EXPLORATION
NTS 105 G/13,14

COMINCO LTD.

WESTERN DISTRICT

NTS 105 G/13,14

1996 ASSESSMENT REPORT

DOT PROPERTY

SOIL GEOCHEMISTRY

YUKON TERRITORY

PELLY MOUNTAINS

WORK PERIOD
JUNE 17, 1996

LATITUDE: 61°48'
MAY, 1997

LONGITUDE: 131°38'
TREVOR J. BOHAY

093678
The funds have been allocated by
the 
ratification. Tuckahoe
work in the amount
of 
1,726
as
Regional Manager, Exploration and
for Commissioner
of Yukon Territory.
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FIGURE 2 CLAIM MAP (1:31,500)

FIGURE 3 GEOCHEMICAL SAMPLE LOCATIONS
1.0 SUMMARY

The DOT property, comprising 76 units, is located north of the Pelly River and Robert Campbell Highway on the Yukon Plateau, approximately 50 kms east-southeast of the town of Ross River, and 70 kms NW of Cominco's ABM deposit.

This property was staked to cover airborne geophysical targets identified during a Cominco survey conducted in 1994.

The rocks underlying this part of southeastern Yukon have been assigned to the Yukon-Tanana Terrane (YTT) and the Slide Mountain Terrane (SMT). The YTT consists primarily of a layered sequence of metamorphosed rocks comprising a "lower unit" of pre-Devonian quartzite, pelitic schist and minor marble, a late Devonian to mid-Mississippian "middle unit" comprising carbonaceous phyllite and schist with interbanded mafic and, locally significant, felsic metavolcanics, and an "upper unit" of Pennsylvanian marbles and quartzite. Volcanism within the "middle unit" was accompanied by the intrusion of 2-3, late Devonian to Mississippian, mafic to felsic metaplutonic suites. Felsic volcanics of the "middle unit" are host to Cominco's ABM VHMS Deposit.

The DOT property is relatively well exposed and the rocks consist of a sequence of fissile, silvery grey muscovite phyllites with minor intercalated, Fe-carbonate altered/veined, chloritic schists and phyllites as well as blue-quartz-bearing wackes. A quartz-feldspar augenved schist was mapped at the east end of the property.

Work completed on the DOT property in 1996 consisted of four person days of soil sampling along claim lines. Results from the geochemical sampling returned several samples with anomalous Cu, Pb and Zn as well as Cr values. Further geological mapping, prospecting, contour soil geochemistry and ground geophysics is recommended for this area.

2.0 LOCATION AND ACCESS

The DOT property is located north of the Pelly River and Robert Campbell Highway on the Yukon Plateau, approximately 50 kms east-southeast of the town of Ross River, and 70 kms NW of Cominco's ABM deposit. The highway comes within 10 km of the property, access is by helicopter.

3.0 PROPERTY AND OWNERSHIP

The DOT property, comprising 76 units, is 100% owned by Cominco Ltd. (Figure 2).

<table>
<thead>
<tr>
<th>NAME</th>
<th>UNITS</th>
<th>CLAIM NO.</th>
<th>DUE DATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT 3-34</td>
<td>32</td>
<td>YB49849-880</td>
<td>May 15/98</td>
</tr>
<tr>
<td>DOT 37-68</td>
<td>32</td>
<td>YB49883-914</td>
<td>May 15/98</td>
</tr>
</tbody>
</table>

4.0 PREVIOUS WORK

1:10000 scale mapping and prospecting were undertaken in 1994 as well as airborne geophysics. Sixty seven soil samples and two rock samples were also collected in 1994.

5.0 REGIONAL GEOLOGY

The rocks underlying this part of southeastern Yukon have been assigned to 2 terranes: the Yukon-Tanana Terrane (YTT) and the Slide Mountain Terrane (SMT) (Mortensen, 1983a; Mortensen and Jilson, 1985).
The YTT consists primarily of a layered sequence of metamorphosed rocks comprising a "lower unit" of pre-Devonian quartzite, pelitic schist and minor marble, a late Devonian to mid-Mississippian "middle unit" (3F) unit" (3F) comprising carbonaceous phyllite and schist with interbanded mafic and, locally significant, felsic metavolcanics (3G), and an "upper unit" of Pennsylvanian marbles and quartzite. Volcanism within the "middle unit" was accompanied by the intrusion of 2-3, late Devonian to Mississippian, mafic to felsic metaplutonic suites (Simpson Range suite and augen and monzonitic orthogneisses). This sequence appears to reflect stable platformal or shelf sedimentation with an intervening period of mafic to felsic arc volcanism developed within a more reduced basinal setting. Felsic volcanioclastics of the "middle unit" are host to Cominco's ABM VHMS Deposit.

The late Devonian to Triassic SMT comprises a heterogenous package of mafic to ultramafic plutonic rocks, mafic volcanics, massive carbonate and chert. This sequence was structurally emplaced as thrust bounded klippen on YTT rocks or as thrust slices imbricated within YTT rocks during a period of crustal shortening (D2). The SMT is thought to represent a disrupted oceanic crust and volcanic arc assemblage thought to be located between the YTT and ancestral North America(?).

A subhorizontal to moderately north to northeast dipping, penetrative ductile deformation fabric (S2) and associated middle greenschist facies (chlorite-biotite grade) metamorphism affects all YTT rocks. This fabric reflects the first, and most significant, deformational and metamorphic event (D1) perhaps related to a continent-arc collision during late Permian to early Triassic time.

Late Triassic immature clastics comprising micaceous argillite, siltstone and sandstone unconformably(?). overlie the deformed and metamorphosed YTT rocks. These sediments are often closely associated with SMT volcanics and are invariably in fault contact with YTT rocks.

The SMT, Late Triassic sediments and Late Triassic to Middle Jurassic plutons are all affected by a period of Middle Jurassic to Late Cretaceous thrust faulting (D2), during which the Finlayson Lake Fault Zone was formed. This complex fault zone contains both thrust and steep, transcurrent(?) faults and separates the YTT from autochthonous North America (Mortensen, 1983a; Mortensen and Jilson, 1985).

6.0 1996 FIELD WORK

6.1 GEOCHEMISTRY

Soil samples were collected along claim lines. The following table summarizes 1996 field work.

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>GEOCHEMISTRY</th>
<th>DOT</th>
<th>June 17</th>
</tr>
</thead>
</table>

7.0 DOT PROPERTY

7.1 GEOLOGY AND MINERALIZATION

The DOT property is underlain by late Devonian to mid-Mississippian "middle unit" mixed metasediments. The property is generally well exposed. The geology consists of a sequence of fissile, silvery grey muscovite bearing phyllites with minor intercalated Fe-carbonatised chloritic schists (mafic volcanics?). These are units are strongly foliated, generally non-graphitic and are locally strongly folded and crenulated adjacent to faults. A south verging NE dipping thrust fault is exposed at one locality. A 3-4 metre wide muscovite, mariposite-Fe carbonate silica (listwanite?) sheera zone (?) containing trace disseminated chalcopyrite is locally exposed.

An aeromagnetic anomaly appears to coincide with an equigranular, medium grained pyroxene feldspar intrusive containing disseminated fine-grained magnetite and trace pyrrhotite.

7.2 GEOCHEMISTRY

A total of 42 soil samples were collected from the DOT property in 1996. Soil samples were collected along claim lines.
Results from the soil geochemistry returned elevated to anomalous values for Cu and Zn (130, 124 ppm and 210 and 164 ppm respectively), there is also a high Cr value coincident with high Cu, and Zn values.

8.0 CONCLUSIONS and RECOMMENDATIONS

The DOT property is underlain by the late Devonian to mid-Mississippian "middle unit" of the Yukon Tanana Terrane, comprising sequences of mixed metasediments (siltstone, wacke) and intervals of felsic and mafic metavolcanics.

Results from the geochemical sampling returned a few samples with anomalous Cu and Zn values. Mapping/prospecting in 1994 also discovered several areas with promising geology. Further geological mapping, prospecting, contour soil geochemistry and ground geophysics is recommended for this area.

Report by: T. Ohav, B.Sc. Geologist

Endorsed by: D. Rhodes, Senior Geologist

Approved for Release by: D. W. Moore
Manager, Exploration
Western Canada

DISTRIBUTION:
W.D. Files
Mining Recorder (2)
10.0 REFERENCES


MACROBBIE, P.A., 1994 ASSESSMENT REPORT ON THE FIRE AND DOT PROPERTIES, COMINCO LTD.


APPENDIX I

STATEMENT OF QUALIFICATIONS
STATEMENT OF QUALIFICATIONS

I, TREVOR J. BOHAY, of 251 Bond Street North, in the city of Hamilton, in the province of Ontario hereby declare that I:

1. Graduated from the University of Saskatchewan in May 1994 with a B.Sc. in Geology.
2. Have been actively engaged in mineral exploration in Western Canada as a contract geologist with Cominco Ltd. from May 1996 to September 1996, and since April 1997.

Date: APRIL 1997

T.J. BOHAY, B.Sc.
GEOLOGIST
APPENDIX II

1996 GEOCHEMISTRY DATA

SOIL SAMPLES WERE ANALYSED BY ICP, Au BY AQUAREGIA DECOMPOSITION/AAS, Ba BY XRF.
APPENDIX III

STATEMENTS OF EXPENDITURES
<table>
<thead>
<tr>
<th>EXPENDITURE ITEM</th>
<th>COST ($)</th>
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<tr>
<td>GEOCHEMISTRY STAFF COSTS</td>
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<tr>
<td>GEOCHEMICAL ANALYSES</td>
<td>759</td>
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<tr>
<td>DOMICILE</td>
<td>125</td>
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<tr>
<td>HELICOPTER</td>
<td>293</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,297</strong></td>
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</table>