094050

# 1998 GEOLOGICAL and GEOCHEMICAL ASSESSMENT REPORT ON THE GATO NEGRO PROPERTY

## Quartz Claims

## Gato Negro 001-012 YC01227-01238

Dec. 15, 1999

Mayo Mining District
N.T.S. 105J/13

Latitude: 62°57' North
Longitude: 131°48' West

Owner: Viceroy Exploration (Canada), Inc.

Author: Rick Diment

Date of work: July 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 $ 4382.

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

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## SUMMARY

The Gato Negro Property, consisting of the Gato Negro 1-12 Claims located in Central Yukon on NTS sheets 105 J/13, was staked in 1998 by Viceroy Exploration (Canada), Inc.

The Gato Negro 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.

Most higher elevations on the Gato Negro property are underlain by chert to chert breccia, although talus seen from a distance may be of dyke material. A series of concentric circular features shown by drainage patterns is centred on the property, and suggests a large buried intrusive unit . The property covers a fairly widespread weakly scoroditic baritic vein and vein breccia zone about three kilometres upstream of an RGS sample returning 35 ppb Au and > 95 percentile mercury values. A circular chert breccia zone with scoroditic infilling occurs roughly two kilometres to the north-west. This occurs within a chert ridge along a NNE trending lineament, and may be caused by buckling of sediments overlying a small stock or cupola related to the intrusive. If fractionation continued throughout emplacement of the large intrusive, this may represent a highly evolved late intrusive phase, and may be a highly favourable exploration target.

During 1998 a total of 49 rock, 165 silt and 66 soil samples were collected in the vicinity of what would become the Gato Negro Claims. Applicable work for assessment included 16 rock and 1 silt sample, collected in late July, as well as geological mapping and prospecting.

Rock sampling of baritic veining and scoroditic chert returned low values to 25 ppb Au. However, two pronounced gold anomalies, with associated strongly elevated mercury and weakly elevated silver values were returned from silt sampling. One is located just east of the claim block; the other is associated with the circular breccia zone to the north-west. Silt sampling of the former returned values to 145 ppb Au, averaging 98 ppb Au, with 3.7 gpt Ag and 2092 ppb Hg, roughly 50 metres downstream of a soil sample returning 100 ppb Au, 5.8 gpt Ag and 1850 ppb Hg. Sampling of streams draining both flanks of the ridge hosting the circular anomaly returned anomalous values to 130 ppb Au, with up to 5.4 gpt Ag, 2340 ppb Hg and 6 ppm Sb; four samples returned greater than 100 ppb Au. Anomalies occur at certain elevations, particularly along the south flank, suggesting mineral zonation caused by remobilized hydrothermal fluids near the inferred stock. These two anomalies occur within an eight square kilometre area returnimg consistently weakly anomalous gold values to 30 ppb Au from silt sampling. This suggests a widespread low-grade source for gold across the area.

Exploration expenditures in 1998 amounted to $4,382.

Further exploration work should focus on determining the source of anomalous gold values in silt samples immediately east and west of the property.

# CHAPTER 1: INTRODUCTION

## 1.1 Introductory Statement

The Gato Negro Property consists of 12 contiguous quartz mining claims (Gato Negro 1-12 claims) covering a 3 square kilometre area measuring 1by 3 kilometres within NTS Sheets 105 J/13, in the Mayo Mining District (Figures 1, 3).

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

## 1.2 Location and Access

The Gato Negro Property is located 120 kilometres north-northeast of the town of Ross River, in the Yukon Territory. It is centered at 62 ° 57' North latitude, 131 ° 48' west longitude on NTS Map Sheets 105 J/13 (Figure 2).

Access is by helicopter from Fairweather Lake roughly 50 kilometres to the northwest.

## 1.3 Physiography and Vegetation

The Gato Negro Property occurs above tree line within moderate to steep terrain with limited outcrop exposure attaining elevations of 5,250 feet. Slopes are commonly covered in talus with willow in lower creek drainages.

## 1.4 Property Exploration History

The Gato Negro Property area was targeted to evaluate anomalous gold, arsenic, antimony and mercury associated with Cretaceous intrusives and Lower Paleozoic stratigraphy. The Gato Negro claims were staked to cover weakly anomalous gold values in rock and soil sampling.

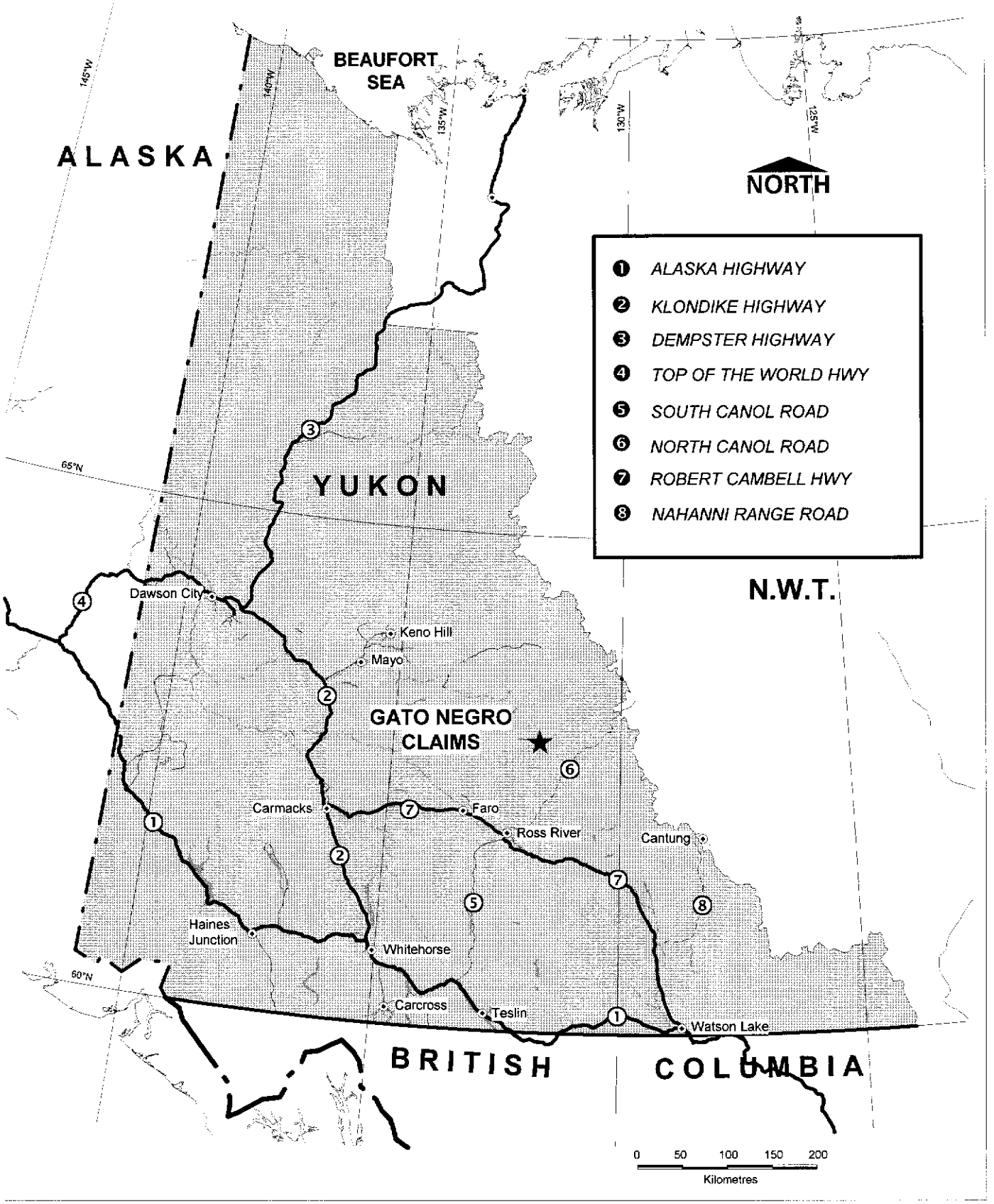
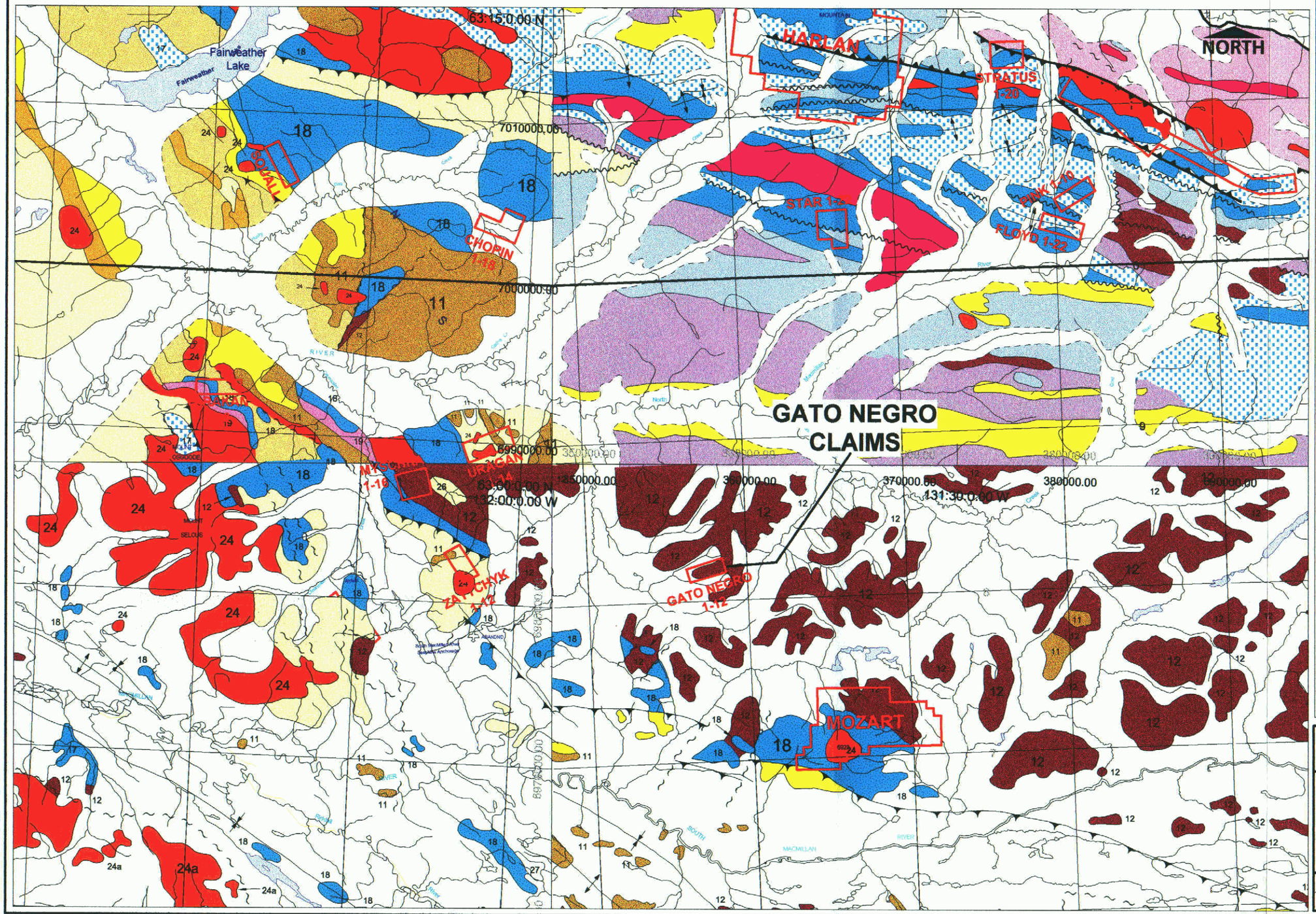



**FIGURE 1: GATO NEGRO PROPERTY GENERAL LOCATION MAP**




## GEOLOGICAL LEGEND

I: Selwyn Basin (Northeast of Tintina Trench)

MESOZOIC

Cretaceous

24 — Biotite granite, biotite quartz monzonite, syenite (predominantly Tombstone Suite)

Triassic

JONES LAKE FORMATION: Brown to grey weathering calcareous and micaceous sandstone and siltstone, siliceous shale and slate, minor limestone

PALEOZOIC

Permian

MOUNT CHRISTIE FORMATION: Green argillite siliceous siltstone, minor sandstone and dolostone with deep-orange weathering

Carboniferous to Permian

20 — Thin bedded limestone, minor black shale, chert chert pebble conglomerate

Mississippian

19 — Keno Hill quartzite: Massive quartzite, minor slate phyllite, argillaceous quartzite. Eastern units may be temporally equivalent.

Devonian to Mississippian

18 — EARN GROUP, Prevost Formation: Thin bedded to laminated, dark blue-grey to black slate, phyllite, commonly graphitic, lesser calcareous siltstone sandstone and shale

17 — Prevost Formation chert pebble conglomerate interbedded with chert-quartz arenite and greywacke, chert-quartz sandstone, blue-grey to black slate

EARN GROUP, Portrait Lake Formation and Unsubdivided: Thin bedded, siliceous black siltstone, shale and chert.

16 — Felsic metavolcanics, quartz porphyry (part of lower schist?)

Ordovician to Early Devonian

12 — ROAD RIVER GROUP, Steel Formation: Orange weathering, thin bedded, bioturbated dolomitic to grey-green mudstone to siltstone, lesser chert

ROAD RIVER GROUP; Duo Formation and Unsubdivided: Thin to medium bedded, light grey to black chert, black shale, often graphitic

RABBITKETTLE FORMATION

Basalt, tuff, tuff breccia

11 — Limestone and dolomite, minor black platy argillaceous limestone and dolomite

Early to Mid-Cambrian

GULL LAKE FORMATION: Dark grey to black siliceous siltstone

SEKWI FORMATION: Limestone, silty limestone, local limestone slope breccia, minor siltstone and black shale

PROTEROZOIC

Late Hadrynian to Early Cambrian

HYLAND GROUP, Narchilla Formation: Argillite, dark grey, green to maroon shale and phullite, minor argillaceous limestone and chert pebble conglomerate and "grit" unit

Late Hadrynian

YUSEZYU FORMATION: Grey to dark grey limestone, minor arenaceous limestone, dark quartzite, calcareous quartzite, minor argillaceous limestone

YUSEZYU FORMATION: Argillite, maroon and green thin bedded, also thick bedded quartzite, calcareous quartzite, minor argillaceous limestone

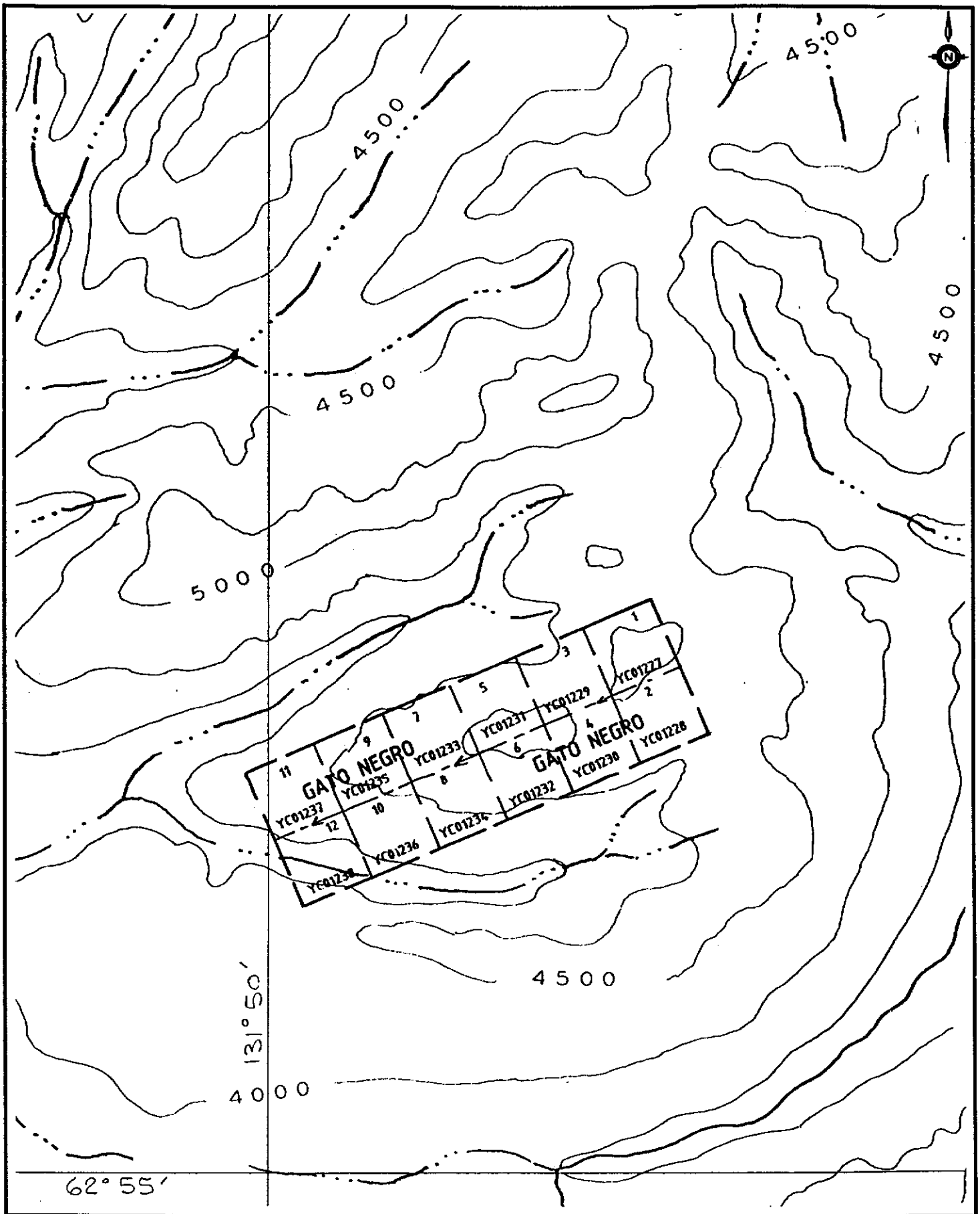
**VICEROY EXPLORATION (CANADA), INC.**

# GATO NEGRO PROPERTY
## REGIONAL GEOLOGIC SETTING

0 5 10
Kilometres

| | | |
|---|---|---|
| DRAWN BY: | DATE: June 99 | NTS: 105J/13 |
| | SCALE: 1:250,000 | FIGURE NO: 2 |

094050




0 2500 5000 ft.

0 1000 m

Scale 1 inch = 0.5 mile or 1:31,680

Date: May 99 NTS: 105J/13

VICEROY EXPLORATION (CANADA), INC.

**GATO NEGRO PROPERTY**
**CLAIM MAP**

Fig. 3

Table 1 below lists detailed claim status, including assessment status and expiry dates following the 1998 filing.

**Table 1. Status of Gato Negro Property claims after 1998 filing**

| *Claim Name* | *Grant No.* | *Owner* | *New expiry date* | *Work completed By* |
|---|---|---|---|---|
| Gato Negro 001-004 | YC01227-230 | Viceroy Exploration (Canada), Inc. | July 7, 2002 | Viceroy |
| Gato Negro 011- 012 | YC01237-238 | | July 7, 2002 | |
| Gato Negro 005-010 | YC01231-236 | | July 7, 2003 | |

### 1.5 Work Program

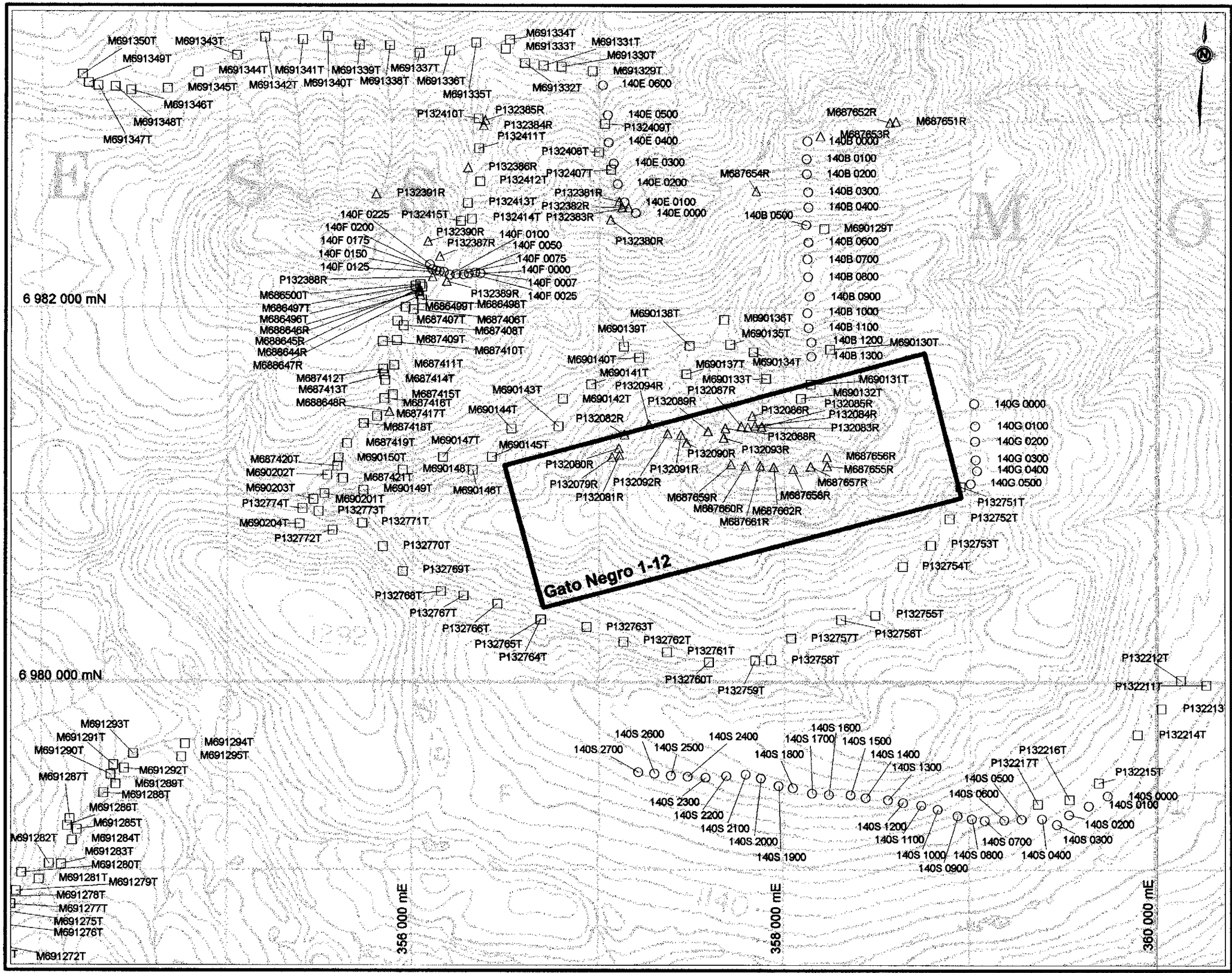
During 1998 a total of 49 rock, 165 silt and 66 soil samples were collected in the vicinity of what would become the Gato Negro Claims. Applicable work for assessment included 16 rock and 1 silt sample, collected in late July, as well as geological mapping and prospecting. All sample locations for 1998 are shown on Figure 4 and Plate 1. 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 Serguei Soloviev, Geologist and field assistant M. Mason.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M691281T
M691279T
M691278T
M691277T
M691275T
M691276T
M691272T
Gato Negro 1-12
6 982 000 mN
6 980 000 mN
358 000 mE
358 000 mE
360 000 mE
N
LEGEND
Silt sample
Soil sample
Rock sample
0
1 km
VICEROY EXPLORATION (CANADA), INC.
GATO NEGRO PROPERTY
(Target 140)
(YUKON REGIONAL PROJECT)
SAMPLE NUMBER MAP
DRAWN BY: CS, TL
DATE: June.99
NTS: 105J/13
UTM, NAD27, ZONE 9
SCALE: 1:20,000
FIGURE NO: 4

# CHAPTER 2: GEOLOGY

## 2.1 Regional Geology

The Gato Negro 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

Most higher elevations are underlain by chert to chert breccia, although talus seen from a distance may be of dyke material. A series of concentric circular features shown by drainage patterns is centred on the property, and suggests a large buried intrusive unit (Plate 1). The property covers a fairly widespread weakly scoroditic baritic vein and vein breccia zone about three kilometres upstream of an RGS sample returning 35 ppb Au and > 95 percentile mercury values. A circular chert breccia zone with scoroditic infilling occurs roughly two kilometres to the north-west. This occurs within a chert ridge along a NNE trending lineament, and may be caused by buckling of sediments overlying a small stock or cupola related to the intrusive. If fractionation continued throughout emplacement of the large intrusive, this may represent a highly evolved late intrusive phase, and may be a highly favourable exploration target.

## TABLE 2: STRATIGRAPHIC COLUMN, GATO NEGRO PROPERTY

| Age | Group | Formation (Lithology) | Geology Map Designation | Description |
|---|---|---|---|---|
| | | | | |
| Mid-Late Cretaceous (95-89Ma) | Tombstone-Tungsten Plutonic Suite | Diorite through Granite (Most commonly Quartz-Monzonite) | Kqm, Kg, Kdr | 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. |
| Devonian - Mississippian | Earn Group | **Prevost Formation** Shale, chert-pebble-conglomerate, chert-quartz sandstone | DMp, (Dme) | Brown weathering shale, grey - grey-brown weathering chert-pebble-conglomerate, dark grey to black chert-quartz sandstone. |
| Devonian - Mississippian | Earn Group | **Portrait Lake Formation** Shale, chert | Dp, (Dme) | Shale, chert, minor sandstone and conglomerate. |
| Ordovician - Early Devonian | Road River Group | **Steel Formation** | SS (OSDr) | Weakly to moderately calcareous orange weathering mudstone to siltstone, often bioturbated reflecting oxygenated bottom water conditions. |
| Ordovician - Early Devonian | Road River group | **Duo Lake Formation** | OSD (OSDr) | Black siliceous shale and chert, minor limestone. Weathers black to bluish white; local tan weathering. |
| Ordovician - Early Devonian | Road River group | **Menzies Creek Formation** | Mv | Basalts, andesites; frequently porphyritic and calcareous. |

# CHAPTER 3: MINERALIZATION

## 3.1 Property Mineralization

Rock sampling of baritic veining and scoroditic chert returned low values to 25 ppb Au. However, two pronounced gold anomalies, with associated strongly elevated mercury and weakly elevated silver values were returned from silt sampling. One is located just east of the claim block; the other is associated with the circular breccia zone to the north-west. Silt sampling of the former returned values to 145 ppb Au, averaging 98 ppb Au, with 3.7 gpt Ag and 2092 ppb Hg, roughly 50 metres downstream of a soil sample returning 100 ppb Au, 5.8 gpt Ag and 1850 ppb Hg. Sampling of streams draining both flanks of the ridge hosting the circular anomaly returned anomalous values to 130 ppb Au, with up to 5.4 gpt Ag, 2340 ppb Hg and 6 ppm Sb; four samples returned greater than 100 ppb Au. Anomalies occur at certain elevations, particularly along the south flank, suggesting mineral zonation caused by remobilized hydrothermal fluids near the inferred stock. These two anomalies occur within an eight square kilometre area returmimg consistently weakly anomalous gold values to 30 ppb Au from silt sampling. This suggests a widespread low-grade source for gold across the area.

# CHAPTER 4: CONCLUSIONS

The Gato Negro Property, consisting of the Gato Negro 1-12 Claims located in Central Yukon on NTS sheets 105 J/13, was staked in 1998 by Viceroy Exploration (Canada), Inc.

The Gato Negro 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.

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Exploration expenditures in 1998 amounted to $4,382.

# CHAPTER 5: RECOMMENDATIONS

Further exploration work should focus on determining the source of anomalous gold values in silt samples immediately east and west of the property.

## BIBLIOGRAPHY

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

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Roots, C.F. Abbott, J.G. Cecile, M.P. Gordey, S.P. 1995: Bedrock Geology of Lansing Range Map Area (105N), East Half, Hess Mountains, Yukon; Exploration and Geological Services, Yukon Region, and Indian and Northern Affairs Canada.

Schulze, C, 1997: Yukon Regional Project, 1997 Progress Report; In-house Report, Viceroy Exploration (Canada), Inc.

## 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 1

## APPLICABLE EXPENDITURES FOR ASSESSMENT CREDITS

| Gato Negro Property Expenditures | |
|---|---|
| **Description** | **Expenditure** |
| Labor | $450 |
| Camp costs | 120 |
| Helicopter | 1,382 |
| Fixed Wing | 650 |
| Geochemical Analyses | 340 |
| Ground Transportation | 140 |
| Report Writing | 1,300 |
| **Total** | **$4,382** |

# APPENDIX 2

## ROCK ASSAY RESULTS

# Gato Negro
## Rock Sample Description and Assays

| Sample | X_Coord | Y_Coord | Z_Coord | Traverse | Zone | Type | Width_m | Desc | Fm | Lithology | Modifier | Colour | Carb | Silicif | Alt_ARG | Alt_POT | Alt_PHY | Limonite | Mineral_1 | M1_Amt | Mineral_2 | M2_Amt | Mineral_3 | M3_Amt | Date | Name |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P132079R | 357078.8 | 6981197 | | 140G | 9 | cg | | Rb | OSDr | CH | brec | yl | C1 | S2 | A3 | | | wk | Scor | 5 | | | | | 07/29/98 | SS |
| P132080R | 357116.3 | 6981246 | | 140G | 9 | cg | | Rb | OSDr | CH | brec | yl | C1 | S2 | A3 | | | wk | Scor | 5 | | | | | 07/29/98 | SS |
| P132081R | 357119.5 | 6981207 | | 140G | 9 | g | | Rb | OSDr | CH | brec | mgy | | S2 | A3 | | | wk | Scor | 2 | | | | | 07/29/98 | SS |
| P132082R | 357145.8 | 6981317 | | 140G | 9 | g | | Tf | OSDr | CH | brec | wh | | S3 | A2 | | | wk | Scor | 1 | | | | | 07/29/98 | SS |
| P132083R | 357809.4 | 6981358 | | 140G | 9 | g | | Rb | OSDr | CH | brec | yl | C1 | S2 | A3 | | | mod | Scor | 5 | | | | | 07/29/98 | SS |
| P132084R | 357849.1 | 6981367 | | 140G | 9 | g | | Tf | OSDr | CH | brec | yl | C1 | S2 | A3 | | | mod | Scor | 5 | | | | | 07/29/98 | SS |
| P132085R | 357885.8 | 6981360 | | 140G | 9 | g | | Rb | OSDr | SLT | frac | mgy | | S1 | A2 | | | wk | Scor | 5 | | | | | 07/29/98 | SS |
| P132086R | 357833.7 | 6981419 | | 140G | 9 | g | | Rb | OSDr | SH | frac | dgry | | S1 | A1 | | | wk | Scor | 5 | | | | | 07/29/98 | SS |
| P132087R | 357774.8 | 6981364 | | 140G | 9 | g | | Rb | OSDr | CH | brec | tan | C1 | S2 | A3 | | | strg | Scor | 10 | | | | | 07/29/98 | SS |
| P132088R | 357687.3 | 6981352 | | 140G | 9 | g | | Tf | OSDr | SH | bded | dgry | | S1 | A1 | | | mod | Scor | 10 | | | | | 07/29/98 | SS |
| P132089R | 357595.7 | 6981337 | | 140G | 9 | g | | Tf | OSDr | CH | brec | gm | | S1 | A2 | | | mod | Scor | 10 | | | | | 07/29/98 | SS |
| P132090R | 357479.8 | 6981273 | | 140G | 9 | g | | Rb | OSDr | CH | brec | gm | | S1 | A2 | | | wk | Scor | 10 | | | | | 07/29/98 | SS |
| P132091R | 357450.1 | 6981318 | | 140G | 9 | g | | Tf | OSDr | CH | brec | wh | | S2 | A2 | | | wk | | | | | | | 07/29/98 | SS |
| P132092R | 357378.8 | 6981325 | | 140G | 9 | cg | | Tf | OSDr | CH | brec | gm | | S1 | A1 | | | wk | Scor | 10 | | | | | 07/29/98 | SS |
| P132093R | 357680 | 6981300 | | 140G | 9 | g | | Rb | OSDr | CH | brec | yl | C1 | S2 | A3 | | | mod | Scor | 5 | | | | | 07/29/98 | SS |
| P132094R | 357278.8 | 6981373 | | 140G | 9 | g | | Rb | OSDr | CH | brec | yl | C1 | S2 | A3 | | | wk | Scor | 8 | | | | | 07/29/98 | SS |

## Gato Negro
## Rock Sample Description and Assays

| asamp | Au | Ag | Al | As | Ba | Be | Bi | Ca | Cd | Co | Cr | Cu | Fe | Ga | Hg | K | La | Mg | Mn | Mo | Na | Ni | P | Pb | Sb | Sc | Sr | Ti | Tl | U | V | W | Zn | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P132079R | 10 | 0.1 | 0.79 | 22 | 390 | 0.2 | 1 | 0.07 | 0.2 | 0 | 164 | 25 | 3.01 | 0 | 340 | 0.58 | 0 | 0.04 | 45 | 5 | 0 | 3 | 2320 | 6 | 4 | 7 | 485 | 0 | 0 | 0 | 91 | 0 | 10 | Probably, small fault zone |
| P132080R | 5 | 0.6 | 0.77 | 20 | 800 | 0.2 | 1 | 0.01 | 0.2 | 0 | 123 | 43 | 3.01 | 0 | 280 | 0.53 | 0 | 0.06 | 5 | 3 | 0 | 4 | 1280 | 10 | 2 | 6 | 180 | 0 | 0 | 0 | 98 | 0 | 6 | Probably, small fault zone |
| P132081R | 10 | 0.6 | 0.73 | 134 | 660 | 0.2 | 1 | 0.01 | 0.2 | 0 | 229 | 353 | 12.05 | 10 | 1700 | 0.44 | 0 | 0.04 | 5 | 21 | 0 | 4 | 2030 | 2 | 12 | 11 | 83 | 0 | 0 | 0 | 521 | 0 | 16 | Probably, small fault zone |
| P132082R | 2 | 0.1 | 0.28 | 6 | 750 | 0.2 | 1 | 0.01 | 0.2 | 0 | 183 | 24 | 1.12 | 0 | 50 | 0.1 | 0 | 0.01 | 25 | 2 | 0 | 1 | 450 | 6 | 1 | 1 | 46 | 0 | 0 | 0 | 34 | 0 | 2 | Probably, small fault zone |
| P132083R | 10 | 0.2 | 0.99 | 56 | 830 | 0.2 | 1 | 0.04 | 0.2 | 0 | 280 | 67 | 4.02 | 10 | 400 | 0.38 | 0 | 0.04 | 10 | 8 | 0 | 9 | 1800 | 6 | 4 | 4 | 179 | 0 | 0 | 0 | 251 | 0 | 12 | Probably, small fault zone |
| P132084R | 2 | 0.1 | 1.1 | 62 | 140 | 0.2 | 1 | 0.09 | 0.2 | 0 | 213 | 42 | 5.79 | 10 | 290 | 0.89 | 10 | 0.02 | 10 | 6 | 0 | 19 | 3570 | 1 | 6 | 6 | 619 | 0 | 0 | 0 | 164 | 0 | 14 | Probably, small fault zone |
| P132085R | 10 | 0.8 | 1.23 | 50 | 920 | 0.5 | 1 | 0.05 | 0.2 | 0 | 165 | 47 | 2.45 | 10 | 630 | 0.51 | 0 | 0.06 | 15 | 5 | 0 | 16 | 1450 | 10 | 4 | 5 | 229 | 0 | 0 | 0 | 148 | 0 | 14 | Scor spots and veinlets |
| P132086R | 25 | 4.8 | 0.3 | 1 | 520 | 0.2 | 1 | 0 | 0.2 | 0 | 186 | 15 | 1.74 | 0 | 1630 | 0.36 | 0 | 0.02 | 10 | 5 | 0 | 9 | 240 | 8 | 1 | 1 | 29 | 0 | 0 | 0 | 48 | 0 | 2 | Scor along fractures |
| P132087R | 2 | 0.1 | 0.48 | 16 | 180 | 0.2 | 1 | 0.01 | 0.2 | 0 | 212 | 143 | 8.36 | 10 | 210 | 0.52 | 0 | 0.04 | 20 | 1 | 0 | 1 | 3180 | 2 | 2 | 9 | 93 | 0 | 0 | 0 | 340 | 0 | 8 | Probably, along fault zone, barite 10% |
| P132088R | 25 | 4.8 | 0.28 | 102 | 190 | 0.2 | 1 | 0 | 0.2 | 0 | 212 | 50 | 4.83 | 0 | 1250 | 0.69 | 0 | 0.02 | 5 | 20 | 0 | 9 | 1250 | 4 | 10 | 7 | 158 | 0 | 0 | 0 | 237 | 0 | 6 | Scor along bedding |
| P132089R | 10 | 3.6 | 0.38 | 154 | 140 | 0.2 | 1 | 0 | 0.2 | 0 | 174 | 62 | 6.57 | 0 | 830 | 0.84 | 0 | 0.04 | 5 | 15 | 0 | 7 | 2200 | 8 | 8 | 29 | 88 | 0 | 0 | 0 | 227 | 0 | 10 | Fault zone |
| P132090R | 5 | 0.8 | 0.57 | 10 | 540 | 0.2 | 1 | 0.02 | 0.2 | 0 | 162 | 20 | 1.69 | 0 | 420 | 0.33 | 0 | 0.03 | 5 | 1 | 0 | 3 | 910 | 10 | 1 | 5 | 134 | 0 | 0 | 0 | 71 | 0 | 2 | Fault zone |
| P132091R | 2 | 0.1 | 0.2 | 1 | 920 | 0.2 | 1 | 0 | 0.2 | 0 | 75 | 7 | 1.17 | 0 | 160 | 0.18 | 0 | 0.01 | 5 | 1 | 0 | 1 | 220 | 6 | 1 | 0 | 18 | 0 | 0 | 0 | 21 | 0 | 1 | Fault zone |
| P132092R | 15 | 3.4 | 0.27 | 74 | 130 | 0.2 | 1 | 0 | 0.2 | 0 | 140 | 20 | 4.8 | 0 | 550 | 0.74 | 0 | 0.01 | 5 | 18 | 0 | 6 | 4120 | 18 | 8 | 44 | 110 | 0 | 0 | 0 | 129 | 0 | 2 | Fault zone |
| P132093R | 2 | 0.1 | 0.44 | 14 | 190 | 0.2 | 1 | 0.02 | 0.2 | 0 | 175 | 53 | 3.53 | 0 | 210 | 0.61 | 0 | 0.02 | 20 | 2 | 0 | 3 | 1020 | 6 | 1 | 7 | 55 | 0 | 0 | 0 | 68 | 0 | 2 | Fault zone |
| P132094R | 2 | 0.1 | 0.42 | 14 | 350 | 0.2 | 1 | 0.02 | 0.2 | 0 | 154 | 27 | 2.23 | 0 | 170 | 0.36 | 0 | 0.03 | 5 | 2 | 0 | 3 | 850 | 6 | 1 | 5 | 115 | 0 | 0 | 0 | 56 | 0 | 2 | Fault zone |

# APPENDIX 3

## SILT ASSAY RESULTS

# Gato Negro
## Silt Sample Description and Assay

| Sample_No | X_Coord | Y_Coord | Z_Coord | Traverse | Zone | Fines | Colour | Date | Name | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P132751T | 358956 | 6981039 | | 140G | 9 | 70 | gry | 29-Jul-88 | M.M. | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Au | Ag | Al | As | Ba | Be | Bi | Ca | Cd | Co | Cr | Cu | Fe | Ga | Hg | K | La | Mg | Mn | Mo | Na | Ni | P | Pb | Sb | Sc | Sr | Tl | Tl | U | V | W | Zn | Comments |
| 55 | 4 | 1.21 | 1 | 450 | 0.2 | 1 | 0.23 | 1.5 | 4 | 32 | 56 | 1.56 | 5 | 1370 | 0.13 | 5 | 0.08 | 320 | 7 | 0.02 | 56 | 1640 | 14 | 1 | 1 | 76 | 0 | 5 | 5 | 65 | 5 | 98 | Main/Good |

6 984 000 mN
6 983 000 mN
6 982 000 mN
6 981 000 mN
6 980 000 mN
6 979 000 mN
6 978 000 mN
6 977 000 mN

353 000 mE
354 000 mE
355 000 mE
357 000 mE
358 000 mE
359 000 mE
360 000 mE
361 000 mE

SLT
CH
SLT
CH
SH, SLT
CH
Abnt Ferricrete
Possible explosive CH breccia, scorodite
sil. zone
Qz-Ba veining, Oxidation, wk scor
Gato Negro 1-12
Proposed Staking

9 RGS
15 RGS
35 RGS
6 RGS
35 RGS
6 RGS
11 RGS

140E
140J
140B
140F
140G
140C
140S

## GEOLOGICAL LEGEND

Ordovician to Devonian: Road River Group

- OSDr - Siltstone(SLT) - Steel Formation
- OSDr - Chert(CH), minor shale(SH), siltstone(SLT)
- OSDr - Shale(SH), siltstone(SLT), minor chert
- "Circular feature", suggested by topography
- Geological Contact
- Limit of alteration
- Strike and dip of bedding
- Strike and dip of foliation
- Fault

## GEOCHEMISTRY LEGEND

Soil samples
- < 20 ppb Au (63)
- 20 to 50 ppb Au (2)
- 50 to 100 ppb Au (0)
- 100 to 250 ppb Au (1)
- 250 to 500 ppb Au (0)
- >= 500 (0)

Silt samples
- < 15 ppb Au (97)
- 15 to 35 ppb Au (46)
- 35 to 50 ppb Au (2)
- 50 to 100 ppb Au (8)
- >= 100 ppb Au (7)

Rock samples
- < 20 ppb Au (45)
- 20 to 100 ppb Au (4)
- 100 to 500 ppb Au (0)
- 500 to 1000 ppb Au (0)
- >= 1000 ppb Au (0)

RGS Stream sediment sample Au in ppb (-1 = element not analysed)

Map Datum : UTM Zone 9 (NAD27)

0 0.5 1
Kilometres
Scale: 1:10,000

VICEROY EXPLORATION (CANADA), INC.

# GATO NEGRO PROPERTY (Target 140)

## COMPILATION & GOLD GEOCHEMISTRY

094050

| | | | |
|---|---|---|---|
| DRAWN BY: CS,TL,AF | DATE: Dec. 1998 | NTS: 105J/13 |
| REVISION: | SCALE: 1:10,000 | PLATE NO: |