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12/84

REPORT ON A GEOCHEMICAL SURVEY

OF THE

VITAL PROPERTY, TAKLA LAKE AREA

Omineca Mining Division

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

LATITUDE 55° 30'

LONGITUDE 125° 29'

NTS MAP 93N/11

11,881

OWNERS AND OPERATORS:

AUME RESOURCES LTD.

CONSULTANT:

BEATY GEOLOGICAL LTD.

AUTHOR:

R. R. CULBERT, Ph.D., P.Eng.

SUBMITTED:

NOVEMBER 15, 1983.

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SUMMARY AND CONCLUSIONS

The VITAL property is comprised of one claim of 18 units. It covers the trench of the Pinchi Fault just south of the confluence of Vital and Silver Creeks.

Contour and valley-edge traverses were used to collect silt, soil and rock samples from below the glacial sediment terrace covering much of the property, and these samples were analyzed for gold, silver, arsenic and mercury.

In general, the results were disappointing. No gold or silver anomalies and only two high values in arsenic were found. Mercury had a high background and several anomalies, as might be expected in proximity to the Pinchi Fault. These, however, were scattered and there seems little incentive to commit the resources which would be needed to follow them back beneath the glacial terrace overburden.

INTRODUCTION AND WORK CARRIED OUT

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

Work was carried out by a four man crew intermittently from June to August, during the course of a regional program. It consisted of prospecting and preliminary geological mapping of the claim and the collection of 37 samples (13 soil, 2 rock and 22 silt) for geochemical analysis for gold, silver arsenic and mercury. The object of the project was to investigate the gold content of mercury mineralization associated with the Pinchi Fault.

LOCATION AND ACCESS

The Vital Property straddles Silver Creek just south of its junction with Vital Creek in the Omineca Mining Division. This is on the Kwanika Creek map sheet, NTS 93N/11. Much of the area is also covered by placer leases based on the placer gold and arguerite (native silver-mercury amalgam) which occurs in Silver Creek.

The property may be reached by the road along Silver Creek, which is suited to 4-wheel drive vehicles. This branches from the road between Manson Creek and Takla Landing at a point near the forks in Kwanika Creek (Figure 1).

CLAIM DATA

The property consists of one claim of 18 units staked on June 5th, 1983 (Tag No. 91073) and recorded at Smithers on June 14, 1983 (Record No. 5416). It is registered in the name of Aume Resources Ltd.



AUME RESOURCES LTD.
LOCATION MAP
VITAL PROPERTY
N.T.S. 93 N/11

BEATY GEOLOGICAL LTD.

DRAWN : D.W.	CHECKED : R.J.BEATY	FIG. N°
SCALE : 1:800,000	DATE : DEC. , 1983	1

TERRAIN AND GEOLOGY

Silver Creek occupies a major valley which is an expression of the Pinchi Fault zone. On a regional basis this separates the complex Hogem Batholith to the east from Paleozoic sediments of the Cache Creek Group which occupy the Vital Mountains to the west. In this part of the Pinchi Trench, however, there is a sliver of altered Takla Group volcanic rocks and shales along the east side of the Silver Valley, while the Cache Creek sediment is dominantly limestone. Irregular bodies of quartz-carbonate rock, formed by alteration of serpentine intrusions along the fault zone, have also been noted in this portion of the batholith. Cinnabar showings are reported adjacent to the property both to the north and south.

Most of the outcrop found was along Silver Creek or adjacent bluffs. The remainder of the claims largely cover a terrace of glacial sand, silt and gravels of uncertain depth.

GEOCHEMICAL SURVEY

Contour traverses were run down Silver Valley through the Vital claim, with silt samples being taken at watercourses and soil samples at gully floors and other points. In addition, more detailed rock and soil sampling was done along the edge of the Silver Creek Valley flats. 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, silver, arsenic and mercury were obtained by methods as described in Appendix I. In all, 37 samples were analyzed.

RESULTS

The survey was hampered by a glacial terrace of silt, sand, gravel and till covering much of the western portion of the property. In general, the results were disappointing. (See Figure 2 and Appendix II.)

Mercury

With cinnabar showings recorded in the Pinchi Trench on either side of the property, a high mercury background (382 ppb) and strong anomalies were not surprising. Anomalies, however, tended to scatter without apparent pattern and are divided between soils, silts and rocks. The highest result was 2400 ppb, from an altered volcanic rock near the centre of the property. There was no correlation between mercury and the other elements tested.


Arsenic

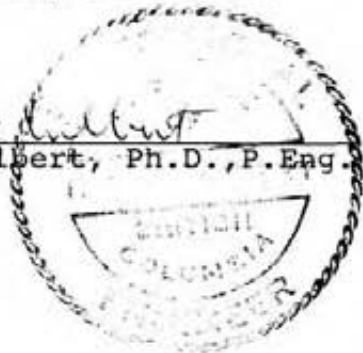
Although arsenic is associated with mercury in the Snell showing just south of the property, only two samples above 20 ppm were found, and these did not correlate with other anomalies.

Silver and Gold

No anomalies greater than 0.3 ppm silver or 10 ppb gold were obtained.

Respectfully submitted,


R. R. Culbert, Ph.D., P. Eng.




CERTIFICATION

I, R. R. CULBERT, hereby certify that:

1. I am a practicing Professional Geological Engineer with offices at 208 - 2786 West 16th Avenue, Vancouver, B. C.
2. I am a graduate of the University of British Columbia, B.Sc. (1964), Ph.D. (1971).
3. I have practiced mining exploration for twenty-two years, most of which was based in British Columbia.
4. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
5. I have no interest, directly or indirectly, in the properties or securities of Aume Resources Ltd.
6. I personally supervised and partly carried out the field work on which this report is based.

DATED at Vancouver, British Columbia, this 30th day of November, 1983.



R. R. Culbert, Ph.D., P.Eng.



APPENDIX I

GEOCHEMICAL PREPARATION
AND
ANALYTICAL PROCEDURES

1. 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

PPB Gold: 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

PPB Mercury: 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.

PPM Arsenic: 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 KI and mixed. A portion of the reduced solution is converted to arsine with NaBH_4 and the arsenic content determined using flameless atomic absorption.
Detection limit - 1 PPM

PPM Silver: a 1.0 gm portion of sample is digested in conc. perchloric-nitric acid ($\text{HClO}_4 - \text{HNO}_3$) 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

PPM Molybdenum: A 1.0 gm portion of sample is digested in conc. perchloric-nitric acid ($\text{HClO}_4 - \text{HNO}_3$) 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

APPENDIX II - GEOCHEMICAL RESULTS

SAMPLE NUMBER	Ag ppm	As ppm	Au ppb	Hg ppb	Sample Type
GG-V1-1	0.1	2	10	30	gully
GS-V1-2	0.2	3	10	30	silt
GG-V1-3	0.1	11	10	290	gully
GG-V1-4	0.2	7	10	110	goil
GS-V1-5	0.1	4	10	100	soil
GS-V1-6	0.2	5	10	20	soil
GC-VL-7B	0.1	12	10	650	silt
GG-V1-8	0.3	2	10	40	gully
GC-V1-9	0.1	5	10	410	silt
GC-V1-10	0.1	6	10	40	silt
GC-V1-11	0.1	6	10	390	silt
GC-V1-12	0.1	6	10	80	silt
GC-V1-13	0.2	7	10	90	silt
GS-V1-14	0.1	2	10	20	soil
GG-V1-15	0.1	5	10	40	gully
GS-V1-16	0.1	4	10	50	soil
GS-V1-17	0.1	23	10	30	soil
GS-V1-26	0.1	12	10	530	soil
GS-V1-27	0.1	17	10	310	soil
GC-V1-28	0.1	6	10	50	silt
GC-V1-29	0.1	7	10	60	silt
GS-V1-30	0.2	43	10	110	soil
MC-V1-2	0.1	9	10	700	silt
MS-V1-3	0.1	9	10	690	soil
MC-V1-4	0.1	15	10	210	silt
MC-V1-7	0.1	16	10	80	silt
MC-V1-8	0.1	9	10	70	silt
MR-V1-6	0.1	11	10	2400	rock
PC-V1-1	0.1	12	10	370	silt
PC-V1-2	0.1	9	10	30	silt
PS-V1-3	0.1	10	10	50	soil
PC-V1-4	0.3	5	10	60	silt
PS-V1-5	0.1	7	10	40	soil
PC-V1-6	0.1	5	10	110	silt
PS-VL-7	0.1	5	10	30	soil
BR-V1-1	0.1	15	10	100	rock

APPENDIX IIIITEMIZED COST STATEMENT - VITAL PROPERTY1. Personnel:

R. J. Beaty	June 12, July 26, November 20 3 days @ \$240	720.00	
R. R. Culbert	July 19 1 day @ \$240	240.00	
A. Muir	June 5,12; July 17,26; October 5, 6 6 days @ \$125	750.00	
P. Mullen	July 17, 26 2 days @ \$95	190.00	
A. Ghabrial	June 5, July 17,26 3 days @ \$95	285.00	
Contract expenses (UIC, CPP, WC, etc)		<u>655.50</u>	2,840.50

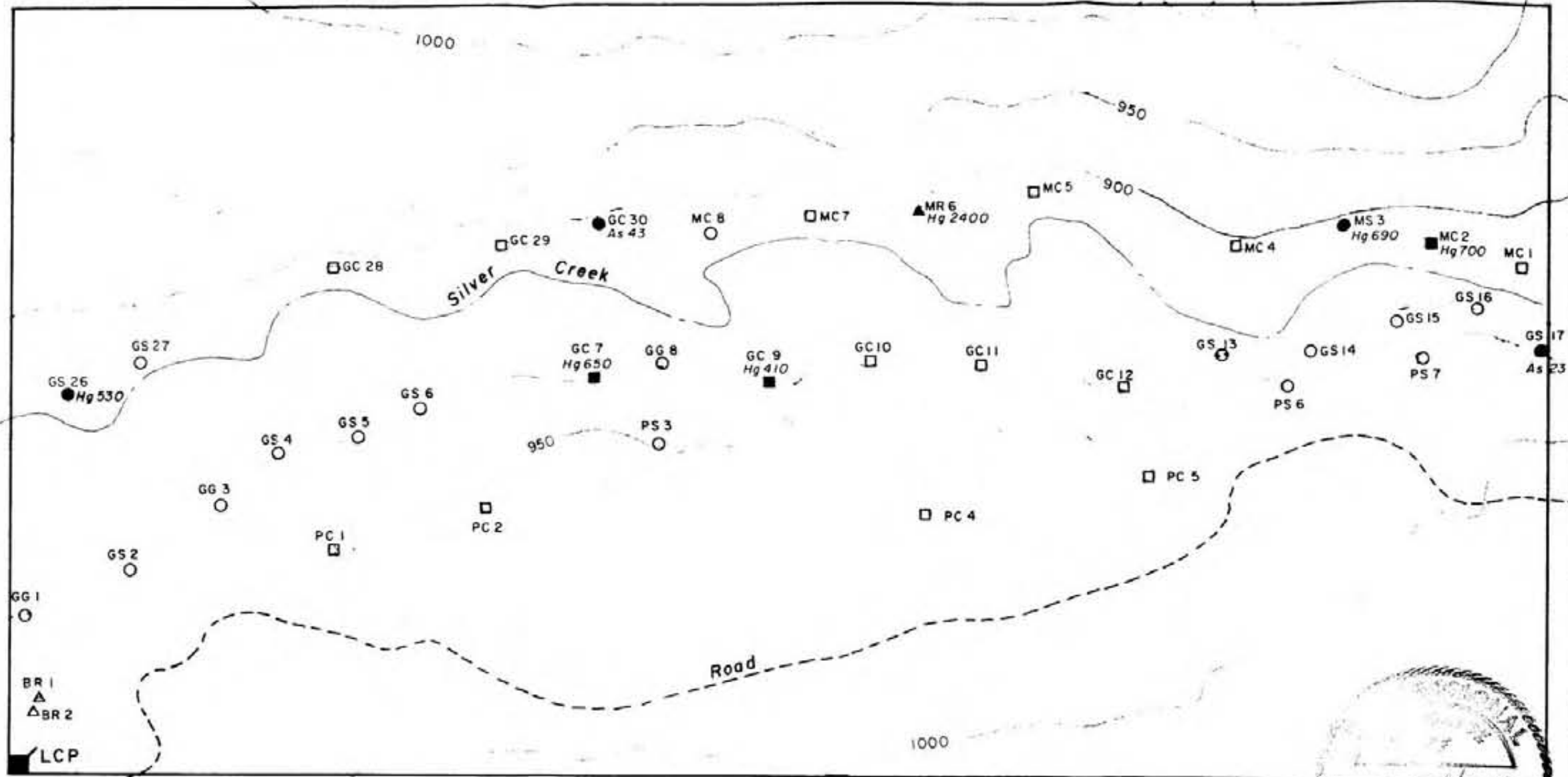
2. Analytical costs (Chemex Labs Ltd.):

30 soil analyses for Au, As @ \$8.25; 19 soil analyses for Au, As, Hg, Ag @ \$13.25; 49 soil preps @ \$0.60; 9 rock analyses for Au, Ag @ \$8.25; 5 rock analyses for Au, As, Hg, Ag @ \$13.25; 14 rock preps @ \$2.50; 8 silt analyses for Au, Ag @ \$8.25; 21 silt analyses for Au, As, Hg, Ag \$13.25; 29 silt preps @ \$2.60			1,123.80
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3. Disbursements:

The following disbursements were incurred in the course of an exploration program which covered the Teeg, Vital, Weka, Wetch, Bap and other properties in the Pinchi Fault region. Since it is impossible to identify specific property disbursements, a reasonable allocation has been made to each specific property based on the percentage of time spent on physical work on the property with respect to the overall program.

<u>Item</u>	<u>Overall Project Costs</u>	<u>Allocation to Vital Property</u>
Meals, accommodation	5,107.95	400.00
Air photos	1,246.53	100.00
Maps, publications, photo- copies	1,066.84	100.00
Telephone, radio communications	648.23	60.00
Airfare, bus, taxi, plane and boat charter	2,208.08	150.00
Helicopter charter	9,392.35	-
Truck rental (2-4x4 pick-ups, one with camper)	7,748.37	350.00
Gas, oil	2,081.00	150.00
Expendable field supplies	1,557.48	120.00
Camp equipment	1,584.00	150.00
Sample shipment, sundry	328.50	30.00
Secretarial, accounting	925.19	100.00
Drafting	463.00	50.00
	<hr/>	<hr/>
	34,357.52	1,760.00
		<hr/>
TOTAL COSTS ON VITAL PROPERTY		<u><u>\$5,724.30</u></u>



Contour Interval: 50m

LEGEND

- ▲ Rock Sample
- Soil Sample
- Silt Sample
- ▲ ■ ● Anomalous Sample
 - Au > 10 ppb Ag > 0.3 ppm
 - As > 20 ppm Hg > 400 ppb

AUME RESOURCES LTD.	
VITAL PROPERTY GEOCHEMICAL SAMPLE LOCATIONS AND ANOMALIES	
SCALE	1 : 10 000
DATE	November, 1983.
DRAWN	RRC, PW
DRAWING No.	FIGURE 2
BEATY GEOLOGICAL LTD.	