82-400-#10851

GILLIAN MINES LTD.

ASSESSMENT REPORT ON A DIAMOND DRILLING, GEOPHYSICAL AND GEOLOGICAL PROGRAMME ON THE GILLIAN WEST GROUP LOYD NORTH CLAIMS GOOSLY LAKE, B.C.

OMINECA MINING DIVISION

N.T.S. 93L/1W

54° 10' N, 126° 22' W.

Owner and Operator:

GILLIAN MINES LTD.
1650 Riverside Drive
North Vancouver, B.C.
V7H 1V7

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10,851
NO.

Prepared by:

J. Paul Stevenson

June 7, 1982

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LOCATION AND ACCESS

The claims are located 25 miles (32 kilometers) southeast of Houston, B.C. They can be reached via the Buck Flats road from Houston to the property. The claims are situated at Lat. 54°, 10 min. N., Long. 126°, 22 min. W.

CLAIM INFORMATION

CLAIM	Loyd North
UNITS	14
RECORD NO.	239
ANNIVERSARY DATE	February 20th
EXPIRY BEFORE CREDIT	1982
EXPIRY AFTER CREDIT	1984

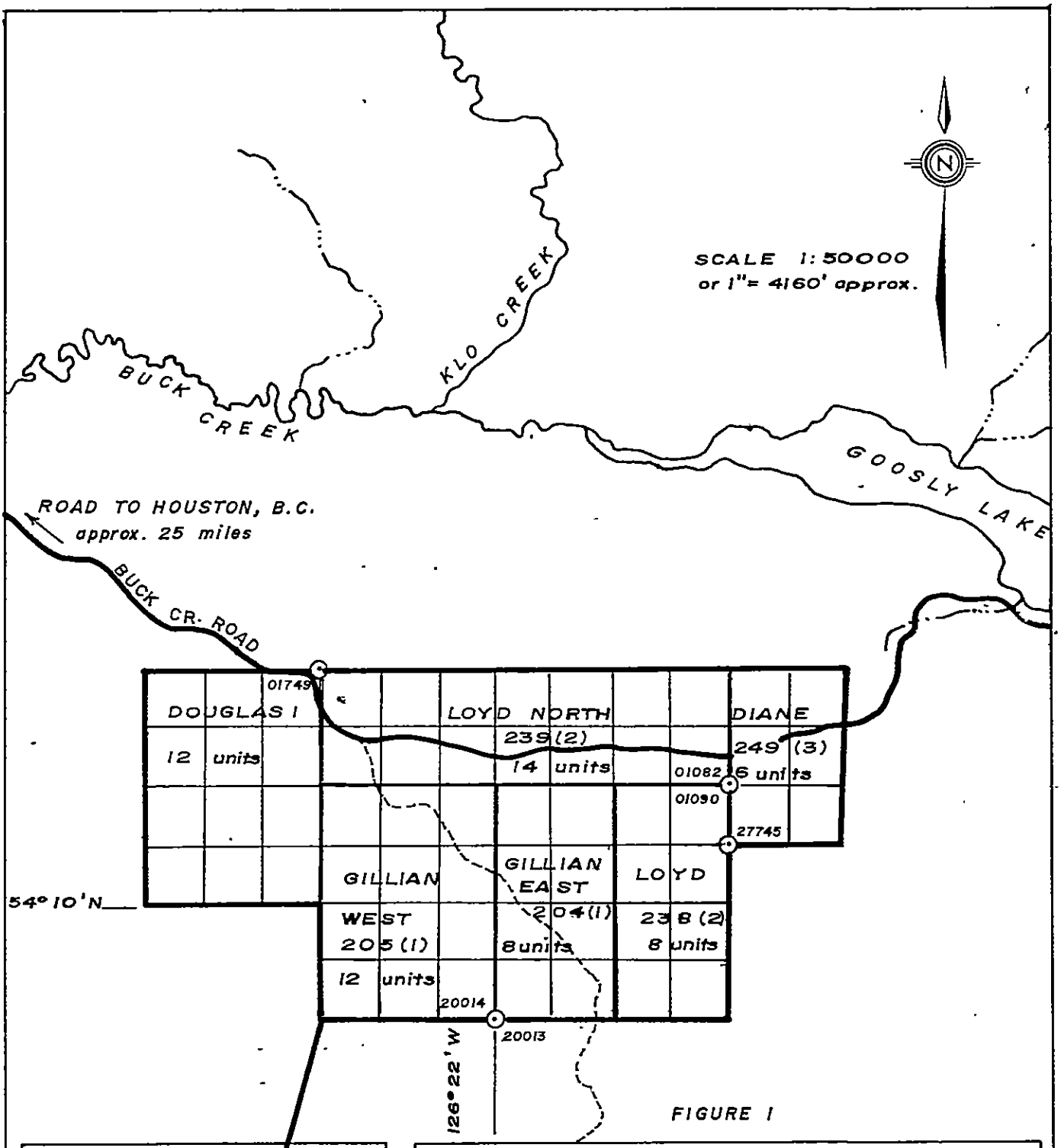
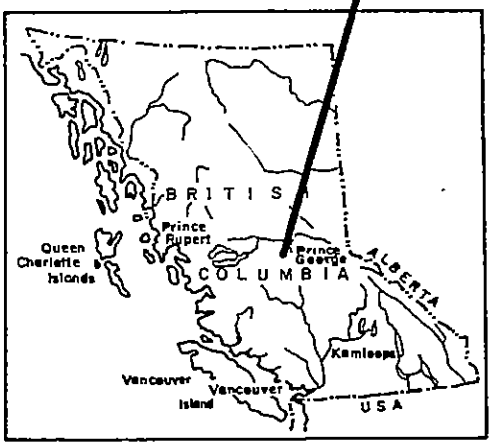


FIGURE 1



British Columbia

GILLIAN MINES LTD.

GILLIAN PROPERTY - GOOSLY LAKE AREA

MINING DIVISION: OMINECA

PROPERTY LOCATION & CLAIM MAP

MAP REFERENCE: 93 L / 1W

COORDINATES: 54° 10' N, 126° 22' W

INTRODUCTION

The 1981 assessment work on the Loyd North Claims began on January 21, 1981. Diamond drilling was initiated on that date, and approximately 7,672 feet of NQ drilling was completed by April 15, 1981. The drilling was done by J.T. Thomas Diamond Drilling Ltd. of Smithers, B.C., at a cost to Gillian Mines Ltd. of $198,675.50. The invoices of J.T. Thomas Diamond Drilling Ltd. can be found in Appendix A.

A two man field crew conducted a very detailed magnetometer survey over the claims during the late spring and summer commencing June 26, 1981 and terminating August 18, 1981. This survey was conducted by an employee of Gillian Mines Ltd. and employees of Edward Lipsett Ltd. The costs for this survey and the invoices of Edward Lipsett Ltd. which total $7,082.00, can be found in Appendix B.

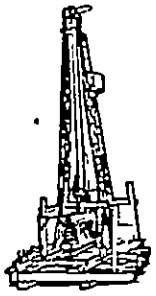
Bema Industries Ltd. was contracted to perform a detailed geological study on the results of the drilling and geochemistry. This study was conducted from April 15, 1981 through to August 31, 1981. The cost of this study was $28,004.35, and a copy of the report of Bema Industries Ltd. accompanies this report.

The diamond drill core was shipped down to the offices of Gillian Mines Ltd. via Canadian Freightways at a cost of $2,602.64, where it was examined by Bema Industries Ltd. The diamond drill core is currently stored at the offices of Gillian Mines Ltd.

Do not film

T.K.

APPENDIX A



J. T. THOMAS
DIAMOND DRILLING (1980) LTD.
SMITHERS, B.C.

PH. 847-3531
P.O. BOX 394
V0J 2N0

To: Gillian Mines Ltd.
1650 Riverside Drive
North Vancouver, B. C.
V7H 1V7

Invoice No. 81-1

Property: Houston

Invoice Date: February 4, 1981

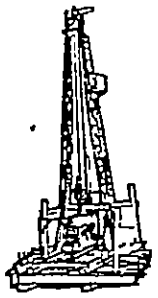
This is our invoice for diamond drilling and other services on the above property as per contract.

Diamond Drilling:	Total footage - 2359'. See attached Page 2.	$ 42305.00
Man and Machine Hours:	See attached Page 3.	2640.00
Tractor Rental:	See attached Page 3.	1125.00
Materials Used, Lost or Damaged:	See attached Page 4.	4235.30
Water Truck:	11 days @ $600.00/day including fuel and room & board	6600.00
	Plus 10%	660.00
Coreboxes and Lids:	125 @ $8.00	1000.00
	INVOICE TOTAL	$ 58565.30

The above calculations are agreed to by:

Company Representative

J. T. Thomas Diamond Drilling

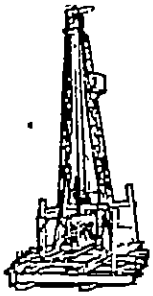


J. T. THOMAS
DIAMOND DRILLING (1980) LTD.
SMITHERS, B.C.

PH. 847-3531
P.O. BOX 394
V0J 2N0

DIAMOND DRILLING:

Hole No.	Date	Overburden From	Overburden To	Coring From	Coring To	Total Footage	Rate	Amount
81-1	Jan. 21	0	22			22	$17.00	$ 374.00
				22	505	483	17.00	8211.00
81-35	24	0	20			20	17.00	340.00
				20	500	480	17.00	8160.00
				500	607	107	19.00	2033.00
81-36	26	0	20			20	17.00	340.00
				20	500	480	17.00	8160.00
				500	1000	500	19.00	9500.00
				1000	1247	247	21.00	5187.00
						2359'		$42305.00



J. T. THOMAS
DIAMOND DRILLING (1980) LTD.
SMITHERS, B.C.

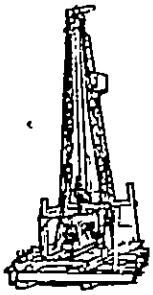
PH. 847-3531
P.O. BOX 394
V0J 2N0

MAN AND MACHINE HOURS:

Date	Gagnon	Peters	Langlois	Rudkavich	Capewell	Drill	Cat
Jan. 20	5	5	5	5			2
21	10			1			10
22	2	2				2	
			4	4		2	
23	1	2					
			4	4		3	
24	5	4			1		7
				1			
25		2					
			1	1			
26	3	3					
			1	1			
27				1			
28		1					2
			1	1			
29		1		1			
30		1					
			2	2			
31		1					
				2			
Feb. 1	9	9	8	8			4
	35	31	26	32	1	7	25

Total Man and Machine Hours 132 x $20.00/hour $ 2640.00
Total Cat Hours 25 x $45.00/hour 1125.00

$ 3765.00

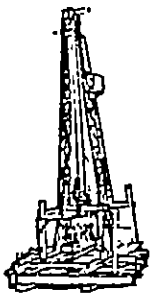


J. T. THOMAS
DIAMOND DRILLING (1980) LTD.
SMITHERS, B.C.

PH. 847-3531
P.O. BOX 394
V0J 2N0

MATERIALS USED, LOST OR DAMAGED:

Date	Quantity	Item	Cost	Amount
Jan. 22	1	NQ bit 80%	$500.00	$ 400.00
	1	NQ bit 100%	500.00	500.00
23	2	Alcomer	195.00	390.00
	1	Alcomer	195.00	n/c
	1	NQ bit 50%	500.00	250.00
24	1	Alcomer	195.00	195.00
25	1	Alcomer	195.00	195.00
	1	Alcomer	195.00	195.00
26	1	Alcomer	195.00	195.00
28	1	Alcomer	195.00	195.00
29	1	Alcomer	195.00	195.00
	1	Alcomer	195.00	195.00
30	1	Alcomer	195.00	195.00
	1	NQ bit 80% - 100 series	800.00	640.00
31	1	Alcomer	195.00	195.00
		Subtotal		$3935.00
		Plus 4% SST on Alcomer		85.80
		Plus 10% on Alcomer		214.50
		Total		$4235.30



J. T. THOMAS
DIAMOND DRILLING (1980) LTD.

SMITHERS, B.C.

PH. 847-3531
P.O. BOX 394
V0J 2N0

To: Gillian Mines Ltd.
1650 Riverside Drive
North Vancouver, B. C.
V7H 1V7

Invoice No. 81-6

Property: Houston

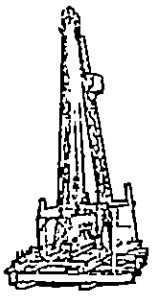
Invoice Date: April 27, 1981

Diamond Drilling: Total footage - 5313. See attached Page 2.	$ 98092.00
Man and Machine Hours: See attached Pages 4 & 5.	5740.00
Tractor Rental: See attached Pages 4& 5.	5400.00
Materials Used, Lost or Damaged: See attached Page 3.	12656.00
Coreboxes and Lids: 295 @ $8.00 each	2360.00
Water Truck: Gallant Trucking 23½ days @ $675.00/day	15862.50
INVOICE TOTAL	$140110.50

The above calculations are agreed to by:

Company Representative

J. T. Thomas Diamond Drilling

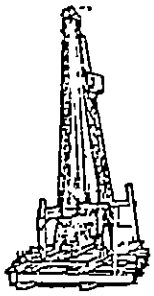


J. T. THOMAS
DIAMOND DRILLING (1980) LTD.
SMITHERS, B.C.

PH. 847-3531
P.O. BOX 394
V0J 2N0

DIAMOND DRILLING:

Hole No.	Date	Overburden From	Overburden To	Coring From	Coring To	Total Footage	Rate	Amount
81-37	March 26	0	20			20	$18.00	$ 360.00
				20	500	480	18.00	8640.00
				500	856	356	20.00	7120.00
81-38	30	0	12			12	18.00	216.00
				12	500	488	18.00	8784.00
				500	700	200	20.00	4000.00
81-39	April 2	0	12			12	18.00	216.00
				12	500	488	18.00	8784.00
				500	856	356	20.00	7120.00
81-41	5	0	10			10	18.00	180.00
				10	500	490	18.00	8820.00
				500	600	100	20.00	2000.00
81-42	9	0	10			10	18.00	180.00
				10	500	490	18.00	8820.00
				500	611	111	20.00	2220.00
81-40		0	10			10	18.00	180.00
				10	315	305	18.00	5490.00
81-43	11	0	10			10	18.00	180.00
				10	500	490	18.00	8820.00
				500	606	106	20.00	2120.00
81-44	13	0	30			30	18.00	540.00
				30	416	386	18.00	6948.00
81-45	14	0	10			10	18.00	180.00
				10	353	343	18.00	6174.00
						5313'		$98092.00



J. T. THOMAS
DIAMOND DRILLING (1980) LTD.
SMITHERS, B.C.

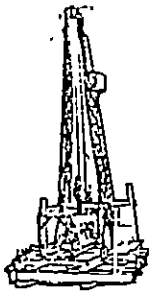
PH. 847-3531
P.O. BOX 394
V0J 2N0

MATERIALS USED, LOST OR DAMAGED:

Date	Quantity	Item	Cost	Amount
March 27	1	NQ bit 90% vibration	$500.00	$ 450.00 c
April 2	1	NQ bit 75%	500.00	375.00 c
6	1	Corebarrel assy. (left in hole)	1038.00	1038.00
	1	10' NW casing	133.00	133.00
	1	NQ bit 100%	500.00	500.00 c
	1	NQ tap	203.00	203.00
	6	10' NQ rods	110.00	660.00
7	1	NQ bit 90% (reaming)	500.00	450.00 c
8	1	NQ reaming shell (reaming)	325.00	325.00
	1	NQ bit 80% (reaming)	500.00	400.00 c
11	1	NW casing shoe	250.00	n/c
12	1	NQ reaming shell	325.00	n/c
	1	NQ bit 80%	500.00	n/c
13	1	NW casing shoe (reaming)	250.00	250.00
14	1	NQ bit 70%	500.00	350.00 c
15	1	NQ bit 60%	500.00	n/c

Drilling Additives:

35	Alcomer	195.00	6825.00 c
59	50 lb. Quik Gel	8.00	472.00
1	45 gal. Kutwell	225.00	225.00
			$12656.00

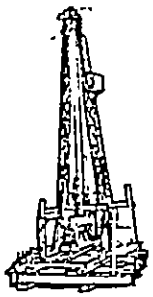


J. T. THOMAS
DIAMOND DRILLING (1980) LTD.
SMITHERS, B.C.

PH. 847-3531
P.O. BOX 394
V0J 2N0

MAN AND MACHINE HOURS:

Date	Rogal	Ouimet	Cote	Gillis	Martinelli	Drill	Cat
							* omitted on time sheets
March 25		7		7	7		6
26		5		6	6		12
27	1	1			2		12
			1	1			
28	1	1			2		12
			1	1			
29	1	1			1		6
			1	1			
30	3	3			4		12
			3	3			
31	1	1					4
			1	1			
April 1	1	1					3
			1	1			
2	6	5					4
			1	1			
3	1	1					4
	Pickford		2	2			
4	1	1					3
			1	1			
5	6	6			6		6
			1	1			
6	5	5			4		6
			7	7	2		2
7	7	7			7		
			4	4			
8	3	4					
			3	3			
9	6	6					3
			1	1			
10	1	1					
			1	1			
11	7	7					5
			1	1			
12	1	1					4
			1	1			
13	6	6			1		4
			1	1			
14	5	5			2		4
			1	1			
15	3	3			4		
16				8	8		8
	66	78	33	54	56		120



J. T. THOMAS
DIAMOND DRILLING (1980) LTD.

SMITHERS, B.C.

PH. 847-3531
P.O. BOX 394
V0J 2N0

MAN AND MACHINE HOURS:

Total Man and Machine Hours 287 x $20.00/hour	$ 5740.00
Total Cat Hours 120 x $45.00/hour	5400.00
	$11140.00

APPENDIX B

MAGNETOMETER SURVEY COSTS

(excluding Edward Lipsett Ltd. invoices)

Brian Sauer	76 days @ $90	6,840.00
Travel and accomodation		337.18
	TOTAL COSTS	$ 7,177.18

EDWARD LIPSETT LTD.

'Serving Vancouver since 1891'

Post Office Box 1239, Station 'A'
Vancouver, B.C. V6C 2T1 CANADA

telephone: 604-980-6525 929-7519

INVOICE

September 1, 1981

Gillian Mines Ltd.
1650 Riverside Drive
North Vancouver, B.C.
V7H 1V7

Labour - Bela Horvath @ $102.75 per day field work - Goosly Lake Property 28 days - July 22 to August 18, 1981	2,877.00
Labour - Steve Davies @ $72.50 per day field work - Goosly Lake Property 19 days - June 29 to July 14, 1981	1,377.50
	$ 4,254.50

EDWARD LIPSETT LTD.
'Serving Vancouver since 1891'
Post Office Box 1239, Station 'A'
Vancouver, B.C. V6C 2T1 CANADA
telephone: 604 929-7519

INVOICE

September 1, 1981

Gillian Mines Ltd.
1650 Riverside Drive
North Vancouver, B.C.
V7H 1V7

Labour - W.D. Andrews @ $72.50 per day

June 3, 4, 5, 1981
core splitting - 3 days 217.50

July 14th to August 18th, 1981
field work - Goosly Lake Property
36 days 2,610.00

$ 2,827.50
==========

CERTIFICATE

I, J. Paul Stevenson of 1650 Riverside Drive, North Vancouver, B.C. do hereby certify:

(1) That I have been involved in mineral exploration since 1965.

(2) That I have been engaged in prospecting and development in B.C., the Yukon and the Northwest Territories.

(3) That this programme was managed by myself and that the party chiefs were qualified to direct the day to day work.

(4) That all costs submitted can be verified with receipts and invoices.

Respectfully submitted June 7, 1982.

J. Paul Stevenson, President

INTERIM

REPORT ON THE

GILLIAN MINES LTD. PROPERTY

PARROTT-GOOSLY LAKES AREA, B. C.

INTERIM

REPORT ON THE

GILLIAN MINES LTD. PROPERTY

PARROTT-GOOSLY LAKES AREA, B.C.

OMINECA MINING DIVISION

N.T.S.: 93L/1

Owned by:

GILLIAN MINES LTD.
1650 Riverside Drive
North Vancouver, B. C.
V7H 1V7

Work by:

BEMA INDUSTRIES LTD.
19945 - 56th Avenue
Langley, B.C.
V3A 3Y2

S. C. Bartlett, B. Sc.

D. L. Dick, B. Sc.

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LIST OF FIGURES

GILLIAN MINES LTD. PROPERTY

PARROTT-GOOSLY LAKES AREA, B. C.

SUMMARY AND RECOMMENDATIONS

The Gillian Property southeast of Houston, B.C. is centred on an alkaline gabbro-syenomonzonite intrusion which crosscuts Lower Cretaceous volcanic and sedimentary stratigraphy. The pluton is one of a group of at least five whose orientation and occurrence suggest structurally controlled emplacement along an east-northeasterly trend between the Nadina (Silver Queen) deposits in the west and the Sam Goosly deposit in the east.

Diamond drilling on the edge of the pluton at Gillian show it to be sill-like. However, the afore-mentioned east-west alignment of plutons of similar age suggest a stock emplacement and on this basis the sill-like aspect of the gabbro is interpreted to be re' .ted to an upper lobe development of a steeply plunging stock.

Geochemical analyses of drill core show that a hydrothermal system genetically related to the sill has leached rocks with relatively high backgrounds of copper, lead, zinc and barium. Evidence from diamond drilling indicates that hydrothermal alteration of country rocks increases in the direction from which the sill-like body is interpreted to have intruded.

It is recommended that in future exploration emphasis be directed toward locating structurally controlled mineralization beneath the sill-like appendages and adjacent to the gabbro-syenomonzonite stock.

More specifically an east-west line of holes should be collared along the major east-west lineament approximately 80 metres north of DDH 81-37 to test the theory that movement along this structure prepared the way for the intrusion and subsequent hydrothermal activity related to ore concentration and localization.

Prior to drilling further geological organization, as included in the attached list, is required in order to specifically target the drill program.

The following procedures are required for accurate data control:

1. Preparation of a topographic map of the property at a scale of 1:5,000. Topographic maps of the drill area are required at a scale of 1:500.

2. A transit survey is required to locate diamond drill holes, claim posts and the flagged reference grid on the topographic map.

3. A map of the surface geology of the property with topography should be prepared.

4. All drill core should be logged and the drill geology plotted and interpreted. Where necessary sections of the core should be sampled.

5. Airphotographs of the property and vicinity should be obtained and studied for structural information.

6. A proton precession magnetometer survey intended to outline the gabbro-syenomonzonite intrusion would enhance the exploration program.

7. At the completion of the above procedures a study period is required to compile and assess all the available data. This compilation includes such data as:

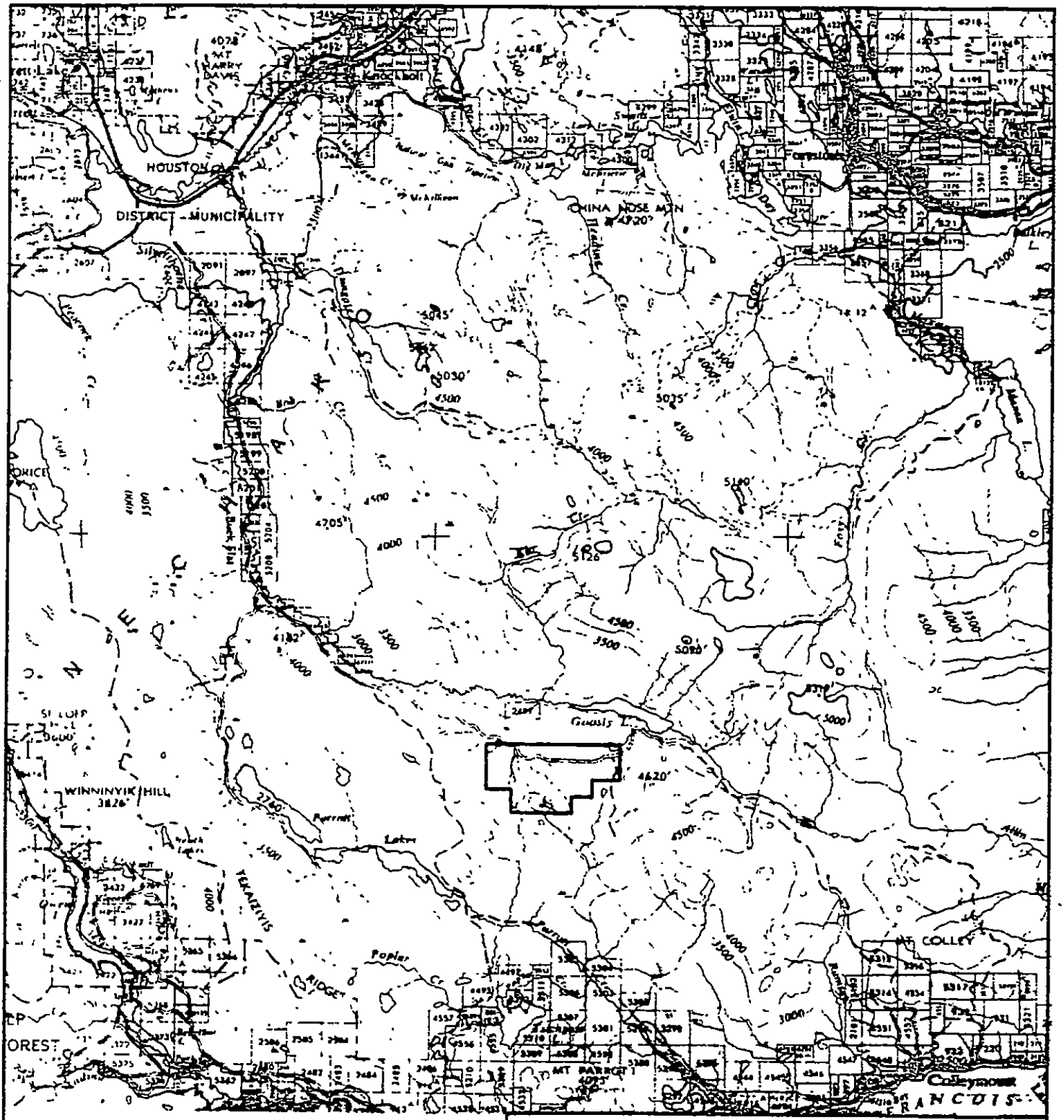
    geological mapping

    drill geology

    magnetometer survey

    airphotograph interpretation

    rock geochemistry.



GILLIAN MINES LTD.

KEY MAP

DATE: *JUNE, 1981*	JOB NO. 81-28 G
REVISED BY *s/o*	FIG. NO. 1

BEMA INDUSTRIES LTD.

REPORT ON THE

GILLIAN MINES LTD. PROPERTY

PARROT-GOOSLY LAKES AREA, B.C.

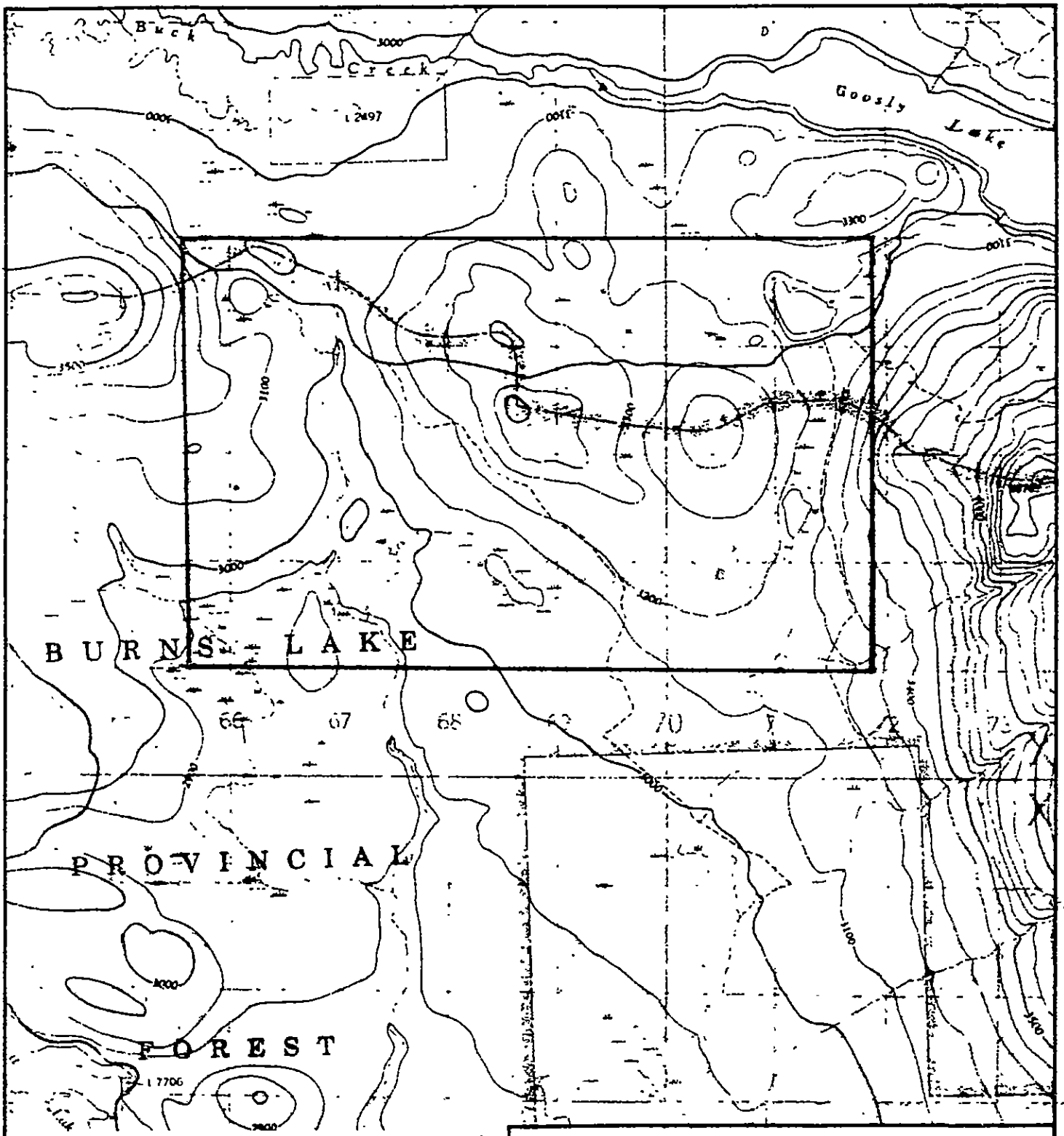
1.0 INTRODUCTION

Gillian Mines Ltd. contracted Bema Industries Ltd. to examine drill core and to interpret the geology of their Parrot Lakes-Goosly Lake area property southeast of Houston, B.C. The purpose of the study was to establish and guide Gillian Mines Ltd. toward an effective exploration program and to develop new exploration concepts as well as recommendations for further work. The information provided in this report is a preliminary summary of the research program to date and is regarded as interim to an on-going comprehensive research program.

In addition to logging drill core a brief visit to the property was made. To enhance the interpretation the regional geology and geochemistry and the characteristics of known mineral deposits in the district were reviewed. Information more specific to the property was provided by Gillian Mines Ltd. in the form of private company reports. This material included geological, geochemical and geophysical map as well as several thousand geochemical analyses of drill core. Personal communication with Dr. B. N. Church of the British Columbia Ministry of Energy, Mines and Petroleum Resources was very helpful.

2.0 DIAMOND DRILL CORE LOGGING

Drill core from twenty of the forty-five holes drilled to date was examined at the Gillian Mines Ltd. office in North Vancouver, B.C. Nineteen of the holes examined were logged using a graphic logging method which emphasizes a graphic record of the core, rather than a descriptive log. Brief descriptions of lithologic units and mineralization accompany the graphic log. Of the holes logged 7 were logged using a rapid log technique which enabled significant sections of core to be recorded in detail and sections of lesser significance to be studied only briefly. The remaining twelve holes were logged by a scanlog technique whereby drill core was scanned rapidly for lithological contacts, alteration, mineralization and significant structural data. A total of 12,406 feet of NQ diamond drill core was logged in 5 days.



GILLIAN MINES LTD.

PROPERTY LOCATION MAP

DATE *JUNE, 1981*	JOB NO. 81-28 G
REVISED BY: *s/o*	FIG. NO.: 2

BEMA INDUSTRIES LTD.

3.0 GEOLOGY OF THE DIAMOND DRILL AREA

Before the detailed geology of the diamond drill area is discussed a brief description of the regional setting of the property is provided.

The property lies between the 3,000 foot and 3,500 foot level of a gently rolling, swampy plateau, 2.5 miles southwest of Goosly Lake. The plateau is underlain by two main stratigraphic sequences; a section of Lower Cretaceous, Skeena Group felsic volcanics and argillite and by volcanic flows and pyroclastics of the Upper Cretaceous or Paleocene, Tip Top Hill Volcanic Series. The stratigraphy appears to be gently dipping toward the east forming a simple homocline. Interest is centered on the vicinity of an alkalic gabbro-syenomonzonite intrusion similar to the Goosly gabbro-syenomonzonite stock which has a K/Ar date of 48.8 $\pm$ 3.0 M.A. (Eocene). Block faulting, indicated by diamond drill results with orientations inferred from numerous topographical lineaments, is postdated by a late intrusive phase. The entire geological package has been cut by dacitic andesite dyke and sill-like bodies which have been mapped as pulaskite by Church (1969).

In the area of the latest diamond drilling (holes 80-25 to 80-33 and 81-34 to 81-45) the section consists of a basement assemblage of acid volcanic flows and pyroclastics which has been referred to as the lower rhyolite horizon. This unit has been cut in holes 80-30, 81-36 and 81-39 and has been penetrated to a depth of 390 feet (118.9 metres) in DDH 81-36. In each drill hole the unit has a unique appearance and correlation between holes is speculative. In DDH 80-30 the section was examined quite closely and consists of a fourteen foot lower unit of lapilli tuff, from 986 feet to the end of the hole. The rock is composed of light green, subangular acid volcanic fragments, up to lapilli size, in a dark coloured siliceous to argillaceous matrix. Below 990 feet the rock consists of greater than fifty percent fragments, some of which are flow banded. Most of the fragments in the section are approximately 20 millimetres in diameter. In the top four feet of this horizon the unit is comprised of greater than fifty percent matrix and volcaniclastic fragments that are finer grained than the rock below. The lapilli tuff changes upward rather abruptly into massive black argillite and sandy black argillite with thin turbidite layers containing volcanic fragments. These turbidite layers indicate that the section is upright. The argillite unit is ten feet thick. Above the argillite unit is a massive to brecciated felsic volcanic flow. From the bottom the unit consists of a three foot brecciated chill zone with a black siliceous to argillaceous matrix. The middle thirty-five feet of the flow is fairly massive with a spherulitic texture. A few sections are flow banded. The upper fourteen feet of the flow consists of auto breccia with angular, spherulitic and flow banded fragments. A trace of pyrite occurs in graphitic ground mass near the top of the flow. In DDH 81-39 51 feet of light grey, strongly altered, crushed, felsic material occurs below 805

feet in the hole. An upper section of the unit appears to be autobrecciated but no other textures were recognized. Much of the core is gougy and suggests the presence of a fault. A section from 835 feet to 840 feet contains blotches of disseminated pyrite which amount to less than one percent of the mode. The occurrence of this felsic unit in DDH 81-36 was not thoroughly examined but a scan of the 390 feet of core revealed a complex felsic volcanic stratigraphy of numerous flows and tuffs. The only other occurrence of felsic volcanic rocks on the property is an outcrop located approximately one kilometre west of the present drill area. The outcrop forms a knob west of a large swampy area and has been drilled by two holes, one of which is located at L55E - 51+50S. The outcrop consists of a buff coloured felsic crystal tuff with a devitrified glass groundmass. The unit appears to have been brecciated and fractures are filled with a black siliceous material. In the brecciated portion fractures are three centimetres or more apart. The fractures strike 075 degrees and dip steeply north.

Above the felsic volcanic unit in the vicinity of the most recent drilling is a black argillite member which contains a few clay, silt and thin, well graded sandy layers. Argillite ranges in thickness from 595.5 feet in DDH 81-37 where the lower contact was not cut to 364 feet in DDH 81-36 where the basement volcanics were cored.

Pyrite mineralization is locally abundant in the argillite and occurs in both syngenetic and epigenetic forms. Sulphide is particularly abundant in the northeast portion of the drill area in holes 81-39, 81-41, 81-42 and 81-43. In DDH 81-43 pyrite occurs in fractures over an interval which extends 50 feet below the zone of altered argillite. Below this zone is a 50 foot section containing mainly laminated pyrite. For the most part this sulphide is of syngenetic origin. In tne remainder of the hole pyrite occurs mainly as fracture fillings. In DDH 81-39 laminated pyrite occurs in the upper portion of the argillite with related fracture fillings. Deeper in the hole pyrite occurs as coarse masses associated with fracture fillings. Argillite in hole 81-42 contains laminated pyrite near the top of the unaltered unit and fracture and laminated pyrite down deeper in the hole. In DDH 81-41 pyrite occurs sparsely over most of the hole as lamina and as fracture fillings. Near the bottom of the hole, which is in the middle of the argillite unit, pyrite is more abundant. In the other drill holes in the area sulphides occur sporadically and mainly as fracture fillings.

The black argillite grades upward into a massive, bleached zone which is locally laminated and makes subconcordant contact with the gabbro-syenomonzonite above. A few fine grained, light coloured apophyses of the gabbro-syenomonzonite cut the altered section near the contact. The unit has been described by Potter and others as a felsic tuff horizon (referred to as "upper rhyolite") and was described as such during core logging. As an alternate interpretation Church suggests that the light coloured zone is

bleached argillite, a hydrothermal effect of the gabbro-syenomonzonite sill. This interpretation seems more realistic in light of the spatial relationship between the unit and the sill.

Below the sill the zone varies in thickness from 47.5 feet in DDH 81-45 to 3.5 feet in DDH 80-32 and in general, thickens to the north and northeast. The general trend of thickening is in the direction from which the gabbro-syenomonzonite sill is believed to have intruded. In several holes blocks of light green siliceous material, possibly altered equivalents of the argillite, occur as large pendants within the gabbro-syenomonzonite sill. In DDH 80-31 a pendant is 96 feet thick and occurs 66 feet above the lower contact. In DDH 80-33 a number of sections of the same material occur over 250 feet including some intervals of altered breccia which may be the result of assimilation of an argillite pendant. In two holes, DDH 81-35 and 81-36, bleached argillite is present above the sill and is 35 feet thick in DDH 81-36. It is possible that the altered material occurs above the sill in other holes but because of the deep weathering in the area, it may have been triconed and cased.

Pyrite mineralization occurs in three forms in the altered argillite. The most common form of pyrite is as fracture fillings, particularly in DDH 81-45 and the upper part of the section in DDH 81-39 adjacent to crosscutting fine grained dykes. In hole 81-39 the bleached zone is intercalated with five fine grained, light coloured dykes which are barely distinguishable. The mineralization occurs as fine to medium grained pyrite in pyrite-calcite veinlets less than a millimetre thick. Pyrite also occurs as massive lamina up to five centimetres thick. In DDH 81-39 four pyrite units up to five centimetres thick occur between 336 and 343 feet. Laminated pyrite is the predominant form in DDH 81-41 and DDH 81-43 and of lesser importance in DDH 80-30, 80-33, 81-37, 81-38 and 81-45. In its third form pyrite occurs as concretionary blobs to five millimetres in diameter. This form occurs in most holes but is particularly common in DDH 81-42.

The oldest intrusive rock on the Gillian property is the alkalic gabbro-syenomonzonite. This differentiated unit intrudes the argillite as a sill and is at least 409.5 feet thick as in DDH 81-35. In DDH 81-35 and DDH 81-36 fine grained altered rock occurs above the sill and may define its true thickness. Alternately this rock may be pendant within the sill as those intersected in several other holes. Except in the vicinity of holes 81-35 and 81-36 all of the area defined by the examined drill holes is underlain by gabbro-syenomonzonite.

In drill core the gabbro-syenomonzonite ranges from a light coloured monzonitic rock in the upper part of the sill to a dark green gabbro in the lower portion. Locally minor amounts of a coarse grained pink feldspar-pyroxene rock is present. The texture of the rock varies throughout but coarse equigranular varieties are most common. Fine grained, light coloured chill

margins occur at the upper and lower contacts and adjacent to pendants. Apophyses of the same light coloured material are common in the sediments below the sill. Some cumulate textures are present in glomeroporphyritic masses above the base of the sill.

The mode of the gabbro-syenomonzonite varies with composition but in general the rock is comprised of plagioclase and pyroxene with accessory biotite, magnetite and pyrite. Pyroxene is lightly altered to chlorite, often accompanied by pyrite or magnetite, where moderately fractured or faulted clay alteration of silicates is well developed.

The youngest rock type recognized in the area of latest drilling is the amygdaloidal dacitic andesite unit called pulaskite by Church. The rock is fine to very fine grained with elongate calcite or silica amygdules. It ranges in colour from buff to green and pink. The unit occurs as cross-cutting dykes and/or sills and usually disects all units and most structures observed to date. The bodies usually occur as flatly dipping sheet-like masses which range up to 24 feet in DDH 81-36. Several sheets occur within the section and clearly post-date a late block faulting event. A flat lying, continuous sheet occurs consistently along or below the gabbro-argillite contact and cuts the middle of the sill after it passes through a block fault. The intrusion appears to have been very fluid as indicated by the irregular forms the unit obtains. Minor pyrite occurs in some fractured sections associated with coarse crystalline calcite.

4.0 GEOCHEMISTRY OF DIAMOND DRILL CORE

A program of whole rock geochemical exploration was initiated by Gillian Mines Ltd. in an attempt to locate ore by mapping the chemistry of a hydrothermal system believed to have operated on the property. The potential for whole rock geochemical exploration in the Owen-Goosly Lake area was recognized following the work of Church, Barakso and Bowman (1976). The program of systematic sampling of drill core and geochemical analysis for up to eleven elements is modified from the twelve element regional litho-geochemical survey conducted by Church (1972). The results of the Gillian survey are discussed below.

Geochemical analyses were received for 22 of 45 diamond drill holes. Data for sixteen of these holes was plotted on acetate overlays. A vertical scale of 1:500 was used with depth marked in feet. Horizontal scales differed for each element depending on threshold values and spatial limitations between drill holes.

The normal sample interval for drill holes 80-25 to 81-36 was four feet but some intervals are of 3 and 5 feet. Elemental concentrations for each interval were plotted at the midpoint of the interval. Drill holes 80-3, 80-7, 80-10 and 80-23 had one foot sample intervals. For DDH 80-3 the assay values were plotted for each 1 foot interval. In holes DDH 80-7, 80-10 and 80-23, assay values were averaged over five foot intervals and were plotted at the midpoint of the interval.

Drill holes 80-25 to 80-33 and 81-36 were analysed for copper, lead, zinc, silver, gold, barium and in some holes, fluorine. (Only barium values were received for drill holes 81-34 and 81-35.) After reviewing the data, elements believed to show significant variation were selected for plotting. For the drill holes listed above copper, lead, zinc, barium and fluorine were plotted where the results were available.

Drill holes 80-3, 80-5 to 80-7, 80-9 to 80-13 and 80-23 were analysed for copper, lead, zinc, cadmium, silver, gold, fluorine and barium. In addition, portions of some holes were also analysed for mercury, iron and cobalt. With the exception of 80-3, results for only small portions of these holes are available. The elements copper, zinc and barium were plotted for holes 80-3, 80-7, 80-10 and 80-23.

A number of drill hole locations and collar elevations were provided for holes which fell on section lines used for geological mapping. This data was plotted on three pairs of overlay sections using the geological sections as bases. The sections contain the following holes:

Section A-A' 81-37 and 81-38, 80-33, 81-35, 80-30, 80-31

Section B-B' 80-23, 80-30, 81-36, 81-40, 81-41, 81-42, 81-39, 81-43, 81-45

Section C-C' 80-25, 80-32, 80-29, 81-35, 81-36

A summary of the geochemical data that has been plotted on sections follows:

Elements	Drill Holes
Cu/Pb/Zn/Ba/F	80-30, 80-31, 80-32, 80-33, 81-36 (I/C)
Ba only	81-34, 81-35
Cu/Pb/Zn/Ba	80-25, 80-26, 80-27, 80-28, 80-29
Cu/Zn/Ba	80-3, 80-7 (I/C), 80-10 (I/C), 80-23 (I/C)

NOTE: I/C = incomplete data

No geochemical data was received for the holes on the sections not listed above.

4.1 DISTRIBUTION OF ELEMENTS

The goal of a lithogeochemical study is to recognize systematic variations in elemental concentrations in rocks that will lead to the discovery of ore. To accurately map a hydrothermal system an appropriate number of representative samples must be collected from a significant proportion of the system. There are two readily apparent problems with the Gillian program that reduce the effectiveness of lithogeochemical exploration. The first is a problem of sample distribution. The most effective data received to date is derived from an area measuring 150 metres by 150 metres. This area represents only a very small proportion of the area affected by the hydrothermal system at Gillian. To make the program potentially more effective more sample data is required from a larger area within the system.

The variation of elemental concentrations in the different lithologies present gives rise to a second problem. Within any diamond drill hole sampled and logged copper values are higher in gabbro than in argillite and higher in argillite than in felsic volcanics. This variation is a function of original composition rather than the affect of hydrothermal distribution of copper. Therefore to properly assess the lithogeochemical data available, cores which have been sampled and analyzed must be logged.

LITHOLOGICAL CHARACTERISTICS AND TRENDS

Alkalic Gabbro-Syenomonzonite

In the gabbro unit copper and zinc occur in similar abundances and have similar trends. The average copper value is 50 ppm and the average zinc value is slightly higher at 65 ppm. These averages both compare for corresponding normal values obtained from the study of Church, et al (1976). Copper distribution is slightly more erratic with a number of copper highs occurring in drill zones adjacent to bleached argillite or the altered pendants. There is a slight tendency for average copper values to be higher toward the bottom of the unit possibly reflecting mafic mineral settling during fractionation. An interesting situation exists in hole 80-33 above the large pendant where copper and zinc enrichment occurs in altered and veined rock which may be due to pendant assimilation. Lead values in gabbro are consistently low and average 1 to 2 ppm. Barium distribution in gabbro is interesting in that in holes 81-35 and 81-36 values increase toward the upper and lower contacts with bleached argillite probably reflecting the true

thickness of the sill in these holes. Fluorine seems to reflect chill zones and possibly fractionation.

Altered Pendants

Zinc and lead values in the altered pendants are erratic and notably higher than in gabbro. The pendants are thought to be altered equivalent of the argillite though they show a slightly lower average zinc content than unaltered argillite. Copper values show a correspondingly lower average value than zinc and in hole 80-31 copper values show no variation from the enclosing gabbro. Anomalous lead values are common in the pendants.

Bleached Argillite Zone

It is difficult to characterize the bleached argillite zone chemically because it is too thin to obtain enough sample information. In general copper, lead and zinc values are significantly less in bleached argillite than in unaltered argillite. This trend supports the observation that leaching has occurred.

Argillite

The copper content of the argillite is very similar to that of the overlying gabbro. Sporadic high values occur in the upper portion of the unit where pyrite tends to be more abundant. Copper values tend to increase down-section from approximately 50 feet above the lower felsic volcanic unit. Lead and zinc average values are highest in the argillite. Both lead and zinc high values occur in the pyritic section of the argillite. Sporadic lead highs also occur in association with calcite in fracture zones. Unlike copper a marked decrease in zinc values occurs from 50 to 130 feet above the felsic volcanic unit. More like copper, lead tends to increase near the lower argillite contact. Barium and fluorine data is incomplete but barium values appear to be less erratic in the argillite.

Felsic Volcanic Unit

Very little data is available from the felsic volcanic section and most of the data is from ore intersection. Copper and zinc values are noticeably low whereas lead values have a high average value of 15 ppm and many erratic highs up to 86 ppb. All lead highs are below the threshold value computed for host rocks by Church, et al (1976). Of interest is the variation of fluorine average values in DDH 81-36. The three zones of similar fluorine content may reflect variation in the felsic volcanic stratigraphy.

5.0 GEOLOGY OF KNOWN MINERAL DEPOSITS IN THE AREA

To establish a more complete exploration model it was decided to research the geological settings of known mineral deposits in the Owen-Goosly Lake area. The Nadina vein camp and the Sam Goosly deposit are two known mineral deposits that occur in the area and are separated by approximately 35 kilometres along a southwest-northeast trend. The deposits are similar in that both are to some degree associated with an intrusion, at Nadina, the Mine Hill microdiorite and at Sam Goosly the alkalic gabbro-syenomonzonite. It is important to note that two other alkalic gabbro-syenomonzonite intrusions occur almost equally spaced along this 35 kilometre trend and that the most eastern body underlies the central portion of the Gillian Mines Ltd. property. These two deposits are regarded as end members of spectrum with the Nadina fissure fillings at one end and the Sam Goosly massive sulphide at the other.

5.1 NADINA (SILVER QUEEN) PROPERTY EAST OF OWEN LAKE

The Nadina vein camp is located east of Owen Lake, 43 kilometres south of Houston, B.C. The camp has been described by Church (1969; 1970) and is comprised of 23 veins which occur in three systems. The veins occur in north-westerly trending tension fractures and northerly trending shears which typically strike 130 degrees and dip 50 to 70 degrees to the northeast. The fractures cut brown volcanic breccias of the Paleocene or Upper Cretaceous Tip Top Hill volcanics.

Stratigraphically the area east of Owen Lake is not well defined but is largely underlain by biotite-hornblende andesite and andesitic dacite flows and pyroclastics of the Tip Top Hill volcanic series. Deep drilling in the Nadina vicinity revealed the presence of felsic volcanics at depths that are probably the equivalent of Lower Cretaceous felsic volcanics at Goosly and Gillian. The section is cut by numerous microdiorite dykes and sills particularly the Mine Hill sill and many younger basalt, feldspar porphyry and pulaskite intrusions.

The mineralized zones consist of cherty quartz-carbonate-barite veins with mineral assemblages of:

i) pyrite-specular hematite
ii) sphalerite-pyrite-galena-tennanite
iii) chalcopyrite-pyrite-sphalerite-bismuthite(?)-tetrahedrite(?)
iv) sphalerite-pyrite-galena

The veins occur as irregular lenses up to 15 feet wide but usually average between three and four feet wide. Approximately 4,400 linear feet of vein

mineralization has been discovered. The Nadina veins were emplaced at roughly the same time as a set of feldspar porphyry dykes and are post-dated by pulaskite dykes equivalent to those observed at Gillian.

Host rock alteration is widespread in the camp and extends for at least one and a half miles in radius of the mine area. Pyrite-kaolinite alteration give rise to limonite-jarosite gossans in the area. More localized wall rock alteration is intense and extends for several tens of feet from the veins. It normally consists of soft buff clay.

Ground preparation at Nadina is related to structural events that produced northwesterly-southeasterly striking faults. This trend coincides air photo lineaments that strike northwesterly-southeasterly and related cross fractures which strike southwesterly-northeasterly throughout the district. Multiple dyking and diatreme dyking may have influenced the locallization of mineralization.

5.2 PLACER DEVELOPMENT LTD. SAM GOOSLY PROPERTY EAST OF GOOSLY LAKE

The Sam Goosly copper-silver-antimony sulphide deposit is located 35 kilometres southeast of Houston, B.C. about 6 kilometres east of Goosly Lake. Copper-silver mineralization occurs in a pyroclastic unit, mainly massive dust tuff through which are lenticular units of lapilli tuff (Wetherell, Sinclair and Schroeter, 1979). The dust tuff is part of a northeasterly striking, steep westerly dipping section of the Lower Cretaceous, Skeena Group which is wedged between two stocks separated by one to two kilometres. Although mineralization grossly parallels the hosting stratigraphy for almost 2.5 kilometres, in detail sulphides show crosscutting relationships.

The stratigraphic sequence at Goosly has been organized into four subdivisions which strike 015 degrees and dip 45 degrees west (Wetherell, 1979). The lowest unit, the Clastic Division, is composed of a lower polymicitic conglomerate and an upper chert pebble conglomerate. The overlying Pyroclastic Division is a heterogeneous sequence of tuff, breccia and reworked pyroclastic debris. The Sedimentary-Volcanic Division contains well bedded tuff, sandstone and conglomerate and is stratigraphically above the pyroclastics. This unit is believed to be stratigraphically equivalent to the argillite unit at Gillian (Church, personal communication). The uppermost unit, composed of andesitic and dacitic flows, is the Volcanic Flow Division. Two stocks crosscut Mesozoic stratigraphy, a quartz monzonite pluton crops out 300 to 600 metres west of the ore zones and an alkalic gabbro-syenomonzonite intrusion occurs immediately east of the Main Zone. Sparse copper-molybdenum mineralization is associated with the quartz

monzonite and silver-bearing veins and a shear zone replacement zone have been reported within the pluton. The alkalic gabbro-syenomonzonite contains magnetite and traces of disseminated pyrite. A selection of both pre-ore and post-ore dykes occur at Goosly. Pre-ore diorite, andesite and quartz latite and post-ore trachyandesite, andesite and quartz latite dykes are reported.

A number of lineaments are apparent in the area. Northeast trends in the tertiary volcanics, also reflected in local drainage patterns are subparallel to cleavage in the Mesozoic rocks. Other orientations between 070 degrees and 125 degrees are reflected by the attitudes of pre-and post-mineral dykes.

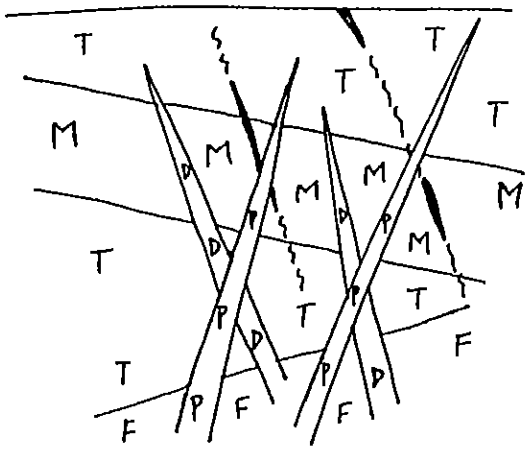
Two ore zones are present at Sam Goosly, the Main Zone and the Southern Tail. Both zones occur within the Pyroclastic Division. Ore minerals in the Main Zone are fine grained and more commonly occur as disseminations. Veins and local patches of massive sulphides are also present. In the Southern Tail sulphides occur predominantly as veins and locally as disseminations. Mineralization is mostly restricted to a tabular zone of intense fracturing and brecciation that parallels stratigraphy. Less significant quantities of copper and silver sulphides occur throughout the stratigraphic sequence and crosscutting sulphide veins up to 5 metres in width are present in outcrop and drill core. The main sulphide minerals are pyrite, chalcopyrite, tetrahedrite, pyrrhotite, arsenopyrite, sphalerite, magnetite and specularite. An epigenetic origin is indicated by: sulphide rim textures in coarse fragments suggesting a replacement origin, abundant sulphide veins that show crosscutting relationships, a consistency of vein paragenesis and the presence of mineralized dykes within the ore zones.

Pervasive host rock alteration at Goosly consists of sericite, clay, chlorite and pyrite and forms a poorly defined envelope about the mineralized zones. More specific to mineralization are zones of silica, quartz-sericite and chlorite. Tourmaline is sometimes present associated with intense sericite alteration. Peripheral to mineralized zones is an assemblage of andalusite-pyrophyllite-chlorite. Late contact metamorphism by the gabbro-syenomonzonite complex has likely altered the original alteration patterns.

Mineral deposits at Goosly occur in structurally controlled zones probably related to one of the two stocks in the area. Wetherell, et al (1979) suggest that mineralization was nearly contemporaneous with emplacement of the quartz monzonite pluton west of the deposits. Ney, et al (1972), favour a genetic model which includes original concentration by volcanogenic processes followed by remobilization and modification as a result of plutonism. The quartz monzonite shows a positive chemical affinity to the ore and may have been a vehicle for the latter process. However, the deposits are much nearer the gabbro-syenomonzonite which could conceivably have remobilized the

COMPARATIVE GEOLOGICAL SECTIONS

NADINA (SILVER QUEEN)

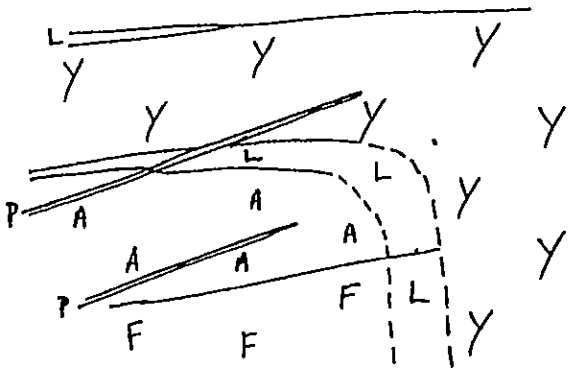


LEGEND

/ = Vein Fault
P = Pulaskite
D = Feldspar Porphyry
M = Microdiorite
T = Tip Top Hill Volcanics
F = Felsic Volcanics

F at Nadina may correlate with F at Gillian

GILLIAN MINES LTD.

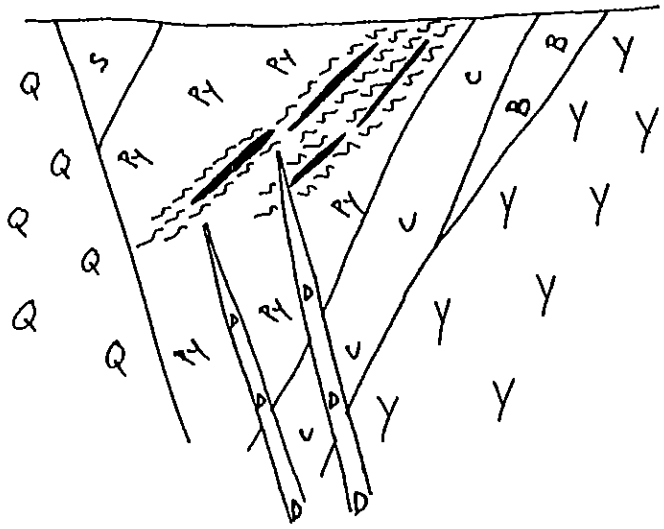


LEGEND

P = Pulaskite
L = Leached Zone
Y = Gabbro-Syenomonzonite
A = Argillite
F = Felsic Volcanics

A at Gillian may correlate with S at Sam Goosly

SAM GOOSLY



LEGEND

/ = Mineralization
D = Feldspar Porphyry
Y = Gabbro-Syenomonzonite
Q = Quartz Monzonite
S = Sedimentary/Volcanic Unit
Py = Pyroclastic Unit
C = Chert Pebble Conglomerate
B = Polymictic Conglomerate

original stratiform sulphides by generating a broad hydrothermal system employing ground water.

6.0 ECONOMIC POTENTIAL OF GILLIAN MINES LTD.

The comparison of the Nadina (Silver Queen) and Sam Goosly deposits demonstrates that several circumstances are common to both deposits. Church (1970c) suggested that the two deposits are part of a continuum and that the Nadina system may change at depth to a Goosly-type deposit.

The following affinities are readily discernible:

1. Both deposits occur as a result of epigenetic mineralizing processes.

2. Structural controls appear to have been most significant. Deposits are oriented parallel or sub-parallel to regional structure trends.

3. The mineralization is intimately associated with Upper Cretaceous to Eocene plutonism. The plutons are of a series of chemically similar plutons oriented along a regional structure. Hydrothermal concentrations of metals and alteration of country rocks is evident.

4. The deposits occur in or above Lower Cretaceous felsic volcanic rocks. The Tip Top Hill volcanics at Nadina define the highest stratigraphic occurrence of mineralization. Therefore any portion of the stratigraphic section between these units conceivably hosts ore.

With the above ore controls in mind it is apparent that the economic potential at Gillian lies in the possibility of locating epigenetic mineralization in a structurally controlled environment. Drill cores from Gillian show hydrothermal leaching adjacent to the alkalic gabbro-syenomonzonite. Geochemical data from drill core indicate the degree of leaching. The following average metal values have been loosely derived from the graphs plotted and are only approximate.

Rock Metal	Argillite	Argillite Pendant	Bleached Argillite
Cu	55	55	40
Pb	5	5	1-2
Zn	125	100	75
Ba	500	350	250-300

This data demonstrates that mineral bearing solutions were present at Gillian and it is conceivable that the metals were concentrated in a structural trap. Pyrite fracture fillings in argillite and sporadic anomoulous lead, zinc and copper highs in the gabbro are evidence of a late fracture control for mineralization. The drill data to date indicates that the zone of leaching thickens to the northeast, the direction from which the sill is believed to have intruded. If the sill is a lobe-like configuration of a structurally controlled stock then the apex between the lobe and stock must be regarded as a highly favourable environment for the formation of ore.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The Gillian Property southeast of Houston, B.C. is centred on an alkaline gabbro-syenomonzonite intrusion which crosscuts Lower Cretaceous volcanic and sedimentary stratigraphy. The pluton is one of a group of at least five whose orientation and occurrence suggest structurally controlled emplacement along an east-northeasterly trend between the Nadina (Silver Queen) deposits in the west and the Sam Goosly deposit in the east.

Diamond drilling on the edge of the pluton at Gillian show it to be sill-like. However, the afore-mentioned east-west alignment of plutons of similar age suggest a stock emplacement and on this basis the sill-like aspect of the gabbro is interpreted to be related to an upper lobe development of a steeply plunging stock.

Geochemical analyses of drill core show that a hydrothermal system genetically related to the sill has leached rocks with relatively high backgrounds of copper, lead, zinc and barium. Evidence from diamond drilling indicates that hydrothermal alteration of country rocks increases in the direction from which the sill-like body is interpreted to have intruded.

It is recommended that in future exploration emphasis be directed toward locating structurally controlled mineralization beneath the sill-like appendages and adjacent to the gabbro-syenomonzonite stock.

More specifically an east-west line of holes should be collared along the major east-west lineament approximately 80 metres north of DDH 81-37 to test the theory that movement along this structure prepared the way for the intrusion and subsequent hydrothermal activity related to ore concentration and localization.

Prior to drilling further geological organization as included in the attached list is required in order to specifically target the drill program.

The following procedures are required for accurate data control:

1. Preparation of a topographic map of the property at a scale of 1:5,000. Topographic maps of the drill area are required at a scale of 1:500.

2. A transit survey is required to locate diamond drill holes, claim posts and the flagged reference grid on the topographic map.

3. A map of the surface geology of the property with topography should be prepared.

4. All drill core should be logged and the drill geology plotted and interpreted. Where necessary sections of the core should be sampled.

5. Airphotographs of the property and vicinity should be obtained and studied for structural information.

6. A proton precession magnetometer survey intended to outline the gabbro-syenomonzonite intrusion would enhance the exploration program.

7. At the completion of the above procedures a study period is required to compile and assess all the available data. This compilation includes such data as:

   geological mapping

   drill geology

   magnetometer survey

   airphotograph interpretation

   rock geochemistry.

8.0 REFERENCES

Church, B.N.;

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HOLE NO.: 81-39
COLLAR ELEV.: +58.37' +17.79 m GROUND ELEV.:
COORDINATES: N. E.
INCLINATION: -90° BEARING: Vertical

PROJECT: 81-28G
DATE STARTED: April 28, 1981
DATE FINISHED: April 28, 1981
TOTAL DEPTH: 856'

PAGE NO.: 1 OF 7
CLAIM:
SCALE: 1"=50', 1"=5', 1"=25', 1"=10'
LOGGED BY: S.C.B.

BEMA INDUSTRIES LTD.

COMMENTS GILLIAN MINES LTD. - Rapidlog

AVE. CORE REC'Y/HOLE 100%

SECTION	ALTERAT'N: CHLORITE	ALTERAT'N: CARBONATE	ALTERAT'N: CLAY	ALTERAT'N: SILICA	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
1"=50'							0 - Overburden	0 - 12' Overburden							
							12' GABR	12' - 300' Gabbro-Diorite as previously described			100%	NQ			
50							QZ-CO_3								
100															
150							159'	159' - 162' Dacitic-Andesite Dyke grn-brn w/elongate QZ amyg parallel to contacts. Fn gr toward chilled margins. Clay alt. at contacts. Minor brxx at lower contact.							
							162' DACT-ANDS								
							CA-QZ								
200							205.5' DACT-ANDS	205.5' - 218' Dacitic-Andesite Dyke as above. Gabbro alt. for 1' adj. to dyke.							
							218'								
250															
							270' fn gr chill border	270' - 309' fn gr chill zone in Gabbro. Mar-grn groundmass w/px phenos. Locally broken a/Qz-CO_3-BA? Vnlts. where alt some py present in diss and in frx.							
300							DO or BA in frx								

HOLE NO.: 81-39 | PROJECT: 81-28G | PAGE NO.: 2 OF 7

COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | CLAIM:

COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY:

BEMA INDUSTRIES LTD.

SECTION	ALTERAT'N: CHLORITE	CARBONATE	CLAY	SILICA	FRACTURING	MINERAL	GEOLOGY	COMMENTS	DESCRIPTIVE GEOLOGY
300								300' GABR	300' - 308.5' Gabbro
1"=5'								QZ-CO_3	
305								Tuff frags in Dyke	
								308' FELSIC DYKE	308.5' - 312' Felsic Dyke - same as in DDH81-37 fin gr to vy fn gr,buff coloured. Fp & Qz in buf groundmass. Cut by numerous high & low angle CL-CA vnlts. Minor amounts of Py occur in dyke. Near the contact with the tuff the dyke is vy fn gr
310								312' FELSIC TUFF	312' Felsic Tuff - vy fn gr, buf same colour lam indicate a vy low bedding pole to c/a angle. Vy minor py occurs in dk lam ¼"
								314.5'FELSIC DYKE	
								315.2'FELSIC TUFF	
								316.3'FELSIC DYKE	316.3' - 318.5' Felsic Dyke - as above but cut by high angle sheared Py-SE vnlts. unit also contains minor diss py. Py in micro frx.
315								PY	
								318.5'FELSIC TUFF	
								PY	318.5' - 323.5' Felsic Tuff as above but contains thin (to 1") dk (organic rich?)layers which contain minor py. Frx near contacts contain CL.
								PY	
320								323.5'FELSIC DYKE	323.5' - 324.6' Felsic Dyke as above: CL Frx w/Py also blebs & micro frx w/py. Py is euh or sheared on frx.
								PY	
								325.5'FELSIC TUFF	325.5' - 330' Felsic Tuff as above near contact py in irreg. dk blebs grades downward into silty tuff or silt-stone. Dker in colour and locally contains 1% Py over 1"-4". Bedding pole to c/a angle 10°.
325								QZ in micro frx w/py	
330									

AVE. CORE REC'Y/HOLE

SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED

HOLE NO.: 81-39 | PROJECT: 81-28G | PAGE NO.: 3 OF 7

COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | CLAIM:

COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: Vertical | BEARING: | TOTAL DEPTH: | LOGGED BY:

BEMA INDUSTRIES LTD.

SECTION	ALTERAT'N: CHLORITE	CARBONATE	CLAY	SILICA FRACTURING	MINERAL	GEOLOGY	COMMENTS	DESCRIPTIVE GEOLOGY
330							330' FELSIC TUFF	330' - 358' Tuffaceous Siltstone - felsic tuff grades downward into silty Tuff? Silt material includes QZ & Fp. Cut by numerous micro frx of QZ some frx have dusty CL? Bedding pole to c/a angle 10°.
335							336'-2" diss py & py in QZ frx fillings PY 339'-2" mass led PY BP:CA=20° minor organic material w/py PY 343'-1.5" mass bedded PY	
345							worm burrows w/py	335' Tuff unit grades to clay alt Fp rich fn gr silty Tuff?
350							QZ-CO_3	
355							QZ- CO_3	
360							358' ARGL PY or frx QZ	358' - 360' Argillite - upper Tuff(?) unit grades rapidly downward into black silty Argl.

AVE. CORE REC'Y/HOLE

SULPHIDES | DRILLING INTERVAL | % CORE RECOVERED | CORE SIZE | SAMPLE INTERVAL | % REC'Y SAMP. INT. | ESTIMATED

HOLE NO.: 81-39 | PROJECT: 81-28G | PAGE NO.: 4 OF 7

COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | CLAIM:

COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY:

BEMA INDUSTRIES LTD.

AVE. CORE REC'Y/HOLE

COMMENTS

DESCRIPTIVE GEOLOGY

SECTION	ALTERAT'N	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	COMMENTS
1"=25'				360' ARGL PY on frx PY lam PY 1"-2" PY on frx & lam PY PY & Silt rip & slump 390' PY 4" lam & frx PY on frx diagenetic mass PY lam py 1"-2" lam py 1" Py blobs 2" Py on frx PY in worm burrows? PY blobs 2" PY 2" 2" lam py PY PY	360' - 510' Argillite - freq influx of lt colour clastic & py frx are freq subparallel to bed fol.
360						
380						
400						
420						
440						
460						
480						
500						
510						

% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED

HOLE NO.: 81-39 | PROJECT: 81-28G | PAGE NO.: 5 OF 7

COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | CLAIM:

COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY:

BEMA INDUSTRIES LTD.

COMMENTS

AVE. CORE REC'Y/HOLE

DESCRIPTIVE GEOLOGY

SECTION	ALTERAT'N	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
510					510' ARGL 510' - 660' Argillite							
520					PY							
					PY							
540					PY							
					554' - 6" diss bed py up to 2% py							
560					blue clay alt frx							
580												
600					3" Py blob							
620					630' -2" gran cglm w/py							
640												
660												

HOLE NO.: 81-39 | PROJECT: 81-28G | PAGE NO.: 6 OF 7

COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | CLAIM:

COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY:

BEMA INDUSTRIES LTD.

SECTION	ALTERAT'N	FRACTURING	MINERAL	GEOLOGY	COMMENTS / DESCRIPTIVE GEOLOGY	AVE. CORE REC'Y/HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
660					660' ARGL PY blobs 2"								
680					660'-800' Argillite								
700					Silt Layer graded upright								
720					QZ								
740													
760													
780													
800													

HOLE NO.: 81-39 | PROJECT: 81-28G | PAGE NO.: 7 OF 7

COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | CLAIM:

COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY:

BEMA INDUSTRIES LTD.

SECTION	ALTERAT'N: CHLORITE	CARBONATE	CLAY	SILICA	FRACTURING	MINERAL	GEOLOGY	COMMENTS	DESCRIPTIVE GEOLOGY
800								800 ARGL	800 - 805' Argillite - blk, locally silty, intensely fractured.
1"=10'								805' FELSIC FLOW	805 - 856' Felsic Flow (Rhyolite?) lt gry colour, weath buff, irreg brxx probably flow brxx Qz & Fp w/tr py some sect are alt and have a sandy intr text. Unit is strongly alt to clay and it appears to be loci of a fault. Hole ends in clay. Some sects are almost mass w/only mod frx.
810									
820									
830								835' diss py <1%	
840								840' minor diss PY Qz frx	
850									
856 EOH								856' EOH	

AVE. CORE REC'Y/HOLE

% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED

HOLE NO.: 81-43
COLLAR ELEV.: +56.73' +17.29 GROUND ELEV.:
COORDINATES: N. E.
INCLINATION: -90° BEARING: Vertical

PROJECT: 81-28G
DATE STARTED: April 29, 1981
DATE FINISHED: April 29, 1981
TOTAL DEPTH: 606'

CLAIM:
SCALE: 1"=50', 1"=10', 1"=25'
LOGGED BY: S.C.B.

BEMA INDUSTRIES LTD.

COMMENTS: GILLIAN MINES LTD. - Rapidlog

AVE. CORE REC'Y/HOLE. 100%

DESCRIPTIVE GEOLOGY

SECTION	GEOLOGY	DESCRIPTIVE GEOLOGY
0	0 - Overburden	0 - 10' Overburden
1"=50'	10' GABR lt	10 - 102.5' GABBRO - as described in previous holes
50	47' GABR dk	
	89' QZ-CA frx	
100	102.5' DACT-ANDS	102.5 - 104' DACITIC ANDESITE DYKE-as described previously-amyg.
	QZ frx	104 - 183.5' GABBRO
150		
	CL-CA frx	
	183.5' DACT-ANDS	183.5 - 196' DACITIC ANDESITE DYKE
	196' GABR	196 - 280' GABBRO
200	CL-CA frx	
250		
280		

ALTERAT'N: CHLORITE, CARBONATE, CLAY, SILICA
FRACTURING
MINERAL

SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
		100%	NQ			

HOLE NO.: 81-43 | PROJECT: 81-28G | PAGE NO.: 2 OF 4

COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | CLAIM:

COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY:

BEMA INDUSTRIES LTD.

SECTION	ALTERAT'N: CHLORITE	ALTERAT'N: CARBONATE	ALTERAT'N: CLAY	ALTERAT'N: SILICA	FRACTURING	MINERAL	GEOLOGY	COMMENTS	DESCRIPTIVE GEOLOGY
280								280' GABR	280 - 292.5' GABBRO-as above - narrow 2.5' chill margin.
1"=10'								QZ-CA	
290								290' top of chill zone	
								292.5' FELSIC TUFF	292.5 - 334' FELSIC TUFF-gry-buff, silty, well lam w/numerous turb silt.
								CL frx	
300								300' lam PY 1"	
								301.5' 3" diss PY	
								304.5' 1" lam PY	
								306' 1" lam PY	
310									
								lam PY	
								315.5' 1" lam PY	
								PY	
320								324' silty turb.	
330								334' ARGL	334 - 340' ARGILLITE-blk gr well lam locally PY several frx zones and many low angle QZ filled frx late frx w/CA. Immed below f humerous soft sed struct scouring graded bed.
								lam PY 1"	
340								PY frx blebs	

AVE. CORE REC'Y/HOLE

SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED

HOLE NO.: 81-43 | PROJECT: 81-28G | PAGE NO.: 3 OF 4

COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | CLAIM:

COORDINATES: | N. | E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY:

BEMA INDUSTRIES LTD.

COMMENTS

DESCRIPTIVE GEOLOGY

AVE. CORE REC'Y/HOLE

SECTION	ALTERAT'N: CHLORITE	ALTERAT'N: CARBONATE	ALTERAT'N: CLAY	ALTERAT'N: SILICA	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
340								340' ARGL 1am PY							
1"=25'								1am PY frx PY							
360								PY blebs & frx PY in frx frx py							
380								391' & 392' 1" 1am PY 1" 1am PY BP:CA = 5°							
400								PY on frx 5-1"-2" PY 1am							
420								5-1"-2" PY 1am 432' 2" 1am PY							
440								PY							
460								PY frx-blebs PY frx							
480								PY frx							
490								broken core graph -CA							

340 - 490' ARGILLITE

HOLE NO.: 81-43
COLLAR ELEV.:
GROUND ELEV.:
COORDINATES: N. E.
INCLINATION: BEARING:
PROJECT: 81-28G
DATE STARTED:
DATE FINISHED:
TOTAL DEPTH:
PAGE NO.: 4 OF 4
CLAIM:
SCALE:
LOGGED BY:

BEMA INDUSTRIES LTD.

ALTERAT'N: CHLORITE | CARBONATE | CLAY | SILICA
FRACTURING | MINERAL | GEOLOGY

COMMENTS

DESCRIPTIVE GEOLOGY

AVE. CORE REC'Y/HOLE

SECTION | % SULPHIDES | DRILLING INTERVAL | % CORE RECOVERED | CORE SIZE | SAMPLE INTERVAL | % REC'Y SAMP. INT. | ESTIMATED

490 490' ARGL

frx core

532' 2-1" clast units w/PY frags

570' PY clay 5"

578.5' 1.5" gran clastic unit w/PY frag

589' PY clay 4" narrow QZ-CA

PY clay unit 5"

606' EOH

606 EOH

490 - 606' ARGILLITE

HOLE NO.: 81-45
COLLAR ELEV.: +63.62' +19.39 m GROUND ELEV.:
COORDINATES: N. E.
INCLINATION: -90° BEARING: Vertical

PROJECT: 81-28G
DATE STARTED: April 29, 1981
DATE FINISHED: April 29, 1981
TOTAL DEPTH: 348'

CLAIM:
SCALE: 1"=50', 1"=10'
LOGGED BY: S.C.B.

BEMA INDUSTRIES LTD.

COMMENTS: GILLIAN MINES LTD. - Rapidlog

AVE. CORE REC'Y/HOLE 100%

SECTION	ALTERAT'N: CHLORITE	ALTERAT'N: CARBONATE	ALTERAT'N: CLAY	ALTERAT'N: SILICA	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY		SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
0							0 - Overburden	0 - 10' Overburden								
1"=50'							10' med gr, gry-grn GABR	10 - 115.6' GABBRO-as described in previous holes.				100%	NQ			
50							74' transition to dk grn GABR									
100							115.6' DACT-ANDS	115.6 - 116.6' DACITIC ANDESITE DYKE-as described in previous holes brn-grn, amyg w/fn gr contacts.								
							116.6 GABR EP-QZ on frx	116.6 - 189' GABBRO as above-lower contact alt for 1'								
150																
							189' DACT-ANDS	189 - 264.2' DACITIC ANDESITE DYKE-as above								
200							204.2 GABR	204.2 - 280' GABBRO								
							QZ-CL on frx									
250																
280																

HOLE NO.: 81-45 | PROJECT: 81-28G | PAGE NO.: 2 OF 3

COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | CLAIM:

COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY:

BEMA INDUSTRIES LTD.

SECTION	ALTERAT'N: CHLORITE	CARBONATE	CLAY	SILICA	FRACTURING	MINERAL	GEOLOGY	COMMENTS	DESCRIPTIVE GEOLOGY
280 1"-10'								280' GABR 1' fn gr chill zone	280 - 283' GABBRO-1' fn gr chill above contact around core.
								283' FELSIC TUFF PY ½"	283 - 331' FELSIC TUFF-lt gry brn a few dk PY lam. PY-CL frx upper 3' is ground core. Some sects cont silty layers.
290								PY ½" BP:CA=10°	
								CL-PY frx	
								CA	
								PY 1"	
								clay on frx	
								PY blobs	
								297' 1" PY w/frx	
300								300' 1" PY in microfrx graded bed below PY tops up	300 - 325' blocky broken core.
310								diag. of PY	
									318' - 1' zone of soft sed deform & minor brxx some lam have BP:CA > 25°.
								319' ½" PY	
320									
330								331' ARGL QZ in PY	331 - 340' ARGILLITE-blk w/freq gry lam CT alt
340									

AVE. CORE REC'Y/HOLE

SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED

HOLE NO.: 81-45 | PROJECT: 81-28C | PAGE NO.: 3 OF 3

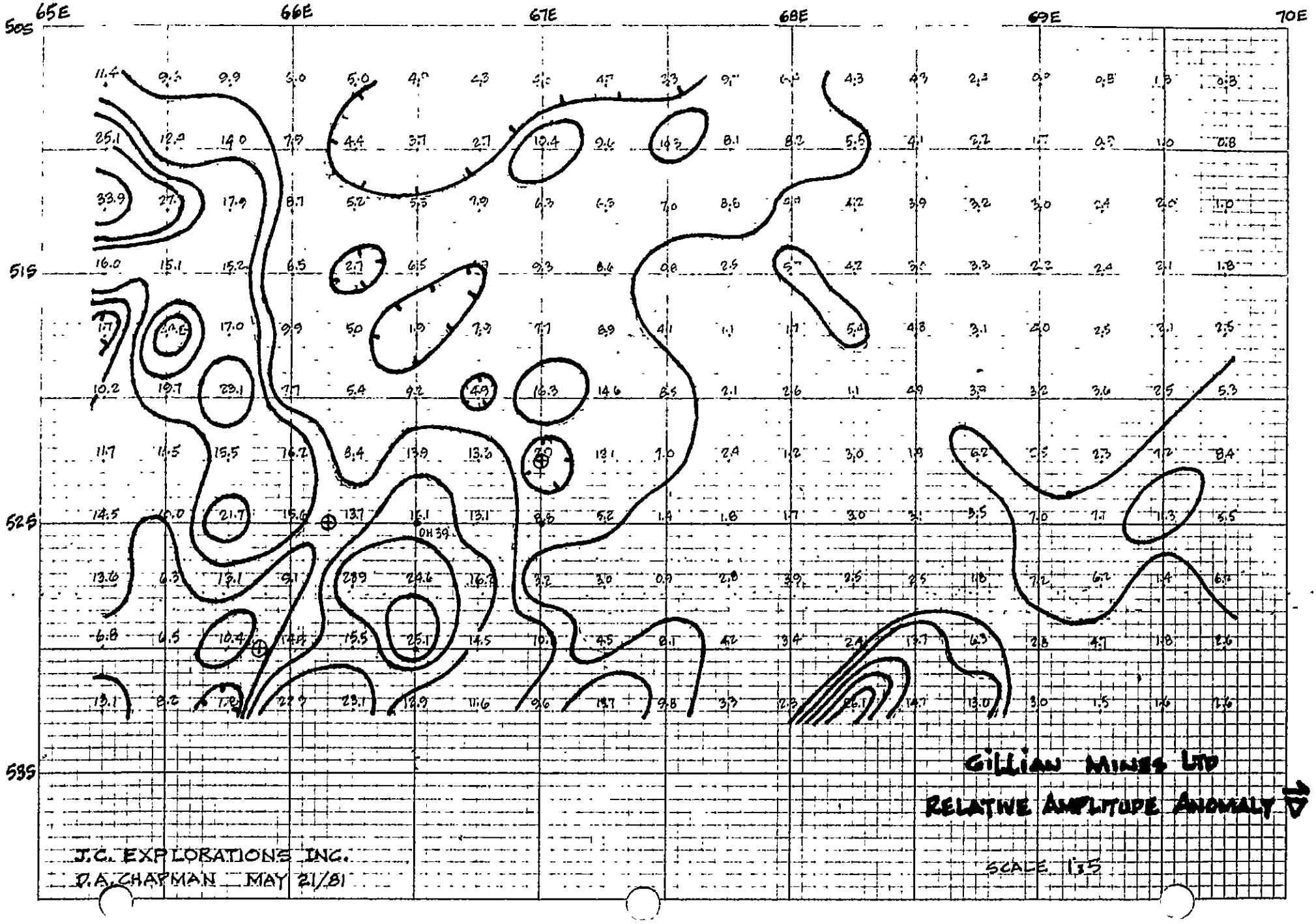
COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | CLAIM:

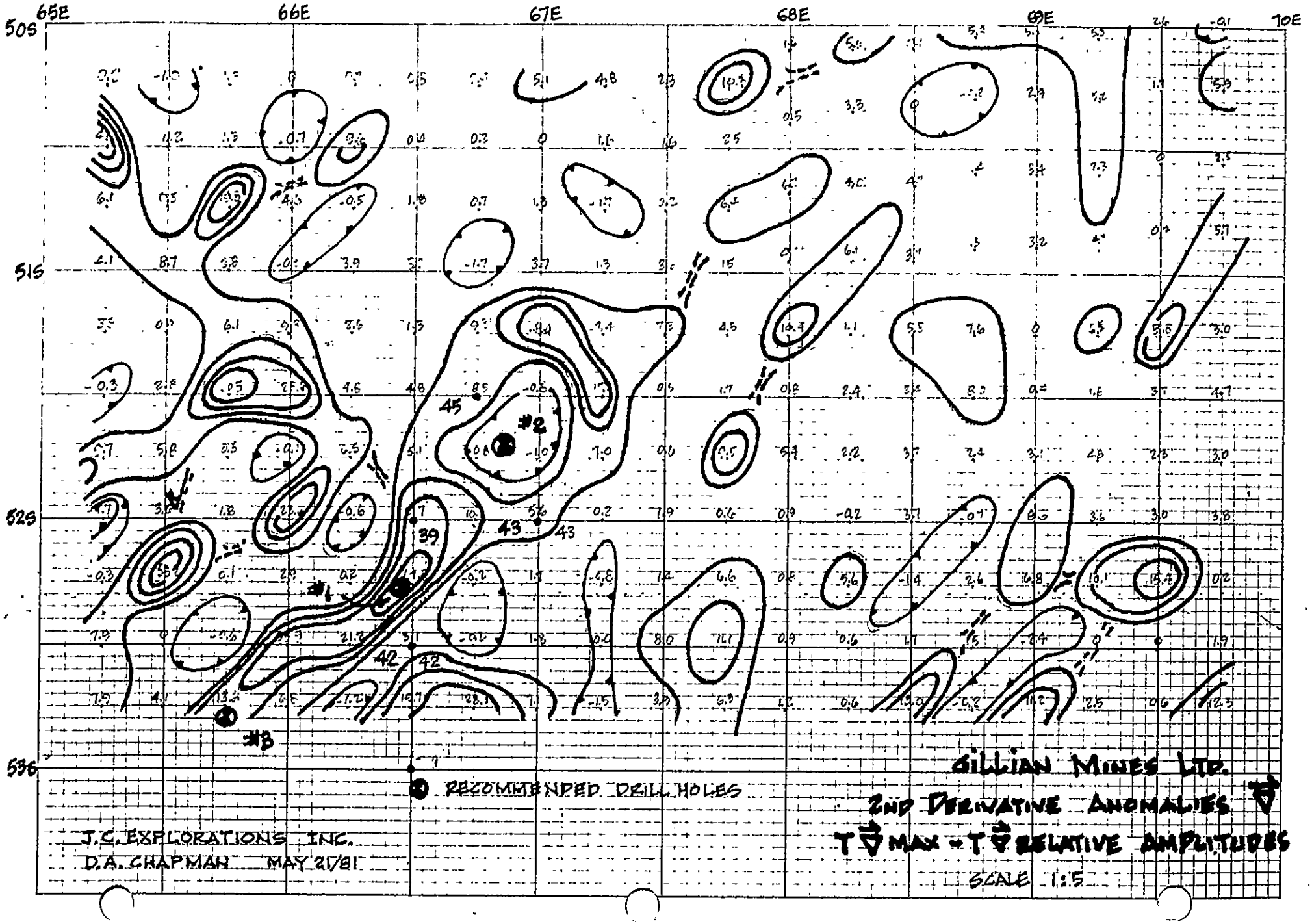
COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY:

BEMA INDUSTRIES LTD.

SECTION	ALTERAT'N: CHLORITE	CARBONATE	CLAY	SILICA	FRACTURING	MINERAL	GEOLOGY	COMMENTS	DESCRIPTIVE GEOLOGY	AVE. CORE REC'Y/HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
340								340' ARGL PY blebs & vy fn diss 2" PY frx 348' EOH	340 - 348' ARGILLITE as above-ground for last foot.								
348 EOH																	


65E
66E
67E
68E
69E
70E
505
515
525
535
DH 39
GILLIAN MINES LTD
RELATIVE AMPLITUDE ANOMALY
J.C. EXPLORATIONS INC.
D.A. CHAPMAN MAY 21/81
SCALE 1:5


65E
66E
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70E
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51S
52S
53S
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RECOMMENDED DRILL HOLES
GILLIAN MINES LTD.
2ND DERIVATIVE ANOMALIES
T∇MAX - T∇RELATIVE AMPLITUDES
SCALE 1:5
J.C. EXPLORATIONS INC.
D.A. CHAPMAN MAY 21/81

65E 66E 67E 68E 69E 70E

50S

51S

52S

53S

DH 45

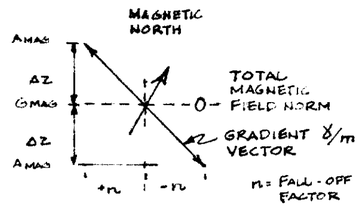
DH 39

DH 43

DH 42

DH 40

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10,851

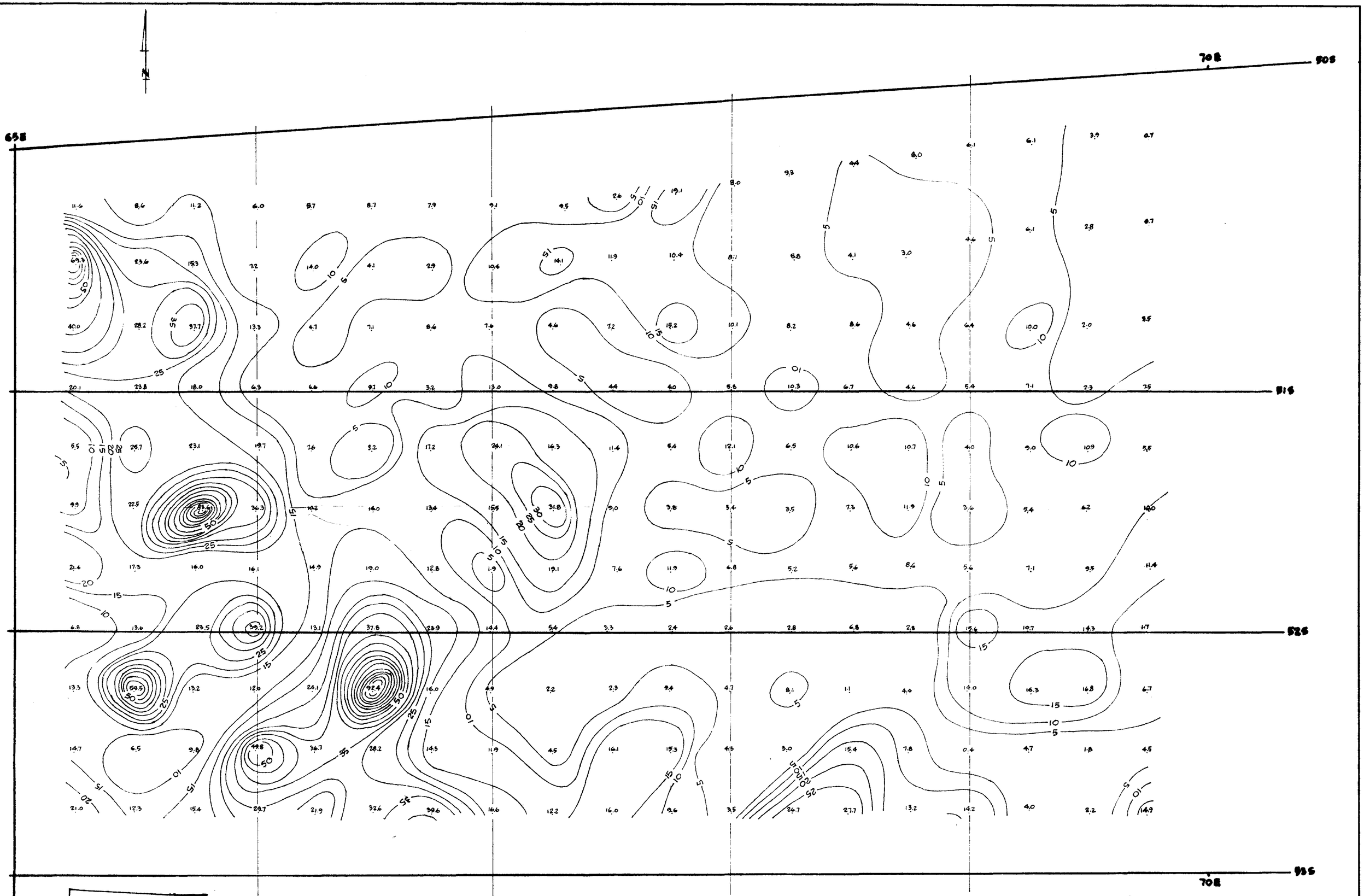


GILLIAN MINES LTD.

VERTICAL SEPERATION (TOTAL FIELD VECTOR) = $G_{MAG} - A_{MAG}$

SCALE: 1:2.5	APPROVED BY:	DRAWN BY D.A.C.
DATE: 18/4/81		REVISED
J.C. EXPLORATIONS INC.		DRAWING NUMBER G 810

B.C.L. (17 x 22) CLEARPRINT FACE(s)



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
19851
NO.

GILLIAN MINES LTD.

MAXIMUM AMPLITUDE ANOMALY $\overrightarrow{\nabla}$Tr

SCALE: 1:2.5	APPROVED BY:	DRAWN BY DAC
DATE: 18/4/81		REVISED

J.C. EXPLORATIONS INC.

DRAWING NUMBER G812

18X24 PRINTED ON NO. 1000H CLEARPRINT

N

65E

70E

50S

51S

52S

53S

70S

65E

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10,851
NO.

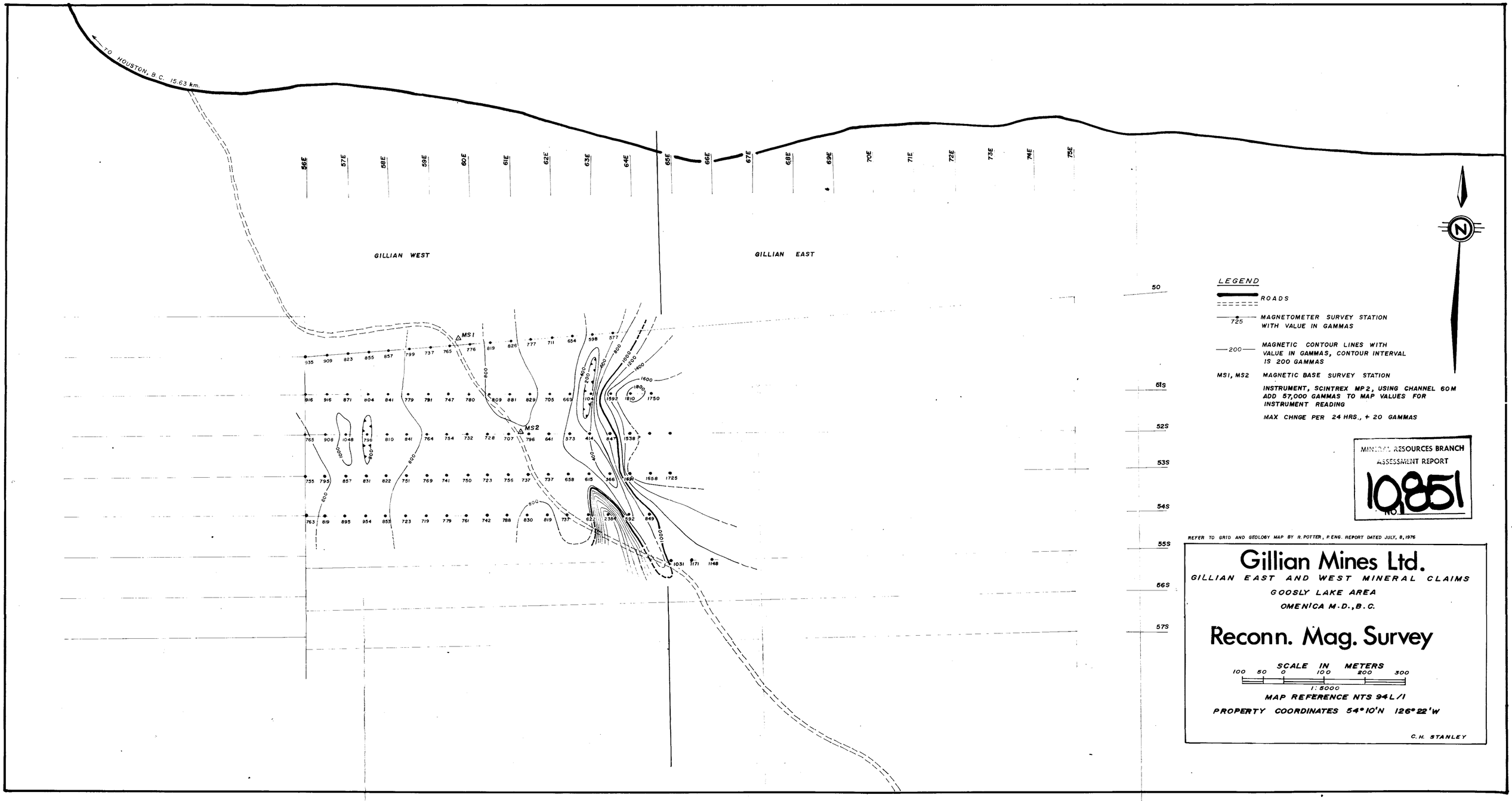
GILLIAN MINES LTD.
TOTAL FIELD MAGNETIC ANOMALY

SCALE: 1:6.5	APPROVED BY:	DRAWN BY DAC
DATE: 18/4/81		REVISED

J.C. EXPLORATIONS INC.

DRAWING NUMBER
G 813

18X24 PRINTED ON NO. 1000H CLEARPRINT



LEGEND

ROADS

725 — MAGNETOMETER SURVEY STATION WITH VALUE IN GAMMAS

—200— MAGNETIC CONTOUR LINES WITH VALUE IN GAMMAS, CONTOUR INTERVAL IS 200 GAMMAS

MS1, MS2 MAGNETIC BASE SURVEY STATION

INSTRUMENT, SCINTREX MP2, USING CHANNEL 60M ADD 57,000 GAMMAS TO MAP VALUES FOR INSTRUMENT READING

MAX CHNGE PER 24 HRS., + 20 GAMMAS

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10851
NO.

REFER TO GRID AND GEOLOGY MAP BY R. POTTER, P.ENG. REPORT DATED JULY, 8, 1976

Gillian Mines Ltd.

GILLIAN EAST AND WEST MINERAL CLAIMS

GOOSLY LAKE AREA

OMENICA M.D., B.C.

Reconn. Mag. Survey

SCALE IN METERS

100 50 0 100 200 300

1:5000

MAP REFERENCE NTS 94L/1

PROPERTY COORDINATES 54°10'N 126°22'W

C.H. STANLEY

COLLAR ELEV.: 0 (datum) | GROUND ELEV.: | DATE STARTED: April 29, 1981 | CLAIM:

COORDINATES: N. E. | DATE FINISHED: April 29, 1981 | SCALE: 1"=50', 1"=10'

INCLINATION: -90° | BEARING: Vertical | TOTAL DEPTH: 416' | LOGGED BY: S.C.B.

BEMA INDUSTRIES LTD.

COMMENTS: GILLIAN MINES LTD. - Rapidlog

AVE. CORE REC'Y/HOLE 100%

DESCRIPTIVE GEOLOGY

SECTION 1"=50'	ALTERAT'N: CHLORITE	ALTERAT'N: CARBONATE	ALTERAT'N: CLAY	ALTERAT'N: SILICA	FRACTURING	MINERAL	GEOLOGY		
0								0 - Overburden	0 - 30' Overburden
								30' DACT-ANDS	30 - 40' DACITIC ANDESITE DYKE-as before, amyg.
								40' GABR	40 - 51.5' GABR-alt & strly weath.
50								51.5' DACT-ANDS	51.5 - 52.7' DACITIC ANDESITE DYKE
								52.7-60' GABR weath	52.7 - 300' GABBRO
100								$QZ-CO_3$	
150									
200									
250									
300								$QZ-CO_3$ frx	

SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
		100%	NQ			

COLLAR ELEV.: GROUND ELEV.: DATE STARTED: CLAIM:

COORDINATES: N. E. DATE FINISHED: SCALE:

INCLINATION: BEARING: TOTAL DEPTH: LOGGED BY:

BEMA INDUSTRIES LTD.

COMMENTS

AVE. CORE REC'Y/HOLE

DESCRIPTIVE GEOLOGY

SECTION	ALTERAT'N: CHLORITE	ALTERAT'N: CARBONATE	ALTERAT'N: CLAY	ALTERAT'N: SILICA	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
300								300' GABR QZ-CA frx 323' top of chill zone CA-QZ frx 330' felsic frag w/PY PY in GR rich zone 1" 337' FELSIC TUFF PY QZ frx 342' PY lam BP:CA=15° PY clots PY in 2" lam PY in frx 352.5' fn diss PY 2" PY 1" PY 1" PY QZ-PY & PY frx bed PY. 1" PY 1" PY 1" PY PY PY blebs & frx 371' FELSIC TUFF							
320															
330															
340															
350															
360															
370															
376															

1"=10'

300 - 337' GABBRO-as above.

337 - 376' FELSIC TUFF-gry lam w/local dk PY bearing lam.

HOLE NO.: 81-44 PROJECT: 81-286 PAGE NO.: 3 OF 3

COLLAR ELEV.: GROUND ELEV.: DATE STARTED: CLAIM:

COORDINATES: N. E. DATE FINISHED: SCALE:

INCLINATION: BEARING: TOTAL DEPTH: LOGGED BY:

BEMA INDUSTRIES LTD.

AVE. CORE REC'Y/HOLE

COMMENTS

DESCRIPTIVE GEOLOGY

SECTION	ALTERAT'N: CHLORITE	ALTERAT'N: CARBONATE	ALTERAT'N: CLAY	ALTERAT'N: SILICA	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY		% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
376								376' FELSIC TUFF	376 - 381' FELSIC TUFF							
								PY in frx in PY								
380								rich lam								
								PY clot, frx								
								PY in frx								
								381' ARGL	381 -416' ARGILLITE as described in previous holes							
								383' several ½'x	CHLOROTOID alt well dev in lower 16' of section.							
								1" PY frags								
390								PY brxx 2'								
								PY brxx 2'								
								PY lam 1"								
								PY								
								PY								
								PY blebs & lam								
400								PY lam & frx								
								PY on frx								
								PY in frx								
410								PY clots frx								
								PY								
416 EOH								416' EOH								

HOLE NO.: 80-55 PROJECT: 81-286 PAGE NO.: 1 OF 7

COLLAR ELEV.: -43.11' -13.14 mGROUND ELEV.: DATE STARTED: May 1, 1981 CLAIM:

COORDINATES: N. E. DATE FINISHED: May 1, 1981 SCALE: 1"=50', 1"=10', 1"=25'

INCLINATION: -90° BEARING: Vertical TOTAL DEPTH: 607' LOGGED BY: S.C.B.

BEMA INDUSTRIES LTD.

COMMENTS: GILLIAN MINES LTD. - Scanlog

AVE. CORE REC'Y/HOLE 100%

SECTION	ALTERAT'N: CHLORITE	CARBONATE	CLAY	SILICA	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY		SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
0								0 - Overburden	0 - 21' Overburden							
1"=50'								21' GABR	21 - 42' GABBRO - fn gr-possibly younger dyke or sill.			100%	NQ			
								LM frx								
50								42' GABR	42 - 80' GABBRO - med gr.							
								80' GABR	80 - 122' GABBRO - fn gr.							
100																
120								122' FELSIC TUFF	122 - 123' FELSIC TUFF							
1"=10'								123' GABR	123 - 124' GABBRO-fn gr - numerous CO_3 fill frx.							
								124' FELSIC TUFF	124 - 129' FELSIC TUFF							
								PY on frx at igneous contacts								
								129' GABR	129 - 120' GABBRO fn gr - CO_3 filled frx throughout sect.							
130								130' FELSIC TUFF	130 - 131' FELSIC TUFF							
								131' GABR	131 - 132' GABBRO fn gr.							
								132' FELSIC TUFF	132 - 133' FELSIC TUFF							
								133' GABR	133 - 134' GABBRO fn gr.							
								134' FELSIC TUFF	134 - 135' FELSIC TUFF							
								135' GABR	135 - 136' GABBRO fn gr.							
140								136' FELSIC TUFF	136 - 141' FELSIC TUFF							
								141' DACT-ANDS	141 - 154' DACITIC ANDESITE DYKE - amyg.							
150																
154																

HOLE NO.: [illegible] PROJECT: [illegible] PAGE NO.: 2 OF [illegible]

COLLAR ELEV.: GROUND ELEV.: DATE STARTED: CLAIM:

COORDINATES: N. E. DATE FINISHED: SCALE:

INCLINATION: BEARING: TOTAL DEPTH: LOGGED BY:

BEMA INDUSTRIES LTD.

COMMENTS

AVE. CORE REC'Y/HOLE

DESCRIPTIVE GEOLOGY

SECTION	ALTERAT'N: CHLORITE	ALTERAT'N: CARBONATE	ALTERAT'N: CLAY	ALTERAT'N: SILICA	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY		% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
154								154' DACT(?)	154 - 158' DACITE(?) DYKE							
								158' FELSIC? DYKE	158 - 163' FELSIC(?) DYKE							
160								163' FELSIC TUFF	163 - 164' FELSIC TUFF-numerous CO_3 filled frx throughout sect.							
								164' FELSIC? DYKE	164 - 165' FELSIC(?) DYKE							
								165' FELSIC TUFF	165 - 167' FELSIC TUFF							
								167' FELSIC? DYKE	167 - 169' FELSIC(?) DYKE							
								169' FELSIC TUFF	169 - 171' FELSIC TUFF							
170								171' FELSIC DYKE w/tuff frags	171 - 180' MIXED TUFFS & DYKES							
								frx PY, amyg sect								
								PY on frx								
180								180' FELSIC TUFF	180 - 181' FELSIC TUFF							
								181' FELSIC? DYKE	181 - 182' FELSIC(?) DYKE							
								182' FELSIC TUFF	182 - 183' FELSIC TUFF							
								frx PY								
								186' FELSIC-TUFF	186 - 188' FELSIC TUFF							
190								188' GABR fn gr felsic frags	188 - 198' GABBRO fn gr.							
								felsic frag								
								198' FELSIC TUFF	198 - 199.5' FELSIC TUFF							
200								199.5' GABR	199.5 - 210' GABBRO fn gr							
								felsic frags								
210																

HOLE NO.: 80-33 PROJECT: 81-28G PAGE NO.: 3 of 7

COLLAR ELEV.: GROUND ELEV.: DATE STARTED: CLAIM:

COORDINATES: N. E. DATE FINISHED: SCALE:

INCLINATION: BEARING: TOTAL DEPTH: LOGGED BY:

BEMA INDUSTRIES LTD.

SECTION	ALTERAT'N: CHLORITE	CARBONATE	CLAY	SILICA	FRACTURING	MINERAL	GEOLOGY	COMMENTS / DESCRIPTIVE GEOLOGY	AVE. CORE REC'Y/HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
210																
								felsic frags								
								PY in frx								
220																
230																
240								Gouge dk GABR fn gr 244' FELSIC DYKE? w/tuff. frags								
250																
260																
264																

HOLE NO.: 80-33 PROJECT: 81-28G PAGE NO.: 4 OF 7

COLLAR ELEV.: GROUND ELEV.: DATE STARTED: CLAIM:

COORDINATES: N. E. DATE FINISHED: SCALE:

INCLINATION: BEARING: TOTAL DEPTH: LOGGED BY:

BEMA INDUSTRIES LTD.

SECTION	ALTERAT'N: CHLORITE	CARBONATE	CLAY	SILICA	FRACTURING	MINERAL	GEOLOGY	COMMENTS / DESCRIPTIVE GEOLOGY	AVE. CORE REC'Y/HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
264																
270																
280								dk DACT-ANDS?								
								tuff frags								
290								297-303.5 about 50% frags of tuff?								
300								303.5' DACT-ANDS — 303.5 - 307' DACITIC ANDESITE DYKE								
								307' FELSIC TUFF — 307 - 315' FELSIC TUFF								
310								315' DACT-ANDS — 315 - 324' DACITIC ANDESITE DYKE								
								PY in frx								
320																
324																

HOLE NO.: [illegible]80-35 PROJECT: 81-206 PAGE NO.: 3 OF 7

COLLAR ELEV.: GROUND ELEV.: DATE STARTED: CLAIM:

COORDINATES: N. E. DATE FINISHED: SCALE:

INCLINATION: BEARING: TOTAL DEPTH: LOGGED BY:

BEMA INDUSTRIES LTD.

SECTION	ALTERAT'N: CHLORITE	ALTERAT'N: CARBONATE	ALTERAT'N: CLAY	ALTERAT'N: SILICA	FRACTURING	MINERAL	GEOLOGY	COMMENTS	DESCRIPTIVE GEOLOGY	AVE. CORE REC'Y/HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
324								324' FELSIC TUFF PY in frx	324 - 360' FELSIC TUFF								
330								PY									
340																	
350																	
360								360' FELSIC DYKE 361' TUFF PY frx 365-366' DYKE TUFF PY frx	360 - 361' FELSIC DYKE 361 - 365' FELSIC TUFF 365 - 366' FELSIC DYKE 366 - 372' FELSIC TUFF								
370								372' GABR	372 - 400' GABBRO								
380																	
400																	

HOLE NO.: 80-33 PROJECT: 81 203 PAGE NO.: 3 OF 7

COLLAR ELEV.: GROUND ELEV.: DATE STARTED: CLAIM:

COORDINATES: N. E. DATE FINISHED: SCALE:

INCLINATION: BEARING: TOTAL DEPTH: LOGGED BY:

BEMA INDUSTRIES LTD.

SECTION	ALTERAT'N: CHLORITE	ALTERAT'N: CARBONATE	ALTERAT'N: CLAY	ALTERAT'N: SILICA	FRACTURING	MINERAL	GEOLOGY	COMMENTS	DESCRIPTIVE GEOLOGY	AVE. CORE REC'Y/HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
400 1"=50'								400' GABR	400 - 455' GABBRO								
450								450' chill zone buff, fn gr									
1"=10'								455' FELSIC TUFF	455 - 461' FELSIC TUFF								
								2" PY in lam									
460								461' ARGL	461 - 545' ARGILLITE								
470																	
1"=25'								PY in frx									
500																	
525																	
								530' gry clay									
540								536' ARGL									
545																	

HOLE NO.: 88-33 PROJECT: 81 288 PAGE NO.: 7 OF 7

COLLAR ELEV.: GROUND ELEV.: DATE STARTED: CLAIM:

COORDINATES: N. E. DATE FINISHED: SCALE:

INCLINATION: BEARING: TOTAL DEPTH: LOGGED BY:

BEMA INDUSTRIES LTD.

SECTION	ALTERAT'N: CHLORITE	ALTERAT'N: CARBONATE	ALTERAT'N: CLAY	ALTERAT'N: SILICA	FRACTURING	MINERAL	GEOLOGY	COMMENTS / DESCRIPTIVE GEOLOGY	AVE. CORE REC'Y/HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
545								545' ARGL 545 - 562' ARGILLITE								
560								562' DACT-ANDS 562 - 567' DACT-ANDS 567' ARGL 567 - 607' ARGILLITE								
580																
600																
607 EOH								607' EOH								

HOLE NO.: 80-26 Not Surveyed PROJECT: 81-28G PAGE NO.: 1 OF 4

COLLAR ELEV.: GROUND ELEV.: DATE STARTED: April 30, 1981 CLAIM:

COORDINATES: N. E. DATE FINISHED: April 30, 1981 SCALE: 1"=50', 1"=10', 1"=25'

INCLINATION: -90° BEARING: Vertical TOTAL DEPTH: 607' LOGGED BY: S.C.B.

BEMA INDUSTRIES LTD.

COMMENTS GILLIAN MINES LTD. - Scanlog

AVE. CORE REC'Y/HOLE 100%

SECTION	ALTERAT'N: CHLORITE	ALTERAT'N: CARBONATE	ALTERAT'N: CLAY	ALTERAT'N: SILICA	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
0							0 - Overburden	0 - 42' Overburden							
1"=50'							42' GABR	42 - 138.5' GABBRO-dk, med gr, fairly mass w/wk frx, chill zone at contact not as altered as in later holes vy fn gr chill zone about 6"			100%	NQ			
50															
100															
130															
1"=10'							CA-PY 138.5' Felsic Tuff diss PY in dykes diss PY PY frx PY frx PY conc	138.5 - 149.5' FELSIC TUFF-gry brn fn gr, sil alt where cut by small dykes. Dykes are 4-6" frx w/py, contacts contain some CA amyg. CO_3 alt in dykes.							
140															
150							149.5' ARGL PY or frx 156' DACT-ANDS PY or frx	149.5 - 156' ARGILLITE-blk, sooty mass fn gr tr of py contact w/tuff unit is conformable but distinct. 156 - 168' DACITIC-ANDESITE DYKE-grn-brn amyg as described in later holes-buff coloured at lower contact.							
160							CA or frx								
170							168' ARGL	168 - 529' ARGILLITE-blk sooty vy fn gr, quite mass tr py.							

HOLE NO.: 80-26 | PROJECT: 81-286 | PAGE NO.: 2 OF 4

COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: | CLAIM:

COORDINATES: N. E. | DATE FINISHED: | SCALE:

INCLINATION: | BEARING: | TOTAL DEPTH: | LOGGED BY:

BEMA INDUSTRIES LTD.

COMMENTS

AVE. CORE REC'Y/HOLE

DESCRIPTIVE GEOLOGY

SECTION 1"=25'	ALTERAT'N: CHLORITE	CARBONATE	CLAY	SILICA	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
170								170' ARGL 180' 1" silty layer, turb 189' 2" PY frx lam w/fn diss PY 194' 1.5" lam PY frx PY, PY blebs PY bleb PY conc worm burrows 242' 2" fn diss PY lam PY-conc CA-QZ-GR frx	170 - 320' ARGILLITE - as above.						
180															
200															
220															
240															
260															
280															
300															
320															

COLLAR ELEV.: GROUND ELEV.: DATE STARTED: PAGE NO.: 3 OF 4

COORDINATES: N. E. DATE FINISHED: CLAIM:

INCLINATION: BEARING: TOTAL DEPTH: SCALE:

LOGGED BY:

BEMA INDUSTRIES LTD.

SECTION	ALTERAT'N: CHLORITE	ALTERAT'N: CARBONATE	ALTERAT'N: CLAY	ALTERAT'N: SILICA	FRACTURING	MINERAL	GEOLOGY	COMMENTS	DESCRIPTIVE GEOLOGY	AVE. CORE REC'Y/HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
320								320' ARGL worm burrows	320 - 460' ARGILLITE								
340																	
360																	
380																	
400								404' BP:CA=15°									
420																	
440																	
460																	

COLLAR ELEV.: GROUND ELEV.: DATE STARTED: CLAIM:

COORDINATES: N. E. DATE FINISHED: SCALE:

INCLINATION: BEARING: TOTAL DEPTH: LOGGED BY:

BEMA INDUSTRIES LTD.

AVE. CORE REC'Y/HOLE

COMMENTS

DESCRIPTIVE GEOLOGY

SECTION	ALTERAT'N: CHLORITE	ALTERAT'N: CARBONATE	ALTERAT'N: CLAY	ALTERAT'N: SILICA	FRACTURING	MINERAL	GEOLOGY	DESCRIPTIVE GEOLOGY
470							470' ARGL	470 - 529' ARGILLITE
480								
500								
520							529'	
							532.5' LCP:CA=30° w/PY or frx	529 - 532.5' Felsic(??) DYKE - appears to be same as felsic dyke unit but cont CA gr. fn gr buff-gry-poss fn gr equiv of DACITE(?)
540								532.5'-579.5' ARGILLITE
560								
							579.5' PY or frx	579.5 - 581.5' Felsic(??) DYKE as above
580							581.5'	581.5 - 607' ARGILLITE
600								
607 EOH							607' EOH	

SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED