ARIS SUMMARY SHEET

District Geologist, Prince George — Off Confidential: 92.08.20

ASSESSMENT REPORT 21761 — MINING DIVISION: Cariboo

PROPERTY: TK
LOCATION: LAT 52 32 30 LONG 122 20 00
UTM 10 5821277 545213
NTS 093B09W

CAMP: 037 Gibraltar Area

CLAIM(S): TK 1-2
OPERATOR(S): Gibraltar Mines
AUTHOR(S): Barker, G.E.
REPORT YEAR: 1991, 52 Pages
COMMODITIES
SEARCHED FOR: Zinc,Copper
KEYWORDS: Triassic,Granite Mountain Pluton,Quartz diorites
Mine phase quartz diorite,Chalcopyrite,Sphalerite
WORK
DONE: Drilling,Geochemical
DIAD 546.8 m 2 hole(s);NQ
SAMP 176 sample(s) ;CU,MO,ZN,AG
MINFILE: 093B

DIAMOND DRILL REPORT

on the

TK CLAIM GROUP

Cariboo Mining Division

93B/9W

(Latitude 52°32.5', Longitude 122°20')

OWNER and OPERATOR
Gibraltar Mines Limited
P. O. Box 130
McLeese Lake, B. C.
VOL 1P0

Author: G. E. Barker Submitted: October 1991

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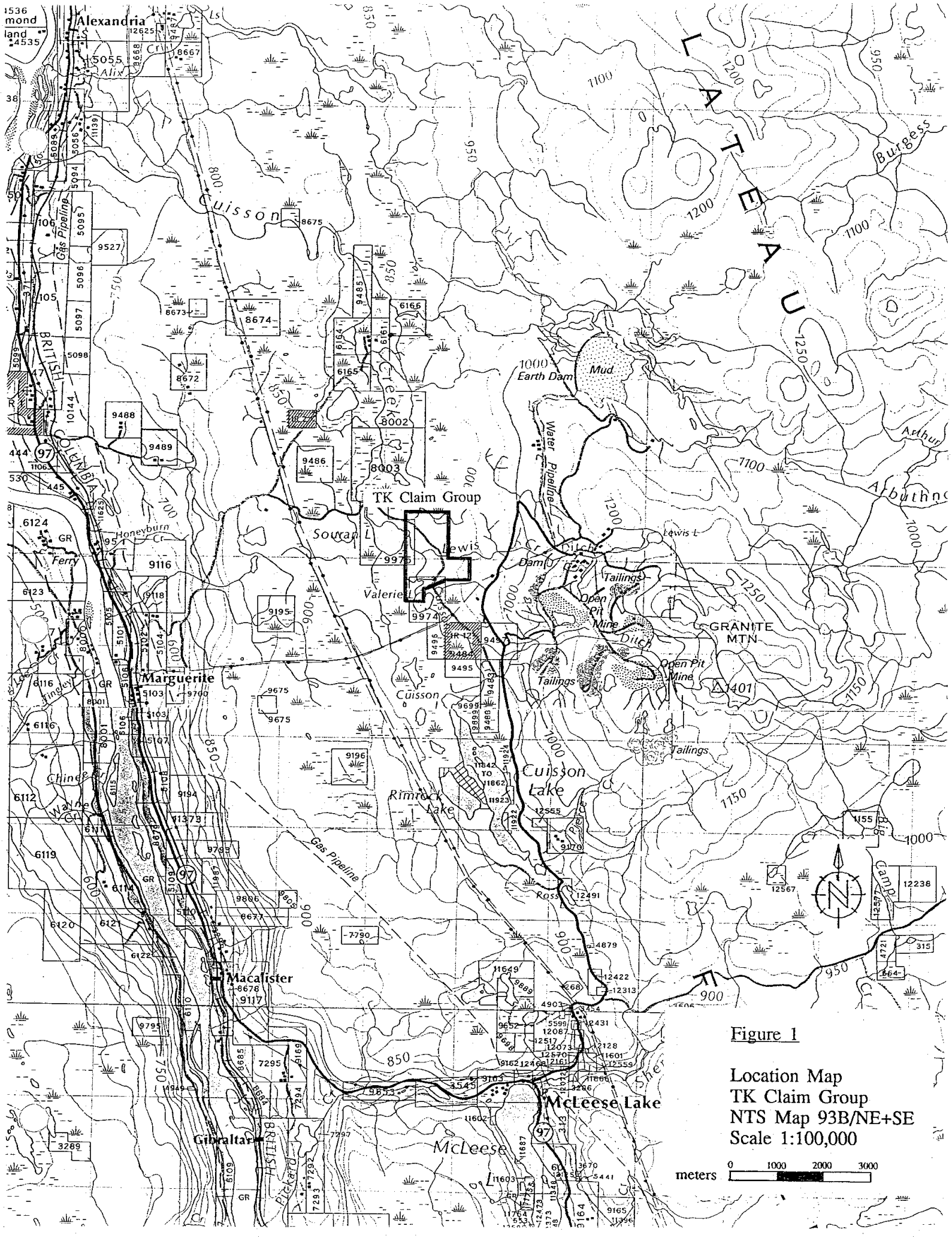

Figure 1

Location Map
TK Claim Group
NTS Map 93B/NE+SE
Scale 1:100,000

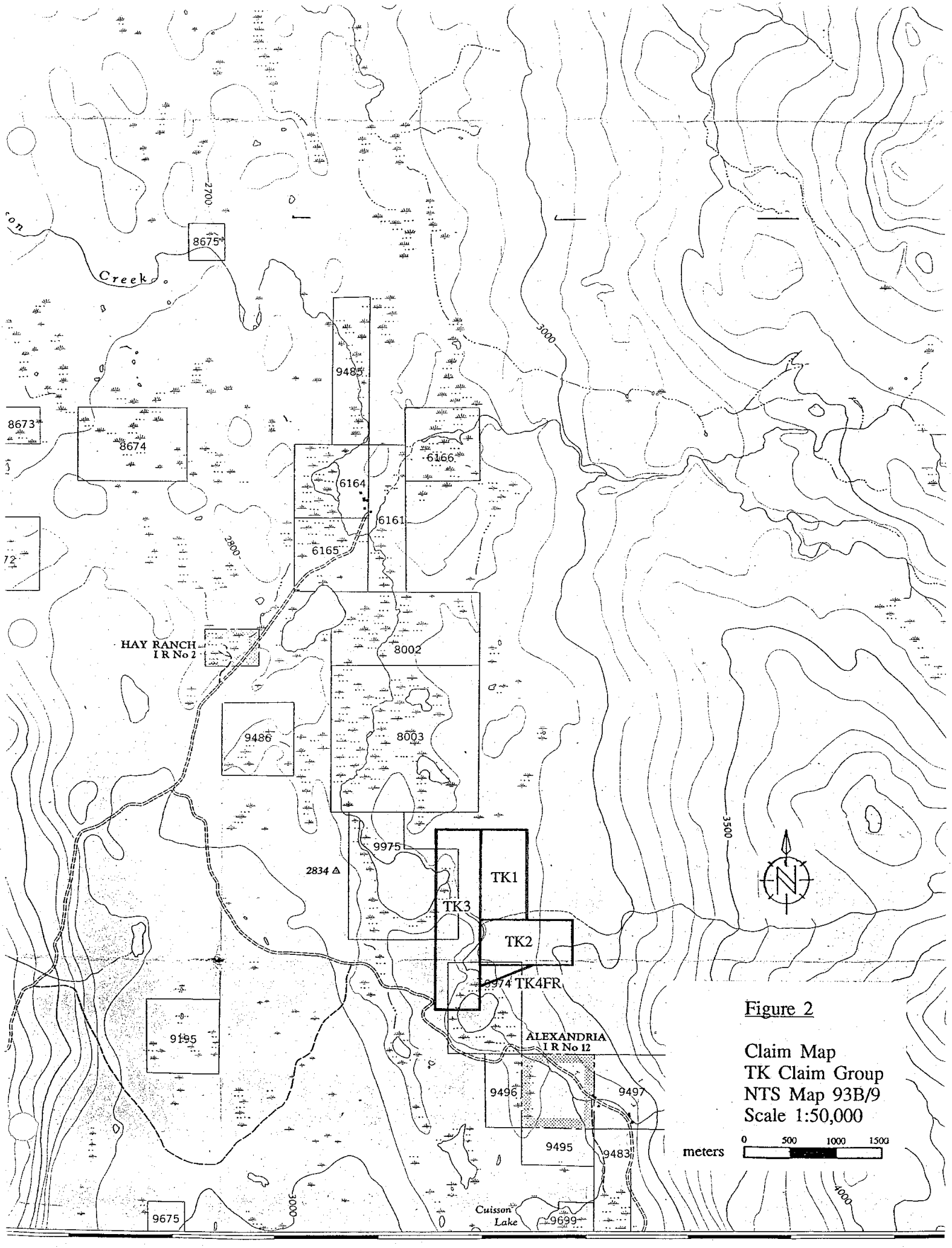

Figure 2

Claim Map
TK Claim Group
NTS Map 93B/9
Scale 1:50,000

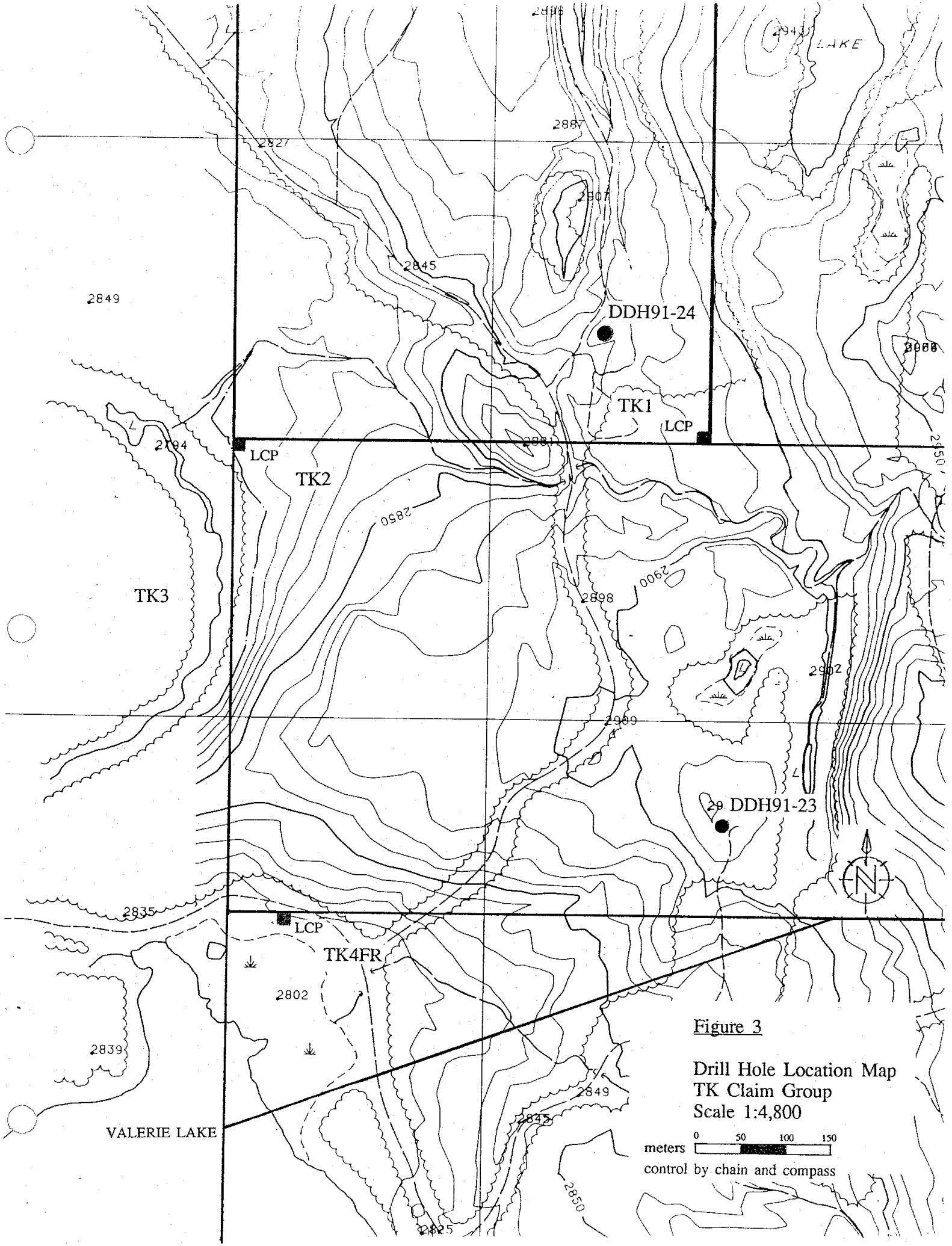

Figure 3

Drill Hole Location Map
TK Claim Group
Scale 1:4,800

meters 0 50 100 150

control by chain and compass

1. INTRODUCTION

The TK Mineral Claim Group is located in the Cariboo Mining Division approximately 3.4 km. west of the Gibraltar Mines Concentrator (see Figure 1). The claims lie along the northwest flank of Granite Mountain at elevations between 850 and 935 meters. Access is via logging roads which link the property to the Gibraltar Mines paved access road.

All the claims of the TK Group were staked in 1990 to cover ground adjacent to the northwest side of the Gibraltar Mines Property.

This report covers a diamond drill program conducted in 1991 on the TK Claim Group. Two vertical NQ diamond drill holes (91-23 and 91-24) totaling 546.8 meters were completed. Drilling was done by L.D.S. Diamond Drilling Ltd. of Kamloops B.C. during the period June 2 to June 5, 1991. The whole core was assayed except for a three-inch segment per ten-foot section which was retained and stored at Gibraltar Mines.

2. MINERAL CLAIMS

The mineral claims of the TK Group are shown in Figure 2 and claim information is tabulated below.

MINERAL CLAIM	RECORD NO.	NO. OF UNITS	DATE OF RECORD
TK1	10790	2	August 23, 1990
TK2	10791	2	August 24, 1990
TK3	10845	4	September 12, 1990
TK4FR	10846	1	September 12, 1990

All claims are owned by Gibraltar Mines Limited.

3. GENERAL GEOLOGY

The TK Claims are located on the northwest flank of Granite Mountain. This area of moderate relief is a part of the Upper Triassic Granite Mountain Pluton. The pluton is divisible into at least three major phases. The first, refered to as the Granite Mountain Phase Quartz Diorite, forms the main body of the pluton and is readily recognized by a high quartz content (about 45%) and a fairly coarse grained texture. The second, called the Mine Phase Quartz Diorite, appears to form a shell about the Granite Mountain Phase and is characterized by normal quartz diorite composition with about 30% quartz. The third, refered to as the Border Phase Diorite, appears as a complex assimilative-type contact rock formed between the Mine Phase Quartz Diorite and the intruded Cache Creek Group rocks. All of these rocks have undergone pervasive saussuritization and chloritization.

The TK Claims are underlain by the Mine Phase Quartz Diorite of the Granite Mountain Pluton. This rock has undergone pronounced shearing deformation which has produced large shear zones, small shears, veins and various other dilatant structures. Sulfide and alteration mineralization correlates well with the deformation features and sulfide minerals such as pyrite, chalcopyrite, sphalerite and molybdenite are invariably associated with various combinations of quartz, chlorite, sericite, epidote and carbonate.

2. DRILL PROGRAM

4.1 Objective

The purpose of the drilling was to test for copper mineralization along the logical strike projection of the Gibraltar Mines ore zones.

4.2 Results

The drill hole locations are shown in Figure 3. Drill logs can be found in Appendix B and assay sheets in Appendix C.

Drill hole 91-23 was cased to 9.1 meters and drilled to 246 meters. The host rock throughout the hole was Mine Phase Quartz Diorite. No significant copper mineralization was encountered in this hole, however, a 76.2 meter zone of 0.59% zinc was intersected between 39.6 and 115.8 meters. The zinc mineralization (sphalerite) was associated with quartz-chlorite-sericite alteration.

Drill hole 91-24 was cased to 3 meters and drilled to 300.8 meters. The host rock throughout the hole was Mine Phase Quartz Diorite. Two small zones of copper mineralization, associated with quartz-chlorite-sericite-pyrite alteration, were encountered. The first was 9.2 meters of 0.45% copper between 237.7 and 246.9 meters. The second was 6.1 meters of 0.57% copper between 292.6 and 298.7 meters. A 61 meter zone of 0.68% zinc was intersected between 73.1 and 134.1 meters. This zone was very similar to the sphalerite mineralization encountered in drill hole 91-23.

4.3 Interpretation

Both drill holes encountered significant sulfide mineralization (pyrite, sphalerite and chalcopyrite) suggesting that the mineralized system containing the Gibraltar Mines ore zones extends to the TK claim group. Of particular interest are the large zinc zones found in both holes. These zones appear to support a sulfide zoning concept in which zinc mineralization tends to be concentrated in the outer and more cooler portions of the hydrothermal system. It would seem likely, therefore, that the TK claims over lie the outer fringes of the Gibraltar copper ore system.

5. STATEMENT OF EXPENDITURES

1991 Diamond Drill Program - TK Claim Group

1. Diamond Drilling Costs for Drill Holes 91-23 and 91-24
   Drilled by L.D.S. Diamond Drilling of Kamloops B.C.

546.8 meters X $35.97 per meter = $19,668.00

TOTAL $19,668.00

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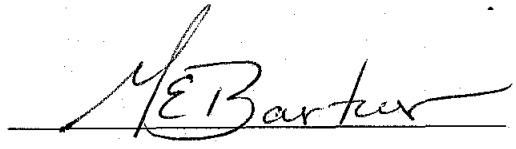
6. CONCLUSIONS

Futher work (geophysical and diamond drilling) is recommended within the general area around both drill sites.



G. E. Barker
Exploration Geologist

GIBRALTAR MINES LIMITED

APPENDIX A. Statement of Qualifications - George E. Barker

I, George E. Barker, of Gibraltar Mines Limited, McLeese Lake, British Columbia, do certify that:

1. I am a graduate of the University of Waterloo, Waterloo, Ontario, with a B.Sc. degree in General Science, 1985.

2. From 1978 to the present I have been engaged in mining and exploration geology in British Columbia.

3. I personally participated in the field work, logged the core and interpreted the results.

George E. Barker

APPENDIX B. Drill logs

GIBRALTAR MINES LIMITED

HOLE NO. 91-23
SHEET NO. 1 OF 14

LOCATION Gibraltar North | BEARING — | LATITUDE ≈ 53625 N (not surveyed) | CORE SIZE NQ | LOGGED BY G. E. Barker
DATE COLLARED June 2, 1991 | LENGTH 807 ft. | LONGITUDE ≈ 38820 E | SCALE OF LOG 1" = 10' | DATE SEPTEMBER 9, 1991
DATE COMPLETED June 3, 1991 | DIP -90 | ELEVATION ≈ 2918 ft. | REMARKS Good Zn zone 80' to 400'

BOTTOM DEPTHS: LEACH CAP —; LIM. ZONE 40'; SUPERGENE —

ROCK TYPES AND ALTERATION	V TO CORE FOLIATION	GRAPHIC LOG: Rx type & Alln.	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks:	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
CASING TO 30'			30							30								
MINE PHASE QUARTZ DIORITE 30' to 807'. 50% plagic. feld. 20% matics (chlorite) 30% quartz	ND to 30 to 50 mod		40			2" zone; 10' zone	(limonite MnO_2) to 40' gg; brx-hem	<0.5		37	86	3	6176	.01	.002	.02	.023	.01
Rx is wk to moderately sauceritized. Various alt'n. zones are noted on graphic log. Wk. to Str sulphide mineralization "py-(sph) is found mainly in alt'n. zones. The	ND to 40-60 wk		50		80? 70-80	¼" zone; 6"; 8' zone; 2"	gg-brx; qtz-(carb). br-(hem); qtz	<0.5	ND = non directional; wk = weak; mod = moderate; str = strong; ( ) = minor amount; (( )) = very minor amount	47	97	10	6177	.01	.002	.02	.026	.01
hole appears to have been drilled near a large fault. Zones of increased qtz > 30% are also noted. grain size 1/32 to 1/8" ave = 1/10"	ND to 60-70 wk		60			1"	epi; hem "staining"	<0.5	badly broken rock; gg = gouge; brx = broken rock; hem = hemitite; qtz = quartz; epi = epidote	57	99	57	6178	.10	.003	.01	.055	.01
Mine Phase Quartz Diorite generally barren with wk. foli. chlorite darkened Q.D. qtz-chl-ser-(carb) alt'n generally str. foli. - shearing	wk to str		70		? 70-80	½" 1" 3' zone	qtz-((py)); epi "streaky"; qtz-chl-ser-(carb) ((py))	<0.5	py = pyrite; chl = chlorite; ser = sericite; carb = Calcium Carbonate; sph = sphalerite	67	99	53	6179	<.01	.003	.01	.028	.01

GIBRALTAR MINES LIMITED

HOLE NO. 91-23
SHEET NO. 2 OF 14

ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG Rx type & Alln.	Footage	Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks:	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	str 70-80 to ND to mod 70-80		80		70-80	12" zone 18" zone	qt3-chl-ser-(carb) qt3-chl-(ser)-py-((sph))	0.5		77	98	17	6180	<.01	.003	.07	.022	.01
	mod 70-80		90			9' zone 14"	qt3-chl-(ser)-py gg-brx	2.0		87	76	3	6181	.01	.001	.21	.033	.03
	mod 70-80		100		?	½" 10' zone	qt3- qt3-chl-ser-py sph-gr	1.5	gr = garnets	97	93	3	6182	.01	.002	.29	.032	.02
	mod 70-80 to wk 70		110			12" 5' zone 3"	gg-brx qt3-chl-ser-py gg-brx	1.0		107	93	30	6183	.01	.001	.40	.031	.01
	wk 70 to ND to str 60-80		120		? ?	1" 2-3"	qt3-(carb) epi "patches"	1.0		117	99	13	6184	.01	.002	.12	.033	.02
	str 60-80 to mod 40-60		130		40-80	3' 10'	qt3-chl-ser-(carb)-py-(sph)-gr qt3-chl-ser-(carb)-py (sph)-gr-((cp))	1.5	cp = chalcopyrite	127	99	30	6185	.01	.002	.12	.035	.08

GIBRALTAR MINES LIMITED

HOLE NO. 91-23
SHEET NO. 3 OF 14

ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG Rx type & Alm.	GRAPHIC LOG Footage	GRAPHIC LOG Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks:	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	mod to str 5-80		140	? 60		10' zone	qt_3-chl-ser-(carb)-py-(sph) gr	1.5		137	99	47	6186	.02	.002	.57	.046	.04
						5"	massive qt_3-chl											
						2"	qt_3-(cp)-sph											
	mod 60-80		150	90		9' zone	qt_3-chl-ser-py-((carb))-(sph) gr-((cp))	2.0		147	99	53	6187	.03	.001	1.80	.048	.08
						1½"	qt_3-(carb)-(chl)											
"leucocratic" zone str ↓ in chl	mod 70-80		160	70-80		5' zone	qt_3-ser-(carb)-py-(sph)(gr)	1.5	↑ = increase ↓ = decrease	157	100	33	6188	.01	.002	.36	.024	.03
				70-80		5' zone	qt_3-chl-ser-(carb)-py-sph gr											
Rx becomes coarser in texture (↑ in grain size) also appears to be an increase in qt_3 >30% from 163' to 172. Possibly a transitional rock between	mod 70-80 to ND		170	7-80		3' zone		1.0		167	99	80	6189	.01	.001	.31	.026	.02
				2		16"	massive qt_3-chl											
Mine Phase and Granite Mountain Phase Q.D. =	ND to mod 60-80		180	? 60-80		5"	qt_3-((cp))	1.5		177	100	70	6190	.03	.001	.27	.042	.03
						7½' zone	qt_3-chl-ser-(carb)-py-sph gr											
leucocratic zone str ↓ in chl	mod to str 60-80		190	60-80		5½' zone	qt_3-chl-ser-(carb)-py-(sph) gr	1.0		187	99	83	6191	.06	.001	1.33	.050	.05
				60-80		2' zone	qt_3-ser-(carb)-py											
				60-80		2½' zone	qt_3-chl-ser-((carb))-(py)											

GIBRALTAR MINES LIMITED

HOLE NO. 91-23
SHEET NO. 4 OF 14

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Rx type & Alln.	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks:	Footage Blocks:	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	mod to str 60-70		200			6' zone	qt3-chl-ser-(carb)-(py) (sph)	1.5		197	100	77	6192	.02	.001	.30	.032	.02
	mod to str 60-80	< > < > < >	210	70?	2"	3' zone	chl-epi-(qt3)-(py)-sph qt3-chl-(py)-sph-(ep)	1.0		207	99	33	6193	.03	.002	.52	.040	.05
	mod to str 60-80	>	220	60-80	4" zone 7' zone	qg-brx qt3-chl-ser-py-(sph)-(gr)	1.0		217	99	43	6194	.02	.001	.64	.045	.02
↑ in qt3. Rx similar to that from 163-172'	mod 20-70 to ND	< > < > < > < >	230	30° 90	Yz" 8"	qt3-chl-py-(sph)-(ep) massive chl epi "stringers"	1.5		227	99	70	6195	<.01	.001	.06	.023	.05
	ND to wk to mod 60-80	< > < > < >	240	60-80	4½' zone	qt3-chl-(ser)-py-(sph) gr epi	1.0		237	100	63	6196	.03	.001	.20	.034	.03
	wk 50-70 to ND	< > < > < > < >	250	? 50-70	Yz" c" zone	qt3-chl hem qt3-chl-ser-py-gr	0.5		247	99	57	6197	.03	.001	.12	.030	.02

GIBRALTAR MINES LIMITED

HOLE NO. 91-23
SHEET NO. 5 OF 14

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Rx type & Alln.	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks:	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	mod 60-80		260		75?	3"	qg-brx - hem - py	1.5		257	99	53	6198	.08	.001	1.07	.055	.02
						1½" zone	qtz-chl-ser-py											
						3"	qtz-chl											
	wk 60-80		270		60-80	2½' zone	qtz-chl-ser-py-(sph)	0.5		267	100	70	6199	.02	.001	.24	.027	.02
							epi "streaks"											
↑ in qtz	ND to wk 60-80		280		70?	½"	epi - pie	<0.5	pie = piedmontite	277	99	57	6200	.03	<.001	.14	.024	.01
							(py)-(sph)											
	mod 70-80		290		70?	½"	chl-py-(sph)-gr	0.5		287	99	40	6201	.03	.002	.10	.027	.01
						10"	qg-br-hem											
							} hem on fractures											
	wk 70-80 to ND		300			2' zone	chl-(py)-((sph))-(gr)	0.5		297	94	50	6202	.01	.002	.05	.017	.01
							"stringy" epi											
	ND to wk 60-70		310		70	1' zone	chl-py	0.5		307	98	60	6203	.01	.002	.03	.013	.01
							} hem on fractures											
							"patchy" epi											

GIBRALTAR MINES LIMITED

HOLE NO. 91-23
SHEET NO. 6 OF 14

ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG Rx type & Alln.	Footage	Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks:	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	mod					8" zone	gg-brx-hem										.025	
	0-70				?	1"	} hem on fractures qt3	0.5		317	98	33	6204	.01	.002	.21		.01
	ND to mod				?	2"	qt3-chl											
	60-80 to str 60-80		330		60-80	3' zone	qt3-chl-py-(sph)-(cp)	1.0		327	99	47	6205	.15	<.001	.47	.087	.10
					60-80	3½' zone	qt3-chl-py-(sph)-(cp)											
	mod to str 60-80 to ND		340		60-80	6' zone	qt3-chl-(ser)-py-(sph)-cp	2.0		337	93	37	6206	.19	.004	1.74	.110	.20
	wk to mod 50-70		350		50-70	5' zone	qt3-chl-py-sph (cp)	1.5		347	99	30	6207	.05	.001	1.05	.060	.05
	wk to mod 50-70		360		50-70	3' zone	qt3-chl-py-sph	1.0		357	99	63	6208	.01	.001	.42	.027	.02
					70	1½"	qt3											
					70	1"	epi											
	wk 50-70 to ND		370		30	¼"	carb	0.5		367	100	67	6209	.02	.002	.24	.020	.01
					70-90	⅛"	(py)-sph											

GIBRALTAR MINES LIMITED

HOLE NO. 91-23
SHEET NO. 7 OF 14

ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG Rx type & Alln.	Footage	Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	wk 60-70 to ND		380		70	1/8	py-sph "stringy" epi	<0.5		377	99	50	6210	.03	.001	.56	.033	.01
	wk 60-70 to stk 60-80		390		60-80	2' zone	carb-brx (gg) qtz-chl-(ser)-py	0.5		387	97	3	6211	.01	.001	.24	.030	.01
	wk 60-80 to ND		400			18" zone	gg-brx "stringy" epi	<0.5		397	99	47	6212	.02	.001	.17	.029	.01
	mod 60-80 to ND		410		60-80	2' zone	qtz-chl-(ser)-py-(sph)	0.5		407	98	13	6213	.02	<.001	.08	.021	.01
	ND to mod 50-60		420				"stringy" epi	<0.5		417	99	53	6214	.02	<.001	.13	.026	.01
	mod 40-50		430		40	1"	qtz-carb	<0.5		427	99	23	6215	.01	.001	.12	.013	.01

GIBRALTAR MINES LIMITED

HOLE NO. 91-23
SHEET NO. 8 OF 14

ROCK TYPES AND ALTERATION	V TO CORE FOLIATION	GRAPHIC LOG Rx type & Alta.	Footage	Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks:	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	mod 30-50		440	30		2"	qt3 - (carb)	<0.5		437	94	50	6216	.01	.001	.04	.021	.01
	mod to str 0-40		450				(hem) on fractures (py) - chl - (ser)	0.5		447	98	27	6217	.01	.012	.02	.017	.01
slight ↑ in qt3	mod 30-60 to ND		460				hem on fractures epi "patches"	<0.5		457	99	23	6218	.01	.001	.01	.022	.01
	ND to mod 30-40		470			8" zone	epi "patches" (hem) on fractures gg - brx (hem)	<0.5		467	98	80	6219	.01	.002	.01	.023	.01
vuggy core	mod 40-50 to mod 70-80		480			4" zone 12" zone	gg - brx qt3 - chl - ser - carb - (py)	0.5		477	97	20	6220	<.01	.001	.01	.023	.01
= sheared and crenulated qt3 - chl - ser - (carb) alt'n, core is very soft and breaks easily into "silver dollar" like pieces.	str 80-90		490			10' zone	qt3 - chl - ser - carb - (py)	0.5	core has a str. crenulated pattern of alternating dk. green, creamy white, and light yellowy orange "flow" bands.	487	80	3	6221	.03	.002	.02	.034	.01

GIBRALTAR MINES LIMITED

HOLE NO. 91-23
SHEET NO. 9 OF 14

ROCK TYPES AND ALTERATION	∨ TO CORE FOLIATION	GRAPHIC LOG Rx type & Alta	GRAPHIC LOG Footage	GRAPHIC LOG Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	str 80-90		500			10' zone	(g t3)- chl - ser - carb - (py) } gg - brx	0.5		497	70	0 →	6222	.01	.001	.02	.026	.01
	str 80-90		510			10' zone	(g t3) - chl - ser - carb - (py)	0.5		507	70	7	6223	.01	.001	.01	.026	.01
mod. vuggyness {	str 80-90 to mod 60-80		520			7' zone	g t3 - chl - ser - carb - (py)	<0.5		517	98	11	6224	<.01	.003	.02	.026	.01
minor clay alth. {	nb to wk 40-60		530		?	2" 3" zone	g t3 - chl gg - brx + hem	<0.5		527	99	40	6225	.01	.001	.07	.019	.01
	wk 40-60 to ?		540			4' zone	epi "streaks" gg - brx - ser - ((py))	<0.5		537	98	17	6226	.01	.002	.05	.021	.01
	wk 40-60		550		40-60	2' zone	g t3 - chl - (ser) ((py)) - (sph)	0.5		547	98	27	6227	.02	.001	.11	.021	.02

GIBRALTAR MINES LIMITED

HOLE NO. 91-23
SHEET NO. 10 OF 14

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

ROCK TYPES AND ALTERATION	V TO CORE FOLIATION	GRAPHIC LOG: Rx type & Alln. / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
↑in epi 550' to 585'	ND to mod 60-80	560	60-80	8" zone 5' zone	gg-brx-hem qft3-chl-ser-epi-(py)	0.5	557	94	3	6228	.01	.004	.01	.018	.01
	mod 60-80	570		2' zone 8' zone	gg-brx-hem qft3-chl-ser-epi-((py))	<0.5	567	98	3	6229	.01	.002	.02	.019	.01
minor vuggyness 556' to 619'	mod to str 70-80	580	70-80	10" zone 9' zone	gg-brx qft3-chl-ser-epi-((py))	0.5	577	99	33	6230	.01	.003	.01	.014	.01
Extra Dark (vuggy) chl rich zone mineralized with py-sph-(cp) from 571 to 617'	mod to str 70-80	590	70-80	10' zone	(qft3)-chl-(ser)-epi-(py) ((sph))-(cp)	1.0	587	99	33	6231	.02	.001	.02	.020	.05
	mod to str 70-80	600	70-80	10' zone	(qft3)-chl-(ser)-py-sph (cp)	1.5	597	99	40	6232	.04	.002	.79	.034	.08
	mod to str 70-80	610	70-80	10' zone	(qft3)-chl-(ser)-py-sph (cp)	1.5	607	100	80	6233	.03	<.001	.21	.031	.12

GIBRALTAR MINES LIMITED

HOLE NO. 91-23
SHEET NO. 11 OF 14

ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG Alt. type & Alt'n.	Footage	Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks:	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	mod 70-80		620		70-80	9' zone	qtz-chl-py-sph-cp	1.5		617	100	63	6234	.07	.001	.10	.039	.20
	mod 60-70		630			8' zone	epi "patch" qtz-chl-(py)-((sph))	0.5		627	100	70	6235	.01	<.001	.02	.024	.05
wk to mod clay altn.	mod 50-60		640		60	1" zone 7" zone	chl (massive) qq-brx	<0.5		637	94	3	6236	.01	.001	.01	.018	.01
	wk to mod 60-70		650			10" zone	(qq)-brx-(hem)	<0.5		647	89	3	6237	.01	.001	<.01	.012	.01
	wk to mod 60-70		660			5" zone	qq-brx-hem epi "patch"	<0.5		657	94	43	6238	.01	.002	<.01	.014	.01
minor vuggyness	wk to mod 50-70		670		50-70	6' zone	qtz-chl-py-sph-((cp)) } hem "staining"	1.0	sph and py are in vuggy viens	667	99	37	6239	.03	.005	.38	.026	.15

GIBRALTAR MINES LIMITED

HOLE NO. 91-23
SHEET NO. 12 OF 14

ROCK TYPES AND ALTERATION	V TO CORE FOLIATION	GRAPHIC LOG Rx type & Attn.	GRAPHIC LOG Footage	GRAPHIC LOG Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks:	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	wk 60-70 to ND		680		65	1"	qt3	<0.5		677	99	53	6240	.01	.003	.01	.014	.01
	wk 60-70 to ND		690		60-70	3' zone	qt3-chl-(epi)-(py)	<0.5		687	100	63	6241	.01	.001	.01	.014	.01
	wk 60-70 to ND		700					<0.5		697	100	63	6242	.01	.003	<.01	.015	.01
	ND to wk to mod 60-70		710			6½' zone	}(hem) on fractures qt3-chl-(ser)-((py))	<0.5		707	100	57	6243	.01	.006	<.01	.017	.01
	wk 50-70		720		60?	½"	qt3-(carb) } hem on fractures	<0.5		717	100	70	6244	.03	.003	<.01	.021	.01
	wk to mod 40-60		730				epi "patch" } hem "staining"	<0.5		727	99	60	6245	.01	.001	<.01	.015	.01

GIBRALTAR MINES LIMITED

HOLE NO. 91-23
SHEET NO. 13 OF 14

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

ROCK TYPES AND ALTERATION	V TO CORE FOLIATION	GRAPHIC LOG: Rx type & Alt'n	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	wk to mod 50-70		740		70 50-70	4" 4' zone	massive qt3-chl qt3-chl-py-(sph)-(cp)	0.5		737	99	47	6246	.02	.001	.03	.025	.04
minor vuggyness	wk to mod 60-70		750		60-70	4½' zone	qt3-chl-epi-((py))	<0.5		747	98	27	6247	.01	.002	.01	.014	.02
↑ in epi	wk 60-70		760		70?	7"	qt3-epi-(chl)	<0.5		757	99	40	6248	.01	.003	.04	.017	.01
	wk to mod 50-70		770		50-70	2' zone	qt3-chl-(py)-(sph)-(cp) epi-pie "patch"	0.5		767	100	83	6249	.03	.001	.01	.024	.08
fine grained "dikelike" zone - grain size ≤ 1/16"	ND		780		80?	1½' zone 1"	massive qt3-chl-epi qt3-chl-carb-(cp)	<0.5		777	100	87	6250	.01	.002	.03	.020	.03
	ND to wk 70-80		790		70	½" 2' zone	qt3 qt3-chl-((py))	<0.5		787	100	57	6251	<.01	.001	<.01	.015	.01

GIBRALTAR MINES LIMITED

HOLE NO. 91-23
SHEET NO. 14 OF 14

ROCK TYPES AND ALTERATION	V TO CORE FOLIATION	GRAPHIC LOG Rx type & Alln.	GRAPHIC LOG Footage	GRAPHIC LOG Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS / Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	ND to wk 50-70	< > < > < > <	800		80	1/2	small "patch" py Bt_3	<0.5	LEACH CAP LIM. ZONE SUPERGENE Remarks:	797	99	57	6252	<.01	.002	<.01	.014	.01
	ND to wk 60-80	< > < > < >	807		70	1/2	Bt_3 ((carb))	<0.5	END OF HOLE	807	100	33	6253	.01	.003	<.01	.015	.01
									M E Barteer									

GIBRALTAR MINES LIMITED

HOLE NO. 91-24
SHEET NO. 1 OF 17

LOCATION Gibraltar North | BEARING — | LATITUDE ≈ 55330 N (not surveyed) | CORE SIZE NQ | LOGGED BY G. E. Barker
DATE COLLARED June 3, 1991 | LENGTH 987 ft. | LONGITUDE ≈ 38380 E | SCALE OF LOG 1" = 10' | DATE Sept. 13, 1991
DATE COMPLETED June 5, 1991 | DIP -90 | ELEVATION ≈ 2871 ft. | REMARKS

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE 20' | SUPERGENE

ROCK TYPES AND ALTERATION	V TO CORE FOLIATION	GRAPHIC LOG: Rx Type & Alln.	Footage	Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks:	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
CASING TO 10'			10							10								
MINE PHASE QUARTZ DIORITE 10' TO 987' 50% plagio clase Feldspar 20% mafics "chlorite" 30% quartz	wk 40-50		20				minor limonite + MnO_2 down to 20'	<0.5	wk = weak; mod = moderate; ▲ = badly broken rock	17	85	27.	6254	.01	.002	.05	.012	.01
Rock is moderately sauceritized. with various alt'n. zones noted on the graphic log. Sulphide mineralization is found mainly in the	wk to mod 50-70		30		50	1/8"	epi	<0.5	alt'n = alteration; epi = epidote; sph = sphalerite; cp = chalcopyrite; qt_3 = quartz; chl = chlorite; py = pyrite	27	99	73	6255	.03	<.001	.06	.036	.01
alt'n. zones and consists of py - sph - (cp) grain size 1/32 - 1/8" ave. ≈ 1/10" ◁▷ normal Mine Phase Q.D. (generally barren)	mod 50-70		40		50-70 / 60-70	7" zone / 6" zone	qt_3-chl- py - sph - gr? / qt_3-chl -(py) -(sph)	0.5	gr = garnets; ( ) = minor amount	37	100	63	6256	.01	.002	.13	.021	.02
◁▷ chlorite darkened Mine Phase Q.D. ▥ Dark chlorite-sericite rich alth zone last two zones generally mineralized.	mod 60-80		50					<0.5		47	99	60	6257	.02	.001	.02	.022	.01

GIBRALTAR MINES LIMITED

HOLE NO. 91-24
SHEET NO. 2 OF 17

ROCK TYPES AND ALTERATION	∨ TO CORE FOLIATION	GRAPHIC LOG: Rx type & Alta.	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks:	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	mod 60-80		60		60-80 / 70	5' zone ¼"	qt_3-chl-ser-py-sph pie	1.5	ser = sericite pie = piedmontite	57	98	50	6258	.03	.001	.38	.046	.02
	wk to mod 60-80		70		60-80	10' zone 1½' zone	qt_3-chl-ser(py)-(sph)-epi gg - brx	1.0	gg = gouge brx = broken rock	67	90	10	6259	.02	.001	.04	.013	.01
	mod 70-80		80		70-80	8" zone 10' zone	gg-brx qt_3-chl-ser-(py)-(sph)	1.0		77	97	7	6260	.03	.002	.20	.032	.01
minor vuggyness	mod 70-80		90		70-80	11' zone	qt_3-chl-ser-py-(sph)	1.5		87	92	10	6261	.02	.001	.29	.033	.01
	wk to mod 70-80		100		70-80	5' zone	qt_3-chl-(ser)-(py)-(sph)-pie	1.0		97	77	60	6262	.01	.001	.14	.026	.01
	wk to mod 70-80		110		80 / 70-80	1" / 1½" zone	qt_3-chl-carb qt_3-chl-(ser)-py-sph	0.5	carb- carbonate	107	100	60	6263	.01	.001	.15	.025	.01

GIBRALTAR MINES LIMITED

HOLE NO. 91-24
SHEET NO. 3 OF 17

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

ROCK TYPES AND ALTERATION	V TO CORE FOLIATION	GRAPHIC LOG Rx type & Alt'n	GRAPHIC LOG Footage	GRAPHIC LOG Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks:	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
Q.D has a "fresher" look; chl often looks black, possible ↑ in qt_3., grain size slightly larger 111' to. 166'	wk 70-80 to ND		120	?	70-80	1' zone	qt_3-chl- py - sph - pie	<0.5	↑ = increase ND = non directional	117	100	100	6264	.01	<.001	.03	.018	.101
	wk 70-80 to ND.		130		70	½ x 5	qt_3 - chl - py - sph	0.5		127	100	73	6265	.01	<.001	.04	.023	.01
	ND to wk to mod 60-80		140		60-80 75 60	4' zone 1½' zone ½" x 2 ½	"coarse" SW qt_3 + chl-carb qt_3-chl - py - sph - ((cp)) qt_3 epi	0.5	SW = stock work (( )) = very minor amount	137	100	83	6266	.02	.004	.15	.032	.05
	wk 60-80		150		60-70	3" zone	qt_3-chl-(ser) - py - sph	<0.5		147	100	67	6267	.01	.002	.06	.019	.01
	ND		160	?		2" "patch" 1½" 3" "patch"	epi qt_3 epi	<0.5		157	95	77	6268	<.01	.002	<.01	.015	.01
	ND to 50-70		170			4' zone	qt_3-chl-(ser)-(py)-sph-pie	0.5		167	100	87	6269	.01	.001	.12	.023	.01

GIBRALTAR MINES LIMITED

HOLE NO. 91-24
SHEET NO. 4 OF 17

ROCK TYPES AND ALTERATION	∨ TO CORE FOLIATION	GRAPHIC LOG: Rx type & Alth. / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	wk 60-80	180	60-70 80	5" zone 3' 3/4"	qt3-chl-(py)-sph qt3-epi qt3	<0.5		177	99	90	6270	.01	.001	.13	.027	.01
	wk 60-80	190	70-80	2' zone	qt3-chl-py-sph-pie	0.5		187	100	100	6271	<.01	<.001	.01	.020	.01
	wk 60-80	200		3" zone 2"	(qq)-brx-hem massive chl+qt3	<0.5	hem = hemitite	197	100	70	6272	.01	.002	.02	.026	.01
fine grained leucocratic zone	ND to wk 60-70	210		6' zone	qt3-carb-(epi)((chl))((py))	<0.5		207	100	57	6273	<.01	.001	.07	.020	.01
	wk 50-70	220	50 60-70	¼"x4 8" zone	epi-pi qt3-chl-(py)-((sph))	<0.5		217	100	50	6274	.01	.001	.01	.023	.01
	wk to mod 70-80 to ND	230	70-80	14" zone	qt3-chl-py-(sph)-pie	<0.5		227	100	67	6275	.01	.001	.08	.017	.01

GIBRALTAR MINES LIMITED

HOLE NO. 91-24
SHEET NO. 5 OF 17

ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Rx type & Alm.	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	ND to mod 60-80		240	70 ? 60-80	.3" 1" 4' zone	qt3 chl qt3-chl-(ser)-py-(sph)	0.5		237	99	83	6276	.01	.001	.18	.021	.01
	wk to mod 50-70		250	50-70	6½' zone	qt3-chl-py-(sph)-pie	1.5		247	100	93	6277	.01	.003	.27	.023	.02
	wk to mod 50-70		260	50-70	10' zone	qt3-chl-py-sph-(pie)	1.5		257	100	83	6278	.02	.002	.30	.034	.03
	mod 30-70		270	30-70	10' zone	qt3-chl-py-sph-(ser)	2.0		267	100	77	6279	.03	.003	.98	.040	.02
	wk to mod 70-80		280	70-80	10' zone	qt3-chl-py-(sph)-pie	1.5		277	100	90	6280	.01	.001	.32	.036	.02
	mod to str. 20-70		290	20-70	5' zone	qt3-chl-py-sph-pie	1.0	str = strong mod. crenulation 287 to 292'	287	100	80	6281	.01	.002	.18	.023	.02

GIBRALTAR MINES LIMITED

HOLE NO. 91-24
SHEET NO. 6 OF 17

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

ROCK TYPES AND ALTERATION	V TO CORE FOLIATION	GRAPHIC LOG: Rx type & Attn.	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks:	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	mod 20-70		300		20-70	6½' zone	qt_3-chl-py-sph	2.5		297	99	73	6282	.03	.001	1.30	.040	.08
						3½' zone	massive qt_3-chl-(carb)-sph (PY)-((CP))											
	wk to mod 40-60		310		40-60	10' zone	qt_3-chl-py-sph-pie-((CP))	2.0		307	99	77	6283	.02	.002	.60	.030	.05
minor vuggyness	mod 60-80		320		60-80	11' zone	qt_3-chl-(ser)-py-sph-CP	1.5		317	99	43	6284	.03	.001	.79	.044	.20
leucocratic zone	wk 60-80		330		60-80	7' zone	qt_3-carb-(sph)-pie((PY))((chl))	1.0		327	99	67	6285	.03	.001	.72	.036	.10
					60-70	2' zone	qt_3-chl-sph-PY-(CP)											
	wk to mod 40-70		340		40-70	10' zone	qt_3-chl-sph-py-(cp)	2.5		337	100	80	6286	.04	.003	1.41	.070	.18
	wk 60-70		350		60-70	4' zone	qt_3-chl-(sph)-PY-((CP))	1.0		347	100	93	6287	.04	.001	1.27	.046	.05

GIBRALTAR MINES LIMITED

HOLE NO. 91-24
SHEET NO. 7 OF 17

ROCK TYPES AND ALTERATION	V TO CORE FOLIATION	GRAPHIC LOG Rx type & Altn.	GRAPHIC LOG Footage	GRAPHIC LOG Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks:	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	mod 50-70		360		50-70	5½' zone	qtz-chl-(ser)-py-sph	1.5		357	100	80	6288	.11	.002	1.11	.088	.02
					60-70	2' zone	qtz-chl-(ser)-py-(sph)											
	ND to wk 60-80		370		?	1"	qtz	<0.5		367	100	90	6289	.02	.002	.32	.028	.01
	mod 60-80 to ND		380		60-80	5' zone	qtz-chl-(ser)-py-sph-pie	1.0		377	100	83	6290	.02	.002	.52	.028	.02
	ND to mod 50-70		390		50-70	4' zone	qtz-chl-(ser)-py-(sph)	1.0		387	100	70	6291	.04	.002	.83	.038	.02
minor vuggyness	mod 60-80		400		60-80	7' zone	qtz-chl-ser-py-sph	1.5		397	100	53	6292	.02	.002	.64	.026	.01
sheared and crenulated Qtz-chl-Ser-(carb) altn. core is fairly soft and breaks easily along the foliation.	mod to str 60-80		410		60-80	10' zone	qtz-chl-ser-(carb)-(py) ((sph))	1.0	Crenulated core has a pattern of alternating dark green, creamy white and light yellowy orange bans.	407	100	87	6293	.03	.001	.83	.033	.01

GIBRALTAR MINES LIMITED

HOLE NO. 91-24
SHEET NO. 8 OF 17

ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG Rx type & Alt'n.	Footage	Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	mod to str 50-80		420		50-80	10' zone	gt3-chl-ser-(carb)-(py) (sph)	1.0		417	100	77	6294	.02	.001	.29	.029	.01
	mod to str 60-80		430		60-80 70-80	3" zone 6' zone 3½' zone	gg-brx gt3-chl-ser-(carb)-(py) (sph) gt3-chl-(ser)-py-sph	1.0		427	100	77	6295	.02	.002	.67	.022	.02
	mod to str 50-70		440		50-70	2' zone	gt3-chl-(ser)-py-sph-(EP)	0.5		437	100	43	6296	.09	.001	.29	.064	.08
	wtr to str 35-70		450		35-70	2' zone	gt3-chl-ser-(carb)-(py)	<0.5		447	100	63	6297	.01	.001	.03	.016	.02
	mod to str 40-80		460		40-80	10' zone	gt3-chl-ser-(carb)-((py))	0.5	} 1' zone with small tension gashes around core	457	98	23	6298	<.01	.001	.01	.023	.01
	mod to str 60-80		470		60-80 70-80	2' zone 5½' zone 2' zone	gg-brx gt3-chl-ser-(carb)-((py)) gt3-chl-(ser)-py	1.0		467	93	17	6299	.03	.002	.48	.034	.02

GIBRALTAR MINES LIMITED

HOLE NO. 91-24
SHEET NO. 9 OF 17

ROCK TYPES AND ALTERATION	V TO CORE FOLIATION	GRAPHIC LOG: Rx type & Attn.	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks:	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	mod 60-80 to ND		480		60-80	5' zone	qtz-chl-(ser)-py-sph	0.5		477	94	7	6300	.01	.001	.41	.021	.01
						6" zone	gg-brx											
	mod 60-80		490					<0.5		487	99	37	6301	.01	.002	.01	.009	.01
	mod to wk 60-80		500		60-80	2" zone	gg-brx	<0.5		497	100	80	6302	<.01	.003	.04	.007	.01
						3' zone	qtz-chl-epi-(py)-pie											
	wk to mod 60-80		510		60-80	2½' zone	qtz-ser-(chl)-py-sph	1.0	Similar to the qtz-ser-py-cp zones in Gib N. except cp is replaced by sph - This zone contains a 2" zone of massive py-sph.	507	99	37	6303	.01	.001	.19	.017	.01
	ND to wk to mod 30-70		520		30-70	3" zone	qtz-chl-(py)	<0.5		517	100	63	6304	.03	.006	<.01	.031	.01
	wk to mod 30-70		530		30-70	12" zone	qtz-chl-(py)	0.5		527	98	57	6305	.01	.006	.09	.027	.01

GIBRALTAR MINES LIMITED

HOLE NO. 91-24
SHEET NO. 10 OF 17

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG Rx type & Alln.	Footage	Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
vuggy	wk to mod 50-70		540		50-70	.4' zone	qt_3-chl-(ser) - py-sph	1.5		537	100	87	6306	.01	.001	.10	.016	.02
					70	2"	qt_3-((carb))											
	wk to mod 70-80		550		70-80	5½' zone	qt_3-chl-((ser)) - py-(sph)	2.0		547	100	77	6307	.02	.003	.28	.050	.02
					80	½"	qt_3-(carb)											
↑ in epi	mod 70-80 to ND		560		70-80	2"+3"x4	massive qt_3 + chl-(carb)	<0.5		557	100	97	6308	.01	.001	<.01	.020	.01
					70-80	10" zone	qt_3-chl-(py)											
						5"	massive qt_3 + chl+(carb)											
	wk to mod 70-80		570		70	1"	qt_3-carb	0.5		567	99	57	6309	.01	.001	.02	.018	.01
					70-80	8" zone	qt_3-chl- py -(sph)											
					70-80	6" zone	qt_3-chl -(ser) -py- sph											
	wk to mod 70-80 to ND		580		70-80	8" zone	qt_3-chl-ser - py-(sph)	0.5		577	100	70	6310	<.01	.002	.04	.017	.01
	wk to mod 50-70		590		60-70	10" zone	qt_3-chl -(ser)-py-(sph)	<0.5		587	99	70	6311	.01	.002	.05	.023	.01
					70	1"	carb -(qt_3))											

GIBRALTAR MINES LIMITED

HOLE NO. 91-24
SHEET NO. 11 OF 17

ROCK TYPES AND ALTERATION	V TO CORE FOLIATION	GRAPHIC LOG Rx type & Alt'n	Footage	Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	wk to mod 50-70		600		60	½" x 2	} (hem) on fractures carb - (qt3)	<0.5		597	99	67	6312	.01	.002	.02	.016	.01
	wk to mod 60-80		610		60-80 70	3½' zone ½"	qt3 - chl - (py) ((sph)) qt3 - carb epi "patch"	0.5		607	100	90	6313	.01	.003	.12	.015	.01
	wk 60-80 to ND		620		70	½" x 2	qt3 - carb - (sph)	<0.5		617	100	87	6314	.01	.001	<.01	.013	.01
626' to 683' ↓ in grain size ave ⅛" core is very uniform in texture - quite barren mafics are fresh looking no alth zones.	ND		630				epi - pio "patches"	<.05	↓ = decrease	627	100	97	6315	.01	.001	<.01	.012	.01
	ND to wk 70-80		640		70 ?	1" ⅛"	qt3 - carb - py epi	<0.5		637	100	97	6316	.01	.001	<.01	.012	.01
	wk 70-80 to ND		650		80	1"	qt3	<0.5		647	100	87	6317	.01	.001	<.01	.011	.01

GIBRALTAR MINES LIMITED

HOLE NO. 91-24
SHEET NO. 12 OF 17

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

ROCK TYPES AND ALTERATION	V TO CORE FOLIATION	GRAPHIC LOG: Rx type & Alfn.	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	ND		660	45	½"	qt_3	<0.5		657	100	93	6318	.02	.002	<.01	.011	.01
	ND to wk 60-70		670				<0.5		667	100	97	6319	.02	.004	<.01	.011	.01
	ND		680	?	1½"	qt_3 (carb) (chl)	<0.5		677	100	93	6320	.01	.001	<.01	.010	.01
	ND to wk 70-80		690	70	2"	chl	<0.5		687	99	77	6321	.02	.003	<.01	.020	.01
	wk to mod 70-90		700	80	3" 3' zone	qt_3-((carb))-((chl)) qt_3-chl-ser-((py))	<0.5		697	99	63	6322	.01	.003	<.01	.016	.01
	wk 70-80 to ND		710		8" zone	gg- brx	<0.5		707	95	37	6323	.01	.001	<.01	.012	.01

GIBRALTAR MINES LIMITED

HOLE NO. 91-24
SHEET NO. 13 OF 17

BOTTOM DEPTHS: LEACH CAP | LIM. ZONE | SUPERGENE

ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG: Rx type & Alln. / Footage / Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	Remarks	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	wk 70-80 to ND	720			epi "patch"	<0.5		717	99	47	6324	<.01	.002	<.01	.017	.01
Core from 724' to 741' same as core from 398' to 426'	mod to str 70-80	730	70-80	6' zone	} (hem) on fractures qtz-chl-ser-(carb)	<0.5		727	98	33	6325	.01	.001	.14	.023	.01
	mod to str 70-80	740	70-80	3" zone 11' zone	gg-brx qtz-chl-ser-(carb)	<0.5		737	98	10	6326	.01	.011	.01	.022	.01
	mod 70-80 to ND	750			} (hem) on fractures	<0.5		747	100	30	6327	.01	.003	<.01	.017	.01
Epi-chl alt'n zone	ND to Mod 60-70	760	70	10" zone 3" 5" zone	gg-brx-hem qtz-(chl)-(carb) gg-brx-hem	<0.5		757	100	30	6328	.01	.002	<.01	.018	.01
Rx texture changes from 759' to 782' mineral grains are less distinct, epi and chl blend together to give core a fairly uniform light green color	wk 60-80	770		12" zone	gg-brx	<0.5		767	100	77	6329	.01	.002	<.01	.011	.01

GIBRALTAR MINES LIMITED

HOLE NO. 91-24
SHEET NO. 14 OF 17

ROCK TYPES AND ALTERATION	V TO CORE FOLIATION	GRAPHIC LOG Rx type & Alfn.	GRAPHIC LOG Footage	GRAPHIC LOG Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks:	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	wk 60-80		780	80	?	3"	epi "streaks" qt3	<0.5		777	100	47	6330	.01	.002	.02	.019	.01
	mod 50-70		790		50-70	9' zone	qt3 - chl - (ser) - py - (sph) - (gp)	1.5		787	99	17	6331	.16	.002	.06	.026	.10
	str to mod 60-70 to ND		800		60-70	7' zone	qt3 - chl - ser - py - cp - (sph)	2.5		797	99	23	6332	1.11	.002	.07	.065	.50
	ND to mod to str 30-70		810		70? 50-70 30-70	4" 1½' zone 5' zone	massive qt3 - chl - sph qt3 - ser - chl - py - cp qt3 - ser - py - cp	7.0		807	99	40	6333	.10	.006	.05	.027	.25
Qt3 - ser - py altn zone: 805' to 816' 816' to 820'	mod to str 30-70 ?		820		30-70	6' zone 12" zone	qt3 - ser - py (cp) MoS_2? gg + brx	20.0	15" zone of massive py	817	97	27	6334	.07	.001	.05	.051	.10
Soft chlorite - clay altn zone. Altered white feldspar in a grey-green background give the core a porphyritic look.	? mod 50-60		830			8" zone 5' zone	gg + brx gg + brx - (hem)	?	FAULT ZONE 818' to 829'	827	96	10	6335	.01	.002	.13	.026	?

GIBRALTAR MINES LIMITED

HOLE NO. 91-24
SHEET NO. 15 OF 17

ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG Rx type & Alt'n.	GRAPHIC LOG Footage	GRAPHIC LOG Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks:	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	mod to str 20-70		840		40 50-70 20-70	1" 2½' zone 4½' zone 10" zone	qt3 qt3-chl-ser-py-sph-((cp)) qt3-chl-(ser)-py-sph gg-brx	1.5		837	99	13	6336	.03	.001	.22	.034	.08
	mod 20-70 ?		850		50-70	2' zone 5½' zone 4½' zone	qt3-chl-(ser)-(py)-(sph) (gg)-brx-chl-(sph)-(py) gg-brx-chl-sph-(py)	1.5		847	98	20	6337	.04	.004	.37	.036	.02
	?		860			8" zone	gg-brx	? 0.5		857	98	17	6338	.12	.002	.07	.092	? .01
	?		870			10" zone 3' zone	gg-br massive qt3-chl-carb	<0.5		867	98	10	6339	.01	.002	.04	.020	.01
	ND		880		?	2' zone 10" zone	qt3-chl-(py)-((sph)) gg-brx hem	0.5	Hem. of fractures 877' to 942'	877	97	27	6340	.01	.001	.02	.021	.02
	WR 60-80 to ND		890			10" zone	gg-brx-hem	<0.5	Core is badly fractured with some clay alt'n. 842' to 927' This section drilled through a fault "zone" but not main displacement	887	98	17	6341	.01	<.001	.01	.016	.01

GIBRALTAR MINES LIMITED

HOLE NO. 91-24
SHEET NO. 16 OF 17

ROCK TYPES AND ALTERATION	∨ TO CORE FOLIATION	GRAPHIC LOG Rx type & Alln.	GRAPHIC LOG Footage	GRAPHIC LOG Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks:	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
core slightly clay altered 892' to 925'	ND					6" zone	qg-brx-hem	<0.5		897	98	37	6342	.01	<.001	.01	.016	.01
	ND		900			4" zone	qg-brx-hem	<0.5		907	98	13	6343	.01	<.001	.01	.017	.01
	wk 70-80		910			8" zone	qg-brx-(hem)	<0.5		917	97	17	6344	.01	<.001	.02	.014	.01
	wk 80-90		920	70		1"	qt3-(carb)											
			930	80-90		4" zone	qg-brx-(hem)	<0.5		927	98	17	6345	.01	.001	.02	.014	.01
	wk to mod 75-85		940	80		8" zone	qt3-chl-py-(hem)	<0.5		937	99	30	6346	.01	.007	<.01	.018	.03
	wk to mod 75-85		950	?		1/16x2	py-(cp)											
				?		1/8-1/4" x 2	qt3-(carb)-hem											
						8" zone	massive qt3-chl-carb	<0.5	3 minor circulation	947	99	53	6347	.01	.002	.05	.026	.01
						5" zone	qg-brx											

GIBRALTAR MINES LIMITED

HOLE NO. 91-24
SHEET NO. 17 OF 17

ROCK TYPES AND ALTERATION	< TO CORE FOLIATION	GRAPHIC LOG Rx type & Alln	Footage	Structure	Veins < to Core Axis	Width of Vein	Mineralization	Est % Py	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — Remarks:	Footage Blocks	Estimated Core Recovery	R.Q.D.	ASSAY RESULTS: SAMPLE NUMBER	% Cu	% Mo	% Zn	oz/ton Ag Au	Estimated Cu Grade
	mod to wk 70-80		960		70-80	2' zone	qtz-chl-py-(sph)-(ser) {(hem) on fractures	0.5		957	99	53	6348	.02	.001	.01	.020	.02
	wk to str 70-80		970		70-80	3" zone 5' zone	qtz-chl-(ser)-py-(sph)(cp) qtz-chl-ser-py-cp	2.0		967	99	50	6349	.32	.001	.03	.056	.20
	mod to str 70-80		980		70-80	11' zone	qtz-chl-ser-py-cp	4.0		977	99	23	6350	.82	.002	.09	.137	.45
slight ↑ in qtz	mod 70-80 to ND		987					0.5	END OF HOLE	987	100	63	6351	.02	.001	.10	.030	.03

M.E. Barter

APPENDIX C. Assay Sheets

Form. No. Mill - 1

91-23

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration Hole 23 -

Date Sept 11, 19 91

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	% Zn	Ag oz/Ton
6176 DDH 91-23		.01	.002	.02	.023
77		.01	.002	.02	.026
78		.10	.003	.01	.055
79		<.01	.003	.01	.028
80		<.01	.003	.07	.022
81		.01	.001	.21	.033
82		.01	.002	.29	.032
83		.01	.001	.40	.031
84		.01	.002	.12	.033
85		.01	.002	.12	.035
86		.02	.002	.57	.046
87		.03	.001	1.80	.048
88		.01	.002	.36	.026
89		.01	.001	.31	.026
90		.03	.001	.27	.042
91		.06	.001	1.33	.050
92		.02	.001	.30	.032
93		.07	.002	.52	.040
94		.02	.001	.64	.045
95		<.01	.001	.06	.023
96	↓	.03	.001	.20	.034
	assays in Log.				

cc: Assay Lab.

Assayer

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

91-23

Exploration

Date Sept 11 19 91

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	% Zn	Ag oz/Ton	
6197 DDH	91-23	.03	.001	.12	.030	
98		.08	.001	1.07	.055	
99		.02	.001	.24	.027	
9200		.03	<.001	.14	.024	
01		.03	.002	.10	.027	
02		.01	.002	.05	.017	
03		.01	.002	.03	.013	
04		.01	.002	.21	.025	
05		.15	<.001	.47	.087	
06		.19	.004	1.74	.110	
07		.05	.001	1.05	.060	
08		.01	.001	.42	.027	
09		.02	.002	.24	.020	
10		.03	.001	.56	.033	
11		.01	.001	.24	.030	
12		.02	.001	.17	.029	
13		.02	<.001	.08	.021	
14		.02	<.001	.13	.026	
15		.01	.001	.12	.013	
16		.01	.001	.04	.021	
17		.01	.012	.02	.017	
	assays in log					

cc: Assay Lab.

Assayer .....

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

91-23

XPLORATION

Date ..... 16 SEPT ..... , 19 91 ..

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	% Zn	oz./T. Ag	
DDH	91-23					
6218		.01	.001	.01	.022	
19		.01	.002	.01	.023	
20		<.01	.001	.01	.023	
21		.03	.002	.02	.034	
22		.01	.001	.02	.026	
23		.01	.001	.01	.026	
24		<.01	.003	.02	.026	
25		.01	.001	.07	.019	
26		.01	.002	.05	.021	
27		.02	.001	.11	.021	
28		.01	.004	.01	.018	
29		.01	.002	.02	.019	
30		.01	.003	.01	.014	
31		.02	.001	.02	.020	
32		.04	.002	.79	.034	
33		.03	<.001	.21	.031	
34		.07	.001	.10	.039	
35		.01	<.001	.02	.024	
36		.01	.001	.01	.018	
37		.01	.001	<.01	.012	
38		.01	.002	<.01	.014	
39		.03	.005	.38	.026	
40		.01	.003	.01	.014	
41		.01	.001	.01	.014	
42		.01	.003	<.01	.015	
43		.01	.006	<.01	.017	
44		.03	.003	<.01	.021	
45	V	.01	.001	<.01	.015	
	assays in					
	log					

cc: Assay Lab.

Assayer ..D.A.W.....

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

91-23

EXPLORATION

Date ..... 16 SEPT. ..., 19 91

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	% Zn	oz/T Ag	
DDH	91-23					
6246		.02	.001	.03	.025	
47		.01	.002	.01	.014	
48		.01	.003	.04	.017	
49		.03	.001	.01	.024	
50		.01	.002	.03	.020	
51		<.01	.001	<.01	.015	
52		<.01	.002	<.01	.014	
53		.01	.003	<.01	.015	
	assays in log.					

cc: Assay Lab.

Assayer ..D.A.W.....

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

91-24

Exploration

Date Sept 18, 19 91

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	% Zn	oz/Ton Ag	
6254 DDH	91-24	.01	.002	.046	.012	
55		.03	<.001	.06	.036	
56		.01	.002	.13	.021	
57		.02	.001	.02	.022	
58		.03	.001	.38	.046	
59		.02	.001	.04	.013	
60		.03	.002	.20	.032	
61		.02	.001	.29	.033	
62		.01	.001	.14	.026	
63		.01	.001	.15	.025	
64		.01	<.001	.03	.018	
65		.01	.001	.04	.023	
66		.02	.004	.15	.032	
67		.01	.002	.06	.019	
68		<.01	.002	<.01	.015	
69		.01	.001	.12	.023	
70		.01	.001	.13	.027	
71		<.01	<.001	.01	.020	
72		.01	.002	.02	.026	
73		<.01	.001	.07	.020	
74	↓	.01	.001	.01	.023	
	entered in log.					

cc: Assay Lab.

Assayer .....

Form. No. Mill - 1

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

91-24

Exploration

Date Sept 20, 19 91

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	% Zn	oz/Tm Ag	
6275 DDH	91-24	.01	.001	.08	.017	
76		.01	.001	.18	.026	
77		.01	.003	.27	.023	
78		.02	.002	.30	.034	
79		.03	.003	.98	.020	
80		.01	.001	.32	.036	
81		.01	.002	.18	.023	
82		.03	.001	1.30	.040	
83		.02	.002	.60	.030	
84		.03	.001	.79	.044	
85		.03	.001	.72	.036	
86		.04	.003	1.41	.070	
87		.04	.001	1.27	.060	
88		.11	.002	1.11	.088	
89		.02	.002	.32	.028	
90		.02	.002	.52	.028	
91		.04	.002	.83	.038	
92		.02	.002	.64	.026	
93		.03	.001	.83	.033	
94		.02	.001	.29	.029	
95	↓	.02	.002	.67	.022	
	assays in Log.					

cc: Assay Lab.

Assayer

Form. No. Mill - 1

91-24

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration

Date Sept 20, 19 91

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	% Zn	oz/ton Ag	
6296 DDH 91-24		.09	.001	.29	.064	
97		.01	.001	.03	.016	
98		<.01	.001	.01	.023	
99		.03	.002	.48	.034	
300		.01	.001	.41	.021	
01		.01	.002	.01	.009	
02		<.01	.003	.04	.007	
03		.01	.001	.19	.017	
04		.03	.006	<.01	.031	
05		.01	.066	.09	.027	
06		.01	.001	.10	.016	
07		.02	.003	.28	.050	
08		.01	.001	<.01	.020	
09		.01	.001	.02	.018	
10		<.01	.002	.04	.017	
11		.01	.002	.05	.023	
12		.01	.002	.02	.016	
13		.01	.003	.12	.015	
14		.01	.001	<.01	.013	
15		.01	.001	<.01	.012	
16		.01	.001	<.01	.012	
	assays in log					

cc: Assay Lab.

Assayer

Form. No. Mill - 1

91-24

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration

Date Sept 23, 19 91

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	% Zn	oz/Ton Ag
6317	DDH 91-24	.01	.001	<.01	.011
18		.02	.002	<.01	.011
19		.02	.004	<.01	.011
20		.01	.001	<.01	.010
21		.02	.003	<.01	.020
22		.01	.003	<.01	.016
23		.01	.001	<.01	.012
24		<.01	.002	<.01	.017
25		.01	.001	.14	.023
26		.01	.011	.01	.022
27		.01	.003	<.01	.017
28		.01	.002	<.01	.018
29		.01	.002	<.01	.011
30		.01	.002	.02	.019
31		.16	.002	.06	.026
32		1.11	.002	.07	.065
33		.10	.006	.05	.027
34		.07	.001	.05	.051
35		.01	.002	.13	.026
36		.03	.001	.22	.034
37		.04	.004	.37	.036
	entered in log				

cc: Assay Lab.

Assayer

Form. No. Mill - 1

91-24

GIBRALTAR MINES LIMITED

ASSAY CERTIFICATE

Exploration

Date Sept 24, 1991

Sample No.	% Ox. Cu.	Total Cu.	% MoS_2	% Zn	oz/ton Ag	
6338	DDH 91-24	.12	.002	.07	.092	
39		.01	.002	.04	.020	
40		.01	.001	.02	.021	
41		.01	<.001	.01	.016	
42		.01	<.001	.01	.006	
43		.01	<.001	.01	.007	
44		.01	<.001	.02	.004	
45		.01	.001	.02	.004	
46		.01	.007	<.01	.008	
47		.01	.002	.05	.026	
48		.02	.001	.01	.020	
49		.32	.001	.03	.056	
50		.82	.002	.09	.137	
51		.02	.001	.10	.030	
	all assays in log.					

cc: Assay Lab.

Assayer

APPENDIX D. Analytical Methods

The core samples were analyzed at the Gibraltar Mines Assay Laboratory for molybdenum disulphide, copper, zinc, and silver. The following procedure was followed:

1. Samples were crushed and pulverized to -80 mesh, mixed and bagged.

2. 1 g. of sample was weighed out and placed in a beaker.

3. 30 ml. of concentrated nitric acid containing 5% potassium chlorate was added.

4. The sample was digested under heat until all brown fumes disappeared.

5. 20 ml. of concentrated hydrochloric acid was then added and the sample further digested under heat for three minutes.

6. 25 ml. of 1% aluminum chloride was added and the solution made up to 200 ml. with water, then filtered.

7. A 50 ml. sample was taken and the elements were determined using a Perkin-Elmer 3030 atomic absorption spectrometer.