86-441-15019

DIAMOND DRILL REPORT

ON THE

ZE 1 GROUP

ZE 4 CLAIM

CARIBOO MINING DIVISION

93 B/9W

(Latitude 52 deg ~~55~~ 36.6', Longitude 122 deg 17')

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

Author: G. D. Bysouth Submitted: August 13, 1986

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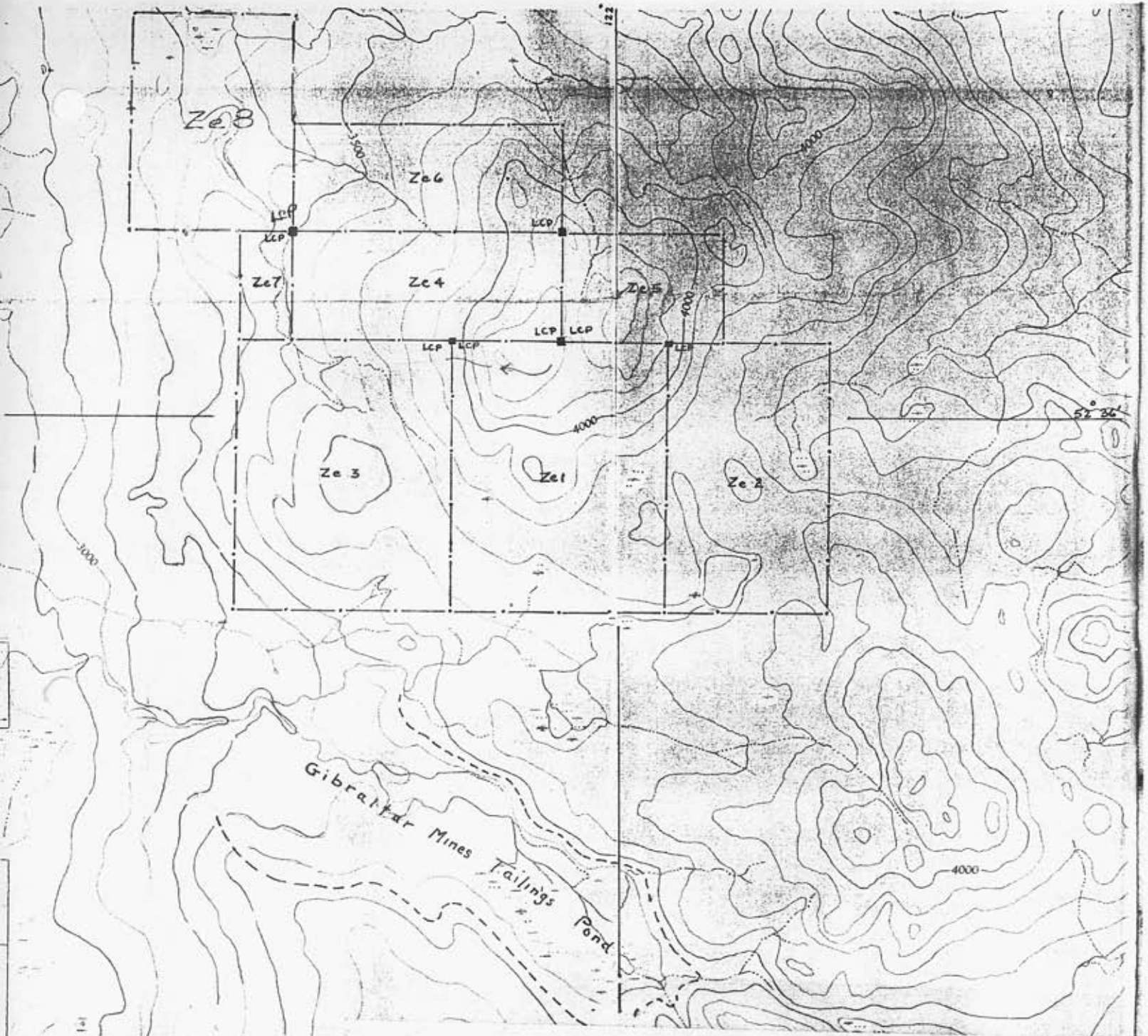

FIGURE 1

ZE 1 GROUP LOCATION MAP

93 B 9

SCALE 1:50,000

1.25 inches to 1 mile approximately

1 0 1 2 3 Miles

1000 500 0 1000 2000 3000 4000 Metres

1000 500 0 1000 2000 3000 4000 Yards

CONTOUR INTERVAL 100 FEET

Elevations in Feet above Mean Sea Level
North American Datum 1927

1 INTRODUCTION

The Ze Group lies about 6.5 km. north of the Gibraltar Mines plantsite at an elevation of 3300 to 4400 feet. The claims cover a series of low rocky hills separated by broad tracts of poorly drained ground. Access is via a network of logging and exploration roads which link up with the Gibraltar Mines tailings pond road just north of the pond. General location of the claims is shown in Figure 1.

Available evidence indicates the Ze Group is underlain by a sequence of green volcanic rocks, consisting mainly of andesitic flows and associated pyroclastics, and a series of sedimentary rocks, consisting of various greywackes, calcareous siltstones, and graphitic schist. The graphitic rocks were discovered during the drilling of several I.P. targets in 1978 and 1981. Another drill program was conducted during June and July of 1985 to test several gold anomalies developed in soils overlying the graphitic rocks. This drilling revealed the graphitic unit also contained abundant pyrite mineralization of possible syngenetic origin.*

This report deals with a second 1985 drill program aimed at testing the extent and character of the sulfide mineralization. Three vertical N.Q. diamond drill holes totalling 1,519 feet (463.2 meters) were completed during the period September 14 to September 27 by G & D Diamond Drilling of Kamloops, B.C. The core from two of the holes was assayed for gold. It was not split but sent in whole for analysis in order to reduce error. However, for each ten foot section, a segment of core was retained and stored at Gibraltar Mines for future reference.

* Assessment Reports by G. D. Bysouth

1. Percussion Drilling Report, Ze Mineral Claims, July 1978
2. Diamond Drill Report, Ze Group, July, 1981
3. Diamond Drill Report, Ze Group, August, 1985

2 MINERAL CLAIMS

The Ze 1 Group mineral claims are shown in Figure 2. Further information is provided below:

CLAIM NAME	RECORD NO.	NO. OF UNITS	ANNIVERSARY DATE
Ze 1	458	15	July 22
Ze 2	6621	20	Nov. 01
Ze 3	3927	20	Aug. 17
Ze 4	6620	10	Nov. 01
Ze 5	07101	6	Aug. 16
Ze 6	07099	10	Aug. 16
Ze 7	07100	2	Aug. 16
Ze 8	07190	12	Oct. 25

3 DRILL PROGRAM

3.1 Objectives

The purpose of this program was to explore the pyritiferous black argillite unit outlined in the earlier 1985 drilling. Of particular interest is the strataform nature of the sulfides, and the possibility of favourable mineralogical changes within the system. Hole locations are shown in Figure 2.

3.2 Results

Drill hole 85-60 was cased to 64 feet. From 64-feet to 156-feet a grey chert unit was intersected. The chert included a bed of black argillite, and contained about one- to two-percent fine disseminated pyrite. From 156-feet to 329-feet a sequence of dark basic volcanic rocks was encountered, followed by argillite and chert to 356-feet. Neither of these rocks showed any significant sulfide concentrations. A pale grey, very fine grained rock was intersected from 356-feet to 430-feet: this rock did not show any bedding structure and is assumed to be of acidic volcanic origin. A dark green massive rock occurred from 430-feet to the end of the hole at 507-feet and has been considered also of volcanic origin but of more basic composition. In general, no strong structures were noted in any of the core, and quartz veining appeared to increase with depth along with occurrences of chalcopyrite. Pyrite concentration appeared negligible. This hole was not assayed.

Drill hole 85-61 was collared on bedrock and cased to 13-feet. From 13-feet to 350-feet, a black argillite unit was intersected which contained about three-percent pyrite. This rock grades from dense black graphitic argillite to a finely banded argillite made up of varve-like black and grey laminations. Pyrite often occurs as massive bands concordant with the bedding or as strong disseminations aligned along bedding planes. In both cases the sulfide is accompanied by a pale grey calcareous gangue. Remobilized pyrite is also common, usually in the form of cross-cutting veins associated with quartz and carbonate. Prevailing dip of the unit appears to be about 20-degrees but small scale folds and crenulated zones are common. A fault zone occuring from 350-feet to 364-feet separates the argillite from a greywacke unit which extends from 364-feet to the bottom of the hole at 514-feet. The greywacke contains minor beds of banded black argillite but only sparse concentrations of pyrite.

Drill hole 85-62 was cased to 50-feet. From 50-feet to 348-feet the same black argillite was encountered. General characteristics appeared to be virtually identical, except that pyrite concentration averaged about four percent down to 140-feet but then abruptly decreased to between one and two percent for the remainder of the section. At 358-feet and extending to the

bottom of the hole at 498-feet was a greywacke unit also identical with that of hole 85-61. In this case, however, the greywacke and overlying argillite appear to be separated by a ten foot brecciated contact zone.

Drill holes 85-61 and 85-62 were assayed for gold at ten-foot intervals. All assays were done by Vangeochem Lab Limited using an Aqua Regia-Solvent Extraction-AA finish technique on a 10 g. sample. As shown in the logs, no significant gold concentrations were found.

3.3 Interpretation

This program and the earlier program suggest the argillite-greywacke sequence is at least 500-feet thick and relatively flat-lying. The greywacke unit appears to underlie the argillite and may mark a change in depositional history of sufficient magnitude to serve as a marker horizon. Neither the greywacke nor the thick argillite sequence was encountered in hole 85-60, however, and this may be due to a lateral zoning of these rocks into a sequence of siliceous sediments, tuffs, and minor argillite.

The sulfides encountered in the core are interpreted to be of sedimentary origin and to have undergone various degrees of remobilization. The low gold values do not appear to be associated with the sulfides or any specific rock change.

4 STATEMENT OF EXPENDITURES

(1) Drilling Costs

Hole 85-60	507' @ $13.50/foot =	$ 6,844.50	
Hole 85-61	514' @ $13.50/foot =	$ 6,939.00	
Hole 85-62	498' @ $13.50/foot =	$ 6,723.00	
Water truck:	10 days @ $350/day	$ 3,500.00	
	2 days @ $200/day	$ 400.00	
			$24,406.50

(2) Supplies

Core boxes: 80 boxes @ $5.85/box =	$468.00	
Tags, bags, etc. =	25.00	
		$ 493.00

(3) Vehicle Costs

Rental 4x4, 1985 pick-up
Aug 27, Sep 16, 17, 18, 19, 20, 26 and 27
8 days @ $36.00/day $ 288.00

(4) Personnel Costs

Core Logging and Supervision

G. D. Bysouth

Aug. 27	8 hrs.
Sep. 16	8 hrs.
Dec. 16	8 hrs.
Dec. 17	8 hrs.
Dec. 18	8 hrs.
Dec. 23	8 hrs.
Dec. 24	8 hrs.
	56 hrs. @ $31.00/hr. = $1,736.00

Field Work and Core Preparation

E. M. Oliver

Sep. 17	8 hrs.
Sep. 18	8 hrs.
Sep. 19	4 hrs.
Sep. 20	8 hrs.
Sep. 26	8 hrs.
Sep. 27	4 hrs.
Dec. 19	4 hrs.
Dec. 23	4 hrs.
Dec. 24	8 hrs.
	56 hrs. @ $19.64/hr. = $1,099.84

	$ 2,835.84
(5) Assay Costs 95 samples, Au analysis by sol. ext./AAS @ $4.75/sample	$ 451.25
TOTAL DRILLING COST	$28,474.59

5 CONCLUSIONS

This drill program has confirmed the presence of a large, possibly syngenetic, sulfide body within the argillite sequence. It has failed, however, to determine the presence of any mineralization of economic significance, and at this point, no more drilling is warranted.

G. D. Bysouth

G. D. Bysouth
Senior Geologist
Gibraltar Mines Limited

APPENDIX I. Statement of Qualifications

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

1. I am a geologist.

2. I am a graduate of the University of British Columbia, with a B.Sc. degree in Geology in 1966.

3. From 1966 to the present I have been engaged in mining and exploration geology in British Columbia.

4. I personally logged the core and assessed the results of this drill program.

Garry D. Bysouth

Garry D. Bysouth

APPENDIX II. List of Abbreviations

alt'd.....altered

cal.....calcite

carb.....carbonate

chl.....chlorite

cp.....chalcopyrite

cren.....crenulated

dissem.....disseminated

foln.....foliation

grn.....grained

h.....hardness

py.....pyrite

qtz.....quartz

rx.....rock

sphal.....sphalerite

str.....strong

stkwk.....stockwork

wk.....weak

x-cutting.....cross-cutting

APPENDIX III. Assay Sheets

APPENDIX IV. Drill Logs

VANGEOCHEM LAB LIMITED

MAIN OFFICE
1521 PEMBERTON AVE.
NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

GEOCHEMICAL ANALYTICAL REPORT

CLIENT: GIBRALTAR MINES LTD.
ADDRESS: Box 130
: McLeese Lake BC
: V0L 1P0

DATE: June 20 1986

REPORT#: 860197GA
JOB#: 860197

PROJECT#: G286 - 2689
SAMPLES ARRIVED: June 13 1986
REPORT COMPLETED: June 20 1986
ANALYSED FOR: Au ICP

INVOICE#: 860197NA
TOTAL SAMPLES: 95
SAMPLE TYPE: 95 CORE PULP
REJECTS: SAVED

SAMPLES FROM: GIBRALTAR MINES LTD.
COPY SENT TO: GIBRALTAR MINES LTD.

PREPARED FOR: GIBRALTAR MINES LTD.

ANALYSED BY: VGC Staff

SIGNED: _____

GENERAL REMARK: None

VANGEOCHEM LAB LIMITED

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(604) 251-5656

REPORT NUMBER: 860197GA JOB NUMBER: 860197 GIBRALTAR MINES LTD.

SAMPLE #	Au ppb
81301	nd
81302	nd
81303	5
81304	nd
81305	5
81306	nd
81307	10
81308	nd
81309	nd
81310	nd
81311	5
81312	5
81313	nd
81314	nd
81315	nd
81316	nd
81317	nd
81318	5
81319	5
81320	nd
81321	15
81322	10
81323	nd
81324	15
81325	5
81326	5
81327	nd
81328	20
81329	10
81330	nd
81331	5
81332	5
81333	nd
81334	10
81335	nd
81336	nd
81337	nd
81338	nd
81339	nd
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

VGC

VANGEOCHEM LAB LIMITED

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(604) 251-5656

SAMPLE #	Au ppb
81340	nd
81341	10
81342	nd
81343	5
81344	nd
81345	nd
81346	nd
81347	nd
81348	5
81349	5
81350	5
81351	nd
81352	5
81353	nd
81354	5
81355	10
81356	nd
81357	nd
81358	5
81359	nd
81360	10
81361	nd
81362	15
81363	nd
81364	nd
81365	10
81366	nd
81367	5
81368	nd
81369	5
81370	nd
81371	10
81372	nd
81373	5
81374	10
81375	5
81376	5
81377	nd
81378	5
DETECTION LIMIT	5

nd = none detected — = not analysed is = insufficient sample

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(604) 251-5656

REPORT NUMBER: 860197GA JOB NUMBER: 860197 GIBRALTAR MINES LTD.

SAMPLE #	Au ppb
81379	nd
81380	5
81381	5
81382	nd
81383	5
81384	10
81385	5
81386	5
81387	10
81388	nd
81389	nd
81390	nd
81391	5
81392	nd
81393	nd
81394	nd
81395	5

DETECTION LIMIT 5
nd = none detected — = not analysed is = insufficient sample

METRIC CONVERSION Feet x 0.3048 = metres

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 85-60
SHEET No. 1 of 8

LOCATION Ze Claims | BEARING — | LATITUDE _____ | CORE SIZE N.Q.W. | LOGGED BY G.D.B.
DATE COLLARED Sept 14, 1985 | LENGTH 507' | DEPARTURE _____ | SCALE OF LOG 1" = 10' | DATE Dec. 16 1985
DATE COMPLETED Sept 18, 1985 | DIP -90° | ELEVATION _____ | REMARKS _____

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Discr.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
Casing To 64'											64							
GREY CHERT UNIT (64-77) a dense hard aphanitic	70-80		70				highly broken core		2.0%		67	65						
med grey rock which weathers to a light brown (ankerite?) and contains fine dissem. py and cut by numerous ank. veinlets 77.	70				20	1/8	qtz-carb		2.0			75						
					70	6"	carb				77							
BLACK ARGILLITE UNIT (77'-91') similar to that of DDH's 85-61 and -62. A black graphitic argillite which is finely banded and contains finely dissem py, plus occassional	60		80		60±2	1/2+1/4	carb±2		3.0			80						
					30?	12"	qtz-carb zone											
			90		60	3"	carb-graph.				85½							
massive py. laminae up to 1/3" thick - cut by numerous carb veinlets and w quite calcareous 94												85						
ARGILLACEOUS CHERT UNIT (94'-156') a dense aphanitic	60		100						1.0		94½							
hard (#-7) rock ranging in color from med. grey to pale green. Contains very fine sulfides and cut by numerous qtz-carb veinlets - prob. originated as an impure siliceous sediment.	50				5±70	1/4±2	qtz-carb±2		1.0?		105	95						
			110		10	1"	qtz-carb					85						

GRID _____

GIBRALTAR MINES LTD.

HOLE No. BS-40
SHEET No. 2 of 8

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation/Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Vein ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Block	Estimated Core Recovery %	RQD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
The unit shows a weak bedding structure usually marked by beds or laminae of varying shades of grey - also present are beds of grey-green material up to 6" thick. Although very hard	20-60		120	10	¼	qtz-carb	0 10 20 30 40 50 60 70 80 90	1.0?		115	95						
				60	½	qtz-carb											
The unit is still fairly calcareous - ie readily fizzes in dil HCl.	50		130	60	6"	bed of pinkish grey chert	0 10 20 30 40 50 60 70 80 90	2.0	pink cert(py) appears to be X-cutting the bedding.	125	95						
				50	12"	zone of pink chert - py - carb - qtz bx											
				60	2.0"	banded + bx zone of pink-chert grey graphite-carb and green chert with zones of maripsite? qtz-carb-py											
				20	½												
				60	3"	pink-chert-py											
mainly grey-green chert	45		140	50	¼	py (sphal)*	0 10 20 30 40 50 60 70 80 90	1.0?	* sphal is a deep red	135	95						
				60	¼	py (sphal)											
				30	½	carb											
banded with 1-6" bands of dk-med grey chert? in a predom. grey-green chert - The darker bands also contain much carb. 156'	45-50		150				0 10 20 30 40 50 60 70 80 90	1.0?		145	98						
AUGITE ANDESITE? (156-227')	ND		160				0 10 20 30 40 50 60 70 80 90	1.0?		155	95						
rounded to subangular dk green grains (augite?) up to ⅛" dia plus pale grey interstitual material (plag?) and random patches of red biotite.	ND		170				0 10 20 30 40 50 60 70 80 90	<.5		165	98						

GRID _____

GIBRALTAR MINES LTD.

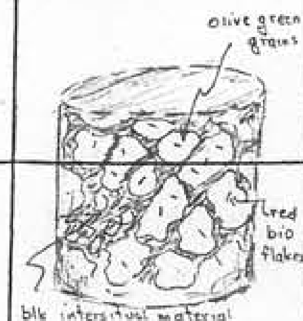
HOLE No. 85-60
SHEET No. 3 of 8

ROCK TYPES & ALTERATION			∠ to Core Foliation	GRAPHIC LOG Foliation Alteration	Footage	Structure	Vein ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE; REMARKS	Footage Discr.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
		- the rx appears dense, compact, mod hard and has an overall dark greenish-grey coloration - it fizzes readily with HCl. Avg. grn size	ND		180					0 10 20 30 40 50 60 70 80 90	<.5		175	95						
		appears to be ~1/10" The dark green (augite?) grains form about 60% of the rx. A similar rx type was found in other 2e DDH's associated	ND		190	10		1"	qtz-carb	0 10 20 30 40 50 60 70 80 90	<.5		185 189	98 98						
		with the blk argillite. This may be a basic diorite or gabbro!	ND		200	35 20		1½ ¼	qtz-chl-carb carb	0 10 20 30 40 50 60 70 80 90	<.5		197	98						
			ND		210					0 10 20 30 40 50 60 70 80 90	<.5		206½	95						
			ND		220					0 10 20 30 40 50 60 70 80 90	<.5		211	98						
	227		ND		230					0 10 20 30 40 50 60 70 80 90	<.5		226	98						

GRID ______

GIBRALTAR MINES LTD.

HOLE No. 85-40
SHEET No. 4 of 8

ROCK TYPES & ALTERATION	∠ to Core Foliation	Graphic Log: Foliation Alteration / Footage / Structures	Veins ∠ to Core Axis	Width of Vein	Mineralization	Fracture Angle to Core Axis - Frequency-	Estimated % Pyrite	Bottom Depths (Leach Cap / Lim. Zone / Supergene) Remarks	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo	Estimated Grade
ALTERED ULTRA BASIC RX. ?? very similiar to the Augite Andesite - ie, a dense, compact	ND	240			very little structure - no veining or shearing - a very slight vertical lineation is sometimes evident imparted by the dk interstitial material (applies 230–270)	0 10 20 30 40 50 60 70 80 90	<.5		236	98					
dark greenish grey mod. hard rx, but in this case it consists of sub-angular olive-green grns, 1/10 - 1/2" dia and a dark green, almost black interstitual component. Also present are	ND	250				0 10 20 30 40 50 60 70 80 90	<.5		246½	95 / 85					
flakes of red-black biotite, and sparse dissem sulfides - mainly pyrrhotite. The olive-green grains form about 60-70% of the rx. It appears	ND	260				0 10 20 30 40 50 60 70 80 90	<.5		251	95					
to break along talcose shears. It is not noticeably calcareous. (227-315')	ND	270				0 10 20 30 40 50 60 70 80 90	<.5		261	90					
	ND	280	5 / 60	1/4 / 2½	talc-chl-carb (Cp) / chl-carb	0 10 20 30 40 50 60 70 80 90	<.5		272	95					
	ND	290	70 x 2	1" - 1/2	chl-carb (cp) x 2	0 10 20 30 40 50 60 70 80 90	<.5		282 / 289	98					

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 85-60
SHEET No. 5 of 8

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
rx appears to be getting softer - serpentine alt'n is obvious in many places along with some carbonate	ND		300					0 10 20 30 40 50 60 70 80 90	<.5		297	100						
	ND		310		40	1/8	carb-chl ((cpy))	0 10 20 30 40 50 60 70 80 90	<.5		307	100						
315' GABBRO? (315-329)	ND		320		70 / 70	1" / 1/2	chl-carb / chl-carb	0 10 20 30 40 50 60 70 80 90	<.5		317	100 / 98						
this rx consists of 60% rounded to subangular black grains (augite?) and 30-35% med grey interstitual material (plag?) Avg. grain size is ~1/10-1/8"			330					0 10 20 30 40 50 60 70 80 90	<.5	contact is marked by a 3' bleached and weakly sheared zone	322	98						
The rx strongly resembles the Augite Andesite intersected above but appears more plutonic"	70		340					0 10 20 30 40 50 60 70 80 90	<.5	This is a greenish grey to dark grey finely laminated moderate hard (c)	332	95						
GREY ARGILLITE (329-345) * see remarks 345	70-80							0 10 20 30 40 50 60 70 80 90	<.5	rx - mostly likely a siliceous argillite - also contains several graphitic zones up to 12" thick	341 / 346	85						
PALE GREY BANDED CHERT (345-356)			350															

GRID _____

GIBRALTAR MINES LTD.

HOLE No. P5-60
SHEET No. 6 of 8

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation & Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Estimated Core Recovery %	ROD	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
this is a pale grey laminated rx assumed to be an impure chert. The laminated effect is caused by alternation bands of various shades of grey from ¼₀-½"	70		360					0 10 20 30 40 50 60 70 80 90	1.0		356	95						
Thick. - it appears to contain much carbonate and some tiny lenses of py GREENISH GREY TUFF? UNIT (356-400)	NB		370				highly broken core	0 10 20 30 40 50 60 70 80 90	<.5		364 367 369 370	85 40 70 75						
a massive fine-grn To aphanitic nondescript rx type which in places shows feldspar phenocrysts and entirely lacks bedding structure. Moderately hard (H 5-6) and non calcareous	ND		380	15±2 80±3	4" dia ¼-½±2 ½-¾±3		frag of med grn QD qt3 - cp qt3 - ep	0 10 20 30 40 50 60 70 80 90	<.5		373½ 376 380	60 70 85						
	ND		390	5 50±2	⅛ ½±2		qt3(ep) ep (pyrr)(cp) <2	0 10 20 30 40 50 60 70 80 90	<.5		387	90						
400	ND		400				highly broken zone - fragments of Q.D.	0 10 20 30 40 50 60 70 80 90	<.5		394 400	90 95						
BROWNISH GREY TUFF (400-430) hard (H 7) to 415 and softer (H 5) from 415-430; the softer zone appears to be ankerite alt'n (pale rusty brown staining in places - contains fine disseminated py.	ND		410					0 10 20 30 40 50 60 70 80 90	.5		402 404 405 407	50 50 60 45						

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 85-60
SHEET No. 7 of 8

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation / Alteration / Footage / Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Discrs.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo		Estimated Grade
	ND	420	20 30×5 40 60 20+60	½ ⅒-¼×5 ¼ ¼-⅛	qt3-tour - py qt3-ank×5 qt3-ank (py) qt3-ank×2	0 10 20 30 40 50 60 70 80 90	1.0		417	98						
430'	ND	430	60 80+60 ? 30°	8" ⅛-½ 2" 1"	qt3 (pyrr)(cp) qt3-ank×3 qt3-ank qt3-ank	0 10 20 30 40 50 60 70 80 90	1.0		427	95						
DARK GREEN ANDESITE UNIT (430'-507') a very hard (H 6-7) dense rx with rounded phenos of plag and chl-mafics up to ⅛" dia in a pale green matrix - appears quite hard for a normal andesite - contains scattered patches of diss. pyrr.	ND	440				0 10 20 30 40 50 60 70 80 90	<.5		437	95						
	ND	450				0 10 20 30 40 50 60 70 80 90	<.5		447	95						
	ND	460	20×2 45 60	½+⅓ 1½ ⅓	qt3-ep×2 qt3-ep qt3-ep	0 10 20 30 40 50 60 70 80 90	<.5		457	98						
	ND	470	70+80×2+60 10 5	⅛+¼,½+⅓ ¼ 1"	qt3-ep×4 qt3-ep (py)(cp) qt3-ep (py)((cp))	0 10 20 30 40 50 60 70 80 90	<.5		467	98						

GRID ______

GIBRALTAR MINES LTD.

HOLE No. 85-60

ROCK TYPES & ALTERATION	∠ to Core Foliation	Foliation Alteration Footage	Structures	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo		Estimated Grade
	ND							<.5		475	95						
		480		40	½	qtz-carb				480½	90						
				5×2	½ 10×2	qtz×2											
	ND							<.5		487	95						
		490		45	2"	qtz-ep											
				70-80×13	1/10-1/3 ×13	qtz-ep×13					98						
	ND			35	6"	qtz-ep		<.5		497							
				30	2"	ep											
		500		45+20	1/8+1"	qtz×2											
				60	1¼	qtz					98						
				50	8"	chl-ep-py											
	ND			40	12"	chl-ep-carb zone		<.5									
EOH 507				40	½"	ep				507							

B.D.B.

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 85-61
SHEET No. 11 of 9

LOCATION Ze CLAIMS | BEARING — | LATITUDE | CORE SIZE N.Q.W. | LOGGED BY G.D.P.
DATE COLLARED Sept 18, 1985 | LENGTH 5141' | DEPARTURE | SCALE OF LOG 1" = 10' | DATE Dec 18 1985
DATE COMPLETED Sept 23, 1985 | DIP -90 | ELEVATION | REMARKS intersects the Greywacke Unit at 364'

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS / REMARKS	Footage Blocks	Estimated Core Recovery %	RQD	ASSAY RESULTS: Sample Number	% Cu	% Mo	Au ppb	Estimated Grade
Casing To 13'			10															
13											13							
BLACK ARGILLITE UNIT (13'-350') a black finely	80		20						1.0	lim. weak to 30'	17	75	3	81301			nd	
laminated sed rx. -gen. compact and dense - sl. calcareous (ie sl fizzing in HCl - gen. consists of alternating laminae	60-80 + a fold		30						1.0	* much of the finer grn sulfide is prob. pyrrhotite (sl. magnetic) but due to fine grn size the distinction is diff to make, and in the log all will be	27	70	23	81302			nd	
of black and dk grey material (vasue-like) - ina. laminae usually range from 1/10" to ½" thick - prob. contains much carbonaceous material (ie, stains fingers black)	60-80 + a fold		40	5<2 50+80<2	1"<2 2"+⅛<2	qtz-carb-py-grop ×2 qtz-carb ×3			1.0	reported as py = - some of the py occurs as cubes or cube clusters assoc	36 38	75 60	20	81303			5	
- contains much py* either as py rich laminae usually assoc. with carbonate, or as large discon. cubic clusters with qtz-carb, or as massive clots with carbonate.	10-70 str		50	50	⅓ + ¼	qtz-carb (ank) ×2 several massive py beds (½")			2.0	with carb. ie 	47	90 85	40	81304			nd	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 85-61
SHEET No. 2 of 9

BOTTOM DEPTHS
LEACH CAP
LIM. ZONE
SUPERGENE
REMARKS

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration / Footage / Structure	Veins ∠ to Core Axis	Width of Veins	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	Footage Blocks	Estimated Core Recovery %	RQD	ASSAY RESULTS: Sample Number	% Cu	% Mo	Au ppb	Estimated Grade
-gen. is fairly flat lying. Angles reported in the foln column are bedding angles. -core is cut by numerous qtz-carb. veinlets, often	10-60 str.	60	25 x 2	1/4 x 2	qtz-carb-py x 2	0 10 20 30 40 50 60 70 80 90	3.0	54	90	33	81305			5	
min. with py - Py also occurs remob. along steep fractures - most of it however, appears controlled by bedding. -associated with py	0-60 str.	70	25	3/4	qtz-carb	0 10 20 30 40 50 60 70 80 90	3.0	59 67	90	50	81306			nd	
in places is a black soft coal-like mineral (ie, high resinous lustre, jet black, H ~2)	10-60 str.	80				0 10 20 30 40 50 60 70 80 90	2.5	77	95		81307			10	
	10-45 str.	90				0 10 20 30 40 50 60 70 80 90	3.0	84 1/2	80 85		81308			nd	
	0-60° Crenulations Folds	100	2 x 3 70 x 3	1/8 x 3 1"-3"	qtz-carb-pl qtz-carb-py	0 10 20 30 40 50 60 70 80 90	3.0	95	90		81309			nd	
	40 to 80 Str.	110				0 10 20 30 40 50 60 70 80 90	2.5	105			81310			nd	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 85-61
SHEET No. 3 of 9

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Discr.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo	ppb Au	Estimated Grade
· core very black and massive (100'-220') · qtz-carb veinlets and veins are at ~ large angles to the bedding	40-60 Str	120	60		⅛	qtz-carb	0 10 20 30 40 50 60 70 80 90	2.0		115	90		81311			s	
	50-60 Str	130					0 10 20 30 40 50 60 70 80 90	3.0	 py is concordant to bedding but appears to have remobilized along cleavage planes; ⊥c	125	95		81312			s	
	5-10 Str	140					0 10 20 30 40 50 60 70 80 90	2.0		135	95		81313			nd	
	~70 to 80 fine to Coarse	150					0 10 20 30 40 50 60 70 80 90	2.0		145	95		81314			nd	
	40-80 St. Coarse	160	35		½	qtz-carb	0 10 20 30 40 50 60 70 80 90	2.5		155	95		81315			nd	
	5-80 Gold.	170	30 20 1552		½ 1" ½x2	qtz-carb qtz-carb qtz-carb-py ↔	0 10 20 30 40 50 60 70 80 90	2.0		165	98 95		81316			nd	

GRID _____

GIBRALTAR MINES LTD.

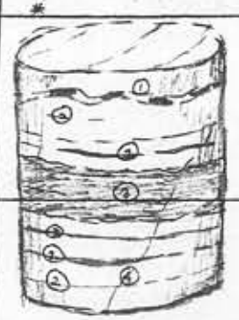
HOLE No. 85-61
SHEET No. 4 of 9

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration	Footage	Structure	Vein ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Estimated Core Recovery %	R O D	ASSAY RESULTS: Sample Number	% Cu	% Mo	ppb Au	Estimated Grade
	70-80		180		fold * 45	2-3" ½	(cp)-pyr.-carb. carb-graphite	0 10 20 30 40 50 60 70 80 90	2.0	* 	175			81317			nd.	
	70-80		190		40-60 x 4	¼-⅜ x 4	qtz-carb x 4 gen broken core - high graph. much fine dissem. py	0 10 20 30 40 50 60 70 80 90	3.5	first cp note. Complex: folded pyrrhotite in grey matrix	185	90 80		81318			5	
	80-90		200				same	0 10 20 30 40 50 60 70 80 90	3.5		191 195 197	85 95		81319			5	
	30-70		210				as above - The fine py is microscopic	0 10 20 30 40 50 60 70 80 90	4.0		206	95		81320			nd	
	70	from 220' to 310' The rx becomes well banded with dk grey or black bands alternating with med to light grey bands - ind. laminae	220					0 10 20 30 40 50 60 70 80 90	3.0		217	90		81321			15	
	70	up to ½" Thick - gen. 1/10 - ⅛" Thick - def. "varve-like" - like the grey banded argillite of 85-33	230					0 10 20 30 40 50 60 70 80 90	2.5		226	95 98		81322			10	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 85-61
SHEET No. 5 of 9

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — REMARKS	Footage Discr.	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo	ppb Au	Estimated Grade
	70		240					0 10 20 30 40 50 60 70 80 90	3.0		232	90		81329			10	
	70 + Crea		250					0 10 20 30 40 50 60 70 80 90	2.5		242	85		81330			nd	
	70-80		260	*				0 10 20 30 40 50 60 70 80 90	3.0		252	95		81331			5	
	70-80		270	70±2	½+¾		carbo. grop ±2	0 10 20 30 40 50 60 70 80 90	3.0	Typical Py Association:	262	98		81332			5	
	50-80		280					0 10 20 30 40 50 60 70 80 90	4.0	1. partially remobilized Py along bedding plane with white carb 2. fine laminae of Py 1/16" dia to microscopic 3 larger bed. prob same as (2) but can be seen to consist of 60% py and 40% med grey cal. gangue with some blk. partings 4. completely remob. Py along X-cutting fracs.	272	98		81333			nd	
	70		290					0 10 20 30 40 50 60 70 80 90	3.5		282	98		81334			10	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 85-61
SHEET No. 6 of 9

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo	ppb Au	Estimated Grade
	80	300		45 40	¼ ⅛	qt₃-carb qt₃-carb	0 10 20 30 40 50 60 70 80 90	3.0		292	98		81323			nd	
	80. 50	310					0 10 20 30 40 50 60 70 80 90	2.5		302 309	90		81324			15	
from 310 - 364, the rx. becomes more massive with banding still present but less distinct - ie, an incr. graphite content and a decreasing in pale-med grey bands which gives the rx a well banded appearence	70	320		?	6"	zone of qt₃-carb veins in green rx	0 10 20 30 40 50 60 70 80 90	3.0		315	80 85		81325			5	
	30. 80	330		70×4	½×2+⅒×2 4'	qt₃-carb zone of intense qt₃-carb as short veinlets, leaves, clots and "s" shaped zone in graphitic rx	0 10 20 30 40 50 60 70 80 90	4.0		322	95		81326			5	
	80 ?	340		80 70 80×2+30×3	12" 3' ½ ⅒×2+⅓×3	zone of gg. and qt₃-carb veining shattered zone qt₃-carb qt₃-carb+g	0 10 20 30 40 50 60 70 80 90	4.5		332 335 339½	60 80		81327			nd	
	15-	350		50+70	½+⅓	qt₃-carb×2 shattered zone	0 10 20 30 40 50 60 70 80 90	?		343 350	60 75		81328			20	

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GIBRALTAR MINES LTD.

HOLE No. B5-61
SHEET No. 7 of 9

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Bleed.	Estimated Core Recovery %	ROD	ASSAY RESULTS: Sample Number	% Cu	% Mo	ppb Au	Estimated Grade
FAULT ZONE 350'-364'	7°	360	80 30°	2" 3"	shattered zone with minor gg; qtz-carb qtz-carb	0 10 20 30 40 50 60 70 80 90	?		352	45						
									356½	40		81341			10	
364'			70	½	gg + bx; qtz-carb	0 10 20 30				55						
GREYWACKE UNIT (364-514)	70°	370				40 50 60 70 80 90	.5		364½	80		81342			nd	
a med. grey clastic rx - grn. size varies between 1/20" and 1/10" dia. and in a few zones grades to a pebble. congl.	70	380			broken rx with minor gg zones	0 10 20 30 40 50 60 70 80 90	.5		372½ 376 379	35 85		81343			5	
also contains a few beds of blk argillite. Pass. sheared along ~ bedding planes - frags seem to be flattened or elongated ...	70°	390	45	¼	qtz-carb	0 10 20 30 40 50 60 70 80 90	.5		385 390	80 90		81344			nd	
- fizzes readily with HCl - contains scattered dissem. py (ie, not strata control evident) plus occassional bands of py with carb.	70°	400	50 + 45	½ + ⅓	qtz-carb	0 10 20 30 40 50 60 70 80 90	.5		397 400	90 60		81345			nd	
		410	60 / 60	¼ / ⅛	qtz-carb / qtz-carb	0 10 20 30 40 50 60 70 80 90	1.5		405	80		81346			nd	

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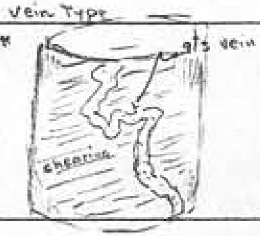
GIBRALTAR MINES LTD.

HOLE No. 85-61
SHEET No. 8 of 9

ROCK TYPES & ALTERATION	∠ to Core Foliation	Foliation Alteration Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS (LEACH CAP / LIM. ZONE / SUPERGENE) REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo	ppb Au	Estimated Grade
	7	420	70 60 x 4 70	1/8 1/3 x 4 5"	py-carb qtz-carb x4 qtz		3.0		412 417½ 419	95 80 60		81335			nd	
	60 wk foln	450	30 70 x 2	1/8 1/4 x 2	qtz-carb qtz-carb		.5		426	90 95		81336			nd	
	70 wk foln	440	70	60-80	multitude of qtz-carb veinlets forming < 30% of sec.		.5		434	90		81337			nd	
	60 med foln	450	*60-70 x 2 + 5 x 2 50 x 2 70-80 x 5	1/8-1/4 x 2 + 1/2 x 2 1/4 x 2 1/4-1/3 x 5	qtz x 5 qtz x 2 qtz x 5		.5	Vein Type 	444 446 449	100 50		81338			nd	
banded black argillite section	50-70 foln + bedding	460	? ?	2' 3'	sheared and bx'd qtz vein system qg-bx		.5		452 457	65 80		81339			nd	
	70 bedding foln.	470					.5		463 467	90 80		81340			nd	

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GIBRALTAR MINES LTD.

HOLE No. 85-61
SHEET No. 9 of 9

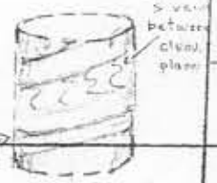
ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation, Alteration, Fractures, Structures	Vein ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Estimated Core Recovery %	RQD	ASSAY RESULTS: Sample Number	% Cu	% Mo	ppb Au	Estimated Grade
470' - 472'; evidence of graded bedding.	70	480	70	6"	qt3-carb	0 10 20 30 40 50 60 70 80 90	<.5		477	98		81347			nd	
banded black argillite section	60-70	490				0 10 20 30 40 50 60 70 80 90	<.5		482	80		81348			5	
	?	500	80	1"	qt3 broken core	0 10 20 30 40 50 60 70 80 90	<.5		490½ 495	95 40		81349			5	
	70	510				0 10 20 30 40 50 60 70 80 90	<.5		499 504 507 508½	65 25 60 95		81350			5	
EOH 514'						0 10 20 30 40 50 60 70 80 90			514	95						
J.D.B.						0 10 20 30 40 50 60 70 80 90										

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 85-62
SHEET No 1 of 8

LOCATION Ze CLAIMS | BEARING — | LATITUDE | CORE SIZE N.Q.W. | LOGGED BY G.D.B.
DATE COLLARED Sept. 24, 1985 | LENGTH 498 | DEPARTURE | SCALE OF LOG 1" = 10' | DATE Dec 23, 1985
DATE COMPLETED Sept. 27, 1985 | DIP -90° | ELEVATION | REMARKS intersects the Greywacke Unit at 358'

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration	Footage	Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP 0; LIM. ZONE 0; SUPERGENE 0 — REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo	ppb Au	Estimated Grade
Casing to 50' (Large boulders from 16'-50')			50					0 10 20 30 40 50 60 70 80 90			50							
BLACK ARGILLITE UNIT (50-348) a pyritiferous, carbonaceous jet black fine grn rock cut	?		60	7' of stkwks; 5'	hle - 2"		Core is "laced" with qtz-carb veinl and veinlets and ragged clots and bands of py. Some of the larger veins are either flat or vertical.	0 10 20 30 40 50 60 70 80 90	5 o/o	- only very weak lim - Pyrite occurs throughout the hole - in places it appears controlled by bedding, but mainly is disseminated or as irregular clots associated	57	70	47	81351			nd	
by numerous quartz-carb. veinlets. In places the rx is massive with only faint bedding evident but most commonly displays a strong bedding imparted by alteration laminae of blk and dk grey material.	80 wk		70	4'; 3'			grey wacke - only minor - py; grey impure chert with disem py; greywacke with wk disem py.	0 10 20 30 40 50 60 70 80 90	2 o/o	with qtz-carb. veins, 	61½	90	33	81352			5	
Most of the rock is soft and fizzes with HCl but in places it appears cherty (H 6-7) Bedding appear mainly gently dipping - bedding angles are shown in	30° wk		80				Core is "laced" this qtz-carb veins, Py is occurs as strong fine dissemination and as	0 10 20 30 40 50 60 70 80 90	4 -/o		74½	80	27	81353			nd	
fold column Rx may have a slatety cleavage @ ~ 70-80° - dislocation along some veins is also evident *(see remarks column)	70 wk		90				ragged clots and veinlets - the py often appears concentrated with a med grey calcareous material (remob. limey sed. beds?)	0 10 20 30 40 50 60 70 80 90	5 o/o	bedding and shearing planes	85	90 80	60	81354			5	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 85-62
SHEET No. 2 of 8

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation/Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Discr.	Estimated Core Recovery %	R O D	ASSAY RESULTS: Sample Number	% Cu	% Mo	ppb Au	Estimated Grade
in places, the argillite is interbedded with a dk grey greywacke which is distinctly fragmental (⅛" grains) and shows only weak bedding. Also present are beds of impure	70 wk		100			5'	broken zone - poss fault.	0 10 20 30 40 50 60 70 80 90	5.0%	two forms of py mineralization: "massive" py with carbon & grey carbonate	93½	80	17	81355			10	
med. grey chert, usually with strong py. min. (chemical sed.'s)	5-15 Mod		110		?	2'	med grey carb-py zone*	0 10 20 30 40 50 60 70 80 90	6.0%	dissem. py ≤ 1/10" rounded blebs dist	102	80	57	81356			nd	
	15-70 Mod		120				broken zone with py as above and intense qtz-carb stkwks and larger veins	0 10 20 30 40 50 60 70 80 90	6.0	along bedding planes * appears to replace blk argillite - ie sharp "corroded" contacts	111 113½ 118½	60 80 70	3	81357			nd	
- first good strong bedding imparted by alternation laminae of grey and black material - the grey bands are prob. qtz, + carb - in places the carb. weathers light brown (ankerite?) - some of the bands are similar to the larger greywacke beds of 50-70'	35-50 Str		130				several ⅛-⅛" beds of massive py-grey carb* concordant with bedding	0 10 20 30 40 50 60 70 80 90	4.0	grey py-carb blk argillite	123 127	70 80 70	10	81358			5	
	80 Str		140				as above	0 10 20 30 40 50 60 70 80 90	3.5		132 137	80 50	17	81359			nd	
Small scale folding and cren. between beds - shear folds? - poss. The whole unit is flat lying - the steeper dips recorded may be larger shear folds	80 Str		150				no massive py beds - only fine dissem py	0 10 20 30 40 50 60 70 80 90	1.0		142 147	80	17	81360			10	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 85-62
SHEET No. 3 of 8

ROCK TYPES & ALTERATION	∠ to Core	Foliation	GRAPHIC LOG: Foliation, Alteration, Footage, Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Estimated Core Recovery %	R.Q.D.	ASSAY RESULTS: Sample Number	% Cu	% Mo	ppb Au	Estimated Grade
From 150' to 230' The rx appears as a flat lying, thinly bedded sequence. Laminae gen. range between 1/20 - 1/8"	80	Str.	160				0 10 20 30 40 50 60 70 80 90	1.0 %		157	90	43	81361			nd	
Thick and range from jet black to med. grey. Py and cross cutting qtz-carb veins are much less abundant than the rx between 50 to 150'	80	Str.	170				0 10 20 30 40 50 60 70 80 90	1.0 %		166	80	47	81362			15	
	80	Str.	180				0 10 20 30 40 50 60 70 80 90	1.0 %		176	90	37	81363			nd	
	70-80	Str.	190				0 10 20 30 40 50 60 70 80 90	1.5 %		185½ 188	90 80	33	81364			nd	
	60-80	Str.	200				0 10 20 30 40 50 60 70 80 90	1.0 %		196½	90	13	81365			10	
	60-80	Str.	210				0 10 20 30 40 50 60 70 80 90	1.0 %		204 209½	80 90	23	81366			nd	

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GIBRALTAR MINES LTD.

HOLE No. 85-62
SHEET No. 4 of 8

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG: Foliation Alteration	GRAPHIC LOG: Footage	GRAPHIC LOG: Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE / REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	ASSAY RESULTS: Sample Number	% Cu	% Mo	ppb Au	Estimated Grade
	50-80 Str		220		50	1/4	qtz-ank-py	0 10 20 30 40 50 60 70 80 90	1.0		215	70	13	81367			5	
	45 Str sl. Cren		230		80±2	1/16±2	qtz-ank-py	0 10 20 30 40 50 60 70 80 90	1.0		224	80	43	81368			nd	
	?	from 230' to 250' the rx changes to a more massive blk argillite with a loss of obvious banding and an increase in graphite and sl. incr. in py	240				sheared and broken graphitic zone - pass fault	0 10 20 30 40 50 60 70 80 90	2.0		231	70						
	?		250			2" 6"	qq-bx qq-bx	0 10 20 30 40 50 60 70 80 90	2.0		235 239 242 247	50 50 50 70	0	81369			5	
Similar to the grey	80 Str	from 250' to 348' the rx returns to strong uniform banding with alternating bands of blk and shade of grey material - almost varve-like.	260		80±2	2"±2	qtz-carb±2	0 10 20 30 40 50 60 70 80 90	2.0		253	70	0	81370			nd	
banded argillite of 85-33	80 Str	- some of the sulfides are not visible to the unaided eye → clots of py? in a light grey matrix were noted by binocu. microscope. Sl. incr. in py - coarser py occurs as 1/16" concordant bands or as cubes strung out along bedding planes.	270					0 10 20 30 40 50 60 70 80 90	2.5		257 260½ 265	80 90 80 80	33 20	81371 81372			10 nd	

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GIBRALTAR MINES LTD.

HOLE No. [illegible]
SHEET No. 5 of 8

ROCK TYPES & ALTERATION	∠ to Core Foliation	Graphic Log Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	Fracture Angle to Core Axis - Frequency -	Estimated % Pyrite	Bottom Depths: Leach Cap / Lim. Zone / Supergene / Remarks	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo	ppb Au	Calculated Grade
Throughout this hole There is a common association between py and a light to med grey calcareous gangue both as concordant layers and as random clots	80 str	280	80 x 2	¼ x 2	carb - graphite x 2 (a coal-like blk mineral)		1.5		271 277	90	30	81373			5	
	?	290			highly broken zone (fault?		2.0		283 286 289	80 70 70	10	81374			10	
	70-80 str.	300	80				1.5		296	70 80	17	81375			5	
	70-80 str	310			core laced with qtz-cal-ank veins		2.0		303 307	70	33	81376			5	
	70-80 str.	320			well banded sulfide-carb layers - strong suggestion of sedimentary origin of sulfides		3.0		317	90	27	81377			nd	
	10-70-80 (End)	330	80+70+30	⅛ x 2 + 3	qtz-carb x 3		3.0		324½	80 80	37	81378			5	

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GIBRALTAR MINES LTD.

HOLE No. 85-62
SHEET No. 6 of 8

ROCK TYPES & ALTERATION	∠ to Core Foliation	Graphic Log Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	Estimated % Pyrite	Remarks
	45-70 Str	340				2.0	
348	60 Str	350	? 70 x 2	½ x 2 2 x 2	Sone clots of 100% py qtz-carb x x	2.0	
BRECCIA UNIT (348-358) a mixture of sharp argillite frags in fine grn dk grey greywacke 358			80 x 2 + 30 60	⅛ x 3 12"	qtz-carb qq-bx	1.0	not a fault breccia
GREYWACKE UNIT (358-409')		360	80 + 4x	1" + 3/4"	qtz-carb		
mainly a fine grn dk grey clastic rx consisting of round pale to dk grey grains up to ⅛" dia and accessional sharp to	30-45	370	70 x 60 60	2" x 2 1½	qtz-carb x x qtz-carb	.5 ?	
rounded frags of blk argillite. This rx also contains minor laminae and beds of blk argillite plus breccia zones of blk argillite in a greywacke matrix. Sulfides	70	380				.5 ?	
are sparse. The rx fizzes readily with HCl and is prob. quite calcareous		390	45 60	⅕ 8"	qtz-carb qtz-carb-zone	0	

Footage Discon.	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo	ppb Au	Estimated Grade
333	90	47	81379			nd	
343	90	63	81380			5	
351½ – 357	80	30	81381			5	
366	95	60	81382			nd	
375	85	30	81383			5	
385	85 / 90	50	81384			10	

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GIBRALTAR MINES LTD.

HOLE No. 85-62

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Foliation Alteration / Footage / Structure	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS (LEACH CAP / LIM. ZONE / SUPERGENE) REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo	ppb Au	Estimated Grade
	50 wk	400	60°+80 70-80×4	½×2 ⅕×4	qtz-carb ×2 qtz-carb (ank) ×4	0 10 20 30 40 50 60 70 80 90	0		393 397	90 50	30	81385			5	
409	70 wk	410	90 45+80	½ ⅕×2	qtz-carb qtz-carb (ank) ×2	0 10 20 30 40 50 60 70 80 90	0		405 410½	75 75	10	81386			5	
SHATTERED ZONE - POSSIBLE LARGE FAULT (409-449)	?	420		10'	highly broken rock	0 10 20 30 40 50 60 70 80 90	0		413 416½ 420	50 50 25	0	81387			10	
	?	430		10'	highly broken rock and minor gg.	0 10 20 30 40 50 60 70 80 90	0		427	25	0	81388			nd	
	?	440		19'	highly broken rock	0 10 20 30 40 50 60 70 80 90	0		432 436½	15 20	0	81389			nd	
449'	?	450				0 10 20 30 40 50 60 70 80 90	0		442 445 447 449	10 60 55 60	7	81390			nd	

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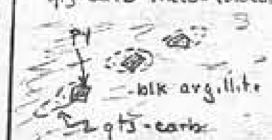
GIBRALTAR MINES LTD.

HOLE No. 85-62
SHEET No. 8 of 8

ROCK TYPES & ALTERATION	∠ to Core Foliation	GRAPHIC LOG Footage	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS: LEACH CAP / LIM. ZONE / SUPERGENE — REMARKS	Footage Blocks	Estimated Core Recovery %	R Q D	Sample Number	% Cu	% Mo	ppb Au	Estimated Grade
GREYWACKE UNIT (449'-498') similar to 358-409 but grades to a pale greyish-green	70	460	tcxz ?	± ½cxz. 14" 3'	py xz (strata controlled) buff to greenish bed (ank) with fine dissem py and graphite-qtz bx contacts - poss. spherulitic texture		1.5		457	60	20	81391			5	
color. Argillite laminae and beds are still present up to 6" thick but the total amount of argillaceous sed is less - ie ~ 15%	70	470	?	4'	a zone of intense qtz-carb-ank stockworks with fine dissem py as above - zones of buff-green weathering spherulitic? tex rx alternating with graphite-qtz bx and intense qtz-carb(ank) stock wkr		1.0		464½	85 80	13	81392			nd	
as opposed to ~30% in the upper unit - rx contains abundant fine dissem py which is almost invisible to the unaided eye. Py-rich laminae are also present in the more argillaceous	70 to 45	480	5	5' 6"	shattered zone qq-bx		.5		471 475	60 70	7	81393			nd	
layers.	45 to 60	490		2'	shattered zone incr. py with mcr blk laminae		2.5		482 490	60	10	81394			nd	
EOH 498'	50	500			same*		3.6	* Some dissem py has qtz-carb halos (sweats?)  	494 498 EOH	80 70	10	81395			5	

S.D.B

Ze 8 LCP
Ze 7 LCP

Ze 6 LCP

85-60

85-61

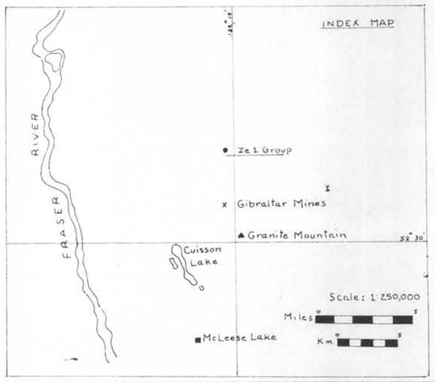
85-62

Ze 3 LCP LCP

Ze 1

Ze 4 LCP LCP Ze 5

LCP
Ze 2



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GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,019

Scale: 1 : 12000

Feet 0 1000 2000 3000

Meters 0 500 600

Control by chain and compass

DWN.	CHECK	APPR.	ISSUED FOR	DATE	REV.	DESCRIPTION

DWN.	CHECK	APPR.	ISSUED FOR	DATE	REV.	DESCRIPTION

REFERENCE	No.	DWG. No.

REFERENCE	No.	DWG. No.
SCALE 1 inch = 1000 feet		

GIBRALTAR MINES LIMITED

ZE 1 GROUP

DRILL HOLE LOCATIONS

FILE No.