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RECONNAISSANCE GEOLOGY

OF AN AREA

ABOUT THE SYLVESTER MINE

WEST OF ZEEHAN,

WEST TASMANIA.

by

I.D. NEUSS

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072002

MEMORANDUM:

TO: R.H. Barton.

FROM: J.H. Rattigan

SUBJECT: Sylvester Area

Attached is a brief report and Map by I. Neuss on the Sylvester area. The country held in this region covers the Precambrian Oonah sequence which proved host for the richest and greatest silver producers on the Zeehan field. The adjoining Comstock area has been held under Mining Lease for many years by the E.Z. Company but there has been no recent mining activity.

While not the most attractive immediate prospect in permit E.L./7/68, areas north and south of the Sylvester warrant some further work. The suggested means of working is by intensive gridding with geophysics and deep soil and and rock geochemistry. There are problems of false anomalies with both geophysics and geochemistry.

Dr. J.H. Rattigan
Minerals Exploration Manager.

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ILLUSTRATIONS

PURPOSE

The area west of Zeehan about the Sylvester and Doric prospects, is known to contain veins with shoots grading high in silver and lead. These are believed to occur in prominent shears disrupting the Oonah Quartzite and Slate. The area was examined in detail to:

i) delineate any linear structures which may have acted as ore localisers,
ii) serve as a base map for geophysical surveys,
iii) serve as a field check prior to an intensive photogeological study.

GENERAL GEOLOGY

The Tasmanian Department of Mines, Zeehan 1:63,360 Sheet and Explanatory Notes (Blissett, 1962) describe the regional geology. The area examined is underlain by a thick Precambrian Succession termed the Oonah Quartzite and Slate. Faulted blocks of grey-green mudstone, belonging to the Crimson Creek Formation of Cambrian age, are present in the southern portions of the area. Several episodes of folding are evident - the slates and quartzites being folded and crumpled on the limbs of a set of major folds.

The black slates usually have developed a prominent slaty cleavage parallel or subparallel to the bedding. The various periods of folding have also resulted in several conjugate sets of joints being developed, as well as sheared zones with varying wall displacement.

The joints and shears are commonly filled or partly filled with quartz. Some are mineralized and have had some prospecting carried out on them.

Most major shears appear to trend north-easterly. A stereographic plot of the quartz veins, mineralized and unmineralised, and the joints and shears reveals a mean 022 trend for these structures. (Fig. I). However, a study of the strike of the mineralised lodes in this general area reveals that the strike varies from N.W. to N.E. and there is no single significant strike direction. Mineralisation does appear to be confined to sheared zones principally within the Oonah Quartzite and Slate.

MINERAL OCCURRENCES

These are described in Blissett's Explanatory Notes to the Zeehan One Mile Geological Sheet. No further comment is necessary here on the extraction of data from old records. This has been done

by Blissett (1962) who cites production figures of at least 274 tons of Pb metal and 16,560 ozs. of silver from limited production on the Sylvester. There are other occurrences of sulphide within our permit bounds.

RECOMMENDATIONS

Detailed ground geophysical surveys, especially E.M. and S.P. methods, should be carried out over this relatively featureless area using a north trending base line. Any anomalies should be ground checked thoroughly because of the prominence of swamps and black graphitic and pyritic slates within the area. These will probably produce false anomalies. Particular attention in first gridding should be paid to mineralised areas and extensions and to any lineaments which can be recognised by photogeologic interpretation.

I.D. NEUSS

June 4, 1969.

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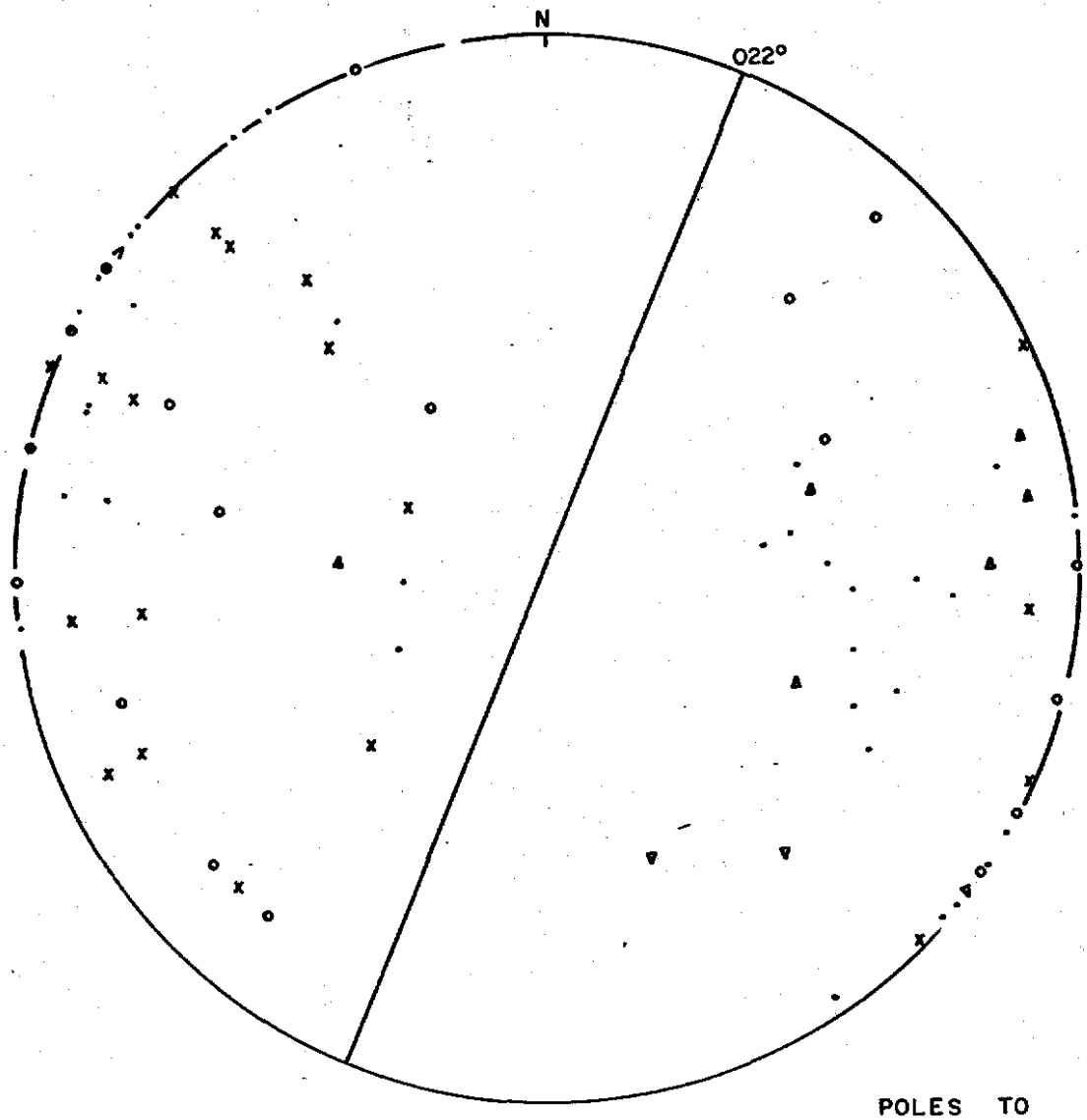
FIG 1



POLES TO

x Mineralization mined

· Quartz vein

o Joint or shear

v Quartz vein mineralized.

FIG. 1

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333,000 yds E | 334,000 yds E | 335,000 yds E | 336,000 yds E | 337,000 yds E | 338,000 yds E

847,500 yds N
847,000 yds N
846,000 yds N
845,000 yds N
844,000 yds N
843,000 yds N
842,000 yds N
841,000 yds N
840,000 yds N

Puo
Doric
Finlay
Tillie
Creek
Shampoo
Lather
Barnett
Ben
Creek
Creek
Creek
Creek
Creek
OONAH HILL
QUEEN'S HILL
MC. IVOR HILL
BASE LINE
To Zeehan
Sylvester
Comstock
Boss
Susanite
Britannia
Stonehenge
N. Tasmanian
E.Z MINERAL LEASE
T.L.E.

LEGEND

- Crimson Creek Formation (Ec)
- Ocnah (Puo)
- Joint
- Strike and dip slaty cleavage
- Strike and dip quartz filled
- Strike and dip bedding
- Shaft
- Adit showing mineralization
- Adit
- Trench
- Mineralization in trench
- Major fold axis
- Faults
- Major shears (photo interpreted)
- Minor shears
- 800 Contour interval of 100 feet

SCALE 1 INCH = 500 FEET

5 cm

EL 7/68 SYLVESTER-DORIC PROJECT, TASMANIA

Fig 2 072008

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