BRINK MINING & RESOURCES LTD.

REPORT ON THE
BASS LAKE (KIRK GOLD) PROSPECT
ABERDEEN TOWNSHIP
ALGOMA DISTRICT, ONTARIO

by
R.A. MacGregor, P. Eng.

RECEIVED
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MINING LANDS SECTION
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SUMMARY

The Bass Lake - former Kirk Gold - prospect consists of four claims of approximately 150 acres in lots 10 and 11 Concession 5, Aberdeen Township.

The property contains a quartz-carbonate vein which was explored for gold in the 1920's when gold was priced at $20/ounce. This work consisted of an incline shaft to 126 feet, A raise to surface of 210 feet and some 700 or 800 feet of drifting.

Recent, limited sampling was disappointing, but showed the presence of gold. It is suspected that the gold occurs as coarse visible flakes which would explain the poor results.

It is recommended that two holes be drilled to test for continuity of the vein. If this can be demonstrated, a bulk sampling program should be carried out to obtain a true grade figure.
INTRODUCTION

The Bass Lake (Kirk Gold) prospect of Brink Mining and Resources Ltd. is located in Aberdeen Township, District of Algoma in the Sault Ste. Marie Mining Division. A gravel road leads directly to the property.

The property was previously developed in the early 1920's by means of an incline shaft, two levels and some raising. Gold values were reported from this previous work. One level was temporarily opened in April 1986 to allow access for sampling.

LOCATION, ACCESS AND OWNERSHIP

The Bass Lake (Kirk Gold) prospect consists of four unpatented mining claims comprising the W½ of S½ Lot 10 Concession 5 and the E½ of S½ Lot 11 Concession 5, Aberdeen Township, District of Algoma in the Sault Ste. Marie Mining Division, Ontario. Part of the SE¼ of S½ Lot 11 Concession 5 comprises a patented lot used as a vacation camp and is not included in the property. The total area of the claims comprises approximately 150 acres. The general area is shown on Figure I and the claims on Figure II.

Access to the property is by way of a gravel road running north from Highway 638 just west of the hamlet of Leeburn. Leeburn is about 15 miles east on paved Highway 638 from Echo Bay which is located on Highway 17 (Trans-Canada) about 20 miles east of Sault Ste. Marie, Ontario. It is about 2½ miles north from Highway 638 to the property by an all-weather gravel road.
Location, Access and Ownership (Continued)

The four claims are recorded in the name of Brink Mining and Resources Ltd.

The area of the claims contains scattered farms. General labour is available locally, and tradesmen with all services in Sault Ste. Marie. A high-voltage power line crosses the area just to the south of the claims, and low voltage power is installed to the site. Ample water and timber are available nearby.

HISTORY OF THE PROPERTY

Gold was reportedly discovered here early in this century. From 1919 to 1922, the property was developed by an incline shaft sunk on the main vein to 126 feet. A level was established at 50 feet in depth and the vein drifted on for 350 feet east. At 160 feet east of the shaft a raise was driven 210 feet to the surface. An adit or upper level from near the shaft collar was driven 625 feet to the east.* No reserves or production are reported from this work, although there are local reports that some ore from this development was treated at the nearby Ophir gold mill. Any production would have been reported for that property which was then owned by the same company.

In 1968, airborne surveys were carried out in the area in connection with uranium exploration by Radex Uranium Syndicate.

* Found by measurement to be 450 feet
History of the Property (continued)

In April 1986, the adit level was temporarily opened and some limited sampling carried out.

REGIONAL GEOLOGY

The claims lie in the Southern Geological Province and are underlain by Middle Precambrian rocks of the Huronian Supergroup. The sedimentary and volcanic rocks of the Huronian group consist of a homocline striking WNW-ESE and is intruded by sheets, sills and dykes of Nipissing Diabase. Faulting also follows a WNW-ESE trend and is probably related to the major Murray Fault about 8 miles south.

PROPERTY GEOLOGY

The claims are underlain by a succession of Huronian sedimentary rocks from Mississaugi quartzites (youngest) in the north through Espanola formation limestones and siltstones to Serpent formation quartzites in the south. Nipissing diabase with granophyre phases has been intruded as an elongated body, probably a sill along the approximate contact between the Mississaugi quartzites and the Espanola limestone formations. The Bruce conglomerate which would be expected at this stratigraphic horizon may also exist on the property or have been destroyed by the Nipissing diabase intrusion. Within the diabase is a quartz-carbonate vein which appears to strike and dip conformably with the stratigraphy. The Espanola limestone formation is probably the source of the carbonate.
ECONOMIC GEOLOGY

A quartz carbonate vein carrying some visible chalcopyrite, striking WNW-ESE and dipping 55° SW lies within the diabase sill at the south end of Bass (Aberdeen Lake). The vein was reported to be 2 to 8 feet wide and carry from $3 to $6 in gold (Gold at $20/ounce) from work done in the 1920's. It is further reported that former miners noted the occurrence of wire gold.

In April of 1986, the adit level was temporarily opened and a number of samples chipped from the vein in this drift. Assays from this sampling are plotted on Figure III. Drift locations are approximate as it was not surveyed in detail and contains a number of changes in direction but appears to strike approximately E 20° S. Assays of these samples were disappointingly low, most returning nil values in gold. Three samples gave anomalous gold values, from 160 to 270 p.p.b. (parts per billion) gold or about 0.005 to 0.008 ounces/ton gold. Two other samples gave slightly anomalous values of 30 p.p.b. or 0.001 ounces/ton gold. These assays are much below economic grade, but do indicate the presence of gold in the vein.
CONCLUSIONS

The vein drifted on the adit level in previous operations was sampled at a number of places with disappointing results. Gold is present in anomalous amounts at some points. The amount of work done and verbal reports of free gold by miners who worked at the mine years ago suggests results from actual mining may have been better than those indicated by the recent sampling. It would appear that the gold values previously reported are probably present as coarse visible gold erratically distributed in the vein. The shaft, 50 foot level and the raise to surface were not available for sampling. Accurate sample data is very difficult to obtain in deposits containing coarse visible gold as this deposit could be excepting with large samples, or until factors have been worked out showing a relation between assay results and actual milling returns. To obtain an accurate indication of the grade of this deposit large samples should be obtained by slashing the vein, crushing and quartering these samples before sending out for assay. The samples should further be screened for metalics to pick up any coarse visible gold. Such a sampling program could only be justified if it is demonstrated that the vein has sufficient continuity and size to justify mining should the grade be sufficiently high to be economically mineable.
RECOMMENDATIONS

It is recommended that the property should be tested in two phases.

Phase I

Two 500 foot holes to be drilled to test for the vein at a depth of approximately 400 feet. These holes would be drilled at 50° and spotted to test beneath the incline shaft and beneath the raise from the 50 foot level to the surface. Approximately 160 feet apart.

Drill two 500 foot holes BQ core
1000 feet @ $25/foot Estimated $25,000

Phase II

If the two diamond drill holes demonstrate continuity of the vein at a mineable width, reopen the incline shaft, adit and raise to surface. Sample the vein by slashing to obtain a bulk sample which would be crushed and reduced in size on site.

Reopen workings, obtain bulk samples and reduce to size on site Estimated $250,000

Respectfully submitted

May 13, 1986
R.A. MacGregor, P. Eng.
BIBLIOGRAPHY

Ontario Dept. of Mines Vol XXX part 1, 1921 p. 64

Ontario Dept. of Mines Vol XXX part 2, 1921
  "Ontario Gold Deposits " by P.E. Hopkins

Ontario Dept. of Mines Vol XXXI part 10, 1922 p. 21


Ontario Geological Survey Report 210, 1982 "Two Horse Lake Area"

Geological Survey of Canada Memior 192, 1936 by E.D. Kindle
  p.p. 19 to 21

  p. 64

Geological Survey of Canada Map No. 1414A, 1975
  "Bruce Mines - Lake George Area"
CERTIFICATE

THIS IS TO CERTIFY THAT

I have been a resident of Sault Ste. Marie, Ontario since 1971

I have been engaged in mining and geology since 1956 and have been a consultant since 1971

I attended Queen's University from 1952 until 1956

I am a member of the Association of Professional Engineers of Ontario, The Canadian Institute of Mining and Metallurgy and the Prospectors and Developers Association

This report is based upon an examination of the property, personal sampling and a search of the records in the Provincial Geologists Office in Sault Ste. Marie.

May 13, 1986

R.A. MacGregor, P. Eng.
FIGURE I
LOCATION OF AREA
Figure III
Bass Lake Property
Approximate Drift location

Grab samples from dump
Dark quartz 10ppb Au
Hematite-chlorite 87ppb Ni

Scale 1" = 50'
12747 Sample No. 160ppb Au. Assay for gold in parts per billion.
**Type of Survey:** GEOLOGICAL  

**Claim Holder(s):** BRINK MINING & RESOURCES INC.  

**Address:** 20 REDGRAVE DR. APT. 1509 WESTON ONTARIO M9R 3T8  

**Survey Company:**  

**Date of Survey (from Si to):**  

**Total Miles of line Cut:**  

**Geophysical:** - Electromagnetic  

**Magnetometer**  

**Radiometric**  

**Other**  

**Geological:**  

**Geochemical:**  

**Credits Requested per Each Claim in Columns at right:**  

**Special Provisions:**  

**Man Days:**  

**Complete reverse side and enter total(s) here:**  

**Airborne Credits:**  

**Note:** Special provisions credits do not apply to Airborne Surveys.  

**Expenditures (excludes power stripping):**  

**Type of Work Performed:** ASSAYS  

**Performed on Claim(s):** $1986 - $20104  

**Calculation of Expenditure Days Credits**  

**Expenditures**  

**Total Days Credits:**  

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<tr>
<td>920104</td>
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<td>820105</td>
<td>3</td>
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<tr>
<td>820106</td>
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**Total number of mining claims covered by this report of work:** 4

**Certification Verifying Report of Work:**  

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

**Name and Postal Address of Person Certifying:**
Ministry of Northern Development
and Mines

Geotechnical Report Approval

To: Geophysics

Comments

☐ Approved ☐ Wish to see again with corrections Date Signature

To: Geology - Expenditures

Comments

☐ Approved ☐ Wish to see again with corrections Date Signature

To: Geochemistry

Comments

☐ Approved ☐ Wish to see again with corrections Date Signature

To: Mining Lands Section, Room 6610, Whitney Block. (Tel: 5-4888)
1. Type of Survey ........................................ GEOLOGICAL
2. Township or Area ........................................ ADAMS TOWNSHIP
3. Numbers of Mining Claims Traversed by Survey ........................................ OPEN ADIT & SAMPLE
4. Number of Miles of Line Cut ........................................ Flown
5. Number of Stations Established ........................................
6. Make and type of Instrument Used ........................................
7. Scale Constant or Sensitivity ........................................
8. Frequency Used and Power Output ........................................
9. Summary of Assessment Credits (details on reverse side)
   Total 8 hour Technical Days (Include Consultants, Draughting etc.)
   Total 8 hour Line-Cutting Days
   Calculation
   \[
   \text{Technical} \times 7 = \frac{23.8}{\text{Line-cutting}} = \frac{23.8}{4} = 59.5
   \]
   The dates listed on this form represent working time spent entirely within the limits
   of the above listed claims ☑ Check
   If otherwise, please explain ........................................
   Dated: Oct 24/85
   Signed: John Ralph

Note: (A) * Complete only if applicable.
   (B) Complete list of names, addresses and dates on reverse side.
   (C) Submit separate breakdown for each type of survey.
   (D) Submit in duplicate.
### Field Work

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<td>Spec. Assist.</td>
<td>Walter Brink, 90 Regent Ave, Toronto</td>
<td>Oct 1979</td>
<td>7</td>
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<tr>
<td>Spec. Assist.</td>
<td>John Polski, 755 Eglinton Ave, Toronto</td>
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<td>Mike Seliki, 82 Watley Bell, Pickering</td>
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<td>James McIvor, 82 Corporacids Dr, Sainte Foy</td>
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### Consultants

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<td>2A Macleod Pk.</td>
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<tr>
<td>316 Wellington St.</td>
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### Draughtsman, Typing, Others (specify)

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### Total 8 hour technical days

### Line-Cutting

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### Total 8 hour line-cutting days
February 4, 1987

Dear Madam:

RE: Notice of Intent dated January 19, 1987
Geological Survey and Data for Assaying on Mining Claims SSM 819866, et al, in Aberdeen Township

The assessment work credits, as listed with the above-mentioned Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

J.C. Smith, A/Manager
Mining Lands Section
Mineral Development and Lands Branch
Mines and Minerals Division

Whitney Block, Room 6610
Queen's Park
Toronto, Ontario
M7A 1M3

Telephone: (416) 965-4888

cc: Brink Mining & Resources Inc
Apt 1509
20 Redgrave Drive
Weston, Ontario
M9R 3T8

Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

Encl.
## Technical Assessment

### Work Credits

**Recorded Holder:**

**BRINK MINING & RESOURCES INC**

**Township or Area:**

**ABERDEEN TOWNSHIP**

### Type of survey and number of Assessment days credit per claim

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<td>Credits have been reduced because of corrections to work dates and figures of applicant.</td>
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**$880.00 spent on consulting report and assaying samples taken from mining claims:**

SSM 819866  
820104

**58.6 days credit allowed which may be grouped in accordance with section 76(6) of the Mining Act R.S.O. 1980.**

**Special credits under section 77 (16) for the following mining claims:**

**No credits have been allowed for the following mining claims:**

- not sufficiently covered by the survey
- insufficient technical data filed

**NO GEOLOGICAL CREDITS ALLOWED AS THERE WAS NO SURVEY PERFORMED.**

*The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.*