

THE FYRE LAKE DEPOSIT: A NEW VMS DISCOVERY

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The Fyre Lake volcanogenic massive sulphide copper-cobalt-gold property is situated immediately east of Fire Lake along the North River drainage, approximately 160 kilometres northwest of Watson Lake in southeastern Yukon Territory. The property is comprised of 290 claims that cover approximately 60 square kilometres, and its geographic coordinates are centred at latitude 61° 14' North by longitude 130° 30' West (N.T.S. 105 G/1,2,7,8) in the Watson Lake Mining District. Massive sulphide mineralization was first discovered on the property in 1960 by Cassiar Asbestos Corporation, and since then various companies, including Atlas Explorations (1966-67), Amax Potash Limited (1976), Welcome North Mines Ltd. (1980-81) and Placer Dome Explorations (1990-91), explored their respective claim holdings with a variety of surface surveys, plus 23 shallow packsack (224 m) and 20 AX (1,423 m) drill holes.

Columbia Gold Mines Ltd. acquired the property in 1995 and between late June and early October, 1996 conducted an integrated exploration program over three grid areas on the property. These grid areas include (from north to south): the 'Kona' grid area which covers the Kona Creek drainage and the original massive sulphide discoveries made by Cassiar Asbestos and Atlas Explorations, the 'Lake' grid area is situated immediately east of the south end of Fire Lake and covers geochemical and geophysical anomalies reported by Atlas Explorations and Placer Dome, and the 'Dub' grid area on the east side of the North River from 3 to 7 kilometres southeast of Fire Lake. A total of 142.8 line-km of combined geological, geochemical and geophysical surveying was carried out and 71 NQ- and/or BQTK-core diamond drill holes were completed within the Kona grid area, totalling 9,531.51 metres. This drilling has partially tested one copper-cobalt-gold VMS deposit along a portion of a 3.5-kilometre long zone and there are two more 3-kilometre long geochemical-geophysical anomalies within the other two grid areas to be tested.

The Finlayson Lake district is underlain by an Early Paleozoic metamorphosed volcano-sedimentary assemblage of the Yukon-Tanana Terrane which is regionally bounded to the southwest by the Tintina Fault and to the northeast by the Finlayson Lake Fault Zone (Mortensen, 1985). This terrane hosts many known volcanogenic massive sulphide deposits and occurrences, including 'Kudz Ze Kayah', 'Wolverine', 'Kona' and 'Ice'.

The Fyre Lake property is underlain by a sequence of metamorphosed sedimentary and volcanic rocks belonging to the Layered Metamorphic Sequence (Mortensen, 1985) or Klondike Schist (Tempelman-Kluit *et al.*, 1977) of the Yukon-Tanana Terrane. The Layered Metamorphic Sequence ("LMS") is composed of three units; lower and upper metasedimentary units separated by an interlayered metamorphosed volcanic-sedimentary middle unit. The lower metasedimentary rocks crop out predominantly along the western side of the property and a belt of metamorphosed mafic volcanic and carbonaceous clastic sedimentary rocks of the middle member underlie the centre of the property. The eastern portion of the property contains a thin wedge of upper unit metasedimentary rocks that is overthrust by the Late Devonian to Late Pennsylvanian-Early Permian Slide Mountain Terrane (Anvil-Campbell Allochthonous Assemblage).

Copper-cobalt-gold VMS mineralization within the Kona grid area is hosted by a well deformed and moderately metamorphosed chlorite to quartz-chlorite schist sequence which is interpreted to be a succession of basic to possibly intermediate flows with interbedded tuffs and volcanically-derived fine-grained sedimentary rocks belonging to the lower unit of the LMS. The chloritic schist sequence is overlain by a micaceous quartz schist unit which is in turn overlain by a thick sequence of phyllite containing local lenses of quartzite and limestone. The latter sequence of metamorphic rocks appears to belong to the middle unit of the LMS.

The 'Kona' deposit, situated within the Kona Creek drainage, has at least three distinct horizons of massive to semi-massive sulphide and magnetite mineralization with a combined mineralized thickness of 70 to 80 metres, a continuous strike length of more than 1,000 metres and widths of 75 to 100 metres. A brief description of the three mineralized horizons is as follows:

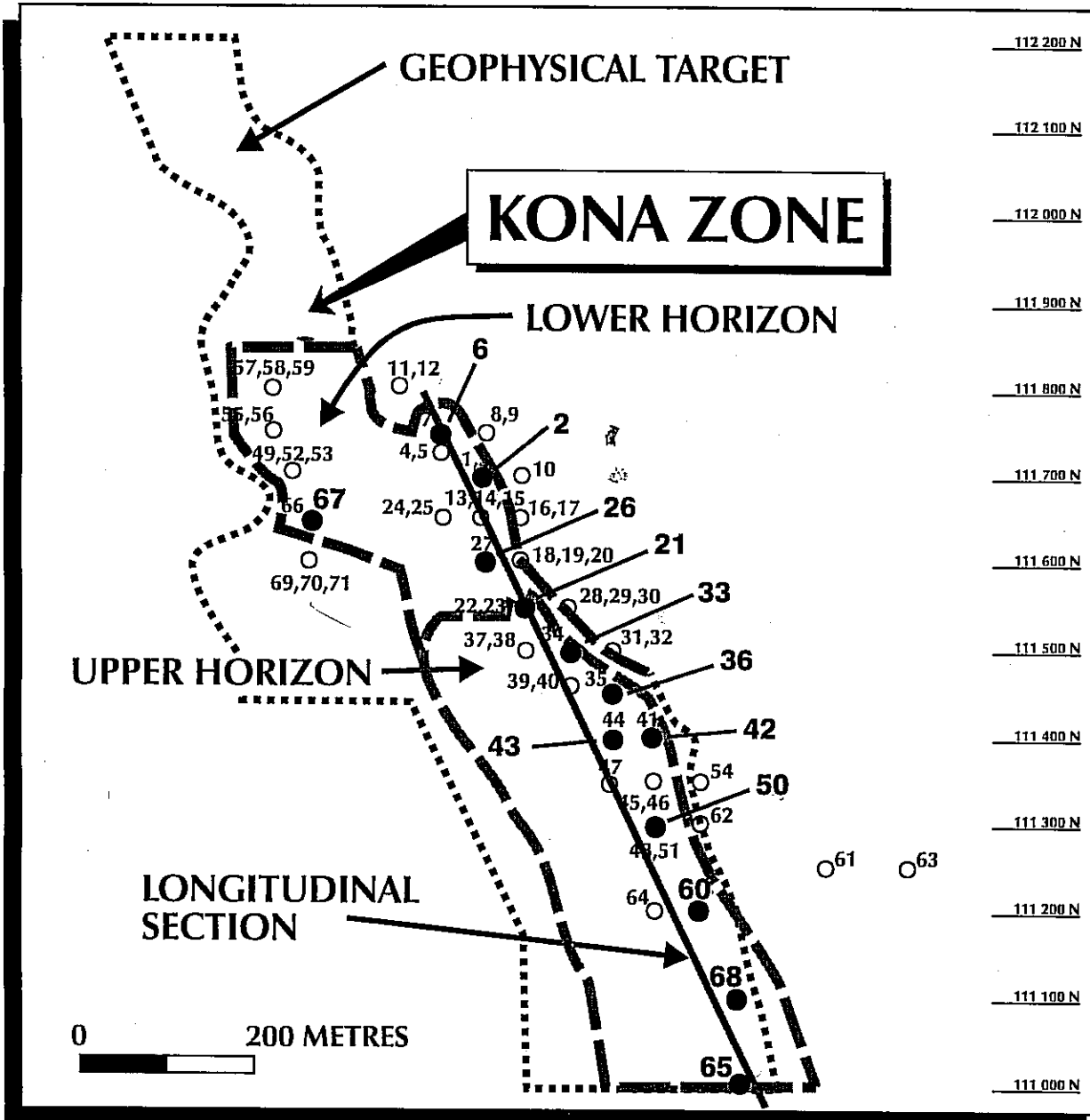
- 1) The 'Lower Horizon' is hosted by chlorite and quartz-chlorite schists, and is 4 to 12 metres thick. The horizon is comprised of less than 1- to more than 6-metre thick alternating layers of massive sulphide and massive magnetite mineralization;
- 2) The 'Middle Horizon' is also hosted by chlorite and quartz-chlorite schists, and averages 5 metres thick. It hosts similar mineralization and copper, gold and cobalt grades as the Lower Horizon; and
- 3) The 'Upper Horizon' is situated immediately beneath the stratigraphic metavolcanic-metasedimentary contact of the quartz-chlorite schists with upper micaceous phyllites, and it is the most laterally continuous mineralization tested to date. This horizon varies from 6 to 40 metres thick, and is comprised of individual massive and semi-massive sulphide layers of 5 to 15 metres thick overlying 2- to 27-metre thick banded magnetite layers.

The massive sulphide mineralization of the Kona deposit is comprised of fine- to coarse-grained pyrite, chalcopyrite, pyrrhotite and sphalerite while the associated semi-massive sulphide mineralization consists of thinly-laminated pyrite, chalcopyrite \pm pyrrhotite within alternating laminae of very fine-grained siliceous chlorite schist (i.e. meta-tuff and chert). Banded and massive magnetite layers host trace to 10 percent sulphides, usually chalcopyrite, pyrite and rarely bornite. The Lower and Middle Horizons have the highest gold values associated with the copper mineralization (i.e. drill hole 21 intersected 6.6 metres grading 1.77% Cu, 1.26 g/T Au, 0.73% Zn and 0.22% Co) while the copper metal grades are relatively higher in the Upper Horizon (i.e. drill hole 65 graded 2.29% Cu, 0.52 g/T Au and 0.07% Co over 31.3 metres).

The Kona VMS mineralization has been drill-tested over a combined length of 1,000 metres within a coincidental geochemical and geophysical (magnetics and MaxMin EM) anomaly extending over a 3.5-kilometre strike length. The drill-tested mineralization is open to expansion to the north, south and west. The 3-kilometres long coincident geological, geochemical and geophysical anomalies within the Lake and Dub survey grid areas remain to be tested by drilling.

The Fyre Lake property has the potential for hosting extensive copper-cobalt-gold VMS mineralization with significant thickness, grade and lateral continuity. A major drilling campaign is planned for 1997.

Kona Deposit Drill Hole Plan

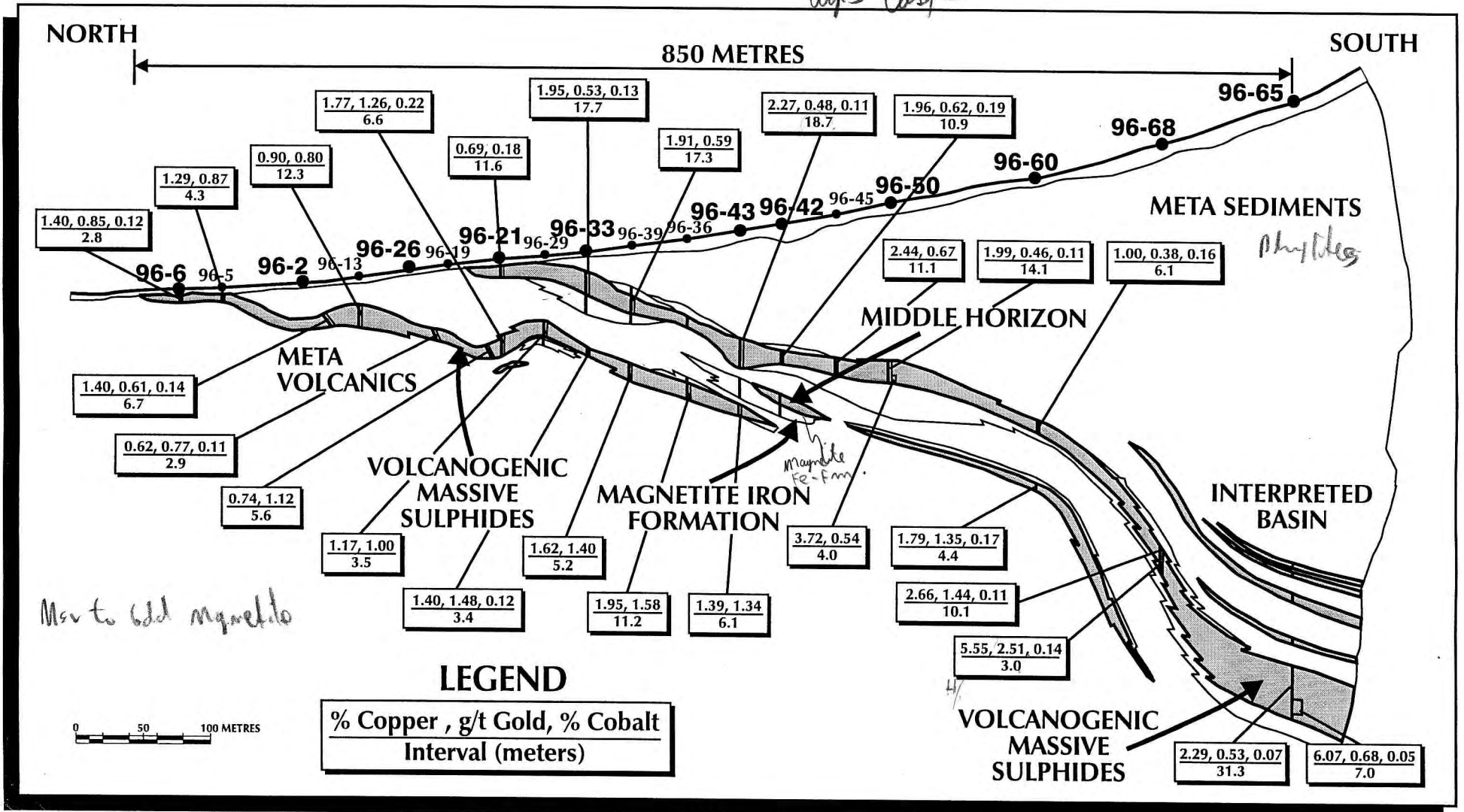


Legend

- DRILL HOLES ASSAYED FOR COBALT, COPPER AND GOLD
- DRILL HOLES ASSAYED FOR COPPER AND GOLD

Kona Deposit Longitudinal Section

dips east



V. will situated to Krutz - Wolv.

"This Terrain"

1% Cu 0.99% Zn } Kona Zone diamonds
0.05 g/1 Au

100 - 200+ ppm Cu defines Kona and the Grid

Upper section in Middle Unit of Motosev

Lower than Krutz / Wolv

Biakiki QTZ phylite / over Meta Volc / sed. Volc w
galvanic offprints

Depo type / Geology.

Trace elements

Geochron

Magnetite/sulfide Ratios = major Fe-Fm.

Describe Wall Rock

Ash - Geochron over ICE



long section

Soil + geophysics
↓

<p>29% Cu .66 Au .12 Co</p>	<p>#22US = Co/116</p>	<p>50-80% Co recovery Met studies</p>	<p>Interp</p>	<p>No answer to Co to po or Cu ??? ----- Co to py and po - Met to Magnetite -</p>
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