ASSESSMENT REPORT
ON THE
STAN PROPERTY

Brandywine Creek Area,
Vancouver Mining Division, B.C.

NTS 92 J/3E
Latitude: 50 degrees 05' North
Longitude: 123 degrees 11' West

By

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V7N 3K8

GEOLOGICAL BRANCH
July 1992

22,447
# TABLE OF CONTENTS

**SUMMARY**

<table>
<thead>
<tr>
<th>1.0 INTRODUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Location, Access and Physiography</td>
</tr>
<tr>
<td>1.2 Property Status</td>
</tr>
<tr>
<td>1.3 History</td>
</tr>
</tbody>
</table>

**2.0 REGIONAL GEOLOGY**

**3.0 PROPERTY GEOLOGY AND MINERALIZATION**

**4.0 1992 WORK PROGRAM**

**4.1 Discussion of Results**

**5.0 CONCLUSIONS AND RECOMMENDATIONS**

**6.0 REFERENCES**

**LIST OF APPENDICES**

| APPENDIX I | Statement of Qualifications |
| APPENDIX II | Analytical Methods |
| APPENDIX III | Geochemical Data |
| APPENDIX IV | Statement of Costs |

**LIST OF FIGURES**

| Figure 1. | General Map Location |
| Figure 2. | Claim Map |
| Figure 3. | Regional Geology Map |
| Figure 4. | Geochemistry Map - Gold/Silver |
| Figure 4.a | Geochemistry Map - Copper/Lead |
| Figure 4.b | Geochemistry Map - Zinc/Arsenic |

<table>
<thead>
<tr>
<th>Page No.</th>
<th>After Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
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<tr>
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SUMMARY

The Stan property is located approximately 12 km Southwest of the resort of Whistler in the Brandywine Creek area, British Columbia.

The area lies within the Coast Plutonic Complex. The Complex is characterized by gneisses and granitoid rocks with pendants and septae of metavolcanic and metamorphosed from high amphibolite to low green schist grade.

Two mining operations are located within the area, Silver Tusk Mines, Ltd., prospect is situated 2 km Southeast and North Air Mine is located about 6 km North of the Stan property.

Up to date results from exploration program of the property have been very encouraging. The programs have been successful in defining a number of geological, geophysical and geochemical targets that warrant follow-up exploration.

Two phased exploration programs consisting of trenching, diamond drilling and additional geochemical survey is recommended on the property.
1.0 INTRODUCTION

The Stan 1, Stan 2 and Stan 3 claims, consisting of 55 units are owned by J. Adamec, 3891 Lonsdale Avenue, North Vancouver, B.C.

The field work on the claims was conducted between April 28th and May 3, 1992 totalling in 6 field days, by a three man crew. The work consisted of contour soil sampling.

This report reviews the geological setting and 1992 field work on the Stan claim group and provides recommendations for further exploration.

1.1 Location, Access and Physiography

The Stan claim group is located in the Brandywine Creek area, B.C., which is about 12 km Southwest of the recreation resort of Whistler and about 87 km north of the City of Vancouver B.C. The claim group is centered at latitude 50 degrees 05' North and longitude 123 degrees 11' West on 92J/3E map sheet (Figure 1).

Access to the property from Vancouver is via Highway 99 to the Brandywine Trail road and then approximately 6 km to the west to the eastern property boundary. Logging operations throughout the property has resulted in a network of two and four wheel drive roads on the property.

The Stan 2 and Stan 3 claims straddle the Brandywine Creek. Elevations on the property range from 2800 feet (823 meters) in the Brandywine Valley to 5600 feet (1707 meters) with moderate to strong relief. Vegetation is typical of coast rain forest with logged areas for commercial purposes.
1.2 Property Status

The Stan property consists of three mineral claims, totalling 55 units, situated some 87 kilometers North of Vancouver, B.C. within the Vancouver Mining Division (Figure 2).

A list of pertinent claims data is given below:

<table>
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<th>Units</th>
<th>Record No.</th>
<th>Record Date</th>
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<td>05/10/91</td>
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<tr>
<td>Stan 2</td>
<td>15</td>
<td>2350</td>
<td>09/25/91</td>
</tr>
<tr>
<td>Stan 3</td>
<td>20</td>
<td>2351</td>
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1.3 History

The first reports of exploration and mineral occurrences along the Pacific Great Eastern Railroad, now British Columbia Railroad, were made by Camsell (1917) in Summary Report, 1917, Part B, Geological Survey of Canada. In the 1924 Report of the Minister of Mines, Brewer states that, "During 1924 discoveries were made by Helmar Hogstrom on a small tributary of the Brandywine River, about 3 miles westerly from McGuire Siding, which are of considerable importance and promise to supply a tonnage of ore and supplies for railway-haul during the coming season of 1925." The description apparently apply to the Astra and Cambria prospects (B.C. Mineral Inventory 92-JW #1) and Blue Jack prospect (B.C. Mineral Inventory 92-JW #3) operated in 1969 and 1970 by Barkley Valley Mines, Ltd. and Van Silver Explorations Ltd. (now Silver Tusk Mines Ltd.), respectively.

The area appears to have received a number of prospecting efforts with a few small shipments from the Astra-Cambria and Blue Jack prospects prior to discovery of the Warman Property on Callaghan Creek in 1970 by Dr. M.P. Warshawski, an amateur prospector and Mr. A.H. Manifold, a geologist. The Warman Property was explored and developed by Northair Mines Ltd. from 1972 to start of production in 1976. From 1976 to June 1982, the Northair Mines milled 345,700 tons yielding 166,582 ounces of gold and 845,854 ounces of silver with by-product production of copper, lead
and zinc. Milling was suspended in June 1982 due to economic conditions with reserves as of February 28, 1982 reported at 67,236 tons averaging 0.25 oz Au/ton, 0.77 oz Ag/ton, 1.25% lead and 1.90% zinc.

The Silver Tunnel prospect, situated about 2 kilometers southeast of the Stan Property has been owned by Van Silver Mines Ltd. (presently Silver Tusk Mines Ltd.) or associated companies since 1967. A mill was built on the property in 1977 to mine probable reserves at the Silver Tunnel prospect of about 112,000 tons reported to average 12.1 oz Ag/ton, 0.03 oz Au/ton, 0.19% lead and 0.34% zinc.

Acquisition of the Stan Claim Group was started by Dr. Juraj Adamec, geologist with staking of the Stan 1 claim on May 10, 1988. The Stan 1 claim area was formerly held as the Skyline claim on which no work was recorded. The Stan 2 and Stan 3 claims were added to the property in September 1988. The 1988 exploration of the Stan property consisted of a brief geological and geochemical prospecting program to satisfy assessment requirements (Adamec, 1988). The prospecting program consisted of 47 rock samples and 10 silt samples with rock samples contained up to 4654 ppm copper, 9.2 ppm silver, and 98 ppb gold.

Peter Christopher and Associates, Inc. were retained in September 1989 to review the property and recommend a program of exploration. A geological, geochemical and geophysical program was conducted on the Stan Property by Bush Resources, Ltd. from October 3rd, 1989 to November 18th, 1989. The geophysical program was conducted by Coast Mountain Geological Ltd. (Basil, 1989), and grid geology was mapped by professional geologist (Alberta) Ken Karchmar.

2.0 GENERAL GEOLOGY (Figure 3)

The general geology of the Brandywine Creek area has been mapped by Roddick and Woodsworth, (1975), Mathews (1958), and Miller and Sinclair (1978; 1979). Figure 3 is after Miller and Sinclair (1978) mapping published in the B.C. Ministry and Pet. Resources Fieldwork 1977 and G.S.C. open file map 482 (Woodsworth, 1977). They show the Stan property to be underlain by dioritic units of
the Cretaceous or earlier Coast Plutonic Complex which host roof pendent of metavolcanic and related metasedimentary rocks. Northwesterly trending structures appear to localized Tertiary basalts which occur in the headwater area of Brandywine Creek.

The North-Northwesterly trent of Tertiary volcanic rocks is also reflected in the trend of mineralized zones on the Warman Property of Northair Mines Ltd. The Warman, Discovery and Manifold zones on the Northair Mines Property are believed to have resulted from right lateral separation of a single mineralized zone along Northerly trending fault structures.

3.0 PROPERTY GEOLOGY

The geology of the part of the property previously mapped by geologist Ken Karchman (1989). There were defined two main units:

Unit 2. Coast Plutonic Complex: 2a. Granodiorite, pale green, pink, fine to medium grained, occasionally porphyritic; 2b. Hornblende diorite, 15-35% hornblende, fine to medium grained, fractured, abundant quartz and epidote veinlets; 2c. Hornblende-plagioclase porphyry, dark grey aphanitic matrix, subhedral to euhedral hornblende, zoned plagioclase laths to lcm. Gambier Group?

Unit 1. Greenstone, 1a. Probable andesitic composition, medium to dark green sheared, occasional fine laminations, chlorotic, abundant epidote and quartz veinlets; 1b. Agglomerate, occasional subrounded to rounded clasts to lcm.; 1c. Chlorite schist; 1d. Hornblende, >50% hornblende, gneissic, probably basaltic composition.

Previous mapping of the Northair Mines Property suggests that the greenstone unit may be subdividable into hornblendite, chlorite schist, agglomerate, and altered andesitic volcanic. The granitic rocks consist of pale green, fine to medium grained granodiorite
and fine to medium grained hornblende diorite with abundant quartz and epidote veinlets. Tertiary basaltic rocks have been mapped by Miller and Sinclair (1978) and Woodaworth (1977) in the area of Mt. Fee (Figure 3).

Greenstones, bounded to the east and west by plutonic rocks, underlies a significant portion of the middle of the Stan 1 claim, but boundaries are obscure because of sparse outcrop. The greenstone is probably derived from andesitic tuft. Chlorite and muscovite schist appears to be related to major shear or fault zones that cross the property with a number of northerly and north-northeasterly zones recognized. Foliation exhibits a predominantly northerly orientation with variable dips. A body of hornblende occurs at the southeastern edge of the Stan 1 claim. The unit is highly foliated with gneissic banding, and is bounded on both sides by relatively non-foliated hornblende diorite. A shear zone passes through the hornblendite unit which is cut by a one meter wide quartz vein, Narrow (0.5 meter) massive pyrite lenses occur along the shear zone.

MINERALIZATION

Exploration on the Stan property has been orientated toward location of deposits similar to those exploited on the nearby Warman property of Northair Mines Ltd. and adjacent Brandy Property of Silver Tusk Mines Ltd. The deposits on the Warman Property are apparently faulted segments of a single "volcanogenic" exhalite deposits that has been somewhat deformed and remobilized during metamorphism that accompanied emplacement of the Coast Plutonic Complex (Miller and Sinclair, 1979). Between 1967 and 1982 Northair Mines Ltd. milled 345,700 tons yielding 166,582 ounces of gold (5,181 kg.) and 845,854 ounces of silver (26,309 kg.) with by-product copper, lead and zinc. The Northair Mines Ltd. suspended mining with reserves of about 61,000 metric tons grading 7.775 gm. gold, 23.94 gm. silver, 1.25% lead and 1.90% zinc.

Several significant occurrences are found in the Callaghan Creek-Brandywine Creek area. The occurrences controlled by Northair Mines Ltd. and associated companies (Silver Tusk Mines Ltd. and Brandy Resources Inc.), are of the following types:

1. Discovery -- Massive Sulphide.
2. Warman Zone -- Veins, Massive Sulphide and Disseminated.
3. Manifold Zone -- Veins and Disseminated.
4. Silver Tunnel -- Veins and Disseminated.
5. Millsite -- Veins and Disseminated.
6. Tedi Pit -- Massive Sulphide.
7. Zone 4 -- Massive Sulphide and Skarn.
The Zone 4 occurrences contains sphalerite, pyrite and minor chalcopyrite in a skarn. The other occurrences and deposits are polymetallic, containing galena, sphalerite, and pyrite with significant amounts of several silver mineral and native gold, and minor amounts of chalcopyrite and pyrrhotite (Miller and Sinclair, 1978).

The initial exploration program conducted on the Stan Property by Adamec (1988) consisted of 47 rock samples. The initial samples contained values up to 98 ppb gold, 9.2 ppm silver and 4517 ppm copper. Follow-up geological mapping in 1989 by geologist Ken Karchmar located fractured greenstone and plutonic rocks with accompanying veinlets of quartz, epidote and pyrite. Pyrite, as veinlets, layers or blebs, appears to parallel the foliation in sheared greenstone. Banded pyrrhotite occurs in a 0.5 meter-wide quartz-epidote vein which cuts hornblende diorite (sample KRS-3).

A total of eleven rock chip and eight rock grab samples were collected by Ken Karshmar. Grab samples 89KSR-15, from chlorite schist with massive and disseminated pyrite contained the highest gold value of 9150 ppb gold and 2 meter chip samples 89KSR-10 and 89KSR-16, from hornblende-plagioclase porphyry contained strongly anomalous values of 260 ppb and 185 ppb gold, respectively. The association of strongly anomalous gold with porphyry dykes is of interest because similar bodies are associated with mineral deposits on the Silver Tusk and Northair Mines properties.

4.0 WORK PROGRAM

The 1992 field program was conducted on the Stan 2 claim between April 28th and May 3, 1992 by a three man crew, commuting daily to the property from Whistler. The work consisted of 1500 meters contour soil sampling line at the elevation of 4,300 feet A.S.L. The soil stations were spaced at 25 meters intervals.

A total of 60 soil samples were collected along the line. Soil samples were collected from B horizon at 20 to 30 cm and placed in kraft sample bags, dried and shipped to International Plasma Laboratory Ltd in Vancouver, B.C. for 6 elements ICP (silver, lead, zinc, arsenic, molybdenum and copper) and gold by fire assay. Analytical results are shown on Figures 4 through 4b respectively with analytical results presented in Appendix III.

4.1 DISCUSSION OF RESULTS

Initial exploration of the Stan Property in 1988 revealed extensive pyrite mineralization and anomalous rock values for copper (to 4658 ppm), silver (to 9.2 ppm) and gold (to 98 ppb).
A 1989 follow-up geological, geochemical and geophysical program was conducted with very encouraging results. Five strong VLF-EM conductors and magnetic anomalies were delineated on the property. The highest gold value of 9150 ppb was recorded from grab rock samples.

A total of 6 soil samples from 1992 geochemical survey have yielded anomalous gold values up to 20 ppb. It seems that high zinc values, up to 127 ppm are associated with anomalous gold values. Copper values were as high as 259 ppm. Moderately elevated values were returned from silver and arsenic up to 0.7 ppm and 21 respectively. Molybdenum and lead has returned only background values.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The exploration programs on the Stan property have been successful in defining a number of geological, geophysical and geochemical targets.

The strong base and precious metal responses from soils and several VLF-EM conductors suggest mineralized structures which may be similar to those on the nearby Northair Mines and Silver Tusk properties.

As a result of the very encouraging results extensive phased exploration program is warranted and recommended as stated in the engineering report by Dr. P. Christopher (1989).

Respectfully Submitted,

J. Duro Adamec, Ph.D. F.G.A.C.

July 1992
6.0 REFERENCES


APPENDIX I

Statement of Qualifications
STATEMENT OF QUALIFICATIONS

I, J. Duro Adamec, of 3891 Lonsdale Avenue, North Vancouver, B.C., hereby certify that:

1. I graduated in geology from Commenius University Bratislava, Czechoslovakia (1978) and I hold a Ph. D. in Engineering Geology (1982) from the same University.

2. I am a Fellow, in good standing, of the Geological Association of Canada.

3. I have been practicing my profession in Europe, Mexico and North America since 1978.

4. The information contained in this report was obtained from field work conducted by myself and others in 1992.

Dated in Vancouver, B.C. this 28 day of JULY, 1992.

J. Duro Adamec, Ph. D., F.G.A.C.
APPENDIX II

Analytical Methods
Method of Gold analysis by Fire Assay / AAS

(a) 10.0 to 30.0 grams of sample is mixed with a combination of fluxes in a fusion pot. The sample is then fused at high temperature to form a lead "button".

(b) The precious metals are extracted by cupellation. The gold bead is then dissolved in boiling concentrated aqua regia solution heated by a hot water bath.

(c) The gold in solution is determined with an Atomic Absorption Spectrometer. The gold value, in parts per billion, is calculated by comparison with a set of known gold standards.

QUALITY CONTROL.

Every fusion of 24 pots contains 23 samples, one internal standard or blank, and a random reweigh of one of the samples. Samples with anomalous gold values greater than 500 ppb are automatically checked by Fire Assay/AA methods. Samples with gold values greater than 10000 ppb are automatically checked by Fire Assay/Gravimetric methods.
Method of ICP Multi-element Analyses

(a) 0.50 grams of sample is digested with diluted aqua regia solution by heating in a hot water bath for 90 minutes, then cooled, bulked up to a fixed volume with demineralized water, and thoroughly mixed.

(b) The specific elements are determined using an Inductively Coupled Argon Plasma spectrophotometer. All elements are corrected for inter-element interference. All data are subsequently stored onto computer diskette.

* Aqua regia leaching is partial for Al, Ba, Ca, Cr, K, La, Mg, Na, Sc, Sn, Sr, Th, Ti, W and Zr.

QUALITY CONTROL

The machine is first calibrated using six known standards and a blank. The test samples are then run in batches.

A sample batch consists of 38 or less samples. Two tubes are placed before a set. These are an Inhouse standard and an acid blank, which are both digested with the samples. A known standard with characteristics best matching the samples is chosen and placed after every fifteenth sample. After every 38th sample (not including standards), two samples, chosen at random, are reweighed and analysed. At the end of a batch, the standard and blank used at the beginning is rerun. The readings for these knowns are compared with the pre-rack knowns to detect any calibration drift.
APPENDIX III

Geochemical Data
APPENDIX IV

Statement of Costs
# STATEMENT OF COSTS

## Field Work Period

**April 28 - May 3, 1992**

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## Personnel

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<td>(2) Technicians (12 days @ $140/day)</td>
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**TOTAL** $7,152.00