/2" eq. - cp		257	93		85013	45	008		30
						35-50 Str.	20 35-50	30' 13'	qtz-chl-carb banded zone (py) banded qtz-chl-carb-py-cp zone	10%			265	85		85014	.71	007		40
						50-60 Str.	5-60 cm	3' 3'	chl-cp (py) (cp) zone banded chl-qtz-carb-(py)(cp) zone	6%			275.5 278	97		85015	.18	.003		20
							50 x 6 50 x 3 35-40 x 5 40 45 x 4 80 ? 20	1/2 x 1/2 x 5 1/4 x 1/2 x 10 1/10 - 1/10 x 5 2" 1/4 x 1/2 x 5 2" 6"	qtz-chl-py x 6 qtz-chl-py x 3 qtz-chl-py x 2 qtz-chl-py qtz-chl-carb-py qtz-py (massive) chl (cp) zone	9%			287	78		85016	.12	.011	X	18
							20	6"	chl (cp) zone						45					

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Ash	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH		Feetage Blended	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Qtz.	Plat.	K-Spgr.	Mafic	Texture	Hardness						Feetage Alteration	Feetage Structure				REMARKS	SUP. DEPTH	REMARKS	Sample Number	% Cu
							60x3 40 40x2 40 40 40x2 40 5x2 45x3	1/10x2 1/4 1/10x2 1/4 1/4 1/10x2 3/8 1/4x2 1/10x3	qtz-py (cp)x3 qtz-py ((Mo))(cp) qtz-py x2 qtz-py (cp) qtz-py (cp) qtz-carb-py ((Mo)) + 1' chl-ep hml qtz-py x2 qtz-carb-py (cp) qtz-py (cp)x2 qtz-py (cp)	3%		357	94		85023	15	007		.15	
					in place the prop. grades to bx with incr chl and rounded frags of med grn qtz-diorite	360	60x2 40x45x2 60 45x4 45x6 50x2 50-35x10	1/10x2 1/8x3 1/10 1/8-1/10x4 1/8+1/20x3 1/8x2 1/10-1/10x10	qtz-py (cp)x2 qtz-py ((cp))x3 qtz-cp qtz-py-cpx4 qtz-py (cp)x6 qtz-py x2 qtz-py x10	3%		367	108		68	85024	09	013		.20
						370	45 50x10 40x5 45x2 45x2 50x4 40	1/10 1/10-1/20x10 1/20x5 1/10x2 1/2+1/4 1/20x4 3/8	qtz-py-cp qtz-py x10 qtz-py (cp)x5 qtz-py ((Mo))x2 qtz-py (cp)((Mo)) qtz-py x4 qtz-py (cp)((Mo))	2.5%		377	95		99	85025	06	007	X	.15
						380	60x2 40 40-60x6 30 40x3 30+35 40+60	1/8x2 1/4 1/4-1/16x6 1/2 1/10x3 1/4x2 1/2	qtz-py x2 qtz-py qtz-py qtz-py (cp) qtz-py x3 qtz-py-cp x2 qtz-py x2	2.5%		387	96		95	85026	09	005		.15
						400	40x3 35 45 45 45x5 50-60x5	1/10x2 3/8 1/4 1/4 1/10x5 1/8+1/10x4	qtz-py x3 qtz ((Mo)) qtz-py qtz-py ((Mo)) qtz-py x5 qtz-py (cp)x5	2%		397	94		99	85027	08	004		.12
						410	50 60x4 80 40x3 70x2 50x3 50x10 70	1/2 1/4x4 1/10 1/20x3 1/10 1/8-1/10x3 1/8-1/10x10 1/2	qtz-py qtz-py ((cp)) ((Mo)) x4 qtz-cp qtz-py (cp) x3 qtz ((Mo)) x2 qtz-carb-py x3 qtz-py x10 qtz-carb-py (cp)((Mo))	2.5		407	99		70	85028	08	009		.15
													91							

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH		Feetage Blended	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Qtz.	Plas.	K-Sp.	Malle	Tactars	Hardness						Alteration	Feetage				Structure	REMARKS	SUP. DEPTH		Sample Number
							60x12 30 50 50	1/20-1/10x12 1/8 1/2" 1/8	qtz-py (cp)x12 qtz-py (Mw) qtz-ser-py qtz-py (cp)	2.5			417	95		85029	09	004	X	.15
							40-50x20	1/20-1/10x20	qtz-py (cp)x20					96	99					
							70 80 70x2 70 60x4 60x5 45	1/10x5 1/10x5 1/10x4 1/10x5 1/10x5	qtz-cp qtz-py (cp) qtz-py (cp)x2 qtz-py (cp) qtz-py qtz-py x5 qtz-cp-py qtz-py-cp x12	2.5			427			85030	20	007		.20
							50x12 50 50x6	1/10-1/10x12 1/10 1/20x6	qtz-cp qtz-py x6					97	89					
							70 70x10 70-80x12 60x2 70x10	1/4 1/20x10 1/20-1/10x12 1/8x2 1/20-1/10x10	qtz-(Mw)(cp) qtz-py x10 qtz-py x12 qtz-py (cp)(Mw)x2 qtz-py x10	2.5			437			85031	06	003		.12
							65	1/4"	qtz-ser-py (cp)					96	70					
							70x10 80 50-60x5 50-60x20 ?	1/20-1/10 1/8 1/10x5 hlc-1/20x20 8"	qtz-py x10 qtz-py qtz-py x5 qtz-py x20 qtz	.2			446.5			85032	04	005		.10
							70x25	1/10x25	qtz-py (cp)(Mw)					100	70					
							50x10 45x3 60x12 25 30	hlc-1/20x10 1/8+1/4x2 1/10-1/8x12 1/8 3"	qtz-py x10 qtz-py (cp)x2 qtz-py (cp)x12 qtz-py (cp) qtz-carb chl-py (cp) qtz-chl-carb-py (cp)	2.5			457			85033	04	003		.15
							40x5	1/10-1/8x5						96	50					
							70x4 70x2 45+55x70 60 70x2	hlc x4 1/10x2 1/8x2+1/10 1/2 1/10-1/8x2	qtz-py x4 qtz-py (cp)x2 qtz-py (cp)x3 qtz-py qtz-py x3	1.5			467			85034	02	002		.12
							70x4	1/10-hlc x6	qtz-py x6						67					

incr. chl-ser. -(20%)
a banded effect
between chl-ser
zones, 1-4" wide,
and pale grey
qtz-porp. occurs

at 450' - 485'
- in places this
banding grades to
a bx with QD
rounded fragt

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-22
SHEET No. 8 of 10

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG Foliation Alteration Foliation Structure	Value L to Core Ash	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____		Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Qtz.	Plat.	K-Spec.	Malic	Texture	Hardness							SUP. DEPTH _____	REMARKS			Telege Block.	Sample Number	% Cu	% Mo
						50 Str	480 45x 8x10 7x3 6x2 5 8x7x 1/2	1/10x2 hex 10. 1/10x3 1/8x2 1/4 1/2	qtz-py (cp) 2x qtz-py x 10 qtz-py x 3 qtz-py x 2 qtz-py x 2	1.5		477	96		85035	02	004		.10
						70 Str	490 70 x 3 5 50+60x2 70 70-80 x 3 80+70 70-60 x 10 5	hex 10 1/4 1/2 x 3 1/4 1/10x2 1/4+1/8 1/10-1/20 x 10 1/2	qtz-py x 3 qtz-py x 3 qtz-chl-py qtz-chl-py x 5 qtz-py (cp) 2x qtz-py x 10 qtz-py x 2	2.5		487	96		85036	03	001		.10
						70 Nrd	500 60+80x80 80 60x3 50 50+60x5 50x2 60x3 45x2	1/10x3 1/8 1/20x3 1/4 1/10x3 1/10x2 1/20x3 1/20x2	qtz-py x 3 qtz-py qtz-py x 3 qtz-py qtz-py x 3 qtz-py x 2 qtz-py x 3 qtz-py x 2	2		497	96		85037	02	001		.10
						70 Wk	510 45+60x50 45x2+60 45-55x12 35+45 45+50x4	1/20x3 1/20x3 1/20x12 1/20x2 1/10-1/20x5	qtz-py x 3 qtz-py x 3 qtz-py x 12 qtz-py x 2 qtz-py x 5	1.0		507	97	95	85038	02	004	x	.05
						70 Wk	520 70-75x6 70x2 45x2+60+65 50 60+75+45 40-35x8 45x3	1/10-1/20x6 1/4+1/8x2 1/10x4 1/4 1/4+1/10x2 1/20x8 1/2+1/2x1/4	qtz-py x 6 qtz-py (cp) x 2 qtz-py x 4 qtz-py (cp) qtz-py (cp) x 2 qtz-py (cp) x 8 qtz-py (cp) (H2O) x 3	2.5		517	95		85039	06	004		.15
						ND	530 30+80+70 10x3+80 45x2 75 40x4 80 30x4+50x2	1/4+1/8+1/10 1/10x3+1/4 1/20x2 1/4 1/10x4 1/10x5	qtz-py x 3 qtz-py x 4 qtz-py (cp) x 2 qtz-chl-py qtz-py x 4 qtz-py (cp)	2.0		527	97		85040	06	002		.10

ROCK TYPES & ALTERATION						L to Core Foliation Foliation Alteration Footage STRUCTURE	GRAPHIC LOG	Vains L to Core All	Width of Vain	Mineralization	ESTIMATED % PYRITE	OX. DEPTH SUR. DEPTH	REMARKS	Footage Blacked.	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
CU.	Pb.	K-Spgr.	Malle.	Texture	Interst.												Sample Number	% Cu	% Mo	Estimated Grade
						40x3 40x20+30 50x5 5+40x2 45		1/4+1/10x2 1/10+1/4x2 1/8+1/10x4 1/4+1/10x5 1/8		qtz-py x3 qtz-py x2 qtz-py x5 qtz-py x4 qtz-py	1.5		537	97			85041	07	002	10
						40x4 45	540	1/20-1/10 x4 3/16		qtz-py qtz-py			540	100		99				
						40x3 80 45		1/20x3 1/20 1/8		qtz-py x2 qtz-py (sp) qtz-py (sp)	15		547				85042	08	002	10
						70-60x3 5+20x4 45x5 40+45+70x3 50x40x5	550	1/20x3 1/20x5 1/10-1/10x3		qtz-py (sp) qtz-py xB qtz-py (sp) x5 qtz-py x5 qtz-py x4 qtz-py x3				100		95				y
						40x2+45x3 50x3 35+40+80 50x5 40x4 45x6		1/20 x5 1/20 x3 1/8-1/4+1/10 1/10 x5		qtz-py x5 qtz-py x3 qtz-py (sp) x3 qtz-py x5	2.0		557				85043	08	003	.12
						70-80x8 45 60x4 50	560	1/20-1/10x8 1/2 1/20x4		qtz-py x8 qtz-py qtz-py (sp)				97		90				
						45+50x3 70x2	565	1/10+1/20x3 1/20x2		qtz-py (sp) qtz-py x4 qtz-py x2	2.0		567				85044	06	004	.12
						30x2 80x2 70x12 70	570	1/10x2 1/20x2 1/10x2 3"		qtz-chl-py x2 qtz-chl-py x2 chl-py x2 qtz-ser-py (massive)	5.0	The ser. has bright green streaks which is not malachite				94				
						45 45x3 60x3+30 60 60-70x5 45-75x20 35 60x2+35 70x8		1/10 1/10x3 1/10x5 1/10 1/10-1/4x5 1/4-1/20x20 1/8 1/20x3 1/20-1/10x8		qtz-py (sp) (sphal.) qtz-chl-py (sp) x3 qtz-chl-py (sp) x5 qtz-chl-py (sp) x5 qtz-chl-py (sp) x5 qtz-chl-py (sp) x5 qtz-chl-py (sp) x20 qtz-py (sp) qtz-py (sp) x3 qtz-chl-py (sp) x8	5.0		577				85045	07	006	.20
						60x10 45x4+50 65 60 70x5 80 60-75x8 70	580	1/10-1/8x10 1/10x5 3" 3" 1/8-1/20x5 2" 1/10-1/20x2 1"		qtz-chl-py x10 qtz-chl-py (sp) x5 chl-py (sp) zone qtz-ser-py (sp) zone qtz-chl-py (sp) x3 qtz-ser-py (sp) qtz-chl-py x8 qtz-chl-py (sp)	5.0	most sulfides are confined to dk phase as distinct veins as described or as dissemin. and blebs along folia	587		98		85046	11	004	.18
							570									94				

MIXED RX UNIT
QIZ-PORP + META-

ANDESITE?

a banded rx type similar to 450-485 consisting of alternation 1-3" qtz-porp and

andesitic bands - the "andesite" is fine to med grn - the coarser grn type could be called a diorite or qtz-diorite - the dk bands often grades to act. dx.s

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-25
SHEET No. 1 of 7

LOCATION Sawmill Zone BEARING _____ LATITUDE _____ CORE SIZE N.O. Wireline LOGGED BY GDB
 DATE COLLARED May 4, 1982 LENGTH 397' DEPARTURE _____ SCALE OF LOG 1" = 10' DATE June 18, 1982
 DATE COMPLETED May 5, 1982 DIP -90° ELEVATION _____ REMARKS Variable comp. meta-seds to 211 - below that meta-andesite predominates.

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins L to Core Ave	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH <u>0</u> SUP. DEPTH _____ REMARKS	Footage Discard.	Estimated Core Recovery %	R O D	ASSAY RESULTS				
Alt.	Plan.	K-Spec.	Matrix	Texture	Remarks										Sample Number	% Cu	% Mo		Estimated Grade
					<u>Cased to 11'</u>														
					<u>GRAPHITE SCHIST (11 - 63')</u>	11				.5	weak limonite to 15'	11	40%	0%					.01
					<u>dark green- chert??</u>	20						15	60%						
					<u>a black fine gr rx with 1/10-1/2" qtz-carb bands + lenses - occasional chert bands up to 12" wide</u>	30				.5		21	48%	10%					.01
					<u>prob ~ 30% graphite</u>	40				.5		25	70%						.01
						50				.5		30	25%	0%					.01
										.5		36	31%						.01
										.5		42.6	67%	0%					.01
										.5		47							.01

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10,585
No.

ROCK TYPES & ALTERATION						L to Core Foliation Foliation Alteration Feathers Structure	GRAPHIC LOG	Value L to Core Ash	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____ REMARKS	Feetage Discuss.	Estimated Core Recovery %	R Q D	ASSAY RESULTS					
Min.	Plas	K-Spec.	Meltic	Texture	Hardness											Sample Number	% Cu	% Mo	Estimate Oxid.		
						70 str					0		57	20%	0%					.01	
							60						63	32%							
						80 str					0		67	70%	15%						.01
						80 str					0		71	92%							
						80 str					0		77	20%	0%						.01
							80														
						5- 90 str Cren					0		84	60%	10%						.01
							90						90	45%							
						5- 90 str Cren					0		94	40%	3%						.01
							100						99	40%							
						5- 90 str Cren					0		102	10%							
													107	6%	13%						.01
							110						109	40%							

63
BANDS QZ
F.P. - CHL - R₂
~ 20% chl and
70% sp-qtz-spec
as bands cutting
chl-rich matrix
-prob a volcano-
clastic sed of
dacitic comp 77

FINELY BANDED
QZ-CHL-CARB
ZONE (77-136)
a very complex
rx with 1/10-1/4"
laminae of varying

compositions -
chl-rich bands are
most common (30-80%
of rx) which alternate
with qtz-carb-hem,
qtz-carb-graphite or
qtz-carb-bands.

-the chl. is gen-
bright green
-occasional 1/2-4"
zones of qtz-carb-ser
-meta calcareous
siltstone

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins to Core Alt	Width of Vein	Mineralisation	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____ REMARKS	Feelite Direct.	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Oil.	Plan.	X-Spec.	Matrix	Textures	Hardness										Feelite Alteration	Feelite Structure	Sample Number	% Cu	% Mo
						90 Stv	120	40	12"	qtz-chl (def vein)		117	92%	10%					.01
						25- 90	130	50	14"	limestone band		123	87%						.01
						30 Stv	136	60	2" 30"	qtz-chl qz-bx		136.6	30%	3%					.01
					<u>LIMESTONE</u> (136 - 181) highly variable composition but over 50% carb. grades from white to dk grey to	30 Med	140				pass fault contact								.01
						70 80 Med	150					146.6	7%	7%					.01
					chl - green - contains numerous bands of chl-rich material as well as qtz-carb. Grades to qtz-chl-core, same as (77-126) with depth. - occasional graphitic parting.	70 80 Med	160					156	18%	3%					.01
						70- 80 Med						160	60%						.01
						70- 80 Med						167	58%	0%					.01
							170					170	40%						.01

ROCK TYPES & ALTERATION						L to Core Foliation Alteration Footings Structures	GRAPHIC LOG	Veins L to Core Ash	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____		Feeds Discs.	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Oil.	Plat.	K-Spec.	Mollic	Tactite	Hardness							REMARKS	Sample Number				% Cu	% Mo		Estim. Ore	
						80 Med					0			62%		0%				.01	
							180							177							
						80-90 Med		?	} 6'	} qz-bx	0			1836	25%						.01
														187	25%						
														189	90%						
							190	90	1/2	qtz-ep											
								80	1/2	qtz-chl											
						80-90 Med		80	1/2	qtz-chl				197	98%		13%				.01
								200	3"	qtz-chl (def vein)					90%						
						80-90 Med		45 60 80	16" 12" 3+6"	qtz-ep qtz-ep qtz-ep-carb qtz-ep x2	0			202							
								50 x2						206	82%		10%				.01
								210						210	82%						
						80 Med								217	65%		10%				.01
														221	75%						
						80 Med															
														227	95%		45%				.01
								80 70	2" 2"	qtz-carb-chl qtz-ep	0										

FAULT ZONE
(181-187')

FINE GRN

MED-GREEN R₂
sl calcareous -
very finely banded
with trails of
ep blebs in qtz-carb
matrix 1/2-1/2" wide

- prob. fine
volcanoclastic sed
(187-211)

DENSE DK. GREEN
CHL-CARB R₂
(211 - 397)
finely banded with
1/20-1/10" carb-rich
laminae in chl.
matrix
- prob a andesitic
volcanic rx, or
volcanoclastic sed.

Fault Zone Contact

grad. contact

scarn?

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 82-25

SHEET No. 5 of 7

ROCK TYPES & ALTERATION					Z to Core Foliation Alteration Footage Structure	GRAPHIC LOG	Z to Core Veins Z to Core Alt.	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH SUP. DEPTH REMARKS	Footage Blow.	Estimated Core Recovery	R Q D	ASSAY RESULTS			
Grain Size	Texture	Hardness		Sample Number											% Cu	% Mo		Estim. Ore
			rx is essentially light colored bands of qtz-carb or qtz-ep in a chl-vid matrix which gen. makes up 60% of rx.	90 Mod	240	80	1/4 3 ite	carb-hem qtz-chl hem	0		235	93%	20%				0.1	
				90 Str	250	80	1/2 1/2 15	qtz-carb qtz-carb limestone	0		2455	99%	22%				0.1	
				80 str	260	80	1 2	qtz-ep qtz-chl-carb	0		256	97%	7%				0.1	
				90 str	270	80	6	bx (gg)	0		261	99%	0%				0.1	
				70- 90 str	280	60 70	14	qtz-ep qtz-carb-hem qtz-carb-ep-hem	0		273	52%	7%				0.1	
				80 str	290	70	10	qtz-ep-carb	0		281	92%	7%				0.1	
											287	85%	75%					
												25%						

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 4225
SHEET No. 6 of 7

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Structure	Values L to Core Alt	Width of Vein	Mineralisation	ESTIMATED % PYRITE	OX. DEPTH SUP. DEPTH REMARKS	Footage Block	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Soil	Plas.	X-390%	Malle	Texture	Hardness											Sample Number	% Cu	% Mo	Estimate Grade
						70-90 Str	300				0		293	70%	0%				.01
						70 Str	310	70 x 5	high 5	graphitic - s	0		297	71%	4%				.01
						70 Str	310	70	30"	non v.ous hem ric partings	0		303	75%	7%				.01
						70 Str	320	5+90	1/4-1'	qtz-carb	0		309	92%	7%				.01
						70-80 Str	320	5	1/4	carb	0		317	70%	10%				.01
						70-80 Str	330	80	6"	qtz-carb-chl (py)	< 0.5		321	92%	22%				.01
						70-80 Str	330	90	6"	carb-hem	0		327	92%	22%				.01
						70-80 Str	330	90	1/4	qtz-carb	0		333	92%	22%				.01
						70-80 Str	340	145	2"	qtz-carb-ep	0		333	97%	22%				.01
						70-80 Str	340	50	1/2	qtz-carb	0		343	97%	26%				.01
						70-80 Str	350			width of bands are increasing - approaching a typical chl-carb banded rx	< 0.5		343	96%	26%				.01
						70-80 Str	350			} fine diss py	< 0.5		343	96%	26%				.01

ROCK TYPES & ALTERATION							GRAPHIC LOG	Vein to Core Alt	width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH		Footage Blacked	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Qty.	Plus	K-Spar.	Malle	Texture	Hardness	L to Core Foliation						Foliation Alteration	Foliate Structure				SUP. DEPTH	REMARKS	Sample Number	% Cu	% Mo
						74' Str			1" 1" 2'	carb-chl-mag qtz-chl qq-bx	5% Mag		73 74 77	90% 50% 60%	15%					0.5	
						60-70 Str					0			100%							0.1
						40 Str		20-40	7"	qtz	0		91	100%							0.1
						105' Str			1/4"	qtz-chl-carb (x=...)	0		97	97%							0.1
						110' Str			1" 12" 2"	qtz-epi qq-bx qtz-epi	0		105	9%							0.1
						120' Str			12"	qtz-chl-ser (chl-ser in 1/2-3/8" ribbons)	0		111	20%							0.1
						130' Str			2"	qtz-epi-carb	0		117	5%							0.1
									30'	qq(bx)	0		124	67%							0.1
									1"	qtz-carb	0										

Fine Grn
QTZ-CHLORITE
CARBONATE UNITS

a dense dk green
finely banded rx
with occasional
bands of ep-chl
bx and bands of
pale green sil
rx - prob. a

fine gray volc. sc
sediment
(74'-105')

BANDED AND
KRECCATED
CHLORITE-EPIDOTE
(CARBONATE)
ZONE (105'-110')

similar to (31-54)
but finer grn.
-probably a layered
volcano clastic sediment

- some 1-10' bands
of spar porp (ie
20-30% spar porp
in dk green matrix)
prob. represent
individual andesitic
volcanic flows + tuffs

ROCK TYPES & ALTERATION						GRAPHIC LOG	Veins to Core Ash	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH SUP. DEPTH	Footlog Discr.	Estimated Core Recovery %	R & D	ASSAY RESULTS				
Oil.	Flux.	K-Spar	Malle.	Texture	Hardness										Alteration	Footlog Discr.	Sample Number	% Cu	% Mo
						60 Med- Str	70 4x	2"	qtz-ep-cal 99	0		130.6 137	90%	75%					.01
						60 Med	45 45 45	14" 2" 10"	qtz-ep (w) zone qtz-chl qtz-ep-chl (carb) (py)	0.5		147	100%	15%					.01
						40- 60 Med. Str	60 40 30	20" 30" 10"	qtz-ep-chl - zone qtz-ep-chl - zone qtz-ep-chl - zone	0		157	95%	65%					.01
						70- 80 Med- Str	75 45 80	30" 6" 1/2"	bx (qq) qtz-chl qtz-carb	0		165 171	100%	100%					.01
						70 Med	170			0		177	100%	100%					.01
						70 WK- Med	180			0		183	97%	50%					.01

PALE TO MED
GREEN UNIT
GEO. UNIT
(169-181)
- a more siliceous
unit - sl banding marked
by trains of ep clots in
cal. matrix

BANDEL AND
BRECCIATED
CHLORITE - EPIDOTE
CARB. UNIT

These are zones
of almost massive
ep cut by qtz-
carb veins
(see ...)
Sharp contact
between these units

ROCK TYPES & ALTERATION						L to Core Falloff	GRAPHIC LOG	Veins L to Core Auth	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH SUP. DEPTH	REMARKS	Foliate Blacks	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Gr.	Pitch	K-3 per.	Malle	Texture	Hardness												Sample Number	% Cu	% Mo		Estimate Grade
					Similar to (105-167) but contains some more siliceous zones (181' - 254')	70 Mod					0	5. cm. zone 20% chl - ep 80% qtz + spar	193	90%						b1	
					- banding tends to be due to traces of ep + chl par. to folia	70 Wk- Mod	200				0			200.0	92%						01
					green s. zone zone 80% qtz + spar (volcanic volc.?)	80 Wk	210	8"	3"	qtz-chl. (pr) (ep)	< 5			201	74%						01
					50% zone (1/2" phen in dr green matrix (andesitic volc.))	70 Wk	220				0			217	75%						01
						70 Wk	230				0			224	9%						01
						70 Mod	240	8"	1"	qtz-ep-carb qtz-ap	.5	Very fine diss py	221	85%							01
						80 Wk	250	4" x 3"	hex	hex	0			44	78%						01
							250								97%						

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG	Veins L to Core Alt	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____ REMARKS	Footage Block	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Qui.	Pier.	K-Spar.	Malle.	Tenere	Hardness											Foliation Alteration	Footage Structure	Sample Number	% Cu	% Mo
						254-70 wk					0	Sharp contact between these units 70"	251	94%	80%					.01
						50-70 wk			3"	ep-carb((pt))	0		261	92%	70%					.01
						70 wk- Med					0		267	95%	80%					.01
						60-80 wk		5-30	14" 20"	ep-carb-qtz-zoned intense 1/10-1/8" ep streaks in leucocratic ground mass	2%	Sharp contact ~70"	277	94%	98%					.10
						80 wk			5'	ep-chl-garnet-py scarn			287	100%	99%					.03
						80 wk		60x3	1/10	chl-carb-py	5%		297	100%	99%					.03
						70x3		70x3	1/10-1/20x3	chl-ep-carb-py x3										
						45 str- Med		30x4 40 40x3 40 45x2	1/20x4 1/10 1/10x3 1/2 1/20x2	qtz-chl-py x4 carb-chl-mag (sp) chl-carb-(sp)(py) x2 chl-carb-py ((sp)) chl-carb-py x2	1%		307	98%	83%					.05

254-70
FINE GRN. MED
GREEN SILICEOUS
UNIT
(254-281)
similar to 169-181
prob a rhyolite
volcanic - ~10-20%
chl.
'soot porp.
(andesitic vol)

FELDSPAR PORP
UNIT (raginly)
(281-313)
1/10" rounded sauss-
spar phenos in dk
chl-rich matrix -
occasional chl. phenos
- originally a
andesitic vol.
- with incr. folio
grades to a banded

chl-qtz-carb rx. at
310-320 with incr
Pt
- this unit contains
~60% chl.

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG Foliation Alteration Folioses Structures	Veins L to Core Auth	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____ REMARKS	Folioses Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Qtz.	Plas.	K-Spec.	Mafic	Texture	Hardness											Sample Number	% Cu	% Mo	
						313	50 x 2 50	1/2 x 2 20"	chl-carb-py (sp) x z chl-carb-(qtz)-py(sp) zone				98%						
					<u>BANDED QTZ- CARBONATE-CHLORITE ZONE (313-508)</u>	50 str to Cren	50 20 60-70 x 4 70	1/4 1" 1/2-1/4 x 4 2"	qtz-carb qtz-carb qtz-carb x + qtz-carb	1%		314.6	65%	27%					.05
					contains ~ 20% chl, ~ 20% iron carbonate and 60% qtz-spor -prob an altered dacite	50- 60 str	50 70 x 2 70 45	1/4 1/4 x 2 1/2 4"	qtz-chl-carb qtz-chl-carb qtz-carb qtz-chl(carb)	0		322 327 330 332	67% 33% 45%	10%					.01
					- def lacc if ep - veins shown are x cutting folh - the rx is banded as well with qtz-carb laminae alternating with chl-rich bands	45 str to SI Cren	5	1/4	qtz-carb	0		337	70%	6%					.01
						70 str				0		341 347	20%	0%					.01
						70- 50 str	40 60	1/4 3/4 1/2	qtz-carb qtz-carb qtz-carb-py(sp)	1%		351 354 358 360	50% 80% 60% 75%	0%					.05
						50 str	50 55	1/10 1/16	chl-py chl-cr	0.5%		364 365	25% 60%	0%					.01

ROCK TYPES & ALTERATION							GRAPHIC LOG	Veins L to Core Ails	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____ REMARKS	Footage Block.	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Obs.	Plac.	K-Spar.	Melle	Texture	Hardness	L to Core Foliation Alteration Feet Structure										% Cu	% Mo		Estimate Grade
						50 Str.	373 374				0		20%					.01	
						50 Str.	377 384	4"	chl-carb-py(sp)		3 1/0		10%					.20	
						70 Str.	389 394				0		18%					.01	
						70 Str.	394 400	3"	qtz-carb		0		15%					.01	
						5- 80 Str. Cren	400 405.6	18" 5"	qtz (ser)(carb) qtz-chl. (ug)		0		40%					.01	
						5- 90 Str. Cren & bxt	410 416	70 45+70 70 x 2	qtz-carb qtz-carb-chl-py(sp) chl-py chl-py x 2		1.5%		99%					.05	
						5- 90 Str. & Cren	420 423.6 426 430	2" 1/2+1" 1/2 1/2 x 2	qtz-carb-chl-py qtz-carb-chl-py(sp) chl-py chl-py x 2		0		82%					.02	
						5- 90 Str. & Cren	430	hlc	chl-llc fine disc py along foln planes		.5		75%					.02	

Tex more
bx'd than banded
with chl-rich material
as a surround matrix
around pale grey
qtz-spar frags

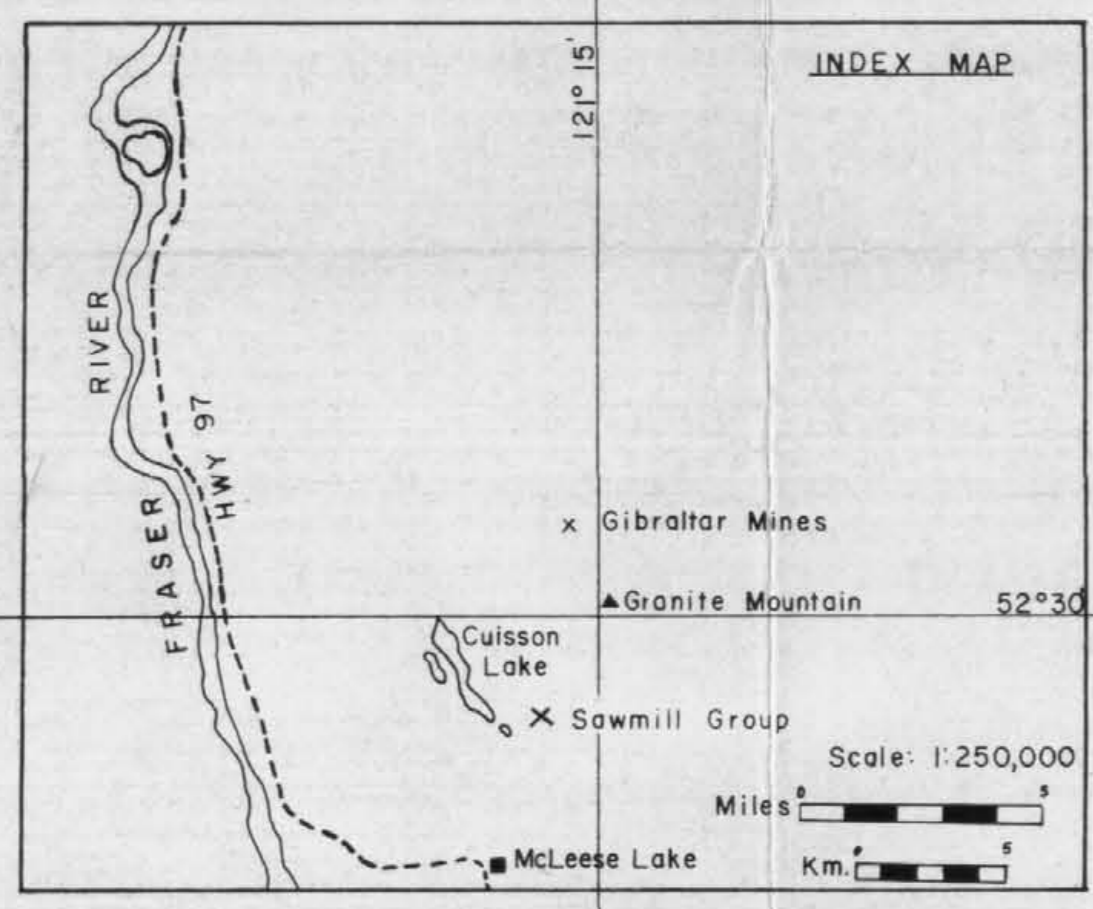
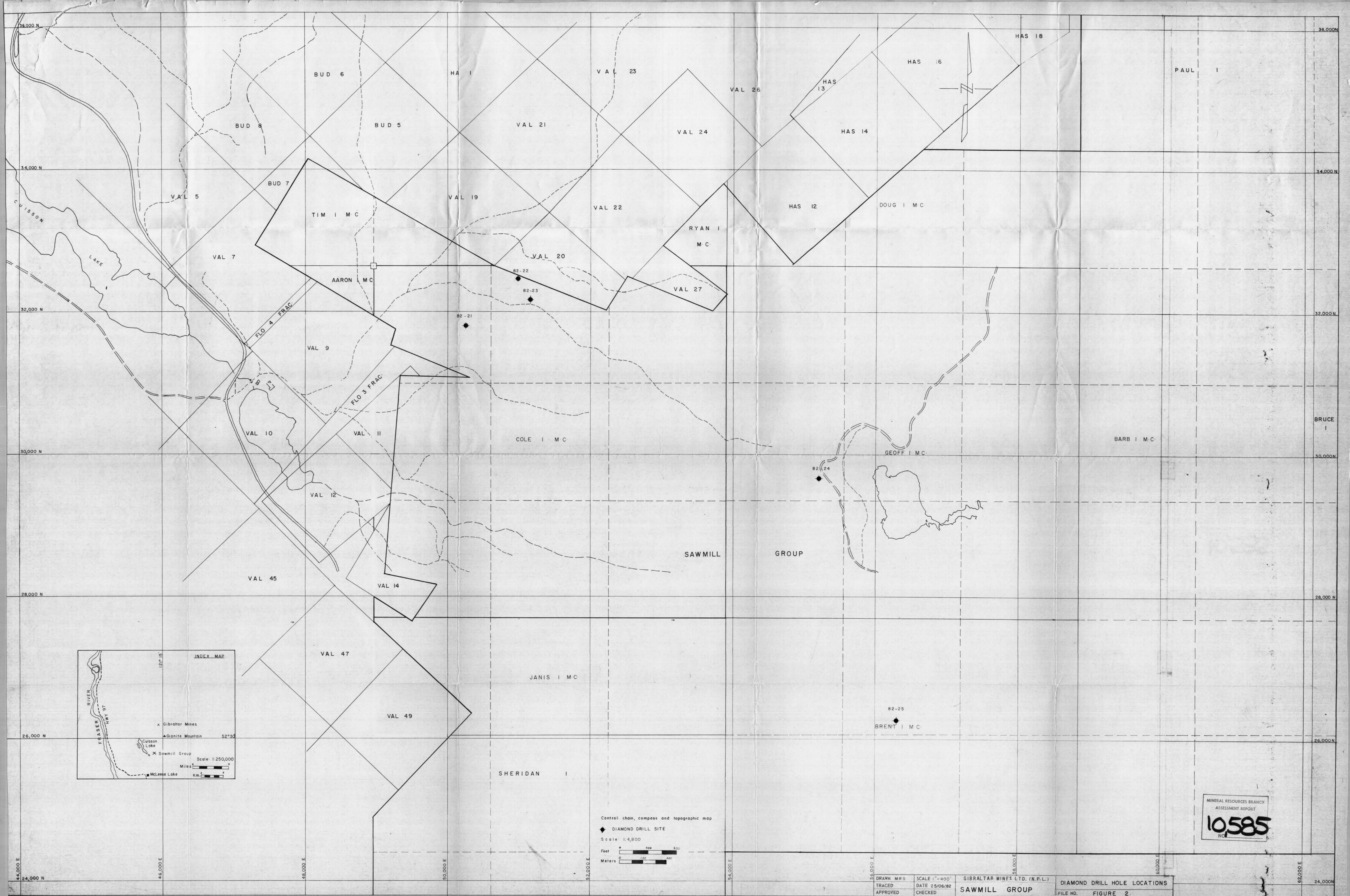
ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Structure	Veins L to Core Ash	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH SUP. DEPTH REMARKS	Footage Blk. No.	Estimated Core Recovery %	R Q D	ASSAY RESULTS				
Qtz.	Plas.	K-Spar.	Melle	Texture	Hardness											Sample Number	% Cu	% Mo	Est. Grade	
						50- 70 str			1/10 1/10 1/10 1/10	chl-py chl-py chl-py chl-carb-py	.5		435	80%	28%				.05	
				bx. texture						finely disc py in chl matrix				87%						
						50 str			1/10 1/10	chl-py chl-py	.5		441	100%	27%					.05
										finely disc py in chl along foli planes			450							
						60 str.			1/10 hlect	chl-ep chl-py	.5		458	97%	42%					.05
										chl-ep breccia										
						60- 46 str			1/4	qtz-carb-mag	0		467	92%	45%					.01
														90%						
						70 str.				meta-andesite meta-andesite mainly 'spar porp meta-andesite mainly 'spar porp	0		473		53%					.01
														93%						
						70 str			2"	mag-chl	3.0% mag		483	98%	33%					.01
										meta-andesite			489							

ROCK TYPES & ALTERATION						L to Core Foliation	GRAPHIC LOG Foliation Alteration Feetage Structure	Vein L to Core Atto	Width of Vein	Mineralization	ESTIMATED % PYRITE	OX. DEPTH _____ SUP. DEPTH _____		Feetage Block	Estimated Core Recovery %	R Q D	ASSAY RESULTS			
Qtz.	Plas.	K-Sper.	Melle	Texture	Hardness							REMARKS	Sample Number				% Cu	% Mo		Estimated Grade
						80 Med				finely diss py in matrix	.5		551.5	95%	50%				.03	
						80 Med	560						562 564	70%					.15	
						70- 80 Med	570	60' x2 50 50 70	hlc 1/4 + hlc 1/8 1/8 3/8	chl-ep qtz-carb-ep x2 qtz-carb-ep chl-carb-ep	<.5			97%	56%					
						70- 80 Med	580	80 x2 80 + 4x2 40 x2 45 10 20	hlc x2 1/8 x3 1/20 x2 2" 1" 2"	chl-ep x2 qtz-carb x3 carb-chl-ep x2 qtz-carb (vug) qtz-chl-carb qtz-carb (py)	<.5		574 580	88%	53%				10	
						70 Med	590	20 x2 30 x3 80	2" x2 hlc x3 hlc	qtz-carb (vug) x2 qtz-carb-py-ep x3 chl-ep	<.5		587	90%	62%				.03	
						70 WK	600	40 80 45 40 5 + 80 70 x3	1/2 1/10 1/8 1/20 1/10 x2 1/20 x3	qtz-py chl-py qtz-chl-carb-py (ep) qtz-ep qtz-ep-ep x2 chl-py x3	.5		597	98%	73%				.12	
						ND		20 70	1/20 1/4	qtz-py qtz-tour	<.5		603	99%	66%					

BANDED AND
BRECCIATED
CHLORITE-CARB.
-EPIDOTE ZONE
(564'-591')
Same as
(105-169)

QTZ-CHL-CARB
UNIT (591-603)
Same as
(313-508)

EOH 603'



Control chain, compass and topographic map
 ◆ DIAMOND DRILL SITE
 Scale: 1:4,800

Feet 0 100 200 300
 Meters 0 100 200

DRAWN MRS	SCALE 1"=400'	GIBRALTAR MINES LTD. (N.P.L.)	DIAMOND DRILL HOLE LOCATIONS
TRACED	DATE 25/06/82	SAWMILL GROUP	FILE NO. FIGURE 2.
APPROVED	CHECKED		

MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
10585
 N.C.