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## DRILLING REPORT <br> ON THE <br> HOT 30 PROPERTY

FORT STEELE MINING DIVISION, BC

TRIM 82 G/ 001
NTS $82 \mathrm{G} / 4 \mathrm{~N}$
Latitude: $49^{\circ} 06^{\prime} \mathrm{N}$
Longitude: $115^{\circ} 55^{\prime} \mathrm{W}$

OWNER:
Abitibj Mining Corp.
\#711-675 West Hastings Street
Vancouver, B.C. v6B 1N2

OPERATOR:
Klondike Gold Corp.
\#711-675 West Hastings Street Vancouver, B.C. V6B 1N2

BY:
P. SOUTHAM, P. Geo. (B.C.)

GEOLOGICAL SURYEY BRANCH
April, 2002

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## LOCATION AND ACCESS

The property is located approximately 48 kilometers south-southwest of Cranbrook, BC (figure 1). The Hot 30 claims are centered on $49^{\circ} 06^{\prime}$ north latitude and $115^{\circ} 55^{\prime}$ west longitude on NTS sheet $82 \mathrm{G} / 4 \mathrm{~W}$ or Mineral Tittes Reference Map M082G001. It is accessible by highway 95 to Yahk and Hawkins Creek gravel road.

## TOPOGRAPHY AND VEGETATION

The topography of the area is rolling hills ranging in elevation from 930 meters ( 3052 ft ) above sea level (ASL) at the shore of Moyie Lake to 1220 meters ( 4000 ft .) ASL. The vegetation consists of coniferous trees with underbrush of alders.

## PROPERTY STATUS

The property (figure 2) consists of 2 four-post and 39 two-post claims listed in Table 1.

## HISTORY

Placer gold exploration and mining in the East Kootenay region began on the Wild Horse River near Ft. Steele in the mid-1860's. The discovery of the St. Eugene and Sullivan deposits in the early 1890's switched the focus to lead and zinc exploration and mining.

In the Yahk area, St. Eugene Mining Corporation Ltd. first mapped tourmalinite occurrences on Mt. Mahon. In 1980-81, a thirteen-hole drill program was conducted. Drill hole YA-6 intersected a massive sulphide zone at a shallow depth. In 1984, Chevron Canada Resources Ltd. optioned the property and drilled two holes to test the Sullivan Time horizon on Mt. Mahon. Minnova Inc. optioned the property in 1991. Six holes were drilled in search of extensions to the mineralization intersected in hole YA-6. Abitibi Mining Corp. carried out prospecting, geochemical sampling and mapping on the Yahk property in 1996, 1997 and 1998, and drilled three closely spaced holes in 1998 on the east flank of Mt. Mahon (Gal, L., Weidner, S., 1999).

## REGIONAL GEOLOGY

The Hot 30 property lies within the Belt-Purcell basin, a Middle Proterozoic basin with an early synrift fill succession, the Pritchard and Aldridge formations, and an overlying rift cover succession. The Aldridge Formation and correlative Pritchard Formation in the United States are dominated by deep water turbidites that contain numerous mafic sills and a variety of base metal deposits including the massive to stratiform Sullivan SEDEX deposit, many small veins in the Aldridge, stratbound Cu -Co in Pritchard rocks and some of the $\mathrm{Ag}-\mathrm{Pb}-\mathrm{Zn}$-rich veins of the Coeur d'Alene camp (Hoy, T., Anderson, D., Turner, R.J.W. and Leitch, C.H.B., 1995)


Figure 1. Property Location Map

Table 1 - Claims List

| CLAlM NAME | RECORD No. |  | UNITS |  | EXPIRY DATE* |
| :--- | :---: | :--- | :--- | :--- | :--- | OWNER

[^0]
## PROPERTY GEOLOGY

The Hot 30 claim is underlain by dominantly siliclastic sedimentary rocks of the Lower and Middle Aldridge formations. The Proterozoic Moyie Intrusions are gabbro sills and intrude the Lower, and lower part of the Middle Aldridge formations. Regional metamorphism is upper greenschist facies.

## WORK PROGRAM

Two diamond drill holes totalling 154.2 meters ( 505 feet) of drilling were completed to test an area of near surface exhalative style venting.

## DRILLING RESULTS

Hole CC-01-1 was drilled at azimuth 360 degrees at -50 degrees dip to a total depth of 91.4 meters ( 300 ft .) (Figure 3). The hole intersected thin bedded quartzite that increase in albitization and biotization toward the underlying gabbro sill. Two thin fragmental sheets were intersected in the upper part of the hole. The hole bottomed in what is locally called the "Sundown Sill", a thick gabbro sill which lies approximately 1,000 meters above the Sullivan Horizon.

Hole CC-01-2 was drilled at azimuth 180 degrees at -45 degrees dip to a total depth of 62.8 meters (206 ft.) (Figure 4). It was collared in fragmental with brown-tan tourmaline and small $(<1 \mathrm{~cm})$ fragmental. Below this fragmental lies a package of thin bedded silty quartzites with deformed beds and disseminated pyrite, pyrnotite, biotite and gamet. This hole also bottomed in the Sundown Sill.

## SUMMARY AND CONCLUSIONS

Significant work has been conducted in the Yahk area of the Purcell Basin. The majority of this work has been focussed on the Mt. Mahon area where significant lead-zinc mineralization was found in the 1980's. Regional airbome geophysics and surface work by Abitibi Mining Corp. in 1996 and 1997 discovered the presence of another area of fragmental rocks with lead and zinc mineralization in soils to the east of Mt. Mahon called the Cold Creek fragmental. The drilling conducted in 2001 was intended to test the Cold Creek area at shallow depths for indications of fragmental material, tourmalinization and lead-zinc mineralization.

The Cold Creek fragmental is a significant target in the Sullivan camp that has yet to be tested down to Sullivan time. The drilling confirmed the presence of vent activity at shallow depths with minor associated sulphide minerals. Further work on the property should include a drill test to Sullivan time.



Fig. 4
Hot 30 Property
Cross Section DDH-OL-OZ
Looking North.

BIBLIOGRAPHY
GAL, L., WIEDNER, S, 1999; 1999 geological evaluation of the Yahk property, Fort Steele Mining Division, British Columbia, Canada. BC Assessment Report.

HOY, T., ANDERSON, D., TURNER, R.J.W. and LEITCH, C.H.B., 1995; Tectonic, magmatic and metallogenic history of the early synnift phase of the Purcell Basin, southeastern British Columbia, BC Mineral Deposits Research Unit - short course, October, 1995

## APPENDIX 1

STATEMENT OF EXPENDITURES
HOT 30 PROPERTY - EXPENDITURES
SALARIES
Glen Rodgers - 5 manday @ \$250/day ..... 1250
Report preparation - P. Southam - 1 manday @ \$206/day ..... 206
DIAMOND DRILLING
154.2 meters diamond drilling ..... 12138
LOGISTICS
Vehicle fuel and maintenance ..... 307
FILING FEES ..... 800
SUBTOTAL ..... 14701
Administration Fee (15\%) ..... 2205
GST on administration (\#126616507) ..... 154
TOTAL ..... $\$ 17060$

## APPENDIX II

## STATEMENT OF QUALIFICATIONS

## STATEMENT OF QUALIFICATIONS

I, Philip James Southam of 19021-117A Avenue, Pitt Meadows, British Columbia, do hereby certify:

1. I am a geologist registered with the Association of Professional Engineers and Geoscientists of British Columbia.
2. I graduated from Brandon University in 1987 with a Bachelor of Science degree majoring in geology.
3. I have practised my profession continuously since graduation in British Columbia, Manitoba, Yukon Territory and Califomia in the field of mineral exploration.
4. I am employed by Hastings Management Corp to provide geological services for Klondike Gold Corp. and Abitibi Mining Corp.
5. I have reviewed all pertinent data from the work conducted on this property.


APPENDIX III

## DRILL LOGS

YAHK - COOL VENT DIAMOND DRILIING 2001

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DDH-01-01
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( $-50^{\circ}, A z 250^{\circ}$
0-2.1m Overburden
2.1-8.5m Argillaceous Siltstone (with fine biotite disseminations,)
-dark grey to light grey, thin bedded.
3.5-3.7m Possible Marker (Fringe??), given to P.Klewchuk (Jul,2001 )for identification.
6.7 m core angle $=60^{\circ} \quad$ (bedding)
5.5-5.8m rare fragments (md to 3 cm )
8.5-19.5m 'Quarzite strongly biotized argillaceous quarizite
locally very sericitic
11.3 m core angle $=65^{\circ}$ (bedding)
14.3 m fracture ( 0.5 cm ) has Py , Po
17.4 m fracture has $0.5^{\circ}$ core angle
15.8 m core angle bedding $=65^{\circ}$
19.5-26.8rr Quartz Arenite , thick bedded to massive quartz arenite with fluidized sediments, biotite and rare clasts
26.8-32.6r Argillaceous Quartzite, with thin beds ( $<10 \mathrm{~cm}$ ), grey, vf grnd, sity tops. Locally cherty
28.2 m core angle bedding $=70^{\circ}$ argillaceous beds fine upwards
32.3 m bedding core angle $=65^{\circ}$
31.4-31.9n fault (with MnO, Py on fract's)
32.3-32.6n carbonate freckling
32.6-38.6r Quartz Arenite massive, thick bedded, grey - white
38.6 - EOH Gabbro Green-dark green - black, very fine grained at margins to va grnd, plumose textured in middle (Sill). Contact is conformable with bedding ( $065^{\circ}$ ). Chill margin to 0.6 m .
91.4m End of Hote

YAHK COOL VENTS DIAMOND DRILLING 2001
DDH-01-02 $\quad\left(-70^{\circ}\right.$, az290 $)$
0-2.7m Overburden
2.7-3.4m Fragmental Tourmatinized sediments (with light brown schori toumalinite), fragments are subrounded, broken, shredded. Tourmalinite fragments within a tan-grey siltstone miatrix.
3.4-6.4m Quartzite (argillaceous with thin disturbed beds)
6.4-21.9m Quartz Arenite (thick bedded with biotite disseminated throughout, grey - purple grey)
7.3 m bedding core angle $=45^{\circ}$
11.0 m bedding core angle $=35^{\circ}$
17.4 m bedding core angle $=45^{\circ}$
21.9-22.9n Sitstone (fluidized and biotized sediments frequently disturbed with rare fragments, sericite and albite)
22.9 - EOH Gabbro green - black, with conformable contact (sill, rare epidote, Py and Po 21.6 m core angle Layering $=45^{\circ}$
32.6-32.9mQuartz Vein with disseminated Po, CPy (true thickness= 0.35 m )
$40.2 \mathrm{~m} \quad 5 \mathrm{~cm}$ Quartz Vein with Po, core angle $\mathrm{QV}=75^{\circ}$
62.8 m End of Hole


[^0]:    * With acceptance of this report.

    ABB - Abitibi Mining Corp.

