#### DEPARTMENT OF MINES SOUTH AUSTRALIA

#### GEOLOGICAL SURVEY ENGINEERING DIVISION

#### AUSTRALIAN NATIONAL RAILWAYS TARCOOLA-ALICE SPRINGS RAILWAY GROUNDWATER COMPLETION REPORT - THIRD TENDER (MARLA SIDING - N.T. BORDER)

#### PROGRESS REPORT NO. 8

by

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Rept.Bk.No. 77/4 G.S. No. 5833 Eng.Geol.No. 1976/29 DM. No. 329/75

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#### SUMMARY AND RECOMMENDATIONS

A total of 35 rotary and cable tool boreholes have been drilled to a cumulative depth of 1 519 m along the Third Tender (Marla Siding to the Northern Territory border) section of the Tarcoola - Alice Springs Railway. Of this number 14 were completed as production wells, and the remainder abandoned because of insufficient yield.

Tested yields of production wells vary between 0.75 l/sec and 1.9 l/sec (600-1 500 g.p.h.), and recommended pumping rates are 0.5 to 2.5 1/sec (400-2 000 g.p.h.). Water quality is mostly good to excellent, with three wells (B195, B196 and B198) yielding drinking quality supplies. The maximum spacing between production wells is 27 km.

Most drilling was carried out by rotary-percussion (down-hole hammer) techniques, with very satisfactory results. A cable tool rig was used in unconsolidated materials and for well testing.

No further drilling is recommended, but it is desirable that a sand screen be installed in B195, and possibly B196 and B198 as well, before pumping commences.

#### INTRODUCTION

The following report summarizes the results of water boring along the proposed alignment of the Tarcoola-Alice Springs Railway between Marla Siding and the Northern Territory border, 390 to 562 km north from Tarcoola. This constitutes the Third Tender section of the railway, from about B180 km to B352 km. Boreholes have been given the number of the nearest kilometre peg, and where two holes are close together they have been given "a" and "b" suffixes (thus, B242 and B242a). The required well spacing for this section was 30 km, with safe yields in excess of 1.25 l/sec (1 000 g.p.h.). This specification has generally been met, with the maximum well interval being 27 km. A Summary of Well Data is presented in Table I, and haul distances and yields are illustrated in line diagram form on Figure 3.

Drilling for this section commenced in May (with B2O3) and was completed in October, 1976. Holes B181, B185 and B195 were drilled in 1975-76 for the Second Tender section (Robin Rise to Marla Siding, A160 to B180 km). Most holes were drilled by rotary percussion, with the remainder (except for B185, which was fluid/rotary drilled) being put down by Cable Tool plant.

All successful wells were test pumped, using the plunger pump attached to the cable-tool rig. Preliminary estimates of yield from rotary holes were obtained by airlifting. Recommended pumping rates are given in Appendix C, and on Figure 3.

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#### HYDROGEOLOGY

Productive wells in this section draw upon unconfined aquifers in the Pre-Cambrian granite, Proterozoic siltstone and the Cadna-owie Formation (of lower Cretaceous age), as illustrated in the geological section (Figure 3).

The material loosely described as "granite" in this report may include a variety of acid plutonic and high-grade metamorphic rocks. Where this "granite" is sufficiently permeable to constitute an aquifer it is in a highly to completely weathered state. Some "granite" may in fact have been reworked by alluvial processes, and the distinction between completely weathered granite and alluvial sand and gravel derived from granite is not easily drawn.

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Tested yields of up to 1.5 l/sec (1 200 g.p.h.) have been obtained from weathered granite and alluvium of granitic origin. Water quality is good, generally less than 1 500 mg/l Total Dissolved Solids (TDS).

Drilling of lineaments and dolerite dykes within the granites did not prove successful in this section, though these structures have yielded productive wells elsewhere in the North-West.

Between the Alberga and Tarcoonyinna Creek, and between about B239 and B215 km, Proterozoic siltstones with thin limestones and quartzites outcrop or are covered by a veneer of alluvium. In the vicinity of drainage lines these rocks, where cleaved and fractured, may yield up to 2 l/sec (1 600 g.p.h.) of fair to good quality water (1 000-3 500 mg/l T.D.S.).

At the southern end of the section, between about B210 km and B180 km, Great Artesian Basin type sediments occur beneath 1 to 4 m of alluvium. These include the Bulldog Shale and the Cadna-Owie Formation or their equivalents. The Cadna-Owie is here represented by a very silty fine sand, and though generally present beneath 10-20 m of highly coloured and altered Bulldog Shale (north of B190 km; south from here the shale thickens) it is in fact a water-table aquifer. Yields from individual wells are only moderate, 0.75 to 1.5 l/sec (600-1 200 g.p.h.), and there is a risk of hole collapse in these fine sands. Water quality is, however, excellent (less than 500 mg/1) and it is likely that this is derived from local recharge.

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## TABLE I

## SUMMARY OF WELL DATA

Bore N <b>o.</b>	Depth (m)	S.W.L. (m)	Tested Yield (g.p.h.)	Approx. Quality (mg/l)	Status
B 185	40.0	-	504	-	abandoned and backfilled
B 185	83.5			, ma	11 U U
B 195	30.0	12.5	1 000	125	completed productive
B 196	27.0	12.0	1 200	299	ti ii
B 198	28.0	11.8	950	435	n 0
B 203	37.0	17.5	600	385	II II
B 215	40.0	19.5	20	-	abandoned and backfilled
B 244	8.0	-		-	11 11 11
B 224a	58.0	23.4	500	1 234	completed productive
B 237	40.0	23.3	1.500	7 903	u n
B 240	64.0	10.8	1 500	15 833	н п
B 241	36.0		100	12 000	abandoned and backfilled
B 242	58.0	19.5	150		11 II II
B 242a	40.0	***	20		H B U
B 243	45.0		180	14 000	11 11 11
B 243a	50.0	<b>-</b> .	80	1 200	.н н н
B 243b	38.5	8.9	50	1 500	tt it u
B 265	58.0	37.2	1 500	2 211	completed productive
B 275	64.0	23.3	1 000	3 478	11 H
B 277	52.0	<del></del> .	10	-	abandoned and backfilled
B 277a	82.0	24.5	30	· -	n n n
B 278	52.0	* <u>-</u>	50	-	11 U U
B 287	16.0		·		и и и
B 289	50.0	··· · · ·	10	·	11 U 11
B 290	38,0	1 <del></del>	.10	-	и и и
B 295	40.0				и и п
B 298	33.0	10,1	1 400	14 420	completed productive
B 298a	27.0	12.0	1 200	11 146	н
B 301	27.0	н. —	. 5	800	abandoned and backfilled
B 305	38,0	25.0	80	<b>-</b>	11 11 11
B 307	37.0	18,5	600	2 197	completed productive
B 320	26.0	18.4	1 200	895	n H
B 337	52.0		20	-	abandoned and backfilled
B 347	52.0	19.5	900	765	completed productive
B 349	52.0	13,2	150	900	abandoned and backfilled

#### DRILLING METHODS

Both cable tool and rotary techniques were used in drilling the Third Tender section. The rotary rig was a truck-mounted Mayhew 1000, and all rotary holes except B185 were drilled by means of a high pressure downhole hammer. This method proved particularly successful in the hard rock aquifers generally encountered in this section.

The Ruston 22W cable tool plant was used mainly in a follow-on capacity. Though much slower than the rotary rig, it is able to bore through unconsolidated materials which could jam or bury the down-hole hammer.

Productive holes were initially tested by airlifting to give a rough estimate of yield. Later, 6-hour discharge tests were carried out using the plunger pump mounted on the cable tool rig. The results of this testing, presented as Drawdown vs. Time Curves, are given in Appendix C.

A summary of drilling methods employed is presented in Table II.

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## TABLE II

### DRILLING SUMMARY

Commenced ·	Completed		Drilli	ng Met	hod		
22.3.76	24.3.76	Cable To	· Fo				
10.5.76	21.5.76	Rotary,	Fluid circ	ulatio	n		
24.3.76	28:3.76	Cable To	ol (P.W.)				
10.10.76	15,10,76	11 11	(P.W.)				
4.10.76	9,10,76	<b>1</b> 6 1	(P.W.)				
17.5.76	23.5.76	i) li	(P.W.)				an Ar
24,5.76	30.5.76	11 ()	I				
31.5.76	2.6.76	<u>11</u> (1	I			·	
30.7.76	31.7.76	Rotary-p	ercussion	(down-	hole	hamme	r)
28.7.76	29.7,76	п	ti •	11	11	11	(P.W.)
20.7.76	21,7.76	н	13 <b>H</b>	û	u	11	(P.W.)
22;7.76	22.7.76	ti	11	ы <u>н</u>	11	11	
19,7,76	20.7.76	в	n	11	u	11	
21.7.76	21.7.76	u	.11	11	ш	u	
23,7.76	23.7.76	81	18	11	n.	11	
23.7.76	24.7.76	ţi.	11	-11	11	11	
24.7.76	24.7.76	11	"	tì	п	11	
26,6,76	27.6.76	11	11	н	11	'n	(P.W.)
24,6.76	25.6.76	.11		u	11	13	(P.W.)
11.6.76	12.6.76	u	11	11	11	11	
12.6.76	15.6.76	11	11	11	11	11	
10.6.76	10.6.76	11	.0	EÌ .	Л	11	
8,6,76	9;6.76	н .	11	· 11	ü	11	
15.6.76	17.6.76		11	11	11	11	
7.6.76	8.6.76	11	11	H	15	н	
7.6.76	7,6.76		н	11	n	u	
18,6.76	19,6.76	IJ	11	s ti	н	п	(P.W.)
17,6.76	18.6.76	н	ц	L1	.11	11	(P.W.)
4.6.76	5,6,76	11	11	- 11	(1	11	
21.6.76	22.6.76	Rotary o 1976 by	irilled to Cable Tool	34 m,   (to 3	compl 37 m)	eted (P.W.	September )
3,6,76	3.6.76						September
2.6.76	2.6.76	Rotary-	percussion	(down-	-hole-	hamme	r)
31.5.76	1.6.76	11	11	41	.11	n	(P.W.)
29.5.76	29.5.76	n	11	11	11	ш	
	22.3.76 10.5.76 24.3.76 10.10.76 4.10.76 17.5.76 24.5.76 31.5.76 30.7.76 28.7.76 22.7.76 23.7.76 23.7.76 23.7.76 23.7.76 24.7.76 24.7.76 24.6.76 11.6.76 12.6.76 15.6.76 15.6.76 15.6.76 15.6.76 15.6.76 15.6.76 15.6.76 15.6.76 15.6.76 15.6.76 15.6.76 15.6.76 3.6.76 15.6.76 3.6.76 3.6.76	10.5.76 $21.5.76$ $24.3.76$ $28.3.76$ $10.10.76$ $15.10.76$ $4.10.76$ $9.10.76$ $17.5.76$ $23.5.76$ $24.5.76$ $30.5.76$ $31.5.76$ $2.6.76$ $30.7.76$ $31.7.76$ $28.7.76$ $29.7.76$ $20.7.76$ $21.7.76$ $22.7.76$ $22.7.76$ $22.7.76$ $22.7.76$ $23.7.76$ $23.7.76$ $23.7.76$ $24.7.76$ $24.7.76$ $24.7.76$ $24.7.76$ $24.7.76$ $24.6.76$ $25.6.76$ $11.6.76$ $12.6.76$ $12.6.76$ $15.6.76$ $10.6.76$ $9.6.76$ $15.6.76$ $17.6.76$ $8.6.76$ $9.6.76$ $15.6.76$ $17.6.76$ $18.6.76$ $19.6.76$ $17.6.76$ $8.6.76$ $21.6.76$ $18.6.76$ $3.6.76$ $3.6.76$ $2.6.76$ $2.6.76$ $3.6.76$ $3.6.76$	22.3.76 $24.3.76$ Cable To $10.5.76$ $21.5.76$ Rotary, $24.3.76$ $28.3.76$ Cable To $10.10.76$ $15.10.76$ """ $4.10.76$ $9.10.76$ """ $4.10.76$ $9.10.76$ """ $17.5.76$ $23.5.76$ """ $24.5.76$ $30.5.76$ """ $31.5.76$ $2.6.76$ """ $30.7.76$ $31.7.76$ Rotary-p $28.7.76$ $29.7.76$ """ $20.7.76$ $21.7.76$ """ $20.7.76$ $21.7.76$ """ $21.7.76$ $22.7.76$ """ $23.7.76$ $23.7.76$ """ $23.7.76$ $24.7.76$ """ $24.6.76$ $25.6.76$ """ $24.6.76$ $25.6.76$ """ $11.6.76$ $12.6.76$ """ $12.6.76$ $10.6.76$ """ $12.6.76$ $10.6.76$ """ $12.6.76$ $19.6.76$ """ $24.6.76$ $25.6.76$ """ $24.6.76$ $25.6.76$ """ $24.6.76$ $10.6.76$ """ $24.6.76$ $10.6.76$ """ $24.6.76$ $10.6.76$ """ $24.6.76$ $10.6.76$ """ $24.6.76$ $10.6.76$ """ $24.6.76$ $10.6.76$ """ $24.6.76$ $10.6.76$ """ $24.6.76$ $10.6.76$ """ $24.6.76$ $10.6.76$ """ $24.6.76$ $10.6.76$ """ $25.6.76$ """""""" $26.6.76$	22.3.76       24.3.76       Cable Tool         10.5.76       21.5.76       Rotary, Fluid circ         24.3.76       28.3.76       Cable Tool (P.W.)         10.10.76       15.10.76       ""(P.W.)         4.10.76       9.10.76       ""(P.W.)         4.10.76       9.10.76       ""(P.W.)         17.5.76       23.5.76       ""(P.W.)         24.5.76       30.5.76       ""         30.7.76       31.7.76       Rotary-percussion         28.7.76       29.7.76       """         20.7.76       21.7.76       """         21.7.76       22.7.76       """         22.7.76       22.7.76       """         23.7.76       23.7.76       """         23.7.76       23.7.76       """"         24.6.76       25.6.76       """"         24.7.76       24.7.76       """"         24.7.76       24.7.76       """""         24.6.76       25.6.76       """""         24.7.76       24.7.76       """""         24.6.76       25.6.76       """"""         10.6.76       10.6.76       """""         11.6.76       12.6.76       """""	22:3.76       24.3.76       Cable Tool         10.5.76       21.5.76       Rotary, Fluid circulation         24.3.76       28:3.76       Cable Tool (P.W.)         10.10.76       15.10.76       ""(P.W.)         4.10.76       9.10.76       ""(P.W.)         4.10.76       9.10.76       ""(P.W.)         17.5.76       23.5.76       ""(P.W.)         24:5.76       30.5.76       """         31.5.76       !2.46.76       """         30.7.76       31.7.76       Rotary-percussion (down-         28.7.76       29.7.76       """"""""         20.7.76       21.7.76       """"""""""""""""         21.7.76       22.7.76       """"""""""""""""""""""""""""""""""""	22:3.7624.3.76Cable Tool $10_{*}5.76$ 21.5.76Rotary, Fluid circulation $24.3.76$ $28.3.76$ Cable Tool (P.W.) $10.10.76$ $15.10.76$ " " (P.W.) $4.10.76$ $9.10.76$ " " (P.W.) $4.10.76$ $9.10.76$ " " (P.W.) $24.5.76$ $30.5.76$ " " (P.W.) $24.5.76$ $30.5.76$ " " $31.5.76$ $22.6.76$ " " $24.5.76$ $30.5.76$ " " $30.7.76$ $31.7.76$ Rotary-percussion (down-hole $28.7.76$ $29.7.76$ " " " " $20.7.76$ $21.7.76$ " " " " $20.7.76$ $21.7.76$ " " " " $21.7.76$ $22.7.76$ " " " " $22.7.76$ $22.7.76$ " " " " $23.7.76$ $23.7.76$ " " " " $23.7.76$ $24.7.76$ " " " " $24.6.76$ $25.6.76$ " " " " $24.6.76$ $25.6.76$ " " " " $24.6.76$ $12.6.76$ " " " " $24.6.76$ $12.6.76$ " " " " $24.6.76$ $12.6.76$ " " " " $11.6.76$ $12.6.76$ " " " " $12.6.76$ $10.6.76$ " " " " $15.6.76$ " " " " " $15.6.76$ " " " " " $15.6.76$ " " " " " $24.6.76$ $26.76$ $16.76$ " " " " " $24.6.76$ $25.6.76$ $16.76$ " " " " " $16.6.76$ " " " " " $16.6.76$ " " " " " $17.6.76$ $8.6.76$ $17.6.76$ <	22:3.76       24.3.76       Cable Tool         10.5.76       21.5.76       Rotary, Fluid circulation         24.3.76       28.3.76       Cable Tool (P.W.)         10.10.76       15.10.76       " " (P.W.)         4.10.76       9.10.76       " " (P.W.)         4.10.76       9.10.76       " " (P.W.)         24.5.76       30.5.76       " " (P.W.)         24.5.76       30.5.76       " "         31.5.76       22.6.76       " "         30.7.76       31.7.76       Rotary-percussion (down-hole hamme         28.7.76       29.7.76       " " " " " " "         20.7.76       21.7.76       " " " " " "         21.7.76       22.7.76       " " " " " "         22.7.76       22.7.76       " " " " " "         23.7.76       23.7.76       " " " " " "         23.7.76       23.7.76       " " " " " "         23.7.76       24.7.76       " " " " " "         24.6.76       25.6.76       " " " " " "         24.6.76       25.6.76       " " " " " "         24.6.76       9.6.76       " " " " " "         24.6.76       9.6.76       " " " " "         25.6.76       " " " " " "       " " " "

(P.W. indicates that the hole was completed as a production well. All other holes were considered insufficiently productive, and were backfilled.

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#### WATER QUALITY

Most water is required for earthwork compaction, for which quality is not a consideration. Relatively small supplies of good quality water will be required for camp use during construction, and for a permanent maintenance depot and stock yards at Indulkana Creek (Chandler Siding). Water of intermediate quality (less than 5 000 mg/l T.D.S.) is required for concrete mixing.

Groundwater from wells B195, B196 and B198 is of good drinking quality - and as such is the first to be located on the entire line. Wells B203, B320 and B347 have acceptably low T.D.S. values, but high nitrate ion concentrations make these unsuitable for drinking. These holes, and B224a, B265, B275 and B307 are suitable for general camp purposes (washing, etc.), and could be readily brought down to drinking quality by desalination.

Extensive scout drilling failed to locate a permanent on-site supply for the Chandler Siding. At the present time the alternatives appear to be desalination of B240 (13600 mg/l T.D.S., 1 600 g.p.h.) or desalination of water piped 4 km from B237 (8 000 mg/l T.D.S., 1 600 g.p.h.). The raw water from B237 is of fair to marginal stock quality, and this well could be duplicated.

All wells except B237, B240, B298 and B298a are suitable for concrete water, and all existing bores and wells within 10 km of the line are also suitable for this purpose. Details on these existing bores are given in Appendix D.

A summary of water analyses for this section is given in Table III, and data sheets from full analyses are presented in Appendix B.

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## TABLE III

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## SUMMARY OF WATER ANALYSES

Bore No.	Approx. Salinity mg/l	рН	Analysis Type	Suitability	Remarks
B 195 B 195	115 125	7.4 7.4	Lc Lc	D,C,E,S,	No full analyses to date, shculd be drinking quality.
B 196	299	7.8	F	D,C,ES,	Drinking quality.
B 198	435	7.9	F	D,C,E,S,	Nitrate (43 mg/l), approaching limit.
B 203	385	8.0	F	DD,C,E,S	Excess nitrate (72 mg/1)
B 224a	1 234	:7.6	F	DD,C,E,S	Sampled during drilling - not pumped.
B 237	7 903	7.3	F	E,S,	Sampled during drilling
B 237	7 719	7.3	F	· ·	Sampled during test pumping
B 240	15 833	7.4	F	E	During drilling
B 240	13 195	7.3	F	•	During pumping
B 241	12 000	<sup>сан</sup> д <b>е</b>	Fc		During drilling - hole abandoned.
B 243a	14 000	-	Fc		During drilling – hole abandoned.
B 243a	1 200		Fc		During drilling - hole abandoned.
B 243b	1 500	Anna	Fc		During drilling – hole abandoned.
B 265	2 211	8.3	F	DD,C,E,S	During drilling
B 265	2 078	8.1	F		During pumping
B 275	3 478	8,0	F	S, E S	During drilling
B 275	3 340	8.0	F		During pumping
B 298	11 497	7.7	F	Ε	During drilling
B 298	14 420	7.6	F	E	During pumping
B 298a	11 146	8.6	F	E	During drilling
B 301	800		Fc	-	During drilling – hole abandoned
B 307	2 197	8.0	F	DDMC,E,S	During pumping
B 320	1 050	` <b>.</b>	Fc		During drilling
B 320	895	8.1	F	DD,C,E,S	Excess nitrate (95 mg/1)
B 347	1 100		Fc		During drilling
B 347	765	7.6	F	DD,C,E,S,	Excess nitrate (139 mg/1)
B 349	900	Cont :	Fc	5m	During drilling - hole abandoned.

#### Analysis Type

Lc - Total Dissolved Solids (T.D.S.) results based on laboratory conductivity readings, and subject to small errors.

Fc - based on conductivity readings in the field, and may be subject to large errors.

F - Full analysis, T.D.S. results accurate.

#### Suitability

D - Drinking Water quality; suitable for all uses (less than 500 mg/l:T.D.S., 'nitrate below 45 mg/l).

DD - Good camp quality water, but not suitable for drinking without desalination.

C - Suitable for concrete (less than 500 mg/l).

E - Stock quality water (less than 10 000 mg/l; good stock quality water is less than 7 000).

#### FURTHER WORK

No further drilling is recommended, but if the contractor requires it, advice on hole duplication and additional holes can be obtained from the Engineering Division of the Mines Department.

The installation of a sand screen in well B195 is, however, <u>recommended</u>. This hole, in silty fine sand, is uncased below 20 m and liable to collapse. It is likely that screening would permit the present recommended pumping rate of 0.5 l/sec (400 g.p.h.) to be increased. Alternatively, or additionally, wells B196 and B198 could be similarly equipped.

# ACKNOWLEDGEMENTS

I would like to record my thanks to Senior Drillers W.J. Boyd and L.A. Hausler and their crews the efficient manner in which they carried out the drilling for this section, despite the handicap of operations in remote areas.

GHMcN:FdeA 20/1/77

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## REFERENCES

Coats, R.P., 1963. Geology of the Alberga 4-mile Military Sheet (with map) S.A.D.M. Rept. of Investigations No. 22.

- Hart, B.T., 1974. A compilation of Australian Water Quality Criteria. Australian Water Resources Council, Tech. Paper No. 7.
- Krieg, G.W., 1973. Everard 1:250 000 Geological Sheet Explanatory Notes. S.A.D.M.
- McNally, G.H., 1975. Tarcoola-Alice Springs Railway. Engineering Geology, Marla Bore to Baystone Bore, N.T. S.A.D.M. Rept. Bk. 75/132.
- McNally, G.H., '1975. Tarcoola-Alice Springs Railway. Geological Investigations at Bridge Sites, Marla Bore S.A. to Baystone Bore N.T. S.A.D.M. Rept. Bk. 75/133.
- Smith, P.C., 1976. Tarcoola-Alice Springs Railway. Groundwater Completion Report - Second Tender. Progress Report No. 7. S.A.D.M. Rept. Bk, 76/65.

APPENDIX A BOREHOLE LOGS

			κIJ	DOLA - NGS RAI	ALLCE	ENT OF MINES SOUTH AUSTRALIA ENGINEERING DIVISION BORE LOG	an a	UNI	T/ST/	ATE I		1
2004					EL Surface 29(	6.6 m		SERI	AL N	0;		
SEC.	بسبسند		HD.	OUT OF	EL ref. point	Datum		FOLI	DER	NO.		
	DEPT	тн то		DEPTH TO	·	SUPPLY	TOTAL D	ISSOL	VED	SOLI	os	
w	ATER	CUT (m)		STANDING WAT	'ER (m) *m³/day	Method of test	milligrammes/litre		A	nalysis	W NO	<u>с</u>
<b>(</b>	dr;	у										
HOLE Dia. DEPTH m	CORE	GRAPHIC LOG	from	DEPTH (m)		GEOLOGICAL DESCRIPTION OF SAMPLE		1 NIT	AGE	CASING	WATERS CUT WATER LEVEL	
luntum luntum			0	2 12	shale fragme Light brown.	layey coarse/medium ents to 5 mm. , yellow-brown and	dirty yello	W				
ահահահահ	•	· · · · · · · · · · · · · · · · · · ·			clayey c.m. orange fragn	SAND, with white, ments of shale. Ver sandy clay, 4-6 m.	purple and		Ĵ			
ուսերությունը Հետերությունը Հետերությունը								1210	aceou			
			•		8-10 m clay	content decreasing	to 40-50%.	Bulldog	7			
» աստակակագիակակահակակակակակա			12	22	es of coarse	own m.f. sandy CLA sand (shale fragme about 30%, increas	ents to 3 mm	2- 1).				advative from the state of the
5		•				• •						
		Tio	0.0		NOTE: 1000 gais./hr. = 110 m <sup>3</sup> /day	, t of B180-700 km.	DRILL TYPE C.T.	LOC	GGED	BY	GHY	124
REMA	RKS	Ab	an	doned.	non-producti	Ve.	CIRCULATION:	DA1	re:	4	5	16
				,,			START: 22.3.76	TRA	CED	BY:		
							FINISH: 24.3.76	DAT	Ε:			
							SHEET		OF	2		

 UNIC	NO.B	181
NULL	NU.	101

# DEPARTMENT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION **BORE LOG**

PROJECT:

UNIT/STATE NO:

.

CONTINUATION SHEET

HOLE Dia. DEPTH m	CORE GRAPHIC LOG	from	DEPTH (m) 10	GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT	CASING	WATERS CUT	WATER LEVEL
15	· · · · · ·	12	22	Sandy CLAY, as above, becoming red-brown (14-20 m) and light yellow-brown (20-22 m	$\overline{)}$	T	1		Ī
ahuntuu kuu kuu kuu kuu kuu kuu kuu kuu kuu						3 0	6 6 7		
$\kappa$ ,		30		CLAY (sand content 10%). Traces of fine gravel. Fragments of stiff clay or	y	OWIE Formation Lower Creta			
s minuhunturhunturhunturhunturhunturhunturhunturhuntur				END OF HOLE, 40.0 m		Cadnar		OF	2

PROJECT	т: Т	ARC			DEPARTMEN E SPRINGS	IT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION						
LOCATIC	ON OR CO-	ORDS	RAILW	AY	EL Surface 309	BORE LOG		564 SERIAL	فسينبعث		- 14	4
SEC.	н	D. ()	UT OF		EL ref. point	Datum		FOLDE	RNC	).		******
DE	ртн то		DEPTH TO			SUPPLY	TOTAL D	ISSOLVE	D SC	LIDS	; ;	
WATE	ER CUT (m)	s	TANDING WAT	ER (m)	*m²/day	Method of test	milligrammes/litre	·····	Ana	iyals V	V. NO.	 ·
dı	v		·····		<del></del>	· · · · · · · · · · · · · · · · · · ·		·····				
	- 0			•		•						
	7		· ·									
HOLE Dia. DEPTH m CORE	0	Di Irom	IPTH (m) to			GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT	AGE	WATERS CUT	WATER LEVEL	
E	0-0	0	2	Rec	l-brown fi	ne gravelly SILT (	80% silts		1			
						artz and limonite j	pebbles to					-
111	°			5 1	nm).					•		-
տ աւհափակակակակակակակական	- 0	2	8	Cho	colate-br	own to white claye	y quartz me	a≟u				
III I					n/fine SAN				20		11	
lini.	$ \cdot \cdot $	•	-	•					9			
IIII	·						•		0			
li u									4			
TTT I		• •							3			
111						· ·			5			
5-1							•		5			
T I I			· · ·		· · ·							
- Ini	···	•								1		
- The	· · ·				•					1	11	
վու												
		8	38	Whi	te red 1	prown chocolate, bu	uff and					
ղո				vel	low indur:	ated CLAY (complete	all and alv weather	_  -+				
TTT .				ed	and alter	ed shale).						
- The				8-1	lo m ferru	zinous, with limon	ite (?)					
ntu				peb	bles and I	In staining.			s			
0				10-	-12 m pall:	id zone of laterite	e profile		0			,
ulu			1.1	(Wh	ite and ye	ellow clay, partly	silicified	) 0				
n lu				1 <i>2</i> 77	own clay.	te, off-white, yell	Low and red		U D			
mh				UT OT	own cray.			2	4	1		
шţ									d la			
III								on	5		11	
hul								0				
or $\mathbf{o}$					,				4			
пп								5				
								Bu	2			•
5						and the second		-	1			
					00 gals./hr. = 110 m³/day		DRILL TYPE Rot.		GED E	3Y: 1		S
REMARK	၊s LOC	ate	d 75 n	a no	orth-east d	of B185.00 km peg.	CIRCULATION: Fluid				<u></u>	
	Abai	ndo	ned, r	10n-	-productive	9	START: 10.5 75					
									****			,
				•			FINISH: 21.5.75	_		·····		
							SHEET ?	t · · ·	054			



PROJECT:

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HOLE NOB185

UNIT/STATE NO:

CONTINUATION SHEET

HOLE Dia. DEPTH m	CORE	GRAPHIC LOG	from	DEPTH (m)	GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT	CASING	WATERS CUT	WATER LEVEL	
Juntuuluutuulu			8	38	CLAY, as above. Predominantly white sili cified kaolinitic clay, 16-18 m. 18-30 m, white kaolinitic clay (90-95%).						Tool on the second
udintuluutuu				•							
6 Induction have been been been der											untum fundum
արարարո							1000	3			فيتابين ليسابق المنابين
25							C toto	LI-K-T CI			dimba dimba di
unterdenterate				•			Pulld og	LAN H			and and and and and
 8 dumhunhun					30-38 m mottled white/yellow clay, yellow (limonitic ?) proportion increasing with						
mhuduuluu					depth.						անականակա
 s Juntuuluutuuli								4			ատասիստիս
արողողուլո			•								ataatadaatadanhahahadaahadaahadaahahahahahahahahah
$\delta$			38	70	Yellow clayey fine to medium quartz SAND. Clay present as matrix and as interbeds.		-				
 40 E	1.	· · .		·		SHEE	T.K.	••••	OF .	4	• •

				****	DEPARTMENT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION	HC	ILE	N	0.4	81	85
PRO	JEC	τ:			BORE LOG	UN	ит <i>ј</i> :	STA	TE	NO:	•
НОLЕ Dua. DEPTH m	CORE	GRAPHIC LOG	from	DEPTH (m)	GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT	AGE	CASING	WATERS CUT	WATER LEVEL
40		<u> </u>	38	70	Clayey SAND, as above 38-40 m, medium sand (70%), clay (30%).	1	T				
-		· ·			40-52 m, as above, becoming weakly cemente	a d					-
		• .									
		·									
								-			
	11111					· .					
45		• •					507				1
7.4							3at	С Д			
		•••					۱ ا	6			
had		•••••••••••••••••••••••••••••••••••••••				Ľ	L	ง ๙			
and the		•••						4	-	-	
		•					3,	Ĵ			-
							1				
<b>5</b> 0		• •				1	- I .	0			
		•					0	5			11
40		• • •		•		K	- ر		ļ		_
lini		÷			52-54 m, 80% sand, 20% white and yellow cl	.a.y	•				
ndhn		••••									uturtur huturturturturturturturturturturturturtur
-lan		•••						1	-		
ոկոս		· ·			54/56 m, interbeds of clay.						- [internet
utte Litte		• •							-		
		·				-					- Ind
mlm		••••			56-58m, purple-brown fragments.						
lud		<u>,</u> .									
nihu				,						i	
սիու		· · .			58-60m, mottled yellow/white, with clay bands (some red-brown).				1		
սկոս						-			1	-	
e Bullin		•••			60-66 m, white and red-brown clay bands						
Inntu					becoming more frequent.						- Innti
ակու							1				
<u>uuluutuutuutuutuutuutuutuutuutuutuutuutu</u>										ł	
ոպո		•		·  -							hun
ոլող		• •		4	•						- Intro
լուկո		·									   1111
ري الليا	ſ	•			l s	HEET		3	0	F	4==

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PROJECT:

HOLE Dia. DEPTH m

65

80

75

CORE

GRAPHIC LOG

38

70

DEPTH (m)

70

HOLE NO. B185

SHEET 4. OF 4-...

UNIT/STATE NO: **BORE LOG** CONTINUATION SHEET WATERS CUT WATER LEVEI CASING GEOLOGICAL DESCRIPTION OF SAMPLE UNIT AGE Clayey SAND, as above 66-69 m, fine quartz sand with yellow, off-white, pink and red-brown clay matrix. 71.5 Off white to yellow CLAY. Formation 71.5 83.5 White, off-white, yellow, pale mauve fine quartz SANDSTONE with white, yellow and Ce045 red-brown clay interbeds. Ц ł ONIC U 1 adna ONO END OF HOLE, 83.5 m.

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	OJEC	T: ]		RAILV		DEPARTMEN E SPRINGS	BORE LOG 5643 -								
SE	c		-10	OUT OF		EL Surface 320.C EL ref. point	) m	Datum			-	AL N			·····
-		ртн то		DEPTH TO	Ì	Et rei, point	SUPF	Datum PLY		TOTAL D	-			DS	
	WAT	ER CUT (m)		STANDING WATE	R (m)	*m³/day		Method of test		milligrammes/litre	÷	Ar	nalysia	5 W. N	<b>)</b> .
16 12.5						1000g.p.h. (1.25 l/ sec )	plune 4(	er pump, O mins	, in the design of the second second	115-125 (рн 7.4	>	****		<b></b>	
HOLE Dia.	DEPTH m CORE	GRAPHIC LOG	from	DEPTH (m)	1		GEOLOGICAL	DESCRIPTION OF SAI	MPLE	L	TINI	AGE	CASING	WATERS CUT	
<u>व</u>	ավույնությունությունությունությունությունությունությունությունությունությունությունությունությունու		4	15	fi br Li co ts Cl	ght red-br arse SAND of brick- ips (highl ay content agments up	SAND.	Becoming ink and 1 -10% clay range and red <u>Bulld</u> asing wit	ight   • Sai whit o <u>g Sh</u>	brown nd consis e shale ale).		wer Cri	150mm steel casing 0-2015m		uutiuluuluuluuluuluuluuluuluuluuluuluulueludaalaadaalaataalaataalaataalaataa
		(G				00 gals./hr. == 110 m³/day				L TYPE C.T.				GH	
HE	MARK	01				north of B	195.30	0 km.		ULATION:				5	76
1		00	шÞ	leted p	T.00	UCUIVE				RT: 25 3 76					
1				ł					FINIS	ан: 28·3·76 SHEET	ي بي بي الس		.2		
ـــــ	-ouakate					1999 - Barton Carlos de Carlos		****		SHEE 13		Ur	·L	ر میں میں میں اور	

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DEPARTMENT OF MINES - S ENGINEERING DIV	
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BORE LOG

HOLE NO. B195 UNIT/STATE NO:

PROJECT:

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						CONTINUATION SHEET						
	HOLE Dia. DEPTH m	CORE	GRAPHIC LOG	from	DEPTH (m) to	GEOLOGICAL DESCRIPTION OF SAMPLE	UNIT	AGE	CASING	WATERS CUT	WATER LEVEL	
	15	E	· ·	15	16	Dirty yellow fine sandy SILT.	T		1 1		4	
	20			16	21							ախակափակո
			· · ·		•		rmation	ر ک ا				սնավագետիմնետքեպնարտվումնակունովնարտեսնեսնետետետետետնունունունուն
	20_			21	22	White fine sandy CLAY.	e For	taceo				ակավոսիս
	h			22	24		NO -	Cret				unhunhun
				24.	30	Yellow-brown coarse/medium/fine SAND	odna	No				արոր
- 1	25		••••	<b>نے ا</b>		mostly quartz. Slightly silty (5%), with a few chips of fine sandstone.	S	-				որորոր
												նեսնեսը
			••••			28-30 m. No coarse sand, fines 1-2%/						սիակակո
>			•••									անակարությո
	and the second se		•••••			END OF HOLE, 30.0 m.						ահումա
	limburh					ι <b>δ</b>						huhuh
					÷							ահահայ
	- mp - mp - m											unturlant
	1					¢						uluuluulu
	and				-				-			<u>անահակակակակակակակակակականակուհակուն</u>
											-	huhulu
						SHE	ЕТ	2	 	DF 7		Ę

PROJECT	HOLE NO. B196								
LOCATION OR CO-ORDS:	BORE LOG 5643 - 19								
OUT OF	EL Surface 320.	O m	·	SERIAL NO					
SEC. HD.	EL ref. point	Datum	····	FOLDER N	0.				
DEPTH TO DEPTH TO	(m) *m*/day	SUPPLY		SSOLVED S					
WATER CUT (m) STANDING WATER	(m) m-yoay	Method of test	milligrammes/litre	An	alysis W. NO.				
16 12	1.5 <b>l/sec</b> (1200 g.p.h.)	plunger pump 360 mins.	299 (рн.7.8)						
DEPTH m DEATH m CORE CORE CORE CORE From to	-	GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT AGE	CASING WATERS CUT WATER LEVEL				
	STONE and fi silcrete. S size grains to 15 mm. White waxy k occasional r No silcrete	itic SILTSTONE as ab	with s streaks.	Bulldog Shale Lower Cretaceus	150mm Steel cosing , 0 - 24.9m				
	TE:1000 gals./hr. = 110 m³/day n west of B19 Däuctive.	96.00 km peg.	rill type C.T. irculation: tart:10.10.76 nish:15.10.76	DATE: TRACED B	BY:GHMeN				
		Fi	SHEET	L	.2				

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PROJECT	

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# DEPARTMENT OF MINES -- SOUTH AUSTRALIA ENGINEERING DIVISION

## **BORE LOG**

UNIT/STATE NO:

CONTINUATION SHEET

	1	r i		<u> </u>		<u> </u>			5 5	r
HOLE Dia. DEPTH m	CORE	GRAPHIC LOG	DEP	'TH (m) to	GEOLOGICAL DESCRIPTION OF SAMPLE	UNIT	AGE	CASING	WATERS CUT WATER LEVEL	
20			14	18 27	White kaolinitic SILTSTONE and sand, as above. Light red-brown (or dark pink) silty fin quartz SAND with thin partings (10% of sample) of white siltstone.	Cadna - Owie Formation Bulldog Shale	Lower Cretaceous			
					END OF HOLE, 27.0 m.	SHEET.			DF . 2	

internetien er						DEPARTMEN	T OF MINES SOUTH AUSTRALIA ENGINEERING DIVISION	<u> </u>	HOL		B1	98
PROJE				)LA - A 13 ràil						STAT		1.
LOCAT					*****		BORE LOG				<del></del>	19
			. <b>.</b> . C	UT OF		EL Surface 320.0			SERIA			
SEC.	DEPTH		4 <u>0.</u> ~	DEPTH TO		EL ref. point	Datum	TOTAL DI	1			<del> </del>
		CUT (m)		STANDING WAT		*m³/day		Analy	isis W.	NO.		
1	14			11.8		950 g.p.h. (1.2 1/ sec.)	plunger pump, 360 mins.	435 (pH 7.9)			<del>, , , , , , , , , , , , , , , , , , , </del>	······
		<del></del>								<del></del>		
HOLE D.a. DEPTH m	CORE	GRAPHIC LOG	from	DEPTH (m) to			GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT	AGE	WATERS CUT	WATER LEVEL
գ առուղությունությունությունությունությունությունությունությունությունությունությունությունությունությունություն 			4	12	G.S Ris	rains are : hert, iron: mm. ed-brown/pu sed and al tone, with	clayey coarse/medi rounded to angular stone and rock frag urple/white heavily tered SILTSTONE and chert and milky qu as above, becoming	silcrete, ments to	Bulldog Shale	Stal	Wa Seer Casing U. Ko a	······································
<u>, , , , , , , , , , , , , , , , , , , </u>			I		NÓTE: 1	1000 gals./hr. = 110 m³/day		DRILL TYPE C.T.		GED E	ـــــلـــ ۲:۵۵	HMeN
REMA	RKS	Loc	tat 70	ted 2 k	m w art	est of B198	8.00 km, south Completed productive	CIRCULATION:	DAT			
		ы) <b>Т</b> С	10		arv	TTRIIMED .	COMPTO DEC PRODUCTIVE	START: 4- 10-76		ED B	Y:	
								FINISH: 9.10.76			<u></u>	
-				a de la companya de l				SHEET	<b>Å</b> .	OF ,	<u>.</u>	

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PRO	JECI	Γ:			DEPARTMENT OF MINES SOUTH AUSTRALIA ENGINEERING DIVISION BORE LOG			NO. Fate	******	98	• • •
é E		¥	1			••			5	EVEL	
HOLE Dia. DEPTH m	CORE	GRAPHIC LOG	from	DEPTH (m)	GEOLOGICAL DESCRIPTION OF SAMPLE		AGE	CASING	WATERS CUT	WATER LEVEL	
20			15	18 28	SILTSTONE and fine sandstone. Light brown silty fine quartz SAND, some grains silica-cemented, silt content 20-40%. generally decreasing with depth; traces only of coarse sand.	-	Caana- UNIC Formation Buildog Snail				
					END OF HOLE, 28.0 m	SHEE			OF	2	

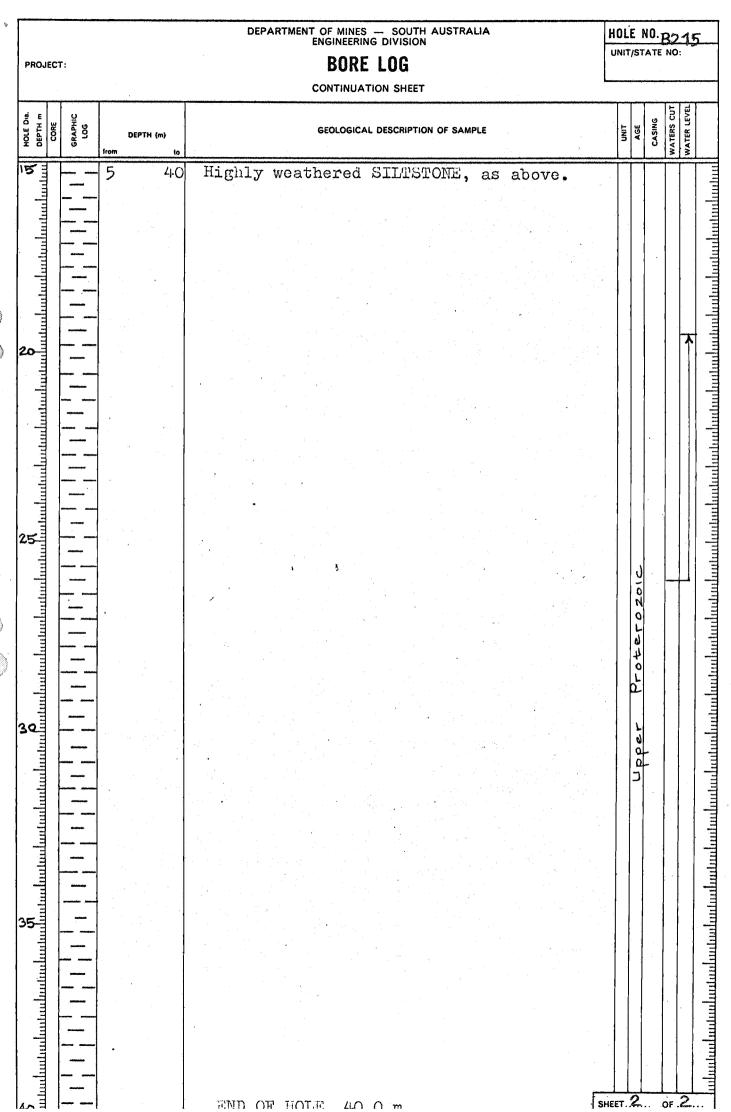
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Nuclear N

•		s		
PROJECT: TARCOOI RAILWAY LOCATION OR CO-ORDS:	LA – ALIC Z	DEPARTMENT OF MINES - SOUTH AUSTRALIA DE SPRINGS ENGINEERING DIVISION BORE LOG		HOLE NO. B203 UNIT/STATE NO: 5643 - 20
	III Oue	EL Surface 332.2 m		SERIAL NO41/76
ře do se	JT OF	EL ref. point Datum SUPPLY	FOLDER NO.	
DEPTH TO WATER CUT (m) ST	DEPTH TO ANDING WATER (m)	*m²/day Method of test	milligrammes/litre	Analysis W. NO.
20	*****	0.75 l/sec plunger pump	385	AMDEL
		(600g.p.h.) 480 mins.	(pH 8.9)	
HOLE DIA DEPTH A CORE A CORE A CORE A LLOG LLOG LLOW	2TH (m) to	GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT AGE CASING WATERS CUT WATER LEVEL
	2   Re	d-brown silty medium/fine SA	ND	
	co an	f-white/cream/light brown hig mpletely weathered SILTSTONE gular siltstone grit to 5 mm ay matrix).	(30%	Bulldog Shale Iover Cretaceous Isomm Steel casing 0-29 m
	an	rty yellow (mustard colour) s d silty CLAY	Bandy (10%)	roedna - Owe man
				DATE 1/1 10 17
	d 100 m (	on bearing 191 <sup>0</sup> from	CIRCULATION:	DATE: 14.10.7
REMARKS LOCate	d 100 m (			DATE: 14.10.7 TRACED BY:

			-1-				DEPARTMENT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION	_				<u>}2(</u>		<u> </u>
	PROJ	ECT	$= \frac{\mathrm{TA}}{\mathrm{RA}}$	ECO	ALO AY	<del>-</del>	ALICE SPRINGS BORE LOG							
-		Ţ		1					,	r i		E	<u>ط</u> ا	÷
	DEPTH m	CORE	GRAPHIC LOG	from	DEPTH (	m) to	GEOLOGICAL DESCRIPTION OF SAMPLE	•	UNIT	AGE	CASING	WATERS CUT	WATER LEVEI	
	1911			12	 	16	Dirty yellow sandy CLAY, as above.							dun
	$\mathfrak{S}$			1			Offwhite coarse sandy and silty CLAY. Sand consists of angular quartz grains, 25% of sample.	1.	Cadna - Omie Zommetion	Lower Cretaceous				atudiadan badan
	ահամա				ţ		END OF HOLE, 37.0 m							սկատիսիս
	արակարո						۲. s	SHEE		2	. I	OF	2	։ Լովոսիս

PROJECT: TARCOOLA - ALICE SPRINGS ENGINEERING DIVISION R.IL/AY BORE LOC													10.		15
LOCA		K L N OR CO					BORE	LOG			56	4	3 -		21
SEC.		;	но.С	UT OF		EL Surface 353.6 EL ref. point	>	Datum			SERIA FOLD		60	2/	76
	DEP	тн то		DEPTH TO		 	SUPPL			TOTAL DI	سمسمعهما		ښېبىت	DS	
N	VATE	R CUT (m)		STANDING WAT	ER (m)	*m³/day		Method of test		milligrammes/litre		A	nalysis	5 W. I	NO.
	ć	26		19.5		20 g.p.h.	dril	Ler's e	stimate						
						-	1								
ei d E	32	U H U H U		DEPTH (m)	-		•					{	NG	s cut	LEVEL
HOLE Dia.	CORE	GRAPHIC LOG	from			· • • •		DESCRIPTION O	, 	- 	UNIT	AGE	CASING	WATERS CUT	WATER LEVEL
		<u> </u>	0	5		d-brown si th 5% fine			y quart:	z SAND					
<b>1</b>					** <u>-</u>		BT CACT	L • .				0			durt instantiantiantiantiantiantiantiantiantiant
							•					60			
		·	-									0			
		•										4			
		•								· · · ·		J			
										•		ā			
5_		•••	5	• 40	. Re	d-brown be	coming	grev-b	rown gr	itty and					
		محمد معتبدة المناسبة المناسبة وتسمير المناسبة المناس	-	·	cl	ayey highl	y weath	nered S	ILTSTON	Grit					
					fr fr	action con agments to	Sists C 3-4 mm	of angu	lar silt	sludge					
						Comon oo	, , ,		all practice	DIGGE.	· [ '.				
1															
						· ·	н. 1		•			J	. /		1
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		 			ал. С				ана стана 19			ad			- Intra
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10 10 10 10		 		a a											
															Inn
15					NOTE	000 gais./hr. = 110 m³/day									
REM	ARK	ST.	റെ			200  m sou	th-west	of B2	فتحصي أحاج المحاج ا	L TYPE C.T.	DAT	GED	вч: 14	<u>GA</u>	<u>/cN</u>
			m.			d and back				rt:24.5.76	TRAC				• / (
									FINIS	H:30.5.76	DAT				
			لقصحف					inn an far inn an far inn an an an an an		SHEET	1	OF	2		



	ECT: TAF PAI TION OR C	L.W		LIC	EL Surface 367.3 m					HOLE NO. B22 UNIT/STATE NO: 5543 ~ 2 SERIAL NO: 43/ FOLDER NO.					
	DEPTH TO		<b>ДЕРТН ТО</b>	,	· · · · · · · · · · · · · · · · · · ·	SUPPLY		TOTAL DI							
w	ATER CUT (m	1)	STANDING WAT	ER (m)	*m*/day	Method of test	milligr	ammes/litre		A	nalysis	W N	10		
āry				1	, ,										
DEPTH m	CORE GRAPHIC LOG	from	DEPTH (m) 10		zátoné costoso socione	GEOLOGICAL DESCRIPTION OF SAM	PLE		UNIT	AGE	CASING	WATERS CUT	WATER LEVEN		
mhunhun	<u></u> · 	0	2	Red	d-brown si	lty fine SAND.							T		
<u>համամումուկուկայան նարձիակակուն կանու</u> ս		2	4	Of:	f-white co	mpletely weather	ed SILTSI	ONE					يريد والمحافظ فيستحدث المحافظين يريد		
հարակար		4	8	Gre	ey-brown m	oderately weathe	red SILTS	TONE	•			and a second second second second			
hututud					ماریخ ماریخ ماریخ										
առեսվոս										02010					
					END O	F HOLE, 8.0 m			•	ter	-	-			
ուկուլիականույիակույնակուլություս										r Pro					
huduuluul										u ppe					
heduated															
ուկուկու		,													
					0 gals./hr. = 110 m³/day		DRILL TYPE (	.T.		GED	BY	с С. с.	<u> </u>		
A A F	rks Ab. DO:	and rcu	loned a assion,	nd 1 con	e-drilled bleted as 1	by rotary- 3224a.	CIRCULATION:		DATE	ED 8	Ц. <u>.</u>	-ič	•		
<del>an ita</del>		ور اور الم	<del></del>	a qui in a la constanta				SHEET.		OF	1				

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	T: TAR SPR ON OR CO	IN	D <b>LA – A</b> GS RAIL s:	.WAY	NT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION BORE LOG		HOLE NO. <u>B224</u> UNIT/STATE NO: 5543 ~ 2. SERIAL NO:				
EL Surface 367.3 M SEC. HD. Out of Hds EL ref. point Datum FC											
DI	ертн то		<b>DEPTH TO</b>		SUPPLY	TOTAL DIS	DISSOLVED SOLIDS				
WAT	ER CUT (m)		STANDING WAT	ER (m) *m³/day	Method of test	milligrammes/litre	Analysis W. NO.				
27 35•50 36•80			23.40	500 g.p.h. (0.63 l/ sec.)	air lifted	1234 (pH 7.6)					
DEPTH m CORE	GRAPHIC LOG	from	DEPTH (m) to		GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT AGE CASING WATERS CUT WATER LEVEL				
1	÷	0	1		own silty SAND with	abundant					
		1	4	SILTSTONE, surfaces.	ragments. green moderately we stained red-brown o green SILTSTONE, s	n fracture	[]EOmm Casing				
		-		•			5				
ակադարական առուստեսություն							Proterozo				
տ աղուհաքուհականակուհակունակում		1:	2 26	Light blue- ly weathered	grey SILTSTONE, fre	sh to slight					
5											
REMAR	pe	c,	ted abc	25 m west of	t from B224.00 km B224. Completed		LOGGED BYGHMC DATE: TRACED BY: DATE:				

PROJEC	T:
1100000	

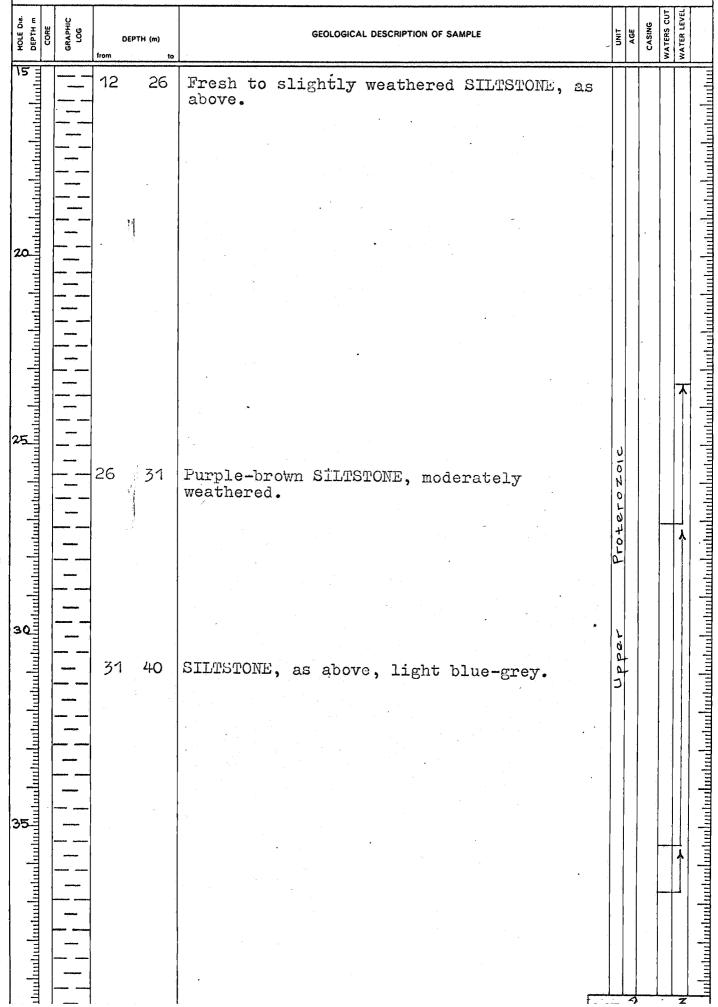
#### DEPARTMENT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION

# BORE LOG

HOLE NO.B2242

UNIT/STATE NO:

#### CONTINUATION SHEET



* PROJECT:					DEPARTMENT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION BORE LOG CONTINUATION SHEET		LE IT/S				4a
	HOLE Dia. DEPTH m	CORE	GRAPHIC LOG	DEPTH (m) from to	GEOLOGICAL DESCRIPTION OF SAMPLE		AGE		CASING	WATERS CUI	
	45 55 55 55 55 55 55 55 55 55 55 55 55 5			40 58	Dark blue-grey fresh SILTSTONE		Upper Protectaria	Fre 110000			
						SHEE		<u> </u>	0	F	

		SPR	IT	OLA - A GS RAII		T OF MINES - SOUTH AUSTRALIA NGINEERING DIVISION	and has been done of the contract of the contr	HOL	STA	TEN	10:			
	CATI	ON OR CO			EL Surface 374.9	EL Surface 374.9 IA			LNC					
SEC. HD. Out of					EL ref. point	Datum		FOLDER NO.						
		EPTH TO		DEPTH TO	e (m) *m³/day	SUPPLY Method of test	TOTAL DI	SOLV			JS W. N			
	25•	ER CUT (m)		STANDING WAT	2000 g.p.h									
	-7• 27	.0		<i>L_)•L</i>	(2.5 1/		(pH 7.3)					•		
12	29				sec.)		7719							
	33						(PH 7.3)							
HOLE DIA.	OEPTH m CORE	GRAPHIC LOG	from	DEPTH (m) to	······	GEOLOGICAL DESCRIPTION OF SAMPLE	an na han an a	UNIT	AGE	CASING	WATERS CUT			
F	1	0.0	0	1	Red-brown c.	m.f. gravelly SAND	- <u>1,</u>		~					
	يليينا	<u>;</u> 0;•.	1	3	Light brown	to off-white sandy	and silty		cene	33				
.	IIII	°O°		-	c.m.f. grave				0	ف				
	IIII	0.							124	o	ł			
	արությունությունությունությունություն	$\sum_{i=1}^{n}$	3	14	Light grey-h	rown highly to com			Plei	5109	<b>}</b>	antimitant individual and individual		
	nlu			<u>,</u> +-т		LTSTONE (sample con			-	051				
	III		r		5-40% gravel	size siltstone fra	agments in	, , ,		ð		1		
	بليبي	-		Ì	soft dry sil	t matrix).				- Ú				
5	hud					· · ·	•			ste				
[	un				9					N E E				
	und t									203				
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	nılı.						•		U õ			1 mil		
10	nlu				•				N			tenleutuekudaehudaalaahudaahudaahudaa		
ľ	прп				*				2			HIII		
	-line								0					
	lui			r					0					
	linit.			1					à			111		
	nini.											lint		
	ultu	-							00					
	il i		14	4 22	SILTSTONE, as	s above, light grey	-green.		id n			- In		
10	nlu											i ti ti ti		
12				ا <u>:</u> ۱*	IOTE: 1000 gais./hr. == 110 m³/day	and polyton defined and a second as a second sec	DRILL TYPE ROT.	LOG	GED	BY:	C N	 cM		
RE	EMAR	KS LOO	ca.	ted abo	ut 100 m west	of B237 km peg.	CIRCULATION: AIR	DAT						
		Cor	np.	leted p	roductive.	- · · <u>+</u> · Q ·	START:28.7.76	TRAC	ED E	3Y:				
1							FINISH:29.7.76	DATE						
			والدمتينيين		verten an en en en el estat estat en estat de ser el estat en estat en estat en estat en estat en estat en est		SHEET.	<b>.</b>	OF	2				

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DEPARTMENT	T OF	MINES		SOUTH	AUSTRA	LIA .
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	ENICI	MEEDIM	C D	<b>IVISION</b>		
	LINGI	MERNIN	υ <i>μ</i>	1101014		

# BORE LOG

HOLE NO. B237

PROJECT:

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#### CONTINUATION SHEET

HOLE Dia. DEPTH m	CORE	GRAPHIC LOG	DEPTH (m) tram to	GEOLOGICAL DESCRIPTION OF SAMPLE		TINU	AVE	CASING	WATER LEVEL	
15			14 22	SILTSTONE, as above (sample rather more gravelly, angular siltstone fragments to 20 mm).						mulun
15 15 20										
20										utur hurtu
10000000000000000000000000000000000000			22 24	Light blue-grey moderately weathered SILS STONE.	P-					ահաժառնա
			0/1 70			-			X	ntuntuntu
25			24 30	SILTSTOME, as above, dark grey-green.		•				ul minulu
							210			autuuluutuuluutuuluutuuluutuu
munulu							1010101		*	ulminulm
mtmlunti			30 32	SILTSTONE, as above, dark blue-grey.		t C L d	- -	-		l
30				ornioroni, as above, dark brue-grey.		110001	111			որուրուն
muluuh		  	32 36	Dark blue-grey slightly weathered SILT- STONE with dark grey fresh QUARTZITE (chips of siltstone to quartzite, 60:40)						utuduutu
- Indudua				Pink vein quartz present.						սիսկակ
35			76 40				-			արովուլը
8 mutuuluutuuluutuuluutuuluutuuluutuuluutuuluutuuluutuuluutuu			36 40	Dark blue-grey fresh to slightly weathere SILTSTONE with thin bands of quartzite (5-10% of chips).	α					<u>սեստետիտետետետետետետետետեռներ են հանուն</u>
dunhuntur				a B						ահահահ
40			T.		SHEET	2	Ļ	OF	2.	

OCATIO	KAL. ON OR CO	Lunit Y-ORDS:	<b>9</b>	EL Surface 382.			HOLE NO	e no: t ~ 7		
SEC.	ЕРТН ТО	но. Ой	tof	EL ref. point	Datum SUPPLY		SSOLVED SC			
	EPTH TO FER CUT (m)	ST	DEPTH TO	ER (m) °m²/day						
44 10.8 56 58				2800 g.p.h. (3.51/sec)	(3.52/sec) 13195 1500g.p.h. plunger pumped, (pH7.3)					
DEPTH m CORE	GRAPHIC LOG	DEP	1TH (m) 10	l	GEOLOGICAL DESCRIPTION OF SAMPLE					
Methoda of G Methoda data data data data data data data d	and	dia dia	10 12 44 i abou	Mostly 2-10 Off-white ve: (mostly subression White with p: ered GRANITE silty sand, w Pinkish grey (or, micaceou Light to dark weathered GRANITE silty, highly to 20% weather weathered WOTE: 1000 gals./hr. = 110 m'/day 1 100 m east drill hole DRANITE	ry silty and sandy ounded silcrete, ma ink mottling complet (sample consists of with a little grave completely weather us silty m.f. sand) c grey-green complet NITE (sample consist micaceous m.f. sate ared granite fragme from B240.300 km H2, north bank of	m.f. GRAVE ax. 20 mm). etely weath- of soft very el). red GRANITE ). etely .sts of very and with up ents). DRILL TYPE KOT. CIRCULATION: AIR		MGHI C		
	Ind	lulka	ina Ci	ceek. Complet	ted productive.	START: 20.7.76 FINISH: 21.7.76 SHEET	DATE:	/: 		
						n, maar na 40, maar na anala faa bada ah				

*	PROJ	ECT	· · · · · · · · · · · · · · · · · · ·								:4	0
	τu	CORE	GRAPHIC LOG	DEPTH (m) from to	GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT	AGE	CASING	WATERS CUT	WATER LEVEL	
	$\delta$ $\delta$ $\delta$			10 44	Grey-green completely weathered GHANITE, as above. 18-26 m silty coarse sand and gravel size chips.	HEE		Precambrian				
	40 E				S	rict.	* • •	Ŀ	. (	Jr .	Ð	••

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DEPARTMENT OF	MINES	-	SOUTH	AUSTRALIA
ENG	INEERIN	GD	IVISION	

### BORE LOG

HOLE NO. B240

PROJECT:

CONTINUATION SHEET

HOLE Dia. DEPTH m	CORE	GRAPHIC LDG	from	DEPTH (m) to	GEOLOGICAL DESCRIPTION OF SAMPLE	UNIT	AGE	CASING	WATERS CUT	WATER LEVEL
40			10	444-	Grey-green completely weathered GRANITE, as above.				ľ	
		+-						,		
-		+		:						
		+		,						
		-+-								
45		+-								
		- <del>-</del>								
		+						: '		
		+								
		+	44	58	Light to dark grey moderately weathered GRANITE (sample is coarse sand and angular	2				
50		+		-	gravel size chips).					
		+		- N						
		-+-					an	:		
		+					196			
40		. <b>1</b>					202			and
		+-					Preo	ĺ		
55		+					٩			- Inde
		+	·							
		╋		:						
1		-+-	58	64	Dark grey fresh fine grained very mica-					
		+			aceous GRANITE (chips to 20 mm).					huhu
60							-			
		+								Juntu
8 55 101 101 101 101 101 101 101		+-		•						unter dan
		+								hului
		+								mhun
		• ••• <del>•••</del> ••			END OF HOLE, 64.0 m					
				:		IEET.	3	<b>I</b>	OF 🧃	<b></b>

PROJEC		LHCUUUU LLIII.GU D-ORDS:			t of mines - South Australia Engineering division BORE LOG	na n	HOLE I	ате NO <b>4 ~</b>			
SEC.		HD (heads		EL Surface 383.			SERIAL N				
	ертн то	HD. Uut	01. PTH TO	EL ref. point	Datum	TOTAL DI		·			
	TER CUT (m		G WATER (m)	*m²/day	Method of test	milligrammes/litre		malysis W			
26 -				100 g.p.h. (0.131/ scc.)	driller's opini	on 12000 (ap rox.		) tested ) site			
HOLE Dia DEPTH m	CORE GPAPHIC LOG	DEPTH (m	) to		GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT AGE	CASING WATERS CUT	WATER LEVEL		
THE PARTY OF	<u> </u>	0	1 Re	ed-brown si	lty m.f. SARD	<u></u>	20				
ափոփոփոս		-       0       1       Red-brown silty m.f. SAHD         -       1       3       SAND, as above, weakly cemented and be- coming lighter red-brown with depth.									
mpurpropriet	<u>.                                    </u>	3	10	NITE (samp- ery silty angular	ā						
։ ավոսիակակահակակականակուներ	+										
				•			a z				
<u>մ</u> առավառիակակակակակակակակակ	+++++++++++++++++++++++++++++++++++++++	10	22 GR wh	ANITE, as lite.	above, mottled crea	am-yellow to	Precambri				
يتساسيلسهم	+										
15 1							1				
REMAR	ىد.	ocated bandone	about	1000 gals./hr. = 110 m³/day 150 m eas backfille(		DRILL TYPE ROT. CIRCULATION: AIR START 22.7.76 FINISH 22.7.76	LOGGEI DATE:	2.7			

DEPARTMENT	OF	MINES		SOUTH	AUSTRALIA
E	NG	NEERIN	GΟ	IVISION	

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### HOLE NO.B241 UNIT/STATE NO.

BORE LOG

HOLE Da	CORE	GRAPHIC LOG	from	DEPTH (m) to	GEOLOGICAL DESCRIPTION OF SAMPLE	UNIT	AGE	CASING	WATERS CUT	WATER LEVEL
15		⊥	10	22	Completely weathered GRANITE, as above.					
hulun		╪								-
unhun		 -								
mhud					· ·					
20-11 20-11		+ +			20-22 m mottled grey/white.					
աստի		+								
առուհ	-	+-	22	36	Medium grey highly weathered GRANITE		1			
ակասկա		+			(sample consists of finely micaccous silt- y and gravelly sand. Chips of fresh fine grained very micaceous granite towards					
ուսուս		+	•	,	base of hole).					.
25		+					_			-
որոր		$\left  - \right $								-
անակո		+		:		}	۵ 3			-
որոր	4	- -					00			-
unhun	1 1	+				(	L L			-
30	-	⊢│								-
huluu		+								-
լովոս	-+	-								
Imhui	1	+								-
Imhmi	+	-		1						-
$\widetilde{\mathfrak{g}}$ mututuutuutuutuutuutuutuutuutuutuutuutuu		+;								
					End of Hole, 36.0 m.		-			
mtmhmtmhmhmhm	-									
ակասկո										
ովոոն					· SHEE				F;	

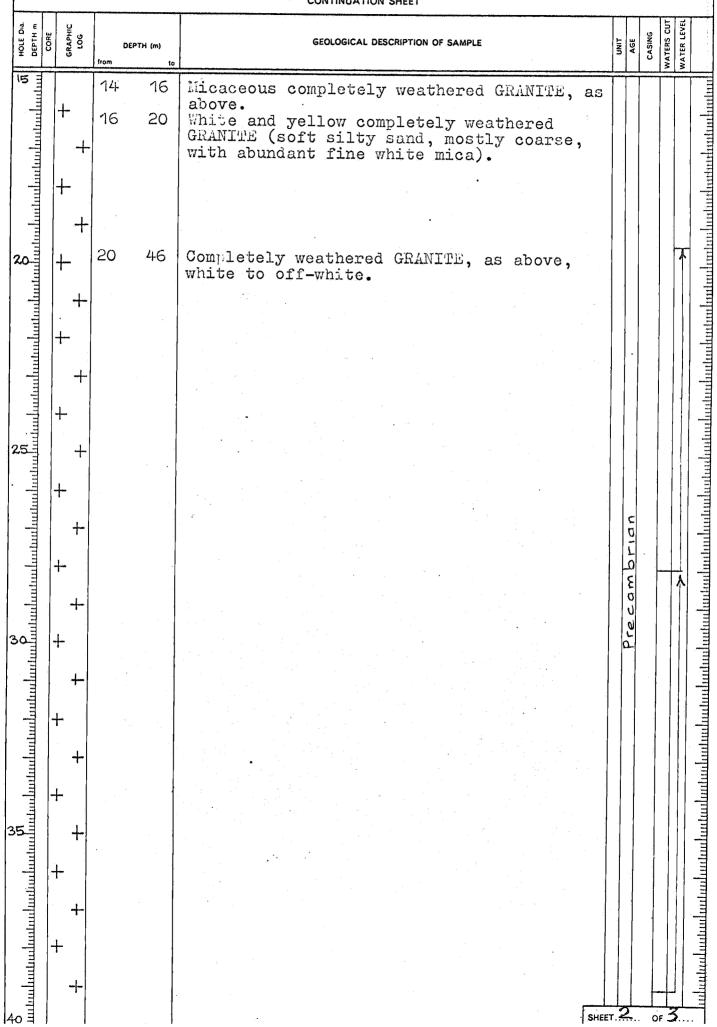
						T OF 10150				Y					-
PROJECT: TARCOOLA - ALICE SPRINGS											ILE		and the second second		
	NON OR C		3	ATL	WAY	BORE LO	G				17/57. 554				ĸ
LUCAI					EL Surface 381.(						RIAL N			1	<u>/</u>
SEC.		HD.	Out of		EL ref. point		Datum		'n	FOI	DER	NO.	<del></del>		÷
	DEPTH TO		DEPTH TO	>		SUPPLY			TOTAL DI	SSO	LVED	SOL	IDS		
WA	TER CUT (n	1)	STANDING WA	TER (m)	*m³/day	Α	Nethod of test		milligrammes/litre		A	nalysi	is W	NO	
23	8 9		19.5	0	150 g.p.h. airlifted not test (0.2 l/sec) ed (saline)										
HOLE Dia DEPTH m	CORE GRAPHIC LOG	from	DEPTH (m)		GEOLOGICAL DESCRIPTION OF SAMPLE							CASING	WATERS CUT	WATEP LEVËL	
g առումադադադադադադադադադադադադադադադադադադադ	· · · · · · · · · · · · · · · · · · ·	0 1 3 4	1 3 4 14	Con wit	ed-brown SA systals. Ink gravell atte gravel ents and gy oft white c or very mic ilty sand) apletely we bh 10-20 %	y SANDwi ly SAND psum agg: ompletel; aceous co	th 5% gyp: with quar regates. y weather oarse/med	sum tzit ed G ium/. as a fla	crystals e frag- AnITE fine bove, kes.		Precambrian Pleistocene				and a structure of the standard and and and and and and and a structs as a burken burken in the first or the se
·			*N	OTE: 100	0 gals./hr. = 110 m³/day	· -		DRILL T	YPE ROL.	LOG	GED	BY:(	<u></u>	C	
REMARK	(5		Locate km. A	a al bané	bout 700 m	east fro	m B341.80	CIRCUL	ATION: AIT		ε <u></u> 2΄				1
			arati e ata		loned and b	JACKIILIE	u .	START:	19.7.76	TRA	CED B	Y:			1
								FINISH:	20.7.76	DAT	E:	·····			1
SHEET OF								OF .	5	. <u></u>		1			

DEPARTMENT	OF	MINES		SOUTH	AUSTRALIA
E	NG	NEERIN	GD	VISION	

# BORE LOG

HOLE NO. 0242

#### CONTINUATION SHEET



PROJ	ECT:		· · · · · ·	- <b>A - F - F - A - F - F</b>	DEPARTMENT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION BORE LOG			N0 <sub>B242</sub>			
DEPTH m	CORE GRAPHIC	FOG	from	DEPTH (m) 10	CONTINUATION SHEET GEOLOGICAL DESCRIPTION OF SAMPLE		AGE	CASING	WATERS CUT	WATER LEVFL	
untuduutuuhuntuuhuntuuhuntuuhuntuuhuntuuhuntuuhuntuuhuntuuhuntuuhuntuuhuntuuhuntuuhuntuuhuntuuhuntuuhuntuuhuntuu	+	+ + + + +	46	46	Completely weathered GRAMITE, as above. Very light grey fresh fine grained micaced GRANITE (sample consists mostly of coarse sand size, with up to 20% of angular fresh granite chips)	• u.s	Precambrian				
<u>nutuutuutuutuutuutuutuutuutuutuutuutuutu</u>					END OF HOLE, 58.0 m	HEET.			DF	-	

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	ECT: 1			- ALI RAI	CE SPRINGS LWAY.	IT OF MINES SOUTH AUSTRALIA ENGINEERING DIVISION		HOLE UNIT/ST 554	ATE	NO:					
SEC.		un (	Out o	f	EL Surface 381	.6 m		SERIAL I							
	DEPTH T	*****	<del>1</del>	— тн то	EL ref. point	Datum		FOLDER NO.							
	ATER CUT		:	WATER (m)	*m²/day	Method of test	milligrammes/litre	Analysis W. NO.							
	20				20 g.p.h.	driller's opinior	n not test ed	;							
DEPTH m	CORE GRAPHIC	0 O Iron	DEPTH (m) n	to		GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT	CASING	WATERS CUT	WATER LEVEL				
1111	•	• (	)	1 Re	ed-brown si	llty fine/medium SA	.MD.	Cene			1				
ակունակա		· / /	]	3 1.3 me	ight rod-br edium/fine	own weakly cemente SAND.	d coarse/	pleistoce							
նուհակակոսի	· . 		5	C C C	onsists of	etely weathered GRA soft white kaolini abundant 1 mm flake	tic silty	e							
առակառնակակակակակարություն	+	+		÷.											
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لسلسا		$\mathbf{+}$													
անունունունունունությունունունունունունունունունունունունունո	+				• •						1				
Ŧ			••••••••			***									
MAI	rks I	loca ban	ted s aoned	bout	00 gals./hr. = 110 m <sup>*</sup> /day 500 m east backfilled	•	DRILL TYPE ROT. CIRCULATION: ATR START: 21.7.76	LOGGED DATE: 2 TRACED	23.	<u> </u>					
						· · · · · · · · · · · · · · · · · · ·	FINISH: 21.7.76								

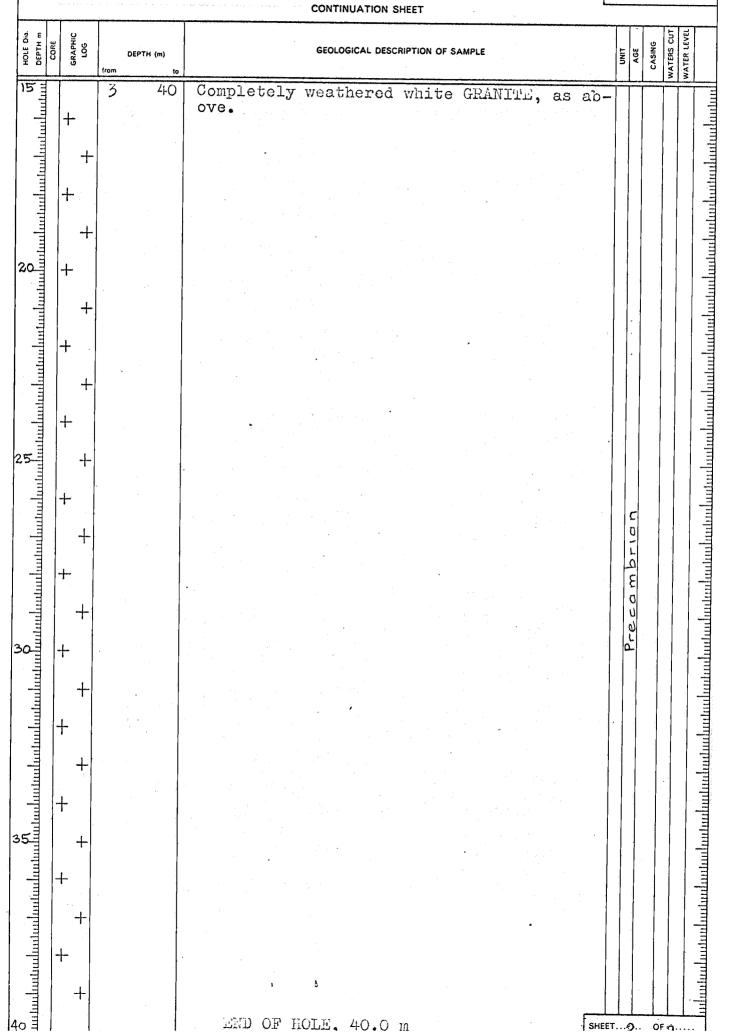
PROJECT:	
T ISOULOT.	

#### DEPARTMENT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION

# BORE LOG

HOLE NO. B242a

UNIT/STÅTE NO:



PRO	JEC	⊺:ጥ∆R(	2001	LA - ALI	<u>ମ</u> ନ ବ	DEPARTMEN	T OF MINES - SOUTH AUSTRALIA	4	HOL	E N	0. <sub>B</sub>	212	ζ.
				RAI	LWAY		BORE LOG		UNIT	JSTA	TENC	):	
LOCA	ATIC	ON OR CO	D-ORE	os:		5 5 4 705 A				544		8	)
SEC.			HD. (	Dut of		EL Surface 385.6 EL ref. point	M Datum						
	DE	ртн то		DEPTH T	0		SUPPLY	TOTAL DI	<u> </u>			 ;	·····
v	NAT	ER CUT (m	)	STANDING WA	TER (m)	*m³/day	Method of test	milligrammes/litre			lysis V		).
24	4;	28		91a)		180 g.p.h.	air lifted	14000			• <del>/••</del> •••••••	·	
						(0.2 1/sec.)		(approx)					
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		:											
	1	T	<sup>1</sup>		<u>.</u> 	[				جرب بر ا	·····	· 	
HOLE D.a. DEPTH m	CORE	GRAPHIC LOG		DEPTH (m)			GEOLOGICAL DESCRIPTION OF SAMPLE			 	CASING WATERS CUT	WATER LEVEL	
0H DE	3 0	GR	Irom	te			STOLOGICAL PLOCHIN HON OF SAMPLE		UNIT	AGE	CASING	ATER	
	3	1	0	2	Re	d-brown silt	y medium/fine SAND, We	akly cemented	1_			<u>] 3  </u> 	
					1-	-2 m.		y comorrowy		0			111
										2			
ot administration from transmission from the strengtheory of the s			2	5	Pi	nk-brown c.m	.f. SAND, weakly cemen	ted. Traceso	f	0			<u>antan hadaa hadaa kadaa hadaa hadaa hadaa hadaa ka</u>
					fi	ne gravel.				л Т			
		•••								ē			- TTT
										ā			m
		•••											ulta
5 -		•••	5	12	Off	-white comple	tely weathered GRANIT	E (comple con					ulu
					sis	ts of soft ka	aolinitic very micaceo	us coarse/	'				1
		+			med	ium sand).							ILLL
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- IIII	1		12	2 16	1.15-1 -					U ·			пп
unla		+	12	. 10	mic	ce completely caceous sandy	weathered GRANITE (or silt).	, soit white		217			in lu
1111		_				· · · · ·			2	ר			TIL
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		+					8 a						T
G mutuulantanhantanhantanhantanhanta												1	ILLIL
15 3			-					Y <u></u>		1			LLLL
REMA	ARK:	s Lo	cat	ed abou	t 600	00 gals./hr. = 110 m³/day ) m east of B	243.300 km, west bank	DRILL TYPE ROT.	LOGG				
		óf	un	named c:	reek.	Abandoned	and backfilled.	CIRCULATION: AIR START: 23,7,76	DATE	:23	•7•	76	
						÷			TRACE		•		
							*	SHEET		OF 2			
	-			ويترجع فرمو ويستكن المتراك				L					

HOLE NO. B243

UNIT/STATE NO:

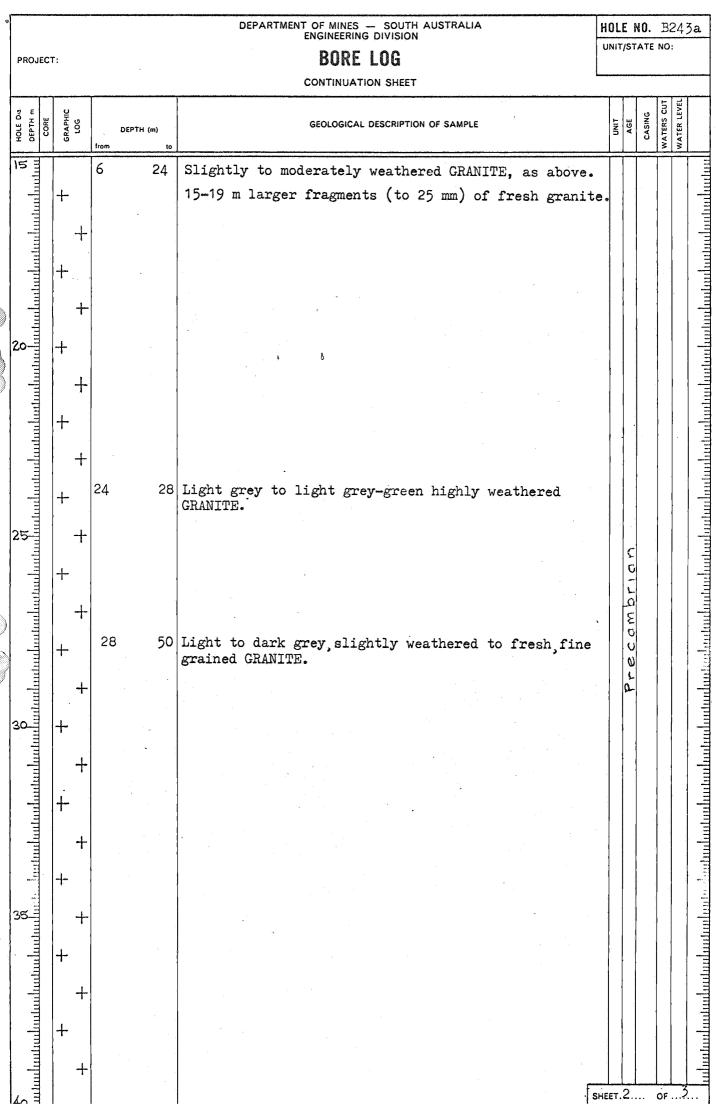
# BORE LOG

HOLE DIA.	DEPTH m	CCRE	GRAPHIC LOG	from	DEPTH ()	m) to	GEOLOGICAL DESCRIPTION OF SAMPLE	•	UNIT	AGE	CASING	WATERS CUT	WATER LEVEL
15	2 IIII			12		16	Completely weathered GRANITE, as above.		Π				
	uhuntuuhuntuuhuntuuhuntuuhuntuuhuntuuhuntuuhuntuuhuntuuhuntuuhuntuuhuntuu	-	+	16		24	White, becoming dirty yellow, completely weathere granite (or, soft very micaceous kaolinitic coars medium sand).	d e/					
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	ultur		1			-				1	1		1
	uluulu	-	<b>}</b> -	24	·	32	Dirty yellow completely weathered GRANITE, as above with chips of fresh granite.	re .		-			
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20													
			-										
	արող	-	+	32		38	Olive-grey highly to moderately weathered GRANITE		-				
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	Inn		+								2		
	ովու		<b>-</b> /		•				-	-			l line
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1	luul		┝								, ,		
}	unu		l		5	A = 1							
	ulu		+	38	, 1	45	Dark grey fresh to slightly weathered GRANITE.						
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	mpn		1										- International Action
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40								SHEE	т., f	2		)F	

	1		CONTINUATION SHEET	•	المعالمة.		LE J	E
DEPTH m COPE	GRAPHIC LOG	DEPTH (m) from to	GEOLOGICAL DESCRIPTION OF SAMPLE	UNIT	AGE	CASING	WATERS CUT	WATER LEVEL
		38 45	Fresh to slightly weathered GRANITE, as above.		Ī			
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	<u> </u>		END OF HOLE, 45.0 m.		+			
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6550				<b>.</b> .			EL Surface	385.6	m	_					AL N		<del></del>	
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HOLE Dia. DEPTH	CORE	GPAPHIC	90 fr	DEP'	TH (m) to	×			GEOLOGICAL D	ESCRIPTION OF SA	MPLE			TINU	AGE	CASING	WATERS CUT	WATER LEVEL
	Ę	,	·   0	)	1	Red	-brown	eiltr	m.f. SAN				<u> </u>		eve			
-		 	- 		2.5					te with dep	oth, ce	mente	ed SAND	•	6t0C			
-		· ·	2	•5•	6	Whi	te high dy gray	ily we	athered (	RANITE (sa ents, as al	umple c	onsis	sts of	-	Plei			
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			cre	ms eek.	Abar	idone	ed and l	bore, backfi	east sid	de of unna			3.7.76	TRA		BY:		
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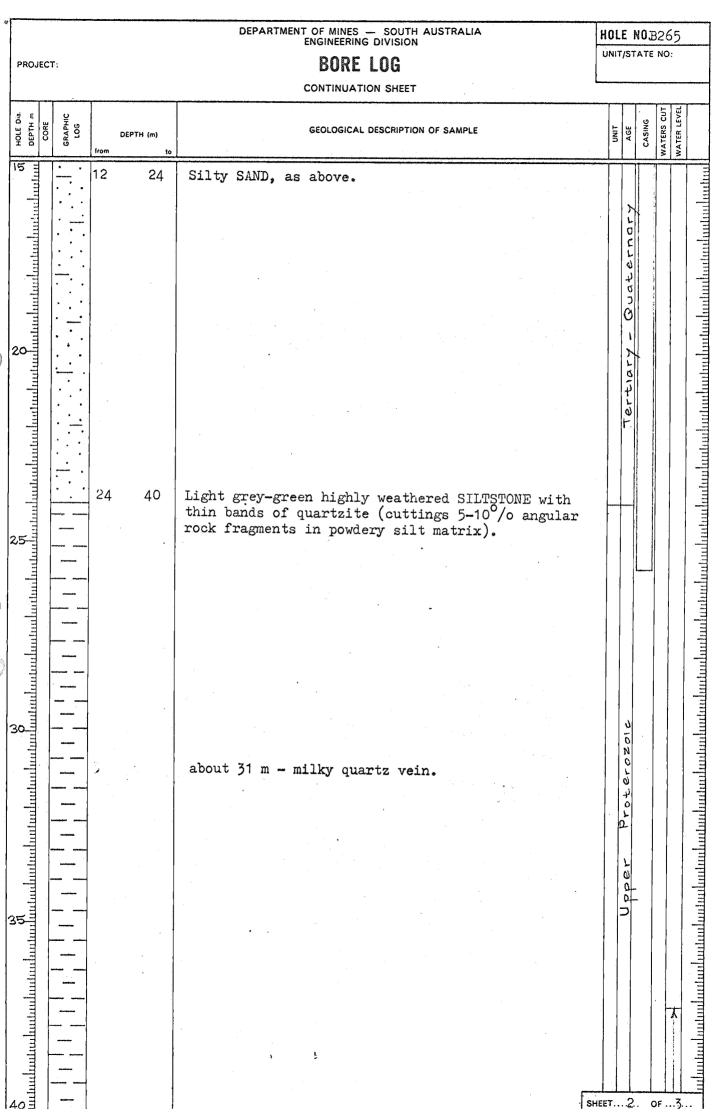


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	PROJEC	:Т:				BORE LOG		т/s		E NO	ę.	
	HOLE D.a. DEPTH m CORE		GRAPHIC LOG	from	DEPTH (m) to	GEOLOGICAL DESCRIPTION OF SAMPLE	INIT	AGE	CASING	WATERS CUT	WATER LEVEL	
	40	4		28	50	Slightly weathered to fresh GRANITE, as above.		Ī				
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RÓJE	ст	, T	ARC	:00	LA - AL	ICE :	DEPARTMEN SPRINGS E	T OF MINES - SOU	TH AUSTRALIA ON						<del>72</del>	541
			AII					BORE LOG				1	STA			• •
CAT	τιο	N OR	co-c	ORDS	:										~ {	83
EC.			មា	۰ <b>∩</b> י	it of		EL Surface 385.6 EL ref. point		<b>_</b> .			SERI	DER N			
	nee	тн то			DEPTH TO			SUPPLY	Datum		TOTAL D				ne	<del></del>
		R CUT			STANDING WAT		*m²/day		d of test	······	igrammes/litre	133011			5 W. 1	
			<u>,,,,,</u>		****											
	1	3			8.90		50 g.p.h. (0.063 l/sec	driller'	s opinion	15	00	1	tes sit		đ c	'n
DEPTH m	CORE	GRAPHIC	e log	D	EPTH (m) to	.  .		GEOLOGICAL DESCRIP	TION OF SAMPLE			TINU	AGE	CASING	WATERS CUT	WATER LEVEL
T			•	0	2	Red-	brown silty	c.m.f. SAND,	becoming	weakly			Ħ			T
արակարարարակարարակություն							nted with dep		5							
пп		<u>.</u>	•													
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LL.						(san	ple consists	of white gra	avelly san	d).						
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III.		+								м. 						
TIT				6	8	GRA	NITE, as abov	ve. light bro								
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Lill.	ľ	+				]		•					2			
		-		3	22	GRAN	ITE, as above	e, off-white	to fawn.				Š			
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	<u>-</u>	- Africa - Africa					00 gals./hr. = 110 m²/day			DRILL TYPE	Rot.	LOG	GED	BY:	GHN	1
۸Af	RKS						m south of Ro		and	CIRCULATIO	N: Air	DAT	E:27	7.7	التلعة 76 ما	ŝ
		B2	43a	1.	Abando	ned	and backfille	ed.		START:24		TRAC				<b>'</b>
										FINISH: 24		DATE	:			
											SHEET.	.1	OF	.2		

OJE	ст:				DEPARTMENT OF MINES	-			1,32 FE NO	
DEPTH m	CORE	GRAPHIC LOG	from	DEPTH (m) to	GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT	AGE	WATERS CUT	WATER LEVEL
Junit			8	22	Completely weathered GRANITE, as above.			T		
<u>whuded windentedentedentedentedentedentedenteden</u>	-	$\vdash$								•
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m			•							
IIIII	+	<b>.</b>								
mhi		+								
linh	4	-								
11111										
Inul		+		•						
11111	4	-	22	38.	Light grey moderately weathered GRANITE (sample cor sists of gravelly sand size fragments).	<u>،</u>	9			
		4			sisus of graverry sand size fragments).	Î				
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	+				onto fresh granite at 38.5 m.					
	1				END OF HOLE, 38.5 m	- -	+-			-+

	TTARCI RAILI ON OR CO	VAY	- ALIC	DEPARTMEN E SPRINGS EL Surface 384.1	IT OF MINES - SOUTH AUSTRAI ENGINEERING DIVISION BORE LOG	IA	HOLE NO. B265 UNIT/STATE NO: 5544 ~ 84 SERIAL NO:
EC.	į	10.0ut	; of	EL ref. point	III Datum		FOLDER NO.
DE	ртн то		<b>DEPTH</b> TO		SUPPLY	TOTAL D	ISSOLVED SOLIDS
WAT	ER CUT (m)	ST	ANDING WATE	R (m) *m*/dáy	Method of test	milligrammes/litre	Analysis W. NO.
44	)-42  -  -51.1	7	37.2	2400 g.p.h. (31/sec) 1500 g.p.h. (1.91/sec)	airlifted plunger pumped, 360 mins	2211 (рн 8.3) 2078 (рн 8.1)	
DEPTH m CORE	GRAPHIC LOG	DEP from	'TH (m) to		GEOLOGICAL DESCRIPTION OF SAMPI	E	UNIT AGE CASING WATER CUT WATER LEVEL
111	-	0	1	Loose red-brown	n silty c.m.f. SAND.		
hutuluu	0.00	1 2	2	silcrete GRAVE	n sandy and silty ang L. brown cemented SAND.	ular m;f.	
atarhatadaahatadaahadaahadaahadaa		3	4 12	Ditto, dark pur	rple - brown. n gravelly and very s	ilty m.f. SAND,	0 Vary
	· · · · · · · · · · · · · · · · · · ·						m Steel casing
ռեսկակակակակակակակակակու	· · · ·	12	14	Light brown to	dinte vollou		Tertia 150mm
huhuhui	· · ·	. =		228110 010WH 10	dirty yellow very sil	LUY C.M.I. SAND	
mhuntuu	·	 					
	a Toor	5		DTE: 1000 gais /hr. == 110 m <sup>3</sup> /day	65 00 1	DRILL TYPE ROT.	LOGGED BY: GHMCI
¢MARK	Com	)]ete	d produ	200 m east of B2	oy.oo km. peg.	CIRCULATION: AIR	DATE: 27.6.76
	- •]		- broat			START: 26.6.76	TRACED BY:
						FINISH: 26.6.76	DATE:
						SHEET.1	OF3.



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#### DEPARTMENT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION

## BORE LOG

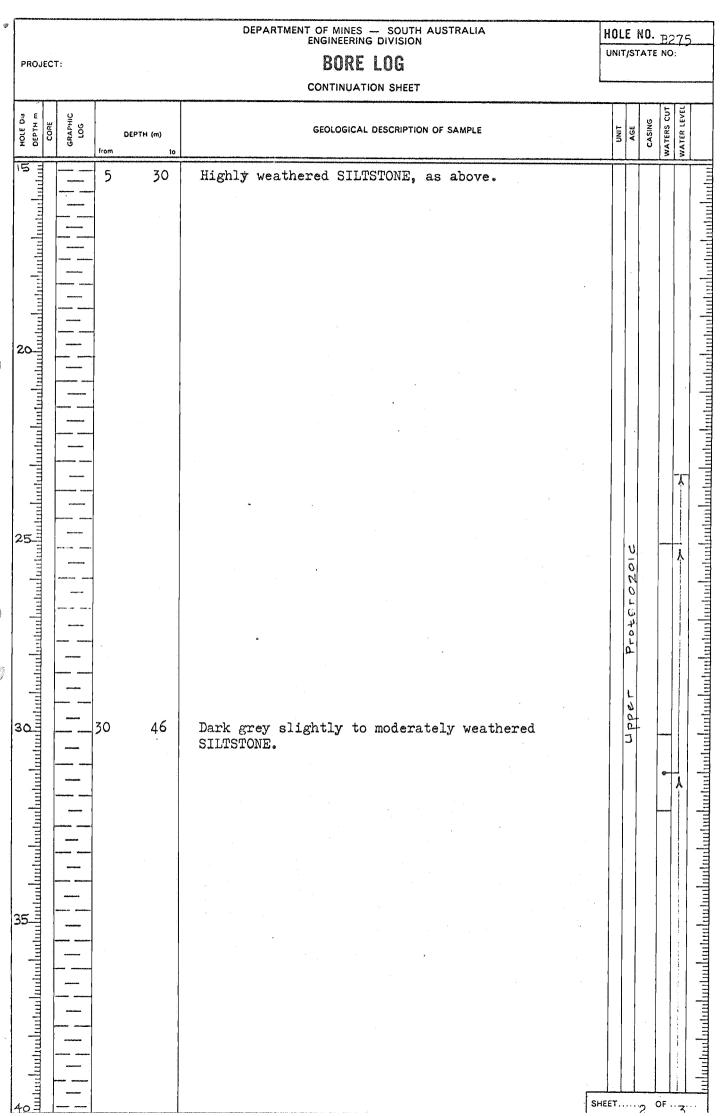
HOLE NO. B265

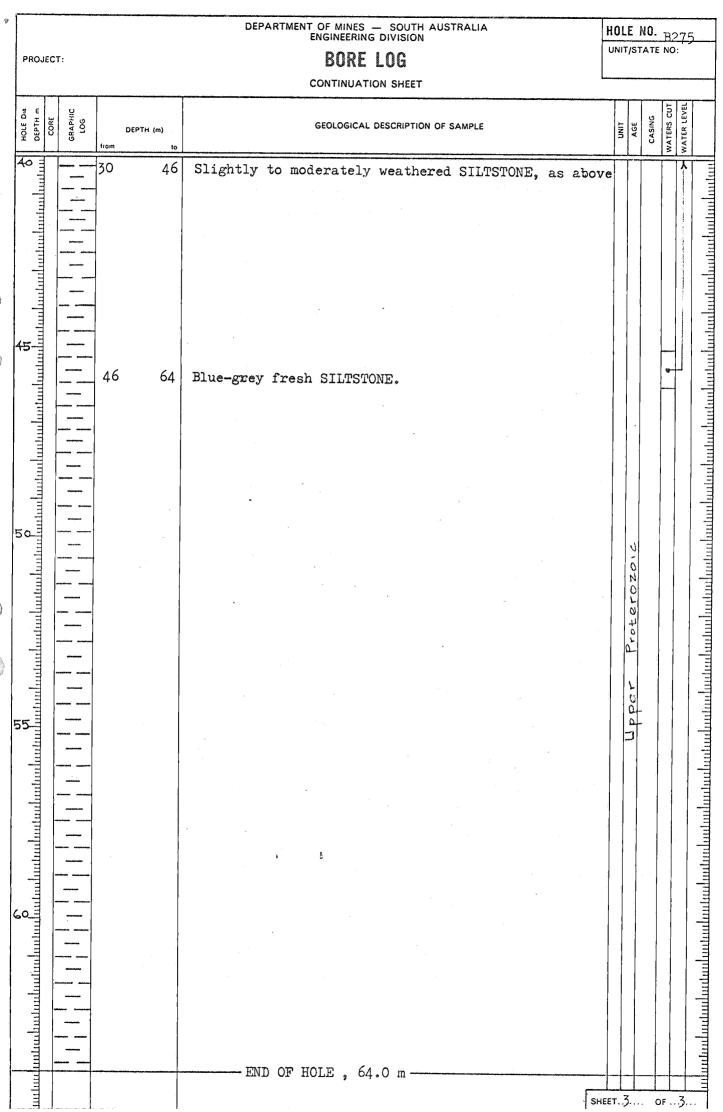
#### CONTINUATION SHEET

					CONTINUATION SHEET					
HOLE Dia. DEPTH m	<u> </u>	GRAPHIC LOG	from	DEPTH (m)	GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT	CASING	WATERS CUT	WATER LEVEL
40		••••	40	54	Dark grey-green fine to medium grained QUARTZITE with thin bands of siltstone.				-	
$\frac{\alpha}{\delta}$										۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰
or Or Durburburburburburburburburbur				· · ·			Proterosol			toologiantoologiantoologian
1 minuturing			54	58	Dark grey slightly weathered SILTSTONE, with whit quartz veins and thin bands of quartzite.	te	Upper			
untumhunhunhunhunhunhunhun					-					utunhunhunhunhunh
գլ արտեսունունունունունունունունունունունունունո					END OF HOLE, 58.0 m					hulmina hutan hu
E I						SHEET	rz	. <u> </u>	ЭF	3]

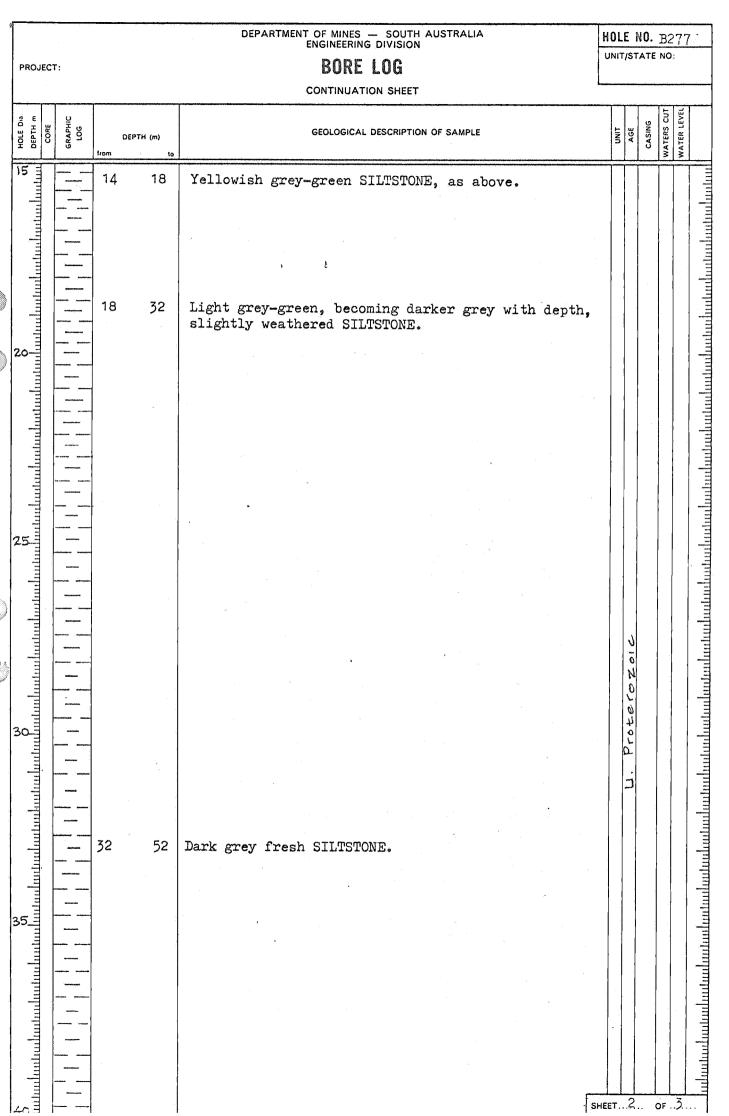
ROJECT: TARCOC RAILWA OCATION OR CO-ORD		DEPARTMEN SPRINGS E	t of mines - south australia Engineering division BORE LOG		HOLE NO. <sub>B275</sub> unit/state no: 5544 ~ 85
EC. HD.	·	EL Surface 370.			SERIAL NO:
DEPTH TO	Out of	EL ref. point	Datum SUPPLY	TOTAL D	FOLDER NO.
WATER CUT (m)	DEPTH TO STANDING WATER (m)	•m³/day	Method of test	milligrammes/litre	Analysis W. NO.
25.0	23.3	720 g.p.h.	air lifted		Analysis it. NO.
30 to 31 31.5 to 32 45 to 46	- / • /	(0.9 1/sec.) 1000 (1.25 1/sec.	plunger pump,	3478 (рн 8.0) 3340 (рн 8.0)	
DEPTH m CORE GRAPHIC LOG	DEPTH (m)		GEOLOGICAL DESCRIPTION OF SAMPLE	<del>, , , , , , , , , , , , , , , , , , , </del>	UMIT AGE CASING WATER CUT WATER LEVEL
0 ]	1 Re	ed-brown m.f.	SAND, weakly cemented.		
	5 Da (g We 30 Ye gr	ark pink calca gravel fragmen eakly cemented	reous silty and sandy its are lime-ceme nted	fine GRAVEL sand nodules. pth to light	Pleistoce
					Pre
EMARKS Locat		000 gals./hr. = 110 m³/day O m west of B2	275.200 km. Completed.	DRILL TYPE ROT	LOGGED BY: GHMCN
produ	ctive.		- / Jacob Kura Comptereda	START:24.6.76	DATE:28.6.76 TRACED BY: DATE:
				25.6.76	UMIC.

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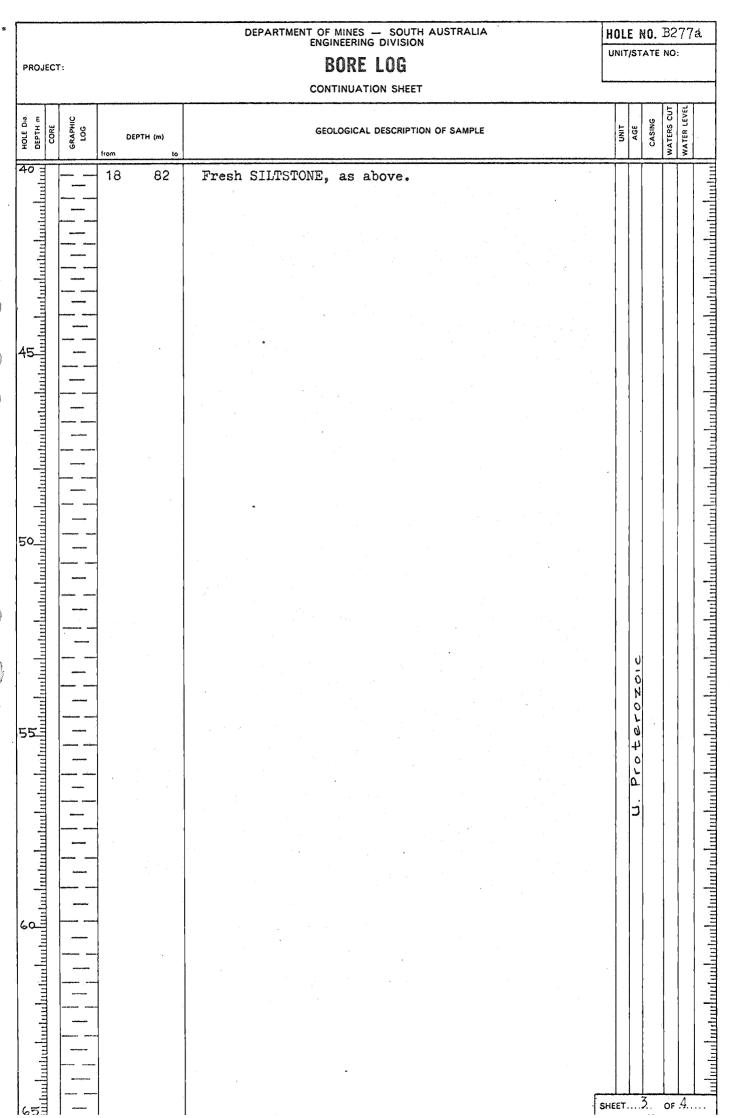
PROJEC	T: TARC	OOLA - AL	ICE SPRING		IT OF MINES - SOU	TH AUSTRALIA	an a dhalan an sun a fhuashachan bha chuir an an an ann an ann an ann an ann ann	HOL			~	7
1	RAIL ON OR CO-C	NAY.			BORE LOG				/STA			86
LOCAT			EL Surfa	°° 371.9	) m			SERI		÷		
SEC.		out of	EL ref. po	int	<b>)</b>	Datum	<del></del>	FOLD		****	÷	
	EPTH TO	DEPTH T		'm'/day	SUPPLY		·····	DISSOL				
3		STANDING WA			-		milligrammes/lit		An	alysis	W. N	
	)		l lu g	.p.h.	driller's o	pinion	not test	ed				
HOLE Dia DEPTH m	0	DEPTH (m) rom to			GEOLOGICAL DESCRIPT	ION OF SAMPLE		UNIT	AGE	CASING	WATERS CUT	WATER LEVEL
Lin I	[•.•]	0 6	Light a	nd dark	red-brown cl	ean c.m.f.	. quartz SANI	).	$\square$		Ť	<u> </u>
or ուսվուդիակակակակակակակակակակակակակ	· · · · · · · · · · · · · · · · · · ·	6 10.5	Light b	rown fir	ne gravelly c ed granite chi	.m.f. SANI	). Gravel in		Pleistocene			նանուղունունունուկումուղուկումուսիունունունուն
ն առևակարարտիարակարարություն		10 <b>.</b> 5 14 14 18		a grey-g	en slightly we			1	UPPOT Protorozoic			and
	Toos		NOTE: 1000 gais./hr.		A 3		DRILL TYPE Rot			BY:	GH:	VcN
REMARI		filled	W of B277.	JUU KM.	Abandoned a	nd	CIRCULATION: Air	DATI	12	.6	.76	5
							START: 11.6.76	TRAC		Y:		
							FINISH: 12.6.76	DATE				]
SIP Initia providence							SHEET	• ]	OFZ	ŀ		



Add         Add <th>PROJEC</th> <th>CT:</th> <th></th> <th>an <u>- 4 - 1</u> - <u>1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - </u></th> <th>DEPARTMENT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION BORE LOG</th> <th>-</th> <th></th> <th></th> <th>B27 NO:</th> <th>7</th>	PROJEC	CT:		an <u>- 4 - 1</u> - <u>1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - </u>	DEPARTMENT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION BORE LOG	-			B27 NO:	7
40     -     32     52     Dark grey SILTSTONE, as above.       -     -<						L	····			
40     -     32     52     Dark grey SILTSTONE, as above.       -     -<	HOLE Dia. DEPTH m CORF	GRAPHIC LOG	from		GEOLOGICAL DESCRIPTION OF SAMPLE	UNIT	AGE	CASING	WATERS CUT	WATER LEVEL
	40 1		- 32	52	Dark grey SILTSTONE, as above.			<u> </u>		_
	6 uhuduntuuhuutuuhuutuuhuutuuhuutuuhuutuuhuu						Proterozoi			
				an a						_
	ulmu				END OF HOLE, 52.0 m.					-
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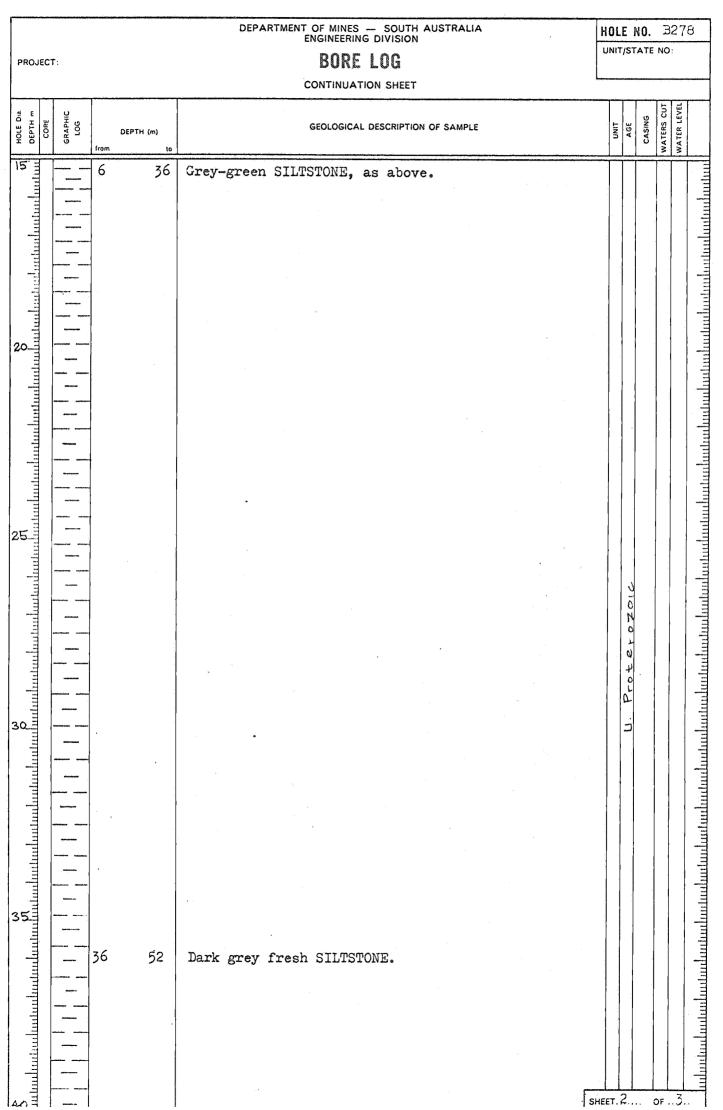
			i in the second second	nin an	NICOLOGIC CONTRACTOR		ARTMEN	T OF MINES - SOU	TH AUSTRALIA	a na sana na s		HOL	ΕN	10.	B27	/72
PRO	JECT	TARC	001	LA - ALIC		RINGS	E	ENGINEERING DIVISIO	N			UNIT	/STA	TE I	10:	
LOC	ΑΤΙΟ	N OR CC	-ORI	RAIL os:	MAY			BORE LOG							~	87
SEC.				Out of		-	365.8					SERIA				
SEC.	***	отн то	HU.			EL ref. point		SUPPLY	Datum	·	TOTAL D	FOLD	<del>.</del>			
		R CUT (m)		DEPTH TO STANDING WAT	F	™*/da	у	·····	d of test		illigrammes/litre	13301.4		alysi		NG
	24.			1-18-19-19-19-19-19-19-19-19-19-19-19-19-19-	,	70					<del></del>		•••••			
	24 * 31			24.5		30 g.p.	•n.	driller's (	opinion	not	; teste	1				
	33															
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i o O		C HIC		DEPTH (m)										ţG.	CUT	rever
HOLE Dia	CORE	GPAPHIC LOG						GEOLOGICAL DESCRIPT	TION OF SAMPLE			UNIT	AGE	CASING	WATERS CUT	WATER LEVEL
			from				·		101 010						3	
5	nn	•••	0	2		se rea- coarse.	brown	silty mediu	m/fine SAN	D, trad	ces onl	У				- Intra
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	IIII	• • •	2	5	SAN	D, as a	bove,	slightly ca	lcareous a	nd weal	ly		0			
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	TITT												n			- International
	111	• •											pie		ļ	
-	1111	•														
_	1111	• • •	5	18	Lig	ht grey	-gree	n, becoming a	darker wit	h depth	1.					n In
5-								d SILTSTONE.								արությունը հերակությունը հերակությունը։
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REM	ARK	s Lo	ca.					276.800 km, r	north side			LOG DAT				HeN 6
		of	A.	lberga Ri	ver.	Abando	oned	and backfille	ed.	START: 12		TRAC				<u> </u>
										FINISH: 15		DATE				
										<del>ر 1</del>	SHEET.	1	OF	/1	<del></del>	
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	PRO	JECT	Γ:			BORE LOG	UN	IIT/S	TAT	ENC	):	
			I <del></del>	<b></b>		CONTINUATION SHEET		<u></u>			िल	
	HOLE Dia. DEPTH m	CORE	GRAPHIC LOG	from	DEPTH (m) to	GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT	CASING	WATERS CUT	WATER LEVEL	
	15			5	1.8	Highly weathered SILTSTONE, as above.						
			 	18	82	Dark blue-grey fresh SILTSTONE.		-				
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		**************************************	DEPARTMENT OF MINES — SOUTH AUSTRALIA ENGINEERING DIVISION			-	B2		a
PROJECT			BORE LOG	UN	IT/S	ΤΑΤ	E NO	:	
				. <b>I</b>	·				
HOLE Dia. DEPTH m CORE	GRAPHIC LOG	DEPTH (m) from to	GEOLOGICAL DESCRIPTION OF SAMPLE		AGE	CASING	WATERS CUT	WATER LEVEL	
65		18 82	Fresh SILTSTONE, as above.			-			
25 25 29 20 20 20 20 20 20 20 20 20 20 20 20 20					U. Proterozoic				
mhm			END OF HOLE, 82.0 m.						
unturturturturturturturturturturturturturt				SHEE			OF		

		TARC		LA – ALIC RAII		DEPARTMEN PRINGS	T OF MINES - SO ENGINEERING DIVIS BORE LOG			i i	HOLE NO. B278 UNIT/STATE NO: 5544~89								
LUCA						EL Surface 367.3	m			. F	SERIA				·····				
SEC.			HD.	Out of		EL ref. point		Datum	<u> </u>		OLDE	÷							
		тн то		DEPTH TO		•m²/day	SUPPLY	od of test			SSOLVED SOLIDS								
		R CUT (m)		STANDING WAT	R (m)				miltigran			aiysis	<b>VV</b> 1						
	33	-34	:			50 g.p.h.	driller's	opinion	not t	ested									
				,															
							·			tin manimum dan menangan dan sebagai kan sebagai kan sebagai kan sebagai kan sebagai kan sebagai kan sebagai k									
HOLE Dia. DEPTH m	CORE	GRAPHIC LOG	fron	DEPTH (m) 10 to			GEOLOGICAL DESCRI	PTION OF SAMPLE			UNIT	AGE	CASING	WATERS CUT	WATER LEVEL				
		• •		6				2				-		1					
5		•••	0	0		irk red-brown artz SAND, w			i depth,	c.m.f.									
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			6	36	Lig	ht grey-gree	n moderately	weathered	SILTSTON	Ε.	$\left  - \right $	-							
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		• Loo				$300 \text{ gais./hr.} = 110 \text{ m}^3/\text{day}$ B278 = 350 Km	. Abandoned	and		ROT.	•				McN				
REM	ARK					poor yeild.	, Abandoned	anu	CIRCULATION:		DAT			6.	76				
						• • • • •			START: 10.6		TRAC		BY:						
										SHEET		OF	3						
				Kanada ana kana kana kana kana kana kana	uters of the second		n valen og skalet at som en skalet som e				har to all depose	ntereșnașe							



ROJECT:	DEPARTMENT OF MINES — SOUTH AUSTRALIA ENGINEERING DIVISION BORE LOG CONTINUATION SHEET				10. <u>B27</u> ate no:		
E DEPTH (m) COSE COSE COSE COSE DEPTH (m) from to	GEOLOGICAL DESCRIPTION OF SAMPLE	UNIT	AGE	CASING	WATERS CUT	WATER LEVEL	
	Dark grey SILTSTONE, as above		U. Proterozoic				
	END OF HOLE, 52.0 m.						

PRO.	JECT	TARC	001	LA - ALIO			T OF MINES - SOUTH AUSTRALIA	ni mana kana kana kana kana kana kana kana			-		*****
LOC	4710	N OR CO	-ORD	RAII	YAW	700 7	BORE LOG		55 SERIAL		$\sim$	<u> </u>	39
SEC.		1	HD.	Qutof		EL Surface 3803 EL ref. point	M Datum		FOLDE				
	DÊ	от нто		<b>ДЕРТН ТО</b>			SUPPLY	TOTAL DI	SSOLVE	D SO	IDS		
<u> </u>	VATE	R CUT (m)		STANDING WAT	ER (m)	•m³/day	Method of test	milligrammes/litre		Analy	sis W	NO	
	d	ry		y ni ya waka sa ka sa ka									
HOLE D		GRAPHIC LOG	from	DEPTH (m) to			GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT	AGE CASING	WATERS CUT	WATER LEVEL	
-		•••	0	1	Re	d-brown clea	n c.m.f. quartz SAND.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
-	1111		1	3	Pi	nk silty c.m	.f. quart $_{\rm Z}$ SAND.				1		
			3	10		ght grey gra athered gran	velly SAND, as above ( ite?).	moderately		-			
5 - 1		· · · · · · · · · · · · · · · · · · ·								rieistocene (			
		+ + +	10	16	Li sl	ght grey and ightly weathe	pink fine grained GRA ered (sample mostly m.	NITE, fresh to f. sand size).					utroductuation discrete and a second sector of a
1		+ +			·				0,0,0	2			անունուն
15					OTE	END ( 000 gals./hr. = 110 m³/day	DF HOLE, 16.0 m	DRILL TYPE Rot.	LOGG			INT -	
REM	ARK	<sup>s</sup> Loca	ite	d about (	50 m	NW of B286.5	500 km peg. Abandoned	DRILL TYPE Rot. CIRCULATION: AIT	DATE				VI.
		dry	af	ter downl	nole	hammer jamme	ed "	START: 8.6.76	TRACE				
								FINISH: 9.6.76	DATE:				$\neg$
			and the second secon					SHEET	ļ. ,	of .]			

PROJECT: TARCOOLA ~ ALICE SPRINGS													HOLE NO. B289 UNIT/STATE NO: 5544 ~ 90								
LOC	ATIO	N OR CO				EL Surface 388.6	m				SERIA			• • • • • • • •							
SEC.		ا سىبىيە مە	HD.	Out of		EL ref. point	Datum	) 		6	FOLD	ERI	NO.	<del></del>							
	DEP	тн то		DEPTH TO			SUPPLY				Analysis W NO										
,	VATE	R CUT (m)		STANDING WAT	ER (m)	*m'/day	Method of test		milli	grammes/litre	Analysis W. NO.										
	32	5.00 2.30 5.60		28.00		10 g.p.h.	driller's opini	on	not	tested											
HOLE DIA		GRAPHIC LOG	trom	DEPTH (m)			GEOLOGICAL DESCRIPTION				UNIT	AGE	CASING	WATERS CUT	WATER LEVEL						
			12 12	1 6	Dar Hig str	k grey to bl hly weathere eaked along ghtly to mod	with claorete no ack medium grain d orange and whi joints. erately weathere ack fresh DOLERI	ned (2-3 ite (cal	mm) DC crete)			Precambrian			we start a tradition from the from the free from the device of the free free free free free free free fr						
												E: 1 CED E:	7 • BY:		<u>IMcN</u> 76						
400-040-040-040-04		a a da a	-	natur (sanat) a catalan kalan dan anan anan ba			*****		Ryana ay kana ya ku ku ji na panganganganganganganganganganganganganga	SHEET.		OF	لر بينين	-							

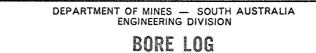
<b>1</b> 9	PROJECT	····		DEPARTMENT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION BORE LOG CONTINUATION SHEET	HOLE NO. B289 UNIT/STATE NO:								
	HOLE Dia. DEPTH m CORE	GRAPHIC LOG	DEPTH (m) from to	GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT	CASING	WATERS CUT	WATER LEVEL				
	$\overset{\otimes}{\mathrm{intruducturburburburburburburburburburburburburbu$		12 43	Fresh DOLERITE, as above.		Pre.combrion							
		/		ſ	SHEE	т.2	••••	Ő	<u>۔۔۔</u> وَ؟	<u></u> 3			

### BORE LOG

HOLE NO. B289

	CONTINUATION SHEET									
HOLE Dia DEPTH m CORF	GRAPHIC LOG	DEPTH (m) from to	GEOLOGICAL DESCRIPTION OF SAMPLE	UNIT	AGE	CASING	WATERS CUT	WATER LEVEL		
40		12 43	Fresh DOLERITE, as above.					T		
$\mathfrak{F}_{\mathfrak{g}}$		43 50	Dark grey, reddish and bright green (epidotized?) in places, GRANITE with smoky QUARTZ. Granite is medium grained, with abundant fine mica.		Precombrian				սիուկուհուհուհուհուհուհուհուհուհուհուհուհուհո	
50	-		END OF HOLE, 50.0 m					-+		
$\frac{4}{4}$						3	DF	3	<u>_հակատանամասիտիտիտիտիտիտիտիտիտիտիտիտիտիտիտիտիտիտիտ</u>	

PRO	JECT :	TAR	000		DEPARTME CE SPRINGS LWAY	INT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION BORE LOG		HOLE	TAT	ENO	<del>,</del>
LOCA	ATION	N OR C	O-ORI		EL Surface 387 . 1	DONE LOO		55	نىپ يە	<del>i n in i</del> nte	91
SEC.			HD.	Out of	EL surrace C 1 * 1 EL ref. point	Datum	,	FOLDER	NO NO	<del>.</del>	
	DEP	тн то		<b>DEPTH TO</b>		SUPPLY	TOTAL DI	SSOLVE	o so	LIDS	
<u> </u>	VATER	R CUT (n	n)	STANDING WAT	ER (m) •m³/day	Method of test	milligrammes/litre		Analy	ysis W	NG
	22	2		34.4 (end of drilli		driller's opinion h)	not tested	1			
HOLE Dia. DEDTU D	CORE	GPAPHIC LOG	fron	DEPTH (m)		GEOLOGICAL DESCRIPTION OF SAMPLE		TINI	CÁSING	WATERS CUT	WATER LEVEL
		•	0	1	Red-brown clea	n m f. SAND.		10	-	Ť	1-1
_		•	1	3		orm medium SAND.					
وا		• • •	3	20	Highly weather	ed brownish light grey sand, with angular chi	GRANITE ps of fine to	α 			
- 15		+ +	       		medium graine	d micaceous granite up	to 10 mm).		ية 1 من يو يكون من من من من يو		
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10		+ +	•			· · · · · · · · · · · · · · · · · · ·	•				
-		-}									
15		╋									
	ARKS			ed about	NOTE: 1000 gals./hr. = 110 m <sup>3</sup> /da 150 m southwes backfilled/	v t of B290.000 km peg.	DRILL TYPE Rot. CIRCULATION: AIR START: 7.6.76 FINISH: 8.6.76 SHEET.	DATE: TRACEI DATE:	8.	6.7	McN 76



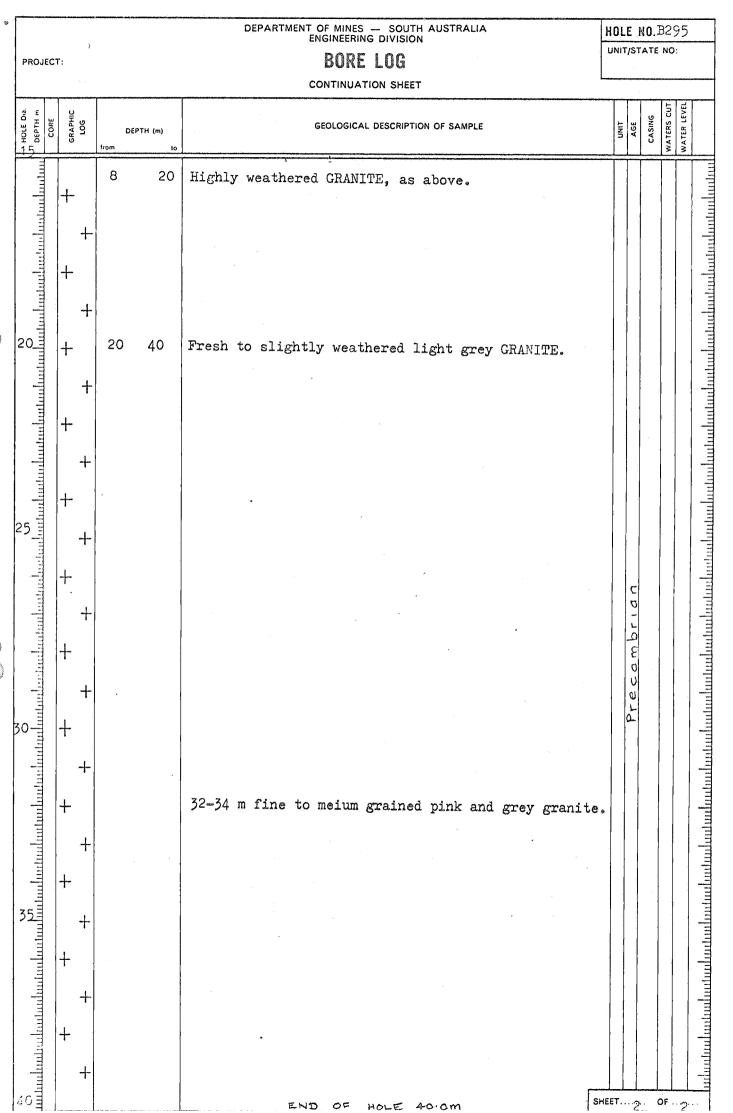
HOLE NO. B290

PROJECT:

-12

ĺ						CONTINOR TION STILLT					
	HOLE Dia. DEPTH m	CORE	GRAPHIC LOG	DEPTH	(m) to	GEOLOGICAL DESCRIPTION OF SAMPLE	UNIT	AGE	CASING	WATER LEVEL	
	15			3	20	Highly weathered GRANITE, as above.	Γ	Ī			1
			+					·			in line
	luut.		+		ĺ						
	untu untu										- Infin
	n find		+		2				:		
	1		+						-		
Ŵ	20		+	20	38	Slightly weathered light grey GRANITE (sample mainly					- IIIII
	in the		Т		,	fine sand and silt size, few chips to 10 mm of fine to medium micaceous granite).					
			+	1							
	وأرشرا		+								lint
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	11111		1			26-38 m cuttings faintly moist ("humid")					min
	tand.		+					0			tuul
			+					īg			mluu
	luit		+					3 0			hul
1	ni hu							5			
	lint		+					Ľ			dunti
-	30		+								uthu
	փուն		+								luul
	mhu			`							untur
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-	ակա		+								ալա
	կան		+								hud
2	s I Intern										urhun
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	in line	4	+								mhi
			+								utul
	30-11-11-11-11-11-11-11-11-11-11-11-11-11		1								արությունությունությունը։
						END OF HOLE, 38.0 m					
	ultulutu										munului
	u lu						 	<del></del>		 	

ON OR CO-ORDS: EL Surface 394.7 m HD. Out of EL ref. point Datum EPTH TO DEPTH TO SUPPLY rer CUT (m) STANDING WATER (m) "m"/day Method of test	TOTAL DI milligrammes/litro		R NO.		
EPTH TO DEPTH TO SUPPLY FER CUT (m) STANDING WATER (m) *m*/day Method of test		SSOLVE	SOL		
FER CUT (m) STANDING WATER (m) *m³/day Method of test			-		
	milligrammes/litre		Analys		
				15 W. I	NO
GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT	CASING	WATERS CUT	WATER LEVEL
0 8 Red-brown, becoming pink-brown clean c., SAND, weakly cemented.					
· . 2-6 m as above, with a little fine grave.	el, dark pin				and the second secon
6-8 m as above, light brown.		Plais			and the second
   	wn becoming		- - - -		
+ gravel and fine mica).	ndant line				
+		ambrian			
+		Precan			
	RILL TYPE ROT.	LOGGE	D BY:	GH	M
and healsfilled	IRCULATION: AIR	DATE	7.6	.76	) 
	1.00010	TRACED	BY:		
FI	NISH: 7.6.76 SHEET.1	DATE:	F2		



SHEET ... 2 OF ... 2 ...

PROJE	CT: MAI	200	דא אור	DEPARTMEN	NT OF MINES — SOUTH AUSTRALIA ENGINEERING DIVISION		HOL	EI	<b>VO</b> .	<u>B2</u>	98	3
			RAI	ILWAY	BORE LOG		UNIT	, ,	ате <b>Д</b> -			2
LOCAT	TION OR CO	D-ORC	DS:	El Surface O 7		<b>,</b>	SERIA					<u>, , , , , , , , , , , , , , , , , , , </u>
SEC.		HD.	Out_of	EL Surface Ca. 3 EL ref. point	CO m Datum		FOLD	ER	NO.		<del></del>	
	DEPTH TO		<b>DEPTH TO</b>		SUPPLY	TOTAL DI	SSOLV	ED	SOLI	DS		
w	ATER CUT (m	)	STANDING WAT	ER (m) *m³/day	Method of test	miligrammes/litré		A	naiysi	s W	NO	
26	5.0 to 2	28.	0 10.1	1200 g.p.h. (1.5 l/sec)	air lifted	11497 (pH 7.7) )4420						
				1400 g.p.h. (1.75 l/sec		(pH 7.6)						;
HOLE Dia. DEPTH m	CORE GRAPHIC LOG		DEPTH (m)		GEOLOGICAL DESCRIPTION OF SAMPLE	<del>a na an</del> an	UNIT	AGE	CASING	WATERS CUT	WATER LEVEL	
	1	Iran				· · · · · · · · · · · · · · · · · · ·	<u></u>			3	w,	[
- Hin	. * . •	0	2	Red-brown silt;	y coarse/medium/fine SA	AND.						111
վարակող		2	3	Dark pink SAND calcrete to 30	, as above, calcareous. mm, 5 /o.	. Nodules of		arnary	, u			hulmaterla
ى سلىسلىسلىس	· · · · · · · · · · · · · · · · · · ·	3	9	of m.f. gravel	brown silty c.m.f. SANI . Weakly to strongly H coated fragments.		C	· Quata	ng 0-13	n		duutuutuutuutaassa saasaasaasaasaasaasaasaasaasaasaas
արություն	· · · · · · · · · · · · · · · · · · ·							Tertiory	teel cosi			սիստիստիունը
յուն է։ Ծ Հավասիակակակակակակակակակակակակակակակակակակա	· 0 · 0	9	12		pletely weathered GRANI lar granite fragments).		• •		150mm S			
10 դրուրուրուրու 10 դրուրուրուրու	+		15					brian				արութուրությունությունություն
uhuntuuhun	+	1:	2 15	Dark brown com	pletely weathered GRANI	.rr, as above.		Precam			An and a second s	mhuntuuluu
15 15	+											
REMA	RKST	+		NOTE: 1000 gals./hr. = 110 m <sup>3</sup> /day	600 km, along fence	DRILL TYPE ROT.	LOG	GED	BY (	H	ic]	N
	- 1005			map). Complete		CIRCULATION: AIR	DAT			<u>5</u> .	76	
		•		-, A '	_	START: 18.6.76	TRAC		5Y:			
						FINISH: 19.6.76 SHEET.1		OF	2			

PROJECT:	

#### DEPARTMENT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION

### BORE LOG

HOLE NO. B298 UNIT/STATE NO:

CONTINUATION SHEET

			CONTINUATION SHEET		-			
A HOLE Dia. 1 DEPTH m CORF	GRAPHIC LOG	DEPTH (m) from to	GEOLOGICAL DESCRIPTION OF SAMPLE	:	UNIT	CASING	WATERS CUT	WATER LEVEL
       	-+-	15 26 GRANITE (or	Dark grey-green completely weathered fine grained very micaceous silty sand with 5% of fine angular gravel).	1				
ահա	+							
5 minutanianianianianianianianianianianianiania	+			)		323		
Intur	+					2		
201	+			-		e c	$\frac{1}{1}$	
որու	+					Casina		
mhiu	+					0		
hulut	+					Stee		
որուկո	+				1	U U U U		
25	 +					125		
- milini			GRANITE as shown but less fines in somple move	'n	لـ ۲			
huttu	<del> </del> -		GRANITE, as above but less fines in sample, grave up to $10^{\circ}/\circ$ .	±	Prend			-
ىلسلى					d		<b>s</b>	.   1
	+	28 33	Completely weathered GRANITE, as above, with frag ments of fresh grey, yellow-green and dark pink granite to 50 mm.	-		and the second se		
30 30	+							
luntui			• • •					-
վուղո	+			:				-
20 Juntur hurtur h	+							-
ulturult			END OF HOLE, 33.0 m.					
يتلسين		•						-
35								-
hullu								-
ulunli						1		
luuluu								
mhu								-
, Junulu				[				
+U =	1			SHEE	1	•••	UF .c	, · · · ·

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PRO.	JECI	Г: <b>п</b> ./т.	000			NT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION	an a	HOL				98;	а.
		TAR		RAT	CE SPRINGS LMAY	BORE LOG		UNIT 5	•	ате <b>I-</b> 4		9.	4
			-011		EL Surface Ca. 33	) m.		SERI	AL N	10:			
SEC.			HD.	Out of	EL ref. point	Datum		FOLD	÷			<u>.</u>	
		PTH TO ER CUT (m)		DEPTH TO		Method of test	TOTAL DI		·	nalysi		NG	
			<u></u>		and the second se		11146						
	3. 6.	5 to		11.5	750 g.p.h. (1 l/sec.)	air lifted	(PH8.C)						
					120 g.p.h. (1.5 l/sec)	plunger pump, 360 mins.		-					
HOLE DIA.	CORE	GRAPHIC LOG	from	DEPTH (m)		GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT	AGE	CASING	WATERS CUT	WATER LEVEL	
		· · ·	0	1	Red-brown silt	y m.f. SAND with $10^{\circ}/\circ$	white calcret	a					E
				7	nodules.					٤			արդիսիսովությունությունությունությունություն
		• • •	1	3	ar calcrete).	ty coarse SAND and lime	GRAVEL (nodu	L-		1			Int
-		· 0 · 4			3	Ĵ				2			ulu
		0.4	3	6	Light ninkish	brown weakly cemented a	ilty SAND with			O			TIT
		· .		Ū,	fragments of s	ilcrete and ferricrete.		•		0T			Thur
-		·			top 1 m.					5			Lun
		·		1					とこ	502			пп
5-		· .							r 10				mm
		·	6	10	Very light brow	wn (buff) slightlv silt	v coarse/	-	O.	66			TIT
		· · ·			medium/fine SA	wn (buff) slightly silt ND with 5-10°/o fine gr	avel and		4	5			- The second se
					silcrete chips	<b>\$</b>			C V	٤			Inn
										0 MM			ulu
		· · ·							$\mathbf{\lambda}$	2			
		• • •							r d				ПШ
				-					- +				Ind
10_	1111	· ·	1(	) 12		se quartz_SAND with abo	ut 10 <sup>0</sup> /o fine		Ter			-	unn
					gravel.								IIII
		a ·											m
			12	2 14	White and brown	n silicified coarse SAN	D and CDAUDT				+	Å	IIII
		.0.0	14	- 14	white and brown	I SITICITIEN COALSE SAM	D and GRAVED.				Í		I
		0.0											htt
10		0.0	دريور						L.				<u>uduntahan harangan harangan harangan</u>
		0.0.	14	4 16	Clean yellow qu Few fresh grani	artz SAND and GRAVEL,	unsilicified.						ILLILI
15		О. . Д .			- 04 1-00% Broni	roc arrthns					-	]	TITT
		<u> </u>			NOTE: 1000 gais./hr. = 110 m³/day	an de antier anne anne anne anne anne anne anne an	DRILL TYPE Rot.	LOG	GED	BY:	GF	 Mo	N
REM.	ARK	s Loc	ate	ed about	2 kn. south of H	3298 (see sketch map).	CIRCULATION Air	DAT					
		COM	hre	ted prod	uctive.		START: 17.6.76	TRAC		BY:			
							FINISH: 18.6.76 SHEET	DATE		2			
<u> </u>	enteriores						SHEET	". Kanalalinimensis	UF	~			

# DEPARTMENT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION

BORE LOG

HOLE NO B298a UNIT/STATE NO:

				CONTINUATION SHEET					
HOLE D.a.	CORE	GRAPHIC LOG	DEPTH (m) from to	GEOLOGICAL DESCRIPTION OF SAMPLE	UNIT	AGE	CASING	WATERS CUT	W 164 61 16
		0.0	14 16	SAND and GRAVEL, as above.					
20_	ուլալույո	+	16 24	Weathered GRANITE. Sample consists of angular quartz and fresh granite fragments, of coarse sand and gravel size.					
	nhuult	+							-
	Infint	+						1	-
20_	mhud	+							
	mpni								
	hetter	+				107			-
-	mm					amp			-
-	luutu					V			-
	uluulu	+				Pre			-
25	tutu	+-			•				-
   .	mmun	+							-
	11111			END OF HOLE, 27.0 m.	-				
	um								-
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<u>30</u>	nihii								-
-					1			•	-
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-	111111								
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35	mm								1.1.1
	mm								
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	minu						8		
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- 71 1	- 1 - 1								

PROJE	CT:	ŗ	FAR	COOLA -	ALIC	DEPARTMEN E SPRINGS	IT OF MINE	S - SOUTH	AUSTRALIA	4		ł	101	EN	0.	B3C	)1
LOCAT	ION				RAIL		BORE	ELOG					літ/ 55			10: 	13
SEC.			нD. /	Out of		EL Surface400 • 8 1 EL ref. point	n	0.	•				ERIA OLDI			wed	
	DEPTI			DEPTH TO	**************************************		SU	PPLY	tum		τοτα					)S	
WA	TER	CUT (m	)	STANDING WAT	'ER (m)	*m²/day		Method of	test		milligrammes/		<u> </u>			W NO	
	27			-		5 g.p.h.	dril	ler's oj	pinion		800				es ite		on
ŤŐ	CORE	GRAPHIC LOG	from	DEPTH (m) to					N OF SAMPLE				UNIT	AGE	CASING	WATERS CUT	
uulu			0	1	Re	ed-brown slig	htly s:	ilty c.m	n.f. S.NI	).		*******		20			Ī
ى سىلىسلىسلىسلىسلىسلىسلىسلىسلىسلىسلىسلىس		· · ·	1	3	gr	ark pink fine canite fragme	nts.							Pleistocene			utuutuutuutuutuutuutuutuutuutuutuutuutu
سأسطسا	-+	• •	3	16	ls Wi	oderately wea sh yellow wit th subangula 0/0 of sampl	h depth r grani	l (grave	lly mica	iceous	sand.	ey−					
5		+								•							minut
لسامع	+	-															uluulu
րորո	ł	+		×													multutt
լարոր	+	•								• ,				CO			- E
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mhut	+			-													ntuulu
15					······································	D											ultu
REMAR	KS	Loc ba	ate .ckf	ed 100 m	SW c	00 gals./hr. = 110 m³/day of B301.500 k o poor yield.	m peg.	Abando	ned and	START:	4.6.76	TF	RACE	9. D B	6.	HMc 76	 >N
										FINISH:	5.6.76		ATE:				$\square$
1075273.cm2333405	Salata Mani	****				an a			nio fatalistista para para para para para para para pa	Stonalization of Longitude	SHEE	T.1.	) (	OF 3	-	ni n	ļ

#### DEPARTMENT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION

BORE LOG

HOLE NO. B301

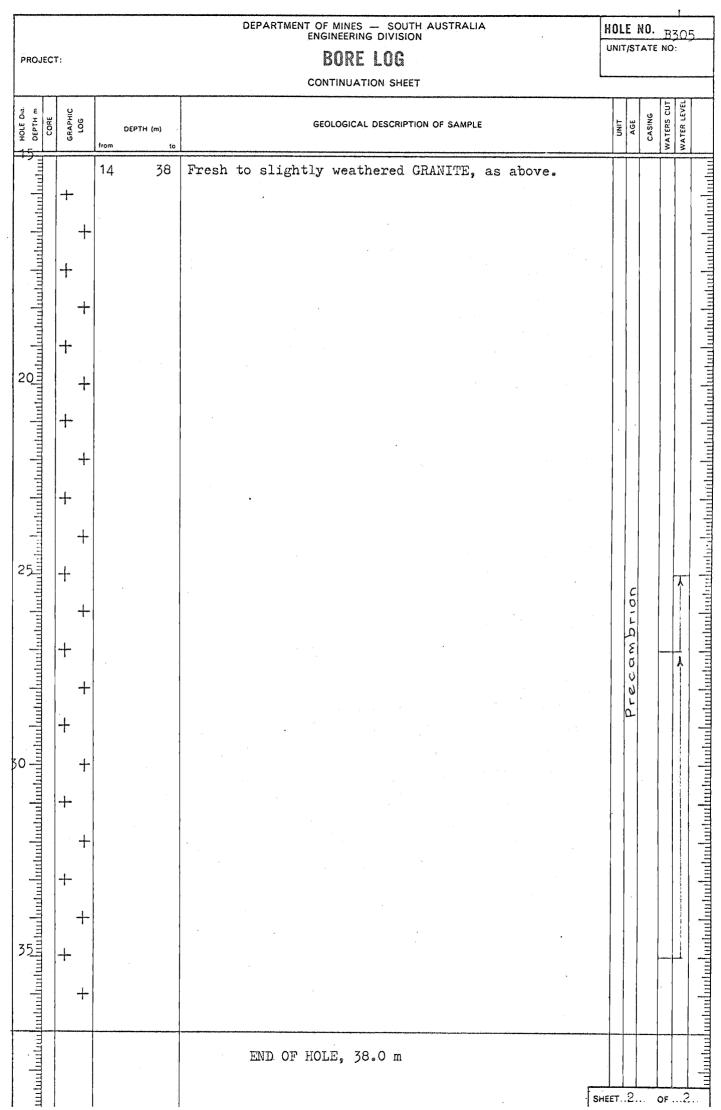
UNIT/STATE NO:

CONTINUATION SHEET	ŗ
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HOLE DIA	CORE	GRAPHIC LOG	from	DEPTH (m) to	GEOLOGICAL DESCRIPTION OF SAMPLE	UNIT	AGE	CASING	WATERS CUT	WATER LEVEL
			3	16	Moderately weathered GRANITE, as above,		T			- f
		+	16	50	Fresh light grey fine to medium grained GRANITE, with fresh clear quartz fragments.					-
		+	•							-
1		- <b> </b>	- -							-
		.+-								
20										
20		+-								-
- Inde		+	•							-
		+								-
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		+		2						-
25		4								
		+								-
tutt		-+					100			
mhun		-+-					44			-
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30		+				-	Pre			
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PRO	JEC.	Τ:		BORE LOG CONTINUATION SHEET		محبني	<del></del>	*****		
DEPTH m	CORE	GRAPHIC LOG	DEPTH (m) from to	GEOLOGICAL DESCRIPTION OF SAMPLE	1	UNIT	705	CASING	WATERS CUT	WATER LEVEL
			16 50	Fresh GRANITE, as above.						
45		+							-	
1111		+				•			1	
heelen.		+						-		
-		+					5		1	
45		+				j	ī o	-		
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		+	×							
11		  +								
50									1	
				END OF HOLE, 50.0 m.		~	1			
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	111111									
	111111	1					3	1		
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1001	11111				SHEET					2

DEPARTMENT OF MINES - SOUTH AUSTRALIA PROJECT: TARCOOLA - ALICE SPRINGS RAILWAY BORE LOG 554													- C	)5
				RAI			BORE LOG							14
LOCA	TIO	N OR CO	-ORD	S:	EL Surface 40	2.3	m			SERIA	LN	0:		
SEC.		ł	ID.0	ut of	EL ref. point		Datum			FOLD				
	DEF	тн то		DEPTH TO			SUPPLY		TOTAL DIS	SOLV		- 12 <sub>1</sub> - 12		
W	ATE	R CUT (m)		STANDING WATE	R (m) •m³/day		Method of test		milligrammes/litre		A1	halysis	W.	NO.
	25 27 35	,		25.0	about 80 g.p.h. (0.1 /sec		driller's opinion		not tested					:
HOLE Dia. DEPTH m	CORE	GRAPHIC LOG	from	DEPTH (m) to	I		GEOLOGICAL DESCRIPTION OF SAMPLE			UNIT	AGE	CASING	WATERS CUT	WATER LEVEL
		·	0	1	Loose red-bi	rown	silty SAND.		, <u>, , , , , , , , , , , , , , , , , , </u>					
-			1	2	Dark pink si gravelly.	ilty	SAND, slightly calcar	reou	s and					
			2	3		fine	gravelly SAND.							
0       1       Loose red-brown silty SAND.         1       2       Dark pink silty SAND, slightly calcareous and gravelly.         1       2       3         1       2       3         1       2       3         1       2       3         1       2       3         1       2       3         1       2       3         1       2       3         1       2       3         1       2       3         1       2       3         1       1       1         1       2       3         1       2       3         1       1       1         1       2       3         1       1       1         1       2       3         1       1       1         1       2       3         1       1       1         1       1       1         1       1       1         1       1       1         1       1       1         1       1       1														hudrotnoloo
5					) 		ţ				イトドレコク	<b>`</b>	and the second	an burden den den den den den den den den den
		· · · · ·									- Qua			
- 10-		· · · · · · · · · · · · · · · · · · ·				ж "•					ertiory			adanhadanhadanhadanhadanhadan
10 10 10 10 10 10 10 10 10 10										T.				
-			12	1 38	Light grey f	resl	h to slightly weathere	ed GF	ANITE.					
15	11111	-+-			1-								- -	- Internet
1-12	-1	ł	لينجي		NOTE: 1000 gals./hr. = 110 m	n³/day	n mikina na pana kana dan maka kata ana da kana da da kata da kata na kata kata da kata na na da da mata da may	DRILL	TYPE ROT.	LOC	GGE(	<u>р вл</u>		IMcN
REN	AR				n east of B305	5.350	0 km. Abandoned and		JLATIONAIR			6.		
		Ď	acl	filled.				STAR	LIOUIU	TRA	CED	BY:		
								FINIS	н: 22.6.76	DAT		~		
1	SHEET.1. OF2.													



RAILWAY BORE LOG												ATE		1
LOCA	TIO	N OR CO	ORD	S:		El Surface AOS A		UU .		SERIA		÷	<u>~1</u>	9
SEC.		ł	łD.	Out of		EL Surface 405 • 4 EL ref. point	m	Datum		FOLD	ERI	0.		
	DEF	отн то		<b>ДЕРТН ТО</b>			SUPPLY		TOTAL DI	SSOLV	ED	SOLI	DS	
<u> </u>	VATE	R CUT (m)		STANDING WAT	ER (m)	°m'/day		Method of test	milligrammes/litre		A	nalyse	s W. N	Ó.
	20	)		18.5		600 g.p.h. (0.75 l/sec)	plunger 360	pump, mins.	2197 (ph 8.0)					
	<del></del>	r		and a second	· · · · · · · · · · · · · · · · · · ·			an a					<del>,</del>	
HOLE Dia.	CORE	GPAPHIC LOG	from	DEPTH (m) to			GEOLOGICAL DE	SCRIPTION OF SAMPLE		UNIT	AGE	CASING	WATERS CUT	WAIEK LEVEL
		$\left[ \cdot , \cdot \right]$	0	1	Red	-brown slight	tly silty	c.m.f. SAND	innenna kaina yörip keinen och närada saina		Π		$\square$	
-		• • •	1	2	Dit	to, lighter 1	red-brown	, gravelly and	l calcareous.					mhad
		· · · ·	2	3		k pink silty rse SAND.	and fine	sandy fine GH	AVEL with			ي ع		ndunt
	<ul> <li>1 Red-brown slightly silty c.m.f. SAND</li> <li>1 2 Ditto, lighter red-brown, gravelly and calcareous.</li> <li>Dark pink silty and fine sandy fine GRAVEL with coarse SAND.</li> <li>Light re-brown silty and sandy m.f. silcrete GRAVEL (to 20 mm).</li> <li>5 16 Light red-brown very silty mif. SAND with 5°/o silcrete gravel (to 25 mm).</li> </ul>										ė ,	0 - 33		introlution
5_		000 	5	16	Lig sil	ht red-brown crete gravel	very silt (to 25 mm	ty mļf. SAND w	with 5°/o		R NA NY	sing		unterdanta data data dan dan dan dan dan dan dan dan dan da
		· · · · · · · · · · · · · · · · · · ·				<i></i>					Quat	el ca:		unhan
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		•									rtiar	mm		luntur
10_		· • •				•					Ter	150		uhuhu
		4 · · ·			]							And the part of the second		ultutu
-							•				7. <b></b>			minin
		• •									and the second secon			mmult
10		 									And the second se	- Galagier, - Andrew Statemen		ակակակակակակակութություն
-15	1	· a ·					<del></del>		1				<u> </u>	Ē
REM	ARK	s Loc	cat			000 gals./hr. = 110 m³/day ) m north-eas	t of B307	km peg.	DRILL TYPE ROT/CT	LOG	GED	BY:	GHN	YcN-
		Dr	ill	ed to 24	ml	by rotary-per			CIRCULATION: AIR	TRAC			5.76	5
		pro	odu	ictive by	cal	ole tool rig.			FINISH:	DATI		013		
										.2	<del></del>			
1				NAME IN CONSIDER AND IN THE OWNER OF THE OWNER OF	and the second second							 Nitorhader		and the second second

PROJEC	:T:		, en	DEPARTMENT OF MINES — SOUTH AUSTRALIA ENGINEERING DIVISION BORE LOG CONTINUATION SHEET				0. 		
DEPTH m CORE	GRAPHIC LOG	tron	DEPTH (m) 1. to	GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT	AGE	CASING	WATERS CUT	WATER LEVEL
L I		5	16	Silty SAND, as above.						Ţ
milminuturinuturi	· · · · · · · · · · · · · · · · · · ·	- 16 •	20	Dark brown gravelly c.m.f. SAND.						
Intu	<b>.</b>	•				х			-	X
		>   .								
առառահառահառահառահառառա		- 20	24	Ditto, medium brown.	1	1			-	1
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mlm		_24	37	NO SAMPLES - hole completed by cable tool rig.			2017			
Turt						1	6			
uthu						4	5			
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ullu							1			
huuli							¥.			
nduu							1ertiary			
hinh						1				
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hui										
untun	-									
luit										
mlm										
Junt										
1 IIIIII										
Junt							. 			
mlu										
								NV		
ului				END OF HOLE, 37.0 m						
water huter het en het er h										
uiluu			1							
1111	1				SHEE	т <u>.2</u> ,		0	F	2

PROJE	ст:			0001 A		2	T OF MINES - SC	OUTH AUSTRALIA SION	Robinto managed (page) (carrow o and compared and the second second second second second second second second s			,	75.	<del></del>
		L. I. OK. CO-		1	RAIL	E SPRINGS WAY	BORE LOO	Ŕ		55	54	5-		6
				<u>.</u>		EL Surface 422 .	1 m			SERIA				<u></u>
SEC.			1D.	Out of		EL ref. point	SUPPLY	Datum	TOTAL DI				 )S	
		TH TO R CUT (m)		STANDING WATE	18 (m)	°m³/day	Met	hod of test	milligrammes/litre	<u> </u>	An	alysis	W.N	i <b>0</b> .
20-				18.4		1200 g.p.h. (1.5 l/sec.)	air lifted plunger pu mins	umped for 360	1050 (28m ) (approx.) 895	5	sit		d d	n
									(pH 8.1)	1			_	
D HOLE Dia. DEPTH m	CORE	GP.APHIC LOG	tron	DEPTH (m)			GEOLOGICAL DESCF	RIPTION OF SAMPLE		UNIT	AGE	CASING	WATERS CUT	WATER LEVEL
$\sim$			8	3 8 16	w. W. Pu: m. on	ed-brown silt ith a few gra eakly cemente rplish red-br f. SAND, most ly of silt. rty yellow to lty m.f. SAND	ins of clea d. rown (or dar ly quartz.	n m.f. grave	2 mm). e gravelly ited, traces		Tertiary - Qunternary	150mm Steel casing 0-317m		
15		0				1000 gals./hr. == 110 m³/day		<u></u>	DRILL TYPE Rot/C					McN
REM	ARK					E of B320.00 and deepened			CIRCULATION: Air				6.7	6
		C	aD	Te toot J	rrg,	anu ueepeneo	L I I OIII 20 TC	♦ ۱۱۱ عر ر	start: 3.6.76 Finish: 3.6.76	TRA DAT		BY:		1
									SHEET	1	0	<sub>F</sub> 2		<del>y</del>

DEPARTMENT OF MINES - SOUTH ENGINEERING DIVISION	
Enomicentito Division	

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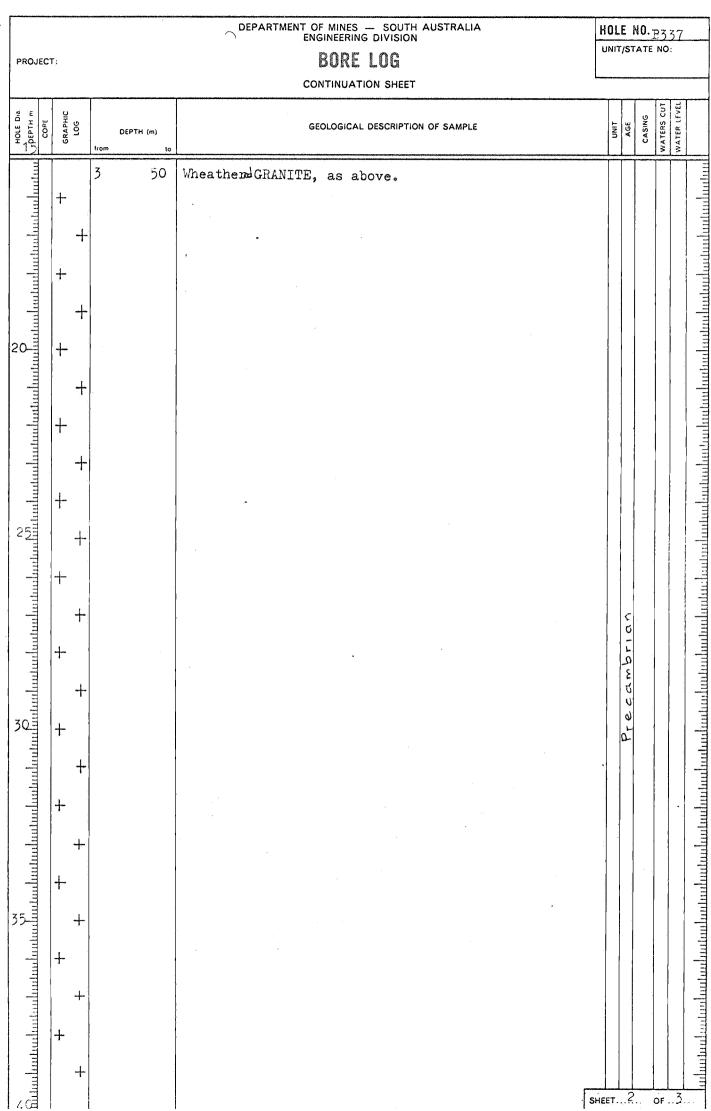
# BORE LOG

HOLE NO. B320

UNIT/STATE NO:

	- <u> </u>		1		CONTINUATION SHEET	ا ب ا			FT.
CORF II		LOG	from	DEPTH (m) to	GEOLOGICAL DESCRIPTION OF SAMPLE	UNIT	AGE	CASING	WATERS CUT
	-	•••	8	18	Dirty yellow SAND, as above.				
uhu		 							
		•••					X		
	-						10		
and and a statement of the second br>		•••	18	26	Yellowish light brown fine GRAVEL and coarse SAND with traces of fines. Quartz and granite fragments, subrounded to subangular.		uoternary	a series in the second se	7
1111								and the second second	
niu		4		(			Ø	-	
luul		•					7		
1111	-	•••					1		
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ultu.	4	-							
IIIII		<u>.</u>							
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		•••							
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		4 . 							
	4	• •							
		8							
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	-								-
					END OF HOLE, 32.0M				
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անությունությունությունությունությունությունությունությունությունությունությունությունությունություն									
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PROJ	ECT	TARCO	DOI	A - ALIC	E SF	DEPARTMEN RINGS	T OF MINES - SOUTH AUSTRALI ENGINEERING DIVISION	A		E N		100	7
	τiο	N OR CO		RAILWAY			BORE LOG					~ 1	7
						EL Surface 451.1	m		SERI	AL N	0:		
SEC.			HD.	Out of		EL ref. point	Datum		FOLD	-			
		тн то		<b>DEPTH TO</b>	,	•m³/day	SUPPLY Method of test	TOTAL DI milligrammes/litre	SSOL				
<u> </u>	ATE	R CUT (m)		STANDING WAT	R (m)		Mistriod of 1921	mangrammosyntra			101951	W N	
	12 19			seepage: only		20 g.p.h. (0.03 l/sec)	drillers opinion	not teste	đ				
	<del></del>	<del></del>	r							لببيل	<del></del>		
HOLE Dia. DEPTH m	CORE	GRAPHIC LOG	from	DEPTH (m) to			GEOLOGICAL DESCRIPTION OF SAMPLI	E	UNIT	AGE	CASING	WATERS CUT	
-0		• • •	0	3	Rea	l-brown silty avel. Weakly	c.m.f. SAND with tra cemented.	aces of fine		0.46			
		•		:	2	3 m lighter r	ed-brown, no silt.			5400			and
		•••	3	50	Lię		rey weathered fine gr	ained very	-	plei			uluulu
		+				2 M CUTTINGS							uhuhu
5_		+									:	a an	tuttut
1		+											huluul
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		+			12	-42 m cutting	zs wet.	· .					mmin
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10 <sup>-1-1</sup>		+		,								and a second second	and
15	1			1*	IOTE: I	000 gals./hr. == 110 m³/day	\$	DRILL TYPE ROT.	LOC		BY	GHm	1
REM	ARK	<sup>s</sup> Loc	at	ed 100 m	Εo	f B336.800 km	1. Abandoned and	CIRCULATION: Air	DAT	ГE: Л	. 6	GHm ~76	
				illed.				START: 2.6.76		CED		a <u>. 1 1 1</u>	
								FINISH: 2.6.76	DAT	E:			
	SHEET. 1. OF 3												



#### DEPARTMENT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION

PROJECT:

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## BORE LOG

HOLE NO. B337

DEPTH m CORE	GRAPHIC LOG	DEPTH (m) from to		UNIT	CASING	WATERS CUT	WATER LEVEL
auturturturturturturturturturturturturtur		• 	Weathered GRANITE, as above.				2
يليبياء	+						
mulm	+		42-44 m greenish dark grey, completely weathered, dry			,	
uthu	+						-
hulu	+		44-46 m purplish light grey, completely weathered dry.				
որողո	+		ury .				
utudu	+		46-50 m cuttings wet	001			
lutu	+			4			
untun				0	-		
لأسلب							
للسناب							
Ц Ц П	+	50 52	Light grey completely weathered GRANITE (or gravelly m.f. sand)				
mpm	+			-			
111							
hudut			END OF HOLE, 52 m.				
IIIIII			· · ·				
rhutu							
India							
untur							
-							
utuuli							
thulu							
hulut							
يساشب							
ututu							
untenheiterkostochorieeleatuduateeleateeleatuduateeleatudooteeleatud							
ntm							
IIII			SHEE			OF	

		TAR	R	YAWLTA	CE SPRINGS E	t of mines — south australia ingineering division BORE LOG			/STA	0. B TE NO:	·····
SEC.			HD.	Out of	EL Surface 46 EL ref. point	1.₀8 m Datum					<u>,</u>
	DEF	от нто		<b>DEPTH TO</b>		SUPPLY	TOTAL D	ISSOLV	ED S	OLIDS	
1	NATE	R CUT (m)		STANDING WATE	R (m) *m*/day	Method of test	milligrammes/litre	·	Anz	itysis W.	NO.
	28 31 47			19.5	100 g.p.h. (1.25 l/sec) 900 g.p.h.	airlifted plunger pump	1050-1100	- i		ed o ite	on
		entring - entring and			(1.1 1/sec)	360 mins	765 (pH7.6)	6	4M)	DEL	-
	CORE	GRAPHIC LOG	from	DEPTH (m)		GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT	AGĚ	CASING WATERS CUT	WATER LEVEL
5	1111		0	6	Red-brown sligh	tly silty c.m.f. quar gravel. Weakly cemen	tz SAND, with				
	1111	• • •				Provers weakly cellen	veu »				
-	IIII	• • •			2-4 m purplish	red-brown					
-	TITL	• • • > • .								E	
	i i i									0	
-	1111	• • •					·		-		
-	1111	• • •			4-6m light purp of weathered gr	le-brown (or dard pink anite to 20 mm.	c), with chips		11	1    D	
5_		• •							X		
		• • •							с С	et	
_		· · ·	6	10	Dark pink fine	gravelly (to 6 mm) med	lium/fine SAND	•	104 6 1 V V	fuiso.	
-		•							15	ů I	
-		•••		· · · · ·					)  ()	-	
		• •							111	0	
		•••							- 11 /	<b>H</b>	
_		• •							บี		
2 0			10	) 14	Dirty vellow fi	ne gravelly m.f. SAND,	hearing		141917	E	
		• •			very silty with	depth.	Decoming	•		2	
		* •							•		
		* . 									
1											-
		· * .									
1		• • •		.е							
0 15		~	14	19	Dirty yellow fin	ne gravelly and sandy	SILT, slightly	-			
		- <u>`</u>			moist ("humid")	•	•				
15		•				a a ann an tha an tha					
REM	ARK	s Lo	cat		$10TE: 1000 \text{ gals./hr.} = 110 \text{ m}^3/\text{day}$ E of B346.800 km.	. Abandoned and	DRILL TYPE Rot.			<sup>3</sup> 'GHÌ	cN
				lled			CIRCULATION: Air	TRAC			
								DATE			
							SHEET 1	L	OFZ	<del></del>	······

						2 State
DEPARTME	NT OF	MINES		SOUTH	AUST	RALIA
	ENG	NEERI	NGD	<b>IVISION</b>		

### BORE LOG

HOLE NO.B347

	HOLE Dia DEPTH m COPE	GRAPHIC LOG	GEOLOGICAL DESCRIPTION OF SAMPLE			UNIT	AGE	CASING	0	WATER LEVEL	
ſ	15		14 19	Sandy SILT, as above.						1	f to a f
	25 International and		- 19 30	16-19 medium brown colour. Light grey, higly micaceous silty m.f. SAND, with 5 /o subrounded to subangular quartz and schist fragments to 4-5 mm. Gravel fraction increasing to 20 /o by 16-18 m.	0		rtlary - Quaternary				
	25 International material and the second s			26-28 m cuttings damp 28-52m cuttings wet			16				
		+	30 38	Greyish red-brown medium-grained very micaceous GRANITE, highly to completely weathered to coarse sand and fine gravel size.		•				bool on the dama	
	ulm	+									LILLILL
	սկարակո	+					prion -			danta hata	TITTTITTTTTTTTTT
2		+					2003			hundred and hundred	111111111111111111111111111111111111111
	, mhui						-				TITTT
	un tuuluutuuluutuuluutuuluutuuluutuuluutuuluutuuluutuulootuulootuu	+++	38 52	GRANITE. Fresh to slightly weathered							
	ㅋ				SHEET	۲.,.	2··	.01	• • • •	ζ	

PRO	IJEC	Τ:	TARCOOLA RAILM	DEPARTMENT OF MINES — SOUTH AUSTRALIA ENGINEERING DIVISION - ALICE SPRINGS BORE LOG AY CONTINUATION SHEET	H0 UNI			E NC		7
HOLE Dia	CORE	GRAPHIC LOG	DEPTH (m) from to	GEOLOGICAL DESCRIPTION OF SAMPLE	UNIT	AGE	CASING	WATERS CUT	WATER LEVEL	
		+ + + + + + + + + + + + + + + + + + + +	38 52	Fresh GRANITE, as above. END OF HOLE, 52 m.		Precambrian				udwahadaadaadaadaadaadaadaadaadaadaadaadaad
ությունությունությունությունությունությունությունությունությունությունությունությունությունությունությունությո								DF		أحجج

PROJE	DEPARTMENT OF MINES - SOUTH AUSTRALIA HOLE NO. B349												*****									
		OR CO					ALI LWAY	CE SPR	INGS	BORE	LOG						ATE		19			
LUCA	non		URU	5:	-			EL Surface	461.	8 m						IAL						
SEC.			HD.	Jut		<u> </u>		EL ref. point				tum	++	<del></del>		DER			····			
	DEPTH		1			гн то		*m <sup>1</sup>	/day	sui	PLY Method of			war on an	L DISSOLVED SOLIDS							
		CUT (m)		STAP	NDING	WAT	ER (m)				weniou of	1851		nilligrammes/litr	¢		Analys		NO			
7	31.(	Om	-		1	3.2	<b>f</b>	150 ģ (0.2 l,	.p.h. /sec)	dril	ler's o	pinion		900			ste te	əd	on			
					<del></del>					· · · ·	n film yn Manster Mansteraan de dae de			tentra ju planiji se o samoji			T	15	2			
ا م		GP.APHIC LOG	from	DEPTH	H (m)	10			<u> </u>	GEOLOGICA	L DESCRIPTIO	IN OF SAMPLE				AGE	CASING	WATERS CUT	WATER LEVEL			
		••••		-		0.5					um/fine											
տ արտիտիտիտիտիուկուկուկուհուհուհուհուհու	-+	-	0.	)	,	2		ignt to RANITE		grey f	ine grai	ined (les	ss thar	1 mm)					sectors for the development of the			
Thurt		+																				
سأسيل	-+	-																				
Tuluul		+																				
5	+	-																				
mhun		+										°							lini lini			
mhuil	+	-																	(indivit)			
		+		8-10 m medium grained red and dark grey chips (pegmatite veins?)										ps		LIAN			-			
արո	+															ambr			4.00100			
10		+											,			Prec			tanlan t			
mhuul	+	-				-											ļ					
mhut		+				1												ł	- turn			
hudhud	+	-												. · · ·				-				
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_ <u>_'</u>						<u>ا</u> ۱*	NOTE: 1	)00 gals./hr. ==	110 m³/day	a fiyeyddy ffi ddiy allaid ylafgarda			DRILL TYP	E Rot		GGF	 ) ву		IMcN			
REMA	RKS									m peg.	Numero		CIRCULAT	ION: Air			29.					
		a.o km										B349.000 of poor	START29			CED						
		y.i								_		· • • · · · · · ·	FINISH29		DA							
													1	SHEET	.1	O	3		į			

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PRO	DJEC	T:		BORE LOG	U	NIT/S	ST	ΔΤΕ	NO		
	1	1	<b>1</b>	CONTINUATION SHEET			-			ज्य	
HOLE Dia	CORE	GRAPHIC LOG	DEPTH (m) from to	GEOLOGICAL DESCRIPTION OF SAMPLE		UNIT	AGE	CASING	WATERS CUT	WATER LEVE	
	ultur		0,5 52	Fine grained GRANITE, as above.				:		X	11111
-	Tue	+								1.1.1	huda
-	minu	+									un han
-	IIIIIII	+					-				11.11
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	hultu	+		, š							luntar
	mpn		~								and nu
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	H H H H H	+								, .	uhuh
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30				30-32 m cuttings damp	1	0	116				lunts
		+					Ì				luatur
		+		32-52 cuttings wet		1		ŗ			utu.
					1						huhu
		+									վարիս
-	111111	+-									فلتتقليا
35-		+									سلستنا
-		~		36-38 dolerite dyke, about 1 m thick.		1					ultu
	111111	<b>`</b>									ակափակակացետիակակակակակակակականություն
	1111111	~								- territor	يليينان
30	TITIT	÷									nhuult'
20	11111			ſ	SHEE	 т.9	 ,	l	 DF	<u> </u>	_

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# DEPARTMENT OF MINES - SOUTH AUSTRALIA ENGINEERING DIVISION

### BORE LOG

HOLE NO. B349 UNIT/STATE NO:

15 HOLE Dia		GRAPHIC LOG	DEPTH (m) from to	GEOLOGICAL DESCRIPTION OF SAMPLE	UNIT	AGE	CASING	WATERS CUT	WATER LEVEL
	mhu	1	0.5 52	Fine grained GRANITE, as above.					
	huuhu	+							
-	ղող	+							
-	nhuh	+						Ì	
	uluulu	+							
45	untur	+				1101			
-	ului	+				anbrian			time terms and the second
-	man	+	1			Prece			
-	hulu	+							
-	IIIIII	+							hinter
50-	utuutu	+							- International
- 1	THTTTT	+							- unline
	111111								unturhanhanhanhanhanhanhanhanhanhanhanhanhanh
				END OF HOLE, 52.0 m.					111111
-									huth
									hulu
			÷		•				huthu
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			-						huhu
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### APPENDIX B

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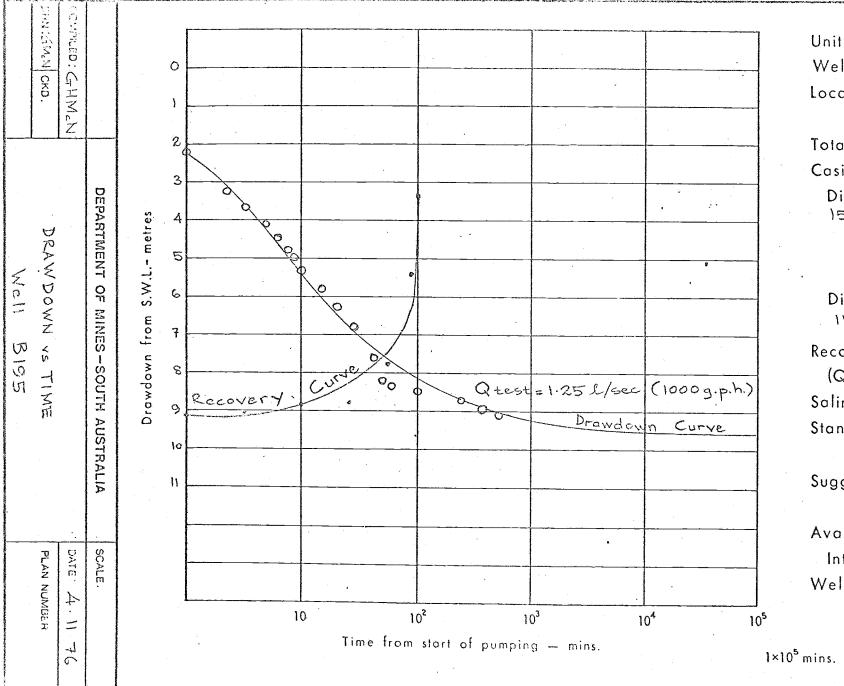
### WATER ANALYSES

Results of full AMDEL analyses (for Ca, Mg, Na, K, HCO<sub>3</sub>, SO<sub>4</sub>, Cl and NO<sub>3</sub> ions) have been omitted from this copy of the report. Original computer printouts are on file at Department of

Mines, Head Office, Adelaide, for consultation if required.

### APPENDIX C

### PREDICTED DRAWDOWN VS, TIME



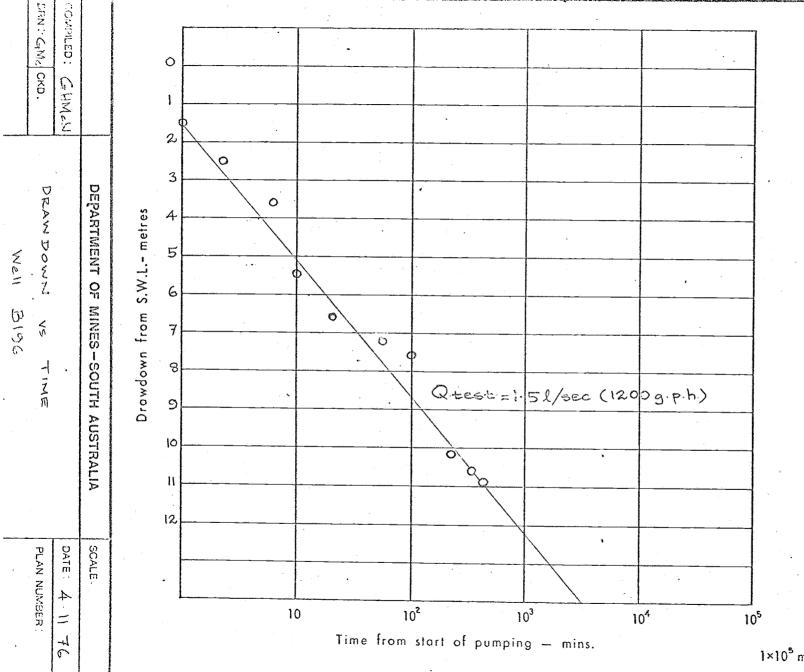
Unit No.: Well No.: B195 Location:

Total Depth: 30.0 (m) Casing: Plain Diam.(inches) from (m) to (m) 150mm 0 13.94

### Slotted

Diam. (inches) from (m) to (m) 150mm 13.94 20.15 Recommended Discharge Rate (Q) 0.50 litres/sec. Salinity: 125 mg/l Standing Water Level (S.W.L.) 12.5 m Suggested Pump Intake Depth 25 m Available Drawdown = Pump Intake Depth - S.W.L.= 12.5 m Well Log in:

1×10<sup>5</sup> mins. = approx. 70 days



Unit No.: Well No.: B196 Location:

Total Depth: 27.0 (m) Casing: Plain Diam.(inches) from (m) to (m) 150mm 0 16.9

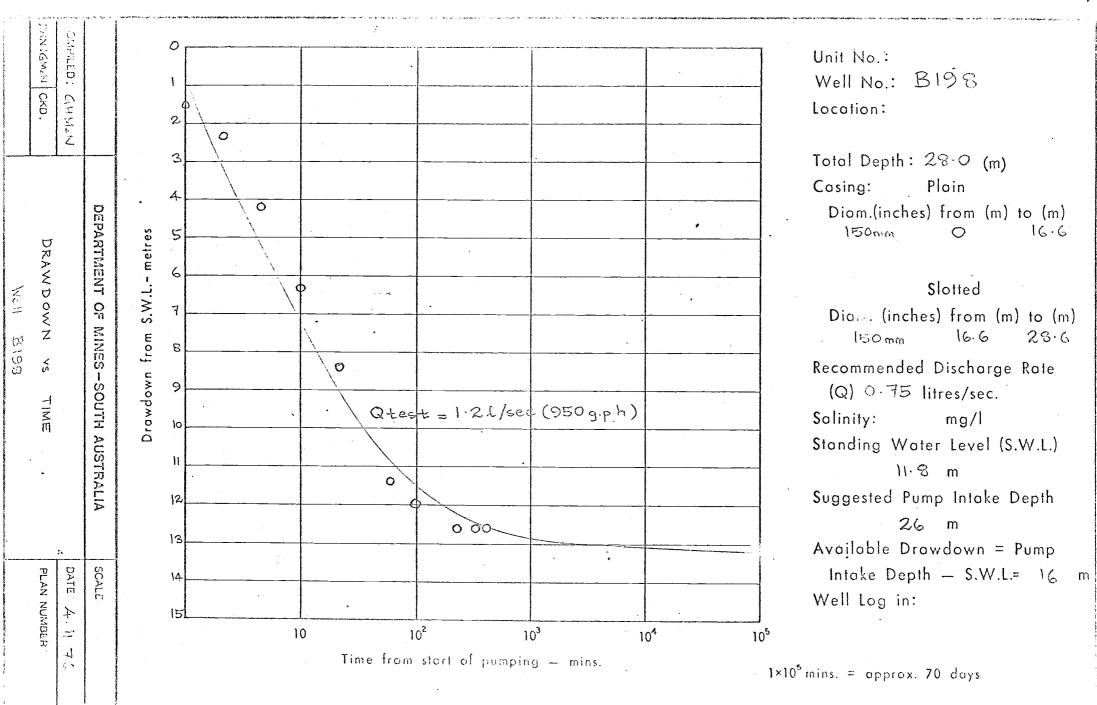
Slotted

Diam. (inches) from (m) to (m) 16.9 24.9

Recommended Discharge Rate (Q) 0.75 litres/sec. Salinity: mg/l Standing Water Level (S.W.L.) 12.0 m Suggested Pump Intake Depth 24 m Available Drawdown = Pump Intake Depth - S.W.L.= 12 m

Well Log in:

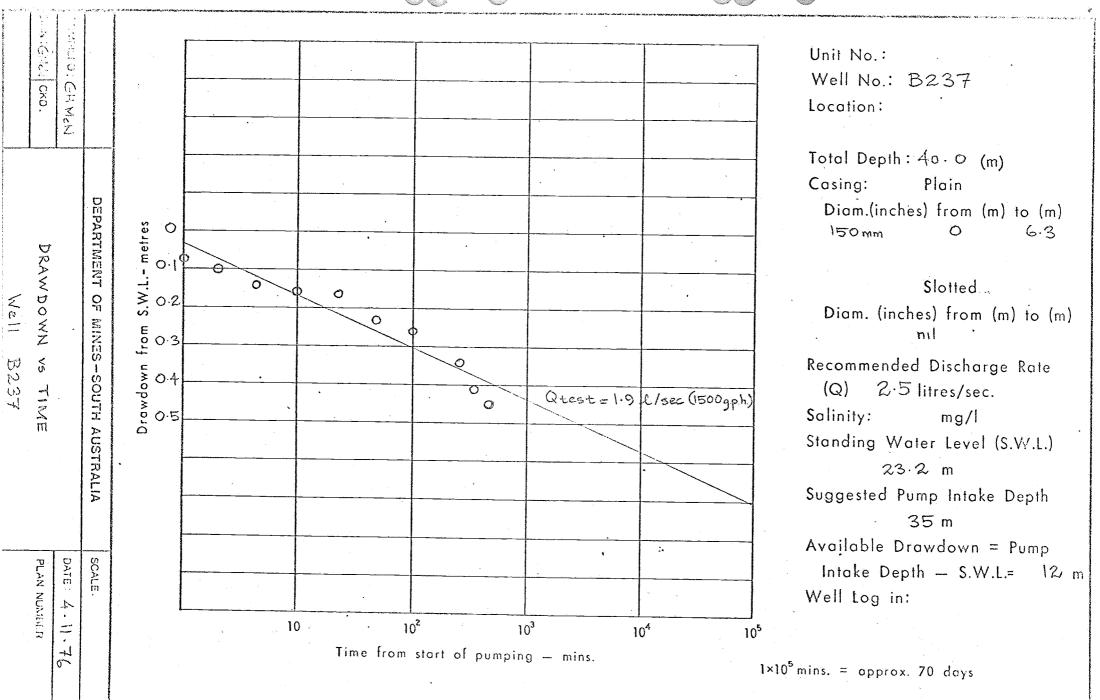
1×10<sup>5</sup> mins. = approx. 70 days

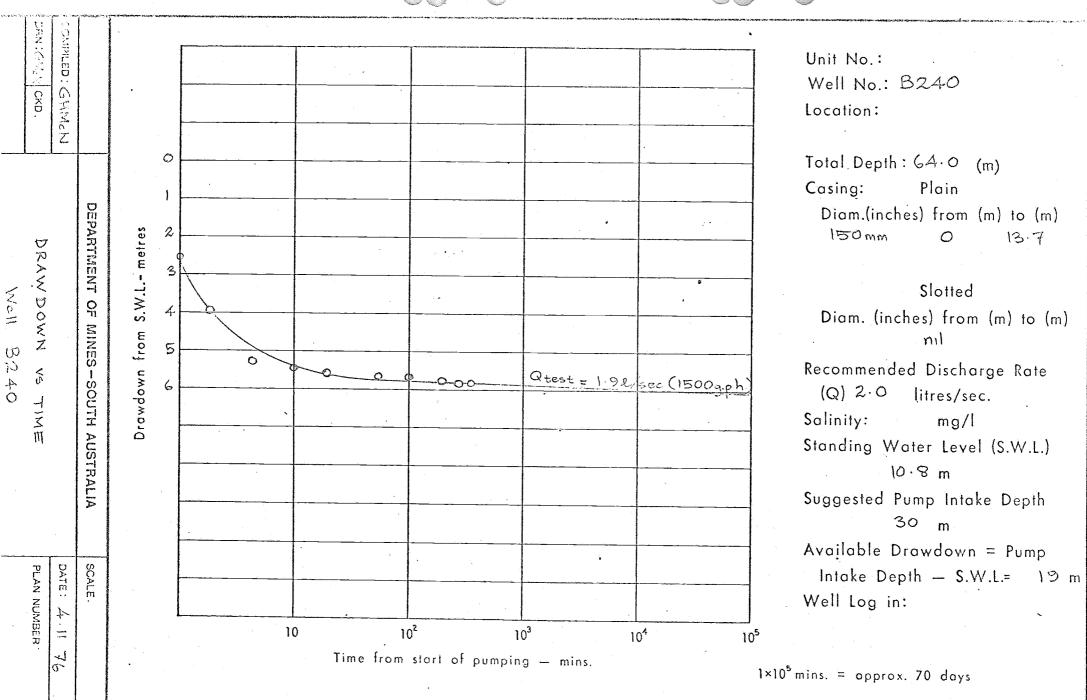


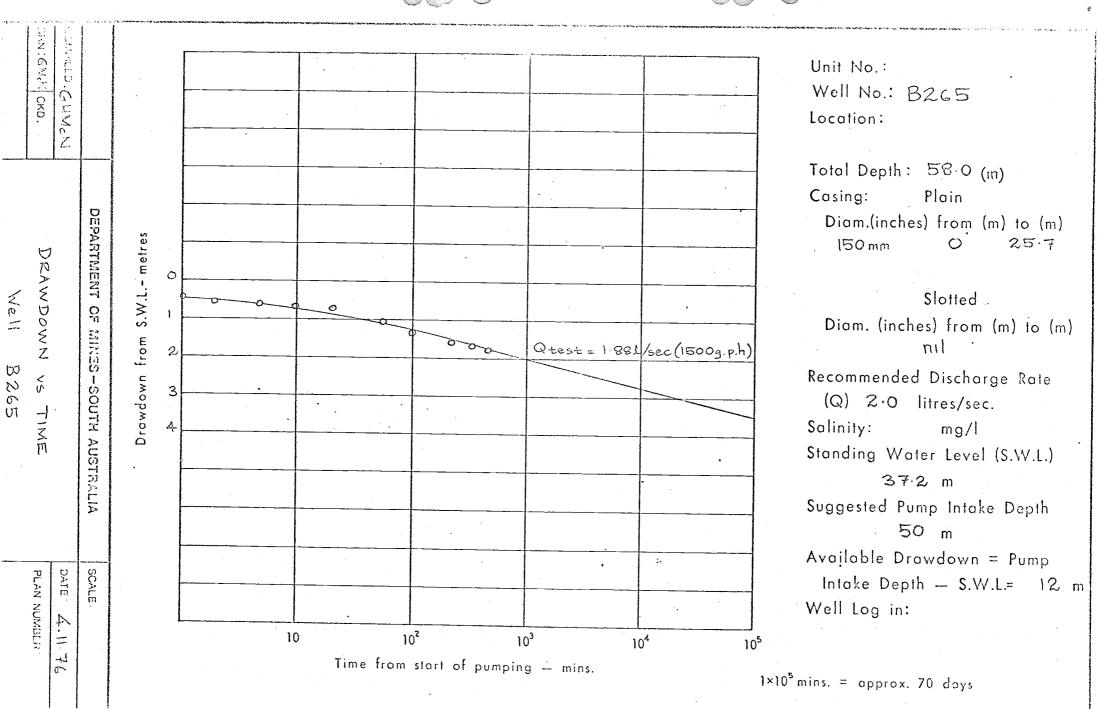
. 1	i publikani. T	n narialisenan analasan analasan E	angang manan prana manan menangkan sebahan menangkan menangkan sebahan sebahan perangkan sebahan sebahan sebahan	and the second	an e sa an	na na fan ana an		an an she wantan a she an	
New Color		98 meteoretus	- provide	· · · · · · · · · · · · · · · · · · ·					
SAN KONA								Unit No.:	
						-			
S Man Ckd.					•			Location:	
Z									
~~~~b~~~~								Total Depth: 37 0 (m)	
								Casing: Plain	
Þ	DEPA	S S						Diam.(inches) from (m) to	
RAW	DEPARTMENT	metr						150 mm 0 20	
DRAWDOWN	NT OF	S.W.L metres		Qtest =	0.751/sec	(600g.p.h.)	)	Slotted	
	" MINES	from S		No drawd	own meas	urement		—— Diam. (inches) from (m) to . 150mm 20	» (m) 29
5								Recommended Discharge Ra	te
TIME	-SOUTH	Drawdown				•		→ (Q) ○·5 litres/sec. Salinity: mg/l	
	AUSTRALIA	ā						Standing Water Level (S.W.	L.)
	'RAI							17.5 m	
	IA	-				· 		Suggested Pump Intake Dept	Ih
		. · · ·						30 m	
PLDA	ы К		i		·			Available Drawdown = Pum Intake Depth — S.W.L.= 12	-
DATE: A. W.	SCALE .			· ·		<u> </u>		Well Log in:	
NOEF		•		0 1	0 <sup>2</sup> 1	) <sup>3</sup>	1 <u></u> 10 <sup>4</sup>	J 10 <sup>5</sup>	
1 -1				Time from	start of pumpin		• • • • • • • • • • • • • • • • • • •	1×10 <sup>5</sup> mins. = approx. 70 days	

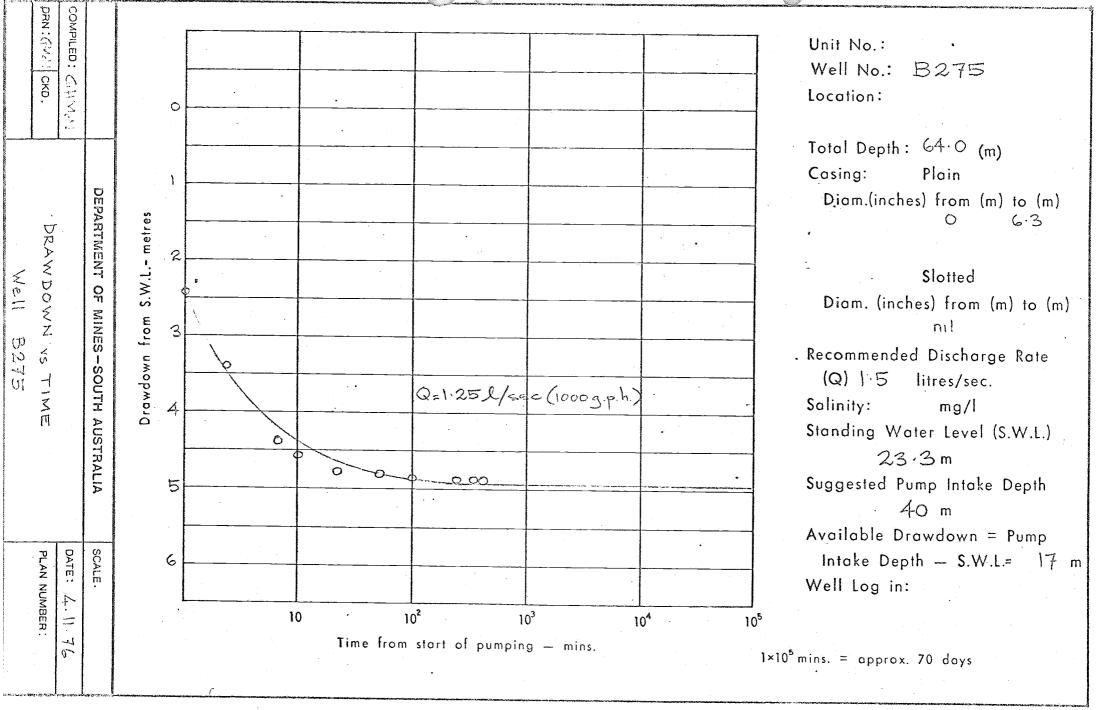
	WARDER CAN			••••••••••••••••••••••••••••••••••••••						Unit No.: Well No.: B224a Location:
			Contraction of the second s	a 1					· · ·	- Total Depth: 58.0 (m) Casing: Plain
•		DEPARTMENT		es				· · · · · · · · · · · · · · · · · · ·	•	Diam.(inches) from (m) to (m) 150mm 0 3.0
	DRA	TME	C. C	net r						
Well	DRAWDOWN			S.W.L metres		Airlifted	0.72/sec (	550 q.p.h)		Slotted .
ы С	ž Z	MINES		from S			own meas			Diam. (inches) from (m) to (m)
24	<	20 - 00 - 00	and a second descent of the second	nwo i	• · · ·		÷			Recommended Discharge Rate
,	TIME TIME	-SOUTH AUSTRALIA	NAME OF A DESCRIPTION OF	Drawdown						(Q) 0.5 litres/sec. Solinity: mg/l
	"	AUST	on and the second	Δ						Standing Water Level (S.W.L.)
		RALIA	And a surged and surged	, ···			- 		•	23.4 m Suggested Pump Intake Depth
									· ·	40 m
	2 DA	SCALE						•	is a second s	Avoilable Drawdown = Pump Intake Depth — S.W.L.= 17 m
	DATE 4.									Well Log in:
	. 11 76		- so integration of the second sec				0 <sup>2</sup> start of pumpin		10 <sup>4</sup>	_1 10 <sup>5</sup> 1×10 <sup>5</sup> mins. = approx. 70 days

nanda mendangan kalangan di mang menungan garapan kala malar dian tahun yang banang menungkan di pelangkan

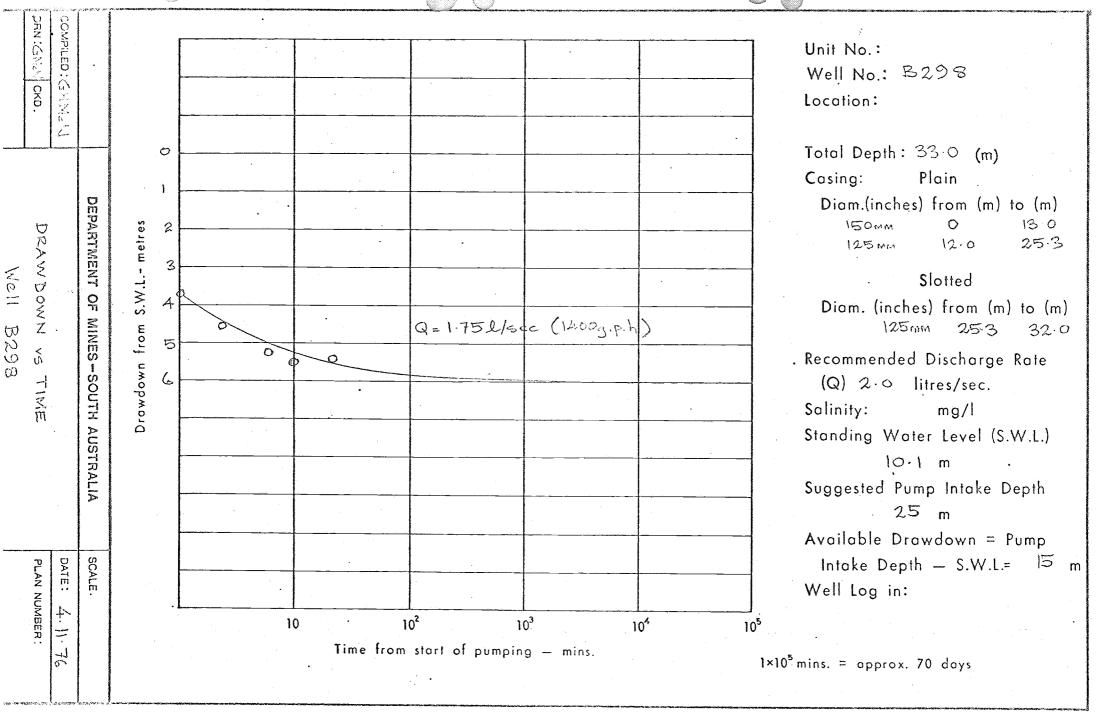




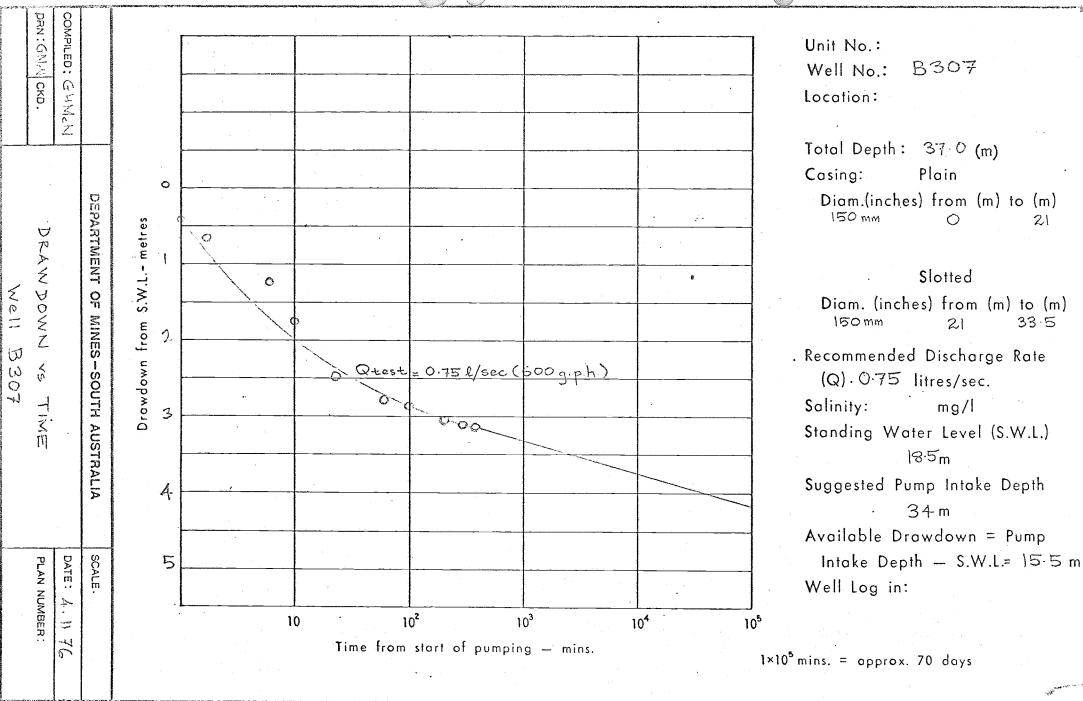




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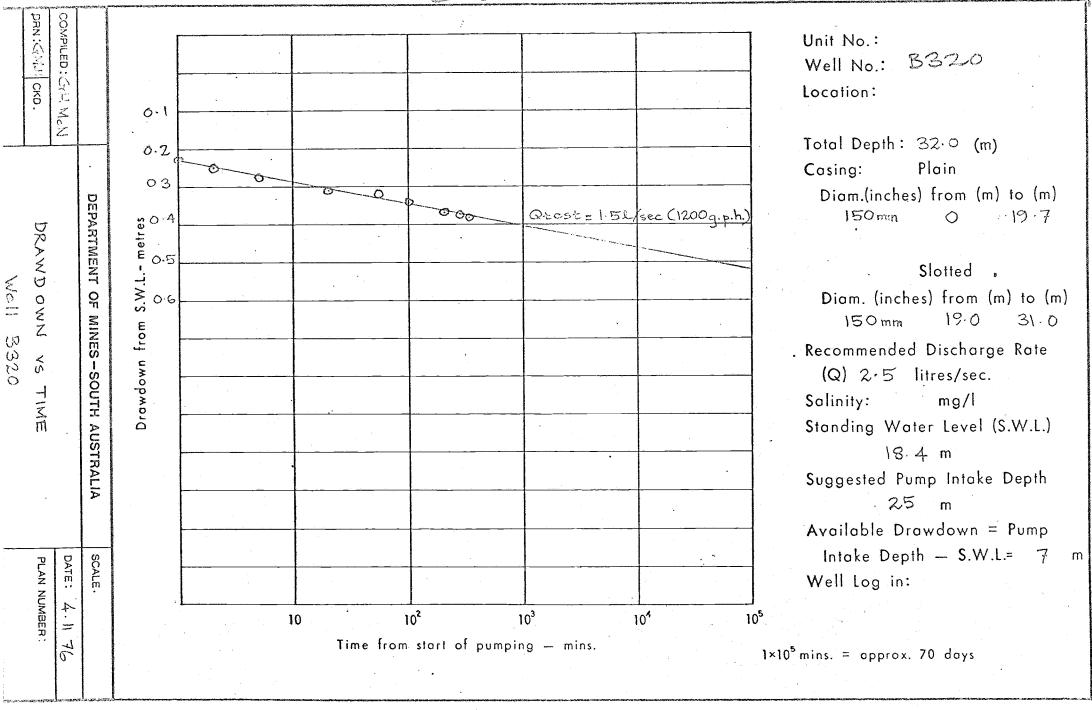


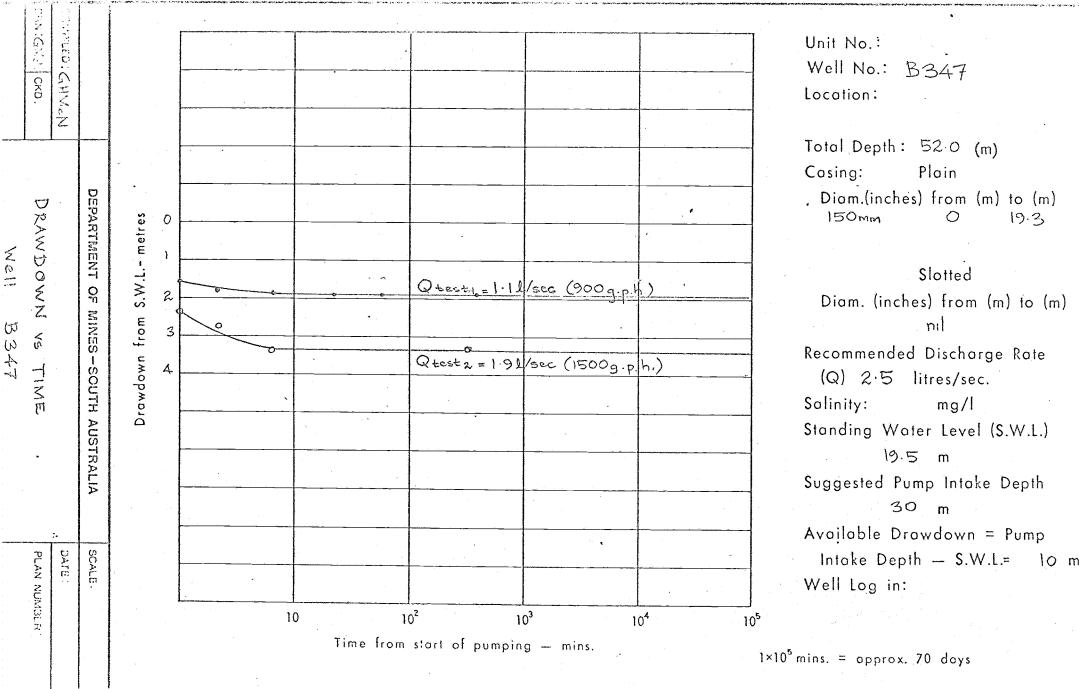
PAR LAD CONTRACTOR	an a	eyestaaniyaarwa		Construction of the second	*****					
	Ş									
DAN :CM <sup>6</sup> N	COMPILED :									Unit No.:
				·						Well No.: B298a
	GHMe									Location:
	Ac N			· · · · · · · · · · · · · · · · · · ·		<u>, , , , , , , , , , , , , , , , , , , </u>	· · · · · · · · ·			
						- <u> </u>		· · · · · · · · · · · · · · · · · · ·		Total Depth : 2.7.0 (m)
										Casing: Plain
						<u> </u>	•			Diam.(inches) from (m) to (m)
		PAF	s o	· · ·						
۲ ۲	7	TM	0 0		1	• .	•			
	P P	DEPARTMENT				· <u>····</u> ·······························	· · · · ·			Slotted
XX	2 7	OF MINES	-'T'N'2			· · · · · · · · · · · · · · · · · ·				Diam. (inches) from (m) to (m
DRAWDOWN										nil
Ž				)			Qtest = 1.52	sec (1200 g	.ph)	. Recommended Discharge Rate
B2980	ć Ā	- 00	4 0 4 0 5 0 5	<u>}</u>				and the second state of th	**************************************	(Q) 2.5 litres/sec.
98-		-SOUTH	• • • • 5							Salinity: mg/l
<b>P</b> - <b>X</b>		AUSTRALIA	500	•		·····	·			Standing Water Level (S.W.L.)
TIME	n					<u></u>				12.0 m
						•				Suggested Pump Intake Depth
			A			<i>i</i>				
						·	·····	·		Available Drawdown = Pump
	īδ	ŝ								Intake Depth — S.W.L.= 8
PLAN N	DATE:	SCALE.				•				Well Log in:
- CME	A		•	· · · ·			-2		<u></u>	
	;   =				10			10 <sup>3</sup>	104	10 <sup>5</sup>
	94					lime from	stort of pumpi	ng — mins.		$1 \times 10^5$ mins. = opprox. 70 days
			- 				•			
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		PUMPING DURING 1/sec		MAXIMUM DRAWDOWN After 6 hours (m)	RECOMME MAX. PUMPI l/sec	
B	195	1.25	1 000	9.1	0.5*	. 400
B	196	:1.5 '	1 200	10,94	0.75*	600
В	198	:1.2	950	12.66	0.75*	600
B	203	÷0 <b>•75</b>	600	×	0.5.	400
B	224a	0.7	550	-	0.5	400
В	237	1.9	1 500	:0.45	2.5	2 000
B	240	1.9	1 500	5,82	2.0	1 600
В	265	1.9	1 500	1.75	2.0	1 600
В	275	1.25	1 000	4.80	1.5	1 200
В	298	1.75	1 400	5.28	2.0	1 600
B	298a	1.5	1 200	0.40	2.5	2 000
B	307	0.75	600	3.11	:0 <b>. 75</b>	600
В	320	; <b>1.</b> 5	1 200	0.38	2.5	2 000
B	347	1,1	900	1.92	2.5	2 000
		1.9	<b>1</b> 500	3,30		

\*Could be increased if sand screen installed.

# APPENDIX D

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## DATA ON EXISTING STOCK BORES

A number of existing bores in the vicinity of the proposed railway alignment may be of use for concrete batching in advance of the earthworks. Details of these bores, extracted from Mines Department records, are attached. In some cases this information is several years old, and the well may have been abandoned in the meantime. Conductivity test results indicate that all these stock waters are suitable for concrete mixing, and in most cases would be suitable for camp purposes as well. Their use should be negotiated with the pastoral leaseholders in advance.

Charles the second

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的时候,你的第三人称单数

Star Charles

Name:	Marla Bore	Station: Welbourne Hil	Depth: 102 m
Approx. Yield	::0.75 1/s	Salinity: 1 320 mg/l	S.W.L. 9.2 m
Location:	About 7 km west	of B196 km, along Stuart	Highway.
Remarks:	Equipped with w	indmill and tank.	•
	0–28 m Bu	11dog Shale and Cadna-Owi	e.Formation.
	.28 - 102 m Or	dovician slate.	*•*

:2.

Name:Boxhole BoreStation: Welbourne HillDepth:Approx. Yield:Salinity: 2 450 mg/lS.W.L. 12.6 mLocation:3 km west of B206 km (approx.),Remarks:Equipped with windmill and jack pump. Tank corroded,<br/>earth dam adjacent,

#### ;3.

Name:Mt. John BoreStation: Granite DownsDepth: 69 mApprox. Yield:1 l/sSalinity:2 300 mg/lS.W.L.Location:About 10 km southwest of B230, 100 km.Remarks:Equipped with windmill, tank and jack pump.

4.

Name:Davey's BoreStation:Granite DownsDepth:39 mApprox. Yield:Salinity:2 450 mg/lS.W.L.:3-5 mLocation:About 7.6 km south west from B.230, 100 km.Remarks:Located in Proterozoic siltstones and dolomite (Rodda Beds).Equipped with windmill, jack pump and tank.

:1.

Name:Wantapella WellStation: Granite DownsDepth:36 mApprox. Yield:Salinity:1 810 mg/lS.W.L.:6 mLocation:About 6 km north east of B230, 100 km...Remarks:Equipped with windmill, tank and jack pump.AdjacentWantapella Swamp subject to inundation..

6,

5.

Name:Roadside WellStation: Granite DownsDepth:16 mApprox. Yield:Salinity:1 500mg/l<br/>(approx.)S.W.L.:9.3 m<br/>(approx.)Location:About 700 m east of B243 km, adjacent to Stuart Highway.Remarks:Abandoned.Rotary holes B243 a and B243b adjacent to

well were unsuccessful,

7.

Name:Windmill WellStation:Granite DownsDepth:Approx.Yield:Salinity:1 500 mg/lS.W.L.:Location:About 15 km south west from B258 km, along Granite<br/>Downs track.

Remarks: Equipped with windmill, jack pump and tank.

;8.

Name:Bnanson's WellStation:Granite DownsDepth:19 mApprox.Yield:Salinity:S.W.L.Location:About 10 km southwest from B258 km, along Granite Downs<br/>road.Remarks:Abandoned.

Name:Carol's BoresStation:De Rose HillDepth:56 mApprox. Yield:0.25 l/s<br/>(200 g.p.h.)Salinity:3 650 mg/lS.W.L.:' about 20 mLocation:2.1 km east of B273.400 km.

Remarks: Located in Proterozoic siltstone. Two adjacent bores, one equipped with a windmill, the other with a jack pump, both feeding an earth dam. Original yield 1 l/sec (800 g.p.h.).

#### 10.

:9.

Name: Edie's	Bore	Station:	De Rose Hill	Depth:
Approx. Yield:		Salinity:	4400 mg/1	S.W.L.:
Location:	About 9 km west	from B273	km, along track.	
Remarks:	Equipped with wi	ndmill, ja	ck pump and tank.	

#### 11.

Name: <u>Olga's</u>	Bore	Station:	De Rose Hill	Depth: ,35 m
Approx. Yield		Salinity:	3 300 mg/1	S.W.L.
Location:	4.2 km west of	B286.00 km.		
Remarks:	Located in san	d overlying	g <b>ranite.</b> Two a	djacent bores,
	one equipped wi	ith a windmi'	11 and one with	a jack numn

#### 12.

Name:Utah BoreStation:De Rose HillDepth:Approx.Yield:0.5 1/sSalinity:960 mg/lS.W.L.(400 g.p.h.)Solution:200 m east of B288.100 km.Location:200 m east of B288.100 km.Remarks:Equipped with windmill and tank.Located in dolerite<br/>dyke.

-3-

13.

Name:<u>Rieck's Bore</u>Station:TieyonDepth:14 mApprox.Yield:Salinity:1 455 mg/lS.W.L.:8 mLocation:About 14 km east of B290 km and Utah Bore.Remarks:Status unknown.

-4-

14.

Name:Mary's WellStation; TieyonDepth:14 mApprox. Yield:Salinity:3 030 mg/lS.W.L.:9 mLocation:About 11 km east of B300 km (no direct track).Remarks:Abandoned,

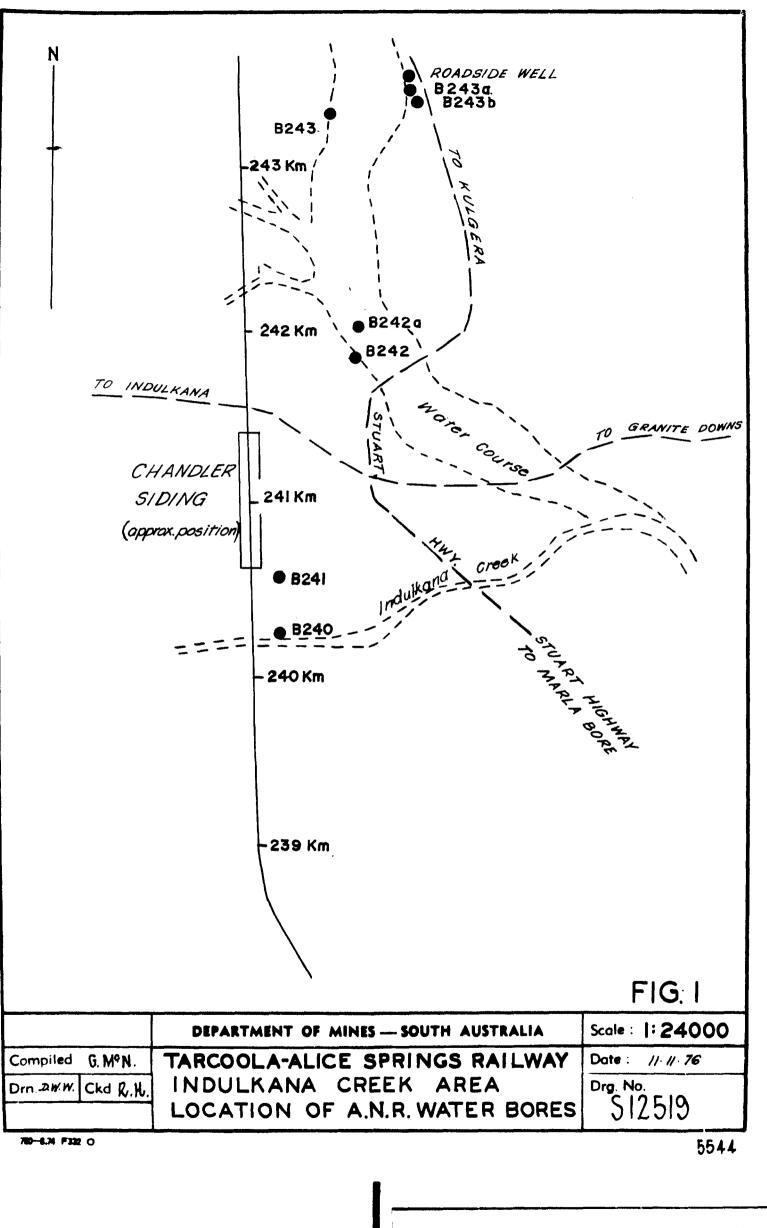
### 15.

	Name: <u>Kay's Bore</u>	Station: De Rose Hill	Depth: 33 m
location: About 1 km nonth eact of P207 km	Approx, Yield:	Salinity: 1 810 mg/l	S.W.L. 12-15 m
Location: About I kin horul east of boor kin.	Location: About 1 km north	east of B307 km.	
Remarks: Equipped with windmill and earth dam. Original yield	Remarks: Equipped with win	ndmill and earth dam. Or	iginal yield

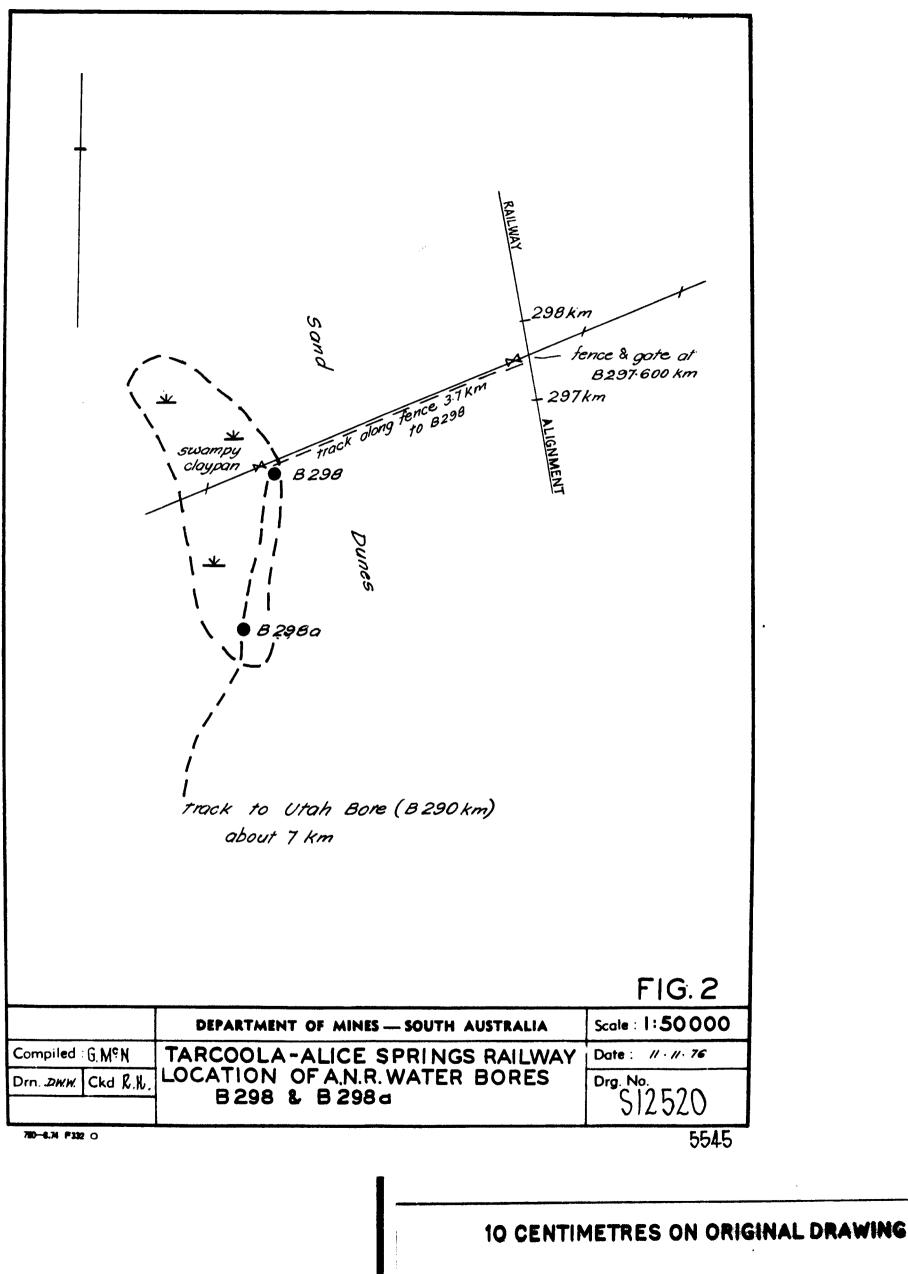
1 1/sec (800 g.p.h.),

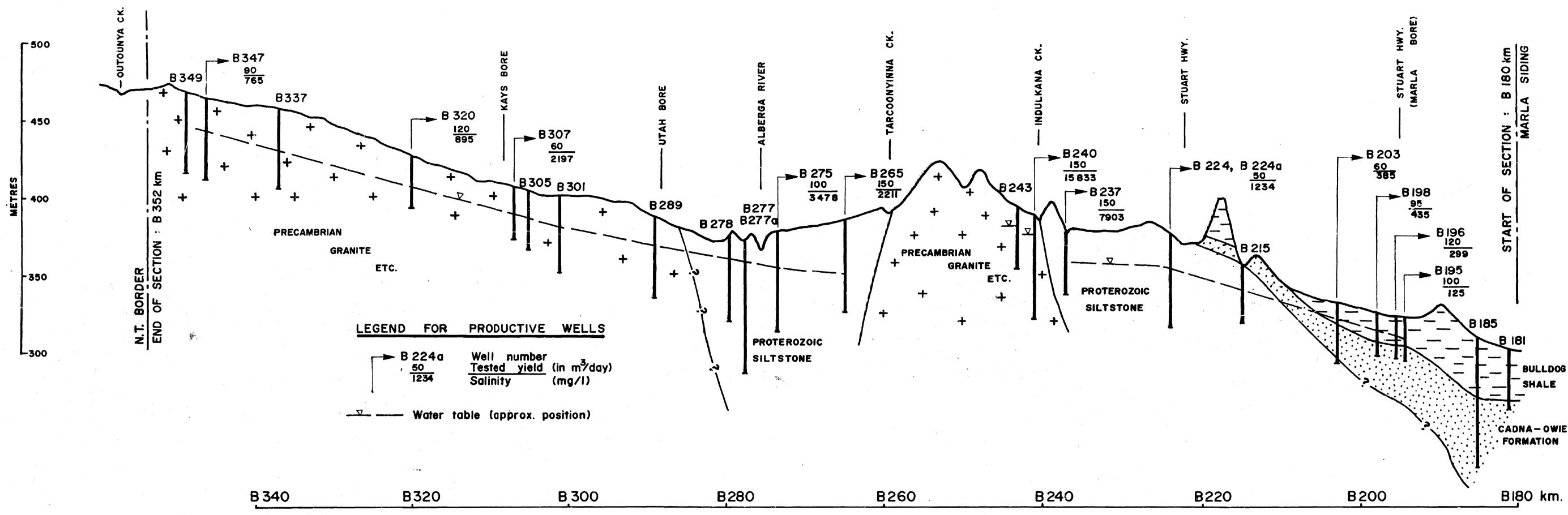
16	5_
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Name: One Tre	<u>e Hill</u>		Statio	ו: T	ieyon		Depth:	16.6 m
Approx, Yield,		, ,	Salini	ty:	985 m	ig/1	S.W.L.:	
Location:	About 13	km north	west o	of B <sub>3</sub>	0 <b>7 k</b> m	(track	from Kay's	•
	Bore).							
Remarks:	Possibly	abandone	d)	ł	•			



# 10 CENTIMETRES ON ORIGINAL DRAWING





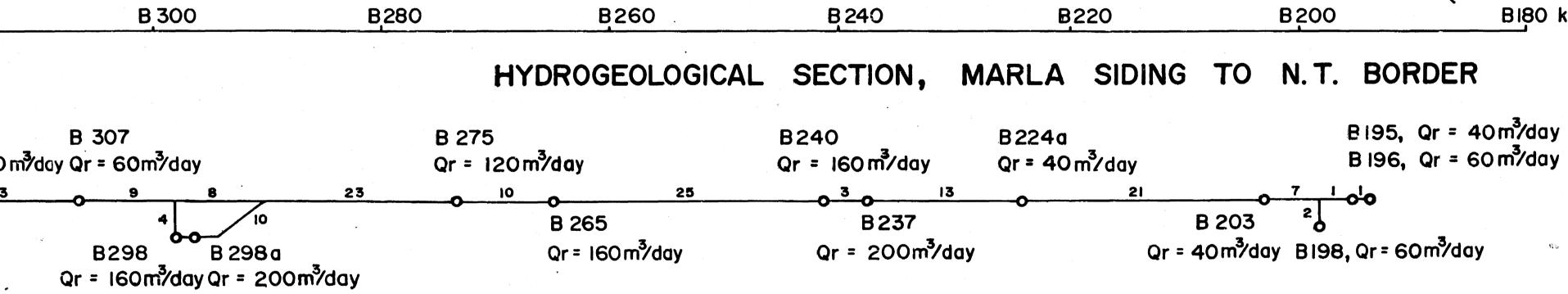
	4.
B 340	B320
B 347	B 320
Qr = 200 m³⁄day	$Qr = 200 \text{ m}^3/\text{d}$

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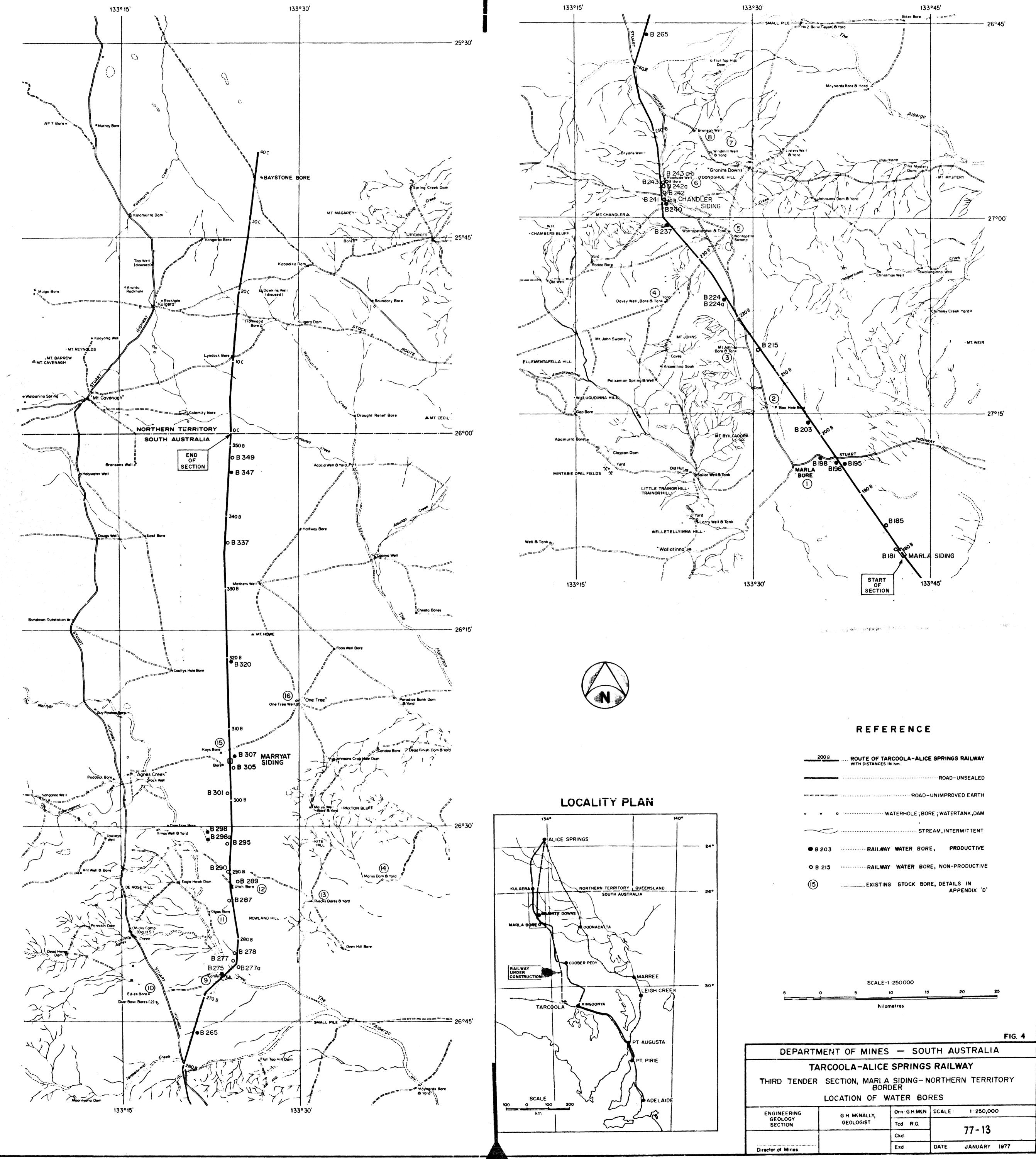


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COMPILED :	G. M <sup>c</sup> Nally
DRN <b>T.E.</b>	CKD.



		FIG.9
	DEPARTMENT OF MINES-SOUTH AUSTRALIA	SCALE As Shown
/	TARCOOLA - ALICE SPRINGS RAILWAY	DATE 7th JAN. 1976
	SECTION III – MARLA SIDING TO N.T. BORDER B I80 – B 352 km	PLAN NUMBER
	RESULTS OF GROUNDWATER INVESTIGATIONS	77-14



200 8	WITH DISTANCES IN Km.
b <b>alle , que en an</b> teres a d	ROAD-UNSEALED
	ROAD-UNIMPROVED EARTH
o (o (c	WATERHOLE; BORE; WATERTANK, DAM
$\sim$	STREAM, INTERMITTENT
• B 203	
OB 215	