

# PLACER DOME INC.

## CORDILLERAN ROUNDUP - CORESHACK 1993 NOTES ON THE GEOLOGY AND 1992 EXPLORATION PROGRAM BY PLACER DOME INC. ON THE SULPHURETS GOLD ZONE, ISKUT DISTRICT, BRITISH COLUMBIA.

The Sulphside Property is located in the Iskut district of British Columbia, 65 kilometres north of Stewart. It covers the upper part of the watershed area between Sulphurets and Mitchell Creeks, immediately north of Placer Dome's Kerr Property

Placer Dome Inc. holds a 100% interest in most of the Sulphside Property, a few units in the Mitchell valley are subject to option agreements.

The property lies within the Stikine Terrane and is underlain largely by Upper Triassic to Middle Jurassic, Hazelton Group volcanic, volcanoclastic and sedimentary rocks at the western edge of the Bowser Basin. At least three intrusive episodes have been documented in the area. The most important of these relative to "porphyry style" mineralization appears to be felsic to intermediate (alkali rich) plutons, probably coeval with the Hazelton volcanics that Kirkham (1963) named "Mitchell Intrusions". Many of these appear to be subvolcanic.

A large number of deformed porphyry and vein type deposits occur in the Mitchell-Sulphurets area. These deposits are characterized by a strong copper-gold association. Exploration by Placer Dome Inc. in 1992 on the Sulphside Property concentrated on the upper part of the Sulphurets Gold Zone where previous work by Esso in the early 1980's and Newhawk in 1991 had indicated significant potential for bulk tonnage Cu-Au and, or Au porphyry style zones. The program consisting of detailed geological mapping and 23 diamond drill holes concentrated on a one kilometre long section which hosts the Breccia (Au) and Raewyn (Cu-Au) mineralized zones.

The drilled section of the Sulphurets Gold Zone features a strongly deformed and overprinted high level porphyry system related to Mitchell type potassic intrusives. They are hosted by Hazelton Group volcanics, volcanoclastics and sediments below the Sulphurets Thrust Fault. Much of the copper and gold mineralization lies within the northwest dipping Raewyn structural panel which features a number of episodes of fracturing, intrusive and hydrothermal activity. The most prominent of these visually is strong phyllic-quartz, sericite-pyrite alteration which extends the length of the Sulphurets Gold Zone.

A sequence of intrusion related hydrothermal alteration and mineralization events are recognized. The earliest event involves intrusion of a high level dyke system (Raewyn Cu Au Zone) and slightly later hydrothermal, intrusion breccia (Breccia Au Zone) with widespread potassic (K. feldspar) alteration and introduction of significant copper-gold mineralization . Peripheral chlorite alteration with local strong magnetite has spotty copper mineralization. Later siliceous hydrothermal activity and possibly associated K. silicate (biotite) alteration can in part be related to the main structural event (early part) in the Raewyn panel. The event involved strong brecciation and shearing, alteration overprinting and some remobilization of both copper and gold, particularly between the Slocumb and Thresher Faults. The strong phyllic (QSP) alteration along the zone may have occurred late in this structural event.

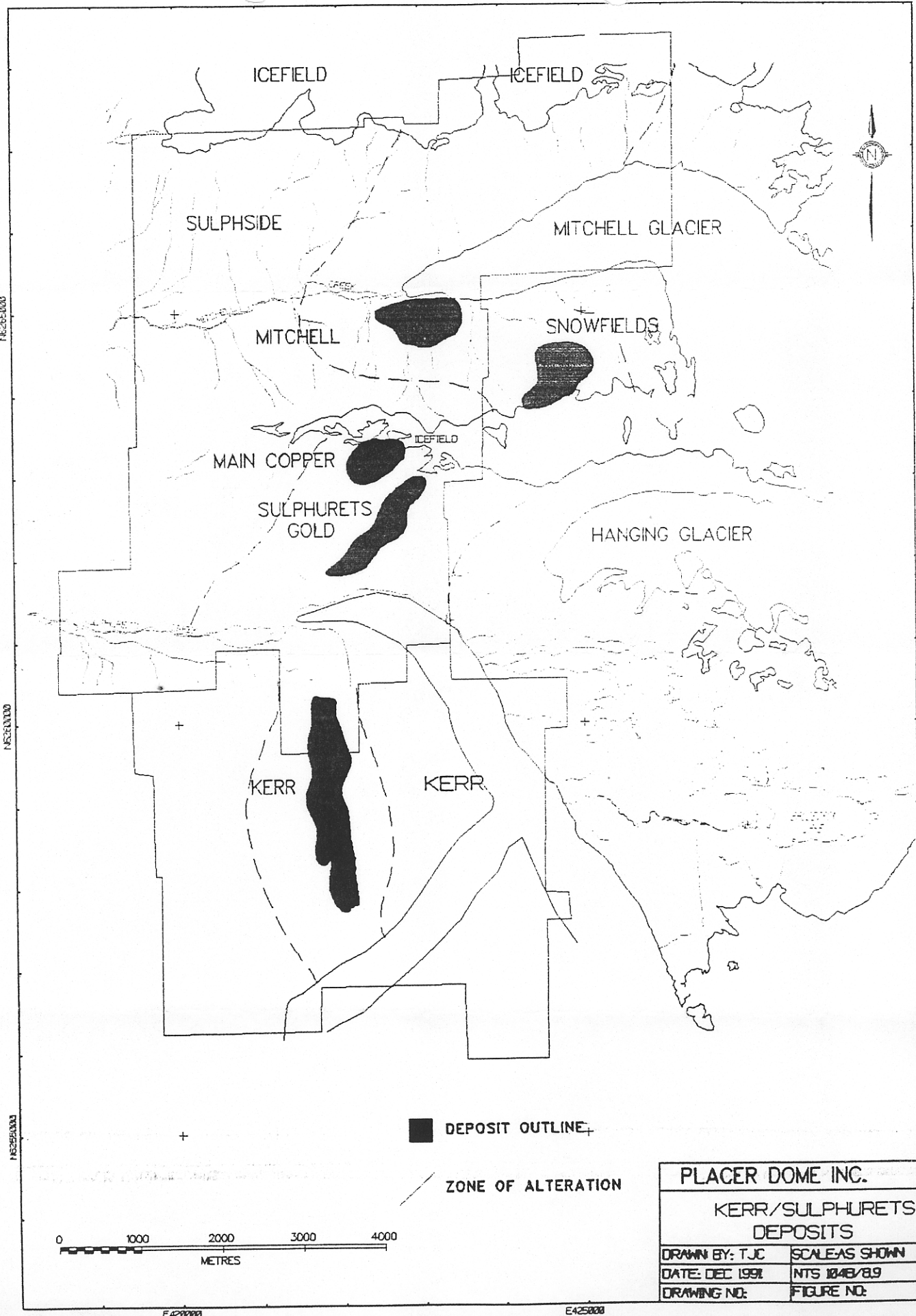
The latest events include the intrusion of shallow dipping mafic monzonite to monzogabbro sills and renewed movement along the northerly trending Cliff, Slocumb and Thresher fault zones.

These geologic events have given rise to complexly overlapping alteration zones and two ore types. The Breccia Au(Cu) Zone has gold values in the 2 to 4 g/t range with low copper and is characterized by a coarse pyrite-gold association. The Raewyn Cu Au zone is predominantly chalcopyrite (copper) mineralization with closely associated gold and local molybdenum. Copper values in the 0.3 to 0.8% range with gold 0.4 to 1 g/t are common.

Better grade drill intersections from these two ore types include:

|               |          |                         |                       |
|---------------|----------|-------------------------|-----------------------|
| Breccia Zone. | SG 92-15 | 158.7 to 238.2m (79.3m) | 0.18% Cu, 2.83 g/t Au |
| Raewyn Zone.  | SG 92-02 | 84.0 to 166.6m (82.6m)  | 0.86% Cu, 1.32 g/t Au |

A representative suite of rock, core samples from the 1992 exploration program, are displayed in the core shack as well as geological maps, drill sections and photographs. A reference map of the mineralized zones in the Sulphside area is appended to this handout.



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| <b>PLACER DOME INC.</b>     |                 |
| KERR/SULPHURETS<br>DEPOSITS |                 |
| DRAWN BY: TJC               | SCALE: AS SHOWN |
| DATE: DEC 1991              | NTS 1048/89     |
| DRAWING NO:                 | FIGURE NO:      |

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