LOG NO: [MAR 2 9 1995 U ACTION: INTERNATIONAL BLACK GOLD PESOURCES INC. GEOLOGICAL & GEOCHEMICAL ASSESSMENT REPORT on the TAURUS CLAIMS 48 57 30" 124 22 30" N.T.S. 092C16W Victoria M.D. GEOLOGICAL BRANCH ASSESSMENT REPORT 25 Laurence Sookochoff, P.Eng. March 07, 1995 Sookochoff Consultants Inc. Vancouver, B.C. Sookochoff Consultants Inc.\_

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# Geological and Geochemical Assessment Report

on the

Taurus Claims

### Table of Contents

page

Introduction Property Location and Access Water and Power Physiography History Geology Mineralization 1994 Exploration of the Taurus Claims Geochemical Survey Conclusions Selected References	1 2 3 3 4 5 5 9 10 11
Selected References Certificate Statement of Costs	11 12 13

#### Illustrations

page

Fig.	1	Claims Location, Index and Claim Map	2
-	2	Tegional Geology	4
	3	Lineaments on the Taurus II Claim	6
	4	Rose Diagram: Taurus II Claim	7
	5	Lineaments on the Taurus Claim	8
	6	Rose Diagram: Taurus Claim	8
	7	Geochemical Survey: Taurus II Claim	9

## Appendices

I Assay Certificate

International Black Gold Resources Inc.

Geological and Geochemical Assessment Report

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Taurus Claims

#### Introduction

A limited geochemical survey on one Claim and lineament array analyses on both Claims of the Taurus property were completed from July 28, 1994 to March 04, 1995. The purpose of the lineament array analysis was to assist in the interpretation of exploration data on the Claims in relation to the structure.

Information for this report was obtained from sources as cited under the Selected Reference section of this report, from work completed on the Taurus Claims by the writer.

#### Property

Two non-contiguous grid unit mineral claims comprise the Taurus Claims. Particulars are as follows.

<u>Claim Name</u>	<u>Units</u>	<u>Tenure No.</u>	Expiry Date*
Taurus	12	260881	March 04, 1996
Taurus II	<b>18</b> ·	261091	November 30, 1996

\*On the approval of one year's assessment work applied to each of the Claims on November 29, 1994 and March 06, 1995 for which this report forms a part thereof.

#### Location and Access

The Claims are located 25 kilometres northeast of Lake Cowichan on Vancouver Island. The Taurus II mineral claim is five kilometres north of Cowichan Lake, between Shaw Creek to the west and McKay Creek to the east and covering Mount Buttle. The Taurus mineral claim is within four kilometres west of the Taurus II on Shaw Creek.



Figure 1. Claims Location, Index & Claim Map\*. Taurus & Taurus II Mineral Claims.

\*Ministry of Energy, Mines and Petroleum Resources Mineral Titles Reference Map 092C16W

Both the Claims are accessible from the Shaw Creek road which branches off the main Lake Cowichan-Youbou paved and gravelled road 25 kilometres northwest of Lake Cowichan. The Taurus is within five kilometres from the main junction and the Taurus II is some four kilometres further east along the same road. Continuing along the road for some five kilometres southerly, the main road is intersected approximately one kilometre southeast of the originating Shaw Creek road junction.

#### Water and Power

A plentiful water supply for all phases of the exploration and development program on the Taurus Claims could be available from Shaw Creek and/or McKay Creek and/or their tributaries which occur within, or peripheral to, the Claims.

Snow and freezing temperatures at the upper elevations of the Claims may occur for up to four months of the year thus limiting access and water.

Diesel-electric power would be required in the initial stages of the Property development.

#### Physiography

The Claims cover typically rugged topography with steep slopes and local rock bluffs. Elevations range from 300m in the valleys to greater than 800m on the Taurus claim and from 600m to 1380m at the summit of Mount Buttle on the Taurus II claim.

#### History

Numerous mineral showings have been located in the Taurus claim area since the turn of the 20th century. The discoveries include the Delphi Group, two kilometres north of Taurus II, the Allies Group, having been explored for copper and molybdenum since the early 1900's, and the Close Group having been explored for molybdenum in 1978.

The more significant discoveries of the general area include the Lara deposit near Duncan and the Debbie deposit at Mineral Creek southeast of Port Alberni.

The Taurus Claims were explored in 1987 and 1988 by International Black Gold Resources Inc. The work included line cutting and soil sampling in 1987 with airborne magnetometer, VLF-EM surveys, prospecting and geological reconnaissance completed in 1988.

The exploration on the Taurus resulted in the delineation of five soil geochem gold anomalies. The highest gold value of 350 ppb is reported to correlate with a gossan zone and could reflect a mineralized area associated with a major fault along Shaw Creek. Four of the gold anomalies are reportedly closely coincident with magnetic lows which are probably associated with alteration zones.

The limited soil geochem on the Taurus II reportedly failed to detect any anomaly. Three airborne VLF-EM anomalies were delineated. Two of the anomalies are coincident with magnetic lows and one is partly coincidental with the boundary between the Myra Formation and the Sicker Group and the granodiorite of the Island Intrusions.

#### Geology

The Taurus and the Taurus II claims occur within a wide, northwesterly trending arcuate belt of Sicker Group rocks extending from Duncan in the south for 160 kilometres beyond Port Alberni in the north. An outlier of Sicker rocks northwest of Port Alberni and at Buttle Lake, hosts the Myra, Lynx and H-W Westmin volcanogenic, massive sulphide deposits.

The Taurus is underlain by the Lower Devonian and older Myra and Nitinat Formations of the Sicker Group with the Taurus II being underlain by the Myra Formation and Jurassic granodiorite.



Figure 2. Regional Geology showing the location of the Taurus Property in relation to the producing Westmin Resources mine and the regional structures. (After Verzosa, 1989)

The Nitinat Formation of the Sicker Group consists of commonly agglomeratic basalts containing pyroxene phenocrysts and quartz amygdules. The Formation includes local interbeds of layered to massive dark colored tuff. The Myra Formation of the Sicker Group overlies the Nitinat and consists of well-bedded, mainly light colored silicic tuff and breccia interbedded with black argillite and some greywacke.

On Mount Buttle, granodiorite of the Island Intrusions is in contact with both the Myra and the Nitinat Formations. The dominant structural trend is northwesterly with generally steep dips, consistent with the existence of numerous faults in the area.

#### Mineralization

Verzosa (1989) reports that the mineralization on the Taurus Claims consists primarily of pyrite, minor chalcopyrite and rare galena occurring either in narrow veins or in shear zones. The shear zones trend north-northwest and dip almost vertical. They are commonly highly silicified and invariably show quartz and calcite veining. Where they carry significant amounts of pyrite, they show up as gossanous zones. On the Taurus claim, a gossan zone coincides with a gold soil anomaly of 350 ppb.

Six of 23 workings, on the north slopes of Mount Buttle, described by Stevenson (1940) are located within the boundaries of the Taurus II claim. Samples taken by Verzosa (1989) from mineralized quartz veins described by Stevenson (1940) returned assays of trace to 0.4% molybdenite. Samples taken from a shear zone located on the Taurus II near the summit of Mount Buttle by Gunnex employees in 1964, returned assays of 0.02% Mo to 0.93% Mo and only trace of Au and Ag.

#### 1994 Exploration of the Taurus Claims

A lineament array analysis of the each of the two Taurus Claims was completed. The purpose of the analysis was that, commonly, lineaments represent the trends of fault zones or the trends of the major, or the minor, structures and that knowledge of the structural pattern could be important in interpreting the significance of exploration results.

Air photographs 30BC84026 No.228 & 229 at a mean scale of approximately 1:20,000 were utilized for the lineament array analysis of the Taurus II claim and air photographs 30BC84026 No.054 & 055 at a mean scale of approximately 1:21,600 were utilized for the lineament array analysis of the Taurus claim. The analysis was accomplished by a stereographic projection viewing of the air photographs and marking the lineaments on an overlay.

On the Taurus II, 89 lineaments were observed and marked, compiled into a 5° class interval and plotted on a rose diagram as indicated on the accompanying Figure 3.



Figure 3. Lineaments on the Taurus II claim as determined from air photographs.

From the Rose Diagram Analysis of the Taurus II claim lineaments, one predominant structural trend is indicated at 030° to 060° which correlates with the general direction of the airborne VLF-EM anomalies axes as reported by Verzosa (1989). The gossan zones, which reflect a significant amount of pyrite in shear zones, trend north-northwest and dip almost vertically (Verzosa, 1989). However, these gossan zones could be related to the major, as expressed in continuity, but limited, as expressed in amount, structures indicated as lineaments on the air photos.



Figure 4. Rose diagram analysis of the lineaments on the Taurus II claim as indicated on Figure 3.

On the Taurus, 54 lineaments were observed and marked, as indicated on Figure 5, compiled into a 05° class interval and plotted on a rose diagram as indicated on the accompanying Figure 6.

In the Rose Diagram Analysis of the Taurus claim plots, the predominant structures are indicated of a minor degree and occur as generally north-south with complementary structures of medium degree at 030°. Major topographically indicated structures trend at 145°. This structural pattern would conform to structures resulting from a principal northwesterly stress direction.

The general east-west structures may reflect the tensional crestal anticlinal structures related to the northerly trending Cowichan Uplift.



#### Geochemical Survey

9 -

In the geochem survey on the Taurus II claim, 17 soil samples were taken along a road in the area of a gossan zone as indicated on the accompanying map (Base map: Verzosa, 1989). The samples were taken at 50 metre intervals from the "B" horizon of the grayish-brown forest soil from a depth of approximately 18 centimetres. The soil was placed in manila bags with the location reference marked thereon.

The samples were submitted to Acme Laboratories of Vancouver for five element (Pb; Zn; Ag; As; Au) ICP analysis. The analysis method was as follows: a .500 gram sample is digested with 3ml 3-1-2 HCl-HNO3-H2O at 95 deg. for one hour and is diluted to 10 ml with water. The ICP results for Au and Zn are indicated on Figure 7. with the results for Ag, As and Au shown on the Geochemical Assay Certificate included herein as Appendix I.



or Zn anomalous values, the soil would have been analyzed for gold values in parts per billion. (Former soil geochemical results on the Taurus claim indicate anomalous values in Pb and Zn are closely coincident with three of the the gold anomalies.)

#### Conclusions

The Taurus II lineament array analysis indicated that the gossan zones may be related to one of the more significant structural directions with the axes of airborne VLF-EM anomalies correlating to the principal northeasterly indicated structural trend. The intersection of these two major structures would be a prime exploration area. Such areas are indicated in the northwest and the central west of the Taurus II claim.

The initial indication is that soil geochemistry is not a beneficial exploration method on the Taurus II claim. However, the method should be tested in known areas of mineralization to determine the most indicative elements for gold mineralization.

The north and northwest trend to the five reported gold anomalies on the Taurus claim would conform to the major structural trend and thus are considered significant in this respect.

Vancouver, B.C. March 07, 1995

. Sookochoff Consultants Inc.

Respectfully submitted

Sookochoff Consultants Inc.

Laurence Sockochoff, P.Eng.

#### Selected References

- 11 -

MARSHAK, S. et al - Basic Methods of Structural Geology. Prentice Hall, 1988.

VERZOSA, R.S. - Preliminary Evaluation of the Taurus Property of International Black Gold Resources Inc., July, 1989.

- 12 -
Certificate
I, Laurence Sookochoff, of the city of Vancouver, in the
Province of British Columbia, do hereby certify:
That I am a Consulting Geologist with Sookochoff Consultants
Inc. with offices at 1027-510 West Hastings Street,
Vancouver, B.C. V6B 1L8
T further contifu that
1 Iurther certify that:
1. I am a graduate of the University of British Columbia
(1966) and hold a B.Sc. degree in Geology.
2. I have been practising my profession for the past
twenty-eight years.
2 The registered with the Represention of Declarational
3. I am registered with the Association of Professional Engineers and Geoggientists of British Columbia
Engineers and Geosciencists of British Columbia.
4. Information for the accompanying report was obtained
from sources as cited under Selected References and from
work done by the writer on the Taurus Claims from July
28, 1994 to March 02, 1995.
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March 07, 1995
Vancouver, B.C.
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# - 13 -International Black Gold Resources Inc. Taurus Claims Statement of Costs The field work on the Pacific Claim Group was carried out from July 28, 1994 to March 02, 1995 to the value as follows: Geochemical Laurence Sookochoff, PEng \$ 400.00 1 day @ \$400. Car rental: 175.00 2 days @ \$50.00 plus gas & km Room & board: 2 man days @ \$100.00 200.00 50.00 Field supplies Data compilation & draughting 150.00 \$ 975.00 Geological: Lineament Analysis 1,500.00 Taurus II claim Taurus claim 1,500.00 3,000.00 Geological & Geochemical Report, xerox, printing 750.00 \$ 4,725.00 \_\_\_\_\_\_ \_Sookochoff Consultants Inc.\_

# Appendix I

# ASSAY CERTIFICATES

ACME ANALYTICAL LABORATORIES LTD.	852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 GEOCHEMICAL ANALYSIS CERTIFICATE						PHONE(604)253-3158 F	AA (604)253-1716
TT <u>Bookochoff</u>	off Consultants Inc. PROJECT TAURUS File # 95-0610							
	SAMPLE#	Pb ppm	Zn ppm	Ag ppm	As ppm	Au ppm		
	T-1 T-2 T-3 T-4 T-5	<3 <3 <3 <3 <3 <4	44 57 54 54 46	<.3 <.3 .3 .3 <.3	3 9 9 6 <2	<1 <1 <1 <1 <1		
	T-6 T-7 RE T-7 T-8 T-9	<3 <3 <3 <3 4	49 52 53 50 47	<.3 .3 <.3 <.3 <.3	2 5 4 2 6	<1 <1 <1 <1 <1		
	T-10 T-11 T-12 T-13 T-14	6 4 <3 <3 <3	53 50 53 45 49	<.3 <.3 <.3 <.3 <.3	8 <2 <2 <2 8	<1 <1 <1 <1 <1		
	T-15 T-16 T-17 STANDARD C	<3 <3 <3 38	46 40 44 123	<.3 <.3 <.3 6.8	4 <2 5 40	<1 <1 <1 5		
ICP500 GRAM SAMPLE IS DIGE THIS LEACH IS PARTIAL FOR MN F - SAMPLE TYPE: SOIL <u>Sample</u> DATE RECEIVED: MAR 2 1995 DATE REPO	STED WITH 3ML 3-1-2 HC E SR CA P LA CR MG BA S beginning 'RE' are d RT MAILED: MMM	$\frac{1}{1000} + \frac{1}{1000} + 1$	) AT 95 D LIMITED samples. SIG	DEG. C FO FOR NA	r one hou k and al C.L		S DILUTED TO 10 ML WITH WATER.	ED B.C. ASSAYERS