

## BELLAS GATE AREA

Name of Locality : Connors; Camel Hill  
EPL Number : 400  
Holder of EPL : Trevcorp Ltd.

Phase I Anomaly Number: C14

Occurrence Type : disseminated;  
Connors: possible porphyry  
Camel Hill: possible  
mesothermal/epithermal  
possible porphyry at depth.

Metal Association (from Phase I): Au, As, Cd, Sb, Cu, Ba,  
Te, Pb, Zn

Access: good; finished surface road to each from Bellas Gate

### GEOLOGY

#### General

- rock types include massive volcanoclastics, breccias, conglomerates, sandstones and porphyritic lavas/agglomerates.

#### Mineralisation

- area underlain by Cretaceous rocks of the Eastern Volcanic Group.

#### 4 Styles of Mineralisation

- i) low grade disseminated : pyrite-chalcopyrite mineralisation associated with hydrothermal alteration zones, and near margins of intrusives; eg. Connors, Camel Hill
- ii) quartz and/or carbonate veins or stringer zones:- high grade copper mineralisation, associated gold; eg. Charing Cross, Stamford Hill.
- iii) replacement :- disseminated mineralisation within calcareous sediment; no appreciable sulphide gangue; eg. Dry Hill, Provost-Mitchells Hill [possibly



mined between 1854-1857 by Wheap Jamaica Mining Limited. Sawkins in 1869 reported that the gold occurred in the oxidised copper ores and that it was mistaken for chalcopyrite and dumped with the copper ore.

- ore was considered too low grade to be economic
- no assays available for this period.
- Base Metal Mining (1955) obtained assays of 0.8 - 12.7% Cu. and trace - 1.1702/t Au
- a 9 inch high grade chalcopyrite sample returned 0.67 oz./t Au (Bergey, 1958)

#### Stamford Hill

- volcanic sandstones and epiclastics; small feldspar porphyry, several fractures trending E-W, major N.S fault.
- no record available on the early mining.

#### Victoria Hill - Congo Hill group of prospects

- shafts and adit were opened in 11 prospects between 1906 and 1909; over 5000 feet of development work carried out.
- Outerbridge (1909) reported that selected samples from the area returned gold values from trace to 1.72 oz/t; silver values ranged from trace to 56.44 oz/t.

#### iii) Replacement

- disseminated malachite occur in basal portion of calcareous sediments of Peters Hill Fm (Campanian)

#### Dry Hill

- trench sampling returned assays of 7.8% Cu across 6 feet.

#### Other similar areas

- Spring Hill, Provost-Mitchells Hill, and north of Juan de Bolas.

iv) Dyke Contact and/or Shear Zone

- mineralisation associated with diorite dyke (High Stone Hill, Mountain Hill); quartz stringers (Weebar Hill).

High Stone Hill

- trench exposed a copper zone over a continuous length of 60 feet (6-8 feet wide), average grade of 2.3% Cu over 8 feet at eastern edge of the dyke.

Mountain Hill

- a trench/channel sample across 12 feet returned 3.0% Cu.

Weebar Hill

- trenching samples returned grades of 5.2% Cu over 6 feet, 2.2% across 18 feet and 21.2% Cu across 3 feet.

Work History

Earliest work in area was at Charing Cross - Stamford Hill in the 1850's by Wheal Jamaica Mining; by the turn of the century exploration activity spread to Victoria Hill - Congo Hill prospects; Charing Cross was re-examined in the 1950's by Base Metal Mining Ltd.

The first systematic exploration programme in the area was conducted by Geophysical Engineering and Surveys for Jamaica Copper and Iron Limited in the 1950's. In the late 1960's until the mid 1970's Geophysical Engineering and Surveys took over the licence areas; during this period included airborne magnetic survey, geological mapping, ground geophysical surveys (magnetometer, self-potential, resistivity) and semi-detailed geochemical (Cu) surveys.

Detailed follow-up work included geological mapping, soil sampling, trenching and drilling.

Limited stream sampling and drilling was carried out by Geophysical Engineering and Surveys in the 1960's.

Phase I Results

C14 anomaly is defined by 37 anomalous samples. In the areas of interest, Camel Hill and Connors, the following samples were considered anomalous: