

208-2786 West 16th Avenue Vancouver, B.C., Canada V6K 3C4 Telephone (604) 734-2774

REPORT ON A GEOCHEMICAL SURVEY

OF THE

WEKA PROPERTY, TAKLA LAKE AREA

Omineca Mining Division

# GEOLOGICAL BRANCH ASSESSMENT REPORT

LATITUDE 55° 35'N

LONGITUDE 125° 20'W

NTS MAPS 93 N/11, 93 N/6

OWNERS AND OPERATORS: <u>CONSULTANT:</u> <u>AUTHOR:</u> SUBMITTED:

BEATY GEOLOGICAL LTD. R. R. CULBERT, Ph.D., P.Eng. NOVEMBER 30, 1983.

AUME RESOURCES LTD.

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### SUMMARY AND CONCLUSIONS

The WEKA Property consists of part or all of five claim groups totalling 64 units, located 40 km to the east of Takla Landing at the confluence of Kwanika and West Kwanika Creeks. A geochemical survey was carried out here for gold and silver. Silt, soil and rock samples were analyzed for gold, silver and the tracer elements arsenic and mercury.

Being located on the Pinchi Fault and adjacent to the Bralorne-Takla mercury mine, the high results in mercury geochemistry were not surprising. In the northern part of the property, however, mercury anomalies were closely associated with moderately high values in arsenic, gold and silver in all classes of sample. A few anomalies were also found in the southeastern sector of the property. In view of the clustering of anomalies and correlation between metals, a small follow-up geochemical program appears warranted in these two areas. 2.

### INTRODUCTION AND WORK CARRIED OUT

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

Work was carried out by a four man crew in June and July, 1983 during the course of a regional program. It consisted of prospecting and preliminary geological mapping of the claim group and the collection of 92 samples (43 soil, 37 silt, 12 rock) for geochemical analysis for gold, silver, arsenic and mercury. The object of the program was to investigate the gold content of mercury mineralization associated with the Pinchi Fault.

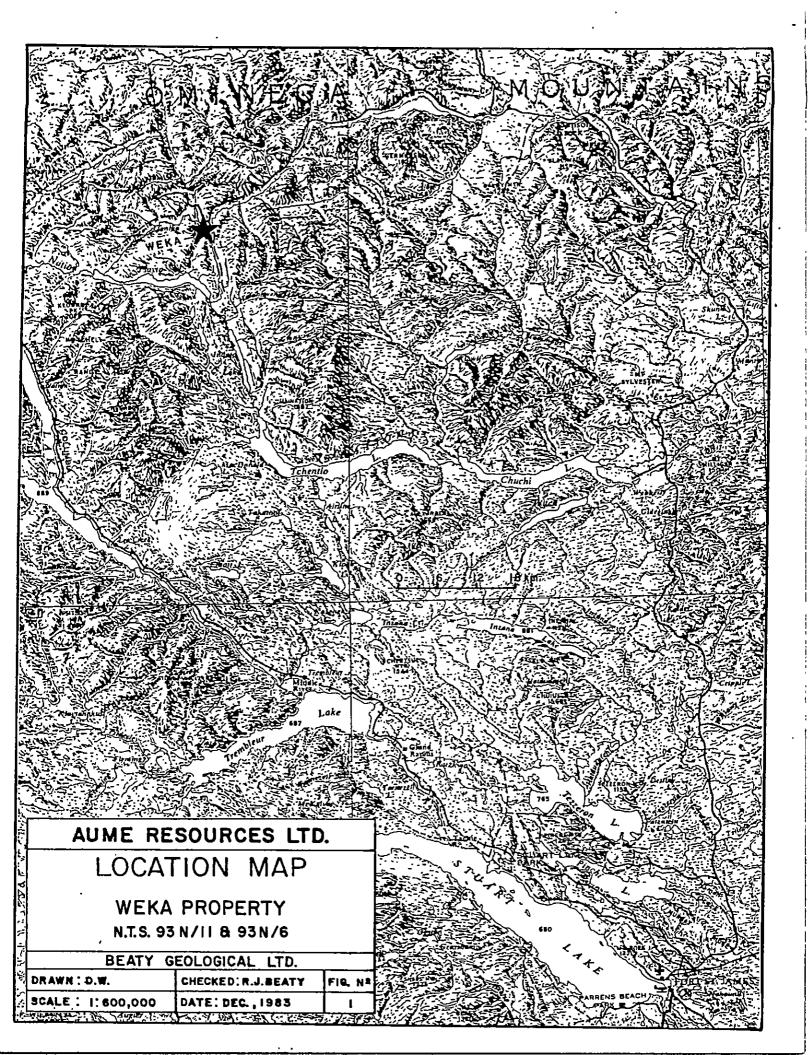
### LOCATION AND ACCESS

The Weka Property is comprised of 5 claims in the area of the confluence of Kwanika and West Kwanika Creeks. It straddles the boundary between the Kwanika Creek and Indata Lake mapsheets (NTS 93 N/5 and 93 N/6), and lies 6 km east northeast of Tsayta Lake.

Access is by the road which runs from Manson Creek to Takla Landing. Four-wheel drive tracks break from this within the claims, one going south down Kwanika Creek and the other north along the Silver Creek Valley.

#### CLAIM DATA

Claim	Units	Tag No.	Date Recorded Re	ecord No.
WEKA WEKA 2 WEKA 8 WEKA 9 WEKA 9B	20 6 20 20 <u>10</u> 76	91072 11085 92370 93371 30663	14 June 1983 14 June 1983 August 1983 August 1983 August 1983	5418 5419 5634 5635 5636



All claims are registered in the name of Aume Resources Ltd. Only 8 units of WEKA 8 claim are considered valid due to prior staking of the RINA 1 claim.

#### TERRAIN AND GEOLOGY

The claim largely covers a lowlands where the two forks of Kwanika Creek enter the broad trench of the Pinchi Fault. This fault, in a regional scale, separates the Hogem intrusive complex on the east, from Cache Creek sediments to the west. At this location, the sediments are dominantly limestone on the west, but there is also a section of Takla argillite chert and other sediments on the east side of the fault. Serpentine or serpentinized intrusions are common along the Pinchi Fault and well represented on the property. Much of this lithology is converted to quartzcarbonate rock, which has hosted most cinnabar showings in the Pinchi Fault region.

Two showings of mercury are recorded in the approximate area covered by the claim block, and trenching for mercury was carried out in 1968 (assessment rept. #1755) in the northern part of the property. In the early 1970's considerable work (bulldozer line cutting, trenching, drilling, surveys, etc.) was carried out in the southern part of the property and to the south thereof in search of porphyry copper deposits (for example, see assessment report 5266). . What little past exploration has been carried out for gold and silver appears to have been confined to the area of the Bralorne-Takla mercury mine and Lustdust showing to the northwest.

### GEOCHEMICAL SURVEY

To evaluate the gold and silver potential of this area, rock,

silt and soil samples were collected and analyzed for gold, silver and the tracer elements arsenic and mercury. Most samples were collected on line traverses, which sampled streams, gullies and other sites of interest. In addition, there were traverses along certain lines of access, and more detailed sampling of lithologies in the area of trenches and other exposures.

All samples were sent to Chemex Labs Ltd. of 212 Brooksbank Ave., North Vancouver, B. C. Here they were dried, and the -80 mesh fraction concentrated from the soils and silts. Methods of geochemical analysis are outlined in Appendix I.

### RESULTS

In all, 96 samples were collected. These are plotted in Figure 2 and the analytical results listed in Appendix II.

#### Mercury

In view of the long-standing association of this area with mercury, it is not surprising that a high background was found (230 ppb) in silts and soils, or that there were several strong anomalies. Most of the anomalies were in the northern part of the property and here must be separated from contamination by the creek draining the Bralorne-Takla mine. There are also mercury-rich rocks in trenches in this area, however, and some of the local side-drainages carry more mercury in their silt (as much as 6400 ppb) than the main creek. There seems little doubt that there are potent mercury ion sources in this area. Another set of silt anomalies (and possibly a continuation of the same zone) occurs to the south of the last  $1\frac{1}{2}$  km of West Kwanika Creek.

### Arsenic

At 17 ppm, the soil-silt average for arsenic is only moderately high, but its anomalies group well in the northernmost portion of the property, associated with elevated mercury values. One rock from this area ran 600 ppm, and in general arsenic ion sources appear widespread in this northern sector. Anomalies are rare elsewhere.

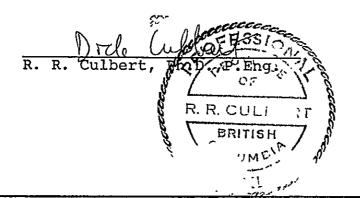
### Silver

Silver background was quite low (0.17 ppm) and values above 0.3 ppm tend to be scattered with a few associated with mercury and arsenic anomalies in the north and a few in the extreme southeast as well. Anomalous silver was not a feature of the mineralized rocks of the trenches.

### Gold

In general, the results from gold geochemistry were disappointing. The highest value returned was 50 ppb for a silt in the west-central portion of the property. This has not yet been followed up. Some lesser anomalies were found associated with arsenic and mercury in the northern sector of the claims and two samples from the trenches ran 20 ppb.

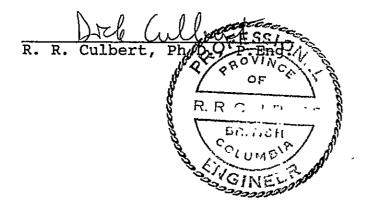
Respectfully submitted,



### CERTIFICATION

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



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# 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% HClO<sub>4</sub> and concentrated HNO<sub>3</sub>. 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 NaBH<sub>4</sub> 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

Comple Number	Ag	As	Au	Нд	Sample
Sample Number	ppm	ppm	ddd	ppb	Туре
BC-WE-1	0.3 -	59	10	-	silt/
BC-WE-50 ·	0.1	30	10	_	silt′
BC-WE-51	0.1	30	10	-	silt'
BC-WE-52	0.1	27	10	-	silt/
BC-WE-53	0.6	29	10	-	siltv
BC-WE-54	0.1	22	10		silt/
BR-WE-3	0.1	2	10	2000	rock 🗸
BR-WE-4	0.1	10	20	720	rock <
CC-KW-16	0.2	35	10	100	silt'
CC-KW-17	0.1	9	10	750	silt/
CC-KW-18	0.1	7	10	190	silt <sup>r</sup>
СС-КW-19	0.1	15	10	90	silt/
CR-KW-17	0.6	5	10	880	rock '
GC-WE-1	0.3	7	10	30	soil 🗸
GC-WE-2	0.3	57	10	70	silt
GS-WE-3	0.2	14	10	1000	soil /
GS-WE-4	0.2	7	10	120	soil'
BS-WE-5	0.1		10	50	soil
BS-WE-6	0.3	5 6 5	10	90	soil
GS-WE-7	0.2	5	10	230	soil⁄
GS-WE-8	0.1	12	10	120	soil <sup>r</sup>
GC-WE-9	0.1	67	10	620	$\mathtt{silt}^{\prime}$
GS-WE-10	0.2	16	10	2300	soil⁄
GS-WE-11	0.2	9	10	360	soil'
GC-WE-12	0.3	6	10	130	silt'
GS-WE-13	1.5	6	10	700	soil'
GS-WE-14	0.7	7	10	320	soil
GS-WE-15	0.1	3	10	330	soil/
GS-WE-16	1.5	4	10	180	soil/
GS-WE-17	0.2	2	10	410	soil/
GS-WE-18	0.3	2 7	10	90	soil
GS-WK-1	0.1	4	10	100	soil✓
GS-WK-2	0.1	4	10	30	soil√
GC-WK-3	0.1	69	10	350	$\texttt{silt}^\checkmark$
GS-WK-4	0.1	7	10	50	soil/
GC-WK-5 ·	0.1	6	10	60	silt✓
GS-WK-6	0.1	6	10	50	soil 🗸
GS-WK-7	0.1	65	10	6400	soil 🗸
GS-WK-8	0.1	11	10	40	soil/
GS-WK-9	0.1	4	10	40	soil-
GC-WK-10	0.1	59	10	2400	silt/
GS-WK-11	0.4	6	10	260	soil
GC-WK-12	0.1	3	10	330	silt
GS-WK-13	0.2	7	10	180	soil /

APPENDIX II - GEOCHEMICAL DATA

A-2	
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Sample Number	Ag	As	Au	Нд	Sample
	ppm	ppm	ppb	dđđ	Туре
GC-WK-14	0.1	48	10	6300	silt
GS-WK-15	0.1	24	30	4000	soil
GS-WK-16	0.2	б	10	130	soil /
GS-KW-7	1.3	38	10	660	soil
GC-KW-8	0.1	19	10	270	silt <
GC-KW-9	0.1	15	10	-	silt
GC-KW-10	0.1	<b>1</b> 0	10	-	silt∕
GC-KW-15	0.1	17	10		silt'
GR-KW-16	0.1	29	10	-	rock
MC-WE-3	0.3	38	10	2900	silt-
MS-WE-5	0.2	14	10	10000	soil
MS-WE-6	0.3	25	10	10000	soil,
MS-WE-8	0.2	10	10	10000	soil
MS-WE-10	0.2	15	10	2000	soil
MC-WE-14	0.1	15	10	170	silt√
MC-WE-16	0.1	20	10	3800	silt
MC-WE-17	0.1	20	10	570	silt'
MC-WE-18	0.1	67	10	350	silt/
MC-WE-19 MC-WE-20	0.1	15	10	130	silt'
MC-WE-20 MC-WE-21	0.1 0.1	19	50	230	silt/
MC-WE-21 MC-WE-22	0.1	11 11	10	150	silt
MC-WE-23	0.1	7	10	70	silt
MC-WE-25	0.1	14	10	80	silt
MR-WE-24	0.1	3	10	610	silt
	0.1	2	10	90	rock
MC-NK-4 MC-NK-5	0.8	15	10	-	silt
MC-NK-5	0.1	17	10	-	silt
MR-WE-1	0.1	11	10	130	rock -
MR-WE-2	0.2	600	20	40	rock-
MR-WE-4	0.1	19	10	1200	rock-
MR-WE-11	0.2	4	10	780	rock
MR-WE-15	0.1	4	10	40	rock /
MF-WE-100 MR-WE-103	0.1	7	10	30	float /
WK-ME-IO3	0.4	99	30	40	rock 🗸
PS-WK-1	0.1	2	10	40	soil'
PS-WK-2	0.1	- 2	10	30	soil
PC-WK-3	0.1	1.7	10	1.40	silt/
PS-WK-4	0.1	3	10	40	soil-
PS-WK-5	0.1	5	10	60	soilí
PS-WK-6	0.1	7	10	100	soil
PC-WK-7 PS-WK-8	0.1	12	10	130	siltí
E9-MV-0	0.1	7	10	90	soil

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A-3

Sample Number	Ag	As	Au	Нд	Sample	
	ppm	mqq	ppb	ddd	Туре	
PS-WK-9 PS-WK-10 PS-WK-11 PG-WK-12 PS-WK-13	0.1 0.1 0.1 0.1 0.4	3 3 6 4 7	10 10 10 10 10	70 20 40 20	soil / soil / gully /	
PG-WK-14 PC-WK-15	0.1	5 9	10 10 10	100 20 70	soil gully´ silt ´	

#### APPENDIX III

#### ITEMIZED COST STATEMENT - WEKA PROPERTY

### 1. Personnel:

R.	J. Beaty	June 11, 12; November 21 3 days @ \$240	720.00		
R.	R. Culbert	June 4; July 18; November 14, 15 4 days @ \$240	960.00		
Α.	Muir	June 4, 11, 12; July 18-21; October 7, 11 9 days @ \$125	1,125.00		
Ρ.	Mullan	July 18-20 3 days @ \$95	285.00		
A.	Ghabrial	June 4; July 18-21 5 days @ \$95	475.00		
Co	ntract expe	nses (UIC, CPP, WC, etc.)	<u>1,069.50</u>	4,634.50	

### 2. Analytical costs (Chemex Labs Ltd.):

37 silt preps @ \$2.60; 26 silt analyses for Au, Ag, As, Hg @ \$13.25; 11 silt analyses for Au, Ag, As @ \$10.00; 12 rock preps @ \$2.50; 12 rock analyses for Au, Ag, As, Hg @ \$13.25; 43 soil preps @ \$0.60; 43 soil analyses for Au, Ag, As, Hg @ \$13.25 1,335.25

### 3. Disbursements:

The following costs 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. .

Item	Overall Project Costs	Allocation to Weka Property
Meals, accommodation	5,107.95	575.00
Air photos	1,246.53	150.00
Maps, publications, photo- copies	1,066.84	150.00
Telephone, radio communications	648.23	80.00
Airfare, bus, taxi, plane and boat charter	2,208.08	250.00
Helicopter charter	9,392.35	-
Truck rental (2 - 4x4 pick-ups, one with camper)	7,748.37	400.00
Gas, oil	2,081.00	250.00
Expendable field supplies	1,557.48	200.00
Camp equipment	1,584.00	225.00
Sample shipment, sundry	328.50	50.00
Secretarial, accounting	925.19	150.00
Drafting	463.00	75.00
	34,357.52	2,555.00

TOTAL COSTS ON WEKA PROPERTY

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\$8,524.75

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