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Geochemical Report
on the
Mac 10 Claim Group

for

Eureka Resources Inc.
837 East Cordova Street
Vancouver, B. C.
V6A 3R2

Covering: Mac 10 (20 units)

Work Performed: August 1, 1987 - August 20, 1987

Location: 100 kilometres east of Williams Lake, B. C.
52° 21'N, 120° 40' W
NTS 93A/7E

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,917

FILMED

Prepared by
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Suite 2-423 First Avenue
Kamloops, B.C.

November 12, 1987

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District Geologist, Prince George

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ASSESSMENT REPORT 16917

MINING DIVISION: Cariboo

PROPERTY: Mac
LOCATION: LAT 52 21 00 LONG 120 40 00
UTM 10 5802312 658926
NTS 093A07E

CLAIM(S): Mac 10
OPERATOR(S): Eureka Res.
REPORT YEAR: 1987, 18 Pages

COMMODITIES
SEARCHED FOR: Gold

GEOLOGICAL
SUMMARY: A basal unit of Triassic black phyllites carrying gold values is projected along strike from the adjoining Frasergold property onto the Mac 10 claim. Scattered anomalous gold values in soil have been found on the Mac 10 claim on the strike projection of the gold bearing phyllites. Further work is planned.

WORK
DONE: Geochemical
LINE 9.5 km
SOIL 374 sample(s) ;AU
Map(s) - 1; Scale(s) - 1:5000

RELATED
REPORTS: 15778

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Summary

The Mac 10 Claim was staked by Eureka Resources, Inc. in the summer of 1986 to cover the possible extension of a highly anomalous zone of gold in soils that had been detected by Eureka on the adjoining Frasergold property, southeast of the Mac 10 Claim. The gold anomaly on the Frasergold property is related to bedrock mineralization, where mineralization is found within quartz veins and sweats along a preferred horizon within Triassic Black Phyllites. The strike extension of the phyllites and corresponding soil anomaly had been projected onto the Mac 10 claim group. Work completed by Eureka in 1986 on the Mac 10 claim confirmed the existence of numerous anomalous gold values in the soils. Consequently in 1987 a program of more detailed soil sampling was undertaken.

The work completed in 1987 confirmed the previous work by Eureka. A number of anomalous gold values in soils (up to 1,100ppb) were outlined. Thick overburden over the Mac 10 claim area prevented the outlining of a clearly defined anomalous zone. However the number of anomalous values and there scattered clusters, indicates that although dispersed, they are probably related to bedrock mineralization. Further work is necessary (preferably diamond drilling) to fully assess the economic potential of the Mac 10 Claim group.

Introduction

This report outlines the results of a geochemical soil survey completed on the Mac 10 mineral claim during August 1987 for the owner, Eureka Resources, Inc., 837 East Cordova Street, Vancouver, B. C. The work performed was carried out by personnel employed by Eureka Resources, Inc. under the supervision of J. R. Kerr.

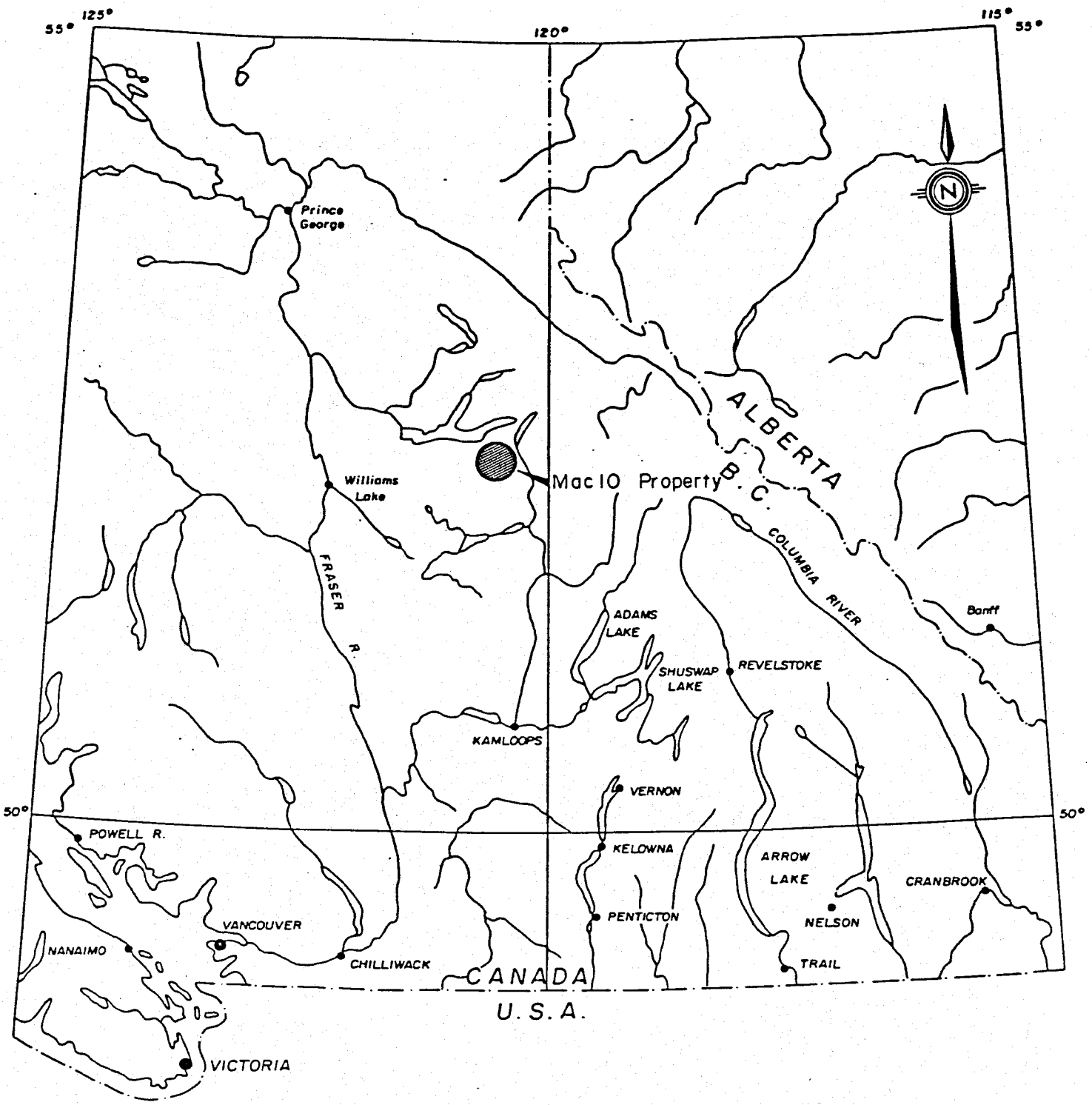
The Mac 10 mineral claim was staked in the summer of 1986 to cover the projected strike extension of a geochemical soil anomaly outlined by Eureka on the adjoining Frasersgold Property (see Figure 2). A series of maps showing property, claim location as well as data obtained in this survey are included with this report.

Location and Accessibility

The Mac 10 mineral claim is located in the central Cariboo region of British Columbia, approximately 100 kilometres east of Williams Lake. The claim straddles the MacKay River valley, with geographic co-ordinates of the centre of the claims at 52 °21' N and 120 °40' W, N.T.S. 93A/7E (Figures 1 and 2).

The best access to the property is east along the paved Horsefly highway for 55 kilometres from 150 Mile House on Highway 97. An all-weather logging road is then followed along the Horsefly River to the northeast for approximately 55 kilometres where a branch road to the southeast enters the MacKay River valley.

Approximately 7 kilometres along this road, the western boundary of the Mac 10 claim group is traversed. This road continues and where it crosses the Mackay River marks the approximate eastern boundary of the claim group. This access road is in good repair and open to two wheel drive vehicles. A second road, south of the Mackay River with ancillary cat roads provides good access to areas within the claim. It is expected logging in the immediate vicinity of the Mac 10 claim during the winter of 1987/88 will keep these roads open most of the year .



EUREKA RESOURCES INC.	
LOCATION MAP	
Mac 10 Property	
CARIBOO MINING DIVISION, B. C.	
Technical Work By:	Scale: 1:2,500,000 (1cm = 25km)
Date: Nov., 1985	Drawn By: W.G.
	Fig. No. 1

To accompany a report by D A Lelshman, B. Sc. Feb. 1987

Claims

The Mac 10 claim group consists of 1 metric claim, Mac 10 (20 units) covering an area of approximately 500 hectares (Figure 2 and 3).

Claim Name	Units	Tag No.	Record No.	Expiry Date
Mac 10	20	106877	7838	July 31, 1990

The registered owner of the claims is Eureka Resources, Inc. 837 East Cordova Street, Vancouver, B. C.

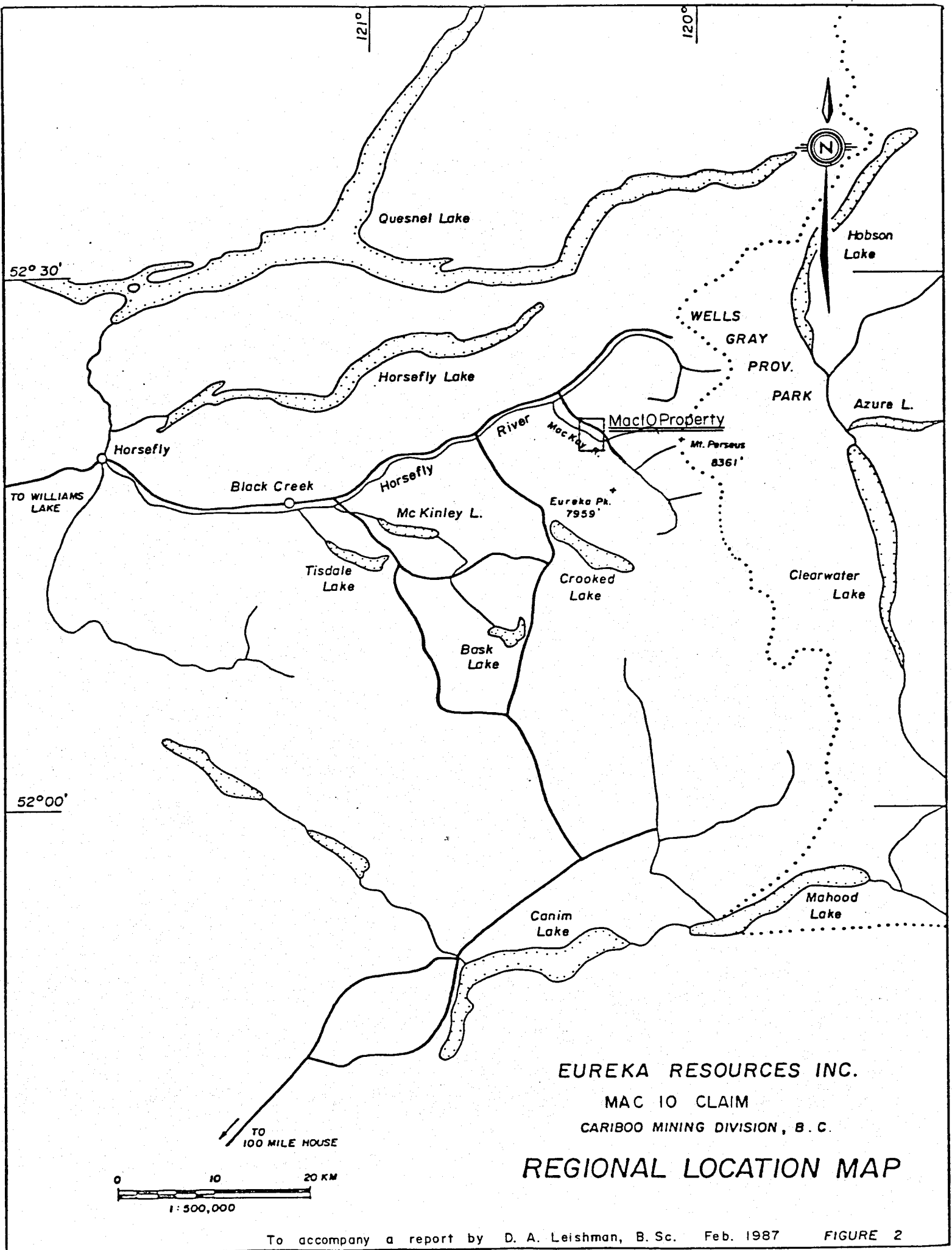
Physiography and Vegetation

The Mac 10 claim group covers a portion of the west flank of the Cariboo Mountain Range. The claims straddle the Mackay River, with the larger area southwest of the river. Topography is considered moderate with relief from 1,158 metres a.s.l. along the river valley to 1,676 metres a.s.l. at the southwest corner to 1,768 metres a.s.l. in the northeast corner of the claim block (Figure 3).

The vegetation along the Mackay River valley consists of good stands of commercial spruce and balsam with thick underbrush. Forest cover is lighter above 1,600 metres and alpine vegetation is encountered at approximately the 1,800 metre elevation. Large areas of the claim (approximately 30%) have undergone logging which has left a good network of access trails.

Exploration History

There is no documentation of work completed within the area covered by the Mac 10 mineral claim with the exception of that by Eureka Resources, Inc. in the summer of 1986. Recent work by Eureka Resources, Inc. has revealed the existence of a very large and possibly continuous geochemical anomaly immediately to the southeast of the Mac 10 claim group (the Frasergold Property). The strike direction of this anomaly projects onto the Mac 10 mineral claim.

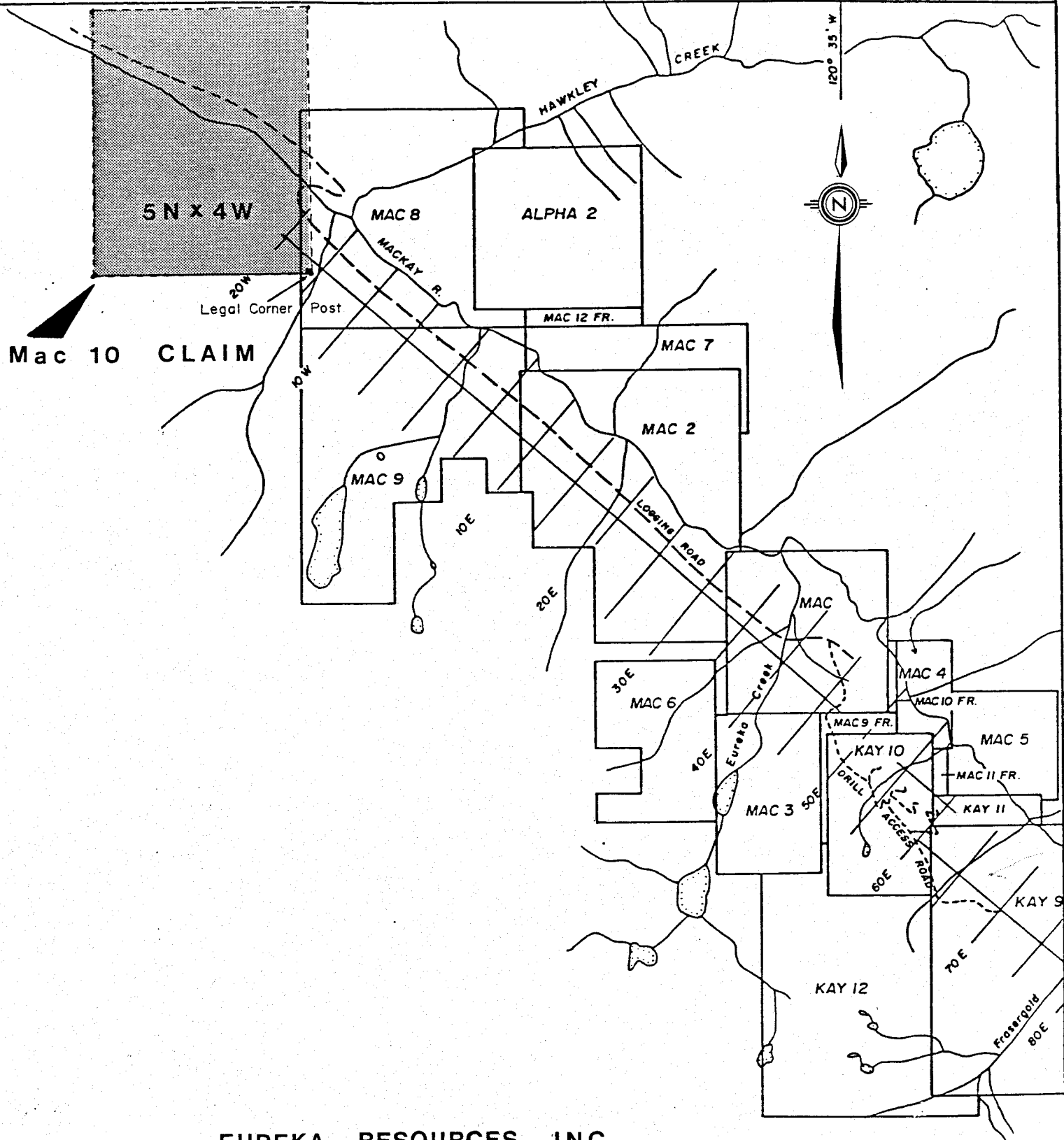


EUREKA RESOURCES INC.

MAC IO CLAIM

CARIBOO MINING DIVISION, B. C.

REGIONAL LOCATION MAP



EUREKA RESOURCES INC.

Mac 10 CLAIM MAP

Cariboo Mining Division, B. C.

N. T. S. 93A/7E

Scale 1:50,000

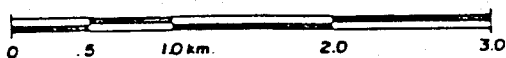


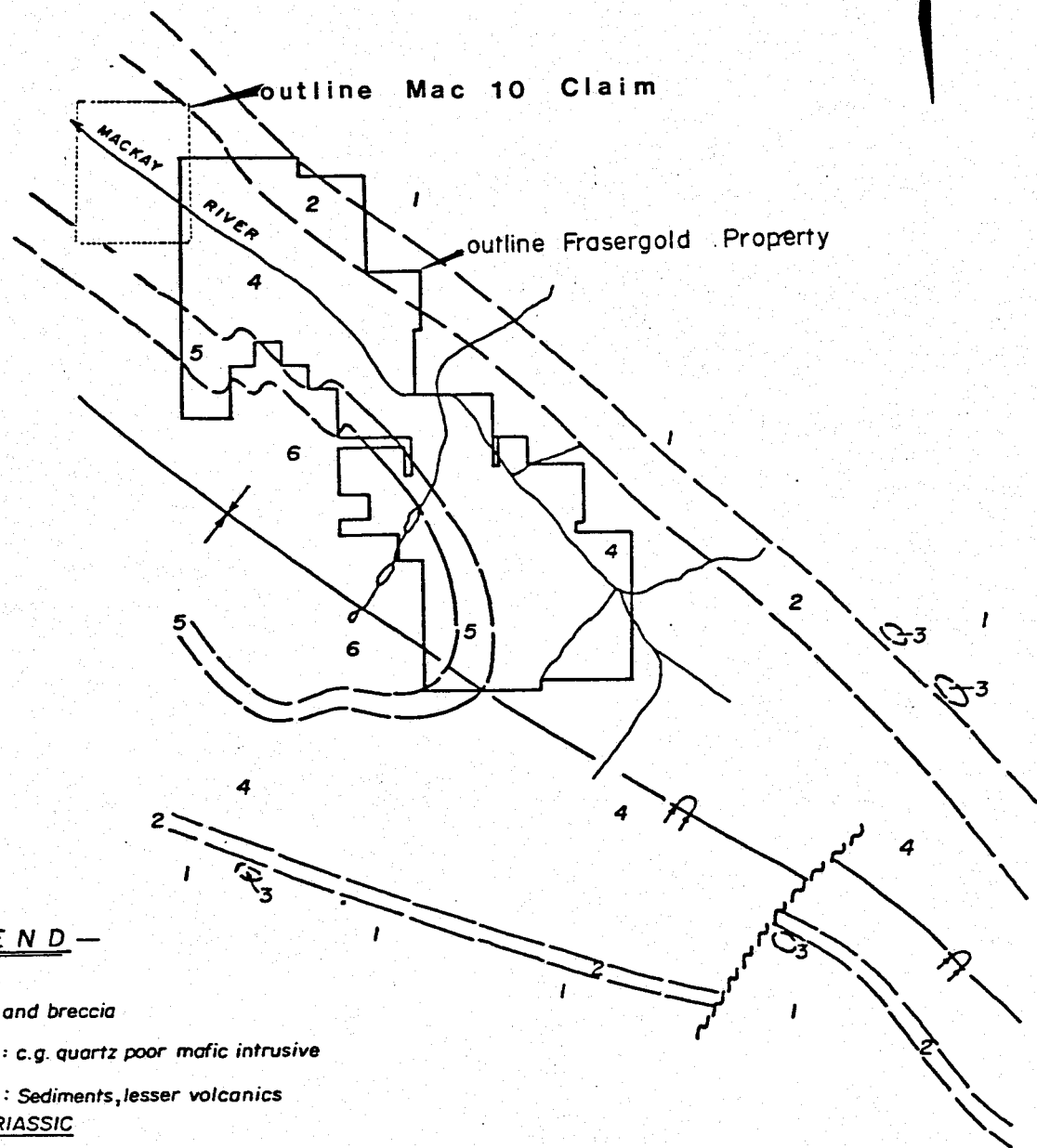
FIGURE 3

In the late 70's Mr. C. E. Gunn of Whiterock B. C. was attracted to the Mackay River valley on the basis of references in B.C.D.M. reports dated near the turn of the century which referred to the testing of the placer potential in the Mackay River valley . This prompted Gunn to stake what is now part of the Frasergold property. Prior to this work by Gunn, the only documented report of exploration in the area was on the adjacent Eureka Peak property (south and east of the Mac 10 claim) which was explored for porphyry copper potential by both Amax and Rio Tinto. Presently this property is under option to Union Miniere. Although some gold values have been reported, the mineralization on the Eureka Peak property is within a different geological setting than encountered on the Mac 10 claim group.

During the initial soil survey performed on the Mac 10 claim evidence was found of an old flume (Line 37 W, 1+75N). This flume might be related to the work investigated by Gunn. More recently, Eureka has been exploring and developing the adjoining Frasergold property the the southeast. The potential for developing economic reserves within the area of the Frasergold property appears to be excellent and consequently the possible strike extension of the mineralized horizon was staked (Mac 10 claim).

Regional Geology

Figure 4 illustrates the regional geology of the Mackay River area. Mineralization on the Frasergold property is confined to the basal sedimentary unit of the Triassic volcanic/sedimentary assemblage of the Intermontane Belt of rocks of central British Columbia. The Mac 10 property is associated with a major, unique synform structural feature which has protruded into the Paleozoic sedimentary rocks of the Omineca belt to the east. Recent mapping by Bloodgood of the B.C.D.M. has provided more detail in the immediate area of the Mac 10 mineral claim. This work has tended to confirm previous mapping by Campbell.



- LEGEND -

UPPER TRIASSIC

- 6** Basic volcanic tuff and breccia
- 5** MAFIC SILL UNIT: c.g. quartz poor mafic intrusive
- 4** BLACK PHYLLITE: Sediments, lesser volcanics

PERMIAN TO MIDDLE TRIASSIC

- 3** Ultramafics

UPPER PALEOZOIC

- 2** SLIDE MT. GP.: Volcanics, sediments

HADRYNIAN

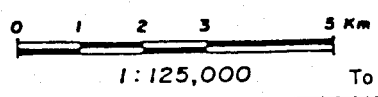
- 1** KAZA GP.: Metasediments •

- Geologic contact
- Fold axis
- Synclinal axis: fold upright, overturned

EUREKA RESOURCES INC.

CARIBOO MINING DIVISION, B. C.

GENERAL GEOLOGY



Feb. 1987

Geochemical Survey

Introduction

All work was completed in an area where a grid had been established in the summer of 1986. Previously grid lines had been spaced at 200 metre intervals with all of the work confined to the area south of the Mackay River. In 1987 lines were established between previous lines which meant a grid coverage of 100 metre intervals. The area of work was confined mainly to areas where anomalous values in soils had been previously obtained with a limited amount of sampling north of the Mackay River.

Due to the configuration of the claim some sampling took place on the Frasergold property (see Figure 5). For the sake of completion, all of the survey work is being documented in this report. Costs of the total program have been pro-rated on a per sample basis to insure only costs incurred on the Mac 10 claim are used for assessment purposes

Sampling Method

In 1986 a baseline was extended from the adjoining Frasergold property. Grid lines were spaced at 200 metre intervals with soil samples collected at 25 metre intervals along these lines. Lines were laid out by compass (north 45° east), flagged, and chained with grid co-ordinates marked on the flagging at the appropriate station. All soil samples were taken from the "B" soil horizon, usually 15-30 centimetres deep with a small mattock. A total of 342 samples were taken in 1986. In 1987 a further 374 samples were taken. These samples were taken along lines spaced at 100 metre intervals between previously sampled lines. Also a limited amount of sampling was completed north of the Mackay River.

Sample values obtained in the 1987 work are plotted on Figure 5 with the values obtained previously in 1986. This was considered necessary to allow for a meaningful interpretation of anomalous results. To distinguish results of the 1987 program from that of 1986, Table I below lists lines and samples taken during the summer of 1987.

All samples were collected in waterproof kraft envelopes and upon completion of the survey

were sent to Min-En Laboratories Ltd. of 705 West 15th Street, North Vancouver, B. C. All samples were analysed by Atomic Absorption.

Line	Grid co-ordinates	No. of samples
18+00 W	4+75N to 6+00N	6
19+00 W	5+50N	1
20+00W	4+25N to 6+00N, BL to 4+50N	27
22+00W	4+75N to 6+00N, BL to 4+75N	26
24+00W	5+25N to 6+00N, 1+00S to 4+00N	25
26+00W	5+50N to 6+00N, 4+00S to 5+00N	40
28+00W	5+75N to 6+00N, 4+00S to 5+00N	39
30+00W	5+50N to 6+00N, 4+00S to 5+25N	41
32+00W	4+25N to 6+00N, 4+00S to 5+00N	45
34+00W	3+25N to 6+00N, BL to 4+75S	29
36+00W	3+00N to 6+00N, BL to 4+00S	30
38+00W	3+00N to 6+00N, BL to 4+00S	30
40+00W	2+25N to 6+00N	16
42+00W	1+50N to 6+00N	19

Lines Surveyed and Samples Taken 1987

Table I

Laboratory Determination

Samples were dried and sieved (minus-80 mesh stainless steel). A sample of 0.5 grams was then digested in hot dilute aqua regia in a boiling water bath and diluted to 10 millimetres with demineralized water. The extracted metals were then determined by the Atomic Absorption method with results given in parts per billion.

All samples were analysed for gold only. In instances where there wasn't enough -80 mesh material available -40 or -20 mesh size was used. This happened 54 times for -40 mesh and 22 times for -20 mesh size.

Presentation of Results

The values obtained in the soil survey were plotted on a 1 : 5,000 base plan showing the major drainages, grid lines and claim boundaries (Figure 5). Values are classified into four categories (see below) with the anomalies indicated by symbols. Usually for determination of anomalous values in geochemical data arithmetic Mean and Standard Deviation are calculated. A soil sample is defined as anomalous if its value is greater than the Mean plus 2 Standard Deviations. However in the sampling of the Mac 10 claim it was intended to relate the values obtained with those on the adjoining Frasergold property. Consequently soil anomalies were classified as below to allow a direct comparison to results obtained in previous surveys over the adjoining Frasergold property.

Greater than 149 ppb Au	Anomalous
50 to 149 ppb Au	Probably Anomalous
25 to 49 ppb Au	Possibly Anomalous
less than 25 ppb Au	Non Anomalous

Discussion of Results:

A total of 27 samples have been classified as Possibly Anomalous, Probably Anomalous or Anomalous. This is approximately 7% of the samples taken. Of these, 18 samples returned values greater or equal to 50 ppb Au. This works out to approximately 5% of the total number of samples taken and compares favourably to the percentage of anomalous values expected in a population with a normal distribution.

Figure 5 illustrates all plotted values from the 1986 and 1987 programs with symbols and contour lines highlighting Possibly Anomalous, Probably Anomalous and Anomalous sample sites.

There are no long, clearly defined zones of anomalous geochemical values. This is to be expected, as the Mac 10 claim is covered by a thick (undetermined) cover of glacial clay and gravels. From experience on the Frasergold property this overburden could be greater than 100' thick. However, there is a poorly defined pattern of anomalous clusters and individual values near to and

south of the baseline (Figure 5). Values up to 1,100 ppb Gold can be found in this area. A poorly defined strike direction of approximately North 300° West is associated with these values.

Conclusions and Recommendations

It is clear from the data outlined on Figure 5 that further work is necessary on the Mac 10 mineral claim. The limits of the soil sampling program have probably been reached. The continued success on the adjoining Frasergold property by Eureka Resources, Inc. encourages a more rapid exploration and development of the Mac 10 claim.

The geology of the grid area should be accurately mapped and the area where the Flume? was located (Line 37 W, 2+00N) should be prospected. Upon the completion of mapping and location of outcrops, drill hole sites should be selected that would lie stratigraphically above the preferred basal horizon of the Triassic Black Phyllites. Consideration should be given that there has probably been some downslope dispersion of the gold in the soils.

Douglas A. Leishman

Douglas A. Leishman
Consulting Geologist

November 12, 1987
Kamloops, B. C.

References

- Bloodgood, Mary Ann Geology of the Triassic Black Phyllites in the Eureka Peak Area, Central British Columbia, Geological Fieldwork 1986, page 135-142.
- Campbell, R. B. et al Map 142 A, Parsnip River, B. C., 1:1,000,000, 1974.
- Campbell, K. V. Metamorphic Petrology and Structural Geology of the Crooked Lake Area, Cariboo Mountains, B. C. (unpublished Ph. D. Thesis, University of Washington) 1974.
- Kerr, John R. Geochemical Report on the Frasergold Propety, Eureka Resources, Inc., 1985.
- Kerr, John R. Summary Report on the Frasergold Property, Eureka Resources, Inc., 1985.
- Leishman, D. A. & Campbell, K. V. Results of 1986 Trenching and Drilling Program on the Frasergold Property, Cariboo Mining Division , Eureka Resources Inc., December 1986.
- Leishman, D. A. Geochemical Report on the Mac 10 Claim Group, Eureka Resources, Inc., February 1987.

Appendices

Appendix I

Personnel

D. A. Leishman, B.Sc. 3.5 days	November 1, 1987 thru to November 12, 1987
J. R. Kerr, P. Eng. 1 days	August 1, 1987
Thompson, Will 1 day	August 1, 1987
Thompson, K. 8days	August 1, 1987 thru to August 22, 1987
Kerr, V. 6 days	August 1, 1987 thru to August 22, 1987
Montagne, M. 1/2 day	August 22, 1987

Appendix II

Program Costs

Labour

D. A. Leishman, B. Sc.	3.5 days at \$240./day	\$840.00
J. Kerr, P. Eng.	1 days at \$350./day	350.00
Will Thompson	1 day at \$175./day	175.00
K. Thompson	8 days at \$100./day	800.00
V. Kerr	6 days at \$72./day	432.00
M. Montagne	1/2 day at \$120./day	<u>60.00</u>
	Sub- total	\$2,657.00

Expenses

Geochemical Analysis	374 Samples x \$5.70 per sample	\$1,863.90
Truck Rental	8 days (including fuel)	360.00
Camp Costs	16.5 man days at \$45./day	742.50
Field Costs	Flagging, markers, shipping samples	140.00
Report Preparation	drafting, supplies, printing, xeroxing	<u>400.00</u>
	Sub-total	\$3,506.40

Total Assessment Costs Incurred on the Mac 10 Claim **\$6,163.40**

Appendix III

**Douglas A. Leishman, B.Sc., A.R.S.M.
Consulting Geologist**

Suite 2-423 First Avenue, Kamloops, B. C.

Mailing Address: P. O. Box 1288 M.P.S., Kamloops, B. C. V2C 6H3
Telephone 604-828-6150

Certificate of Qualifications

I, Douglas A. Leishman, of Kamloops, British Columbia, Do Hereby Certify That:

- (1) I am a self employed Consulting Geologist residing at the above address and was employed by Eureka Resources Inc. to describe and interpret the program outlined in this report.
- (2) I am a graduate of the Northern Alberta Institute of Technology, Exploration Technology (Minerals Option), 1971 Edmonton, Alberta.
- (3) I am a graduate of the Imperial College of Science and Technology, Royal School of Mines, London, England, B.Sc. (Hons.) Mining Geology, 1981.
- (4) I am an Associate Member of the Geological Association of Canada and a Member of the Institute of Mining and Metallurgy, London, England.
- (5) I have been actively involved in mineral exploration since 1971.
- (6) I am the author of this report which is based on an exploration program carried out by employees of Eureka Resources Inc. I am familiar with the Mac 10 claim having carried out the previous program of exploration (summer 1986).

Douglas A. Leishman

Douglas A. Leishman, B.Sc.
Geologist

November 12, 1987
Kamloops, British Columbia

