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REPORT ON FIELD TRIP
TO VIRGINIA K. GROUP
    AUGUST 24, 1987
By D.L. Dick, B.Sc., R. Mcintosh, B. Sc.
    J. Parkin, B.Sc.
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## TABLE OF CONTENTS

A
INTRODUCTION 1
B. SUMMARY AND RECOMMENDATIONS 1
C. LOCATION AND ACCESS 1
D. TOPOGRAPHY 2
E. OWNERSHIP AND PREVIOUS WORK 2
F. CONDITIONS OF WORKINGS 5

G
GEOLOGY
H. ECONOMIC GEOLOGY. 9
1.

DISCUSSION

BIBLIOGRAPHY
CERTIFICATE
APPENDIX

FIGURE 1. LOCATION MAP
2. CLAIM MAP
3. GEOLOGICAL X-SECTION
4. GEOLOGY OF \#2 ADIT, \#7 AND \#6 CUTS
5. GEOLOGY OF IMMEDIATE VICINITY OF \#2 ADIT
A. INTRODUCTION

On August 24, 1987 the writer, accompanied by two other geologists, J. Parkin and R. Mclntosh, flew by helicopter from stewart to the Virginia K. property. A full day was spent assessing, mapping and sampling on the Virginia $K$. extension \#2, extension \#3, \#4 and \#5 claims.
B. SUMMARY AND RECOMMENDATIONS

The silver showings of the virginia k. Group occur along a north west trend for at least a mile. For the most part they occur in association with short, narrow discontinous quartz-carbonate fissures. The most promising showing occurs in the No. 2 Adit where a relatively consistent 4 foot wide bedded vein has been exposed for approximately 40 feet. The vein is of a structural tenor that a change or flex in structure either through faulting or folding could appreicably improve the economics of the vein. It also may lie in an embayment of a local porphyry intrusive.

The vein is only exposed for 40 feet and has not been diamond drilled, consequently a significant tonnage is not indicated.

The grade of silver is as exposed marginal to erratically high grade.

Two recommendations are made:

1. The property be maintained for its obvious value as a potential small high grade producer.
2. The property be re-mapped (the claims under consideration) and an e.m. method tested in preparation for diamond drilling to depth along the n.e. plunge. At least three diamond drill holes comprising 1500 feet would be required.
C. LOCATION AND ACCESS

The property is located near the headwaters of American creek on the east side of the Valley approximately 32 air miles n.n.e. of Stewart, B.C.. Highway 37 passes about 9 miles due south and a new road development is underway approximately the same mileage to the north.

An old packhorse trail was recognized on the claims but other than this the property is isolated and accessible only by air.

The general area is presently being actively explored by various companies.

The valley wall on which the claims lie is steep, barren of timber and slide swept. Talus slopes are extensive and numerous reaching from the valley bottom to the 5000' elevations. Large snowfields occur on the valley floor. Dense foliage and brush occur above the 3000 foot elevation and scattered outcrop begins to emerge at about the 3500 foot elevation where the main showings occur.
E. OWNERSHIP AND PREVIOUS WORK

The claim group was originally located by J. Kimball in 1930. Apparently 18 claims and fractions were staked but in 1940, when the block was surveyed, only 14 claims and fractions were included.

The Excelsior Prospecting Syndicate was formed to raise financing and work was carried out until 1938. The activity primarily involved trenching and the driving of at least two short adits on prospective showings.

In July of 1960, R.A. Knutson of Newconex spent 9 days on the property which was still owned by Excelsior. His work primarily involved geological mapping of the claim block on $1^{\prime \prime}=200^{\prime}$ scale.
C.A. Groves, J.C. Pearcey and Jas. A. Mitchell visited the property during the $1930^{\prime} s$ and it is probable that other geologists have been involved in assessing the property.

The claims considered in this report $\operatorname{lVirginia} k$. extension \#2, extension \#3, \#4, and \#5) are now owned by 1. Mcleod of Stewart and the work was carried out on behalf of Carmac Resources of Vancouver. (NOTE: Fig. \#2)

CLAIM

Virginia K. extension \#2
Virginia K. extension \#3
Virginia K. \#4 332
Virginia K. \#5

RECORD NO.

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F._CONDITIONS OF WORKINGS
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The workings visited and mapped included: The \#2 adit, the \#7 cut and the \#6 cut. The \#7 cut occurs adjacent to the adit and consequently was straight forward to locate. The \#6 cut was more difficult to locate, primarily because of the rugged topopgraphy, but was found associated with a small prominent resistant dome that had obviously been cleared of talus.

The \#2 adit is approximately 40 feet in length. The portal opening is blocky and small. Two timber sets were placed inside the entrance. The cross member is missing on the first set and the second set is standing clear of the wallrock except one corner which did not seem to be taking pressure. The adit floor was wet and headroom was approximately 5 feet for the first 25 feet and then increased to 7 feet in the face chamber. The walls and back were dirty, but sound. A serviceable steel wheel barrow, a few lengths of mine timber labout 10 feet long) and a pick with a broken handle were in the adit. A small, steady creek flowed just below the portal. If dammed properly, it could provide sufficient water for local diamond drilling. A small diamond drill could be located in the vicinity above the adit on a flattish knob and in a creek embayment.
G. GEOLOGY

The claims examined lie on the eastern flank of an open, slightly inclined and northerly plunging anticline known regionally as the American Creek Anticline (see fig. 3). The anticline has been weakly deformed by numerous dykes and plutons as well as faults. The northern axial section is well exposed in American Creek. The specific nature of the local structure is obscure due to the scarcity of outcrop and the lack of a distinctive marker horizon. However, drag folds are reportedly common to the argillaceous limestone unit and these may reflect an association with the regional fold. A series of strike faults appear to parallel the major American Creek Fault.

The valley is underlain and flanked by Hazelton sediments and volcanics of Mid-jurassic age. Sediments consisting of argillite, argillaceous limestone and greywacke outcrop 500 feet above the valley floor and are overlain by andesite, tuff and porphyrite. An intrusive complex of feldspar porphyry, related probably to the Bitter creek pluton is ubiquitous in the area.

In detail, the rock units observed are described as follows:
Argillaceous Sandstone - The unit is comprised of inter-bedded argillite, sandstone, silt and greywacke. 1 t is medium to dark grey except for the buff coloured sandstone interlayers. It contains pebble clasts and argillaceous zenoliths up to 0.5 mm . The unit weathers rust to dark brown.


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Argillite Greywacke -

Greywacke - The unit is massive, grey and unbedded.
Intrusive Quartz Feldspar Porphyry - This unit is probably related to the Bitter Creek pluton lafter Grove). The rock is dark grey green in color and consists primarily of plagioclase phenocrysts in a horneblende ground mass. The unit is locally very fine grained and could be confused with a volcanic tuff. The composition varies from granodiorite to quartz monzonite. It is subject to intense alteration where it is sheared particularily in the vicinity of mineral showings with which a spatial relationship appears to exist.
H. ECONOMIC GEOLOGY

The local mineralization primarily consists of quartz-calcite veins and stringers which occur as fissure veins in minor shears and fractures and along bedding fractures. Sulphide minerals in the veins include pyrite, galena, sphalerite, minor chalcopyrite and tetrhedrite. Native gold and silver, as well as rare electrum, have been reported.

During the course of this visit the No. 2 adit, No. 7 cut, the immediate vicinity of the No. 2 adit and the No. 6 cut were mapped on 20 scale and sampled. (NOTE: Figures 4 \& 5)

No. 2 Adit and No. 7 Cut
The No. 7 cut is essentially the surface showing of the vein explored in No. 2 adit. The cut consists of a shallow bench that has collapsed but it was partially exposed and sampled. It immediately adjoins the adit. A composite chip sample taken from the cut ran 12.64 oz/ton Ag and 0.007 oz Au.

Within the adit a consistent vein paralleling the bedding was exposed. The vein occurs in a sheared argillite unit and contains narrow, pinch and swell alternating bands of altered and unaltered material. The vein maintains a constant width along most of the adit walls but gradually plunges to the n.e. so that only $2^{\prime}$ of the vein is exposed on the face. The vein is intensely altered with oxides and carbonate at the portal and becomes more siliceous and competent though still calcerous in. the face chamber. A thin buff banded sandstone unit passes across the back from the portal to approximately 20 feet along the east wall otherwise the gently dipping vein appears to lie conformably between two competent argillite and greywacke beds. The massive overlying greywacke is fresh and unaltered. Local vertical jointing is apparent but it is otherwise very hard and competent. Abundant visible galena and sphalerite are seen in the vein.

The adit was chip sampled in 3 separate samples; along the west wall, the face and east wall. The results were respectively: 13.87 oz/ton $\mathrm{Ag}, 34.35 \mathrm{oz} / \operatorname{ton~} \mathrm{Ag}$ and $30.38 \mathrm{oz/t}$ on Ag with. $016, .014$ and. 01 oz/ton Au.

The sampling was relatively cursory due to marginal ground conditions and was meant primarily to confirm the previous sampling of the adit.

IMMEDIATE VICINITY OF NO. 2 ADIT
The exposed outcrops in the immediate vicinity of the adit were mapped along the trend of the portal creek for approximately 150 feet. (NOTE: Fig. 5)

The units have been described previously.
The bedding of the units strike consistently and conformably n. w. and dip moderately to the east. A narrow massive unit (D) occurs upstream from the portal and may be a fine-grained variety of the intrusive. A conformable shear zone indicating an apparent offset of approximately 1 foot occurs in the f.w. of this unit. No evidence of the vein continuation was found on the south bank of the creek.

CUT NO. 6
No. 6 cut exposed a sheared prophyry unit that is laced with a set of narrow (1") quartz stringers trending primarily to the n.w. Visible galena was common. A narrow cut around the back exposed a thin quartz carbonate vein containing abundant galena.

Mineralized showings occur across the length of the overall claim group. Suggestions have been made of the presence of a continous vein structure but field observation of \#2 adit vein and the mineralization exposed in \#6 cut indicate quite different mineral occurences. $1 t$ may be that a local mineralizing trend is coincidental with the strike of the showings and that deposition is occuring at favourable geological loci along this trend.

The economic mineralization is primarily $P b-Z n-A g$ with only minor Au. Gold mineralization occurs, and is actively explored for on the western side of the valley. This suggests a regional metal zonation is present.

Of the various showings visited and on the basis of descriptions of other showings the vein in No. 2 adit is the most interesting. As exposed in the adit it is strong and relatively consistent with values improving toward the more siliceous vein face. It was not found on the south bank of the portal creek and is not the same vein observed at cut No. 6. It does however occur lying between two competent beds which suggests some continuity can be anticipated at least down plunge. The vein width appears to be consistently 4 feet thick over 40 feet of strike. This consistency suggests to this writer the vein could be part of a larger scale vein structure and that it could appreciably widen on a flexure point caused by either faulting or drag folding. An exposure of a large intrusive body to the south may be related to the porphyry outcrop south of the portal and at the No. 6 cut approximately 600 feet northwest. Which is to say the intrusive may extend under the overburden and sweep around the No. 2 occurence forming an embayment.

The silver values indicated by the recent and historical sampling are marginal and to some extent erratic but the geology suggests potential exists for an economic silver occurence down plunge and further north along the vein strike.

## BIBLIOGRAPHY

```
Bulletin #58 Geology and Mineral Deposits of the Stewart area -
                        E.W. Grove 1972
Bulletin #63 Geology and Mineral Deposits of the Unuk River-Salmon
    River-Anyox area -
    E. W. Grove 1986
Newconex report 1960-R. A. Knutson
Report on the Excelsior Prospecting Syndicates Virginia K. Group
    American Creek
    C.F. Groves 1931
Properties at the head of American Creek Portland Canal District, B.C.
                        J.A. Mitchel 1936-37
Viriginia K. Report
    J. Pearcey 1933
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## CERTIFICATE

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I, Donald L. Dick, of the City of Vancouver, Province of British
Columbia, hereby certify as follows:
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1. I am a consulting geologist with an office at \#112-1235 Nelson Street, Vancouver, B.C.
2. I am a graduate with a Bachelor of Science degree in geology from the University of Saskatchwean (1972)
3. I have practiced my profession for 15 years and have been engaged in the mining industry for approximately 23 years.
4. I have no direct, indirect or contingent interest in the claims described herein.
5. This report dated December 22, 1987 is based on information gathered from working on the property in August of 1987.
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Expenditure Summary
Virginia K Property visit
August 25, 1987
Salaries - Geologists
\begin{tabular}{lll} 
D.L. Dick & Vancouver & 1 day field \\
R. Mcintosh Calgary & 1 day field & 300.00 \\
J. Parkin Calgary & 1 day field & 150.00 \\
& & 150.00 \\
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\end{tabular}
Transportation
Helicopter
Meals
Samples 6 samples \(\times \$ 10.00\)
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628.65
54.00
60.00
$\$ 1,342.00$

Amount applies $\$ 1,000.00$

| V.K. \#4 | $\$ 200.00$ |
| :--- | ---: |
| V.K. \#5 | 400.00 |
| V.K. Ext. \#2 | 200.00 |
| V.K. Ext. \#3 | -200.00 |
|  | $\$ 1000.00$ |

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D. DICK B.Sc.

## - GEOLOGICALBRANCH ASSESSMENT REPORT



SUB-REDELER RECEMED

DEC 801987
M.R. $\#$
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VANCOUVER, B.C.

APPEND IX

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ASSAY SHEETS
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## FIRE ASSAYING METHOD

One assay ton of ore is treated using a litharge - nitre/flour crucible asssy. Cupellation, weighing for silver content, parting with a solution of $1: 6$ nitric acid follows. The resultant bead is annealed and weighed again obtaining gold content in ounces per ton.

## NEWHAWK GOLD MINES LTD.

Certificate of Assay
Carman Resources

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PAGE 4
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## MINE E-....SAMPLES

ASSAY CERTIFICATE



