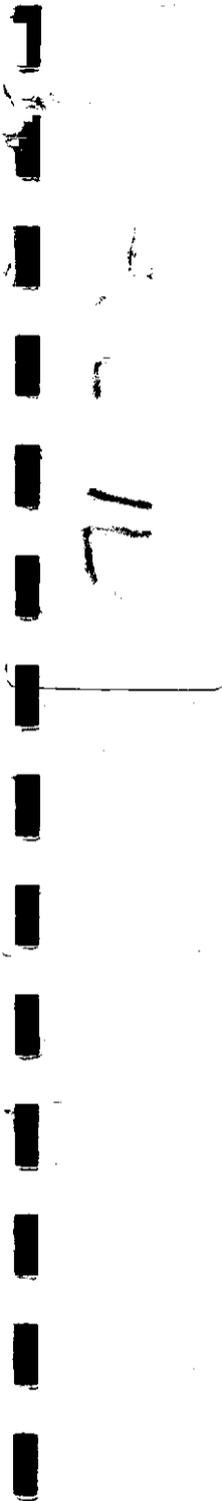


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REPORT ON EL 42/70 AND EL 12/71

Prospectus for E. 42/70 & 12/71. good
Murchison Nickel by F. Morrison (?)

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	B & A	CG	CC & M	D.S.M.E.
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11 AUG 1971				E & IL
ANSWERED				
DEPT. OF MINES				
REF. NO.				

June 15, 1971

The Directors,
Murchison Nickel Limited,

Dear Sirs,

This report has been prepared by Mining Systems Pty. Limited, consulting geologists to the company for inclusion in the Prospectus dated _____ for the issue of _____ shares in Murchison Nickel Limited.

As part of its proposed exploration activities in the potentially mineralised areas in the eastern as well as the western regions of Australia, this company has negotiated agreements with Minerol Investments Limited to acquire an interest in the title of two Exploration Licence areas in north-western Tasmania. Details of the agreements are outlined in the relevant section of this Prospectus.

In this report, the geology and mineralised potential of the land held under the two Exploration Licences, referred to as Exploration Licence No. 42/70 and Exploration Licence No. 12/71, are outlined.

Title of the Exploration Licences

The title of Exploration Licence No. 42/70 has been transferred to Nebo Investments Pty. Ltd., an investment company associated with Minerol Investments Limited, who hold the title in trust on behalf of Minerol. The area held under this Exploration Licence totals 157.5 square miles.

Maps:

1. General geology
2. Relative locations EL 42/70 & EL 12/70
3. Aeromagnetic Contours

The title of Exploration Licence No. 12/71 is held in trust by Mining Systems (Tasmania) Pty. Limited, the Tasmanian subsidiary of Mining Systems Pty. Limited on behalf of Mineral Investments Limited.

Exploration Licence No. 42/70.
Mt. Bertha Area.

Location and Access.

This Exploration Licence area is located north of the old important mining town of Waratah and generally to the south of the Arthur River. It also lies north of the Savage River Mines' iron ore mining operations and Cleveland Tin N.L.'s tin mine at Luina.

The Burnie-Waratah Highway passes through the eastern part of the Exploration Licence area. Entry is possible on the western side of the area by the road which runs beside the iron ore slurry pipeline, which extends from the Savage River to Port Latta. Forestry roads extend from the Highway on the east. For the remainder of the Licence area, it will be necessary to make access tracks particularly in the vicinity of the Rapid River.

Geology

To date, only little detailed geological mapping has been carried out within this Exploration Licence area due to the rugged nature of the country.

The regional geology can be interpreted as a Precambrian basement overlain on the east by Permian sediments which, in turn, are overlain by Tertiary flows.

To the north and west of this Exploration Licence area near the Arthur and Rapid Rivers, geological reconnaissances have been carried out by the Tasmanian Department of Mines. Geological units mapped during these surveys, extend into this E.L. area.

The following is a description of the Precambrian rocks adjacent to and within the Exploration Licence No. 42/70.

The oldest Precambrian rocks are referred to as the Keith Beds. These are well developed in the vicinity of the Keith and Lyons Rivers which flow north in the centre of the Exploration Licence area. They consist of muscovite, chlorite and biotite schists, phyllitic quartzite and quartzite. Quartz veins and segregations are common and the beds are intruded by amphibolite dykes. Masses of pyroxenite have also been observed in these rocks near the old Victory Mine north of the Exploration Licence area. Within the Keith Beds some dolomite and magnesite horizons occur.

Overlying the Keith Beds are the Neasey Quartzites and slates. They consist of quartzites, slates, quartz phyllites and phyllites and occur principally on the western part of the Exploration Licence area between the Lyons and Holder Rivers. Dolerite and other basic dykes intrude these beds. These dolerite dykes are, usually, extensively altered.

Economic Geology

The known economic mineralisation of the Precambrian rocks in this general area will now be discussed.

In the Victory Mine which is north of the Exploration Licence area, rich lodes of malachite and chalcopryrite were discovered along a north-south trending contact zone of dolomite and quartz mica schist. A pyroxenite mass cropping out immediately west of this zone was noted.

North of this Exploration Licence area, a copper prospect has been recorded near the Lyons River in the vicinity of Blue Peak. Here there are a number of quartz veins containing pyrite, chalcopryrite and a little gold. Recorded assays include 1.64% copper and 2.8 dwt/ton gold. Tasminex currently holds title to this area and is conducting prospecting operations.

Also present in Tasminex's area are auriferous alluvial sands near Folly Hill.

Further alluvial gold deposits have been prospected in the Hellyer and Arthur River gorges. Similar gold occurrences will be sought in the Exploration Licence No. 42/70 area.

Close to the southern boundary, promising alluvial tin deposits ~~are~~ being examined in the upper reaches of the Arthur River in the vicinity of Mt. Bischoff. The presence of tin-bearing alluvials will also be investigated along the Arthur River within the Exploration Licence No. 42/70 area.

The large magnetite ore bodies in the Savage River area which is between Waratah and Corinna occur within northerly trending Precambrian rocks which consist of schists and meta-sediments. Within these schists are concordant and discordant magnetite bearing amphibolite bodies and dykes which are aligned in folded, steeply dipping rocks. The magnetite, occurring in vertical or steeply dipping lodes within the amphibolite have been traced over a distance of some four miles.

In the attached aeromagnetic map, prepared by Rio Tinto Explorations, the intense anomalies in the south-western corner correspond to the Savage River ore bodies. On this map, definite lineations are present which extend in a north-easterly direction. Investigations proposed will include the mapping and sampling of the rocks which correspond to these anomalies within this Exploration Licence No. 42/70 area. Particular attention will be given to the amphibolite dykes.

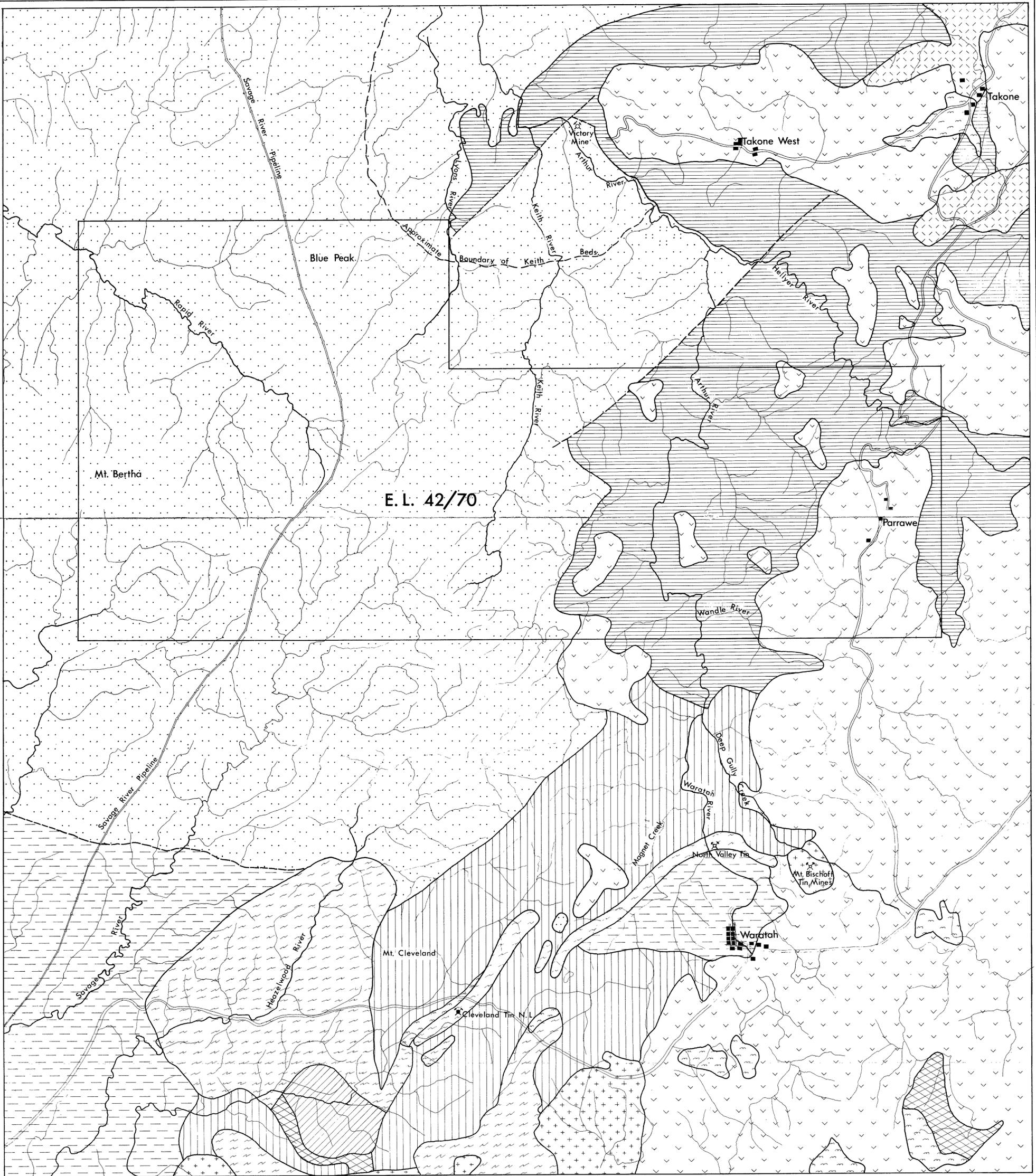
It is interesting to note that within the S.P.L. 56 area which lies north of the central part of this Exploration Licence area, promising ore-bodies have been found near the Keith River and are currently being investigated.

It is mentioned however that the results of exploration work in adjoining areas cannot be taken as an indication of the presence of mineralisation within Explorance Licence No. 42/70.

Proposed Exploration

The Precambrian rocks which crop out over most of the Exploration Licence area will be examined as the possible location for any potential mineralisation. It is proposed to conduct an exploration programme including field mapping and geochemical and geophysical surveys. Attention will be given to the locating of basic intrusives which could be responsible for the aeromagnetic anomalies already referred to.

To facilitate exploration in a rugged, highly vegetated area, access tracks will have to be constructed.



Map 1

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MURCHISON NICKEL LIMITED

GENERAL GEOLOGY

Exploration Licence No. 42/70 Mt. Bertha

LEGEND

QUATERNARY	DEVONIAN Granite	CAMBRIAN Ultrabasics
TERTIARY Basalt	DEVONIAN & SILURIAN	PRECAMBRIAN Unmetamorphosed
JURASSIC Dolerite	ORDOVICIAN	PRECAMBRIAN Undifferentiated
PERMIAN Sediments	CAMBRIAN	FAULTS

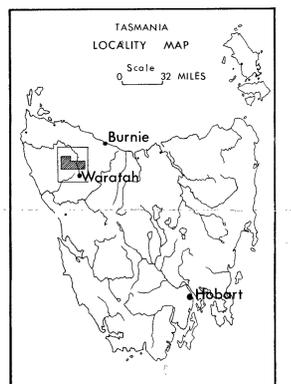
Closed Mines

Operating Mines

Savage River Pipeline

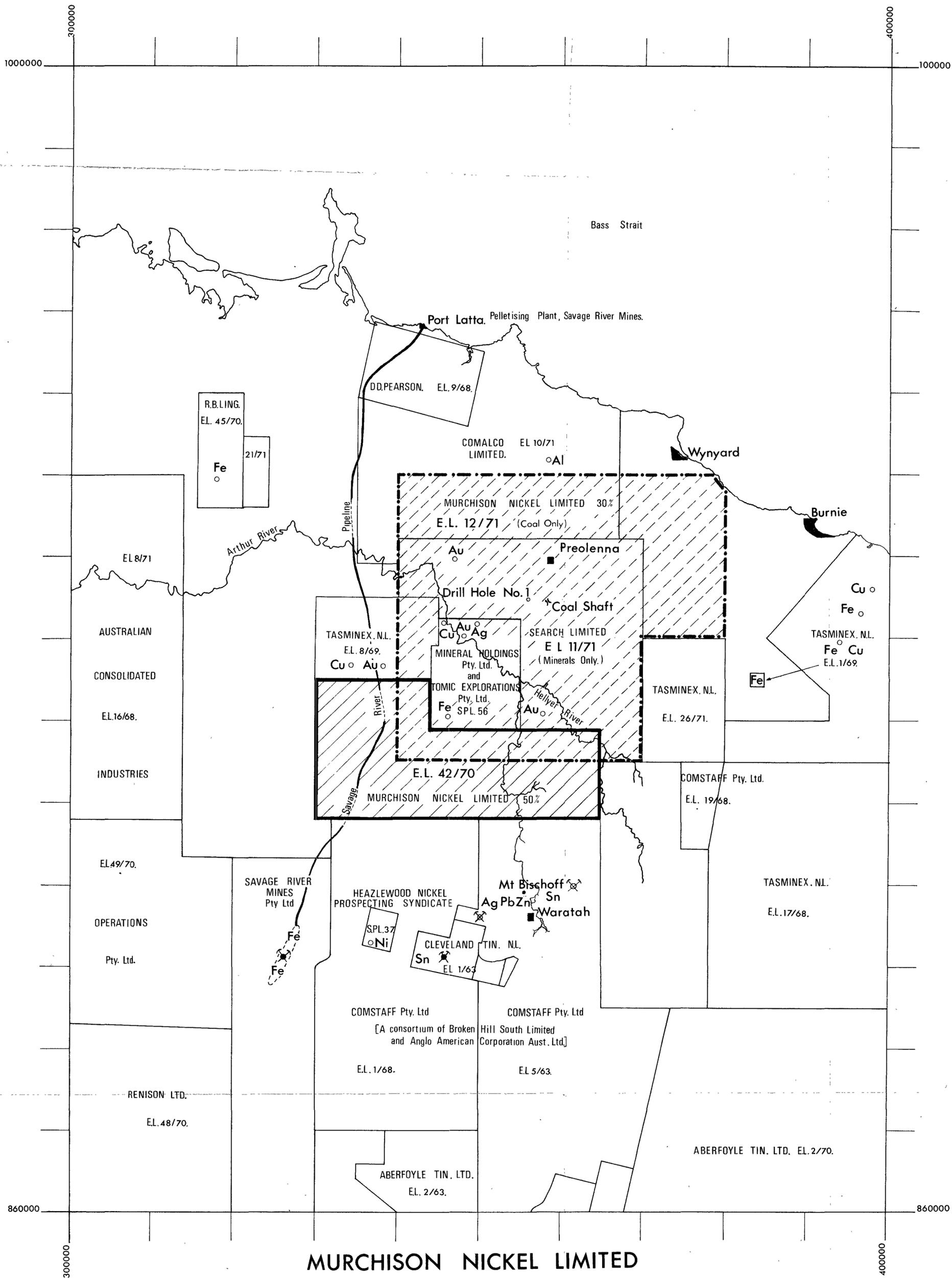
0 1 2 3 Miles
Approx. Scale 1:50,000

Note: Source: Geological Map of Tasmania, Scale 1:506,880
Geological Survey of Tasmania,
Department of Mines, Hobart, First Edn. 1961.
Also, Technical Reports, Dept. of Mines Tasmania.



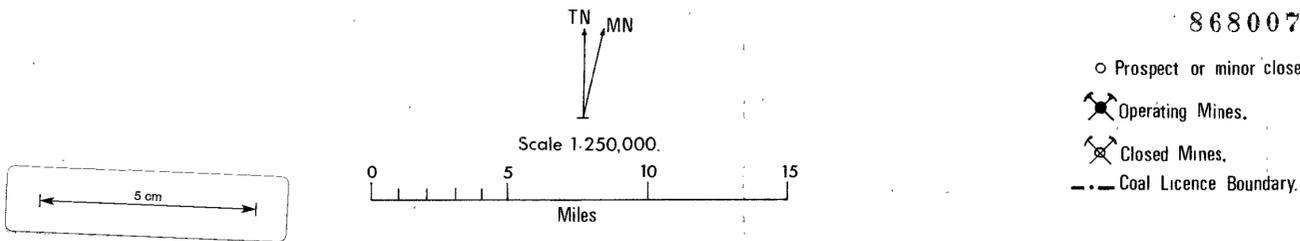
5 cm 1047

Plate 7

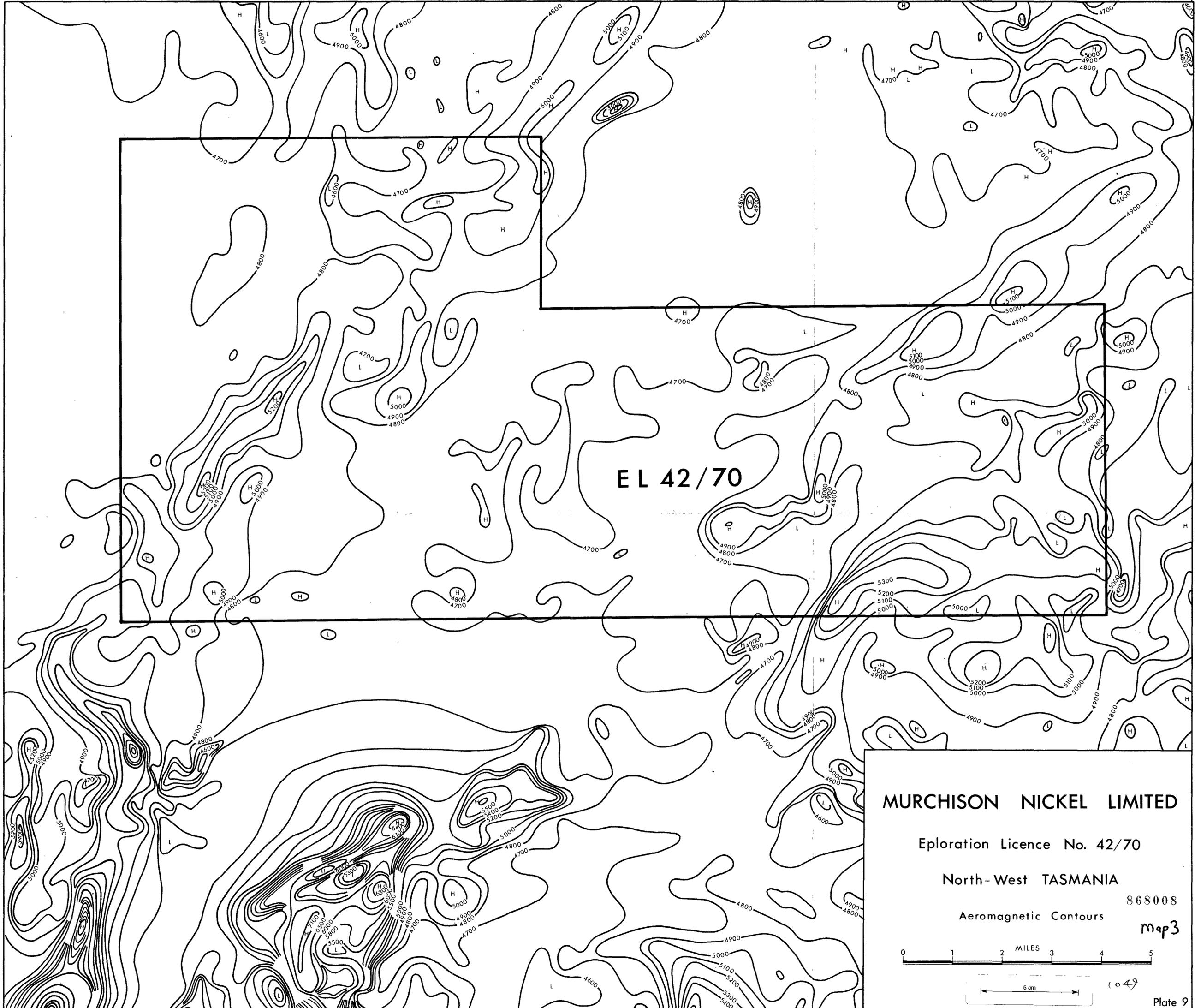


MURCHISON NICKEL LIMITED

Relative Locations E.L. 42/70 and E.L. 12/71 and Surrounding Areas North-West Tasmania



1048
 map 2
 1048
 Plate 8



EL 42/70

MURCHISON NICKEL LIMITED

Exploration Licence No. 42/70

North-West TASMANIA

Aeromagnetic Contours

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Map 3



Plate 9