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GEOCHEMICAL REPORT ON

THE ELBOW 1 AND ELBOW 2

MINERAL CLAIMS

**CROOKED LAKE AREA
CARIBOO MINING DIVISION**

NTS M93A/2E
Latitude 52°18'N 15.5'
Longitude 120°45'W 5'

For

TILlicum GOLD MINES LTD.
Box 48269 Bentall Three
Vancouver, B.C.

By

JOHATHAN W. GEORGE

May 27th, 1985

FILMED

BRANCH
REPORT

16,584

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INTRODUCTION

This report is an evaluation of geochemical work carried out on the Elbow 1 and Elbow 2 mineral claims between June 7th, 1984 and July 15th, 1984.

LOCATION AND ACCESS

The property is located in the Cariboo Mining Division along the western edge of Crooked Lake, approximately 40 km east of the town of Horsefly. It is easily reached by well-travelled logging roads which traverse the eastern boundary of the claims (Figure 1).

The area is accessible from Horsefly via an all-weather forestry road, which follows the Horsefly River east.

TOPOGRAPHY AND VEGETATION

The property is located within the Quesnel Highlands. Topography is low-lying to moderate, and vegetation consists of marshland with upper slopes forested by spruce, balsam, fir and hemlock. Elevations range from 3,000 to 4,500 feet.



PROPERTY
LOCATION

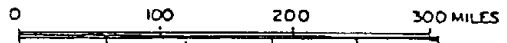
TILlicUM GOLD MINES LTD

FIG 1

ELBOW CLAIMS
LOCATION MAP

CROOKED LAKE- CARIBOO M.D.

SCALE



OWNERSHIP

The Elbow 1 and Elbow 2 mineral claims consist of forty mineral claims (Figure 2):

<u>Claim Name</u>	<u>Record No.</u>	<u>No. of Units</u>	<u>Expiry Date</u>
Elbow 1	4782 (4)	20	April 20th
Elbow 2	4846 (5)	20	May 23rd

HISTORY

The property was originally staked in the spring of 1982, by A. Babiy, prospector, and was subsequently purchased by Tillicum Gold Mines Ltd. in 1983.

Trenching and geochemical sampling was carried out during the 1983 field season on promising gold targets.

Trenches uncovered significant amounts of sulphide mineralization within the phyllites and argillites of the Upper Triassic. However, only trace amounts of gold were associated with the mineralization.



4

STAKED

Offset Lake Anomaly



OFFSET LAKE

DRILLING IN PROGRESS

McKLUSKY RIVER

STAKED

ELBOW 1

CROOKED LAKE

MONTE CRISTO / E & B EXPLOR.

ELBOW 2

0.30 opt Au / 11 feet

SHAFT
x
qtz veins

52° 15' N

STAKED

x Cu

x qtz veins

ELBOW LAKE

E & B EXPLORATION

NEWMONT (STAKING IN PROGRESS)

120° 45' W

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Fig. 2
ELBOW CLAIMS
CLAIM MAP

CROOKED LAKE-CARIBOU M.D.

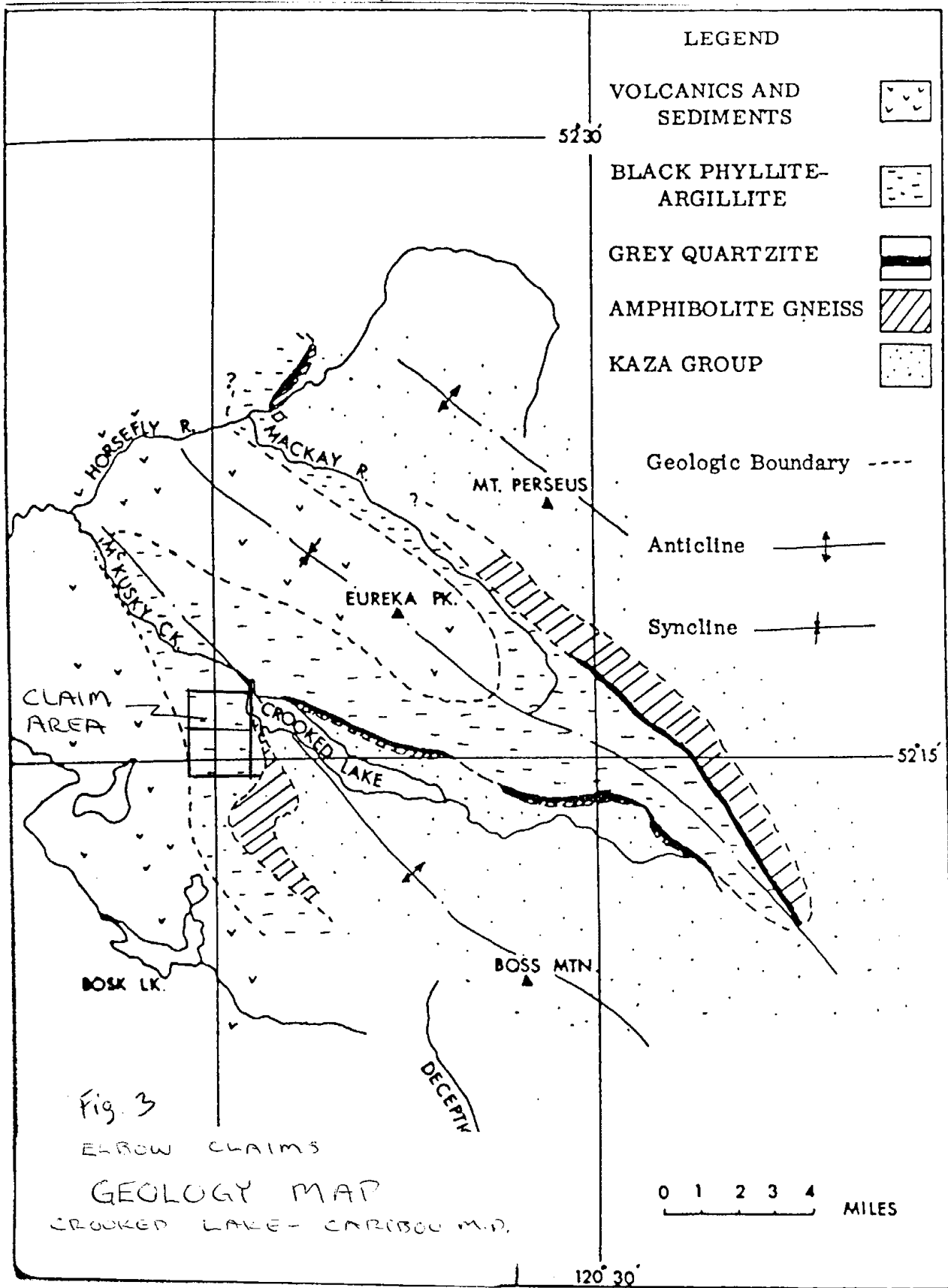
○ LEGAL CORNER POINT



GEOLOGY

The property lies within the "Quesnel Trough", a Mesozoic sequence of volcanic and sedimentary strata. The eastern boundary of the property lies within Upper Triassic phyllites, argillites with minor greenstones. The western boundary contacts Triassic to Jurassic basaltic tuffs and breccia.

Structurally, the Elbow claims lie on the western flank of a major synclinal structure flanked by anticlines through Crooked Lake and Mt. Perseus. Minor folds developed synchronously with the syncline persist throughout the region.



GEOCHEMICAL SURVEY

A geochemical survey was carried out on the Elbow 1 and Elbow 2 mineral claims between June 7th and July 15th, 1984, to establish areas of anomalous gold values on the claims.

A total of 82 soil samples were collected by an experienced two-man crew under the supervision of the writer.

B Horizon material was sampled and thus organic rich top soil and leach upper subsoil were avoided. Occasionally organic rich samples have to be taken in swampy depressions. Samples are taken by hand from a small excavation made with a stainless steel mattock.

Approximately 200 grams of finer grained material is taken and placed in a numbered, high wet-strength Kraft paper bag.

Samples were gathered at 50 m intervals with line spacings of 1000 ^{meters} ~~feet~~.

RESULTS

Analyses performed by Acme Analytical Laboratories are listed in Appendix I. Appendix II includes analytical methods used by Acme.

Results are plotted on Map 1 (pouch) and show sample sites, analytical results, survey lines, and claim boundaries. A total of 82 samples were analyzed for arsenic and gold.

INTERPRETATION

Soil samples were analyzed for gold and arsenic. Results indicate a background value for gold of approximately 9 ppb (Au) in the survey area. Threshold has been determined to be 25 ppb and values above threshold are considered anomalous.

DISCUSSION

Two anomalous zones are evident on the Elbow claims (see Map 1). One located along line C at Station 2+50 and one along line H at Station 4+00.

Both anomalous stations are relatively low-grade anomalies, consequently the source of gold mineralization becomes difficult to trace. Presumably, the phyllites would be the source, however, they are very extensive.

CONCLUSIONS

A geochemical survey carried out on the Elbow 1 and Elbow 2 mineral claims indicated two anomalous gold zones. The phyllites are presumed to be the ultimate source of the mineralization.

Detailed mapping and further geological and geophysical surveys should be *initiated to further explore the property.*

ITEMIZED COST STATEMENT

Exploration and development expenses June 7th to July 15th, 1984.

Personnel

15 working days - 2 men @ \$85/day \$ 2,550.00

Accommodation and Board

680.00

Equipment

Sample bags 62.00

Topo line 48.00

Transportation

Gas 313.00

Assays

82 soil samples
(As and Au) @ \$8.50/sample 697.00

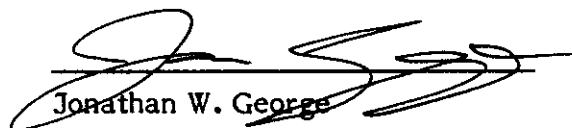
TOTAL \$ 4,350.00

AUTHOR'S QUALIFICATIONS

I, Jonathan W. George, certify to the following:

1. I am a geologist with Tillicum Gold Mines Ltd., 1204 - 1177 Hornby Street, Vancouver, B.C.
2. My academic qualifications are:
B.Sc. (Geol.) Western Washington University
Bellingham, Washington, U.S.A.
3. I have been engaged in geological and geochemical work for the past six years.
4. I am a director and major shareholder of Tillicum Gold Mines Ltd.
5. Tillicum Gold Mines Ltd. has the sole right to the use of this report in any activities pertaining to the properties herein discussed.

DATED this 27TH day of MAY, 1986.


Jonathan W. George

APPENDIX I

ANALYTICAL LABORATORIES LTD.
 622 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
 PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: SEPT 14 1984

DATE REPORT MAILED: *Sept 21/84*

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-3 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
 - SAMPLE TYPE: SDILS AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: *D. Toy* DEAN TOYE, CERTIFIED B.C. ASSAYER

TILlicum GOLD MINES

FILE # 84-2634A

PAGE 1

SAMPLE#	AS PPM	AU* PPB
A-0	10	5
A-50	3	5
A-100	3	5
A-150	2	5
A-200	9	5
A-250	3	5
A-300	4	5
A-350	2	5
A-400	3	5
A-450	2	5
A-500	4	5
B-0	2	35
B-50	2	5
B-100	2	5
B-150	4	5
B-200	9	5
B-250	5	5
B-300	2	5
B-350	4	5
C-0	2	5
C-50	5	5
C-100	2	5
C-150	29	5
C-200	11	5
C-250	2	60
C-300	5	10
C-350	7	5
C-400	2	5
C-450	7	5
C-500	3	5
C-550	3	5
C-600	2	25
C-650	2	5
C-700	4	15
C-750	2	5
C-800	2	5
C-850	2	5
STD C/AU 0.5	40	515

SAMPLE#	AS PPM	AU* PPB
C-900	3	5
C-950	3	5
C-1000	8	5
D-0	13	5
D-50	7	5
D-100	8	5
D-150	10	5
D-200	13	5
D-250	14	5
D-300	4	5
D-350	8	5
D-400	6	5
D-450	10	5
D-500	9	5
D-550	7	5
D-600	21	5
D-650	41	5
D-700	9	5
D-750	20	5
D-800	16	5
D-850	12	5
D-900	18	5
D-950	8	5
D-1000	14	5
E-0	2	5
E-50	7	5
E-100	7	5
E-150	6	5
E-200	2	5
E-250	5	5
E-300	2	5
H-0	9	5
H-50	13	5
H-100	7	5
H-150	12	5
H-200	12	15
H-250	10	5
STD C/AU-0.5	40	510

SAMPLE#	AS PPM	AU* PPB
H-300	14	5
H-350	23	5
H-400	14	75
0	10	5
50	18	5
100	21	5
150	13	5
200	14	5
STD C/AU 0.5	41	505

APPENDIX II



ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

Telephone : 253 - 3158

Geochem Whole Rock

A .1 gm sample is fused with .6 gm LiBO2 and is dissolved in 100 mls of 5% HNO3 . The analysis is completed by either AA or ICP.

Other Digestions by Request

- A. .5 gm by 1 ml nitric and 3 ml perchloric acid to fuming, final volume of 10 mls.
B. .5 gm by 5 ml hydrofloric nitric, 5 ml hydrochloric and 5 ml perchloric acid, to fuming, final volume 50 mls.

ICP GEOCHEMICAL ANALYSIS

=====

A .500 GRAM OF SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 NITRIC ACID TO HYDROCHLORIC ACID TO WATER AT 90 DEG. C FOR 1 HOUR. THE SAMPLE IS DILUTED TO 10 MLS WITH WATER. THE RESULTS ARE REPORTED IN PPM EXCEPT FOR : FE, CA, P, MG, BA, TI, AL, NA, AND K WHICH ARE IN PERCENT. THIS LEACH IS PARTIAL FOR : CA, P, MG, AL, TI, LA, NA, K, W & CR IS= INTERNAL STANDARD.

O/USA CERTIFIED STD GXR-2
EGC

Table with 10 columns: BURN #, IS, MO, CU, PB, ZN, AG, NI, CO, MN, FE, AS, U, Au, TH, SR, CD, SB, BI, V, CA, P, LA, CR, MG, BA, TI, B, AL, NA, K, W. Values are listed for each element.

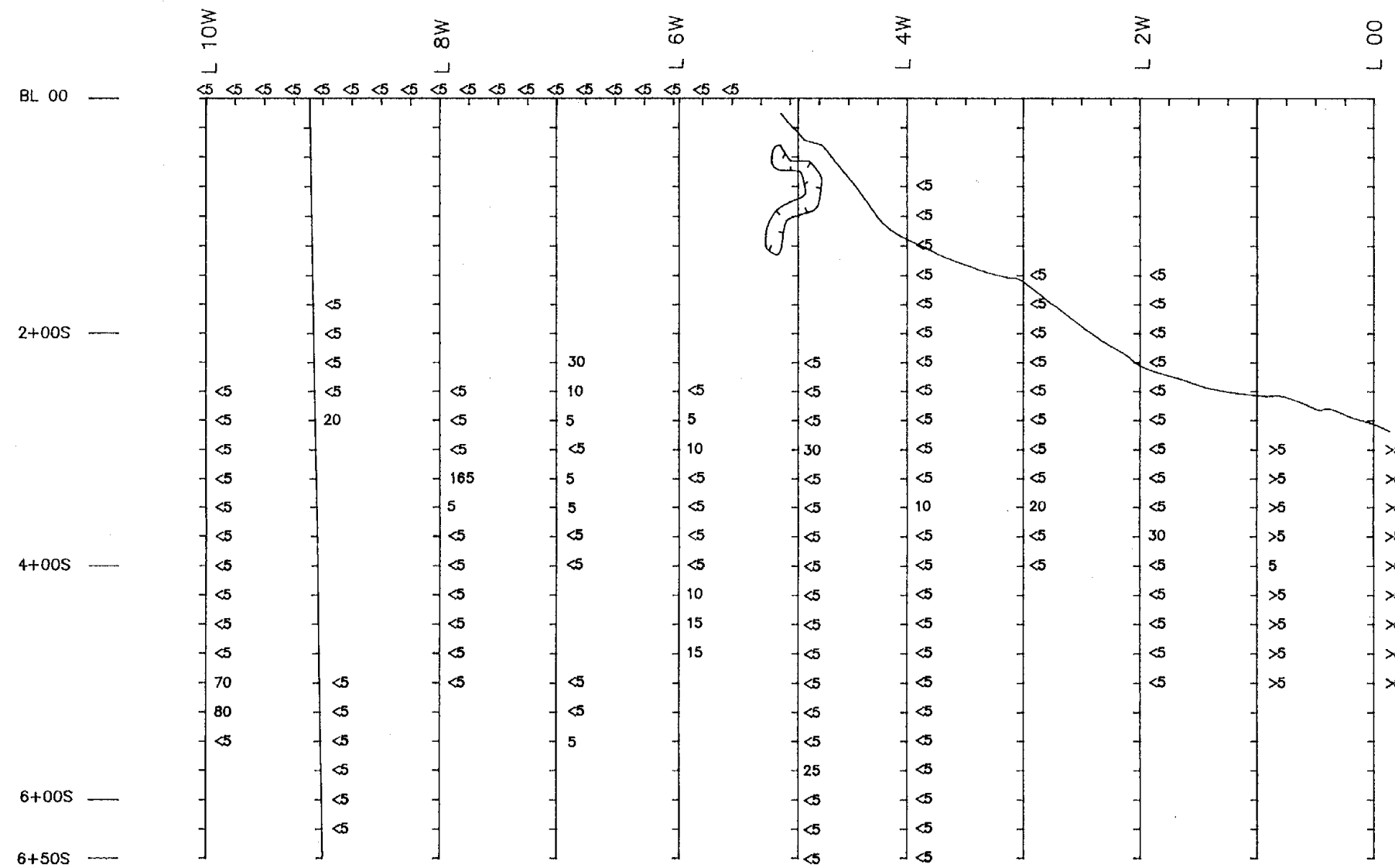
*O/USA CERTIFIED STD GXR-4
EGC

Table with 10 columns: BURN #, IS, MO, CU, PB, ZN, AG, NI, CO, MN, FE, AS, U, Au, TH, SR, CD, SB, BI, V, CA, P, LA, CR, MG, BA, TI, B, AL, NA, K, W. Values are listed for each element.

ICP Notes

This type of analysis is most suited for low sulphide or metal contents of soils and rocks.

* Detection for Au is 3 ppm and ignore lower values.



LEGEND:

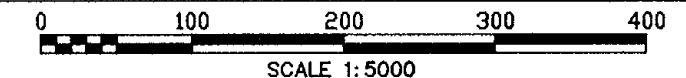
GOLD VALUE IN ppb

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

16,548

KANGELD RESOURCES LTD.
DEACON CREEK PROPERTY
ATLIN MINING DIVISION, B.C. NTS:104N/12E

GRID MAP BL2
SOIL GEOCHEMISTRY
GOLD VALUES IN PPB.



DATE: OCTOBER, 1987
BY: R.G.

FIGURE No. 6