Selected excerpts from geological report, 1984.

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SURFACE GEOLOGY OF BRANDYWINE CLAIMS.

The surface of the Brandywine claims cover some 6290 acres of ground. Of this approximately 40% has been geologically mapped by Roy Wares, centering roughly on the Warman vein system. The following is a summation of his views on the area.

Regionally, the Callaghan Creek valley forms a crude anticlinal structure. The core of the structure is occupied by agglomeratic rocks, overlain and interfingering with a sequence of mainly volcanic derived sediments and pyroclastic debris. The eastern limb of the structure, in the Northair area is steeply dipping to the east, the western limb is exposed in the Brandy area. The rock units are not identical.

Several sets of faults complicate the structure by juxaposing contrasting lithologic facies. There are several SE trending sets which are offset by the strongly developed regional set of NS faults which are developed on both sides of the valley.

There appears to be four recognizable lithofacies developed in the Northair area.

1. The lower unit is an agglomeritic unit with subordinate tuffaceous units and rarely, crystal tuffs.

2. Volcanic arkose of variable texture with an interbedded ferruginous arkose which displays cross bedding. These may grade laterally into argillites often cross-bedded siltstones and arenaceous units.

3. A pyroclastic unit at least 300 metres thick, which exhibits rapid lateral variations.

4. An upper pyroclastic assemblage characterized by giant breccias, welded textures, the presence of magnetite, and the transition into volcanic arenites.

The above units are cut by dykes of basalt and rhyodacite. The latter is often accompanied by a pervasive buff colored alteration (bleaching).

The most recent rocks are the valley basalts.

The ore zones strike north-west and dip steeply to the south-west. The Warman and Manifold zones consist of quartz-carbonate filled fissures mineralized with variable amounts of pyrite, lead, zinc, gold and silver. They cross cut at a low angle, the host formation. The Discovery zone, at some distance along strike is probably conformable with the host rocks and contains considerably more sulphide. It is possibly strata bound and of syngenetic origin.

HISTORY AND PRODUCTION

The discovery of Brandywine gold-silver deposit was the result of systematic scientific prospecting by Dr. M. Warshawski and A.H. Manifold. First indications were obtained by the use of a field test for heavy metals in 1969.

By 1972 two mineralized zones, the Discovery and Manifold had been located. Northair acquired the property in late 1972. In 1976 a milling plant had been commissioned and mining at a rate of 300 tons per day was begun. The plant was shut down on June 1982 during a period of relatively depressed gold price.

The mine workings extend from the 3900 foot ASL elevation to the 2800 with ore intersections below that. Access to the orebodies is through adits. They are at 3700 feet (highest), 3500, 3260 and 2800 feet ASL (lowest) for the main Warman and Manifold zones and at 3320 for the Discovery zone, with a connection to the 2800 level.

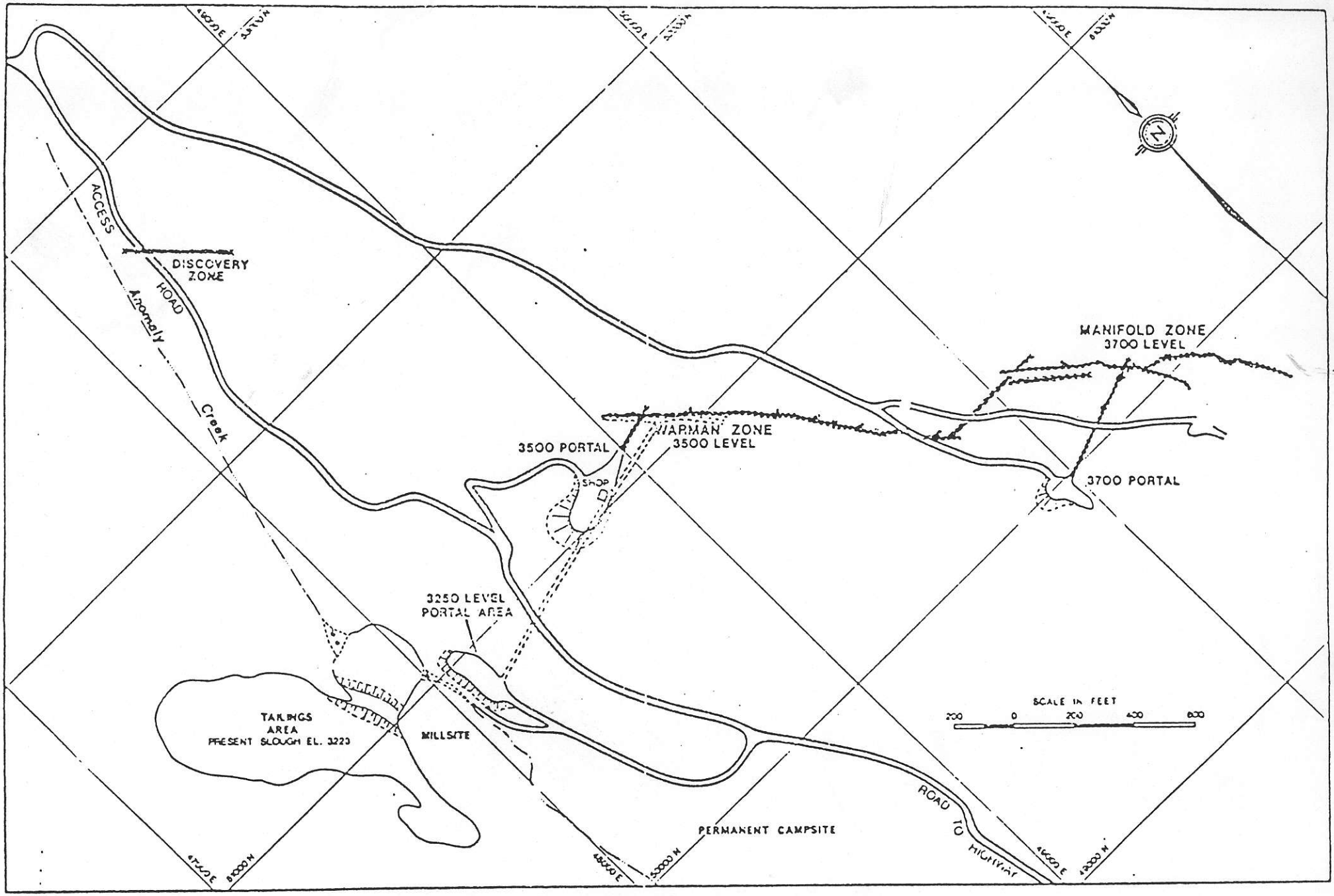
To date, the total ore mined and present reserves are:

	Tons	Au oz/ton	Ag oz/ton	Pb%	Zn%
Mined	543,181	0.338	1.838	1.22	1.77
1983 Reserve	51,968	0.259	0.72	0.37	1.16
Deposit Total	595,149	0.331	1.74	1.14	1.72

UNDERGROUND GEOLOGY

The rocks in the Northair area comprises a cyclic sequence of andesite to basalt volcaniclastic and pyroclastic, to coarser debris flow deposits which can be subdivided into four assemblages. Two of these are present in the mine. Sulphide mineralization is restricted to a lower pyritic tuff and a shear zone pyritization. The pyrite gives rise to widespread metal anomalies on surface.

The upper part of the cycle demonstrates a complex interplay of primary pyroclastics and secondary volcaniclastic debris.



DEVELOPMENTS - SURFACE AND UNDERGROUND

The intermediate assemblage comprises a complex interplay of coarse debris flow volcaniclastics and finer grained volcanic arenites.

They are in steeply dipping and northwesterly trending lenses. A specimen of rhyolite glass gave a whole rock K-Ar age of 18 million years.

The volcanic rocks, and the Northair veins, as indeed the enclosing granite have been intruded by younger diorite and basaltic dykes. A small swarm of narrow basalt dykes trend northerly along the offsetting fault zone that separates the Manifold and Warman veins.

Faulting and shearing has a dominant steeply dipping north-south strike. Offsetting, for the most part, is small and apparently may be either direction. The largest fault is the wide zone between the Warman and Manifold zones where a jumbled zone of quartz-carbonate blocks is mixed with the country rock. There is an apparent left handed offset of about 200 feet. The silver : gold ratio also changes from Warman to Manifold tenor.

THE OREBODIES

The mineralization on the Northair orebody appears to be zoned.

The Warman and Manifold zones are quartz-calcite veins carrying gold and silver in a sulphide matrix. Sulphides are pyrite, galena and sphalerite of varying proportions. The Manifold zone, 1000 feet long and averaging about 6 feet wide, is characterized by a high Ag:Au ratio and with relatively small sulphide content. Initially reserves were calculated to be 0.28 oz/ton Au; 14.48oz/ton Ag, a 50:1 Ag:Au ratio. Negligeable amounts of lead and zinc were present.

The Warman zone, also 1000 feet long and an average thickness of 8 feet has a much higher gold content and lower silver content at 0.68 oz/ton Au, 0.85 oz/ton Ag for Ag:Au ratio of 1.25:1. The lead, zinc and copper values, while modest, are considerably higher than for the Manifold zone.

The Discovery zone, with a length of 400 feet and an average width of 17 feet has low gold and silver values of 0.10 oz/ton Au and 1.18oz/ton Ag (Ag:Au ratio

of 12:1) but has much higher lead, zinc and copper content. The percentages are 5.43% Pb, 6.58% Zn and 0.55% Cu. It is heavily fractured.

The Discovery zone is located at and close to a transition zone from coarse fragmental rocks to finer assemblages. Alteration is variable. It may have a stratiform origin as witnessed to by its shape, percent sulphide and apparent conformability. Recrystallization and fracturing can account for cross-cutting relationships observed in it. The Warman and Manifold zones appear to cross cut stratigraphy, although at a low angle. The zones cut both coarse and finer grained fragmental facies, irrespective of lithology.

Between the three ore zones mentioned are smaller, less or non productive ones. A shattered zone which lies between the Warman and Manifold zone, is apparently a complex fault zone, which has offset the zones about 200 feet in a left handed direction. Between the Warman and Discovery zone, a distance of 1200 feet, there is a barren quartz vein, a portion of which is known as the C zone. The J zone lies about 2000 feet northwest of the Manifold zone. It was drilled because of its sulphide content, Nothing of ore grade was found.

All zones appear to have a spatial association with zones of pervasive pyrite, sericite alteration, silicification and partially with buff coloured kaolinization. Some gypsum is present.

The Warman and Manifold zones continue downward and rake steeply to the southeast in diminished form. The Discovery zone appears to have bottomed, and is apparently terminated to the north against a strong fault, whose topographic expression is the Anomaly Creek valley.

To date, the combined ore mined and present reserves stand at 595,149 tons grading 0.331 oz/ton Au, 1.74 oz/ton Ag, 1.4% Pb and 1.72% Zn.

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Roy Wares makes the following points in connection with the mineralization.

1) The Northair mineralization appears to be controlled by a set of conjugate shears.

2) The zone of mineralization appears to comprise a rotated tension fracture, lying at an oblique angle to stratigraphy.

3) The fracture zone occupies a zone of tension fractures where a small strike change has occurred. The change occurs where the fracture changes strike from a coarse matrix supported breccia to a finer grained volcanic arenite. This gives rise to a dilatant, and now mineralized, zone.

4) The deposit can best be viewed as a vertically zoned deposit, with a lower base metal rich zone, an intermediate precious metal rich zone and an upper silver rich zone.

5) The barren zones between the three metal rich zones are the locus of (later) fault zones.

6) Some deformation or rotation accompanied the mineralization.

SAMPLING UNDERGROUND

Sampling underground appears to be adequate. Details of how the sampling was organized, how frequently taken, and how recorded and used have not been discussed. Example of drift sampling records were seen.

It is understood that car sampling was not practiced, so there is no comparison of individual stope grades against reserves. Early in the life of the mine, it was stated (by A.H. Manifold) that grades were better than expected from diamond drill hole intersections. This indicates that even low (and narrow) intersections are of potential interest.