

15.

by a Geonic EM-16 instrument.

(a) Geonics VLF-EM survey.

This survey indicates a northwest trending series of discontinuous conductors in the northwest grid area that correlates in general with the trend of the major fault-shear zones.

(b) Crone CEM 'shootback' EM survey.

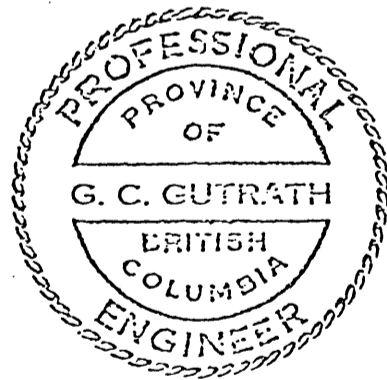
Two CEM test profiles did not indicate any conductors.

(c) McPhar SP-30 Self Potential survey.

The results from the two lines surveyed indicate a gradient anomaly. The shape of the profile suggests a laterally confined steeply dipping source.

(d) McPhar MF-1 fluxgate magnetometer survey.

Only one line was surveyed and the results cannot be interpreted without additional coverage.



Respectfully submitted,

A handwritten signature in cursive script, appearing to read "G. C. Gutrath".

G. Gutrath. P. Eng.

82 L/6 W

W-7

REPORT ON THE

AU CLAIM GROUP

Kamloops Mining Division

50°25'N 119°23'W

NTS Map 82 L/6 W

on behalf of

KEDA RESOURCES (1973) Ltd. (N.P.L.)

by

G. Gutrath P. Eng.

Atled Exploration Management Ltd.

March, 1976

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AU CLAIM GROUP
KAMLOOPS MINING DIVISION

INTRODUCTION

The mineralized zone on the Au Claim Group was first examined by the writer in July, 1969 and in October, 1969 a soil sampling, geological mapping and trenching program was completed under the overall supervision of the writer. The property has not been examined since that time but all additional data prepared by Kerr, Dawson and Associates Ltd. has been given to the writer by Keda Resources.

This report has been written at the request of Mr. J. Dawson, President of Keda Resources (1973) Ltd. (N.P.L.).

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adit. One sample taken across the footwall of the zone over a width of 4 feet assayed 0.47 oz./ton gold.

The results of the geochemical survey indicates that the mineralized shear zone extends to the east and west beyond the known showings. A strong linear shaped zinc anomaly subparallels the sulphide-gold mineralized zone 200 to 300 feet to the south.

The geophysical surveys outline a number of parallel westerly trending conductors which could be mineralized shears or fault zones.

CONCLUSION

The exploration work has outlined a significant gold bearing mineralized shear zone that is exposed in two locations 1,400 feet apart. Both locations carry gold values ranging from 1/3 to 1/2 ounce over widths of up to 15 feet.

A factor that has greatly improved the economic potential of this zone is the increase, over the last few years in the price of gold by almost four times to its present level of \$132 per ounce.

The geophysical and geochemical survey indicate that the zone is open at both ends and they also indicate other subparallel zones.

It is concluded that the property is a good exploration target for a moderate size gold deposit with additional recoverable value in zinc and silver. Further exploration work is warranted to outline the extent and grade of the known mineralized zone and to determine the cause of the geophysical and geochemical anomalies.

RECOMMENDATIONS

The following exploration program is recommended:

Phase I

1. Expand the soil sample area for gold and zinc to fully outline anomalous areas.
2. Map the outcrop geology in detail.
3. Bulldozer trench the anomalous zones with particular emphasis on the overburden covered area between the two known occurrences.

Phase II (Contingent on Phase I results.)

1. Additional bulldozer trenching and diamond drilling.

GEOGRAPHYLocation:

The Au claim group is located in south central British Columbia approximately 11 miles northwest of Vernon and 10 miles south east of Falkland. The approximate coordinate of the property is 50° 25' north latitude and 119° 23' west longitude.

Access:

The property can be reached via Highway 97 W from either Vernon or Kamloops by taking the Irish Creek road that leads west about 1 mile south of O'Keefe station. From the highway it is approximately 5 miles to the property by dirt road easily travelled by a four-wheel-drive vehicle.

Topography:

The claims are on the northeasterly edge of a rolling upland plateau area. Elevations vary from a low of 2,200 feet a.s.l. on the northeast side of the claims to 4,100 feet a.s.l. toward the southern boundary of the claims.

Vegetation:

The claim group is heavily forested with fir, spruce and cedar. There is thick underbrush in the creek bottoms and sidehill gullies.

Climate:

The climate is typical of the southern British Columbia dry belt. The winter compacted snowfall would vary from 2 to 4 feet and the area would be free of snow from April to November.

7.

Water:

There is no water in Mann Creek by late July and the rolling upland to the south is completely dry. It may be necessary to truck water for drilling purpose from Moffat Creek on the west side of the claim group.

CLAIMS

The following information on the claims has been supplied by the principals of Keda Resources (1973) Ltd. (N.P.L.):

<u>Name</u>	<u>Record No.</u>	<u>Expiry Date</u>
Au #1 - #5	124480 to 124484	March 8th, 1979
Au #7	125727	June 7th, 1976
Au # 12	125732	June 7th, 1976
Au # 19	125847	June 15th, 1976

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HISTORY

The first record of the property being staked is in 1899. Between 1900 and 1922 sporadic amounts of work were carried out on the property. There is no record of any ore shipments being made from the property during this period. Between 1922 and 1960, there is no record of any work having been done on the property. However, in 1960 the property was restaked and a limited amount of bulldozer trenching was done on the extensions of the zone. These claims were allowed to lapse and the property was restaked in 1966 and 1968 by different individuals. These claims were allowed to lapse and the property was restaked in 1969 by Coin Canyon Mines Ltd. Coin Canyon carried out a program of line-cutting, soil sampling and trenching. They allowed the claims to lapse in 1972.

The Au Group was staked by Keda Resources in 1973. Keda reinterpreted the data from previous exploration work done on the property and took additional soil samples for gold, mercury and arsenic analysis. The "East" and "West" showings were sampled and the existing grid was reestablished. Two adjacent lines were surveyed using magnetometer, self potential and C.E.M. instruments. The entire grid was surveyed using an EM-16 instrument.

DEVELOPMENT WORK

It is reported in the 1919 Minister of Mines Report that one tunnel, 240 feet in length, with a branch tunnel 40 feet long, and a second tunnel, 100 feet in length with a branch tunnel 50 feet long, had

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been driven to test the "East Showing". However, the portals of these tunnels have been completely obscured by bulldozer trenching. Two short inclines, one 5 feet long and one 15 feet long are still open. There is another short adit that is almost completely caved in the vicinity of the "West Showing".

Five 20 foot to 30 foot long bulldozer trenches were cut to the northwest of the "East Showing". It appears that the trenches were put in with a small machine and outcrop was never reached. One of the trenches is approximately twelve feet deep.

There is no other evidence of development or exploration work having been carried out on the property.

GEOLOGY

General:

The Au Claims are located near the centre of a twelve mile wide, northwesterly trending belt of Cache Creek Group rocks of Permian-Triassic age. This belt is bordered on the west by overlying Tertiary volcanics and on the east by older Shuswap Group schists of Precambrian age.

The Cache Creek Group is composed of andesite lava and tuff interbedded with argillites, quartzites and limestone. This group, along its western margin, is intruded by a number of Coast Range granodiorite stocks and related intrusive rocks.

The most significant structural feature is the major fault

system sub-parallelising the northwesterly trend of the Cache Creek belt. The faults can be traced for over 50 miles and in some cases have caused considerable displacement.

The Cache Creek Group in the Vernon-Falkland area hosts a number of mineral occurrences. The majority of these are small gold, silver, copper, and/or lead-zinc showings that have received considerable attention in the past. There has only been minor production from the area.

Property Geology:

The claim group is underlain by the Cache Creek Group rocks composed of andesitic volcanics and argillaceous sediments. The formations trend northwesterly and dip 20° to 70° to the southwest.

The andesitic volcanics consist of greenish, chloritic tuffs and flows. The sediments are primarily argillites or argillaceous tuffs, and within the shear zone are graphitic.

From the work completed by Keda Resources there is evidence of a series of parallel, westerly-trending shears or fault zones.

The two known showings appear to be located within one such zone. These thru-going structures are believed to be offset from tens to hundreds of feet by minor north to northwesterly faults.

a. Mineralization

Sulphide mineralization is fine grained and consists of pyrite and sphalerite with minor to trace amounts of chalcopyrite and galena. The sulphides are disseminated in the shear zone and are associated with quartz veining and minor calcite.

Gold occurs with the sulphides but cannot be recognized in hand specimens. The gold is believed to be associated with

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the pyrite and arsenopyrite and is remarkably well distributed throughout the sulphides in the shear zone.

The mineralized shear zone has been observed in 2 locations and they are identified as the "East" and "West" showings. These showings are 1400 feet apart with the intervening area completely masked by overburden.

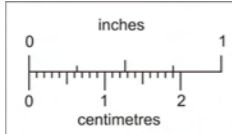
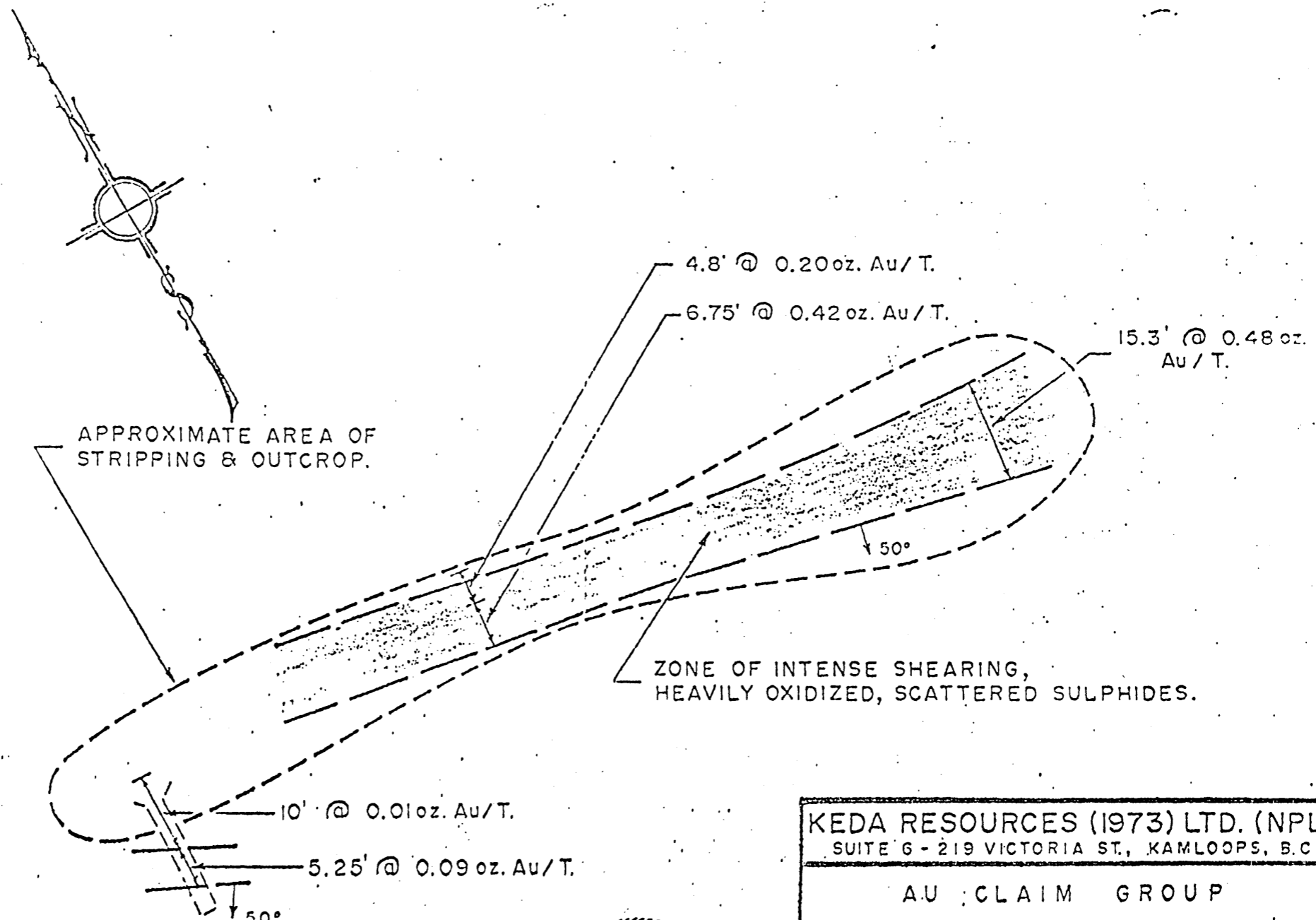
The "East-Showing" is the best exposed and largest of the two occurrences. The zone outcrops on a steep cliff face and is exposed for 150 feet along strike and over an average width of 10 to 12 feet. The zone strike at N 80° W and dips at an average of 45° SW. The mineralized zone is highly altered and sheared and contains a quartz vein varying from 2 to 4 feet wide. The sulphides are distributed in the quartz vein and in the altered wall rock. The sulphides are highly oxidized but where fresh material is exposed they can make up to as much as 40% of the zone.

The "West-Showing" is exposed in a sloughed pit and in a 10 foot adit. It is believed to be in the same shear zone as the "East-Showing". The zone in the pit consists of a 2 to 3 foot wide quartz vein sparsely mineralized with pyrite. The walls of the quartz vein are moderately sheared greenstone carrying minor pyrite and arsenopyrite.

There is no outcrop or float between the East and West Showings but careful prospecting by Kerr, Dawson and Associates did locate several pieces of quartz with disseminated galena and sphalerite uphill and to the south of the known shear zone.

b. Sampling

The occurrences have been sampled by the B.C. Dept. of Mines, by Kerr, Dawson and Associates Ltd. and by the writer who sampled the East Showing in 1969.



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.



KEDA RESOURCES (1973) LTD. (NPL)
SUITE 6 - 219 VICTORIA ST., KAMLOOPS, B.C.

AU CLAIM GROUP
EAST SHOWING -
ASSAY PLAN

KAMLOOPS MINING DIVISION BRITISH COLUMBIA

Tech work by: KERR, DAWSON & ASSOCIATES LTD. Scale: 1" = 20'

Drawn by: T. V. Date: DECEMBER, 1973

App. by: J.M. DAWSON, P. Eng. Dwg. No. 7-7

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1. B.C. Department of Mines

1919 Surface samples taken in the vicinity of the workings along a distance of approximately 150 feet

	<u>Gold</u> oz./Ton	<u>Silver</u> oz./Ton	<u>Zinc</u> %
(1) across 3'6" near southeast end of workings.	0.56	0.20	
(2) across 6' about 75' northwest of first sample	0.56	0.20	
(3) across 5' in shallow incline N.W. of second sample	0.20	1.50	
1922 Sample of West Showing across 2 feet	0.30	0.10	

2. 1969 G. Gutrath sampling of East Showing

(1) Grab sample of mineralization representing more massive sulphide mineralization 80% pyrite 20% quartz	0.57	0.40	0.22
(2) Grab sample. massive quartz, calcite, pyrite, arsenopyrite and sphalerite	0.58	0.40	3.48
(3) Chip sample of trench across east end of zone 8 feet wide	0.12	0.10	0.33
(4) Narrow 1 foot wide zone of more massive sulphide on hanging wall side of zone Grab sample	0.23	0.20	1.11

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	<u>Gold</u> oz./Ton	<u>Silver</u> oz./Ton	<u>Zinc</u> %
(5) Chip sample across 6 feet near centre of zone Minor sulphides.	0.03	Tr.	0.28
(6) Chip sample across 4 feet near east end of zone. 4 feet wide	0.22	0.30	0.40

3. 1973 Kerr, Dawson and Associates
sampling

(1) Grab sample of oxidized material with relict sulphides	0.59	1.33	2.90
(2) East zone sampled over a width of 11'7"	0.33		
(3) and over a width of 15'4"	0.48		
(4) Chip sample across 4' of sheared footwall	0.47		
(5) Grab sample from quartz vein in adit	0.03		
(6) Grab sample from quartz vein in pit	0.02		

GEOCHEMISTRY

A soil sampling program was carried out under the writers supervision in 1969. Additional soil sampling was done by Kerr, Dawson and Associates in 1973. A total of 349 samples were analysed for zinc, 95 samples for gold and 21 samples were also analysed for arsenic and mercury.

Zinc background is in the range of 200 to 250 parts per million.

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The contoured results outline a strong westerly trending zinc anomalous zone averaging 400 feet wide and extending over a length of 4,600 feet. The anomaly is open and strong at both ends. A few random, lenticular shaped zinc anomalous zones are located south of the main anomalous zone and all are subparallel to the major westerly trend.

The majority of the gold values are less than 50 parts per billion. The higher gold values are closely associated with the two known sulphide occurrences. There are no appreciable gold highs between the two occurrences. There is a distinct anomalous area to the northeast of the West showing that may represent an offset section of the main zone. The results indicate that the East Showing extends a minimum of 500 feet to the east and the zone is still open.

The arsenic background is in the range of 10 to 15 parts per million and there are definite anomalous values down slope from the East and West showings. However, the arsenic does not correlate as well as the gold values in outlining the known occurrences.

Mercury background is in the range of 2.5 to 10 parts per billion. Although anomalous values are encountered in the vicinity of the showings the results are erratic.

GEOPHYSICS

A number of instruments were tested on the Au claim group in order to determine what geophysical technique would be the most suitable in outlining the sulphide zones. The entire grid was surveyed