

Department of Mines

South Australia

Report on

DELOMITE DEPOSIT

SEC. 9 HD. KOORINGA CO. BURRA

(H. & L.G. Dept.)

by

L. G. Nixon

GEOLOGIST

MINERAL RESOURCES SECTION
GEOLOGICAL SURVEY BRANCH.

CONTENTS

Abstract
Introduction
Geology
Reserves
Testing
Conclusions
Appendix - Petrological Report

MAP REFERENCE

<u>No.</u>	<u>Title</u>	<u>Scale</u>
57-286	Quartz - Calcite - Dolomite Deposit Sec. 9 Hd. Koorringa Co. Burra (H. & L.G. Dept.)	1" - 50'

MICROFILMED

Department of Mines
South Australia

73-517 ON DOLOMITE DEPOSIT

SEC. 9 RD. BORDINGA CO. BURRA

(N.E. L.S. DEPT.)

1. ABSTRACT

White quartz-calcite-dolomite beds, equivalent in age to the Terransian Series in the Adelaide system, occur in the proposed quarry area. Reserves in this area are estimated at 60 - 70,000 cu. yards.

Additional reserves exist outside the proposed quarry area. Diamond drilling or trenching would be suitable for testing the deposit.

2. INTRODUCTION

This survey was undertaken at the request of the Commissioner of Highways with a view to drilling the deposit.

The area inspected was that outlined in a sketch plan forwarded by the N.E. L.S. Dept., indicating the proposed quarry site.

3. GEOLOGY

Sediments in the area mapped are predominantly quartz-calcite-dolomites of the Terransian series in the Adelaide system rocks of Pre-Cambrian age. Dickinson has referred to them as the upper Limestone Group (Geol. Surv., S.A. Bull. . . . 20) More recently Carnegie and Wilson have grouped them in the "Pre-Glacial Magnesite and Dolomite bearing sediments" (Gillites and Related Glacial Topography of South Australia Sci. Geol. Melb. 48 1. pp 1 - 50).

The original sediments in the proposed quarry have been completely re-crystallised to a medium - fine grained, tough, white quartz-calcite-dolomite, which appears to be suitable for use as fine, medium or coarse aggregate (See petrological report appended). Beds strike 342° dip 50° - 60° W. There is no complication of the structure in this area and the quality of the stone is thought to be suitable over the entire proposed quarry site.

4. RESERVES

Reserves are estimated at between 60,000 and 70,000 cubic yards, allowing for a 60' batter around the perimeter of the

quarry site and a 1 in 12 gradient sloping to the southerly from the northern corner of the quarry area. Additional reserves exist outside the quarry area.

5. TESTING

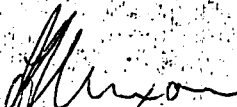
It is considered one diamond drill hole depressed 30° bearing 070° depth 75' and located as shown on the accompanying plan would be sufficient to test this deposit. An alternative to diamond drilling, would be to cut a trench to expose bedrock along the section line A - B between the two central outcrops; a length of approximately 28 yards. Either method would be suitable.

6. CONCLUSIONS

Outcrops in the area investigated consists of dense, tough, white quartz-calcite dolomite. Beds dip 50 - 60° westerly and strike 342°. Approximately 225' east of the proposed quarry area a blue dolomite horizon has been mapped by C. Egner (See D.M.1264/51 Map No. 52-125/1).

One drill hole depressed 30° bearing 070° depth 75' would be sufficient to test the deposit. Trenching, as an alternative to diamond drilling is suggested.

Reserves are estimated at between 60 - 70,000 cu. yards. Additional reserves of suitable material exist outside the proposed quarry area.


L. G. Nixon

GEOLOGIST

LCN:JAH.
9/9/57.

PETROLOGICAL REPORT

Description of Sample (s) ? Marble,

Marks or Nos. L. G. N. 51.

Locality etc. L. G. N. 51, Section 9:

Hundred of Koorunga, County of Burra.

Submitted by L. G. Nixon, Mineral Research Section, SOY'S BLDG.

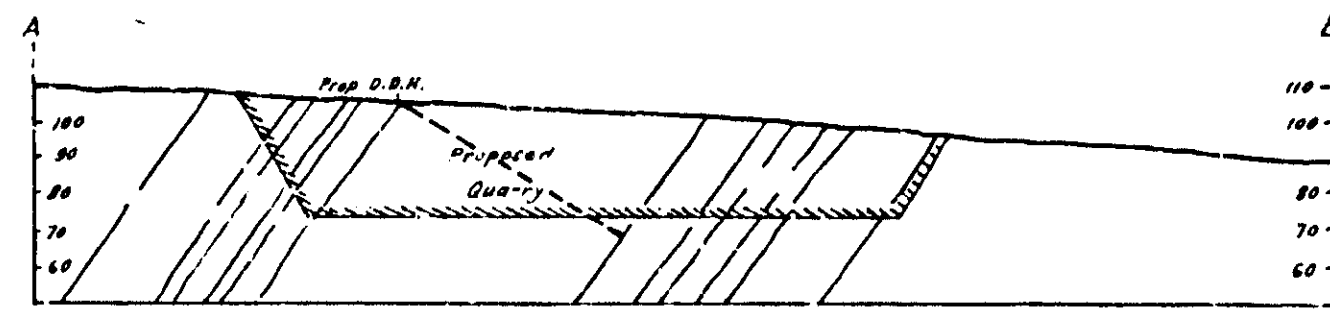
L. G. N. 51. T.S. 3062; P. 338/57 -

This rock is a medium to fine-grained quartz-calcite-dolomite rock. Medium to coarse-grained areas of calcite are irregularly distributed, and some areas consist almost entirely of sutured or interlocking quartz grains. The overall interlocking texture is responsible for the "toughness" of the rock. The original constituents have been completely recrystallised at a low temperature, as indicated by the absence of wollastonite.

Examined by: H. W. Fander

A. W. Whittle,

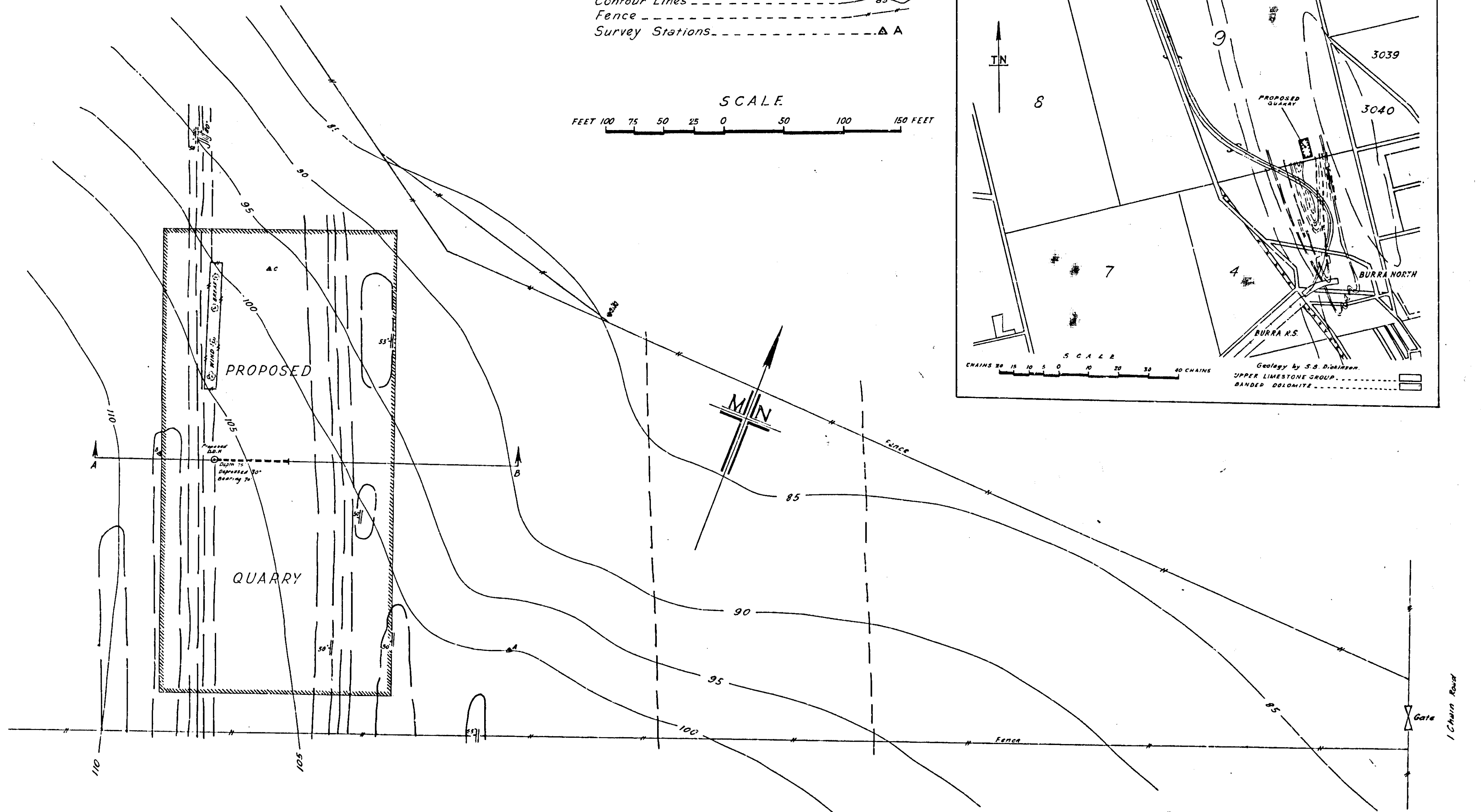
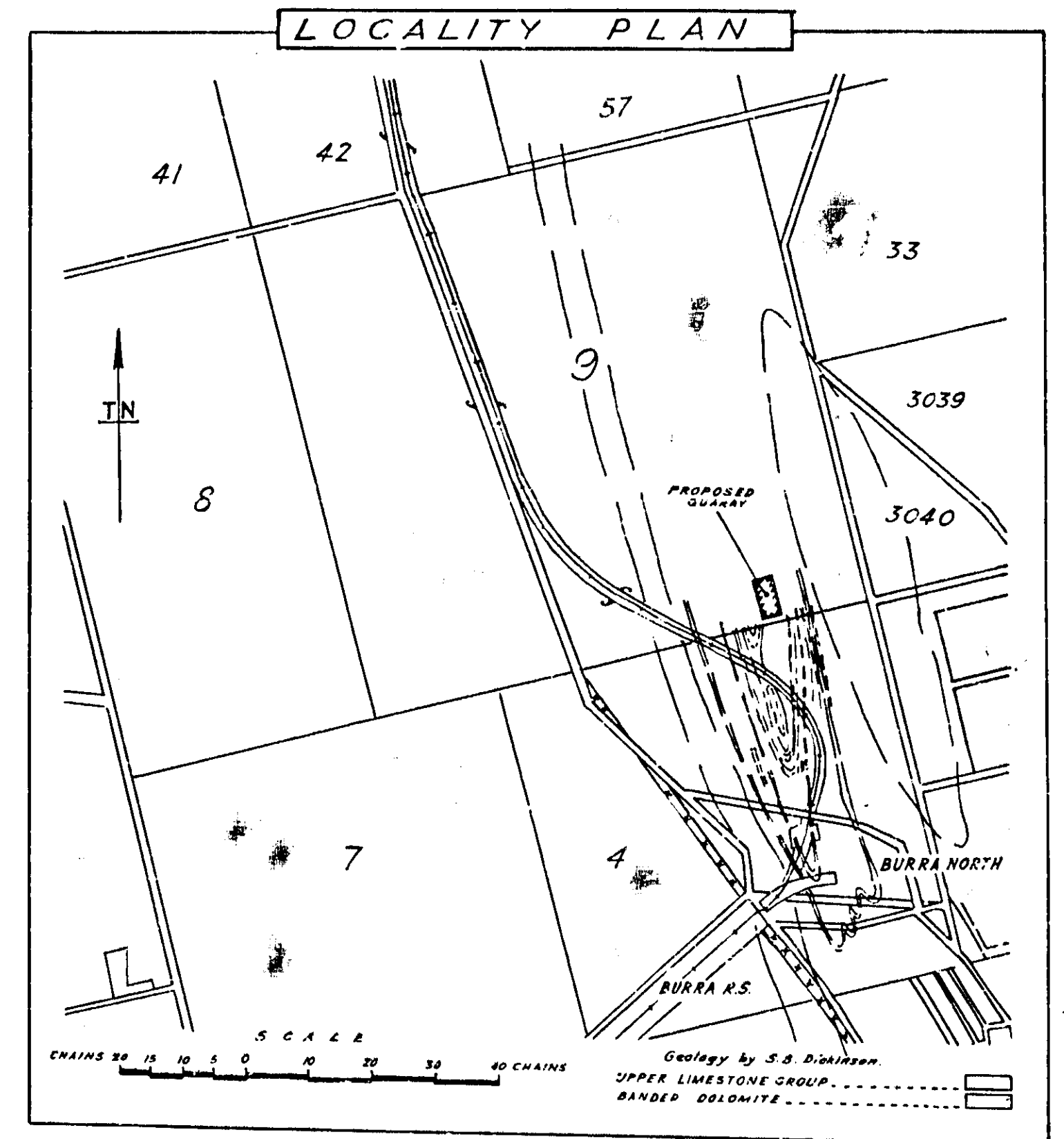
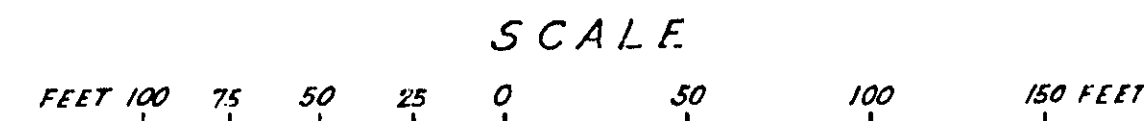
CHIEF MINERALOGIST AND
PETROLOGIST.



SECTION A-B

LEGEND

- Soil Cover -----
- Impure White Marble (outcrops) -----
- Blue Dolomite (After C. Wegner Map 52-125) -----
- Strike & Dip of Bedding ----- 1/4 60°
- " " " " Jointing ----- 1/4 80°
- Proposed Quarry Area -----
- " " Diamond Drill Hole -----
- Contour Lines ----- 85
- Fence -----
- Survey Stations ----- A



To accompany report by L.G. Nixon, Geologist.

S.A. DEPARTMENT OF MINES					
WHITE QUARTZ DOLOMITE DEPOSIT					
PT. SEC. 9 HD. KOORINGA, CO. BURRA.					
(H.A. L.G. DEPT.)					
PLAN & SECTION					
Req. No.		D.M.		Compiled from	
Associated Drawing		No.	No.	Amendment	Exd. Date
Approved		Inset		Scale: 50 feet to 1 inch	
Director of Mines		W.H.		57-286	
				Ge 6	
				Date 3-9-1957	