183-554-11996

LOG: CAL BE. ...

# 11,996

GEOCHEMICAL REPORT ON

THE

GOLD GROUP MINERAL CLAIMS

MWC 001, MWC 133, MWC 134, MWC 135, MWC 136, MWC 137, MWC 138, MWC 201, MWC 202, MWC 203, MWC 204, MWC 206, MWC 211, MWC 212, MWC 213, MWC 214, MWC 215, MWC 216, MWC 217, MWC 218, MWC 222F, MWC 223, MWC 224, MWC 231, MWC 232, MWC 233, MWC 234, MWC 235, MWC 236, MWC 237, MWC 238, MWC 273, MWC 274F - Lot 916, Lot 936 & Lot 946)

BETTER RESOURCES LIMITED

NANAIMO MINING DIVISION

LAT 49046'N

LONG 125°18'30"W

NTS 92F/14W and 92F/11W

BY

JAMES F. BRISTOW, P. ENG.

ROLF SCHMITT, B. SC.

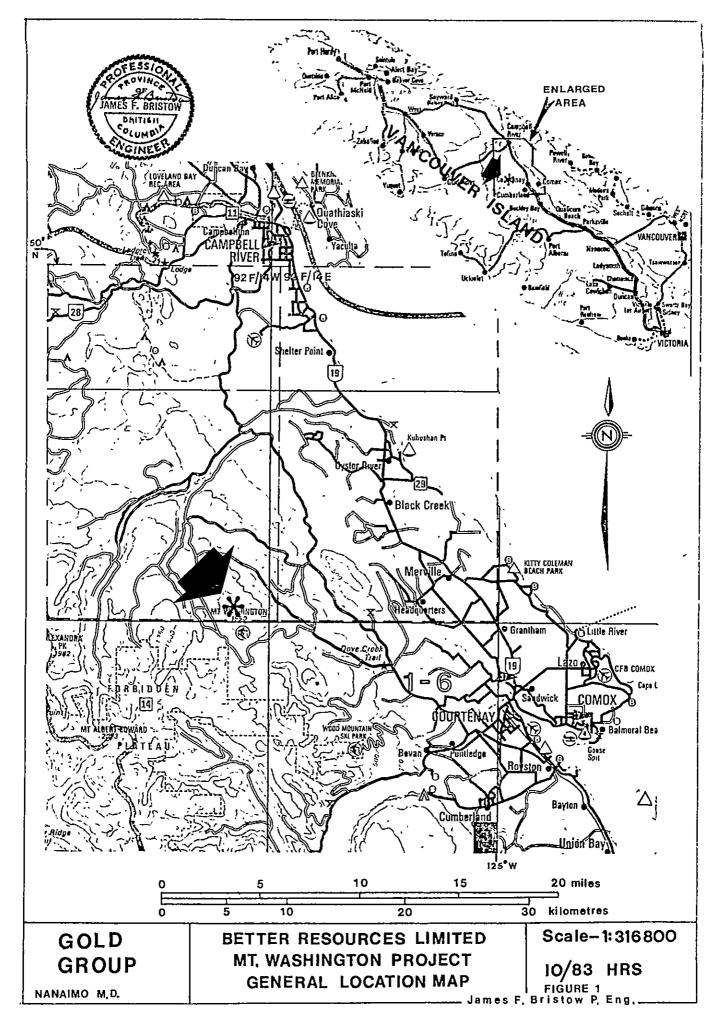
OCTOBER 3/57, 1983

\_\_\_\_\_ James F. Bristow P. Eng. \_

# TABLE OF CONTENTS

	PAGE
GENERAL LOCATION MAP	1
SUMMARY AND CONCLUSIONS	2
RECOMMENDATIONS	2
INTRODUCTION	
LOCATION, ACCESS AND FACILITIES PHYSIOGRAPHY AND CLIMATE CLAIM MAP PROPERTY DESCRIPTION SUMMARY OF WORK DONE	4 5, 6
DETAILED TECHNICAL DATA AND INTERPRETATION	
GEOCHEMICAL SETTING - West Grid - East Grid	9 9 9 10
•	
COST STATEMENT	11
AUTHORS' QUALIFICATIONS & CERTIFICATION	12, 13

APPENDIX A - SAMPLE LOCATION - West Grid - Scale 1:2400
APPENDIX B - GOLD GEOCHEMISTRY - West Grid - Scale 1:2400
APPENDIX C - ARSENIC GEOCHEMISTRY - West Grid - Scale 1:2400
APPENDIX D - SAMPLE LOCATION - East Grid - Scale 1:2400
APPENDIX E - GOLD GEOCHEMISTRY - East Grid - Scale 1:2400
APPENDIX F - ARSENIC GEOCHEMISTRY - East Grid - Scale 1:2400
APPENDIX G - GRID LOCATIONS - GOLD GROUP - Scale 1:20000



ď

#### SUMMARY AND CONCLUSIONS

A geochemical soil survey was donducted on the Gold Group of Mineral Claims situated on Mt. Washington 21.5 kilometres northwest of Courtenay, Vancouver Island. The contiguous mineral claims cover more than 750 hectares and are held under option by Better Resources Limited from Velocity Development Corporation.

Two hundred and forty-nine soil samples were collected from two separate grids established by flagged, chain and compass lines. Following an orientation survey, soil samples were collected at intervals averaging 30 metres and analyzed for gold and arsenic. On the West Grid a north-westerly trending coincident gold and arsenic anomalous zone was detected with values up to 2460 ppb gold and 10,500 ppm arsenic. On the East Grid a broad zone of anomalous arsenic contains values which go to 10,640 ppm while erratic gold anomalies attain 1845 ppb. Anomalous values possibly reflect underlying disseminated or vein-type mineralization.

#### RECOMMENDATIONS

The economic gold potential of the Gold Group of mineral claims should be further investigated in a progressive program of geological mapping and prospecting, soil geochemistry, trenching and possibly diamond drilling. Effort should initially be focussed on highly anomalous zones to determine the nature and extent of possible underlying mineralization and expand to adjacent areas exhibiting similar geologic environments.



#### INTRODUCTION

#### LOCATION, ACCESS AND FACILITIES

The Gold Group of mineral claims are centred on 49°46'N lat. and 125°18'30"W longitude within NTS 92F/14W and the Nanaimo Mining Division. The claims are situated 21.5 kilometres northwest of Courtenay and straddle Mt. Washington and the McKay Lake basin (see Figure 1).

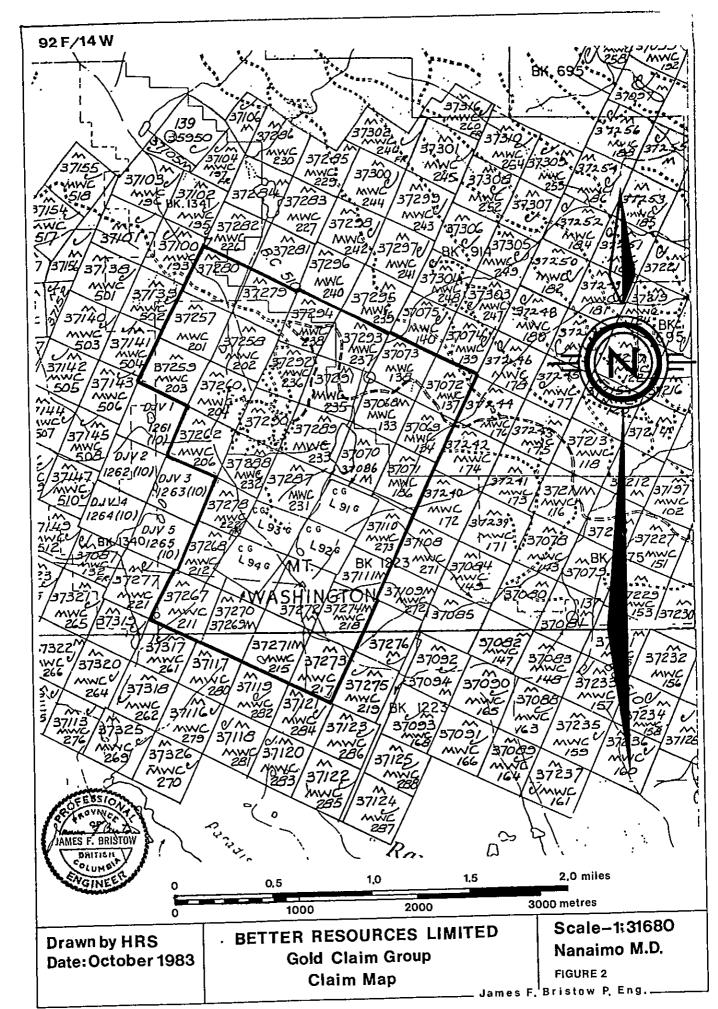
Access to the claims is facilitated by 20 kilometres of well maintained paved and gravelled roads to the former Mt. Washington Copper minesite. Four-wheel drive and foot access must be utilized for the remaining 0.5 to 1.0 kilometres to the East and West Grid areas. Access by road to the property is usually possible between July and November depending on snowfall conditions. Roads are adequate for exploration heavy equipment and would require minimal upgrading for commercial haulage.

Year round water supplies for drilling are situated within 500 metres of the West Grid and along the southern boundary of the East Grid. Mt. Washington Ski Resort, 1.0 kilometres south, is the closest terminus of electrical power. Well-appointed accomodation is available at Mt. Washington Ski Resort during summer months and in Courtenay year-round. Construction, services, supplies and labour are also available from the Courtenay area.

#### PHYSIOGRAPHY AND CLIMATE

Mt. Washington is located along the eastern margin of the northwest trending Vancouver Island Ranges in the Insular Belt. The landscape is characterized by moderate to precipitous topography mantled by a thick mixed coniferous forest of hemlock, red and yellow cedar, douglas fir and balsam fir. A subalpine forest of heather and krumholtz is developed above 1500 metres. Property elevations range from 850 metres to 1590 metres. Evidence of recent glaciation is noted by cirque development, glacial striae and a thin but pervasive glacial till complex.

October to May is cool and wet with significant snowfall. Snow accumulations often exceed 500 cm and persist well into summer months.



PHYSIOGRAPHY AND CLIMATE, cont'd

June through September are drier with temperatures ranging from freezing to greater than  $25^{\circ}\mathrm{C}$ .

The west part of the Gold Group is located on a moderate to steep forested to subalpine northwest facing slope below the peak of Mt. Washington. The central to northern part of the claim group encompasses the steep-walled Glacier Lake and McKay Lake basins. Bedrock exposures vary throughout the property; the West Grid area contains less than 5% exposure, while the East Grid area contains approximately 20% exposure, although the higher elevation ground surrounding the East Grid has substantially more exposed rock.

# PROPERTY DESCRIPTION

The Gold Claim Group is held under option by Better Resources Limited from Velocity Development Corporation, formerly Mt. Washington Copper Co. Ltd. This claim group consists of the following contiguous two-post mineral claims and crown granted mineral claims as shown in Figure 2:

CLAIM NAME	UNITS	RECORD DATE	RECORD NO.	
MWC 001 MWC 133 MWC 134 MWC 135 MWC 136 MWC 137 MWC 138 MWC 201 MWC 202 MWC 203 MWC 204 MWC 206 MWC 211 MWC 211 MWC 212 MWC 213 MWC 213 MWC 214 MWC 215 MWC 216 MWC 217 MWC 218 MWC 222 Fr	Fr 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	September 14  "" "" "" September 13 "" "" September 13 "" "" September 13 "" "" "" "" "" September 13	37086 37068 37069 37070 37071 37072 37073 37257 37258 37259 37260 37262 37267 37268 37267 37268 37270 37271 37272	MES F. BRISTOW
MWC 223 MWC 224	1 1	11	37280	ENGINETITO

## PROPERTY DESCRIPTION, cont'd

CLAIM NAME	UNITS	RECORD DATE	RECORD NO.
MWC 231	1	September 13	37287
MWC 232	1	- 11	37288
MWC 233	1	11	37289
MWC 234	1	11	37290
MWC 235	1	September 13	37291
MWC 236	1	- 11	37292
MWC 237	1	TT .	37293
MWC 238	1	11	37294
MWC 273	1	September 14	37110
MWC 274 Fr	Fr		37111
Lot 916, Lot	92 <b>6,</b> Lot 93 <b>6</b>	and Lot 94 <b>6</b>	

#### SUMMARY OF WORK DONE

Work was performed in two locations on the Gold Group. Flagged, chain and compass survey control lines were established prior to soil sampling. The West Grid located on the boundary of the Gold Group and adjacent DJV Group is contained 36 percent within the Gold Group. The East Grid is located north and east of Glacier Lake in the east central part of the Group. Figure 3 shows the approximate location of grids relative to mineral claims. (See Appendix G)

The present program consisted of:

1)	Grid Establishment: (flagged compass line)	West Grid - East Grid -	
		Total	8.2 km
2)	Soil Samples collected	West Grid - East Grid -	
		Total	249
3)	Sample Sites found to be unsuitable for sampling	West Grid - East Grid -	
		Total	38



#### DETAILED TECHNICAL DATA AND INTERPRETATION

#### GEOCHEMICAL SETTING

Soil found on the Gold Group has been derived in the harsh post-glacial environment from a combination of mechanical and chemical breakdown of Cretaceous Nanaimo Group sedimentary rocks, Tertiary felsic intrusives, and volcanoclastics of unknown age. Soil and soil parent materials have been transported by erosion, mass wastage, and glacial action. Chemical transport of metal ions downslope by groundwater has further complicated the soil geochemistry regime.

Soils encountered on the claims belong to the Podzol, Gleysol and Regosol Orders. Ferro-Humic Podzols up to 1 metre thick are developed over glacial till, but commonly thin to several centimetres over bedrock. A dark blackish to brown A horizon typically overlies a medium to orange brown B horizon. Soils are wet to moist most of the year. Humic Gleysols up to 1 metre thick are associated with unforested, saturated grassy and heather meadows in isolated areas of shallow slope.

A geochemical orientation survey was conducted on the West Grid in order to select the B horizon depth which most accurately reflects concentrations of gold and arsenic. Three sites were sampled; one where anomalous gold and arsenic were previously known and two sites elsewhere within the proposed grid area. Samples were collected from the top and bottom of the B horizon, where it was thick enough to permit differentiation, and in one case from the C horizon.

The three different size fractions were each analyzed for gold and arsenic by the Kamloops Research and Assay Laboratory. Gold was determined by fire assay and atomic absorption, while arsenic was determined by atomic absorption and colorimetric techniques. Results are tabulated below:

GEOCHEMICAL SETTING, cont'd

SAMPLE NO.	APPROXIMATE LOCATION	<u> HORIZON</u>	SCREEN SIZE	AV (ppb)	AS (ppm)
1	16S 22W	В Тор	-80	725	1950
			+80,-20	450	1755
			+20	1820	2340
		B Bottom	-80	1030	1950
			+80,-20	500	1510
			+20	450	1705
		С	-80	795	2490
			+80,-20	650	2390
			+20	473	1900
2	16S 27W	В Тор	-80	165	1170
			+80,-20	105	1270
			+20	25	435
		B Bottom	-80	165	1415
			+80,-20	150	1070
			+20	180	390
3	24S 24W	В Тор	-80	50	17800
			+80,-20	15	19300
			+20	75	15900
		B Bottom	-80	170	16400
			+80,420	120	16300
			+20	110	16100

It was concluded that the -80 mesh fraction was most suitable for gold. A marginal increase of B Bottom values over B Top values was noted but because the horizon can often not be subdivided it was concluded that samples should be taken which represented the entire B horizon. Arsenic values were highest in -80 mesh fractions but showed very little variation throughout the profiles sampled.

IAMES F. BRISTOW

#### PURPOSE OF SURVEY

One hundred and fourteen soil samples were collected over the West Grid and one hundred and thirty-five soil samples collected from the East Grid within the Gold Group. The purpose of these surveys was to delineate zones anomalous in gold and arsenic that might reflect underlying economic mineralization. Samples were analyzed for arsenic because in some geological environments it is a mobile pathfinder for gold mineralization. As well, concentrations of arsenopyrite in quartz veins and silicified rock with associated gold mineralization, are noted in the vicinity of the East Grid. Anomalous soils would provide the focus for subsequent exploration activity.

#### GRID PREPARATION

The West and East Grids were established by chain and compass, and flagged for soil sampling survey control. Lines on the West Grid average 488 metres long, 30 metres apart and trend 065° azimuth. East Grid lines trend 068°, average 60 metres apart and range from 216 metres to 1090 metres in length. Sample site locations averaged 30 metres apart along lines. Sample locations and numbers are plotted on 1:2400 scale maps in Appendices A to D.

#### GEOCHEMICAL RESULTS

The -80 mesh fraction of the soil samples was analyzed for gold and arsenic content by Kamloops Research and Assay Laboratory. Gold was analyzed by atomic absorption and fire assay; arsenic by aqua regia digestion followed by colorimetric and atomic absorption with background corrections. Results were presented in Appendices B, C, E and F.

<u>West Grid</u> - Gold values encountered on the West Grid within the Gold Group range from less than 5 ppb to 2460 ppb, with a mean value of 173 ppb. Arsenic values range from 14 ppm to 10500 ppm. The 10500 ppm sample was obtained in proximity to four other anomalous samples assayed at 6900 ppm, 4870 ppm, 2790 ppm and 1279 ppm, located on lines 20S to 24S between 21W and 23W.

GEOCHEMICAL RESULTS, cont'd

East Grid - Gold values on the East Grid range from less than 5 ppb to 1845 ppb with a mean of 69 ppb. Arsenic values range from 3 ppm to 10640 ppm. A concentration of high values ranging from 1460 to greater than 4000 ppm straddles the baseline between 30S and 36S. A second concentration of high arsenic values occurs proximal to 11E 36S where the coincident 10640 ppm arsenic and 1845 ppb gold occur.

#### INTERPRETATION OF RESULTS

The soil sampling survey conducted over the Gold Group has outlined areas anomalous in both gold and arsenic on both East and West Grids. On the West Grid a broad northwesterly trending zone was delineated with values up to 2460 ppb gold and 10500 ppm arsenic. This anomalous zone extends onto the adjacent DJV Mineral Claims also held under option by Better Resources Limited. Anomalous arsenic values cover a broader area than gold possibly reflecting widespread concentrations of arsenopyrite in underlying rocks or the element's greater mobility in soil.

Anomalous zones on the East Grid are less defined. High to anomalous arsenic values cover a broad northerly trending zone over 200 metres wide and open to the north and south. Low values peripheral to Glacier Lake may reflect masking by talus accumulations and gleysolic soils. Anomalous gold values on the East Grid are generally erratic in distribution and exhibit only a weak coincidence with arsenic.

### COST STATEMENT

GOLD	CLAIM	GROUP

WEST GRID (35% of work conducted on Gold Claim Group)

Grid establishment and soil sampling

Supervision

Aug 3-4/83 James F. Bristow, P.Eng.

\$500.00 2 days @ \$250/day

Aug 3-6/83 Mark Hiltz

300.00 4 days @ \$75/day .

Aug 3-5/83 Robin Bristow

225.00 3 days @ \$75/day

Transportation

160.00 4 days @ \$40/day

Camp Costs

225.00 9 days @ \$25/day

Assaying Costs (soil samples analyzed for

Gold and Arsenic)

980.00 114 samples @ \$8.60/sample

TOTAL - West Grid \$2390.40

#### EAST GRID

Grid Establishment and soil sampling

Supervision

Aug 12,13/83 James F. Bristow, P.Eng. \$500.00 2 days @ \$250/day

Aug 12-13, 15, 17/83

Mark Hiltz 375.00 5 days @ \$75/day

Aug 12-13, 15, 17/83 Robin Bristow

375.00 5 days @ \$75/day

Transportation

200.00 5 days @ \$40/day

Camp Costs

300.00 12 days @ \$25/day

Assaying Costs (soil samples analyzed for

Gold and Arsenic)

1,161.00 135 samples @ \$8.60/sample

TOTAL - East Grid \$2,911.00

Report Preparation (including drafting and typing)

750.00 Rolf Schmitt, B.Sc. and J.F. Bristow, P.Eng.

\$6,051.40

CERTIFIED CORRECT

James F, Bristow P, Eng.

#### QUALIFICATIONS & CERTIFICATION

I, James F. Bristow, of 1840 Penshurst Road in the Municipality of Saanich, Province of British Columbia, hereby certify as follows:

- 1. I am a graduate of the University of British Columbia with a B.A. Degree (Geology and Physics).
- 2. I am a Professional Engineer registered in the Province of British Columbia.
- 3. I am a member of the Canadian Institute of Mining and Metallurgy, the Association of Exploration Geochemists and the Associated Scientific and Technical Societies of South Africa.
- 4. I have actively practised my profession in mineral exploration and mining geology since my graduation in 1957.
- 5. That this report is based on data either gathered by myself or by persons working under my direct supervision.
- 6. That I am a Director of Better Resources Limited and hold a direct interest in securities of this Company.

DATED at Victoria, British Columbia, this 3/sr day of October, 1983.

James F. Bristow, P. Eng.

#### QUALIFICATIONS & CERTIFICATION

I, H. Rolf Schmitt of 2870 Dysart Road in the Municipality of Saanich, Province of British Columbia, hereby certify as follows:

- 1. I am a graduate of the University of British Columbia with a B.Sc. Degree (Honours Geology) 1977.
- 2. I am presently completing the M.Sc. Degree requirements in Regional Planning at the University of British Columbia.
- 3. I have actively practised my profession in mineral exploration and mineral land use evaluation almost continuously since my graduation in 1977.
- 4. That I am personally familiar with the property discussed in this report.
- 5. I do not have any monetary interest in Better Resources Ltd.

DATED at Victoria, British Columbia, this  $3/\frac{s^+}{s}$  day of October, 1983.

Rolf Schmitt, B.Sc

