#### REPORT ON

### GEOCHEMICAL AND GEOPHYSICAL SURVEYS

ON THE

RABBITT PROPERTY (Boulder 1-2, Rabbitt 1-4, Black Bird, Constitution, Cousin Jack, Freddie Burn, Ymir)

TULAMEEN DISTRICT

SIMILKAMEEN MINING DIVISION, B.C.

NTS: 92H/10W

49°33' to 49°37' North Latitude:

Longitude: 120°47' to 120°50' West

Owners: Harold J. Adams, Keith R. George

Operators: Brican Resources Ltd.

Consultants: K.L. Daughtry and Associates Ltd.

Authors: K.L. Daughtry, and W.R. Gilmour

Date: November 18, 1982.

GEOLOGICAL BRANCH ASSESSMENT REPROS

### TABLE OF CONTENTS

٤

м

 INTRODUCTION	1
LOCATION, ACCESS, TOPOGRAPHY	1
PROPERTY	2
HISTORY	4
	ć
GEOLOGY	2
GEOCHEMICAL SURVEYS	
General Cousin Jack Grid Perley Grid Lockie Grid	:
MAGNETOMETER SURVEY	
General	
VLF-EM SURVEY	
Lockie Grid	
CONCLUSIONS AND RECOMMENDATIONS	
REFERENCES	
STATEMENT OF COSTS Page 24	
STATEMENT OF QUALIFICATIONS	

LIST OF ILLUSTRATIONS

s

Figure	- 1	Location Map				_
Figure	2	Fol	lowi	.ng Pa	ge	3
rigure	2	Claims Fol	lowi	ng Pa	ge	5
Figure	3	Grids	1011		o* ~~	13
Figure	4	Cousin Jack Grid, Cu in Soils	I	n Poc	ge ket	1
Figure	5а 5Ъ	Perley Grid, Pb in soils Perley Grid, Au in soil	I	n Pocl	ket	1
Figure	ба 6Ъ бс	Lockie Grid, Cu in soils Lockie Grid, Pb in soils Lockie Grid, Zn in soils	lı Ir Tr	n Pock n Pock	et et	1 1 1
Figure	7	Magnetometer Survey, Main Grid	In	Pock	et	1
Figure	8a 8b 8c 8d 8e	Lockie Grid, Magnetometer Survey Lockie Grid, Magnetometer Survey, Profiles Lockie Grid, Magnetometer Survey, Running Means Values Lockie Grid, Magnetometer Survey, Contoured Running Mean Lockie Grid, Magnetometer Survey, Interpretation	In In In ns In	Pock Pock Pock Pock Pock	et et et et	2 2 2 2 2
Figure (	9a 9b 9c 9d 9e 9f	Lockie Grid, VLF Survey, Tilt Angle Profiles, Annapolis Lockie Grid, VLF Survey, Tilt Angle Profiles, Seattle Lockie Grid, VLF Survey, Fraser Values, Annapolis Lockie Grid, VLF Survey, Fraser Values, Seattle Lockie Grid, VLF Survey, Field Strength Profiles, Annapo Lockie Grid, VLF Survey, Field Strength Profiles, Seattl	In In In In olis	Pocke Pocke Pocke Pocke Pocke		- 3 3 3 3 3 3

( )

(

#### INTRODUCTION

The RABBITT property near Tulameen B.C. is a large block of claims covering numerous old showings of copper, lead, zinc, gold and silver mineralization. Systematic surface exploration by Brican Resources Ltd. is currently evaluating the potential of the property.

This report describes the geochemical and geophysical exploration conducted on the claims in 1982. Particular emphasis has been directed, through detailed work on three flagged grids, to the evaluation of new exploration targets. A total of 538 soil samples were collected on 21.3 line-kilometres of grid. The magnetometer survey covered 29.2 line kilometres and the VLF EM 4.8 line kilometres of grid.

The results to date are encouraging and further exploration is recommended.

2

The RABBITT property, northwest of Tulameen B.C. is a large block of claims that occupies the upland area immediately west of Otter Lake (Figures 1 and 2). The southern part of the claims covers the crest and slopes of the southeasterly trending ridge between Rabbitt Mountain and Mount Riddell. The northern part of the property covers a large part of Boulder Mountain.

The claims extend north from the Lawless Creek logging road, 2.5 to 5.0 km west of Tulameen, to Elliot Creek, 1.5 km west of Frembd Lake in the Otter Valley, a total distance of 7 km. Lockie (Boulder) Creek, an easterly flowing tributary of Otter Creek, bisects the claim block. The RABBITT 1-4 claims are located south of Lockie Creek and the BOULDER 1-2 claims and the 11 reverted Crown-granted claims are located north of the creek.

The upper slopes of Rabbitt and Boulder Mountains are gently sloping with some deeply incised canyons. The slopes of the valleys of Tulameen River, Otter Valley and Lockie Creeks, are steep to precipitous. Elevations vary from a minimum of 470 metres above sea level in Lockie Creek to slightly over 1500 metres on Rabbitt and Boulder Mountains.

Access to the various showings is provided by steep four-wheel drive bush roads at the north and south ends of the property. The Rabbitt Mountain area is accessible by a network of roads which leave the main Lawless Creek road between 3.5 and 8.0 km west of Tulameen. The Boulder Mountain area is reached by a road which leaves the Tulameen-Aspen Grove highway 7.5 km north of Tulameen. A foot trail across Lockie Creek connects the two parts of the property.

The nearest supply centre, the town of Princeton on the Southern

Trans-Provincial Highway, is 27 km by paved highway southeast of Tulameen. The Canadian Pacific Railway follows the Otter Valley immediately east of the property.





PROPERTY

4

The RABBITT property consists of 6 located claims, comprising of a total of 67 units, and 11 reverted Crown-granted claims. All claims except the Cousin Jack are owned by Harold J. Adams of P.O. Box 1329, Princeton, B.C. Kenam Resources Ltd. acquired an option to purchase the claims from Mr. Adams in September, 1979 and assigned the option to Brican Resources Ltd. in February, 1980. Brican obtained an option to purchase the Cousin Jack from Keith R. George of Box 376, Keremeos, B.C. on April 28, 1982.

The pertinent record information for all claims is as follows:

Name of Claim	No. of Units	Record Number	Date of Record	Expiry Date
RABBITT 1	12	944	Nov. 29, 1979	Nov. 29, 1984
RABBITT 2	4	945	Nov. 29, 1979	Nov. 29, 1983
RABBITT 3	9	946	Nov. 29, 1979	Nov. 29, 1983
RABBITT 4	8	947	Nov. 29, 1979	Nov. 29, 1983
BOULDER 1	16	948	Nov. 29, 1979	Nov. 29, 1984
BOULDER 2	18	949	Nov. 29, 1979	Nov. 29, 1984
ANACONDA (L 373)	1	260	August 26, 1977	August 26, 1984
BERLIN FR (L 269)	1	258	August 26, 1977	August 26, 1984
BLACK BIRD (L 268)	1	257	August 26, 1977	August 26, 1984
CONSTITUTION (L 282)	1	298	February 20, 1978	February 20, 1984
COUSIN JACK (L 263)	1	1045	June 2, 1980	June 2, 1985
FREDDIE BURN (L 270)	1	259	August 26, 1977	August 26, 1984

**D**))

The Tulameen district has had a long history of mining and mineral exploration. Placer gold was discovered on Granite Creek in 1885 and to date 38,000 ounces of gold have been recovered from the Tulameen River and its tributaries. One such placer creek is Lockie (Boulder) Creek, an easterly flowing tributary of Otter Creek that bisects the RABBITT Property. Early placer mining on Lockie Creek in the late 1800's led to the discovery of copper-pyrite showings on Rabbitt and Boulder Mountains.

In 1900 several claims were staked on showings of heavy pyrite-chalcopyrite mineralization in metavolcanic rocks on Boulder Mountain. By 1905 the Boulder Mining Company had developed several shafts and tunnels, and had applied for Crown-grants on the claims. Most of the work was on the COUSIN JACK, FREDDIE BURN and INTERNATIONAL (SOUTH COPPER) claim groups. The major values of the mineralization were in gold, silver and copper.

By 1908 showings had been discovered on Rabbitt Mountain and near Elliot Creek, north of the COUSIN JACK. Operators had recognized by then that many of the scattered showings were correlative with respect to geologic setting and mineralogy.

Between 1908 and 1918 little work was carried out. In 1918 extensive surface and underground exploration resumed on the Rabbitt Mountain showings, including the SPOKANE-MOTHERLODE, RED BIRD and SHAMROCK groups. These occurrences were described as replacement bodies accompanied by silicification and were thought to be genetically related to a system of granite porphyry dykes. Several "veins" had been discovered by this time, which could be traced along

6

HISTORY

strike for hundreds of feet, but average widths and grades were disappointing.

By 1928, numerous mineralized zones had been discovered and explored along a strike length of 4 miles. Exploration was concentrated on the Rabbitt Mountain showings. The concordant nature of the "veins" had been recognized and lower-grade fracture controlled mineralization was noted. Exploration was concentrated in the Rabbitt Mountain showings (SPOKANE-MOTHERLODE, RED BIRD and LLOYD GEORGE-HILLTOP).

In 1933, attention shifted to Boulder Mountain and the COUSIN JACK group. Old workings were cleared and mapped and four sub-parallel veins were noted in an area 2400 feet (730 metres) wide. Similar mineralization was discovered to the west on the OTTAWA group. These veins carried values in gold, silver, lead and zinc. By 1934, nearly 2500 feet (760 metres) of strike length had been developed on the COUSIN JACK group by numerous open cuts, shallow shafts and tunnels.

In 1937, detailed exploration on the COUSIN JACK group had defined the four main zones and it had been recognized that mineralization (pyrite, sphalerite and galena) occurred in both concordant and discordant quartz veins and stringers in altered and silicified greenstone and that this mode of occurrence differed from the pyrite-chalcopyrite sulphide layers characteristic of other properties in the area.

There is no record of any further substantial exploration in the area until the early 1960's when Copper Mountain Consolidated Ltd. carried out bulldozer trenching near the old workings on Rabbitt Mountain and diamond drilled 5 holes totalling 1250 feet (381 metres). In 1966-68 this company continued to explore the LODE claims by bulldozer trenching, geophysical and geochemical surveys. In 1966-67, Nelway Mines Ltd. acquired and explored the COUSIN JACK group with

geochemical surveys and diamond drilling.

Between 1971 and 1974 Gold River Mines Ltd. explored a large claim block on Boulder Mountain which included the South Copper, Mid Copper, Cousin Jack, Mug and Josie areas. Extensive line cutting, soil sampling, magnetometer and VLF-EM surveys were conducted, and 33 holes totalling 5800 feet (1768 metres) were drilled. Apparently some of this work was directed towards evaluation of the property as a porphyry copper prospect. The precious metal potential of the Cousin Jack showings was also tested by drilling.

In 1976, Harold Adams of Tulameen staked a large block of JOHN-X and JAME-X claims covering all known showings on Rabbitt and Boulder Mountains (except those on the old COUSIN JACK group Crown grants).

In 1978 Northern Lights Resources Ltd. optioned the JOHN-X and JAME-X claim blocks from Harold Adams and his partner J. Ambrosimo. Northern Lights conducted a ground magnetometer survey over the Rabbitt Mountain showings and drilled two diamond drill holes, totalling 122 metres, north of the South Copper showing on Boulder Mountain.

Kenam Resources Ltd. optioned the claim block from Mr. Adams in September, 1979 and began a programme of detailed geological mapping of the various showings in conjunction with Ventures West Minerals Ltd.

Kenam entered a joint venture with Ventures West Minerals Ltd. in the autumn of 1979. The original JOHN-X and JAME-X claims were abandoned and relocated as the RABBITT 1-4 and BOULDER 1-2 claims. A reconnaissance exploration programme was carried out in October and November, 1979.

Preliminary geological mapping, geochemical soil sampling and ground magnetometer surveys were conducted over most of the property. Control was

provided by a flagged grid with widely spaced lines.

No significant follow-up work was carried out and Ventures West Minerals Ltd. withdrew from the joint venture in December, 1981. Brican Resources Ltd. had acquired Kenam's interest in February, 1980.

Brican maintained the option and in 1982 began the programme of systematic surface exploration which is the subject of this report. In April, 1982, Brican acquired an option to purchase the COUSIN JACK reverted Crown-granted claim from Keith R. George, Box 376, Keremeos, B.C.

GEOLOGY

The RABBITT property is on the western flank of the Intermontane Belt about 6 km east of the Coast Crystalline Belt. The regional geology has been described in detail by Camsell (1913), Rice (1947), and Preto (1976, 1979).

The property is predominantly underlain by volcanic rocks of the Upper Triassic Nicola Group. The rocks of the Rabbitt Mountain area are tentatively correlated with Preto's Western Belt of the Nicola Group, an assemblage of andesitic to dacitic flows, pyroclastic, volcanoclastic and limestone units.

The Nicola volcanic rocks have been subjected to low grade regional metamorphism and intruded by Mesozoic and Tertiary plutons.

The limited geological mapping carried out by previous workers indicates that the RABBITT property is underlain by a northerly-trending, west-dipping sequence of andesite flows, breccias, and tuffs, dacite breccias and tuffs, and rhyolite to rhyodacite tuff. Hypabyssal plugs, dykes and sills of ultramafic to felsic composition are common. Granitic rocks of the Boulder and Otter plutons, of Mesozoic and Tertiary age respectively, intrude the volcanic rocks along the east margin of the claim block.

Numerous mineral showings indicate the presence of two types of mineralization over large parts of the property:

1. Stratabound and stratiform copper-pyrite mineralization is associated with felsic tuffs and breccias in one or more horizons throughout the western part of the property.

2. Numerous concordant and discordant bands of silica mineralized with sphalerite, galena and pyrite, and carrying significant gold and silver values,

are associated with a leucocratic pyritic pyroclastic unit in the northeast part of the property.

The geological setting and the nature of the mineralization suggests that the RABBITT property is underlain by a large intermediate to felsic volcanic centre within the Nicola Group. Exploration should be directed toward the discovery of volcanogenic base and precious metal deposits.

### GEOCHEMICAL SURVEYS

#### <u>General</u>

Regional stream sediment sampling indicates that the Rabbitt Mountain area is anomalous in copper, zinc, lead and silver. Smoothed contouring of copper values in silts published in the British Columbia government's regional geochemical survey in 1982 indicates a pronounced "U"-shaped belt of high copper content which includes the Summers Creek area on the east, the Copper Mountain-Ingerbelle area at the south, and the Rabbitt Mountain area on the west.

In 1979, Kenam Resources Ltd. and Ventures West Minerals Ltd. carried out reconnaissance soil sampling over widely-spaced grid lines on the RABBITT property (Thorstad 1980a). Previous soil surveys over parts of the BOULDER and COUSIN JACK groups had indicated strongly anomalous values in copper, lead and zinc associated with the known showings, and extending along strike beyond and between the showings (Mitchell 1971). The 1979 soil survey indicated two important relationships:

- The stratiform copper-chalcopyrite massive sulphide mineralization is reflected in strong soil anomalies in copper and zinc. The gold-bearing sphalerite-galena mineralization is reflected in strong soil anomalies in lead and zinc.
- Strong soil anomalies of both of the above types were discovered in areas in which no previous work had been carried out, and no showings were known.

In 1982, as a follow-up of this work, Brican Resources Ltd. laid out detailed soil survey grids on two of the strongest anomalies, a copper-zinc



. \_\_\_ \_\_\_\_\_ anomaly west of the Cousin Jack area (Cousin Jack grid) and a lead-zinc anomaly near Perley Creek (Perley Grid). A detailed grid was also established south of Lockie Creek (Lockie grid) over a magnetic anomaly (see below) and soil samples were collected.

The field sampling procedure was the same on all grids. Soil samples were collected from the "B" horizon with a grubhoe and the samples were placed in numbered wet-strength Kraft paper bags. The samples were submitted to Bondar-Clegg and Company Ltd. in North Vancouver for analysis.

Samples were dried and seived, and the -80 mesh fraction saved for analysis. Following digestion by hot aqua regia, the copper, lead, and zinc analyses were performed by atomic absorption. The gold analyses on the Perley grid were performed by a combination of fire assay and atomic absorption.

#### <u>Cousin Jack Grid</u>

A total of 144 soil samples were collected at 25 m intervals along lines spaced 50 m apart. All samples were analysed for copper and the results are shown on Figure 4. A large anomalous zone about 200 m wide trends southwesterly across the grid upslope from the Cousin Jack showings and workings. This zone is defined by the 46 ppm Cu contour.

Field relationships suggest that the anomaly is related, not to known mineralization in the Cousin Jack area, but to a previously unknown source west and uphill from the known showings. Also, the copper values in soils in the new zone are distinctly higher than those in the area of the Cousin Jack. Further exploration of this target is definitely warranted.

#### Perley Grid

A total of 196 soil samples were collected at 25 m intervals from lines spaced 50 m apart. All samples were analyzed for lead and the results are shown on Figure 5a. A long, linear, strongly anomalous zone has been defined trending north-south and extending across most of the grid. This anomaly is believed to be related to a previously unknown zone of lead-zinc-gold-silver mineralization similar to that at the Cousin Jack showings.

Gold analyses were run on 64 samples from the lead anomaly and results are shown on Figure 5b. A few scattered low-order anomalies occur.

Further exploration is warranted on this target.

#### Lockie Grid

In order to assist in the evaluation of the geophysical anomaly on the Lockie Grid, 198 soil samples were collected at 25 m intervals along 6 lines with 100 m spacing. All samples were analyzed for copper lead and zinc and the results are shown on Figures 6a, 6b and 6c respectively.

The northwestern extension of the Red Bird-Shamrock zone is reflected in anomalous zinc and copper anomalies in the southwestern corner of the grid. The area of the magnetic anomaly along the eastern part of the grid is reflected in a low-order zinc anomaly.

The geochemical data from the Lockie grid indicates that the source of the geophysical anomaly is neither massive sulphide copper-pyrite mineralization nor

siliceous galena-sphalerite-gold mineralization similar to that known elsewhere on the property.

\_\_\_\_\_

#### General

In 1979, a reconnaissance ground magnetometer survey was run over part of the recce grid. Magnetic variation was found to be minimal over all lines surveyed, and the survey was terminated before completion.

In 1982, a reconnaissance magnetometer survey was carried out over the property to establish any possible regional gradient and to locate any possible anomalous areas not indicated by the previous work. The survey lines were run at approximate right angles to the trace of the stratigraphy. The general geological strike is north-south although flat dipping attitudes and topographic variations give northwest to northeast stratigraphic traces. A proton magnetometer, Geometrics Unimag II model G-846, was used. Readings were taken at 25 m intervals on lines 600 m apart for a total of 20-line kilometres. Diurnal variations were noted and corrections were made where necessary. Profiles were plotted on Figure 7 and show that the magnetic response is generally very flat and ranges from 57,000 to 57,500 gammas. A notable exception occurs on the west half of line 2600N, where most values are greater than 57,500 gammas and the profile is very 'noisy'. Significant anomalous readings also occur on lines 3200N, and near the baseline on lines 5200N and 6000N.

#### Lockie Grid

A more detailed survey was conducted over the Lockie Grid covering the highly anomalous area on line 2600N. Readings over 9.2 line kilometres were taken at 25 m or 12.5 m intervals on lines 50 m apart (Figures 8a,8b). The

detailed survey confirmed an anomalous area at least 800 m by 800 m. Numerous sharp highs occur with values up to 62,000 gammas and variations over 25 m of up to 4,500 gammas.

Normally-weighted running means were calculated by computer to facilitate contouring (Figures 8c,8d). The means were calculated along grid lines, generally corresponding to profiles across the strike of the geology. The normally-weighted running mean( $\overline{x}$ ) for a reading (D) is calculated as follows:

 $\bar{x}=A(.016)+B(.094)+C(.234)+D(.312)+E(.234)+F(.094)+G(.016)$ where C and E are readings adjacent to D, etcetera.

On the east side of the Lockie grid, just west of the baseline, a north-south striking and westward dipping magnetic unit has been interpreted (Figure 8e). Other magnetic trends do not seem as continuous, although the western part of the grid covers the highest magnetic values. The northern part of the grid shows an anomalous magnetic low.

Trenching in areas of magnetic highs has revealed magnetic siliceous rocks (iron formation or tuffite?).

#### VLF EM SURVEY

#### Lockie Grid

The VLF (very low frequency) method makes use of powerful, distant military radio transmitters. These transmitters induce electric currents in conductive bodies. The induced currents produce secondary magnetic fields which can be detected by measuring deviations in the normal VLF fields. To maximize detection the direction to the transmitting station should be parallel to the strike of the conductor, although differences in direction of up to 45° still give very good responses. Klein and Lajoie summarize the interpretation of results as follows:

"The conductor is located at the inflection point marking the crossover from positive tilt to negative tilt, and the maximum in field strength" (Klein & Lajoie, p 270).

They also state that the VLF method can detect "unwanted sources" such as swamp edges, creeks and topographic highs.

A VLF EM survey was carried out on parts of the Lockie grid over a total of 4.8 line-kilometres. Readings were taken every 25 m on lines 100 m apart. The instrument used was a Sabre model 27. Two transmitting stations were employed; Annapolis at 100° azimuth and Seattle at 200° azimuth (Seattle was off the air during part of the survey time). The field strength readings showed considerable drift and the instrument had to be adjusted frequently.

Tilt angle profiles are shown in Figures 9a, 9b. The only crossover occurs at a creek. The tilt angle readings were used to produce Fraser values (Figures 9c,9d). Although these values show possible subtle conductors no coherent trends occur. The field strength values (Figures 9e,9f) also indicate that no metallic

-- conductors are present. Little or no correlation exists between the magnetometer and the VLF methods. The results of the geophysical surveys indicate the presence of magnetite. The geological setting and nature of mineralization on the Rabbitt property suggests that excellent potential exists for base and precious metal deposits of volcanogenic origin. Massive sulphide pyrite-chalcopyrite occurrences are widespread and are reflected in strong copper and zinc geochemical anomalies in soils. Siliceous galena-sphalerite-gold-silver showings are also common and are reflected in strong lead and zinc anomalies. Ground magnetometer surveys indicate the presence of magnetite-rich pyritic cherty rocks which may have precious metal potential.

Exploration targets have been discovered on the Cousin Jack, Perley and Lockie grid areas. Continued exploration by geological, geochemical and geophysical surveys followed by trenching is certainly warranted.

Respect ly submitted K.L. Daughtry

W.R. Gilmour.

Vernon, B.C. November 18, 1982

## REFERENCES

 $\bigcirc$ 

Adams, H.	1979-82	Personal communication		
Betmanis, A.I.	1979	Report on diamond drilling on the Jame-X-1 claim; for Northern Lights Resources Ltd.		
B.C.Min. of Mines	1901	Summary Reports, Cousin Jack showing, p 1088, 1178		
11	1913	Red Bird showing, p 235		
11	1922	Cousin Jack showing, p 168		
11	1924	Red Bird showing, p 170, p 279		
	1928	Red Bird showing, p 268		
11	1933	Cousin Jack showing, pp 173-174		
*1	1934	Cousin Jack showing, p D21,22		
11	1937	Lloyd George showing, p D29, Cousin Jack Showing p D27—29		
11	1965	Lode showing, p 161		
п	1966	Lode showing, p 175		
B.C.Min. of Mines	1967 :	Summary Reports, Cousin Jack showing, p 177 Lode showing, p 177		
Camsell, C.	1913	Geology and mineral deposits of the Tulameen District, B.C. Geol. Surv.Can. Memoir 26.		
Daughtry, K.L. & I	horstad, L. 1979	E Report on the geological mapping of the Red Bird, Spokane-Motherlode, Shamrock and Hilltop showings for Kenam Resources Ltd. and Ventures West Minerals Ltd.		
Daughtry, K.L.	1975–78	Private files of K.L. Daughtry and Assoc. Ltd.		
Finney, W.A. & Patterson, N.R.				
	1968	Geophysical report on the Cousin Jack group; for Copper Mountain Consolidated Ltd. Ass. Rep. 1651		
Freeland, P.B.	1934	Report on the Cousin Jack group in B.C.D.M. Ann. Rep. pp D21-22		

Klein & Lajoie		in practical Geophysics for the Exploration Geologist, Northwest Mining Assoc. Pub. p 270
Hedley, M.S.	1937	Report on the Cousin Jack group in B.C.D.M. Ann. Rep. pp D27-29
Mark, D.G.	1972	Geophysical and geochemical report, M.U.G. claim group, for Gold River Mines, Ass. Rep. 4588
Millican, J.A.	1966	Geochemical survey report on the Cousin Jack group; for Nelway Mines Ltd. Ass. Rep. 3944
Mitchell, J.A.	1971	Geochemical Report, Cousin Jack group for Gold River Mines, Ass. Rep. 3398
Phendler, R.W.	1978a	Report on Mount Rabbit property for Northern Lights Resources Ltd.
11	1978Ъ	Report on a magnetometer survey on the John-X claims, for Northern Lights Resources Ltd.
Preto, V.A.	1979	Geology of the Nicola Group between Merritt and Princeton, B.C. Min. En. Mines and Pet. Res. Bull 69, p 90.
11	1976	The Nicola Group: Mesozoic volcanism related to rifting in southern B.C. Geol. Assn. of Can. Spec. Paper 16, pp 38-55
Rice, H.M.A.	1947	Geology and mineral deposits of the Princeton map area, B.C. Geol. Surv. Can. Memoir 243, pp 136
Sookochoff, L.	1973	Interim report on the diamond drill program of Gold River Mines Ltd., Boulder mountain Property.
Thorstad, L.E.	1979	Property examination, Rabbitt and Boulder mountains John-X, Jame-X and Cousin Jack claims, for Ventures West Minerals Ltd.
11	1980a	Report on the geology, geochemistry and geophysics of the Rabbitt massive sulphide property for Ventures West Minerals Ltd. & Kenam Resources Ltd.
"	1980Ъ	Report on the geochemical survey conducted on the Rabbitt property; for Ventures West Minerals Ltd.

Thorstad, L.E.	1981	Report on-the petrography of the rocks of the Rabbitt massive sulphide property; for Ventures West Minerals Ltd. and Kenam Resources Ltd.
11	1982	Rock geochemistry of the South Copper showings Constitution and International crown grants for Ventures West Minerals Ltd. and Kenam Resources Ltd.
Watson, R.K.	1967	Report on an I.P. survey, Lode claim group; for Copper Mountain Consolidated Ltd.

-- -

## COSTS

## 1. Professional Services

 $\bigcirc$ 

 $\bigcirc$ 

-

	K.L. Daughtry, P.Eng. Supervision, report writing	5 days @\$275/day	\$1,375.00	
	W.R. Gilmour, Geologist Supervision, report writing	7 days @\$250/day	1,750.00	\$3,125.00
2.	Labour Grid installation, soill sampling,	magnetometer and VLI	F surveys.	
	John Graham June 22-26 July 12, 27-30 Aug. 5-6, 17 Sept. 13, 23,27	13 days @\$175/day	2,275.00	
	Craig Lynes June 22-26 Sept. 23-30 Oct. 27-29	16 days @\$115/day	1,840.00	
	Tim Bissett Sept. 23-30 Oct. 27-29	11 days @\$100/day	1,100.00	
	John Osterhagen Sept. 23-30 Nov. 1-4 plus data compilation	14 days @\$115/day	<u>1,610.00</u>	6,825.00
3.	Transportation			
	4 X 4 Jimmy 10 days @\$35/day 2300 km @\$.35/km Gas Oil 13 days @\$35/day 1035 km @\$.35/km Gas, oil	\$350.00 805.00 300.00 455.00 362.25 120.00		2,392.25
4.	Food and Lodging			1,732.68

5.	Analy	sis
----	-------	-----

 $\bigcirc$ 

 $\bigcirc$ 

550.62		
650.10		
376.20		
384.00		
376.60		2,337.52
105.00		
150.00		
30.00	180.0	0
		226.08
ing		407.01
	Total	\$17,330.54
	550.62 650.10 376.20 384.00 <u>376.60</u> 105.00 <u>150.00</u> <u>30.00</u>	550.62 650.10 376.20 384.00 <u>376.60</u> 105.00 <u>150.00</u> <u>150.00</u> <u>180.0</u> ing

#### STATEMENT OF QUALIFICATIONS

I, W.R. Gilmour, of 13511 Sumac Lane, Vernon, B.C. V1B 1A1, DO HEREBY CERTIFY that:

- I am a Consulting Geologist in mineral exploration employed by W.R. Gilmour & Associates Ltd., Vernon.
- 2. I have been practising my profession in British Columbia, the Yukon Territory, and Nevada for 12 years.
- 3. I am a graduate of the University of British Columbia with a Bachelor of Science degree in geology.
- 4. I am a Fellow of the Geological Association of Canada and a member of the Society of Mining Engineers of the American Institute of Mining, Metallurgical and Petroleum Engineers.

Wilmon

W.R. Gilmour

Vernon, B.C. November 18, 1982.

#### STATEMENT OF QUALIFICATIONS

I, KENNETH L. DAUGHTRY of R.R. #4, Vernon, British Columbia, DO HEREBY CERTIFY that:

- 1. I am a Consulting Geologist in mineral exploration.
- 2. I have been practising my profession for seventeen years in Canada, the United States and Ireland.
- I am a graduate of Carleton University, Ottawa, with a Bachelor of Science degree in Geology and Chemistry.
- 4. I am a member of the Associations of Professional Engineers of British Columbia, Ontario and Yukon Territory, and a Fellow of the Geological Association of Canada.
- 5. This report is based upon knowledge of the RABBITT property gained from personal experience and involvment in all aspects of the exploration programme described herein.
- 6. I hold a beneficial interest in the RABBITT property.
- 7. I am a Director of Brican Resources Ltd., which company holds a beneficial interest in the property.

K.L. Daughtry

Vernon, B.C.

November 18, 1982.



3200N - 28 ppm Cu CONTOURED AT 46 GEOLOGICAL BRANCH ASSESSMENT REPORT 10,777 300 ME TRES 20001 BRICAN RESOURCES LTD. K. DAJGHTRY & ASSOC LTD COPPER IN SOILS LOCKIE GRID RABBITT PROJECT SILMICKAMEEN MD 92 H 10 W SCALE 1 5,000 DATE NOVEMBER 1982 DWN BY WRG PROJ Nº 1/3 FIGURE Nº 62



TILT ANGLES IN DEGREES INSTRUMENT: SABRE MODEL 27 TRANSMITTING STATION ANNAPOLIS AT 100" AZ.

## GEOLOGICAL BRANCH ASSESSMENT DEPORT

10,777

300 0 METRES

BRICAN RESOURCES LTD. K.L. DAUGHTRY & ASSOC. LTD.

> TILT ANGLE PROFILES VLF SURVEY

LOCKIE GRID

RABBITT PROJECT SILMILKAMEEN M.D. 92 H 10 W

DATE NOVEMBER, 1982

PROJ. Nº. 113 FIGURE Nº: 9a

SCALE: 1:5,000

DWN. BY: WRG



TILT ANGLE IN DEGREES

INSTRUMENT: SABRE MODEL 27 TRANSMITTING STATION: <u>SEATTLE</u> AT 200° AZ.

# GEOLOGICAL BRANCH ASSESSMENT REPORT

10,777

0 300 METRES

BRICAN RESOURCES LTD. K.L. DAUGHTRY & ASSOC LTD.

> TILT ANGLE PROFILES VLF SURVEY LOCKIE GRID

RABBITT PROJECT MEEN M.D. 92410W

SILMILKAMEEN M.D.92HIOWSCALE: 1:5,000DATE: NOVEMBER, 1982DWN. BY: WRGPROJ. Nº. 113FIGURE Nº: 96







GEOLOGICAL BRANCH ASSESSMENT REPORT 10,777 300 - + .. METRES BRICAN RESOURCES LTD. KL DAUGHTRY & ASSOC LTD. FIELD STRENGTH PROFILES VLF SURVEY LOCKIE GRID RABBITT PROJECT SILMILKAMEEN MD 92410W TATE NOVEMBER, 1982 SCALE 1 5,000 IM & BY WRG

TRANS MITTING STATION: ANNAPOLIS

002×







CONTOURED AT 51,76,101,126 ppm

## GEOLOGICAL BRANCH ASSESSMENT REPORT



BRICAN RESOURCES LID KL DALGHTRY EASSON LEAD IN SOILS PERLEY GRID RABBITT PROJECT SILMILKA MEEN UD 924 ON SCALE : 5 000 DATE NOVEMBER 1982 DHIN BY WRG

REAT Nº . 3

- GURE Vº 52





-10 ppb Au - <5 ppb Au





ppm Pb -14 CONTOURED AT 23

GEOLOGICAL BRANCH ASSESSMENT REPORT 10,777

300 ME TRES

BRICAN RESOURCES LTD. K . DAJGHTRY & ASSOC LTD

LEAD IN SOILS LOCKIE GRID

RABBITT PROJECT

PRAJ Nº "3 FIGURE Nº 66

SIL MILKAMEE	IN MD		92 H IOW
S: ALE 1 5,000		DATE	NOVEMBER, 1982
DWN BY WRG	Pear	v° · 3	FIGURE Nº 66



3200N - /33 ppm Zn CONTOURED AT 151 GEOLOGICAL BRANCH ASSESSMENT REPORT 10.777 300 ME TRES 2000W BRICAN RESOURCES LTD. K. JAJGHTRY & ASSOC LTD ZINC IN SOILS LOCKIE GRID RABBITT PROJECT SILMILKANEEN MD 92 H 10 W SCALE 5.000 DATE NOVEMBER, 1982 · 'Ear V' 113 + 6084 2° 60 DRIV BY WRG



0521 1026 文を変き 2143 1486 1734 1734 1735 1735 1735 3000 °0~ 1000 2900 1321 1321 37# 191 1621 1621 2280 2411 2700 12242 12224 12224 12242 1224 12242 12442 12442 12442 12442 12442 12442 12442 12442 12442 12442 12442 12442 12442 12442 12442 12442 1 2113 1624 1624 1624 1624 1624 1624 1624 1624 1702 1212 

READINGS IN GAMMAS OY REPRESENTS 56,000 %

INSTRUMENT GEOMETRICS UNIMAG IL PROTON MAGNETOMETER MODEL G-8+6

## GEOLOGICAL BRANCH ASSESSMENT REPORT



300 ME TRES

BRICAN RESOURCES LTD. KE DAUGHTRY & ASSOC LTD.

> MAGNETOMETER SURVEY LOCKIE GRID

RABBITT PROJECT					
ILMILKAMEE	EN MD		92 H 10 W		
CALE 1.5,000		DATE	NOVEMBER, 1982		
WN BY NEG	PEAT	V° 1/3	FIGURE Nº. 8.		





# GEOLOGICAL BRANCH ASSESSMENT REPORT

10,777

300 METRES

BRICAN RESOURCES LTD. KL DAUGHTRY & ASSOC LTD.

PROFILES

MAGNETOMETER SURVEY LOCKIE GRID

RABBITT PROJECT							
SILMILKAMEEN MD. 92410W							
SCALE 1 5,000		DATE.	NOVEN	18ER, 1982			
DWN BY WEG	PRAT	V° // 3	FIGUL	ENº 86			

20001

<sup>0</sup>5€,





- NORMALLY-WEIGHTED RUNNING MEAN VALUES CONTOURED AT 250 GAMMA INTERVALS

1/// GREATER THAN 1// 2000 ¥ (1.8. 58,000 ¥)

- MAXIMUM CONTOUR 15 3000 &



10,777

300 ME TRES

BRICAN RESOURCES LTD. KE DAUGHTRY & ASSOC LTD.

CONTOURED RUNNING MEAN MAGNETOMETER SURVEY LOCKIE GRID

R A	RABBITT PROJECT				
SILMILKAMEEN MD			92410W		
SCALE 1 5,000		DATE	NOVEMBER	1982	
DWN BY WRG	Pear	Nº 1/3	FIGURE Nº	8d	

2000N





DWN BY WRG

MAGNETIC PEAKS TREND OF MAGNETIC PEAKS AREAS AVERAGING >2000 ¥ AREAS AVERAGING < 750 8