

DIAMOND DRILL REPORT

ON THE

GREY GROUP

Cariboo Mining Division

93 B 8W & 9W

(Latitude 52 33', Longitude 122 18')

OWNER AND OPERATOR

GIBRALTAR MINES LIMITED

McLEESE LAKE, B.C.

FILMED

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

15,712

Author: G. D. Bysouth

Submitted: February 25, 1987

PART 2 OF 2

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Drill Log: Hole 86-54

Drill Log: Hole 86-55

Drill Log: Hole 86-56

Drill Log: Hole 86-57

Drill Log: Hole 86-58

Drill Log: Hole 86-59

1 INTRODUCTION

The Grey Group is part of the Gibraltar Mines Limited permanent property. It lies west and northwest of the Gibraltar Mines concentrator and includes part of the Gibraltar East ore body. Main access to the property is via a paved road from McLeese Lake, approximately 20 km. to the south. The general location of the claims is shown in Figure 1.

The older claims of the Grey Group have a history in common with other claim groups of the Gibraltar Mines property. Complete details of history are provided in a number of reports listed in the attached bibliography.

This report covers a diamond drill program aimed at testing a possible extension of the Gibraltar East ore body. Seven vertical N.Q. diamond drill holes totalling 3,281 feet (999 meters) were completed during the period September 17 to September 27, 1986 by Frontier Drilling Ltd. of Kelowna, B.C. The core is stored at Gibraltar Mines Limited.

2 MINERAL CLAIMS

Claims and leases of the Grey Group are shown in Figure 2. Information on them is tabulated below. All of these claims belong to Gibraltar Mines Limited and the southern portion of these adjoins claims of the Gibraltar Mines permanent property.

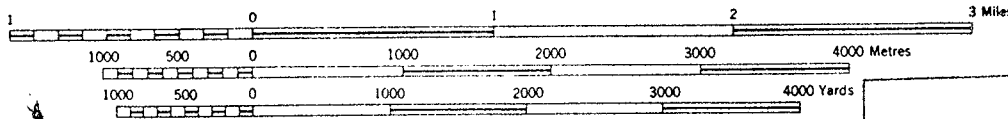
GREY GROUP MINERAL CLAIMS				
=====				
NAME	RECORDED DDMMYY	RECORD NUMBER	UNITS	MINERAL LEASE
AL # 1	020764	28447	1	
AL # 2	020764	28448	1	
AL # 3	020764	28449	1	
AL # 4	020764	28450	1	
AL # 6	020764	28452	1	
EV #17	170166	31741	1	
EV #19	170166	31743	1	
EV 21	140666	36364	1	
EV 22	140666	36365	1	
GIB #18 FR	161271	65176	1	
HY 1	010578	00571	4	
HY 3	120680	01711	9	
HY 4	010378	00673	6	
HY 8	100680	01565	6	
HY 9	100680	01566	2	
HY 10	100680	01567	1	
HY 20	240331	03247	2	
HY 22	020135	06593	2	
IT 3	060471	01680	1	
IT NO 1	140266	32619	1	
IT NO 4	140266	32622	1	
IT NO 5	140266	32623	1	
IT NO 6	140266	32624	1	
IT NO 8	140266	32626	1	
JAN NO5	100454	27408	1	
JAN NO6	100454	27409	1	

GREY GROUP MINERAL CLAIMS

NAME	RECORDED DDMMYY	RECORD NUMBER	UNITS	MINERAL LEASE
PINETREE#1	040767	43029	1	
PINETREE#2	040767	43030	1	
PINETREE#3	060967	43488	1	
PINETREE#4	060967	43489	1	
PINETREE#5	060967	43490	1	
PINETREE#6	060967	43491	1	
STU #5 FR	180769	52932	1	
SUMMIT NO7	200764	28508	1	
SUMMIT NO8	200764	28509	1	
VAL NO 1	180366	33849	1	
VAL NO 2	180366	33850	1	
VAL NO 4	180366	33852	1	
DOT NO2	030366	34978	1	3596 M34
DOT NO3	030366	34979	1	3596 M34
DOT NO4	030366	34980	1	3596 M34
DOT NO5	030366	34981	1	3596 M34
EST #5 FR	200571	62403	1	3596 M34
PAN NO4	040562	25794	1	3596 M34
PAN NO5	040562	25795	1	3596 M34
RUM #79 FR	010670	58239	1	3596 M34
ZEPHYR # 1	090162	25574	1	3596 M34
ZEPHYR # 3	090162	25576	1	3596 M34
ZEPHYR # 5	090162	25578	1	3596 M34
GG 81	220465	29748	1	3597 M35
GIB #7	200571	62410	1	3597 M35
ZEPHYR # 7	090162	25580	1	3706 M44
IT NO11	140266	32629	1	3707 M45
BIT #68	211068	48107	1	3708 M46
CREST #1FR	090769	52910	1	3708 M46
GIB #1 FR	200571	62393	1	3708 M46
GIB #2	200571	62405	1	3708 M46
GIB #3	200571	62406	1	3708 M46
GIB #4	200571	62407	1	3708 M46
GIB #5	200571	62408	1	3708 M46
GIB #6	200571	62409	1	3708 M46
JAN NO4	100464	27407	1	3709 M47
PAN #7	010266	35738	1	3710 M48
PAN #8	010266	35739	1	3710 M48
EST #6 FR	200571	62404	1	4150 M65
GIB #21FR	210672	66784	1	4150 M65
JAN #2 FR	220171	61461	1	4150 M65
PAN NO1	040562	25791	1	4150 M65

TOTAL UNITS 100

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



CONTOUR INTERVAL 100 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927

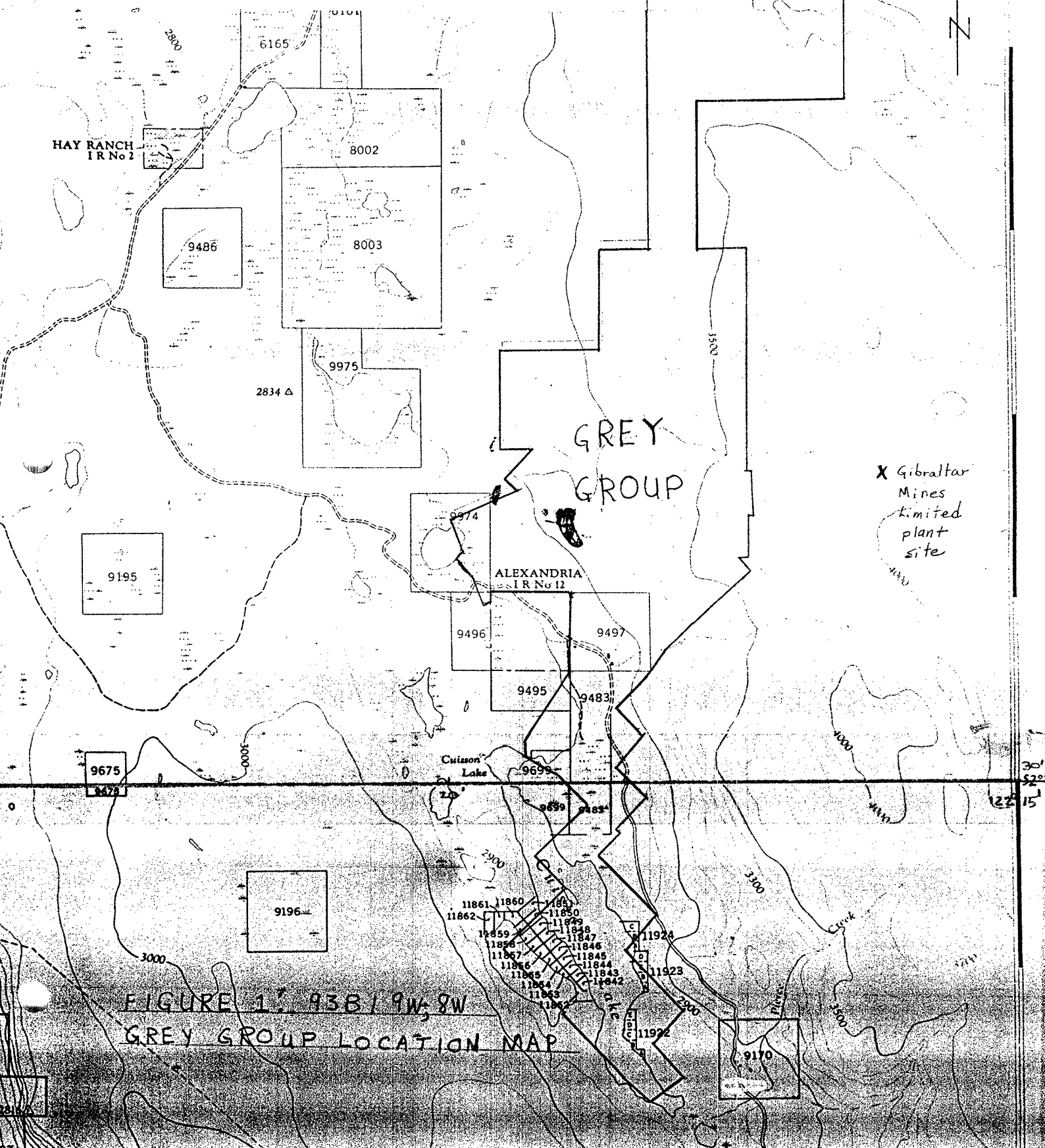


FIGURE 17, 93B / 9W, 8W
GREY GROUP LOCATION MAP

X Gibraltar Mines limited plant site

35'

30'
52°
122° 15'

3 GEOLOGICAL DISCUSSION

The purpose of this section is to provide a brief geological background for the following description and analysis of drilling results. Complete details on geology and mineralogy can be found in several reports on the Gibraltar deposits. (See bibliography.)

Recent work by Gibraltar geologists has revealed the Granite Mountain pluton is divisible into at least three major phases. The first, which has been referred to as the Granite Mountain Phase Quartz Diorite, forms the main body of the pluton, and is readily recognized by an unusually high quartz content (about 45%) and relatively coarse grained texture. The second, which has been called the Mine Phase Quartz Diorite, appears to form a thin outer shell about the Granite Mountain Phase and is characterized by a normal quartz diorite composition with about 30% quartz. The third, which has been referred to as the Border Phase Diorite, appears as a complex assimilative-type contact rock formed between the Mine Phase Quartz Diorite and intruded Cache Creek Group rocks. All of these rocks have undergone pervasive saussuritization and chloritization which had preceded the period of ore deposition. The ore mineralization is confined almost entirely to the Mine Phase Quartz Diorite close to, and within, the Granite Mountain Phase contact.

The Mine Phase Quartz Diorite has undergone pronounced shearing deformation. Most of the rock is foliated, and in places, strongly folded. Sulfide and alteration mineralization shows a strong correlation with the deformation. That is, the sulfides pyrite, chalcopyrite and molybdenite are invariably accompanied by various combinations of quartz, sericite, chlorite, epidote and carbonate and are, in turn, confined almost entirely to deformational structures such as small shears, large shear zones, foliation planes, short veins and various dilatant structures.

4 DRILL PROGRAM

4.1 Objectives

The purpose of this drill program was to test a strong I.P. anomaly which lay along the logical strike projection of the Gibraltar East ore zone. Of particular interest, was a strong shear zone containing massive sulfides, which had yielded exceptionally rich ore in the earlier years of production.

4.2 Results

The drill hole locations are shown in Figure 3. All copper values reported here, and in the logs are for total copper. All pyrite assays are visual estimates.

Drill hole 86-53 was cased to 20-feet and drilled to 508-feet. The host rock throughout the hole was Mine Phase Quartz Diorite which was remarkably barren of sulfides even though some quartz-chlorite-sericite shear zones were intersected.

Drill hole 86-54 was cased to 50-feet and drilled to 503-feet. This hole was also confined to Mine Phase Quartz Diorite but two narrow mineralized zones were intersected: the first, from 80- to 100-feet, gave 20-feet of .37% copper and the second, from 390- to 420-feet gave 30-feet of .22% copper. The mineralization was confined to quartz-chlorite-sericite shears and shear zones accompanied by up to 3% pyrite.

Drill hole 86-55 was cased to 22-feet and drilled to 500-feet. From 22- to 64-feet a normal Mine Phase was encountered, followed by a mixture of leucocratic zones, normal quartz diorite and silicified quartz diorite down to 282-feet. At 282-feet the Granite Mountain Phase Quartz Diorite was intersected down to the bottom of the hole. No significant sulfide mineralization was encountered.

Drill hole 86-56 was cased to 40-feet and drilled to 508-feet. This hole went through normal Mine Phase down to 267-feet where it intersected the Granite Mountain Phase. The actual contact appeared to be marked by a 13-foot zone of sheared rock. Only certain sections of this hole were assayed. The only significant mineralization was 30-feet of .25% copper contained in a quartz-sericite shear zone, accompanied by 3-5% pyrite.

Drill hole 86-57 was cased to 50-feet and drilled to 496-feet. The hole was in normal Mine Phase from 50- to 395-feet, and in Granite Mountain Phase from 395-feet to the end of the hole. The contact appeared gradational. A quartz-sericite shear zone was intersected from 150- to 250-feet which gave 100-feet of .37% copper. This mineralization was accompanied by massive pyrite, averaging about 17% across the total interval. Another mineralized zone was found from 370- to 410-feet which gave 40-feet of .37% copper. This mineralization was related to a series of small quartz-sericite shears and one 8-foot quartz-sericite-chlorite shear zone. Pyrite ranged between 2% and 4%.

Drill hole 86-58 was cased to 80-feet and abandoned at 269-feet. The hole was confined entirely to a large fault zone. Host rock was Mine Phase Quartz Diorite. No mineralization was encountered. The hole was not assayed.

Drill hole 86-59 was cased to 31-feet and drilled to 505-feet. The host rock throughout the hole was Mine Phase Quartz Diorite which was almost completely barren of sulfides. The hole was not assayed.

4.3 Interpretation

The only significant ore grade mineralization was the 100-feet of massive sulfides intersected in drill hole 86-57. This ore lies directly along the strike of similar mineralization presently exposed in the Gibraltar East pit, and there is an obvious possibility that the two are connected. If this is so, the massive ore would lie north of drill hole 86-54, and the narrow ore zones intersected in this hole may be outliers of the massive mineralization.

Drill holes 86-55, 86-56 and 86-57 indicate the Granite Mountain Phase contact lies north of the drilling area, probably no more than 1,000-feet.

5 STATEMENT OF EXPENDITURES

September, 1986 Diamond Drilling, Grey Group.

(a) Drilling Costs

Direct Footage Charges:

86-53	508'	@ \$13.00/foot	=	\$ 6,604.00
86-54	503'	@ \$13.00/foot	=	\$ 6,539.00
86-55	500'	@ \$13.00/foot	=	\$ 6,500.00
86-56	508'	@ \$13.00/foot	=	\$ 6,604.00
86-57	496'	@ \$13.00/foot	=	\$ 6,448.00
86-58	263'	@ \$13.00/foot	=	\$ 3,419.00
86-59	<u>503'</u>	@ \$13.00/foot	=	<u>\$ 6,539.00</u>
	3281'			\$42,653.00

Man and Machine Hours

9 man hrs. @ \$20/hr.	=	180.00
3 drill hrs. @ \$30/hr.	=	90.00
9 tractor hrs. @ \$40/hr.	=	<u>360.00</u>
		630.00

Lost Equipment

1 NW casing shoe @ \$243.00	=	243.00
4 10' NW casing @ \$136.64	=	546.56
2 NQ core bits @ \$481.50	=	<u>963.00</u>
		\$ 1,752.56

Total Drilling

\$45,035.56

(b) Vehicle Costs

1986 Rental 4x4		
Sep 8 - 12 2 days @ \$35.40	\$	70.80

(c) Assay Costs

206 Cu - MoS2 assays @ \$4.40/assay	\$	906.40
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(d) Supplies

Core boxes: 138 boxes @ \$6.00/box	=	\$828.00
Tags, bags, etc.	=	<u>82.00</u>
	\$	910.00

(e) Personnel Costs

Core Logging, Interpretation

G. D. Bysouth

Oct 9 8 hrs.

Dec 8 8 hrs.

Feb 18/87 8 hrs.

24 hrs. @ \$31.00/hr. = \$ 744.00

M. R. Thon

Nov 14-18 20 hrs.

Nov 20-25 16 hrs.

Nov 27-28 14 hrs.

Dec 02-04 20 hrs.
Dec 12 5 hrs.
75 hrs. @ \$22.02/hr. = \$1,651.50

Field Work and Sampling

B. Locke

Sep 08-12 20 hrs.

Oct 09-10 16 hrs.
36 hrs. @ \$14.29/hr. = \$ 514.44

Total Personnel Charges

\$ 2,909.94

TOTAL COST

\$49,832.70

6 CONCLUSIONS

There is a reasonable possibility that the Gibraltar East ore systems extend as far as drill hole 86-57, but, unless the massive ore has a much higher grade than presently indicated, it is unlikely that mineable reserves occur within the drilled area. Further drilling must be done along the strike of the Gibraltar East ore between the pit and the 1986 drilling grid.

Submitted by: G. D. Bysouth

G. D. Bysouth
Senior Geologist

7 BIBLIOGRAPHY

1. Bysouth, G. D., Diamond Drill Report on the Grey Group, November, 1983.
2. Drummond, A. D., et al, The Interrelationship of Regional Metamorphism, Hydrothermal Alteration, and Mineralization at Gibraltar Mines., C.I.M. Bull, Vol. 66, No. 730, pp. 48-55.
3. Schaumberger, M. R., Diamond Drill Report on the Grey Group, June, 1983.
4. Sutherland Brown, A., B.C. Department of Mines and Petroleum Resources, G.E.M., 1973, pp. 299-318.
5. Thon, M. R., Diamond Drill Report on the Grey Group, December, 1986.

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

I, Madeline R. Thon, 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 Geological Science in 1978.
3. From 1978 to the present I have been engaged in mining and exploration geology in British Columbia.
4. I personally logged some of the core and assessed the results of this drill program.

Madeline R. Thon

Madeline R. Thon

APPENDIX II. List of Abbreviations

ank.....	ankerite
bo.....	bornite
cal.....	calcite
carb.....	carbonate
chl.....	chlorite
cp.....	chalcopyrite
dissem.....	disseminated
ep.....	epidote
foln.....	foliation
gg.....	gouge
grn.....	grained
lim.....	limonite
mal.....	malachite
mag.....	magnetite
py.....	pyrite
qtz.....	quartz
rx.....	rock
ser.....	sericite
str.....	strong
stkwk.....	stockwork
wk.....	weak
Wt. Q.D.....	White Quartz Diorite = Leucocratic Phase

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-53
SHEET No. 1 of 9

LOCATION <u>NW of GIBE</u>	SCALES _____	LATITUDE <u>~ 53,40' N</u>	CORE SIZE <u>NQ Wireline</u>	LOGGED BY <u>M.R. Then</u>
DATE COLLECTED <u>17 Sep - 86</u>	LENGTH <u>508'</u>	DEPARTURE <u>~ 42,635 E</u>	SCALE OF LOG <u>1" = 10'</u>	DATE <u>14-18 Nov - 86</u>
DATE COMPLETED <u>18 Sep - 86</u>	DIP <u>-90</u>	ELEVATION <u>3130</u>	REMARKS _____	

ROCK TYPES & ALTERATION	GRAPHIC LOG	FRACTURE ANGLE TO CORE AXIS	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS					
				LEACH CAP	LIM. ZONE			Sample Number	% Cu	% Mo	Estimated Grade		
<u>Cased to 20'</u>													
Mine Phase 4D? - Variable amounts of prominent hbl xls, subhedral to euhedral - (Some hbl's are totally altered to chl)	80° Med to Str.	70° 70°	5 1	qtz - xl - (new) - (lim)	0%	20 22	20 2%	12%	96238	.01	.001		0%
- 30-40% qtz - some fsp's (anhedral to euhedral)	80° V.W.K.	70° 70°	1/8 1	qtz qtz	0%	28 32	97%	58%	96239	.01	.001		0%
	80° W.K. to Med.	70° 70°	1/8 1/20	qtz - ep lgg. lim.	0%	40 48	98%	64%	96240	.01	.001		0%
	ND	70° 70°	1/20 1/20 x 5 1/20 x 3	qtz - MnO ₂	0%	50 58	100%	89%	96241	<.01	<.001		0%

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-53
SHEET No. 3 of 9

ROCK TYPES & ALTERATION		L to Core Fallline	GRAPHIC LOG	Value L to Core Axis	Width of VIA	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feetage Observed	Estimated Core Recovery %	R O D	ASSAY RESULTS								
									LEACH CAP	LIM. ZONE				REMARKS	Sample Number	% Cu	% Mo		Estimated Grade			
119-159 Saus alt'd QD w/ WK to str. saus alt' 30-40% gtz; chloritized matrix	80° WK	80°	80 x 3	1/20 x 3	gtz-chl-py x 3	0	.03%			128	94%	80%	96248	.01	<.001	%						
		70	1/20	gtz-chl-py	10	20		30	40								50	60	70	80	90	
		5°	1/20	gtz-chl-carb	10	20		30	40								50	60	70	80	90	
80° WK to Mod	130	130°	1/18	1/18	gtz-chl-ep-carb-py	0	.03%			138	91%	85%	96249	.01	<.001	.06%						
		70	1/18	gtz-chl-ep-carb-py	10	20		30	40								50	60	70	80	90	
		1	1/10	gtz-chl-carb-ep-py	10	20		30	40								50	60	70	80	90	
80° WK Mod	140	140°	1/16	1/16	gtz-chl-carb-ep-py	0	.03%			148	99%	91%	96256	.01	<.001	.02%						
		70	1/16	gtz-chl	10	20		30	40								50	60	70	80	90	
		150	1/20	gtz-chl-carb-ep-py	10	20		30	40								50	60	70	80	90	
80° WK Mod	150	150°	1/10	1/10	gtz-chl-carb-ep-py	0	.01%		chloritic frag. (oval ~ 2 1/2")	158	105%	91%	96276	.01	.001	.01%						
		70	1/10	gtz-chl	10	20		30	40								50	60	70	80	90	
		125	1/16	gtz-chl-carb-ep-py	10	20		30	40								50	60	70	80	90	
159-170 DK Alt' - no Saus Zone - Ep Vns	WD	160	160°	1/10	gtz-chl-carb-ep-py	0	.3%			168	104%	85%	96277	<.01	<.001	.01%						
			70	1/10	gtz-chl-carb-ep-py	10		20	30								40	50	60	70	80	90
			125	1/16	gtz-chl-carb-ep-py	10		20	30								40	50	60	70	80	90
170-194 Amixture of - Saus Alt'd QD - Adk. slightly sheared QD.	90° Mod	170	170°	1/20 x 3	gtz-chl-carb-ep-py x 2	0	.2%			178	98%	92%	96278	<.01	<.001	.01%						
			70	1/20 x 3	gtz-chl-carb-ep-py x 2	10		20	30								40	50	60	70	80	90
			145	1/20	gtz-chl-carb-ep-py x 2	10		20	30								40	50	60	70	80	90

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-53
SHEET No. 5 of 9

ROCK TYPES & ALTERATION			L to Core Foliation Pitch Strike	GRAPHIC LOG Foliation Pitch Strike	V. In Core L to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footage Discr.	Estimated Core Recovery %	R O D	ASSAY RESULTS				
										LEACH CAP	LIM. ZONE				REMARKS	Sample Number	% Cu	% Mo	
240-252 V. WK. Saus Alt. still w/ hbl, st. chlorite			70° 80° 90° 100° NA	80°		1/4	gtz-ep-chl		0%			248	92%	91%	96285	.07	<.001		0%
252-256 Fgr. Saus Alt. DK Alt. DK 256-274 Saus Alt. w/only			70° 80° 90° 100° NA	80° 80° 50° 30°	80x2 2 1/4 hbl	1/2	gtz-dl-py st. on carb. chl gtz-ep-pied. carb-hem		.02%			258	96%	81%	96286	.01	<.001		0%
minor remnant hbl mostly altered to chl.			70° WK	115x3 30x2	1/20 1/20x3 1/20x2	1/20	gtz-chl-carb gtz-chl-carb gtz-chl-carb-xe chl-carb-hem		0%			268	97%	89%	96287	.01	<.001		0%
274-284 gtz-chl-s...carb shear zone - minor crenulations			80° St.	70° 50°	1 10'	10'	gtz-ep-carb gtz-chl-s...carb shear <<py-ep>>		.02%			278	86%	47%	96288	.01	<.001		<.01%
284-288 Saus Alt. d qd-chloritized mafics			80° St. to WK	80° 80° 50°	2 1/2 hbl	1/2	py-ep gtz-ep-chl gtz-ep-pied-chl carb-hem		.04			288	81%	48%	96289	.01	.001		.03%
288-302 * Highly altered zone. Much segregation of ep+pred. - perched to py			ND	15° 30° 30+45° 60° 300	1/8 1/2 1/8x2 1/8 1/2	1/8	gtz-carb-chl gtz-dl-carb-py carb-hem gtz-carb gtz-ep-chl		.04			298	95%	76%	96290	<.01	<.001		0%

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-53
SHEET No. 7 of 9

ROCK TYPES & ALTERATION	L to Core Foliation Alteration Footings Structures	GRAPHIC LOG	Values L to Core Alt	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feetage Direct	Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade
	80° v. WK.	145 145° x 2 80 80 x 5 115° 70 370	1/16 1/20 x 2 4 1/16 x 5 1/16 1/16 1/16		gtz-ep-chl-py gtz-dl-carb. (hem) x 2 gtz-vh.chl-mn-carb-ep-py gtz-chl-py x 5 gtz-dl-ep-carb-py gtz-ohl-carb-hem gtz-chl-carb-hem	0 10 20 30 40 50 60 70 80 90	0.08%		368	95%	95%	96297	<.01	<.001	0%	
	ND	165 140 155 160 70 x 2 380	1/4 1/2 1/2 3 1/20 x 2 1		gtz-mn.chl-ep gtz-sing.chl gtz-vh-carb-ep-py gtz-dl-ep-biotite-py gtz-dl-pyx 2 gtz-ep-chl carb	0 10 20 30 40 50 60 70 80 90	0.10%		378	95%	97%	96298	<.01	<.001	0%	
377-381 Highly altered and -ep. segregation. -sericitic tips. 381-385 Med. Gr. Saus Alt & Q.D. Chl. Alt ^m 385-398 F. gr. Saus alt'd Q.D. w/ DR Alt ^m zones grading to Saus zones	80° WK to Str.	160 160 115° 80 70 x 2 390	1/8 1/8 1/2 7" 1/20 x 2 1/20 x 2		gtz-ep-chl gtz-ep-chl gtz-chl-carb-py gtz-dl-ep-carb Saus. carb-hem x 2 gtz-dl-ep-py carb py x 3	0 10 20 30 40 50 60 70 80 90	0.03%		388	99%	90%	96299	<.01	<.001	0%	
	80° w/k to Mod	115° 80 70 70 140 100	1/8 1/2 1/2 1/20 8" 1/10 1/10		gtz-carb-py gtz-chl-ep Str. igne carb gtz-chl carb-py gtz-ep-dl-carb-py w/ enrich. depleted of ep. gtz-dl-mn-carb-py Saus gtz-carb-hem	0 10 20 30 40 50 60 70 80 90	0.08%		398	100%	86%	96300	.01	<.001	0%	
Saus Alt'd Q.D. has enriched mafics w/ some remnant Kbl. -Narrow zones approach DR Alt ^m	80° WK	180° x 2 160 110 110 140 110 410	1/16 x 2 1/4 1/16 1/16 1/2 1/20 1/20		gtz-dl-mn-ep x 3 gtz-chl-ep gtz-chl-carb. gtz-ep gtz-carb-hem	0 10 20 30 40 50 60 70 80 90	0%		400	102%	100%	96301	.01	.002	0%	
	70° WK	115° 110 140 100 x 2 420	1/16 1/16 1/16 1/8 x 2 1/4		gtz-chl-carb. carb gtz-chl-carb. gtz-ep x 2 gtz-ep-carb	0 10 20 30 40 50 60 70 80 90	0%		410	99%	100%	96302	<.01	.001	0%	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-53
SHEET No. 8 of 9

ROCK TYPES & ALTERATION		L to Core Foliation Pitch	GRAPHIC LOG Pitch Strike	Vine L to Core Alt.	WIDTH of VINE	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS				
									LEACH CAP	LIM. ZONE			Sample Number	% Cu	% Mo	Estimated Grade	
		80° WK.	420	60 45x1 60 60x3	6 1/2x1 1 1/2x3	gtz-ep (occ-ill) gtz-ep- ch x4 gtz Va. chl. carb gtz-ep x3	0 10 20 30 40 50 60 70 80 90	102%		REMARKS	428	104%	93%	96303	1.01	.001	.01%
		80° WK.	440	130° 70	1/20 1/20	chl-carb gtz-ep	0 10 20 30 40 50 60 70 80 90	0%			438	102%	100%	96304	<.01	.001	0%
		80° WK to Med.	450	165° 70° 160° 145 145 160 145	1/20 1/8 1/16 N6 11. 1/2	gtz-ep- chl + envel. w/ py gtz- chl -carb- py gtz-ep- chl -carb- py - ep gtz- chl -carb-hem- ep gtz-ep carb. gtz- chl -ep-carb	0 10 20 30 40 50 60 70 80 90	06%			448	100%	98%	96305	.01	.001	.02%
		80° WK to ND	460	145 65 60/60 85° 60x2 30x2 30	1/20 1/8 1/4x2 1/8x2 h/c + 1/40 1/4	gtz- chl -py gtz- chl -carb-ep- hem gtz- chl -py x2 gtz-carb-ep-py- ep gtz-ep x2 gtz- chl -carb x2 gtz- chl -ep- chl -carb-py	0 10 20 30 40 50 60 70 80 90	08%			458	100%	80%	96306	.01	.001	.01%
		80° WK to ND	470	10° 65 35 30 20° 5 35	1/10 1/2x2 1/4 1/4 1/4 h/c 1/20	gtz- chl -py-carb-hem. gtz- chl -ep x2 gtz- chl - hem gtz-carb- chl gtz- chl -carb-Va-py carb-hem carb- chl -hem	0 10 20 30 40 50 60 70 80 90	08%	Hem. staining		468	84%	56%	96307	.01	.001	0%
		80° WK to ND	480	5° 60 5x2 120+40	1/8 2" 1/2x2 1/20	gtz-ep- chl -py gg + rubble-carb gtz- chl -ep-carb-py x2 gtz- chl -ep-py x2	0 10 20 30 40 50 60 70 80 90	10%			478	93%	90%	96308	.01	.001	0%
			480	30x4	1/2x4	gtz- chl -carb- ep x4	0 10 20 30 40 50 60 70 80 90				480						

463-473
Mainly PK Alt ~
w/ seg. chl top

- low zone of wt
30% alt
473-508
Same Alt & RD
w/ chloritized
matrics
~35% gtz

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-53
SHEET No. 9 of 9

ROCK TYPES & ALTERATION			L to Core Foliation	GRAPHIC LOG Foliation Alteration Percentage Structure	Vein L to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS									
										LEACH CAP	LIM. ZONE			Supergene	REMARKS	Feet Block	Sample Number	% Cu	% Mo	Estimated Grade			
			80° WK ND	115 146 150 145	1 1/8 1/10 x 2 1		gtz-ep-20 gtz-chl-ep-ky gtz-chl-carb. gtz-ep.	0 10 20 30 40 50 60 70 80 90	.05%		102%	100%	96309	.01	<.001	.01%							
				125 120	1/10 1/16		gtz-ep gtz-chl-ep-carb. gtz-chl-ep	0 10 20 30 40 50 60 70 80 90		.05%								103%	90%	96310	<.01	.001	.0%
				145 x 2 300	1/10 x 2 1		gtz-chl-ep-py gtz-chl-ep-py x 2 gtz-ep-chl	0 10 20 30 40 50 60 70 80 90									.05%						
				50 508	1 1/8 1/4		gtz-ep-chl-carb. gtz-chl-carb-(py) gtz-chl-ep carb gtz-ep-chl	0 10 20 30 40 50 60 70 80 90		.05%									100%	96%	96311	.01	.001
E. O. H @ 508'																							

M.R. Shon

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-54
SHEET No. 2 of 8

ROCK TYPES & ALTERATION		L to Core Facilities	GRAPHIC LOG	Vains L to Core Axis	Width of Vain	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feet Blind.	Estimated Core Recovery %	R O D	ASSAY RESULTS				
									LEACH CAP	LIM. ZONE				Supergene	REMARKS	Sample Number	% Cu	% Mo
73-104 Intermixed: Saus AH'd AD of Ah. ser. chl Shear/ DK. AH™	70-80° str + WK	100	70° 80° 80°	3' 1/16 1/2'	gtc. ser. - chl > Shear - py - ep - eee)	gtz. chl - ser. lim. py - cp	gtz. chl - chl > - py - cp	2%	0		93	74%	100	35%	96316	.23	<.002	.20%
									10									
									20									
									30									
									40									
									50									
									60									
									70									
									80									
									90									
80° str to NO.	100	80° 80° 80° 80° 80° 80° 80° 80° 80° 80°	1/20 12" 4" 3" 1/20 x 2 1/20 x 2 1/4 1/25 1/45 1/55 1/20 x 2 1/20 x 2	gtz. chl - py gtz. ser. - py - cp Shear. gtz. chl - ser. py - cp Shear gg. lim gtz. chl - py x 5	gtz. chl - py gtz. chl - ser. ep py gtz. chl - py - cp gtz. chl gg. lim gtz. ep chl + envel DK AH™	1%	0		105	76%	110	28%	96317	.10	<.002	.22%		
							10											
							20											
							30											
							40											
							50											
							60											
							70											
							80											
							90											
Saus AH'd AD. - gtz. ep Vns w/ dk envelopae - ~ 35-70% gtz. - Few DK AH™ zones	80° wk. to Mod	110	80° 80° 80° 80° 80° 80° 80° 80° 80° 80°	1/20 x 2 1/20 x 2 1/4 1/25 1/45 1/55 1/20 x 2 1/20 x 2	gtz. chl - ep py gtz. chl - ser. py gtz. chl - ep - py - cp gtz. chl - ep x 2 gtz. chl - carb - cp gtz. chl - ep gtz. chl - ser. py - ant. gtz. chl - carb - py gtz. chl - carb gtz. ser. chl - ep gtz. chl - ser. cp gtz. chl - ser. carb	.06%	0		118	80%	120	60%	96318	.02	<.002	.07%		
							10											
							20											
							30											
							40											
							50											
							60											
							70											
							80											
							90											
80° wk to Mod	130	80° 80° 80° 80° 80° 80° 80° 80° 80° 80°	1/8 1/4 1/8 1/8 x 2 1/40 1/20 1/20 1/20 1/20 1/20	gtz. chl - ep py gtz. chl - ser. py gtz. chl - ep - py - cp gtz. chl - ep x 2 gtz. chl - carb - cp gtz. chl - ep gtz. chl - ser. py - ant. gtz. chl - carb - py gtz. chl - carb gtz. ser. chl - ep gtz. chl - ser. cp gtz. chl - ser. carb	.05%	0		125	98%	130	95%	96319	.01	<.002	.05%			
						10												
						20												
						30												
						40												
						50												
						60												
						70												
						80												
						90												
80° Mod	140	80° 80° 80° 80° 80° 80° 80° 80° 80° 80°	1/2 1 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2	gtz. chl - ser. py - ant. gtz. chl - carb - py gtz. chl - carb gtz. ser. chl - ep gtz. chl - ser. cp gtz. chl - ser. carb gtz. chl - ser. ep - cp gtz. ser. chl - py - cp gtz. chl - ser. py (lim) gtz. chl - ep - ser. carb - py	.30%	0	(c. gr sand in bottom of box?)	138	98%	140	82%	96320	.02	<.002	.12%			
						10												
						20												
						30												
						40												
						50												
						60												
						70												
						80												
						90												
80° Mod	150	80° 80° 80° 80° 80° 80° 80° 80° 80° 80°	1 1/4 2 1 1 12" 12"	gtz. chl - ser. ep - cp gtz. chl - ser. ep gtz. ser. chl - py - cp gtz. ser. chl - py - cp gtz. chl - ser. py (lim) gtz. chl - ep - ser. carb - py	.30%	0	frag. of fine gr mica	148	94%	150	78%	96321	.12	<.002	.20%			
						10												
						20												
						30												
						40												
						50												
						60												
						70												
						80												
						90												

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-54
SHEET No. 9 of 8

ROCK TYPES & ALTERATION		L to Core Pellucid Function Alteration Footage SLICES	GRAPHIC LOG	V. to Core Alt.	W. of V. to Core	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footage Dip	Estimated Core Recovery %	R O D	ASSAY RESULTS			Estimated Grade
									LEACH CAP	LIM. ZONE				SULPERGENE	REMARKS	Sample Number	
70° V. WK.		70°	1/8	1/8	gtz. ser. chl. ep. py	0	.4%			218	103%	92%	96378	.05	1.002	.28%	
		70°	1/8	1/8	gtz. chl. ser. py	10											
		60x3	1/10x3	gtz. chl. ser. py	20												
		50°	1/16	1/16	gtz. chl. ser. py	30											
		60	1/20	gtz. chl. ser. py	40												
		60	1/20	gtz. chl. ser. py	50												
		60	1/20	gtz. chl. ser. py	60												
		60	1/20	gtz. chl. ser. py	70												
		60	1/20	gtz. chl. ser. py	80												
		60	1/20	gtz. chl. ser. py	90												
80- 70 V. WK.		70°	2"	2"	gtz. carb. ser. py. ep. ksp	0	.2%		228	97%	66%	96379	.04	1.002	.20%		
		45°	1/20	1/20	gtz. chl. ser. py	10											
		50°	1/10	1/10	gtz. chl. ser. py	20											
		45°	8	8	gtz. chl. carb. ksp	30											
		40°	4"	4"	gtz. ser. chl. py. ksp	40											
		45°	1/6	1/6	gtz. chl. ser. py. ksp	50											
		45°	1/6	1/6	gtz. chl. ser. py. ksp	60											
		45°	1/6	1/6	gtz. chl. ser. py. ksp	70											
		45°	1/6	1/6	gtz. chl. ser. py. ksp	80											
		45°	1/6	1/6	gtz. chl. ser. py. ksp	90											
N60° WK.		70°	1/16	1/16	gtz. chl. ser. py	0	.1%		238	91%	20%	96380	.02	1.002	.09%		
		70°	1/16	1/16	gtz. chl. ser. py	10											
		70°	1/16	1/16	gtz. chl. ser. py	20											
		70°	1/16	1/16	gtz. chl. ser. py	30											
		70°	1/16	1/16	gtz. chl. ser. py	40											
		70°	1/16	1/16	gtz. chl. ser. py	50											
		70°	1/16	1/16	gtz. chl. ser. py	60											
		70°	1/16	1/16	gtz. chl. ser. py	70											
		70°	1/16	1/16	gtz. chl. ser. py	80											
		70°	1/16	1/16	gtz. chl. ser. py	90											
70° WK.		70°	1/20x2	1/20x2	gtz. chl. ser. py	0	.25%		248	95%	75%	96381	.04	1.002	.02%		
		70°	1/8	1/8	gtz. carb. Vn	10											
		70°	1/8	1/8	gtz. chl. ser. py	20											
		70°	1/8	1/8	gtz. chl. ser. py	30											
		70°	1/8	1/8	gtz. chl. ser. py	40											
		70°	1/8	1/8	gtz. chl. ser. py	50											
		70°	1/8	1/8	gtz. chl. ser. py	60											
		70°	1/8	1/8	gtz. chl. ser. py	70											
		70°	1/8	1/8	gtz. chl. ser. py	80											
		70°	1/8	1/8	gtz. chl. ser. py	90											
ND.		70°	1/20x2	1/20x2	carb. hem x3	0	.10%		258	104%	68%	96382	.02	1.002	.02%		
		70°	1/20x2	1/20x2	gtz. chl. ser. py	10											
		70°	1/20x2	1/20x2	gtz. chl. ser. py	20											
		70°	1/20x2	1/20x2	gtz. chl. ser. py	30											
		70°	1/20x2	1/20x2	gtz. chl. ser. py	40											
		70°	1/20x2	1/20x2	gtz. chl. ser. py	50											
		70°	1/20x2	1/20x2	gtz. chl. ser. py	60											
		70°	1/20x2	1/20x2	gtz. chl. ser. py	70											
		70°	1/20x2	1/20x2	gtz. chl. ser. py	80											
		70°	1/20x2	1/20x2	gtz. chl. ser. py	90											
90° WK 5th.	Few dk. Alt. lines 267-287' gtz. chl. ser. Carb Shear	70°	1/8	1/8	gtz. chl. ser. py	0	.04%		268	92%	20%	96383	.02	1.002	.01%		
		70°	1/16	1/16	gtz. chl. ser. py	10											
		70°	1/20x2	1/20x2	gtz. chl. ser. py	20											
		70°	1/8	1/8	gtz. chl. ser. py	30											
		70°	1/8	1/8	gtz. chl. ser. py	40											
		70°	1/8	1/8	gtz. chl. ser. py	50											
		70°	1/8	1/8	gtz. chl. ser. py	60											
		70°	1/8	1/8	gtz. chl. ser. py	70											
		70°	1/8	1/8	gtz. chl. ser. py	80											
		70°	1/8	1/8	gtz. chl. ser. py	90											

no Sulphides seen.

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-54
SHEET No. 5 of 8

ROCK TYPES & ALTERATION	Z to Core Fallstoss	GRAPHIC LOG Fallstoss Feet Meters	Value Z to Core Alt	Width of Vain	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE			Sample Number	% Cu	% Mo	Estimated Grade
	80° SK	280	90° 80° 70°	2 10' 14'	gts Vn-carb-chl gts chl-sar-carb Shear gts carb-chl (py)	0 10 20 30 40 50 60 70 80 90	0.04%		80%	30%	96389	.01	<.002	.01%	
	80° SK 10 NK	290	80° 80° 80° x2 95°	1/4" 7' 11/10 12" + 4" 1/10	gts Vn-carb-ser-chl-py gts chl-py gts chl-sar-carb-py gts chl-sar-carb Shear Zone gts chl-ser-py-cp gts ser-chl-carb-py-cp gts carb-chl	0 10 20 30 40 50 60 70 80 90	.5%		87%	27%	96385	.05	<.002	.28%	
287-298 DK Alt	NK	290	80° 80° 80° x2 95°	1/16 x 3 1/8 x 2 1/8 x 2 2 1/2 10" 1/8 1	gts carb-chl (cp) x 3 gts carb-chl x 2 gts carb-chl-py x 2 gg. rubble gts Vn-ser-chl-carb (cp) gts chl-carb gts chl-carb Vn gts chl-ser-py	0 10 20 30 40 50 60 70 80 90	.04%		97%	62%	96386	.01	<.002	.09%	
298	ND	300	80° 80° 80° 80° 130° 150° 120°	1/16 1/16 1/4 1/20 1/4 1/4 1/20	gts carb-chl gts carb-chl gts chl-ep-py-cp gts chl-carb gts chl-carb (cp) gts carb-chl-ser-py gts chl-ser-py	0 10 20 30 40 50 60 70 80 90	.04%		102%	100%	96387	.03	<.002	.09%	
Saus Alt'd R.D.: - ~ 30% gts - chloritized matrix	60° v WK	310	80° 45° 120° 130° 70°	1/16 1/16 1/20 1/4 1/4	gts carb-chl gts carb-chl gts chl-ep-py-cp gts chl-carb gts chl-carb (cp) gts carb-chl-ser-py gts chl-ser-py	0 10 20 30 40 50 60 70 80 90	.04%		102%	100%	96387	.03	<.002	.09%	
	60 30° v WK	320	45° 45° 60° 75° x 2 130° 140° 50° 160°	1/20 1/16 1/16 1/8 x 2 1/10 1/20 1/20 1/6	gts chl-ser-py gts chl-ser-py gts carb-chl-ep gts chl-ser-carb-py gts chl-ser gts chl gts chl-carb gts chl-ser-carb-py	0 10 20 30 40 50 60 70 80 90	.07%		99%	100%	96388	.01	<.002	.02%	
	60 80° WK	330	70° 125° 70° 70° 130° 75° x 2 150°	1/3 1/16 1/20 1/10 1/16 x 2 1/4	gts ser-ep-chl (cp) gts chl-ser-ep (cp) gts chl-ser-py gts chl-ser-py gts chl-ser-py gts chl-ser-py gts chl-ser-py	0 10 20 30 40 50 60 70 80 90	.08%		101%	95%	96389	.01	<.002	.10%	

GIBRALTAR MINES LTD.

HOLE No. 86-54
SHEET No. 6 of 8

GRID _____

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG	V. Line L to Core Axis	Width of V. Line	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footage Direct.	Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade
Few zones of DK Alt	70-80° WK to ND	340	75 1/5 X 3	1/2	gtz-ser-dbl-py-ep	0	.08%			338	96%	84%	96390	.02	1.002	.03%
			160 1/20 X 3	3	gtz-chl-aur-ep> X 5	10										
345-349 gtz-ser Shear Zone w/ py-llp 349-357	50-80° WK to Str.	350	140 1/60 X 4	1/20	gtz-ep-echl>	0	3%			348	87%	50%	96391	.12	1.002	.20%
			160 1/20 X 4	2	gtz-aur-py-llp-eccl> Shear	10										
Mod to WK Saus Alt'd Q.D. w/ narrow zones of -gtz-aur-ser Shears -ser. fault. Leuco Zone -DK Alt	50-80° WK to Str.	360	140 1/60 X 2	1/20	gtz-aur-py-llp-eccl>	0	.30%			358	100%	93%	96392	.10	1.002	.40%
			160 1/20 X 2	2"	gtz-aur-llp-eccl>	10										
	70-80° WK to Str.	370	140 1/60 X 2	1/20	gtz-aur-llp-eccl>	0	.10%			368	102%	86%	96393	.01	1.002	.13%
			160 1/60 X 2	7"	gtz-aur-llp-eccl>	10										
	60-70° WK	380	140 1/60 X 2	1/4	gtz-aur-llp-eccl>	0	.20%			378	99%	88%	96394	.06	1.002	.25%
			160 1/60 X 2	2	gtz-aur-llp-eccl>	10										
387-396 Qtz Ser. alt Qtz-chl-ser Shears	70-80° WK to Str.	390	140 1/60 X 2	1/2	gtz-aur-llp-eccl>	0	.40%			388	88%	72%	96395	.04	1.002	.30%
			160 1/60 X 2	3"	gtz-aur-llp-eccl>	10										

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 8659
SHEET No. 7 of 8

ROCK TYPES & ALTERATION		GRAPHIC LOG	Vein - to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS - FREQUENCY -	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footest Diect.	Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE				Supergene	REMARKS	Sample Number	% Cu
394 Mainly Saus Alt'd	ND	70-80° Str to ND	70-80°	6"	gtz-sau-chl-py-ep						91%	75%	96396	.20	<.002	.40%
			70°	6 1/2"	gtz(carb-ser-chl)			3%		398				400		
QD w/ narrow chl - ser Shear Zones	ND	to 70° 80° Str	70°	1/2"	gtz-chl-carb						102%	90%	96397	.11	<.002	.30%
			75°	1/2"	gtz-carb-ep-py			5%		408				410		
	70-80° wk to Str.	to Str.	70°	6"	gtz-chl-ser-py-ep						101%	68%	96398	.35	<.002	.30%
			75°	1 1/2"	gtz-chl-carb-ep-py			50%		418				420		
	95-80° wk to Str.	to Str.	75°	7"	gtz-ser-py-ep						72%	42%	96399	.08	<.002	.20%
			80°	1 1/2" + 2"	gtz(carb-chl)-py-ep			30%		428				430		
	70-80° wk to Str.	to Str.	70°	1"	gtz-chl-carb-ep						97%	68%	96400	.11	<.002	.40%
			75°	1/2"	gtz-chl-carb-ep			20%		438				440		
	70-80° wk to Str.	to Str.	70°	6"	gtz-chl-carb-ep						100%	83%	96144	.02	<.002	.13%
			75°	2"	gtz-chl-carb-ep			18%		448				450		

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-54
SHEET No. 8 of 8

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG Foliation Feet	Vains L to Core Alt	Width of Vain	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTNS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE			Sample Number	%	%	Estimated Grade
								REMARKS							
	70-80° Wk to St.	460	80 60 60 125 80 70	5 15" 10" 1/2 1/4 1"	gtz-chl-ser-ep-saw-ep Cts-ep Lch-carb gtz-ser-chl-ep-py gtz-chl-ser-ep-ep gtz-chl-ser-ep gtz-chl-ser-py-ep	0 10 20 30 40 50 60 70 80 90	2%		458	84%	41%	96145	.08	<.002	.30%
	70-80° Mod to St.	470	15 15 40 70 60 80 80	2" 6" 6" 26" 1/2 6" 6"	gtz-chl-py-ep gtz-ser-chl-ep-py gtz-ser-ep-py-ep (bo?) gtz-ser-ep-py Carb. gtz-chl-ser-py-ep ep-carb-rich carb	0 10 20 30 40 50 60 70 80 90	4%		467	91%	27%	96146	.15	<.002	.60%
	70-80° Mod to St.	480	60x2 80x2 80 60 150 80	1'43" 1/10x2 12" 6" 1/2 2"	gangy core w/ py-ep gtz-ser-Lch-ep-py gtz-chl-ser-ep-py gangy core - rubble gtz-ser-Lch-ep-py gtz-chl-ser-ep-py-ep rubble core	0 10 20 30 40 50 60 70 80 90	1%		473	98%	13%	96147	.26	.002	.50%
	70° Mod to St.	490	70x2 145 70 80 70	1/4 + 3" 1 2" 3 1/6 2"	gtz-chl-ser-py-ep gtz-Carb Chl Vn. gtz-w-ep-ep gtz-dl-ser-ep-py gtz-chl-carb-py gtz-chl-carb-ep	0 10 20 30 40 50 60 70 80 90	4%		489	94%	52%	96148	.04	<.002	.30%
	70° Wk to St.	500	145 70 + 5 70 150 70 70x2	1/8 1/2 x 5 1/16 1/8 7" 2" x 2	gtz-chl-carb-ep gtz-chl-py-ep gtz-chl-py-carb gtz-carb gtz-chl-ser-carb-ant-ep gtz-chl-ser-ep-ep gangy, rubble core	0 10 20 30 40 50 60 70 80 90	2%		498	90%	23%	96149	.08	<.002	.30%
E.O.H @ 503'		503	60x1 25x3	1/2 x 4 1/2 x 3	Carb x4 Carb x3	0 10 20 30 40 50 60 70 80 90			503	36%		503			

M.R. Shaw

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-55
SHEET No. 1 of 9

LOCATION N.W. of Gib. East BEARINGS _____ LATITUDE ~ 53900 N CORE SIZE N.C. Wireline LOGGED BY MRT
 DATE COLLARED 20-Sep-86 LENGTH 500' DEPARTURE ~ 49190 E SCALE OF LOG 1"=10' DATE 27-28 Nov-86
 DATE COMPLETED 21-Sep-86 DIP -90 ELEVATION ~ 3262' REMARKS _____

ROCK TYPES & ALTERATION	L to Core Foliation Pitch	GRAPHIC LOG Foliation Alteration Pitch Strike	Value L to Core Axis	Width of Vena	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feet of Block.	Estimated Core Recovery %	R O D	ASSAY RESULTS						
								LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade			
						0 10 20 30 40 50 60 70 80 90													
						0 10 20 30 40 50 60 70 80 90													
Mine Phase QD (114) Mainly a sauss (mod) QD. w/ narrow zones of DK Alt - ~30% gtz, finer grained than normal	80° Mod to Str.	22 30	1/25 x 2 1/45 x 2 1/80 1/65 x 2 1/45 x 2 1/20 x 2	1/16 x 2 1/20 x 2 1/16 x 2 1/20 x 2	MnO ₂ x 2 qtz. hb. can x 2 DK Alt Zone w/ ep/hs - (py) gtz-chl-ser-lim st. x 2 lim x 2 qtz-ser-carb x 2	Weak lim zone +28' lim below this pt only on a few fault cuts	.07%	22 28	93%	65%	96501	.02	.001	.01%					
	80° Mod to Str.	40	1/45° 1/5° 1/45° 1/60° 1/70° 1/80°	1/8 1/2 1/8 1/20	qtz-chl-carb gtz-ep-vn + 1/2 "hb sauss Env. MnO ₂ qtz-chl-lim	qtz-ser-carb qtz-ser-carb qtz-ser-carb	.01%	38	100%	98%	96502	.01	.001	.01%					
	80° Mod.	50	1/35° 1/30° 1/25° 1/20° 1/15° 1/10°	1/8 1/2 1/20 1/8 1/20	qtz-chl-ser-ep carb gtz-ep<chl py> carb-ep-lim gtz-ep-cil gtz-ep-3 w large encls gtz-dl-ser-sher-ep-py-lim		.08%	48	100%	88%	96503	.01	.001	.01%					
	75° wk to Mod	60	1/30° 1/25° 1/20° 1/15° 1/10° 1/5°	1/8 1/2 1/8 1/20 1/8	MnO ₂ carb gtz-dl-carb gtz-chl-ep-py-lim lim gtz-dl-ser		.04%	58	100%	90%	96504	.01	.001	.01%					

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-55
SHEET No. 3 of 9

ROCK TYPES & ALTERATION			GRAPHIC LOG ∠ to Core Foliation Alteration Feathers Stippling	Value ∠ to Core Axis	Width of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feet Blot.	Estimated Core Recovery %	R O D	ASSAY RESULTS			
		LEACH CAP							LIM. ZONE	SULPERGENE				REMARKS	Sample Number	% Cu	% Mo
			60° 70° wt to Min	70 145 50 130 60°	1/16 1/2 1/20 1/16	gtz-ep qtz-plag-chl-lim stain gtz-ep-chl-lim gtz-ep (py-hem. att'd mag)	0 10 20 30 40 50 60 70	.02%			128	100%	98%	96511	<.01	<.001	0%
			70° 80° wk	65 500 140 70°	1/4 1/20	gtz-ep gtz-chl vug-sta-lim	0 10 20 30 40 50 60 70 80 90	0%			138	100%	92%	96512	.02	<.001	0%
		Mafic more abundant	70° wk	150 70°	1/2	gtz-ep-chl 4py in mafic xls Some mag present	0 10 20 30 40 50 60 70 80 90	.05%			148	100%	90%	96513	<.01	<.001	0%
		Almost no chl.	60° wk	150 145 x 2 160 100° 160 130	1/20 1/16 x 2 1/10 1/8 1/20	gtz-ep ag-lim gtz-ep gtz-chl-ep-lim gtz-ep	0 10 20 30 40 50 60 70 80 90	.01%			158	95%	70%	96514	.01	.001	0%
		Large, rather fresh looking mafics -black in places	60° wk	160 100° 160 130 180 130	1/2 1/4 1/2 1/4	gtz-ep, lim Some 4py w/ mafics lim gtz-fsp <lim>	0 10 20 30 40 50 60 70 80 90	.01%			168	100%	96%	96515	<.01	.001	0%
		Fairly chmp compact @ 60°	60° v wk	90 110 16 x 2 180	1/4 1/4 1/20 x 2	lim gtz-ep 4py gtz-ep 12 - ep segregation	0 10 20 30 40 50 60 70 80 90	.02%			178	102%	98%	96516	<.01	<.001	0%

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-55
SHEET No. 4 of 9

ROCK TYPES & ALTERATION		GRAPHIC LOG Foliation Alteration Footage Structure	Value L to Core Axis	Width of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE	SUPERGENE			Sample Number	% Cu	% Mo	
180-200 A siliceous Saus Alt'd QD; f. to mel. gr., subhedral to anhedral xls. -35-40%gtz	70° WK	145+30°	1/16 X 2	gtz-ep ±	0	0%	188	100%	92%	96517	.01	<.001		0%		
		150°	1/8	leucocratic Vn-Gtz-ank fsp	10											
fairly sharp. 60° contact	95 -80 WK	130°	1/16	gtz-chl-cab + lim + py + malifer	10	.03%	198	100%	80%	96518	.01	<.001		%		
		150°	1/16	gtz-chl-ep	10											
200-214 Leucocratic Phase as above	50 WK	130°	1/20	gtz-ep w/ 1/4" no. 2000 env.	10	.03%	208	90%	60%	96519	.01	<.001		%		
		150°	1/20	gtz-ep	10											
214-218 Sls Saus Alt'd AD - w zones of leuc. as above + segm. ep 218-257	60° WK	145 X 2	1/16 X 2	carb - lim x 2	0	.03%	218	96%	84%	96520	<.01	.001		%		
		160°	1/2	leucocratic Vn-Gtz-ank fsp - py	10											
Mainly a v. WK Saus Alt'd AD w/ep segreg. but also zones of -leucocratic Phase -vdant. gtz-chl-ser slaw -vdant chloritic zone	45° WK	125°	1/2	gtz-chl-ep-py	0	30%	228	97%	75%	96521	.09	<.001		%		
		150°	1/2	gtz-chl-py-ep	10											
w/ Lgtz-fsp-ep-mag - Sls Saus Alt' zones	45° WK	145 X 2	1/20 X 2	gtz-ep x 2	0	30%	238	100%	92%	96522	.03	<.001		.03%		
		150°	1/20 X 2	gtz-ep x 2	10											

fsp-ep-mag & py-ep?

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GIBRALTAR MINES LTD.

HOLE No. 86-55
SHEET No. 5 of 9

ROCK TYPES & ALTERATION		L to Core Foliation Foliation Alteration Footprint Size/Type	V to Core Angle Axis	Width of Veh	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feetage Direct.	Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade
Ser. +opt	60° str to ND	110 120 125 120 115 85 80 250	110 1 120 110 1/8 1/16 1/2		gtz-ep-cdd gtz-ep-carb-py gtz-chl-ser-py gtz-ep gtz-chl-ep gtz-ep gtz-chl-ep	0 10 20 30 40 50 60 70 80 90 100	.07%		248	98%	93%	96523	.01	<.001	0%	
257-262 gtz-chl-ser-cdd-ep Shear	ND to 90° str.	30x3 30x3 120 260	120x3 1/20x3 1/2 5'		gtz-chl-ser-ep x3 gtz-ep x3 gtz-fsp gtz-chl-ser-ep (carb) - (py) Shear Zone	0 10 20 30 40 50 60 70 80 90 100	.06%		258	55%	77%	96524	.01	<.002	0%	
262-265 gtz-ser-cdd Shear	ND to 80° str.	80 160 180 270	3' 1/2 1/4 1/20 2		gtz-ser-cdd-ep-py-ep gtz-carb-ep gtz-ep gtz-chl-ep gtz-ep-chl	0 10 20 30 40 50 60 70 80 90 100	.10%		268	100%	70%	96525	.06	.002	.12%	
265-282 Mainly a no saus alt'd op w/ser-ep & v. little chl. v. siliceous - few zones of: - mod saus alt'd op w/ 45% gtz - gtz. in. ab shear zone.	ND to 80° str.	120x2 170 180 280 290	110x2 1/15 1/11 8" 2"		gtz-ser-cdd-ep-py-ep gtz-chl-ep-py-ep gtz-ser-cdd-ep-py-ep gtz-ser-py-ep Shear gtz-v-cdd-ep gtz-ser-py-ep Shear Zone	0 10 20 30 40 50 60 70 80 90 100	.15%		278	100%	74%	96526	.24	<.002	.30%	
282-399 Granite Mtn Phase. - 15% gtz - few mafic - weakly saus'd fsp.	ND	150x5' 80 30 290	100x2 1 1/16		gg-rubble gtz-ep-chl gtz-ep	0 10 20 30 40 50 60 70 80 90 100	.10%		288	103%	85%	96527	.10	<.001	.10%	
- coarse grained - seriate textured in placas.	ND	30 50x2 80x4 300	2 1/20x1/2 1/20x4		gg-rubble gtz-ep-chl gtz-ep gtz-ds-ep-py x4	0 10 20 30 40 50 60 70 80 90 100	.02%		298	100%	80%	96528	.01	<.002	0%	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-55
SHEET No. 6 of 9

ROCK TYPES & ALTERATION			GRAPHIC LOG L to Core Relict Alteration Footage Structure	Yield L to Core Axis	Width of Vina	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PIRITE	BOTTOM DEPTHS		Footage Blocks	Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	% Cu
			ND	30 50 80 80x3 310	1/2 1/2 1/20x3	ser. gg. ser. gg. gtz. chl. py gtz. cp x3	0 10 20 30 40 50 60 70 80 90	.04%		308	97%	58%	96529	.01	<.002	.0%	
			ND	80x2 80 80x3 80 120 130 320	1/20x2 2 1/16x3 1/2 1/8 1/2	gtz. chl. py x2 gtz. cp x3 gtz. chl. py x3 gtz. chl. py x3 gtz. chl. py x3 gtz. chl. py x3 gtz. chl. py x3	0 10 20 30 40 50 60 70 80 90	.10%		318	99%	78%	96530	.05	.002	.10%	
			ND	80 150 50 30 330	1/16 1/16 1/2 1/20	gtz. cp carb. gg. gtz. chl. py gtz. cp	0 10 20 30 40 50 60 70 80 90	.01%		328	100%	90%	96531	<.01	<.002	.0%	
			ND	80 70 130 15x5 80 55 340	1/2 1/2 1/2 1/20 1/20 1/4	gtz. chl. py gtz. chl. py gtz. chl. py gtz. chl. py gtz. chl. py gtz. chl. py gtz. chl. py	0 10 20 30 40 50 60 70 80 90	.05%		338	98%	90%	96532	.01	<.002	.02%	
			NP	30x3 70 120 80x3 80 130 350	1/8x3 1/8 1/8 1/20x3 1/2 1/16	gtz. chl. py x 3 gtz. chl. py gtz. chl. py gtz. chl. py x 3 gtz. cp-ser. gtz. cp	0 10 20 30 40 50 60 70 80 90	.10%		348	98%	93%	96533	.01	<.002	.10%	
			ND	80 90 80x3 50 360	5" 1/8 1/2x3 1"	gtz. chl. py gtz. chl. py gtz. chl. py gtz. chl. py gtz. chl. py	0 10 20 30 40 50 60 70 80 90	.02%		358	93%	89%	96534	<.01	.002	.0%	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-55
SHEET No. 7 of 9

ROCK TYPES & ALTERATION		L to Core Foliation	GRAPHIC LOG		Value L to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS			
			Alteration Footage	Strike Slenderness						LEACH CAP	LIM. ZONE	SUPERGENE			Footage Block.	Sample Number	% Cu	% Mo
sl. more altered more segregating	ND +30ft	370	70°	1/20	1/5	gtz. ep. an. gtz. ep.	0	.1%	368	95%	88%	96535	.01	.002	.042			
			80° X 2	1/20 X 2	gtz. chl. - ser. sh. an. py - ccp gtz. chl. - ser. sh. an. py gtz. chl. - py x z													
	ND +0 70° Str	380	80° X 2	1/16 X 2	1/10	Ser. gg gtz. chl. - ep. py x z gtz. ep. - chl. py x z gtz. an. - py - ep. sh. an. an.	0	.1%	378	100%	91%	96536	.18	<.002	.10%			
			130°	1/20 X 4	1/2 + 1/16													
Whiter fop's more seriate Lx hms.	ND	390	80°	1/2	2	gtz. ep. - chl gtz. an. - chl. py gtz. chl. - an. - py x z gtz. an. - py	0	.1%	388	90%	60%	96537	.08	<.002	.03%			
			120°	1/20	1/20													
399 - 405	ND	400	5°	1/10	1/10	Ser. gg carb gtz. chl. - rad gtz. an. - vug. chl	0	.02%	398	94%	30%	96538	<.01	.010	0%			
			110°	1/10	1/10													
Otz. chl. - ser. sh. an. Zone	80° str	410	80°	1/8	6'	gtz. chl. - an. sh. an. zone ser. gg ser. chl. - an. ser. chl. - an. gtz. vug. - an. - py x z	0	.04%	408	80%	11%	96539	.01	<.002	2%			
			105 - 467 GR. MTN. Phase - A seriate Text.	120°	1/20 X 2	1/9												
Ks. w/ large white play K's, large gtz N45% gtz - few vugs	ND	420	110°	1/8	1/8	ser. chl. - an. gtz. an. - chl	0	0%	418	92%	70%	96540	<.01	<.002	0%			
			80° X 3	(1/20 X 2) + 1/10	1/20 X 3													

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 8655
SHEET No. 8 of 9

ROCK TYPES & ALTERATION			GRAPHIC LOG		Value ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
	L to Core Foliation Alteration Footprint Structure	L to Core Foliation Alteration Footprint Structure	L to Core Foliation Alteration Footprint Structure	L to Core Foliation Alteration Footprint Structure						LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Sample Number	% Cu
						ND 70° wk	30 80 70° 120 130	1/8 1/8 1/8 1/4 5x2	1/8 12" 1/8 1/4 5x2			qtz - pied? Rubbled gneiss sericitic core qtz-chl-carb-PY qtz-chl-sand-pied? PY amf carb gg carb gg x2	0 10 20 30 40 50 60 70 80 90				
	ND 70° wk	430 5x2 10x3 145° 80°	1/8 1/8 1/10	1/8 1/8 1/10	carb gg x3 qtz-chl-py qtz-chl-crb-py	0 10 20 30 40 50 60 70 80 90	.05%		438	85%	42%	96542	.01	.002	%		
	ND.	440 70° 120 150 80 115°	1/8 1/8 1/2 1/2 1/8	1/8 1/8 1/2 1/2 1/8	qtz-chl-crb-hem qtz-ep-crb-hem qtz-carb-hem qtz-chl-crb-hem qtz-carb-hem	0 10 20 30 40 50 60 70 80 90	.02%	some hem. stain.	448	103%	82%	96543	.01	.002	0%		
	ND	460 70° 150 80 125 150	1 1/10 1/10 1/2 1/2	1 1/10 1/10 1/2 1/2	qtz Vh. qtz-carb - hem stain qtz-chl-crb-hem w/ gtz vng. Lpy qtz-ep-crb-hem sericitic gg-hem	0 10 20 30 40 50 60 70 80 90	.04%	some hem. stain	458	101%	60%	96544	.03	1.002	.1%		
167-500' vis. g. Granite with Phase	ND	470 110 110 115 110	1/8 1/8 1/10 1/16	1/8 1/8 1/10 1/16	qtz-chl-crb-hem sericitic gneiss qtz-chl-crb-hem sericitic gneiss	0 10 20 30 40 50 60 70 80 90	.03%		468	102%	67%	96545	1.01	.002	%		
Same as above except for a weak mod. zone all of faps.	ND	480 150° x 2 130°	1/8 x 2 1/20	1/8 x 2 1/20	sericitic gg x 2 qtz-chl-crb-py	0 10 20 30 40 50 60 70 80 90	.01%		478	92%	78%	96546	1.01	1.002	0%		

Some sericitic test.

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-55
SHEET No. 7 of 9

ROCK TYPES & ALTERATION			L to Core Foliation	GRAPHIC LOG Alteration feet Meters	Yeln L to Core Alt	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS					
		LEACH CAP								LIM. ZONE	SUPERGENE			REMARKS	Sample Number	% Cu	% Mo	Estimated Grade	
			ND	110 110 110 130	120 120 115 120		gtz-ck-py gtz-ck-py Oth. Lep gtz-ck-py		0%		488	100%	880	96547	1.01	1.002		0%	
			ND	70 x 2 500 / 30	120 x 2 110		gtz-epk 2 gtz-ep		0%		498 500	92% 100%	490 500	918	96548	1.01	1.002		0%
E. O. H. @ 500'																			
										<i>Mr. Sloan</i>									

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-56
SHEET No. 3 of 9

ROCK TYPES & ALTERATION		GRAPHIC LOG L in Core Foliation Alteration Feet Scales	Vains L in Core Alt	Width of Vain	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feet Dip	Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade
144-151 Qtz. ser Shear -py-ep-cc	80° Str. Ver. Str.	150	80° 40x2	1/2 420x2	qtz-ser Shear - vng. py-ep-cc qtz. chl-py xz	0 10 20 30 40 50 60 70 80 90	5%			100%	66%	96582	.37	.002	.50%	
151-163 A White AD as above 155-160 Qtz - Ser Shear Zone	Var. Str.	160	60-80 Variable	1/20 ~ 8"	qtz. ser-py-cc qtz-ser-py-ep-cc qtz-ser Shear Zone -py-ep-cc some qtz vng	0 10 20 30 40 50 60 70 80 90	3%	qtz-ser shear White AD		91%	47%	96583	.17	<.002	.25%	
168-190 Qtz-Ser chl. Shear/ Qtz Ser Shear w/ AD / OK Alt	80° Str.	170	80° 80x15	1/2 162x15	qtz-ep-py-chl-py qtz. am-py x 15	0 10 20 30 40 50 60 70 80 90	3%			100%	35%	96584	.22	<.002	.25%	
170-180 Qtz Ser Shear w/ AD / OK Alt	80° Str.	180	80° 80x15	5' 1"	qtz-ser+qtz-ser chl shear py-ep qtz-ep-cc	0 10 20 30 40 50 60 70 80 90	2%			82%	50%	96585	.07	.002	.18%	
180-190 Rock grades in and out of a slightly sheared white ad w/ chloritic veinlets and qtz ser or qtz-ser-chl Shears	80° WK 30° Str.	190	80° 30° 125	1/16 x 4 12" 2" 1" 1/2 15x	qtz-chl-py v 10 qtz-chl. ser-py x 4 qtz. am-py-ep shear py-ep-cc py-ep-cc qtz. am-py-ep qtz. ser chl. mlt (ep) - folded	0 10 20 30 40 50 60 70 80 90	5%			97%	53%	96586	.10	.002	.35%	
190-233 Rock grades in and out of a slightly sheared white ad w/ chloritic veinlets and qtz ser or qtz-ser-chl Shears	60-80° WK	200	60° 80° 70x2 30x3 100°	1/10 1/2 1" 1/20 x 2 1/20 x 3 1"	qtz-ep qtz-ser chl - py-ep qtz-ser-chl-py-p qtz-chl. ser-py-ep x 2 qtz-chl. (py) x 3 qtz-ep	0 10 20 30 40 50 60 70 80 90	9%			100%	93%	96587	.02	<.002	.07%	

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-56
SHEET No. 4 of 9

ROCK TYPES & ALTERATION		GRAPHIC LOG	Values to Core Axis	Width of Vain	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feather Depth	Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade
		80° WK to Str.	80° 115° 90°	1/16 1/20 1/16 1/12"	gtz-chl-sar-py-ep gtz-ep-chl-py gtz-chl-py gtz Vn - vugs gtz-sar-chl-hem + Qtz Vn - py (see sketch)		5%			208	98%	67%	96588	.14	.002	.09%
		60° 80° WK to Str.	60° 130° 170°	1/20 1/4 1/20	gtz-chl-ser-py gtz-chl-ep-ser-ep-py gtz-ser-chl-py Qtz Vn		100%	Drillers' Comment: "208-388' - Ground v. hard - pulled out to change bit - caved @ 280' - new bit + mud to get through"		218	100%	61%	96589	.01	1.002	.01%
	227-230' Fault 20% re (20% gg 80% rubble).	80° WK	80° 180°	5' 2'	Qtz Vn - L ch gg rubble Bakka cov. hem		.01%	Poor recovery		228	63%	20%	96590	.01	1.002	.01%
	Fault Contact 238-255	80° Str to ND	80° 160°	2" 1/8 6' 3/11	gtz Vn - vugs Qtz Vn - chl. hem. Str. Sheared gtz - and shown - some hem stain Fault Gg.		.01%	Hem Stain		234	75%	13%				.01%
	Hem St. Granite Mount. Phase(?) 240% gtz as large grains or eyes	ND	130° x 2 120° 130°	1/20 x 2 1/20 1/2	gtz-chl-hem ag-hem gtz-chl-hem rubble		.01%	"		244	92%	52%				.01%
	- 5% chl. - ser. in 10 sp's.	80° WK to Str.	80° 145°	2" 1/20	ag-rubble-hem ag-hem					252	90%					
	255-267 Qtz - Ser. Chl. Surface	80° WK to Str.	80° 180° x 3	1/20 3 3 1/2 x 3	gtz-chl-ser-py gtz-ser-py-Qtz Vn gtz Vn - chl-ser-ep-CP gtz-chl-ser-py x 3		.1%			258	97%	62%				.18%

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GIBRALTAR MINES LTD.

HOLE No. 86-56
SHEET No. 6 of 9

ROCK TYPES & ALTERATION	L to Core Foliation	GRAPHIC LOG Foliation Alteration Footage Stratigraphy	Veins L to Core Axis	Width of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE	SUPERGENE			Sample Number	% Cu	% Mo	Estimated Grade
								REMARKS								
	45° u.wk	145x10 80°	1/20 X 10 1/4	gtz-ep x 10 gtz- chl. ep ser.	0 10 20 30 40 50 60 70 80 90	0%			106%	100%					0%	
	50-80 u.wk	330 130 X 10 80x4 145 80°	1/20 X 10 1/16x4 1/10	gtz-ep x 10 gtz- ep x 4 gtz- ep. epth. ep. <chl-carb>	0 10 20 30 40 50 60 70 80 90	0%			103%	93%					0%	
	70-80 u.wk Str.	340 80 70 80 70 70°	1/2 1/10x2 1/16	gtz-ep x 2 gtz- ser. chl gtz- ser. chl-carb gtz- chl. <ep> gtz- ep x 2 gtz- ser. chl gtz- ser. chl-ep Shars (Som & carb) gtz- Vn	0 10 20 30 40 50 60 70 80 90	0%			99%	91%					0%	
	60-70 Str	350 70 80 160° 160°	3" 2" 1" 1/20	gtz- ser. ep. chl Shars -carb. gtz- Vn gtz- ep. <ped?> gtz- chl. ep. <py>	0 10 20 30 40 50 60 70 80 90	1.01%	- some piedmontite	100%	70%						0%	
	45-70 Mud Str.	360 155° 70 145°	1/2 1/8 1	gtz- ep gtz- ep gtz- ser. carb. chl. ep gtz- ser. chl. ep. pied	0 10 20 30 40 50 60 70 80 90	0%	- piedmontite - Sphalerite in fracture	96%	94%						0%	
	50-60% Mud Str.	370 145° 140° 130° x 2 150° 145° 160° 170°	1/4 1/2 6 + 1/2 1 2 2 1	gtz- ep. pied. chl. Sph. gtz- chl. pied. ep. <spk> gtz- chl. ep. pied x 2 gtz- wt. sp. - ep gtz- ep. pied. <chl> gtz- ep. pied. <carb> gtz- chl. <carb>	0 10 20 30 40 50 60 70 80 90	0%		103%	95%						0%	

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GIBRALTAR MINES LTD.

HOLE No. 86-56
SHEET No. 8 of 9

ROCK TYPES & ALTERATION			GRAPHIC LOG	Veins L to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Sample Number	% Cu
		ND	70 x 2 170 450	1/8 x 1/4 1/2 1/2 x 2	gtz-ep x 2 gtz-ep- <u>chc</u> gtz- <u>cl</u> -ep			0%		448	90%	65%			0%	
		ND	150 145 460	1/8 1/8 1/16 x 2 2 1/2 x 2 + 1"	gtz- <u>cl</u> - <u>per</u> gtz- <u>cl</u> - <u>per</u> gtz- <u>cl</u> - <u>per</u> x 2 gtz- <u>cl</u> - <u>per</u> -ep-pied			10%	hem. stain & py w/ <u>cl</u> -gms.	456	120%	67%			0%	
		ND	80 x 2 130 x 4 470	1/8 x 2 1/2 x 2 (1/2 x 2)	gtz-ep x 2 gtz- <u>cl</u> -ep x 9			0%		466	95%	92%			0%	
		ND	145 180 480 490	1/10 1/4 1/2 1/2 x 2	gtz- <u>cl</u> - <u>per</u> -py- <u>lep</u> gtz- <u>cl</u> -ep- <u>per</u> -py-ep gtz- <u>cl</u> - <u>per</u> -py-ep gtz-ep x 2			10%		476	100%	97%			10%	
		ND	170 80 490	1/8 1/2 1/2	gtz-ep gtz-ep- <u>cl</u> gtz-ep			0%		487 488	100%	89%			0%	
		ND	145 120 20 500	1/16 1/4 1/2 1/16	carb-hem gtz-ep gtz-ep-pied- <u>cl</u> gtz- <u>per</u> - <u>cl</u>			0%		498	104%	100%			0%	

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GIBRALTAR MINES LTD.

HOLE No. 86-56
SHEET No. 9 of 9

ROCK TYPES & ALTERATION			L to Core Foliation	GRAPHIC LOG	Vains L to Core Alt	Width of Vain	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS			
										LEACH CAP	LIM. ZONE	SUPERGENE			REMARKS	Sample Number	% Cu	% Mo
			ND	508	60°	2	gtz-ep-uhb-(p77)	0	10%			90%	25%					
					80°	7"	gtz-ser-chl-shear	10										
					160°	17 1/4"	gtz-chl-pied-ep	20										
E. & H. @ 508'				508	30	1/8	gtz-ser-dl	30			508	508						0%
								40										
								50										
								60										
								70										
								80										
								90										
								0										
								10										
								20										
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								50										
								60										
								70										
								80										
								90										

M.R. Shaw

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GIBRALTAR MINES LTD.

HOLE No. 86-57
SHEET No. 1 of 8

LOCATION GIB. EAST (N.W. EXT.) BEARING _____ LATITUDE N 51,092.00 N CORE SIZE N.O.W. LOGGED BY G.D.B.
DATE COLLECTED 23-Sept-86 LENGTH 496' DEPARTURE N 43 210.00 E SCALE OF LOG 1"=10' DATE Oct 9, 1986
DATE COMPLETED 29-Sept-86 DIP -90° ELEVATION N 3152' REMARKS _____

ROCK TYPES & ALTERATION	GRAPHIC LOG	VALUES	WIDEN OF	MINERALIZATION	FRACTURE ANGLE TO CORE AXIS - FREQUENCY -	ESTIMATED % PYRITE	BOTTOM DEPTHS		REMARKS	Feetage Blkct.	Estimated Core Recovery %	R O D	ASSAY RESULTS					
							LEACH CAP	LIM. ZONE					Sample Number	% Cu	% Mo	Estimated Grade		
Casing To <u>52' 50'</u>																		
MINE PHASE QUARTZ DIORITE (52' - 395')	30 Mod	6'	broken, lim. ggt core			0			56	70	0	11576	.01 <.010x	2.001		.05		
med grn 25 % qtz 20 % chl 55 % saus. plag.	20-60 Mod	2"	lim x 5 qtz-lim			0			64	85	0	11577	.02 .010x	<.001		.05		
sl. finer grnd than normal and poss. a lower qtz content	80 wk	1"	qq qtz-chl-lim			0			76	85	23	11578	.13 .060x	<.001		.05		
	80 wk	2 1/2"	qq-qtz qtz-chl x 2			4.5			78	90								
	80 wk	2 1/2"	qtz-chl-carb ((p)) zone						82	75								
	80 wk	1/4"	qtz-chl						88	95	33	11579	.10 .020x	<.001		.05		

* Note: 56 not coded in computer. This is not an 56 blanket m.RT.

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GIBRALTAR MINES LTD.

HOLE No. 86-57
SHEET No. 2 of 8

ROCK TYPES & ALTERATION			GRAPHIC LOG	Vein - To Core Alt	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS			
									Leach Cap	Lim. Zone	Supergene			Sample Number	% Cu	% Mo	
			70 WK	20 x 2 25 45 100	1/3 x 2 1/2 1/4	qtz (ep) x 2 qtz-chl qtz-chl (ep)	0 10 20 30 40 50 60 70 80 90 100	<.5			98	87	11580	.02 <.01ox	<.001		.08
			80 WK	35 45 110	1/2 1/2	qtz qtz-chl (py)	0 10 20 30 40 50 60 70 80 90 100	<.5			95	67	11581	.01 <.01ox	<.001	.06 3050	.05
			80 Str	80 126	3" 10"	qtz-chl-carb zone qtz-ser-py zone	0 10 20 30 40 50 60 70 80 90 100	2.0			98	43	11582	.03 <.01ox	.001		.08
			80 WK	0-5 70 130	2' 3" 14"	qtz-chl-carb (ep) zone qtz qtz-ba	0 10 20 30 40 50 60 70 80 90 100	<.5			95	40	11583	.02 <.01ox	.001		.05
			80 WK	40 140	1 1/2" 1/4"	qtz-chl qtz-ep	0 10 20 30 40 50 60 70 80 90 100	<.5			90	43	11584	.01 <.01ox	<.001		.05
			80 Mod	96 80 x 3 80 150	6' 1/2 x 3 10"	qtz-ser-py qtz-chl x 2 qtz-chl	0 10 20 30 40 50 60 70 80 90 100	1.5			95	70	11585	.01 <.01ox	<.001	.02 3005	.05

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GIBRALTAR MINES LTD.

HOLE No. 86-57
SHEET No. 3 of 8

ROCK TYPES & ALTERATION			GRAPHIC LOG	V. to Core	V. to Core	V. to Core	MINERALIZATION	FRACTURE ANGLE TO CORE AXIS - FREQUENCY -	ESTIMATED % PYRITE	BOTTOM DEPTNS		Feet to Dip.	Estimated Core Recovery %	R O D	ASSAY RESULTS				
										LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	% Cu	% Mo
			40-50 STR	160	70	1/2	qtz-ser-chl	0 10 20 30 40 50 60 70 80 90	30.0%			98	53	11586	.62 .010x	.001		.25	
			45-80 STR	170	70x2	6" x 3"	qtz-chl-py zone x2	0 10 20 30 40 50 60 70 80 90	25.0%			98	63	11587	.22 2.010x	.001		.20	
			ND	180	70	10"	qtz	0 10 20 30 40 50 60 70 80 90	0.5			98	73	11588	.01 2.010x	1.001		.05	
			70-80 WK STR	190	70-80	4'	qtz-ser-py (cp) zone	0 10 20 30 40 50 60 70 80 90	6.0%			95	80	11589	.10 2.010x	1.001		.15	
			70-80 STR	200	70	30"	qtz-chl-py zone	0 10 20 30 40 50 60 70 80 90	10.0%			98	67	11590	.58 2.010x	1.001	.28 27.00	.35	
			5-80 STR	210	70-80	10'	qtz-ser-(chl)-py-cp zone	0 10 20 30 40 50 60 70 80 90	5.0%			95	70	11591	.48 2.010x	1.001		.40	
				210	5-80	24"	qtz-ser-py-cp zone	0 10 20 30 40 50 60 70 80 90				208							

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GIBRALTAR MINES LTD.

HOLE No. 86-57
SHEET No. 5 of 8

ROCK TYPES & ALTERATION		GRAPHIC LOG L to Core Footings Substrata	Value L to Core Alt	Width of Vail	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footings Blotter	Estimated Core Recovery %	R O D	ASSAY RESULTS				
								LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade	
80 WK		80	80	6"	99	0	<.5			273	98	33	11598	.01	<.001	.05	
			90	6"	ep	10											
80 Str		280	90	1"	99-hem	20	1.0			278	98	47	11599	.05	.001	.03	.08
			80	3"	99-chl-ep	30											
70 Str		280	80	7"	chl-py	40	<.5			288	98	53	11600	.02	<.002	.05	
			80	6"	chl-carb-py	50											
70 Str		300	80	10"	qtz-chl-py (ep) zone	60	3.0			298	98	20	11601	.05	<.002	.12	
			70	8"	qtz-ent-(vug)	70											
70 Mod		310	70	2"	ep	80	<.5			308	90	47	11602	.03	.004	.05	
			70	1/4"	99	90											
70 Mod		310	70	20"	99-bx-hem	100	<.5			318	98	87	11603	.01	.002	.03	.05
			70	3"	qtz-ser-py	110											
70 Mod		320	45+40+30	1/4x3	qtz-chl(py)x3	120	<.5			328	98	87	11603	.01	.002	.03	.05
			70	6"	ep	130											
70 WK		330	20	6"	qtz-chl(vug)	140	<.5			328	98	87	11603	.01	.002	.03	.05
			45	3"	chl-py	150											

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GIBRALTAR MINES LTD.

HOLE No. 86-57
SHEET No. 8 of 8

ROCK TYPES & ALTERATION		GRAPHIC LOG L to Core Feet Meters	Veins L to Core Feet Meters	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feet Meters	Estimated Core Recovery %	R O D	ASSAY RESULTS						
								LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade			
		460	20	1/2	qtz-ep	01'													
	80 Mod		30	2'	qtz (ch)	10'					95	67	11616	.07	<.002				.10
			80	3'	qtz-ep	20'				457									
		470	80	10'	qtz-chl-ep (py)(cp) zone	20'					98	33	11617	.05	<.002	.07 2690			.08
	80 Str		30			30'				467									
			80	2'	qtz-chl	40'													
		480	80	1/2	qtz	10'					95	60	11618	.01	<.002				.05
	ND		30			20'				477									
			80	2"	qtz	30'													
		490	70	2"	qtz	40'					95	80	11619	<.01	<.002				.05
	ND		80 x 2	1" x 2	qtz x 2	50'				488									
						60'													
		496				70'					98		11620	<.01	<.002				.05
	ND					80'				496									
						90'													
						100'													
						110'													
						120'													
						130'													
						140'													
						150'													
						160'													
						170'													
						180'													
						190'													
						200'													
						210'													
						220'													
						230'													
						240'													
						250'													
						260'													
						270'													
						280'													
						290'													
						300'													

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GIBRALTAR MINES LTD.

HOLE No. 86-58
SHEET No. 1 of 4

LOCATION NW of Gib-East BEARING _____ LATITUDE ~54°15'N CORE SIZE NQ Wireline LOGGED BY M.R.T.
DATE COLLECTED 25-Sep-86 LENGTH 269 DEMURE N420°05' SCALE OF LOG 1"=10' DATE Dec. 12, 1986
DATE COMPLETED 25-Sep-86 DIP -90 ELEVATION ~3034' REMARKS Entire hole is within a fault system

ROCK TYPES & ALTERATION		L to Core Foliation	GRAPHIC LOG Foliation Alteration Fractures Structures	Veins L to Core Alt	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS						
									LEACH CAP	LIM. ZONE			SILPERGENE	Sample Number	% Cu	% Mo	Estimated Grade		
Cased to 80'																			
Mine Phase Q.D. - med gr., foliated M.P.Q.D. - sans alt'd fip - chloritized matrix ~30%gtz - a few narrow zones of DR. Alt'n w/ ep. segregation - hem stain in places		70° Med	80	10+30 70°	1/2 x 2 1	gtz-chl x 2 gtz-ep-echl-mal		0%		80	80								
		70° Med	70	10°	1/2	hem		0%		85	26%	3%							0.1%
		70° Med	90	?	3'	gg - (broken core)		0.01%		93	30%	9%							0.01%
		60° 70° Wk	100	20° 60° 70+80	1/8 1/20 1/2 x 2	gtz-chl-carb-hem gtz-ep gtz-chl-ep x 2		0.01%		100	75%	6%							0.01%
		60° 70° Wk	110	50° 80° ? fragments?	1/16 1/4	gtz-chl-carb-hem gtz-ep-carb-hem		0%		104	55%	3%							0%
		90° 60° Wk Med	120	5° - 20± 60°	1/4 1' 1/16 x 2 1/16	hem - carb gg - (broken core) gtz-chl-carb-hem x 2 gg-hem		0%		111 117	50%	0%							0%

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GIBRALTAR MINES LTD.

HOLE No. 86-58
SHEET No. 2 of 4

ROCK TYPES & ALTERATION			GRAPHIC LOG	Yrns to Core Axis	WIDTH of VEIN	DESCRIPTION	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		ESTIMATED Core Recovery %	R O D	ASSAY RESULTS					
									LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Sample Number	% Cu	% Mo	
			60 wk	120	3'	gta. hem. ch. hem	0	0%		122	55%	0%					0%	
			80 wk	140		mainly gg & rubble - hemst some py seen in matrix gg	0	100%	hem stain.	127	30%	130						0%
			80 wk to Mod	150	10°	gg-tumefactive rubble	0	0%		132	36%	140						0%
			80 v. wk	160		gouged rubble conc. hem	0	0%		137	40%	150						0%
			80 v. wk	170	5°	no py seen	0	0%		143	29%	160						0%
			80 v. wk	180	50°	gg rubble-gougy conc - rubble hem stain - no py seen	0	0%		156	5%	170						0%
			45- 80 v. wk	180	41	gta. hem. ch. hem gg-rubble hem T. py. seen in chf. grains	0	100%		160	25%	179						0%
				180	47	gg-rubble-hem	0			167	40%	180						0%
							0			171	50%							0%
							0			178	20%							0%

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-58
SHEET No. 3 of 4

ROCK TYPES & ALTERATION	L to Core Foliation Alteration Fracture SILICA	GRAPHIC LOG	Vein L to Core Alt	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feeling Direct	Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE				REMARKS	Sample Number	% Cu	% Mo
some fresher looking matrix here.	70 wk to ND	170					0%	0	185		47%	6%				0%
								10								
196-199' An altered zone w/ lots of segr. of the apt chl. min's. Also some recemented frags. - some py in it.	80° wk to ND.	200	30°	1/16	gtz - chl - hem - chl.		.08%	0	190		50%	0%				0%
								10								
Better sec. & RAD here. The rock is f. to med. gr. Saus. GD	80° Mod	220	10°	1/20	gtz - chl - py	Friable gangy core has py	.10%	0	206		60%	0%				0%
								10								
225-228' A whitened section of core w/ lots of exchd segregation.	80° mod to ND	230	15°	3" x 2	gg - rubble - hem x 2	hem - ep - san	.03%	0	219		65%	45%				0%
								10								
228-237	80° mod to ND	230	20°	1/4	gtz - chl - ep - w hem x 3	hem x 3	.08%	0	221		70%	16%				0%
								10								
There is some remnant horn blende here. suble d. l. 4py w/ it	80° wk to mod	240	30°	1/20	gtz - chl - py x 2	gg + rubble - hem	.02%	0	236		84%	22%				0%
								10								
237-240 At ch. on R. - slightly stained - ep. lined	80° wk to mod	240	15°	1/8	gtz - chl - hem - chl	hem - ep - san	.02%	0	240		86%	24%				0%
10																

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-58
SHEET No. 4 of 4

ROCK TYPES & ALTERATION	L to Core Foliation Alteration Fracture Stress/Stra	GRAPHIC LOG	Vein L to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS				
								LEACH CAP	Percentage Direct			Sample Number	% Cu	% Mo	Estimated Grade	
								LIM. ZONE	REMARKS							
246-249 This rock is strongly hem. st & therefore	80 Mid to ND	250	60°	1/20	gtz. chl. py	0 10 20 30 40 50 60 70 80 90	0.2%		241	70%	0%				9%	
			50°	1"	off hem - frags	hem stain		248								
identification is difficult. Some sulfidation marks are seen so it is likely similar to 228-237	ND	250	60°	1/10	gtz. carb.	0 10 20 30 40 50 60 70 80 90	0%		256	54%	3%					
			25°	1/8	gtz. carb.			256								
- op seg. here - some cemented frags	?	269	60°	1/4	gg-hem x9	0 10 20 30 40 50 60 70 80 90	2%		263	70%	6%					
			45°	1	gg rubble. hem	hem stain		267								
E.O.H. @ 269' Hole Lost.		269	60°	1	gtz carb. op. seg. seen	0 10 20 30 40 50 60 70 80 90			269	65%	269					
			45°													

M.R. Shaw

GRID _____

GIBRALTAR MINES LTD.

HOLE No. B6-59
SHEET No. 2 of 9

ROCK TYPES & ALTERATION			GRAPHIC LOG	V. In Core Alt.	Width of Vein	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE	SUPERGENE			REMARKS	Sample Number	% Cu	% Mo
			90 Mod-WK 80 80 Mod-WK 90 90 90 WK 100 90 WK 110 70 40 120 60 90 WK 130	45-60 x 2	4" x 3"	qtz-ep xz	0				98					.01	
				80	80°	7"	qtz-ep	0									
				80	80°	9"	qtz-ep	0			78						
				90	90°	1/10	pt	<0.5				100					.01
				80	80°	6"	chl-carb zone	<0.5			88						
				90	90°	1 1/2"	qtz-ep	0				100					.01
				100	100°			0			98						
				90	90°			0				100					.01
				110	110°			0			108						
				70	70°	2"	qtz-ep-chl	0				100					
			40	40°	3"	qtz-chl-carb (vug)	0										
			120	120°	6"	qtz-ep	0			118							
			60	60°	4"	qtz-ser-chl-carb-pt	2.0				100					.05	
			90 WK	90°			2.0			128							

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GIBRALTAR MINES LTD.

HOLE No. 86-59
SHEET No. 3 of 9

ROCK TYPES & ALTERATION			GRAPHIC LOG	Values ∠ to Core Alt	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footage Blacked	Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE				SUPERGENE	REMARKS	Sample Number	% Cu
			80 Wk	35 80 90	1/2 1-1/4 x 3 1 1/2	qtz qtz-ep x 4 qtz-ep	0 10 20 30 40 50 60 70 80 90	0			138	98					.01
		dk alt zone (mainly incr. chl)	60 Str	60 55	6" 14"	chl-py(ep) chl-py-gg(lim) qtz-py	10 20 30 40 50 60 70 80 90	2.0			148	95					.05
			70 Mod	50 80 x 2 70 x 2	6" 2" x 2 6" x 2	gg-bx chl-ep x 2 dk all zone	10 20 30 40 50 60 70 80 90	0			158	98					.01
			80 Wk	40 15	1/4 1/5	qtz (+ ep halo) qtz-carb (+ ep halo)	10 20 30 40 50 60 70 80 90	0			168	100					.01
			80 Wk				10 20 30 40 50 60 70 80 90	0			178	100					.01
			Nb	40 x 3 45	1/2 x 3 1/5	qtz-ep x 3 qtz-ep	10 20 30 40 50 60 70 80 90	0			188	98					.01

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GIBRALTAR MINES LTD.

HOLE No. 86-59
SHEET No. 4 of 9

ROCK TYPES & ALTERATION			GRAPHIC LOG L to Core Footwall Alteration Footage SIZES/IN	Vains L to Core Alt	Width of Vain	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Feetage Block	Sample Number
			ND	200	45	1/4	qts-ep	0 10 20 30 40 50 60 70 80 90	<0.5		98					.01
			ND	210	60	1/3	blk chl-py	0 10 20 30 40 50 60 70 80 90	<0.5		100					.01
			80 WK	220	25	1/8	gg-hem	0 10 20 30 40 50 60 70 80 90	0		100					.01
			70 WK	230	25	1/10	gg-hem	0 10 20 30 40 50 60 70 80 90	0		100					.01
			70 WK	240	30	1/4	qts (+ ep halo)	0 10 20 30 40 50 60 70 80 90	0		100					.01
			70 WK	250	55	1/8	qts-chl	0 10 20 30 40 50 60 70 80 90	0		98					.01

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GIBRALTAR MINES LTD.

HOLE No. 86-59
SHEET No. 5 of 9

ROCK TYPES & ALTERATION			L to Core Foliation	GRAPHIC LOG		Veins L to Core Alt	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footage Blotch.	Estimated Core Recovery %	R O D	ASSAY RESULTS			
				Fracture Attitude	Footage						LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade
			ND		65		3/4	qtz-chl	0				98						.01
			ND		50		8"	carb-hem	0			258	100						.01
			ND						0			268	100						.01
			ND						0			278	100						.01
									0			288	100						.01
					20		1/8	carb-ss	0			298	100						.01
					10-15 x 3		1/10 - 1/8 x 3	carb-ss	0			308	95						.01
					10-20		3"	carb-hem-ss	0			310							.01

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GIBRALTAR MINES LTD.

HOLE No. 86-59
SHEET No. 8 of 9

ROCK TYPES & ALTERATION			GRAPHIC LOG	Veins ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Feathers Blister	Estimated Core Recovery %	R O D	ASSAY RESULTS			
	∠ to Core Foliation								LEACH CAP	LIM. ZONE	SUPERGENE				REMARKS	Sample Number	% Cu	% Mo
	70-80 Mod		440	5? 60?	3" 14"	qq-bx qtz-chl (carb) (Cpr)	0 10 20 30 40 50 60 70 80 90	<0.5			95						.01	
	80 wk-Mud		450	80	1/2"	qtz-carb qtz-chl	0 10 20 30 40 50 60 70 80 90	0			98						.01	
	80 wk		460	5x5	1/2" x 5	qqx5	0 10 20 30 40 50 60 70 80 90	0			95						.01	
	80 WK		470	80	5"	qtz-carb	0 10 20 30 40 50 60 70 80 90	0			95						.01	
			480	60 80	3" 6"	qtz-chl ep	0 10 20 30 40 50 60 70 80 90	0			95						.01	
			490		7"	qq-bx	0 10 20 30 40 50 60 70 80 90	0			98						.01	

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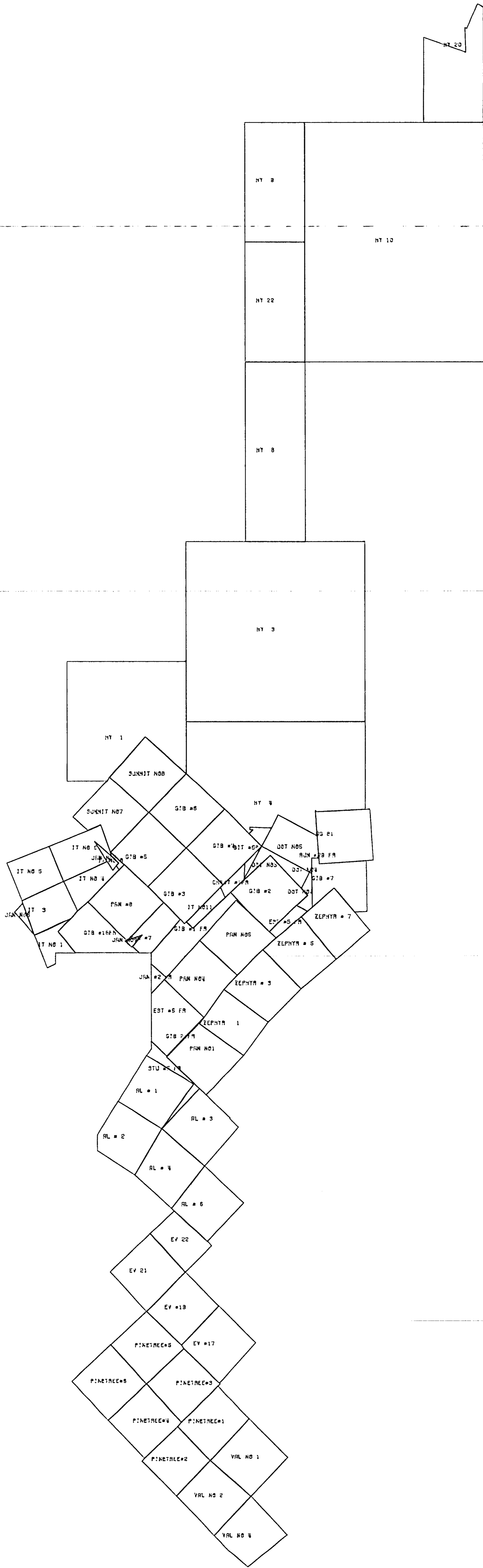
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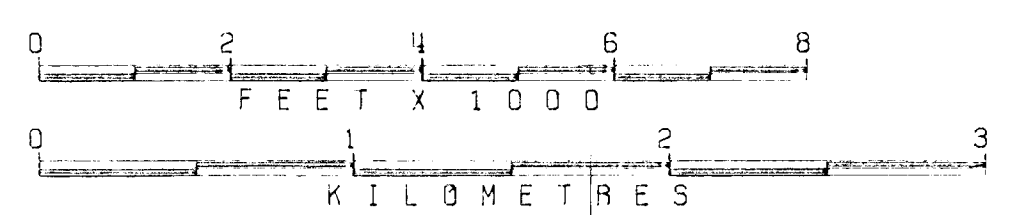


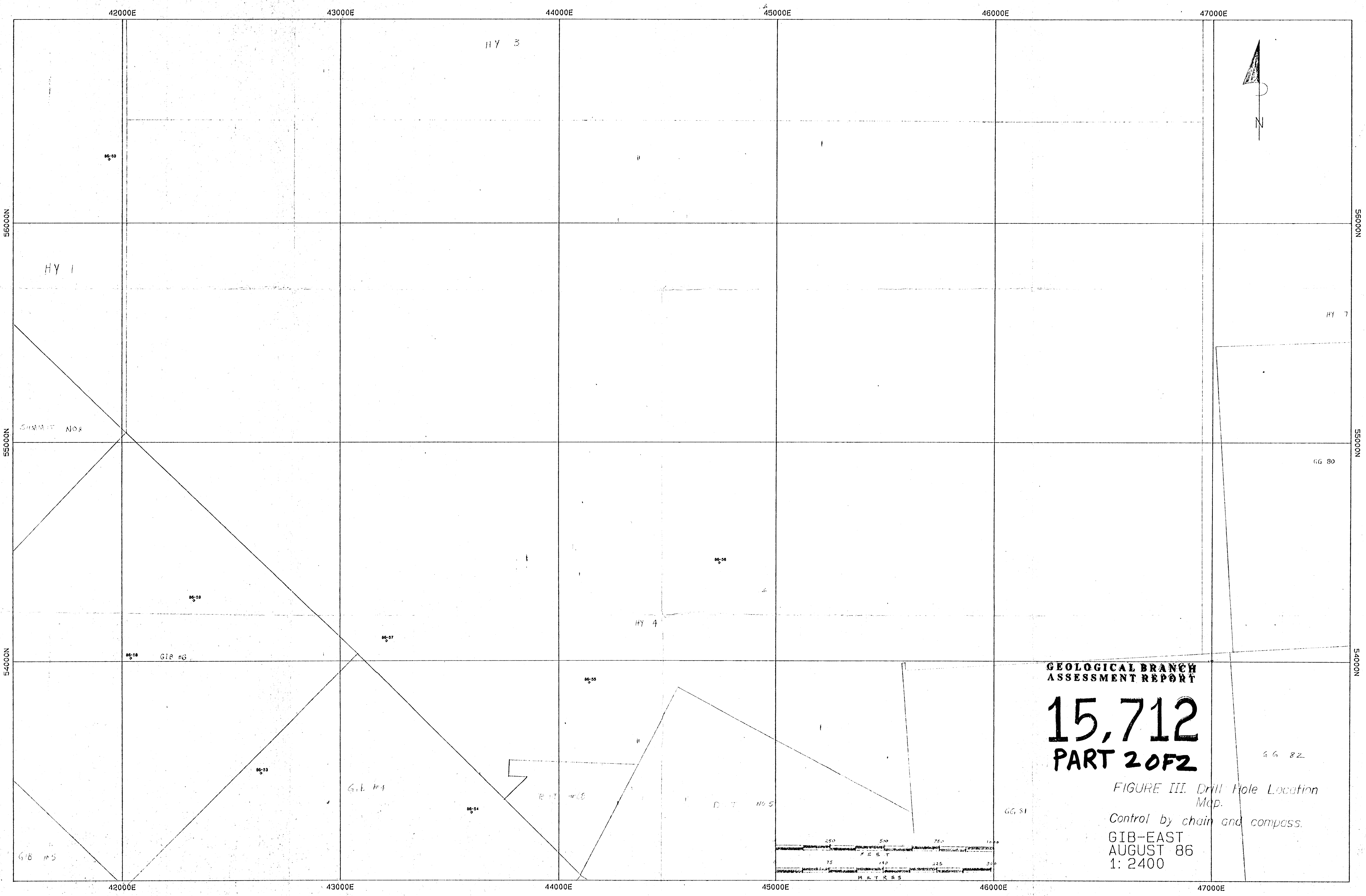
GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,712
PART 2 OF 2

FIGURE II.

GREY GROUP
MINERAL CLAIMS
GIBALTAR MINES LIMITED
18-FEB-87 SCALE=1:24000





GEOLOGICAL BRANCH
ASSESSMENT REPORT

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PART 2 OF 2

FIGURE III. Drill Hole Location Map.

Control by chain and compass.

GIB-EAST
AUGUST 86
1: 2400