A GEOLOGICAL REPORT

on the

BULLVEKE CLAIM GROUP

Lor Bull, bey

Vancouver Mining Division NTS 92K/11W

Latitude: 50 29' 51" N Longitude: 125 23' 13" E

Owner and Operator:

CHARLEMAGNE RESOURCES LTD.

Authors:

Robert Simpson

Greg Carriere, P. Eng.

Date:

July 9, 1984

GEOLOGICAL BRANCH ASSESSMENT REPORT

12,577

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## SUMMARY

A geological mapping and prospecting program was carried out on the Bullveke claim group from May 19 - 25, 1984.

Traverses were run up the major drainages on the Claim Group and samples were taken of sulfide-bearing float and outcrops. A quartz-rich float boulder from Bullveke Creek returned assays of 7.17 ounces per ton gold and 21.7 ounces per ton silver, and due to the steep relief, the float boulder is believed to be reasonably close to its source.

Geological mapping and further prospecting should be done in this area in the near future to delineate the source of this mineralized float.

## INTRODUCTION

## I.1 LOCATION AND ACCESS

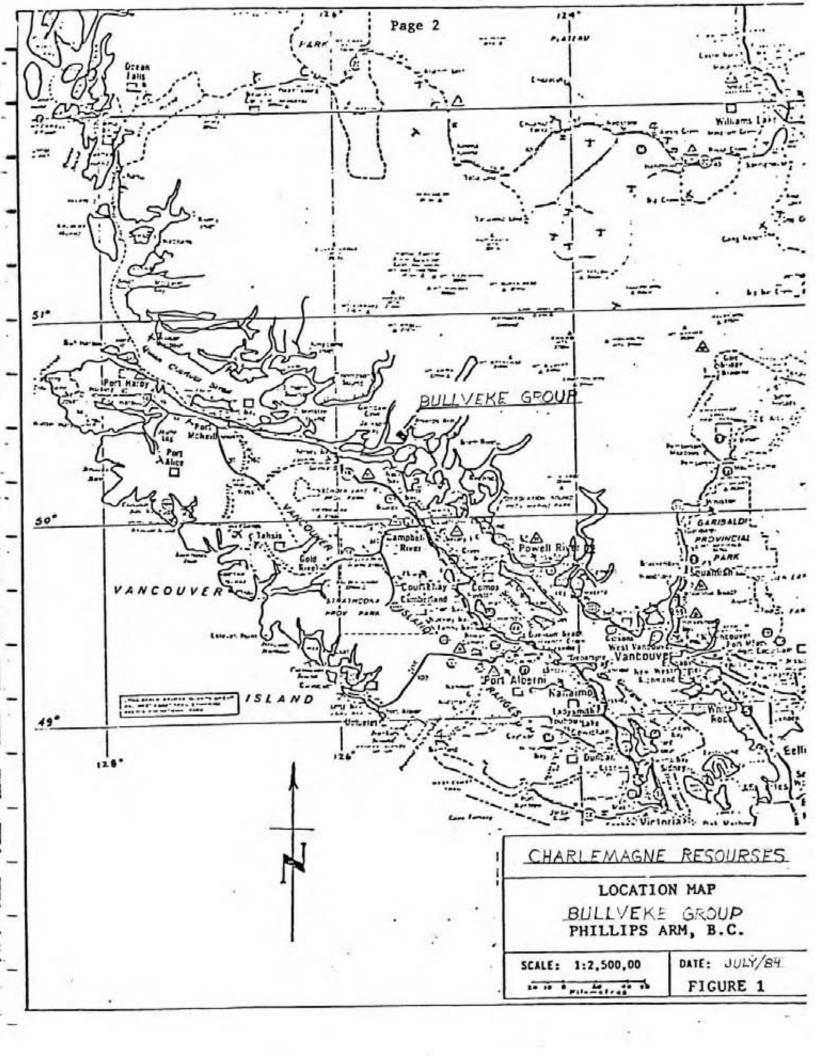
The Bullveke Claim Group is located on the west shore of Phillips Arm, approximately 55 km. north of Campbell River and 200 km. north of Vancouver, British Columbia (Fig. 1). The nearest settlements are Shoal Bay, 5 km. southeast on East Thurlow Island and Fanny Bay, 5 km. northwest on the mainland. Blind Channel located 12 km. southwest is the nearest post office offering twice weekly service.

The property is situated within the Vancouver Mining Division as indicated on the Government NTS Map Sheet 92K/11 with approximate co-ordinates of 50 degrees 29'51"north and 125 degrees 23'13" east.

Access to the property may be achieved by boat, helicopter or float plane charter. Scheduled air service is also provided twice daily from Campbell River. Sea transportation from Vancouver is available in Campbell River and Sayward.

### I.2 CLAIM STATUS

The Bullveke claim group is comprised of three mineral claims totalling 34 units situated just north of two past producing mines, the Alexandria and Doratha



### I.2 CLAIM STATUS continued

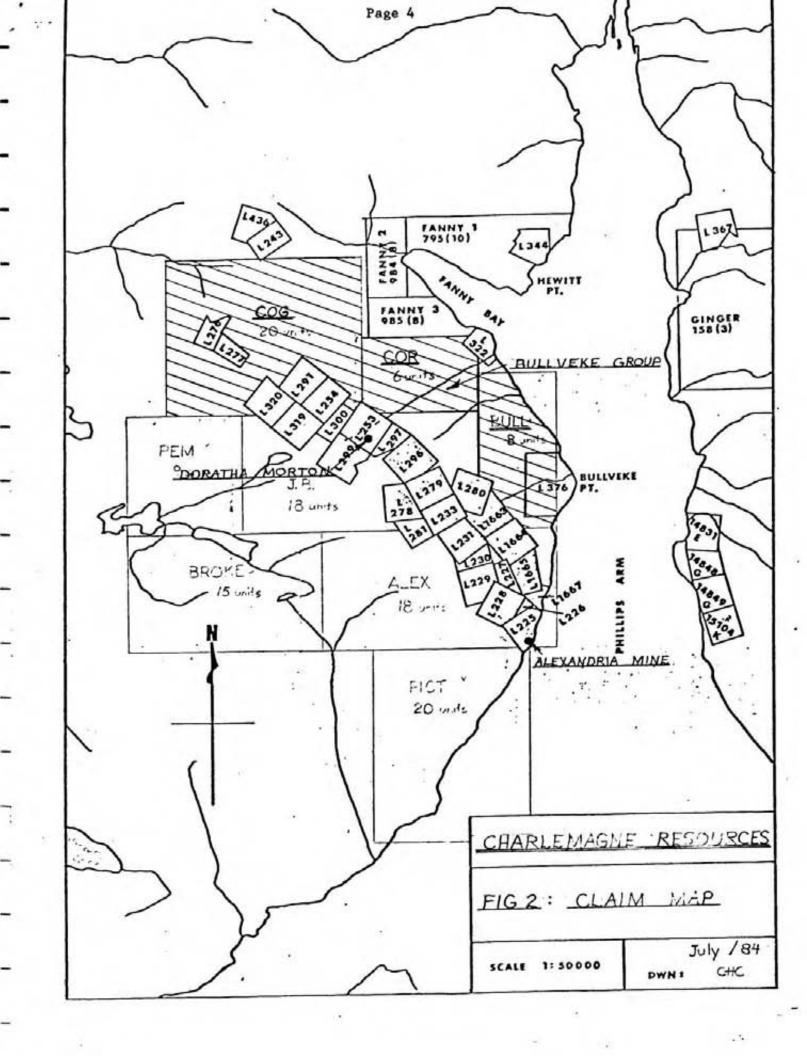
Morton (Fig. 2). Two of the claims of the Bullveke Group were staked during the spring of 1983 under the direction of Malcolm Bell of Hi Tec Resource Management and the ownership transferred to Charlemagne Resources by a Bill of Sale recorded November 4, 1983. The Cog Claim was later staked by Malcolm Bell as agent for Charlemagne Resources.

### TABLE I - CLAIM DATA

CLAIM	RECORD#	UNITS	EXPIRY DATE
Bul1	1496	8	June 15
Cor	1505	6	June 24
Cog	1546	20	August 31

### I.3 TOPOGRAPHY

The property is situated on the northeastern slope of a steep mountain ridge which rises in a series of cliffs from tide water to approximately the 1120 metre elevation. As the Alexandria sheer zone roughly parallels this feature, exploration of the strike extension of the Alexandria vein on to the Bullveke Group has been greatly impeded.



### I.3 TOPOGRAPHY continued

The southwestern approach to the summit is much less severe and has over the years been traversed by a well established network of logging roads.

A valley between this ridge and the next crest to the southwest contains several small lakes above the 760 metre contour. Drainage patterns trend towards the south. Few water courses of any magnitude flow northeast to Phillips Arm, the only exception being "Bullveke Creek" which cuts a steep ravine through the ridge meeting Phillips Arm 2 kilometres north of the Alexandria Mine.

#### 1.4 REGIONAL GEOLOGY

The Phillips Arm area is within the western margin of the coast crystalline belt with isolated northwest trending bands of pre-Middle Jurassic metamorphic rocks surrounded by the quartz diorites of the coast range. The bands of older metamorphic rocks are up to 8 kilometres wide and up to 32 kilometres long. They include argillaceous sediments, volcanic flows and pyroclastics which have been largely altered to closely folded schistose rocks. The foliation of the rocks generally strikes northwesterly, parallel to the trend of the entire rock unit.

### II. FIELD WORK 1984

### II.1 INTRODUCTION

A prospecting and mapping program was carried out over portions of the Bullveke Claim Group from May 19 to May 25, 1984. Work was conducted along the shoreline and up the main drainages cutting the properties.

Twenty-eight rock samples were collected during the prospecting and geological mapping program and assayed for gold, and in one case silver, lead, zinc and copper. A float sample from Bullveke Creek returned assay results of 7.17 ounces per ton gold and 21.8 ounces per ton silver, and it is believed to have originated from a vein system farther up the drainage basin.

#### II.2 PROPERTY GEOLOGY

The geology on the property consists of Coast Range quartz diorites - diorites in contact with a volcanic meta-sediment package consisting of marbles, tuffs and andesites.

The quartz diorite is generally medium to coarse grained and outcrops as large bluffs on the claim area (Fig. 3). The volcanic, meta-sediment assemblage consists of a coarse grained, grey weathering marble unit with minor pods of scarn. The marble units exhibit banding and regionally become tuffaceous. The andesite is fine grained and pale to dark green in color. These units exhibit a strong northwesterly trend. The contact netween the quartz diorite and the volcanic meta-sediment package was not noted due to lack of exposure and thick vegetation.

### II.2 PROPERTY GEOLOGY continued

There is one major fault structure exposed on Bullveke Creek and several minor structures. The main structure is iron rich and shows various degrees of silicification and alteration to clays. Dykes and sills occur at several places on the property and vary in composition from dioritic to basaltic. The contact between meta-sediments and the diorite was not located so further work should be done in this region as precious metal veining may occur along this contact. Evidence of silicification along shears suggests that mineralization may also be associated with major fault structures so further mapping of these structures should also be done.

#### II.3 GEOCHEMISTRY

Samples of rocks bearing sulfides were taken during the coarse of the prospecting and mapping program on the Bullveke claim group (Table 2). The rocks were analysed for gold and in one case, silver, lead, zinc and copper. Sample A1-84-03 from Bullveke Creek returned assays of 7.17 ounces per ton gold and 21.7 ounces per ton silver along with significant values in lead, zinc and copper. Based on these results further work should concentrate on locating the source of this mineralized float.

# II.3 GEOCHEMISTRY continued

TABLE II - Sample Descriptions

SAMPLE NUMBER	TYPE	DESCRIPTION	AU OZ/T	AG OZ/T
14601 (AL-84-01)	Float	diorite with disseminated sulfides	0.001	
14602 (AL-84-02)	Float	quartz vein, pyrrhotite	0.001	
14603 (AL-84-03)	Float	quartz vein, (see note below)	6.635	21.87
14604 (AL-84-04)	Float	disseminated sulfides in a tuff-		
		aceous sediment	0.058	
14605 (AL-84-05)	Float	Quartz vein float, pyrite	0.002	
14606 (AL-84-06)	outcrop	grab - fine grained diabase dyke	0.001	
14607 (AL-84-07)	outcrop	grab - altered meta-sediment-andesit	e 0.001	
14608 (AL-84-08)	outcrop	grab - andesite	0.001	
14609 (AL-84-09)	outcrop	chip - altered iron rich shear	0.001	
14610 (AL-84-06A	)float	quartz vein, sulfide blebs	0.001	
14611 (AL-84-10)	Float	silicified tuff, andesite	0.001	
14612 (AL-84-11)	Outcrop	grab andesite, pyrite blebs 1%	0.001	
14613 (AL-84-11A	)Float	andesite, pyrite disseminated sulfid	es0.001	
14614 (AL-84-12)	outcrop	grab sulfide pods in tuffs	0.001	
14615 (AL-84-13)	outcrop	grab sulfide pods in tuffs	0.001	
14616 (AL-84-14)	float	diorite	0.001	
14617 (AL-85-15)	grab	diabase sulfide	0.001	
14618 (AL-84-16)	grab	scarn, sulfides	0.001	

# II.3 GEOCHEMISTRY continued

TABLE II - Sample Descriptions- continued

SAMPLE NUMBER	TYPE	DESCRIPTION	AU OZ/T	AG OZ/T
14619 (AL-84-17)	grab	diabase	0.001	
14620 (AL-84-18)	grab	diorite	0.001	
14621 (AL-84-19)	grab	altered, sheared diorite	0.001	
14622 (AL-84-20)	grab	pale green, tuffaceous calcareo	us 0.001	
14623 (AL-84-21)	grab	fresh diabase with disseminated	İ	
		pyrite	0.001	
14624 (AL-84-22)	grab	schistose greenstone, andesite	0.001	
14625 (AL-84-23)	grab	quartz vein in diorite, blebs a	nd	
		disseminated pyrite	0.006	0.06
14626 (AL-84-24)	grab	dark green andesite	0.001	
14627 (AL-84-23A)	)grab	quartz monzonite	0.012	
14628 (AL-84-25)	grab	altered contact of quartz monzo	nite	
		and a diorite	0.001	
* 14603 also Cu.	630%, Pb.	- 1.03% and Zn 1.99%, was re	-assayed -7.	17
Au, and 21.8 oz/	t Ag.			
**14625 also Cu.	- 0.012%			

### CONCLUSION

There is very significant gold-silver mineralization in the vicinity of Bullveke Creek. Gold values of over 7 ounces per ton and 22 ounces per ton silver in a float boulder verify this and indicate that a larger scale, comprehensive geological, geophysical and geochemical program should be conducted over the property.

### RECOMMENDATIONS

An immediate follow-up program should be conducted in the Bullveke Creek area to locate the source of the gold-silver bearing float boulder.

- Prospecting and silt sampling at 100 metre intervals should be done up creeks and drainages.
- Detailed mapping of structures, geological contacts and the older workings at the headwaters and to the west of Bullveke Creek should be done.
- 3. An airborne magnetometer and electromagnetic (VLF) survey should be conducted over the property to delineate structures and geological contact in areas of overburden and thick vegetation. These structures will form the prime targets for detailed prospecting and mapping.

Once targets are established, a grid should be done. A trenching and bulldozing program should be done over the established anomalies to be followed by a diamond drill program.

# V REFERENCES

- Report on Exploration 1983 Field Season
   Alexandria Claim Group G. Carriere
- Notes on Stratified Rocks of Bute Inlet
   Map Area G.S.C. Open File #480 J.A. Roddick

# VI STATEMENT OF EXPENDITURES

Field Wages		
Supervisor 1/2 day @ \$200.00/day	\$ 100.00	
Geologist 61/2 days @ \$150.00/day	975.00	
Field assistant 61/2 days @ \$100.00/day	650.00	
	A-1-4-1-3	\$1,725.00
Field Supplies		
Government maps	8.50	
Sample bags, tags, prints, etc.	38.50	
		47.00
Transportation		
Air Fares - Vancouver to Shoal Bay return 2 @ 259.30	518.60	
Ground transport -	36.00	
Boat rental	222.90	
		777.50
Room and Board		
Shoal Bay Lodge - 13 mandays @ \$42.86/manday		557.18
Assaying		
Sample prep. 28 @ \$3.00	84.00	
Gold assays 28 @ \$7.50	210.00	
Misc. determinations	35.00	
		329.00
Report		
Supervisor 3/4 day @ \$200.00	150.00	
Geologist 2 days @ \$150.00	300.00	
Typing and copying	57.96	
		507.96
TOTAL EXPLORATION EXPENSE		\$3,943.64

### VII.1 STATEMENT OF QUALIFICATIONS

- I. Gregory H. Carriere, with a business address of #906-626 West Pender Street, in the City of Vancouver, do hereby certify that:
- I am a registered member, in good standing, of the Association of Professional Engineers of British Columbia.
- I have been a practicing mine engineer for the past six years and have been associated with the mining industry for nine years.
- 3. I am a graduate of Queens University with a B.Sc. (Honours Mining Engineering).
- 4. The fieldwork on which this report is based, was done under my supervision.
- I have no interest in any mining claims within 20 kilometres of the Alexandria Property.
- 6. Charlemagne Resources Ltd. is hereby given permission to reproduce this report, or any part of it, for the purposes of raising funds, provided, however that no portion may be used out of context in such a manner as to convey a meaning differing materially from that set out in the whole.

Vancouver, British Columbia

July 9, 1984

Gregory H. Carriere, P. Eng.

# VII.1 QUALIFICATIONS

I, Robert Simpson have a Bachelor of Science, Honour Degree in geology from the University of Ottawa and have been working in the field for the last five years in Canada, the United States and Australia.

Robert Simpson

# APPENDIX

ASSAY CERTIFICATES

## MIN-EN Laboratories Ltd.

Specialists in Mineral Environments

705 WEST 15th STREET WORTH VANCOUVER, B.C. CANADA V7H 1T2

PHONE: (604) 980-5814 OR (604) 988-4524

TELEX: 04-352828

## CERTIFICATE OF ASSAY

COMPANY CHARLEMAGNE RESOURCES ATTENTION G. CARRIERE

FILE 4-306 DATE JUNE 1/84

We hereby certify that the following are assay results for samples submitted.

SAMPLE	AG	AG	AU	AU	CU	PB	ZN
NUMBER	G/TONNE	OZ/TON	G/TONNE	OZ/TON	%	%	7.
14601			.01	0.001			
14602			.01	0.001			
14603	750.0	21.87	227.50	6.635	.630	1.03	1.99
14604			1.99	0.058			
14605			.06	0.002			
14606			.01	0.001			
14607			.01	0.001			
14608			.01	0.001			
14609			.01	0.001			
-14610			.01	0.001			
14611			.01	0.001			
-14612			.02	0.001			
14613			.01	0.001			
14614			.01	0.001			
14615			.01	0.001			
14616			.01	0.001			
14617			.01	0.001			
14618			.01	0.001			
14619			.01	0.001			
14620			.01	0.001			
14621			.01	0.001			
14622			.02	0.001			
14623			.01	0.001			
14624			.01	0.001			
14625	2.2	0.06	.21	0.006	.012		
14626			.01	0.001			
14627			- 41	0.012			
14628			.03	0.001			
14629			2.00	0.058			
14630			.01	0.001			

Certified by

MIN-EN LABORATORIES LTD.

## MIN-EN Laboratories Ltd.

Specialists in Mineral Environments

705 WEST 15th STREET MORTH VANCOUVER, B.C. CANADA V7M 1T2

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## CERTIFICATE OF ASSAY

COMPANY CHARLEMAGNE RESOURCES ATTENTION GREG CARRIERE

FILE 4-306 DATE JUNE 1/84

He hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	AU G/TONNE	AU OZ/TON	
14631	.03	0.001	
14632	.02	0.001	
14633	.01	0.001	
14634	. 43	0.018	
	. v		

MIN-EN L'ABORATORIES LTD.

#### MIN-EN Laboratories Ltd.

Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

TELEX: 04-352828

## CERTIFICATE OF ASSAY

COMPANY: CHARLEMAGNE RESOURCES

PROJECT:

ATTENTION: G. CARRIERE

FILE 4-306R

DATE: JUNE 8/84

TYPE: ROCK ASSAY

We hereby certify that the following are assay results for samples submitted.

14603	750.5	0.5 21.89	245.85	7.170	
	(maj 19 <u>0</u> 10)	and the second of the second			
		artismologillos			
		•			
					490000

Certified by

MIN-EN LABORATORIES LTD.

