

# IN SEARCH OF MINERAL WEALTH: THE SOUTH AUSTRALIAN GEOLOGICAL SURVEY AND DEPARTMENT OF MINES AND ENERGY TO 1944.

Bernard J. O'Neil BA(Hons.).

A thesis submitted in fulfilment of the requirements for the Master of Arts degree in the Department of History at the University of Adelaide, March 1983.

This thesis does not contain any material which has been accepted for the award of any other degree or diploma in any university and, to the best of my knowledge and belief, this thesis does not contain any material previously published or written by another person, except when due reference is made in the text.

B.J. O'NEIL

#### Abstract

The initial resistance to Government involvement in the mining industry in South Australia was facilitated by the accidental discovery, and subsequent development, of several large copper deposits, the financial restrictions upon the Government and the limited number of officials to enforce its rights, and the non-assertion of the Crown prerogative over minerals.

There was, however, a trend towards strong, centralised government in South Australia and many colonists accepted the notion of the positive role that the state could adopt in developing society. Indeed, at times during the nineteenth century, they even encouraged and welcomed state participation in, and regulation of, their affairs. such participation, although a form of state socialism in practical terms, lacked a sound theoretical basis: it was Thus a set of circumstances in the latter part pragmatic. of that century (drought, economic depression, recession in the mining industry, the assertion of the Crown's prerogative over minerals and the emerging idea of public before private wealth) led private enterprise to transfer control for the exploration and exploitation of minerals to the Government. The state's role was generally seen to be one of assisting rather than replacing private enterprise initiatives.

Once formed, the Geological Survey and Department of Mines maintained their own momentum. Their duties (to search for minerals and water, to regulate the industry, and to initiate developments) affected the evolution and

development of the organisation. These duties strengthened the role of the Survey and Department in the industry, and by the twentieth century, few doubted that the involvement of the state in mining was not one of its 'legitimate' responsibilities. Thus there were steps towards state ownership of mining activities prior to World War I and during World War II.

Despite the importance attached by contemporaries to mining as a saviour of South Australia and the continuing faith of the administrators, Government and private enterprise in a resources boom, the Department of Mines remained a minor instrumentality of Government. The Department emerges, historically, as limited in its efficiency because of constant Government restrictions on its finance, powers and staffing. Intermittently, the Department was held to be the scapegoat for the lack of mining in South Australia by those who had urged the formation of the Department and, in particular, by the industry which looked to it for assistance.

# Contents

Statement	9	ii
Abstract		iii
Contents		v
Acknowledgements		vi
Abbreviations		vii
Author's Notes		viii
Locality Map, South Aus	tralia	ix
Locality Map, Northern	Territory	x
Introduction		1
Chapter One 1836-185	66 Touching the Surface	13
Chapter Two 1857-188	32 Fits and Starts	55
Chapter Three 1882-189	94 Survey to Department	95
Chapter Four 1899-191	0 In Search of Mines	140
Chapter Five 1894-189	99 Capital, Brains and Science	167
Chapter Six 1911-191	12 Trouble in the Mines	228
Chapter Seven 1912-194	44 A Consolidated Enterprise	251
Chapter Eight 1912-194	44 The Establishment at Work	294
Chapter Nine 1912-193	14 Liquid Gold - Water and Oil	345
Chapter Ten 1912-194	44 Diverse Mineral Interests	376
Conclusion		414
Bibliography		427

## Acknowledgements

The original research and writing of this thesis were financed by a grant from the South Australian Department of Mines and Energy.

Numerous people and organisations assisted me during the research. I am grateful for the efforts of the staff of the Barr-Smith Library, the Department of Mines and Energy, the South Australian Archives, and the State Library of South Australia. Marjorie Haughton, a great-great-granddaughter of Johannes Menge, local mining enthusiast, Royce Wells, and John Luckhurst-Smith whose research of Northern Territory sources proved useful, were particularly helpful. My thanks are also due to the many people who kindly agreed to be interviewed.

Several people read and commented on various drafts of my work and I thank John Cashen, Keith Johns, the Deputy Director-General of Mines and Energy, and Dr. Keith MacNider for their suggestions. I would like to record my appreciation of the contribution made by my supervisor in the Department of History, Dr. Robert Dare, who willingly offered advice and guidance. I also owe a great deal to the support and encouragement from friends, family, and especially, my parents.

#### Abbreviations

a) Archival

SAA South Australian Archives.

BRG Business Record Group.

GRG Government Record Group.

PRG Private Record Group.

SRG Society Record Group.

b) Department of Mines

AR Annual Report on the Department of Mines by the Director of Mines and Government Geologist.

ARGS Annual Report of the Geological Survey.

DM Department of Mines.

c) Parliamentary

V&P Votes and Proceedings of the Legislative

Council.

SAPD South Australian Parliamentary Debates.

SAPP South Australian Parliamentary Papers.

HA House of Assembly.

MHA Member of the House of Assembly.

LC Legislative Council.

MLC Member of the Legislative Council.

d) Other

BHP Broken Hill Proprietary Company.

E&WS Engineering and Water Supply Department.

ICI Imperial Chemical Industries Company.

FGS Fellow of Geological Society.

#### Conversion

The material covered in this thesis pre-dates 1944 and hence all measurements have been given in Imperial form. Also, it has been considered an unnecessary and misleading exercise to adjust the currency from the pre-decimal pound (£), shilling (s) and pence (d). Today the value of £1 would be vastly different to its decimal equivalent of \$2.

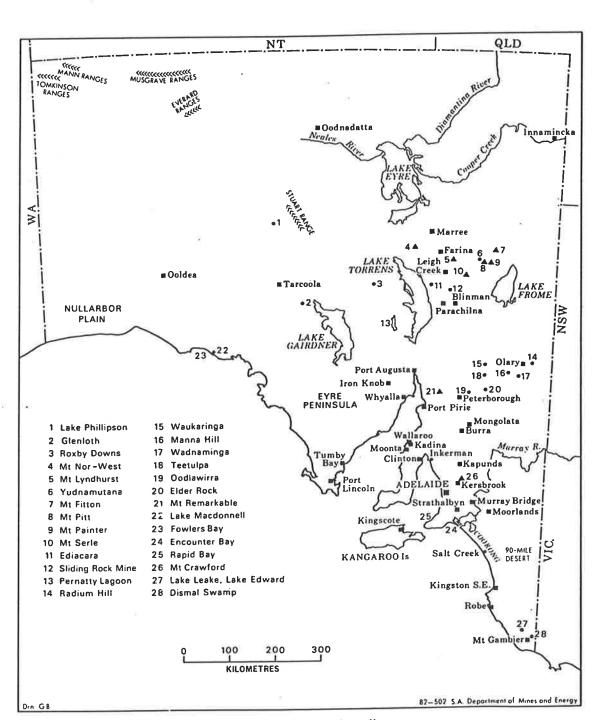
#### Note on Grammar

The syntax, spelling and capitalisation of the original sources have been retained throughout. The use of 'sic' has been restricted to those cases where the grammatical errors in the original sources are repeated or the intended meaning is unclear. In most cases, however, the modern usage of the names of towns and places has been adopted.

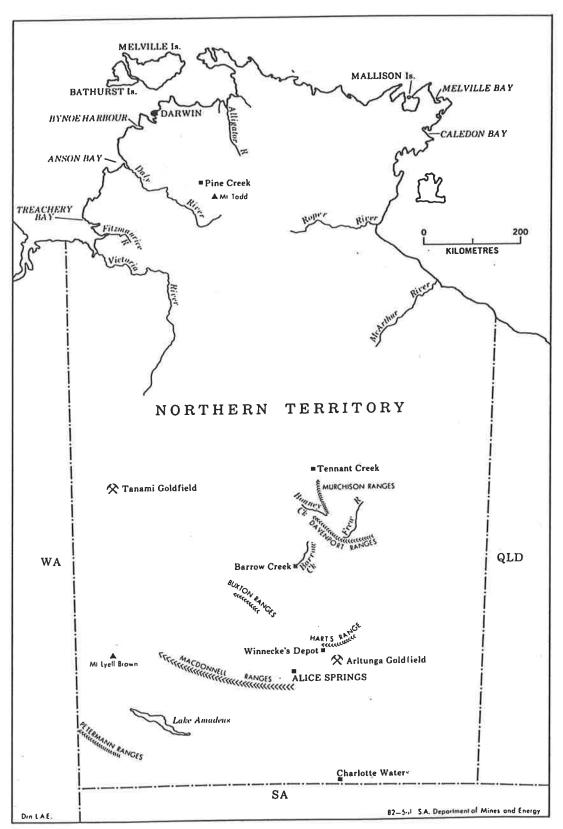
## Terminology

The terminology of the mineral industry is varied, therefore generalised definitions have been adopted throughout. Mining is thus interpreted broadly as the excavation of minerals, ores and rocks from the earth by a variety of methods including dredging and quarrying. A topic of major importance in the Department's activities has been that of underground water resources and this aspect is also examined throughout the thesis. Where necessary, specialist definitions have been provided but this has been kept to a minimum.

The term Geological Survey did not come into official use until 1912. However, in order to maintain the distinction between the Department of Mines and the Geological Survey, the latter term will be used instead of the earlier variants Geological Department or Office.



Locality Map, South Australia.



Locality Map, Northern Territory.