84-#260 - 12196



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REPORT ON A GEOCHEMICAL SURVEY

OF THE

SECH PROPERTY, BARCLAY SOUND, VANCOUVER ISLAND

Alberni Mining Division

LATITUDE 48°59'N LONGITUDE 125°15'W NTS MAP 92C/14

GEOLOGICAL BRANCH ASSESSMENT REPORT

OWNERS AND OPERATORS: CONSULTANT: AUTHOR: SUBMITTED:

AUME RESOURCES LTD. BEATY GEOLOGICAL LTD. R.J. BEATY, M.Sc., F.G.A.C. APRIL 16, 1984

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SUMMARY AND CONCLUSIONS

During August, 1983, prospecting and a soil, silt and rock geochemical survey was carried out over the Sech claims located on the west coast of Vancouver Island 24 km east of Ucluelet in Barclay Sound.

The property contains the Sechart mercury deposit which consists of patches and streaks of cinnabar within silicified and ankeritized greenstone. Prospecting did not locate any areas of mineralization beyond those explored in the past.

As expected, sample analysis yielded extremely strong mercury anomalies in the vicinity of the old showings but little elsewhere. Arsenic values were generally very low. No gold anomalies were detected.

INTRODUCTION AND WORK CARRIED OUT

At the request of Aume Resources Ltd., Beaty Geological Ltd. was contracted to carry out geochemical investigations of the Sech Property, Alberni Mining Division.

Work was carried out by a four man crew intermittently from June to August, during the course of a regional program. Most work was done by a crew living in a tent camp on the property in mid August. It consisted of prospecting and preliminary geological mapping of the claim, trail building and the collection of 65 samples (37 soil, 19 rock and 9 silt) for geochemical analysis for gold, arsenic and mercury. The object of the project was to investigate the gold content of known mercury mineralization centred about the property.

LOCATION AND ACCESS

The Sech property is located 24 km east of Ucluelet at the tip of the Sechart Peninsula which extends into the north side of Barclay Sound on the west coast of Vancouver Island. This is on the Barclay Sound map sheet, NTS 92C/14 and is centred about Latitude 48°59'N and Longitude 125°15'W.

The property may be reached by boat or float plane from the ports of Port Alberni, Ucluelet or Bamfield. It is well protected from west coast swell by islands of the Broken Island Group. A disused logging road also accesses the western side of the property from the Port Alberni - Tofino Highway.

TOPOGRAPHY AND VEGETATION

The property rises to the north from sea level along the coastal lowlands to about 760 m a.s.l. on the sides of the Broughton Peaks. It is extremely heavily vegetated making internal access on foot almost impossible. Thick salal and bramble cover obscures geology everywhere but on stream beds and steep hillsides. This proved to be a very serious obstacle to proper exploration of the property.

CLAIM DATA

The property consists of two claims known as the Sech 1 and 2 mineral claims. These are of 9 and 18 units respectively (27 total) and are recorded under record numbers 1773 and 1774 in the Alberni Mining Division, record date May 30, 1983. They are registered in the name of Aume Resources Ltd.

HISTORY

The property contains two groups of Crown Granted mineral claims in its midst. The first, lot nos. 374, 392, 456, 457, 458, 459, 695 and 696 covers showings of magnetite, chalcopyrite and galena bearing mineralization occurring in a belt of metamorphic rocks within crystalline rocks of the Coast Plutonic Complex. These were prospected for iron for a number of years but no production is known.

Within the Sech 1 claim is lot 3, a Crown Grant covering the old Sechart mercury property. This was known as early as 1890 and Crown granted in 1892. By 1911 considerable work had been done on the cinnabar showings and in the late 1920s a shaft was

sunk and some production carried out with the installation of a retort. Considerable development was done in the late 1960s by Rip Van Mining Ltd., including geological and geochemical surveys, bulldozer trenching and diamond drilling of at least four holes.

GEOLOGY AND MINERAL DEPOSITS

Geology of the property is not well known and no systematic mapping was carried out in this program. Rocks underlying the property generally consist of sedimentary, volcanic and plutonic units. On Sech 2 claim, geology is dominated by coarse grained quartz diorite intrusive rock and slices of metamorphic rock within the intrusive.

South of this and hosting the Sechart mercury mineralization is a belt of rocks consisting largely of greenstone and gabbro with minor limestone. The old Sechart mine workings expose silicified and ankeritized greenstone which contains streaks and blebs of cinnabar. Mercury mineralization has penetrated along fault zones and fractures. Accompanying the mineralization is amorphous silica flooding and development of sericite, chlorite and brown ankerite.

Due to the heavy vegetation cover, prospecting was difficult. The extent of mercury mineralization appears to be limited to the area explored in the past within Crown Grant Lot 3. Results of the 1969 trenching and drilling program of Rip Van Mining Ltd. are not known but the property would appear to hold little potential for an economic mercury deposit due to the scattered and narrow zones of mineralization.

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GEOCHEMICAL SURVEY

Due to the extremely heavy vegetation cover, geochemical sampling was restricted to the areas about accessible streams and tidewater and in the area of the old workings. All samples were sent to Chemex Labs Ltd. of 212 Brooksbank Ave., North Vancouver, B.C. Here they were dried and the -60 mesh fraction of the silt and soil samples isolated by sieving. Geochemical analyses for gold, arsenic and mercury were obtained by methods as described in Appendix I. In all, 65 samples were analyzed.

RESULTS

Mercury

A high mercury background and strong mercury anomalies were detected from samples collected in the vicinity of, downstream and downslope from the Sechart mercury showings. These were not unexpected and are due to both primary mineralization (rock samples) and secondary dispersion (silt, soil). Considerable contamination of the area about the old workings has occurred as a result of the 1969 trenching and drilling program by Rip Van Mining Ltd. There is no correlation between mercury and arsenic values.

Arsenic

Arsenic values were generally very low. Anomalous values (those over 20 ppm) tend to scatter without apparent pattern and do not correlate with mercury anomalies. No significant arsenic values were detected in mercury mineralized rock.

Gold

No anomalies greater than 10 ppb gold were obtained.

SUMMARY

Results were disappointing. Of all streams sampled on the southern tip of the Sechart Peninsula, only that draining the mercury showing area was anomalous for mercury. No follow-up sampling is recommended.

Respectfully submitted,



STATEMENT OF QUALIFICATIONS

- I, ROSS J. BEATY, hereby certify:
- 1. That I am a Consulting Mining Geologist employed by Beaty Geological Ltd., with offices at 208-2786 West 16th Avenue, Vancouver, British Columbia, V6K 3C4.
- 2. That I am a graduate in geology of the University of British Columbia (B.Sc., 1974) and the Royal School of Mines, Imperial College of Science and Technology, University of London (M.Sc. with Distinction and Diploma of Imperial College, 1975), and in law of the University of British Columbia (LL.B., 1979).
- 3. That I have practised within the geological profession in Canada, United States, South Africa, New Zealand and Bolivia since 1970 while employed by Kennco Explorations (Western) Ltd., Duval Corporation, Cominco Ltd., Placer Development Ltd., Texasgulf Inc., Golder Associates, D.G. Leighton & Associates Ltd., P.M. Hancock and Associates and Beaty Geological Ltd.
- 4. That I am a Fellow of the Geological Association of Canada and a member of the Canadian Institute of Mining & Metallurgy and the Law Society of British Columbia.
- 5. That I supervised the mineral exploration program referred to in this report.

DATED at Vancouver, British Columbia, this 16th day of April, 1984.

BEATY, Se., G.A.C. LL ROSS J. BEATY ELLOW

APPENDIX I

GEOCHEMICAL PREPARATION AND ANALYTICAL PROCEDURES

- Geochemical samples (soils, silts) are dried at 50°C for a period of 12 to 24 hours. The dried sample is sieved to -80 mesh fraction through a nylon and stainless steel sieve. Rock geochemical materials are crushed, dried and pulverized to -100 mesh.
- 2. A 1.00 gram portion of the sample is weighed into a calibrated test tube. The sample is digested using hot 70% HClO₄ and concentrated HNO₃. Digestion time = 2 hours.
- 3. Sample volume is adjusted to 25 mls. using demineralized water. Sample solutions are homogenized and allowed to settle before being analyzed by atomic absorption procedures.

4. Detection limits using Techtron A.A.5 atomic absorption unit.

Copper - 1 ppm Molybdenum - 1 ppm Zinc - 1 ppm *Silver - 0.2 ppm *Lead - 1 ppm *Nickel - 1 ppm Chromium - 5 ppm

*Ag, Pb & Ni are corrected for background absorption.

5. Elements present in concentrations below the detection limits are reported as one half the detection limit, ie. Ag - 0.1 ppm

GEOCHEM PROCEDURES

<u>PPB Gold:</u> 5 gm samples ashed @ 800°C for one hour, digested with aqua regia - twice to dryness - taken up in 25% HCL-, the gold then extracted as the bromide complex into MIBK and analyzed via A.A. Detection limit - 10 PPB

<u>PPB Mercury:</u> The sample is digested with nitric acid plus a small amount of hydrochloric acid. Following digestion the resulting clear solution is transferred to a reaction flask connected to a closed system absorption cell. Stannous sulfate is rapidly added to reduce mercury to its elemental state. The mercury is then flushed out of the reaction vessel into the absorption cell where it is measured by cold vapour atomic absorption methods with a Jarrell Ash Multi-Versatility Spectrophotometer. The absorbance of samples is compared with the absorbance of freshly-prepared mercury standard solutions carried through the same procedure. The detection limit of this method is 5 ppb.

<u>PPM Arsenic:</u> a 1.0 gram sample is digested with a mixture of perchloric and nitric acid to strong fumes of perchloric acid. The digested solution is diluted to volume and mixed. An aliquot of the digest is acidified, reduced with Kl and mixed. A portion of the reduced solution is converted to arsine with NaBH₄ and the arsenic content determined using flameless atomic absorption. Detection limit - 1 PPM

<u>PPM Silver:</u> a 1.0 gm portion of sample is digested in conc. perchloricnitric acid ($HClO_4 - HNO_3$) for approx. 2 hours. The digested sample is cooled and made up to 25 mls with distilled water. The solution is mixed and solids are allowed to settle. Silver is determined by atomic absorption technique using background correction on analysis. Detection limit - 0.2 PPM

<u>PPM Molybdenum:</u> A 1.0 gm portion of sample is digested in conc. perchloric-nitric acid $(HClO_4-HNO_3)$ for approx. 2 hours. The digested sample is cooled and made up to 25 mls with distilled water. The solution is mixed and solids are allowed to settle. Copper and Molybdenum are determined by atomic absorption techniques. Detection Limit - 1.0 PPM .

SAMPLE NUMBER	As	Au	Hg	Sample
		իրո	սվզ	туре
GC SC 1	10	<10	70	silt
GC SC 2	14	<10	70	silt
GC SC 3	3	<10	60	silt
GC SC 4	5	<10	100	silt
GC SC 5	5	<10	60	silt
GC SC 6	4	<10	50	silt
GC SC 8	4	<10	70	silt
GC SC 9	2	<10	50	silt
CS SE 1	4	<10	4300	soil
CS SE 2	3	<10	1100	soil
CS SE 3	4	<10	430	soil
CS SE 4	4	<10	440	soil
CS SE 5	, L	<10	460	soil
CS SE 6	3	<10	580	soil
CS SE 7	ŭ	<10	2700	soil
CS SE 8	4	<10	350	soil
CS SE 9	3	<10	400	soil
CS SE 10	2	<10	210	soil
CS SE 11	4	<10	330	soil
CS SE 12	36	<10	230	soil
CS SE 13	22	<10	220	soil
CS SE 14	20	<10	260	soil
CS SE 15	2	<10	70	soil
CS SE 16	2	<10	60	soil
CS SE 17	.3	<10	120	soil
GS SE 01	7	<10	8000	soil
GS SE 02	5	<10	6600	soil
GS SE 03	3	<10	>10000	soil
GS SE 04	4	<10	240	soil
GS SE 05	5	<10	330	soil
GS SE 06	6	<10	340	soil
GS SE 9	4	<10	100	soil
GS SE 10	7	<10	440	soil
GS SE 11	14	<10	>10000	soil
GS SE 20	7	<10	430	soil
GS SE 21	4	<10	200	soil
GS SE 22	43	<10	680	soil
GS SE 23	4	<10	70	soil
GS SE 24	4	<10	190	soil
GS SE 25	4	<10	70	soil
GS SE 26	4	<10	40	soil
GS SE 27	35	<10	380	soil
GS SE 28	5	<10	180	soil
GS SE 29	4	<10	-90	soil
MC SE 17	12	<10	550	silt
MS SE 20	6	<10	50	soil
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APPENDIX II - GEOCHEMICAL RESULTS

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APPENDIX II - CONT'D

CANDLE NUMPED	As	Au	Hg	Sample
SAMPLE NUMBER	ppm	ppb	ppb	type
GR SE 8	5	<10	>10000	rock
MR SE 01	6	<10	1300	rock
MR SE 02	7	<10	>10000	rock
MR SE 03	6	<10	>10000	rock
MR SE 04	4	<10	>10000	rock
MR SE 05	9	<10	3500	rock
MR SE 06	7	<10	5500	rock
MR SE 07	7	<10	2600	rock
MR SE O8	7	<10	>10000	rock
MR SE 09	5	<10	>10000	rock
MR SE 10	11	<10	>10000	rock
MR SE 11	6	<10	>10000	rock
MR SE 12	9	<10	>10000	rock
MR SE 13	11	<10	>10000	rock
MR SE 14	7	<10	>10000	rock
MR SE 15	5	<10	5600	rock
MR SE 16	6	<10	>10000	rock
MR SE 17	6	<10	2100	rock
MR SE 21	32	<10	440	rock

APPENDIX III

ITEMIZED COST STATEMENT - SECH PROPERTY

- 1. Personnel: July 11,12 ('83); April 13,16 ('84) R.J. Beaty 960.00 4 days @\$240 Aug. 20-23 ('83) A. Muir 500.00 4 days @\$125 C. Bilquist July 11,12; Aug.20-23 ('83) 6 days @\$95 570.00 A. Ghabrial Aug.20-23 380.00 4 days @\$95 723.00 3,133.00 Contract expenses (UIC, CPP, WC, etc) 2. Analytical costs (Chemex Labs Ltd.):
 - 37 soil analyses for Au, As, Hg @\$11.75; 37 soil preps @\$0.60; 19 rock analyses for Au, As, Hg @\$11.75; 19 rock preps @\$2.50; 9 silt analyses for Au, As, Hg @\$11.75; 9 silt preps @\$2.60

3. <u>Disbursements:</u>

Means, accommodation Job. 92	
Maps, publications, photocopies 53.84	
Telephone, communications -	
Airfare, bus, taxi, boat charter 356.70	
Truck rental (4X4 pick-up w/camper) 508.60	
Gas, oil, boat fuel 253.37	
Expendable field supplies 204.32	
Camp equipment 96.00	
Sample shipment, sundry 10.00	
Secretarial, accounting 203.32	
Drafting <u>62.00</u>	2,337.07
TOTAL COSTS ON SECH PROPERTY	\$6,326.92

856.85





