1998 GEOLOGICAL and GEOCHEMICAL ASSESSMENT REPORT ON THE CHOPIN PROPERTY

Quartz Claims

Chopin 001-018 YC01239-01256

Dec. 15, 1999

094052

Mayo Mining District
N.T.S. 105N/01

Latitude: 63°08' North
Longitude: 132°03' West

Owner: Viceroy Exploration (Canada), Inc.

Author: Rick Diment

Date of work: August 1998
This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the amount
of $3665.

M. B.

For Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.
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SUMMARY

The Chopin Property, consisting of the Chopin 1-18 Claims located in Central Yukon on NTS sheets 105N/01, was staked in 1998 by Viceroy Exploration (Canada), Inc.

The Chopin Property is located within the Paleozoic Selwyn Basin which consists of a broad package of Paleozoic sediments extending ESE from north-west of Dawson City to the Yukon-NWT border north of the major NW-SE trending Tintina Fault Zone. This stratigraphy consists of shallow shelf to off-shelf marine clastic and chemical sediments, as well as basinal clastic sediments derived from the Ancient North American Platform to the north-east. Several episodes of continental uplift have led to periods of increased erosion and resulting continental margin or miogeosynclinal deposition, resulting in formation of comparatively high energy, shallow water sediments, often coarsely grained and variably calcareous. These are separated by strata formed under deeper, quieter water conditions, resulting in formation of fine clastic sediments and chert. The Mid-Cretaceous Tombstone-Tungsten Suite (95-89 Ma) has been emplaced within the Selwyn Basin. Members of this suite occur along an ESE trending belt extending for over 500 kilometres from north-west of Dawson City, Yukon to the Yukon-NWT border. Tombstone Suite intrusives are believed to control much of the economic gold mineralization within the Selwyn Basin.

Extensive thrust faulting along the entire extent of the Selwyn Basin began during Late Jurassic time, resulting in creation of a compressional regime. Most thrust faults are oriented roughly ESE, dipping to the south-west, subparallel to the overall ESE trend of stratigraphy. This regional lineation has been overprinted by a slightly less pronounced NE-SW lineation, marked by high angle orthogonal faults suggesting the compressional regime was followed by an extensional tectonic regime.

The Chopin Claims are underlain by a large package of ESE trending Earn Group chert pebble conglomerate lying in contact with Road River Group siltstone and sandstone to the north. A pronounced ESE trending lineament, illustrated by most stream drainages, occurs across the property. These lineaments occur as brecciated pyritic fault zones within the coarse clastics, and are associated with silicification, weak argillic alteration, and local gouge zones.

During 1998 a total of 29 rock, 103 silt and 26 soil samples were collected in the vicinity of what would become the Chopin Claims. Applicable work for assessment included 3 rock and 4 silt samples, collected in early August, as well as geological mapping and prospecting.

Grab sampling across gouge zones returned low values to 30 ppb Au. Several silt samples taken along the southern boundary returned anomalous values to 60 ppb Au and 630 ppb Hg.


A silt sample taken taken roughly one kilometre south of the property returned 670 ppb Au, 1.4 gpt Ag, and 490 ppb Hg. This is an isolated anomaly; however, elevated mercury values suggest the anomaly may be “real” rather than caused by “nugget effect”, and warrants investigation.
CHAPTER 1: INTRODUCTION

1.1 Introductory Statement

The Chopin Property consists of 18 contiguous quartz mining claims (Chopin 1-18 claims) covering a 4 square kilometre area measuring 2 by 2 kilometres within NTS Sheets 105 N/01, in the Mayo Mining District (Figures 1, 3).

The 1998 exploration program involved reconnaissance silt sampling, limited geological mapping and rock sampling.

1.2 Location and Access

The Chopin Property is located 125 kilometres north of the town of Ross River, in the Yukon Territory. It is centered at 63° 08’ North latitude, 132° 03’ west longitude on NTS Map Sheets 105 N/ 01 (Figure 2).

Access is by helicopter from Fairweather Lake roughly 20 kilometres to the northwest.

1.3 Physiography and Vegetation

The Chopin Property occurs within moderately rolling terrain with limited outcrop exposure attaining elevations of 4,500 feet. The entire property is covered by typical northern boreal spruce and fir forest.

1.4 Property Exploration History

The Chopin Property area was targeted to evaluate anomalous gold, arsenic, antimony and mercury associated with Cretaceous intrusives and Lower Paleozoic stratigraphy. The Chopin claims were staked to cover weakly anomalous gold values in silt sampling.
FIGURE 1: CHOPIN PROPERTY GENERAL LOCATION MAP
Table 1 below lists detailed claim status, including assessment status and expiry dates following the 1998 filing.

<table>
<thead>
<tr>
<th>Claim Name</th>
<th>Grant No.</th>
<th>Owner</th>
<th>New expiry date</th>
<th>Work completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chopin 001-018</td>
<td>YC01239-01256</td>
<td>Viceroy Exploration (Canada), Inc.</td>
<td>July 7, 2001</td>
<td>Viceroy</td>
</tr>
</tbody>
</table>

1.5 Work Program

During 1998 a total of 29 rock, 103 silt and 26 soil samples were collected in the vicinity of what would become the Chopin Claims. Applicable work for assessment included 3 rock and 4 silt samples, collected in early August, as well as geological mapping and prospecting. All sample locations for 1998 are shown on Figure 4. Please note that the appendices contain only costs and the 1998 rock and silt samples applicable for assessment.

1.5.1 Sample Preparation and Assay Procedure

All samples were shipped and analyzed by Chemex Labs of North Vancouver, B.C. Soil samples were dried and sieved to – 80 mesh, and rock samples were crushed and pulverized to – 150 mesh. All samples were subject to 30g fire assay for gold with an atomic absorption finish, and also analyzed by 32 element ICP scan. Mercury was analyzed using a 10 ppb detection limit. Rejects are retained at Chemex Labs for one year. All sample locations have been tied into UTM co-ordinates and have been plotted. A sample database in Microsoft Excel format is included and can be interfaced with Autocad Map or MapInfo software programs.

1.5.2 Personnel

All applicable assessment work was done by S. Gower, consulting geologist and field assistant E. Thompson.
2.1 Regional Geology

The Chopin Property is located within the Selwyn Basin which consists of a broad package of Paleozoic sediments extending ESE from north-west of Dawson City to the Yukon-NWT border north of the major NW-SE trending Tintina Fault Zone. This stratigraphy consists of shallow shelf to off-shelf marine clastic and chemical sediments, as well as basinal clastic sediments derived from the Ancient North American Platform to the north-east. Age of deposition ranges from Late Precambrian to Permian. At least two major episodes of rifting have occurred: the first during deposition of the Late Precambrian Hyland Group sediments, and the second during deposition of the Devono-Mississippian Earn Group sediments (Table 2, Figure 2). These major rift zones often host poorly sorted coarse clastic sediments, such as debris flows or turbidite horizons. Several episodes of continental uplift have led to periods of increased erosion and resulting continental margin or miogeosynclinal deposition, resulting in the creation of sequences of comparatively high energy, shallow water sediments, often coarsely grained and variably calcareous. These are separated by strata formed under deeper, quieter water conditions, resulting in formation of fine clastic sediments and chert. The Mid-Cretaceous Tombstone-Tungsten Suite (95-89 Ma) has been emplaced within the Selwyn Basin. Intrusives of this suite occur along an ESE trending belt extending for over 500 kilometres from north-west of Dawson City, Yukon to the Yukon-NWT border. Intrusives are believed to control much of the economic gold mineralization within the Selwyn Basin.

Extensive thrust faulting along the entire extent of the Selwyn Basin began during Late Jurassic time, resulting in creation of a compressional regime. Most thrust faults are oriented roughly ESE, dipping to the south-west, subparallel to the overall ESE trend of stratigraphy. Several major regional thrust faults were formed including the Dawson Thrust, Tombstone Thrust, and Robert Service Thrust. This regional lineation has been overprinted by a slightly less pronounced NE-SW lineation, marked by high angle orthogonal faults suggesting the compressional regime was followed by an extensional tectonic regime.

2.2 Property Geology

The Chopin Claims are underlain by a large package of ESE trending Earn Group chert pebble conglomerate lying in contact with Road River Group siltstone and sandstone to the north (Figure 5). A pronounced ESE trending lineament, illustrated by most stream drainages, occurs across the property. These lineaments occur as brecciated pyritic fault zones within the coarse clastics, and are associated with silicification, weak argillic alteration, and local gouge zones. Abundant monzonitic float within western parts of the block suggests a buried intrusive.
<table>
<thead>
<tr>
<th>Age</th>
<th>Group</th>
<th>Formation (Lithology)</th>
<th>Geology Map Designation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-Late Cretaceous</td>
<td>Tombstone-Tungsten</td>
<td>Diorite through Granite</td>
<td>Kqm, Kg, Kdr</td>
<td>Felsic to intermediate, dioritic to granitic intrusives, most commonly monzonitic, quartz monzonitic to quartz dioritic. Frequently quartz-feldspar to feldspar porphyritic within upper emplacement levels and dykes. Tungsten Suite along Yukon - NWT border is now believed to be part of Tombstone Suite.</td>
</tr>
<tr>
<td>(95-89Ma)</td>
<td>Plutonic Suite</td>
<td>(Most commonly Quartz-Monzonite)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Devonian - Mississippian</td>
<td>Earn Group</td>
<td>Prevost Formation Shale, chert-pebble-conglomerate, chert-quartz sandstone</td>
<td>DMP, (Dme)</td>
<td>Brown weathering shale, grey - grey-brown weathering chert-pebble-conglomerate, dark grey to black chert-quartz sandstone.</td>
</tr>
<tr>
<td>Devonian - Mississippian</td>
<td>Earn Group</td>
<td>Portrait Lake Formation Shale, chert</td>
<td>Dp, (Dme)</td>
<td>Shale, chert, minor sandstone and conglomerate.</td>
</tr>
<tr>
<td>Devonian - Mississippian</td>
<td>Earn Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ordovician - Early Devonian</td>
<td>Road River Group</td>
<td>Steel Formation</td>
<td>SS (OSDr)</td>
<td>Weakly to moderately calcareous orange weathering mudstone to siltstone, often bioturbated reflecting oxygenated bottom water conditions.</td>
</tr>
<tr>
<td>Ordovician - Early Devonian</td>
<td>Road River group</td>
<td>Duo Lake Formation</td>
<td>OSD (OSDr)</td>
<td>Black siliceous shale and chert, minor limestone. Weathers black to bluish white; local tan weathering.</td>
</tr>
<tr>
<td>Ordovician - Early Devonian</td>
<td>Road River group</td>
<td>Menzies Creek Formation</td>
<td>Mv</td>
<td>Basalts, andesites; frequently porphyritic and calcareous.</td>
</tr>
</tbody>
</table>
CHAPTER 3: MINERALIZATION

3.1 Property Mineralization

Grab sampling across gouge zones returned low values to 30 ppb Au. Several silt samples taken along the southern boundary returned anomalous values to 60 ppb Au and 630 ppb Hg. A sample taken roughly one kilometre south of the property returned 670 ppb Au, 1.4 gpt Ag, and 490 ppb Hg. This is an isolated anomaly; however, elevated mercury values suggest the anomaly may be "real" rather than caused by "nugget effect", and warrants investigation.
CHAPTER 4: CONCLUSIONS

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BIBLIOGRAPHY

Department of Indian and Northern Affairs, 1995: Yukon Minfile, Frances Lake Area (Sheet 105N); Exploration and Geological Services, Whitehorse.


STATEMENT OF QUALIFICATIONS

I, Rick Diment, of the City of Whitehorse, Yukon Territory, Canada, do hereby certify that:

1) I have held the position of Senior Exploration Geologist with Viceroy Exploration (Canada), Inc, since 1996.

2) I graduated from University of British Columbia with a Bachelor of Science Degree in Geology in 1986.

3) I have been continually active in mineral exploration since 1986.

4) Although I did not supervise the field activities or have not been to the property described in this report; information was compiled from the Field Party Chief’s field notes and reports (Carl Schulze).

Rick Diment
Senior Geologist
Viceroy Exploration (Canada) Inc.
## APPENDIX I

### APPLICABLE EXPENDITURES FOR ASSESSMENT CREDITS

<table>
<thead>
<tr>
<th>Description</th>
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<tr>
<td>Labor</td>
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</tr>
<tr>
<td>Camp costs</td>
<td>90</td>
</tr>
<tr>
<td>Helicopter</td>
<td>760</td>
</tr>
<tr>
<td>Fixed Wing</td>
<td>650</td>
</tr>
<tr>
<td>Geochemical Analyses</td>
<td>140</td>
</tr>
<tr>
<td>Ground Transportation</td>
<td>140</td>
</tr>
<tr>
<td>Report Writing</td>
<td>1,350</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,665</strong></td>
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</tbody>
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APPENDIX 2

ROCK ASSAY RESULTS
<table>
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<tr>
<th>Sample</th>
<th>C complet</th>
<th>Y complet</th>
<th>Temperature</th>
<th>Zone</th>
<th>Type</th>
<th>Width (µm)</th>
<th>Pass</th>
<th>Est</th>
<th>Lithology</th>
<th>Modifier</th>
<th>Colour</th>
<th>Dark</th>
<th>Small</th>
<th>AR ABS</th>
<th>AR POT</th>
<th>AR REF</th>
<th>Lenses</th>
<th>Mineral_1</th>
<th>Mineral_2</th>
<th>Mineral_3</th>
<th>Mineral_4</th>
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<tr>
<td>P123309TR</td>
<td>147114.99</td>
<td>733192.77</td>
<td>115F</td>
<td>B</td>
<td>0</td>
<td>60</td>
<td>150</td>
<td>0.2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>5</td>
<td>0</td>
<td>200</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>7</td>
<td>0</td>
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<td>5</td>
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<td>P123309R</td>
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<td>733192.77</td>
<td>115F</td>
<td>B</td>
<td>0</td>
<td>60</td>
<td>150</td>
<td>0.2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>8</td>
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<td>200</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>P123309R</td>
<td>147114.99</td>
<td>733192.77</td>
<td>115F</td>
<td>B</td>
<td>0</td>
<td>60</td>
<td>150</td>
<td>0.2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>5</td>
<td>0</td>
<td>200</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>5</td>
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</table>

Chapin
Rock Sample Description and Assays

Page 1 of 1
APPENDIX 3

SILT ASSAY RESULTS
<table>
<thead>
<tr>
<th>Sample No</th>
<th>X Co ord</th>
<th>Y Co ord</th>
<th>Trend</th>
<th>Zone</th>
<th>Fines</th>
<th>Color</th>
<th>Date</th>
<th>Name</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>P15550X1</td>
<td>647948.851</td>
<td>790928.277</td>
<td>115F</td>
<td>8</td>
<td>70</td>
<td>gray</td>
<td>2001/08</td>
<td>SSX/ET</td>
<td>Neat Sulf, O, ssf organ.</td>
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<tr>
<td>P15550X4</td>
<td>647974.872</td>
<td>790918.331</td>
<td>115F</td>
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<td>85</td>
<td>gray</td>
<td>2001/08</td>
<td>SSX/ET</td>
<td>Neat Sulf, O, ssf organ.</td>
</tr>
<tr>
<td>P15550X7</td>
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<td>790532.610</td>
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<td>45</td>
<td>gray</td>
<td>2002/08</td>
<td>SSX/ET</td>
<td>Neat Sulf, O, ssf organ.</td>
</tr>
</tbody>
</table>

| Assay | Ag | Au | As | Ba | Be | Bi | Br | Ca | Cd | Co | Cr | Cs | Cu | Fe | Ga | Ge | Hg | K | La | Mg | Mn | Na | Nb | Ni | Pb | Pb | Sc | Se | Ti | Ti | V | W | Zn | Comments |
|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|
| 00    | 1  | 0  | 650| 0.5| 1  | 0.5| 1  | 7  | 12 | 24 | 1.88| 5  | 650| 0.2 | 8  | 0.25| 444| 8| 0.91| 37 | 710| 8  | 2  | 4  | 51 | 9  | 5  | 41 | 5  | 156 | Neat Sulf, O, ssf organ. |
| 00005X7 | 10 | 0.8| 2  | 450| 0.5 | 1  | 0.99 | 8  | 14 | 31 | 1.75| 5  | 500| 0.17| 5  | 0.3 | 175 | 1  | 8  | 10 | 156 | 10 | 2  | 4  | 51 | 9  | 5  | 41 | 5  | 156 | Neat Sulf, O, ssf organ. |
| 00005X7 | 6  | 1  | 19 | 680| 0.5 | 1  | 0.77 | 1.5 | 9  | 15 | 1.91| 6  | 512| 0.18| 5  | 0.24| 604 | 1  | 6  | 37 | 660 | 8  | 2  | 4  | 51 | 9  | 5  | 41 | 5  | 156 | Neat Sulf, O, ssf organ. |
| 00005X7 | 10 | 0.8| 8  | 680| 0.3 | 1  | 0.45 | 1.5 | 10 | 18 | 2.43| 5  | 425| 0.18| 5  | 0.26| 620 | 2  | 8  | 48 | 690 | 14 | 7  | 5  | 58 | 5  | 41 | 5  | 241 | Miller L, ssf organ. |