DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

Rept. Bk. No. 80/35

STUART HIGHWAY - PIMBA TO BAKER WELL SECTION, DRILLING FOR CONSTRUCTION WATER

by

R.E. READ

MARCH, 1980.

D.M. No. 364/75

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DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

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STUART HIGHWAY - PIMBA TO BAKER WELL SECTION, DRILLING FOR CONSTRUCTION WATER

ABSTRACT

Of 16 wells drilled along this section of the proposed highway realignment only 6 have provided an adequate supply of saline groundwater for construction use. On the western part of the section, 4 wells into the deeper fractured rock aquifer were dry. Subsequently another 8 randomly sited wells were drilled in this area into the Cadnaowie Formation Sandstone and of these, only one yielded a small supply of saline water.

All wells which are to be used should be production tested to determine likely behaviour under the expected 12 months continuous use.

Due to the very poor groundwater prospects in this region, alternative development of shallow supplies from salt lakes through the use of well points or trenches should be considered.

INTRODUCTION

In April and May 1979 eight holes were drilled on behalf of the Highways Department in an effort to locate supplies of construction water on the Pimba to Baker Well section of the Stuart Highway. In November 1979 a further eight wells were drilled in the western end of the section. (Fig. 1) Results of drilling are summorised in Table I.

TOPOGRAPHY

West from Pimba to Eucolo Bluff the proposed road crosses a stony tableland. After descending a steep scarp the remainder of the route is over fairly flat sandhill country and open plains with salt lakes.

DRILLING METHODS

Most holes were drilled with a Mayhew 1000 rig using down-hole hammer and air-circulation methods. In 6135WW89 it was necessary to resort to mud drilling to get through the Cadna-owie Formation.

TABLE 1

Unit No.	Depth	S.W.L.	Yield Kl/day	Remarks
6035WW52	150		Nil	0-35 Cadnaowie Fm. 35-150 Pandurra Fm.
6034WW53	60	13	50	0-18 Cadnaowie Fm. 18-60 Pandurra Fm.
6035WW54	24	12	30	0-18 Cadnaowie Fm. 18-24 Pandurra Fm.
6035WW55	24	-	Nil	0-18 Cadnaowie Fm. 18-24 Pandurra Fm.
6035WW56	24	13	20	0-15 Cadnaowie Fm. 15-24 Pandurra Fm.
6034WW57	30		Nil	0-24 Cadnaowie Fm. 24-30 Pandurra Fm.
6135WW84	150		very small supply 37m	0-44 Cadnaowie Fm. 44-150 Pandurra Fm.
6134WW85	150		Nil	0-15 Cadnaowie Fm. 15-150 Pandurra Fm.
6135WW86	150		Nil	Pandurra Formation
6135WW87	84	6	230	Pandurra Formation
6135WW88	60	30 approx	5	0-42 Cadnaowie Fm. 42-60 Pandurra Fm.
6235WW89	60	27	130	0-39 Cadnaowie Fm. 39-60 Pandurra Fm.
6135WW90	42	28	130	Cadnaowie Formation
6235WW62	148	19	80	0-120 Woomera Shale 120-140 Tapley Hill Fm. Water cut at 104 M Well back filled and abandoned
6235WW63	127	35	60	0-127 Woomera Shale
6234WW64	145	43	200	0-68 Arcoona Quartzite Member 68-145 Woomera Shale

DRILLING

1. Deep drilling - first round

In view of the poor results from existing shallow wells and the known occurrence of fissure-type aquifers at considerable depth in Adelaidean sediments elsewhere in the Stuart Shelf the first round of drilling was designed to explore for these aquifers. Drilling was contined until water was struck or 150 metres.

This approach was moderately successful in the eastern part of the section as far as Lake Hart. Wells 6235WW64 and 6134WW87 yielded satisfactory supplies, and wells 6234WW62 and 6235WW63 yielded small supplies.

All four wells drilled in the western end of the section were dry.

The latter result is remarkable. It may be due in part to the more silty nature of the Pandurra Formation sandstone. However, it is likely that the difference is due to a difference in tectonic history which had led to poorer development of jointing than in the areas to the east.

2. Cadnaowie Formation - Second Round

Following the failure of the first round of drilling to locate even small supplies in the western part of the section, attention was directed at locating shallow supplies in the Cadnaowie Formation.

Well 6135WW88 was drilled to 60 metres at a site selected by a diviner and convenient to the Highways Department at their requests. The well was in sands and clays of the Cadnaowie Formation to 42 metres, at which depth it entered weathered Pandurra Formation. A supply of 5 Kl/day was struck at 30m. 6135WW89 was drilled 200 metres from the old rail-siding well, 6135WW38. The well was in sandstones and shales of the Cadnaowie Formation for the first 39 metres, and then in Pandurra Formation to 60 metres. A supply of 130 Kl/day of 12000 mg/L water was cut from 30 to 36m. The well was cased to 36m with slots from 30 to 36 metres. A second well, 6135WW90 was drilled 250 metres east to 42 metres with similar results.

The remainder of the drilling was directed at locating water supplies in the Baker Well area.

The first hole, 6035WW53 was drilled at a site selected by a diviner. A supply of 50 Kl/day was struck at 18 metres at the base of the Cadnaowie Formation. The well was cased to 24m, with slots from 18m to 24m and drilled on to 60 metres in Pandurra Formation. No further supply was cut and the slots became clogged, cutting off the supply. The casing was withdrawn and successfully re-run. The second hole, 6035WW54 was drilled 800m away. 30 Kl/day was cut between and 13 and 18m. The hole entered Pandurra Formation at 19m and was abandoned at 24m.

A third hole 6035WW55 was drilled 180m from the first. This was dry to 24m, when it was abandoned.

A fourth hole 6035WW56 was then drilled 200m from 6035WW55. This obtained only 10 Kl/day.

A fifth well was then drilled 1km east (6035WW56). This was dry.

CONCLUSIONS

1. In the area from Pimba to west of Lake Hart fissure-type aquifers occur in the Adelaidean sediments. 150 metres is a reasonable maximum drilling depth in this area.
2. West of Lake Hart the Adelaidean Pandurra Formation lacks fissure-permeability and is not worth drilling.
3. The Cadnaowie Formation contains low-yielding aquifers. The only wells drilled in this programme with a satisfactory yield from the Cadnaowie Formation were 6135WW89 and 6135WW90, which were sited close to the highest yielding known well in the area.

   Of eight randomly located wells drilled through the Cadnaowie Formation only one yielded 50 Kl/day.

   Since there is no definite relationship between saturated thickness and yield geophysical methods are unlikely to increase the chances of success.

   The only alternative to the expensive process of exploring by drilling is to develop areas of low permeability by using either well-point systems or trenches in areas where the water table is shallow. Salt lakes may provide suitable locations for this type of installation since the water table is less than 1m from the surface.

RECOMMENDATIONS

1. All successful wells should be pump-tested to determine their likely behaviour under 12 months continuous use.
2. Up to 5 well-points should be jetted in around Lake Jessie as a trial prior to establishing a full-scale

well-point system. This will confirm the feasibility of such a system, and provide information for designing it.

R. READ for

Geologist

REFERENCES

Dennis, K.J. and Lawson, T., Gairdner & Childara 1:250 000 Sheets, Water Well Survey. S. Aust. Dept. Mines report 77/100.

Read, R.E. 'Stuart Highway, Bookaloo, Mount Gunson Section - Drilling for Construction Water', S. Aust. Dept. Mines report 79/86.

APPENDIX A

GEOLOGICAL LOGS

PROJECT: Stuart Highway-Pimba to Baker Well

DEPARTMENT OF MINES AND ENERGY—SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

HOLE NO: PN6203,N01

UNIT / STATE NO. 6035WW53

DM

LOCATION OR COORDS: Out of Hundreds SH 53-15,393149

El. Surface m

SEC. HD. El. Ref. Point m Datum

AQUIFER SUMMARY:	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
	18	13.4			50	While drilling	Air lift		W —

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
0	3		Silcrete	Hard brown white and yellow silcrete developed on medium grained sandstone	Tertiary				
3	6		Sandstone	White fine grained poorly sorted silty sandstone with grains up to very coarse sand size lightly silica cemented	Cadna-Owie Formation				
6	9		Sandstone	Coarse white silty poorly sorted sandstone	Cretaceous				
9	15		Siltstone	White firm siltstone with some very fine sand. No bedding visible.					
15	18		Sandstone	Very coarse poorly sorted white silty sandstone (aquifer)					

REMARKS:

*NOTE: 110 kl / day = 1000gals / hr.

Problems experienced with clogging of slots, cutting off supply, and casing withdrawn and re-run.

DRILL TYPE: Rotary

COMPLETED: 14.11.79

CIRCULATION: Air foam

LOGGED BY: R. Read

SHEET 1 OF 3

DATE: 14.11.79

A-1

PROJECT: Stuart Highway-Pimba to Baker Well

DEPARTMENT OF MINES AND ENERGY—SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

HOLE NO: PN6203,No1

UNIT / STATE NO. 6035WW53

DM

LOCATION OR COORDS: Out of Hundreds SH53-15, 393149

El. Surface m

SEC. HD. El. Ref. Point m Datum

AQUIFER SUMMARY:	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
									W —

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
18	21			Coarse poorly sorted light brown sandstone. Minor muscovite, limonite filled vughs.	Pandurra Formation Torrensian				
21	24			Coarse to very coarse poorly sorted sandstone, motted brown and white. Weathered micaceous matrix.					
24	30			Medium grained poorly sorted red-brown sandstone.					
30	33			White medium to coarse grained poorly sorted sandstone. Some green micaceous sandstone.					
33	42			Red brown medium to coarse grained poorly sorted well indurated sandstone, with white mottling.					

REMARKS:

*NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE: Rotary Hammer

CIRCULATION: Air foam

SHEET 2 OF 3

COMPLETED: 14.11.79

LOGGED BY: R. Read

DATE: 14.11.79

PROJECT: Stuart Highway-Pimba to Baker Well

DEPARTMENT OF MINES AND ENERGY—SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

HOLE NO: PN6203,N01

UNIT / STATE NO.: 6035WW53

DM

LOCATION OR COORDS: Out of Hundreds SH53-15,

SEC. HD. El. Surface m El. Ref. Point m Datum

AQUIFER SUMMARY:	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
									W —

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
42	45		Sandstone	Brown medium grained poorly sorted sandstone with micaceous matrix. Minor light green weathered shale.					
45	48		Sandstone	Brown with white mottling. Silty finely micaceous matrix.					
48	51		Sandstone	White medium grained and moderately well sorted. Minor brown sandstone and green shale.					
51	54		Sandstone	As above plus coarse pebbly sandstone with minor pyrite.					
54	60		Sandstone	White and brown medium grained and poorly sorted.					

REMARKS:

*NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE: Rotary Hammer

COMPLETED: 14.11.79

CIRCULATION: Air foam

LOGGED BY: R. Read

SHEET 3 OF 3

DATE: 14.11.79

PROJECT: Stuart Highway-Pimba to Baker Well.

DEPARTMENT OF MINES AND ENERGY—SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

HOLE NO: PN6203, No2

LOCATION OR COORDS: Out of Hundreds SH53-15, 393159

UNIT / STATE NO.: 6035WW54

SEC. HD. El. Surface m El Ref. Point m Datum

DM

AQUIFER SUMMARY:	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
	13				30		Air lift		W —

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
0	3		Silcrete	Coarse poorly sorted brown silcreted sandstone, Minor calcrete	Tertiary				
3	9		Sandstone	Coarse brown poorly sorted clayey sandstone	Cadna-Owie Formation Cretaceous				
9	12		Sandstone	White very coarse poorly sorted and silty					
12	18		Sandstone	White, coarse, silty and poorly sorted					
18	21		Sandstone	Sample chiefly cavings from up-hole, brown colour. Chips of red-brown medium grained sandstone.	Pandurra Formation, Torrensian				
21	24		Sandstone	White to brown coarse poorly sorted well indurated sandstone.					

REMARKS: Hole abandoned

*NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE: Rotary Hammer

CIRCULATION: Air foam

SHEET 1 OF 1

COMPLETED: 14.11.79

LOGGED BY: R. Read

DATE: 14.11.79

A-4

PROJECT: Stuart Highway-Pimba to Baker Well

DEPARTMENT OF MINES AND ENERGY—SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

HOLE NO: PN6203,No3

LOCATION OR COORDS: Out of Hundreds SH53-15, 393159

UNIT / STATE NO. 6035WW55

SEC. HD. El. Surface m El. Ref. Point m Datum

DM

AQUIFER SUMMARY:	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
	Dry								W—

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
0	3		Sandstone	Brown soil plus brown medium grained poorly sorted calcreted sandstone	Pleistocene?				
3	6		Sandstone	White medium grained and poorly sorted, plus white siltstone	Cadna-Owie Formation,				
6	9		Siltstone	White and sandy. No bedding visible	Cretaceous				
9	12		Sandstone	White, medium grained silty and poorly sorted					
12	15		Sandstone	Coarse, similar to the above.					
15	18		Sandstone	Medium grained, similar to the above.					
18	21		Sandstone	Coarse, similar to the above.					
21	24		Sandstone	Brown, medium grained and poorly sorted with limonite filled vughs.	Pandurra Formation Torrensian				

REMARKS: Abandoned Anthrome. Surface about 3M below Well No. 2

*NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE: Rotary Hammer

CIRCULATION: Air foam

SHEET 1 OF 1

COMPLETED: 15.11.79

LOGGED BY: R. Read

DATE: 15.11.79

A15

PROJECT: Stuart Highway - Pimba to Baker Well

DEPARTMENT OF MINES AND ENERGY—SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

LOCATION OR COORDS: Out of Hundreds SH53-15, 413145

SEC. HD. El. Surface m El. Ref. Point m Datum

HOLE NO: PN6203,No4

UNIT / STATE NO. 6035WW56

DM

AQUIFER SUMMARY:	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
	15				20				W—

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
0	3		Oil	Brown soil and calcrete	Pleistocene?				
3	6		Silcrete	Silcreted sandstone	Tertiary				
6	9		Sandstone	Medium grained poorly sorted white, lightly silcified, minor siltstone	Cadna-Owie Formation,				
9	12		Sandstone	Coarse, poorly sorted soft white and silty. Minor siltstone	Cretaceous				
12	15		Sandstone	Medium grained white and silty and poorly sorted. Some limonite staining.	Pandurra Formation,				
15	18		Sandstone	Sandstone, some dark staining					
18	24		Sandstone	Coarse moderately well sorted well indurated sandstone with tarnished pyrite. Becoming brown with depth.	Pandurra Formation, Torrensian				

REMARKS:

Collar about 3 M below well 3

* NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE: Rotary Hammer

CIRCULATION: Air foam

SHEET 1 OF 1

COMPLETED: 16.11.79

LOGGED BY: R. Read

DATE: 16.11.79

A-6

PROJECT: Stuart Highway - Pimba to Baker Well

MINES DEPARTMENT — SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

HOLE NO: 5A

UNIT / STATE NO: 6135WW84

DM

LOCATION OR COORDS:

SEC. HD.

EL Surface m

EL Ref. Point m Datum

AQUIFER	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
SUMMARY:	NIL								W —

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE
0	3		Sandstone	Pale brown poorly sorted medium grained silty sandstone	
3	18		Sandstone	White silty micaceous coarse poorly sorted quartz sandstone, some pebbles	Cadna Owie Formation
18	30		Sandstone	Yellow grey coarse moderately sorted silty quartz sandstone	
30	48		Sandstone	White medium grained poorly sorted silty sandstone. Pebbles up to 15mm	Uncomformity
48	60		Sandstone	Moderate brown coarse silty sandstone (Pebbles and fragments of boulders from up hole)	Pandurra Formation

DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)

REMARKS:

*NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE: Rotary/Hammer

CIRCULATION: Mud, Air foam

SHEET 1 OF 2

COMPLETED: 30.5.79

LOGGED BY: R. Read

DATE: 10.7.79

A-7

PROJECT:

LOCATION OR COORDS:

SEC. HD.

MINES DEPARTMENT — SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

EL Surface m

EL Ref. Point m Datum

HOLE NO: 5A

UNIT / STATE NO 6135WW84

DM

AQUIFER SUMMARY:	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day *	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
									W —

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
60	150		Sandstone	Brown well indurated medium grained sandstone					

REMARKS:

* NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE:

CIRCULATION:

SHEET 2 OF 2

COMPLETED:

LOGGED BY:

DATE:

A-8

PROJECT: Stuart Highway - Pimba to Baker Well

MINES DEPARTMENT — SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

HOLE NO: 4

UNIT / STATE NO: 6135WW85

DM

LOCATION OR COORDS:

SEC. HD. EL Surface m EL Ref. Point m Datum

AQUIFER SUMMARY:	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
	NIL								W—

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
0	3		Soil	Red brown silty sand (IOR5/4)	Recent				
3	6		Sand	Pink (7.5 YR 7/4) coarse poorly sorted sand. Sub rounded grains	Cadna Owie Formation				
6	9		Sand	Medium grained, similar to the above					
9	15		Sand	Coarse poorly sorted clayey sand (7.5 YR 3/2)					
15	24		Weathered Sandstone	Red brown to white clayey sands and sandstone	Pandurra Formation				
24	45		Sandstone	Dusky red (IOR 3/2) coarse poorly sorted quartz sandstone with sub rounded grains. Minor muscovite flakes					

REMARKS:

* NOTE: 110 kl / day = 1000gals / hr.

(IOR 5/4) etc refer to Munsell Colour Chart

DRILL TYPE: Rotary/Hammer

COMPLETED: 30.4.79

CIRCULATION: Air

LOGGED BY: R. Read

SHEET 1 OF 3

DATE: 3.5.79

A-9

PROJECT:

LOCATION OR COORDS:

SEC. HD.

MINES DEPARTMENT — SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

EL Surface m
EL Ref. Point m Datum

HOLE NO:

UNIT / STATE NO
6135WW85

DM

AQUIFER SUMMARY:	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
									W —

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
45	81		Sandstone	Medium grained silty poorly sorted dusky red (10R 3/4) sandstone					
81	96		Sandstone	As above, but mostly pinkish white (7.5 YR 8/2)					
96	99		Sandstone	Similar to above but coarse grained					
99	114		Sandstone	Medium grained dusky red poorly sorted sandstone. Abundant muscovite in parts. Some pinkish white sandstone.					
114	132		Sandstone	Pinkish white medium grained poorly sorted siltstone					
132	135		Sandstone	Dusky red. Chip of grey (5Y5/1) coarse siltstone.					

REMARKS:

* NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE:

CIRCULATION:

SHEET 2 OF 3

COMPLETED:

LOGGED BY:

DATE:

PROJECT:

MINES DEPARTMENT — SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

HOLE NO:

UNIT / STATE NO
6135WW85

DM

LOCATION OR COORDS:

SEC. HD.

EL Surface m

EL Ref. Point m Datum

AQUIFER SUMMARY:	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
									W —

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
135	141		Sandstone	As for 114 - 132M.					
141	144		Sandstone	As above with minor films of tarnished pyrite					
144	150		Sandstone	As for 114 - 132M					

REMARKS:

* NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE:

CIRCULATION:

SHEET 3 OF 3

COMPLETED:

LOGGED BY:

DATE:

A-11

PROJECT: Stuart Highway - Pimba to Baker Well

MINES DEPARTMENT — SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

HOLE NO: 4A

UNIT / STATE NO: 6135WW86

DM

LOCATION OR COORDS:

SEC. HD.

EL Surface m

EL Ref. Point m Datum

AQUIFER SUMMARY:	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
	NIL								W —

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
0	3		Weathered Sandstone	Ferruginous sandstone with calcrete coatings					
3	6		Sandstone	Medium brown, fine grained and poorly sorted					
6	9		Sandstone	White silty and moderately well indurated	Pandurra				
9	15		Sandstone	Pink brown medium grained silty and poorly sorted	Formation				
15	27		Sandstone	Grey coarse poorly sorted and silty					
27	33		Sandstone	Mottled brown and grey with micaceous matrix					
33	39		Sandstone	Coarse and grey					

REMARKS:

* NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE: Rotary/Hammer

COMPLETED: 30.5.79

CIRCULATION: Mud, Airfoam

LOGGED BY: R. Read

SHEET 1 OF 2

DATE: 10.7.79

PROJECT:

MINES DEPARTMENT — SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

HOLE NO: 4A

LOCATION OR COORDS:

UNIT / STATE NO
6135WW86

SEC. HD. EL Surface m EL Ref. Point m Datum

DM

AQUIFER SUMMARY:	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
									W —

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
39	114		Sandstone	Coarse silty sandstone to fine silty micaceous siltstone. Abundant iron oxide grains in parts.					
114	117		Sandstone	White coarse poorly sorted silty sandstone					
117	150		Sandstone	Coarse to fine brown silty sandstone. Micaceous silty matrix.					

REMARKS:

* NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE:

COMPLETED:

CIRCULATION:

LOGGED BY:

SHEET 2 OF 2

DATE:

A-13

PROJECT: Stuart Highway - Pimba to Baker Well

MINES DEPARTMENT — SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

HOLE NO: 3

UNIT / STATE NO: 6135WW87

DM

LOCATION OR COORDS:

SEC. HD.

EL Surface m

EL Ref. Point m Datum

AQUIFER SUMMARY:	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
	33		33	35	20		Airlift		W —
	38		38		85		"		
	54		54	55	240		"		

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
0	6		Sand	Coarse poorly sorted red (IOR5/6) Clayey sand	Recent				
6	36		Weathered Sandstone	Light grey yellow and purple clayey sand	Pandurra Formation				
36	57		Sandstone	Coarse to medium grained quartz sandstone with micaeous silty matrix. Abundant fine sand size iron oxide grains. Some muscovite flakes. Weak red (7.5 R4/2)					
57	63		Sandstone	Similar to the above, with fine pebbles					
63	81		Sandstone	As for 36-57m					
81	84		Sandstone	Coarse pebbly sandstone similar to the above					

REMARKS:

IOR 5/6 etc refers to Munsell Colour Chart

* NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE: Rotary/Hammer

COMPLETED: 25.4.79

CIRCULATION: Air

LOGGED BY: R. Read

SHEET 1 OF 1

DATE: 3.5.79

A-14

PROJECT: Stuart Highway - Pimba to Baker Well

DEPARTMENT OF MINES AND ENERGY—SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

HOLE NO: PN6202,No1

LOCATION OR COORDS: Out of Hundreds SH53-15,413143

UNIT / STATE NO. 6135WW88

SEC. HD. El. Surface m EL Ref. Point m Datum

DM

AQUIFER SUMMARY:	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	Analysis No:
	30		30	60	5		Air lift		W —

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
0	3		Clay	Brown clay with minor coarse angular quartz sand. Some calcrete.	Pleistocene				
3	6		Clayey sand	Coarse poorly softed angular quartz sand with brown, yellow and white clay.					
6	9		Sandstone	30% sample as above 70% white friable silty coarse poorly softed quartz sandstone. Angular to sub-angular grains.	Cretaceous, Cadna-Owie Formation?				
9	15		Sandstone	As above					
15	18		Sandstone	White medium grained and very silty					
18	30		Sandstone	Coarse white silty quartz sandstone. 21-24m interval 5% pebbles.					

REMARKS:

Hole abandoned

* NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE: Rotary

CIRCULATION: Air foam

SHEET 1 OF 2

COMPLETED: 10.11.79

LOGGED BY: R. Read

DATE: 10.11.79

A-15

PROJECT: Stuart Highway - Pimba to Baker Well

DEPARTMENT OF MINES AND ENERGY—SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

HOLE NO: PN6202, No1

UNIT / STATE NO. 6135WW88

LOCATION OR COORDS: Out of Hundreds SH53-15,413143

El. Surface m

SEC. HD. EL Ref. Point m Datum

DM

AQUIFER SUMMARY:	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
									W —

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
30	39		Sandstone	Very coarse silty white sandstone.					
39	42		Sandstone	Similar to above with pebbles of quartzite up to medium gravel size. Pink colour marks top of weathered Pandurra Formation.					
42	60		Sandstone	Samples consist mostly of sand caved from above. Pink colour and chips of friable red-brown fine grained poorly sorted sandstone show that the hole is in weathered bedrock.	Torrensian, Pandurra Formation				

REMARKS:

* NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE: Rotary

CIRCULATION: Air foam

SHEET 2 OF 2

COMPLETED: 10.11.79

LOGGED BY: R. Read

DATE: 10.11.79

A-16

PROJECT: Stuart Highway - Pimba to Baker Well

DEPARTMENT OF MINES AND ENERGY—SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

HOLE NO: PN6202, N02

UNIT / STATE NO. 6135WW89

DM

LOCATION OR COORDS: Out of Hundreds SH53-15, 413145

El. Surface m

SEC. HD. EL Ref. Point m Datum

AQUIFER	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
SUMMARY:	30		30	60	130	½ hour	Air lift	18000 E.C.D. 12000 mg/l	W—

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
0	6		Sandstone	Brown coarse poorly sorted, lightly silicified.	Cretaceous,		150	0	36
6	9		Sandstone	White and brown very coarse silty poorly sorted.	Cadna-Owie Formation?		Slots	30	36
9	12		Sandstone	Medium grained, white silty and poorly sorted.					
12	15		Sandstone	Medium grained moderately well sorted white silty sandstone. Moderately well indurated.					
15	21		Sandstone	Coarse white poorly sorted quartz sandstone					
21	24		Sandstone	As above, well cemented					
24	27		Sandstone	As above, less cemented					

REMARKS:

* NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE: Rotary

COMPLETED: 12.11.79

CIRCULATION: Air foam

LOGGED BY: R. Read

SHEET 1 OF 2

DATE: 12.11.79

A-17

PROJECT: Stuart Highway - Pimba to Baker Well

DEPARTMENT OF MINES AND ENERGY—SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

HOLE NO: PN6202, No 2

UNIT / STATE NO. 6135WW89

LOCATION OR COORDS: Out of Hundreds SH 53-15,413145

El. Surface m

SEC. HD. EL Ref. Point m Datum

DM

AQUIFER SUMMARY:	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
									W—

DEPTH (m) From	DEPTH (m) To.	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
27	30		Sandstone	As above, fragment of large quartzite cobble.					
30	33		Sandstone	As above with quartzite pebbles					
33	36		Sandstone	Sample as above, but brown colour indicates change.	Torrensian,				
39	60		Sandstone	Samples consist chiefly of cavings from Cretaceous. Chips of red brown weathered sandstone with a micaceous matrix.	Pandurra Formation				

REMARKS:

* NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE: Rotary Hammer

COMPLETED: 12.11.79

CIRCULATION: Air foam

LOGGED BY: R. Read

SHEET 2 OF 2

DATE: 12.11.79

A-18

PROJECT: Stuart Highway-Pimba to Baker Well — DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA, EXPLORATION DIVISION

WATER WELL LOG

HOLE NO: PN6202, No3

LOCATION OR COORDS: Out of Hundreds, SH53-15, 413145

UNIT / STATE NO: 6135WW90

SEC. HD. El. Surface / El. Ref. Point m Datum

DM

AQUIFER	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From	INTERVAL TESTED To	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
SUMMARY:	33		33	42	130	½ hour		13000 mg/l	W—

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia (mm)	CASING From (m)	CASING To (m)
0	3		Sand	Brown clayey sand.	Pleistocene		150	0	42
3	6		Sandstone	Brown silicified sandstone	Cretaceous,		slots	36	42
6	12		Sand	Coarse to very coarse brown clayey sand	Cadna-Owie			?	
12	18		Sandstone	Very coarse pebbly poorly sorted white and silty.	Formation				
18	21		Sandstone	Coarse, poorly sorted white and silty					
21	30		Sandstone	Medium grained, similar to the above					
30	36		Sandstone	Very coarse, similar to the above					
36	39		Sandstone	Similar to the above with large quartzite pebbles					
39	42		Sandstone	Firm silty medium grained white poorly sorted sandstone	Pandurra Formation				

REMARKS:

* NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE: Rotary Hammer — COMPLETED: 13.11.79

CIRCULATION: Air foam — LOGGED BY: R. Read

SHEET 1 OF 1 — DATE: 13.11.79

PROJECT: Stuart Highway - Pimba to Baker Well

MINES DEPARTMENT — SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

HOLE NO: 2

UNIT / STATE NO: 6235WW62

DM

LOCATION OR COORDS:

SEC. HD.

EL Surface m

EL Ref. Point m Datum

AQUIFER SUMMARY:	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
	104	19.2	104	106	80		Airlift		W —

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
0	3		Sand	Red brown silty poorly sorted sand	Recent				
3	6		Clayey Sand	Brown light grey and yellow clayey sand					
6	9		Weathered Shale	Brown grey and yellow clay	Woomera Shale				
9	18		Shale	Dark brown micaceous shale. Very soft due to weathering					
18	120		Siltstone	Light green grey micaceous shaly siltstone, interbedded with micaceous dark brown siltstone					
120	147		Siltstone	Medium grey dolomitic siltstone, finely laminated. Minor pyrite	Tapley Hill Formation				

REMARKS:

* NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE: Rotary/Hammer

COMPLETED: 6.4.79

CIRCULATION: Air

LOGGED BY: R. Read

SHEET 1 OF 1

DATE: 26.4.79

A-20

PROJECT: Stuart Highway - Pimba to Baker Well

MINES DEPARTMENT — SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

HOLE NO: 2A

UNIT / STATE NO: 6235WW63

DM

LOCATION OR COORDS:

SEC. HD.

EL Surface m

EL Ref. Point m Datum

AQUIFER SUMMARY:	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
	44		44	48	20		Airlift		W —
	78		44	79	65		"		

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
0	3		Soil/Weathered Siltstone	Clayey sand	Recent				
3	9		Weathered Silt-stone	Brown Clay	Woomera Shale				
9	15		Weathered Silt-Stone	Very soft brown and yellow fragments of siltstone					
15	36		Siltstone	Dark brown and light grey coarse laminated siltstone. Weathered.					
36	126		Siltstone	Interbedded dark brown and light green grey siltstones. Fine to coarse.					

REMARKS:

* NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE: Rotary

CIRCULATION: Air

SHEET 1 OF 1

COMPLETED: 10.4.79

LOGGED BY: R. Read

DATE: 26.4.79

A-21

PROJECT: Stuart Highway - Pimba to Baker Well

MINES DEPARTMENT — SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

HOLE NO: 2 1

LOCATION OR COORDS:

UNIT / STATE NO: 6235WW64

SEC. HD. EL Surface m EL Ref. Point m Datum

DM

AQUIFER	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day*	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
SUMMARY:	65	43	43	65	20		Airlift		W —
	75	47	43	77	100		Airlift	20 000	
			63	145	200		Airlift		

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia(mm)	CASING From(m)	CASING To(m)
0	3		Sandstone	White clayey moderately sorted medium sandstone. Minor white sandy claystone.	Arcoona Quartzite		200	0	2.5
3	6		Claystone	White	Member of Tent		150	0	89.5
6	15		Sandstone	Very pale brown medium grained moderately sorted quartz sandstone, rounded to sub-angular grains	Hill Formation				
15	27		Sandstone	Similar to above, yellow brown colour					
27	30		Sandstone	Medium brown and white clayey fine grained sandstone					
30	36		Sandstone	White medium grained moderately indurated sandstone					

REMARKS:

* NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE: Rotary Hammer

COMPLETED: 30.3.79

CIRCULATION: Air

LOGGED BY: R. READ

SHEET 1 OF 2

DATE: 26.4.79

A-22

PROJECT:

LOCATION OR COORDS:

SEC. HD.

MINES DEPARTMENT — SOUTH AUSTRALIA
ENGINEERING DIVISION

WATER WELL LOG

EL Surface m

EL Ref. Point m Datum

HOLE NO:

UNIT / STATE NO
6235WW64

DM

AQUIFER SUMMARY:	DEPTH TO WATER CUT (m)	DEPTH TO STANDING WATER (m)	INTERVAL TESTED From:	INTERVAL TESTED To:	SUPPLY kilolitres/day *	SUPPLY Test Length (hrs)	SUPPLY Method	TOTAL DISSOLVED SOLIDS milligrammes/litre	TOTAL DISSOLVED SOLIDS Analysis No:
									W —

DEPTH (m) From	DEPTH (m) To	GRAPHIC LOG	ROCK / SEDIMENT NAME	GEOLOGICAL DESCRIPTION	FORMATION / AGE	DEPTH CORE SAMPLE	CASING Dia (mm)	CASING From (m)	CASING To (m)
36	48		Sandstone	Medium grey and light brown well indurated micaceous sandstone					
48	68		Sandstone	Medium brown medium grained micaceous sandstone					
68	144		Siltstone	Dark brown with interbedded light grey green micaceous siltstone.	Woomera Shale				

REMARKS:

* NOTE: 110 kl / day = 1000gals / hr.

DRILL TYPE:

CIRCULATION:

SHEET 2 OF 2

COMPLETED:

LOGGED BY:

DATE:

A-23

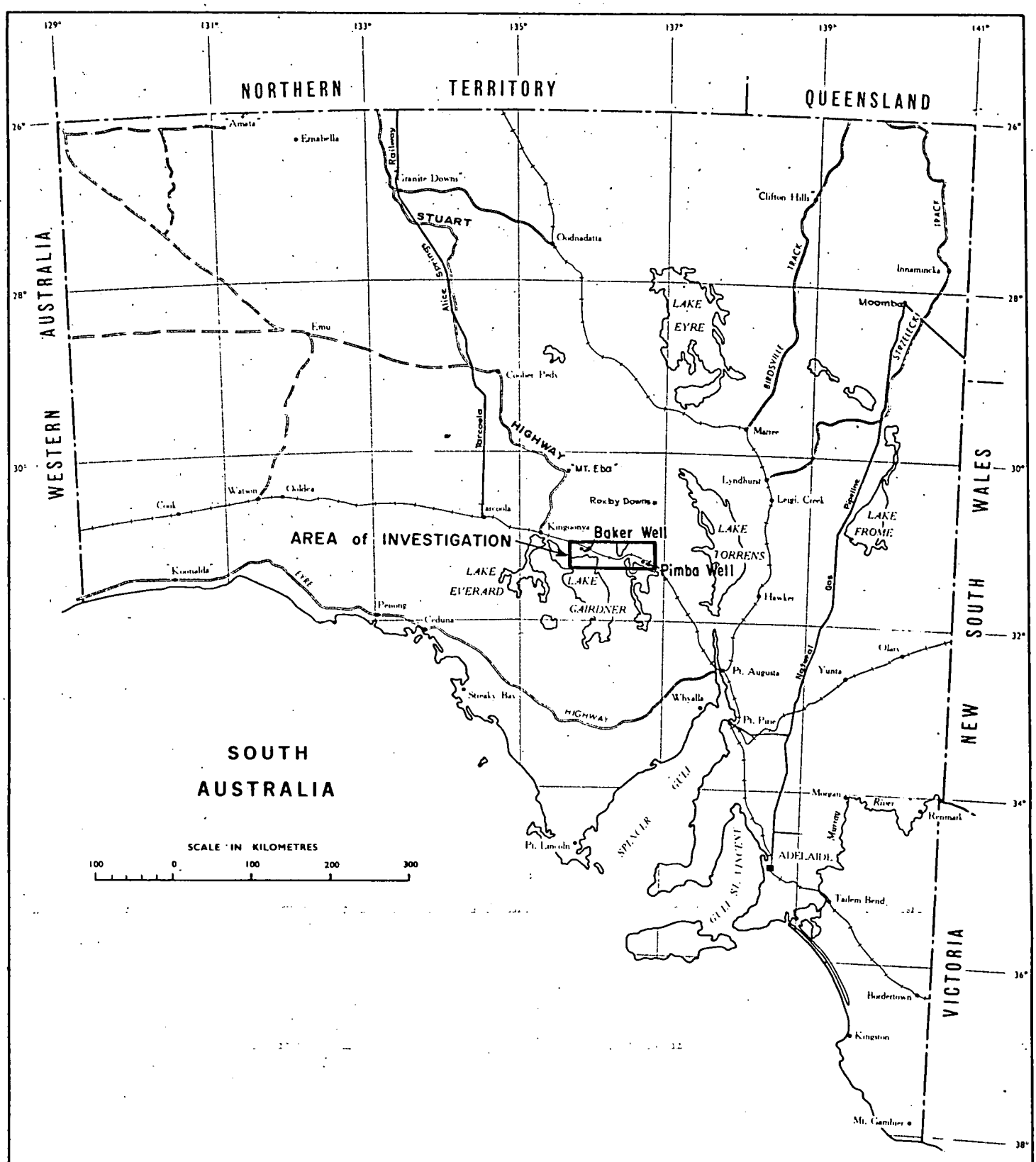


FIG. 1

DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

Compiled. R.E. Read	PROPOSED STUART HIGHWAY PIMBA – BAKER WELL SECTION LOCALITY PLAN	Date: 27 / 2 / 80
Drn. E.C. Ckd. BF		Drg. No. S14684

PF No 55850 9942

to Perth

"COONDAMBO"

see Plan No. S14685

BAKER WELL

6035-57

6035-52

6135-84

see Plan No. S14685

WIRRAMINNA SIDING

6135-85

6135-86

"WIRRAMINNA"

6135-87

LAKE HANSON

LAKE HART

STUART HIGHWAY

WOOMERA

6235-63

6235-62

6235-64

TRANSCONTINENTAL RAILWAY

PIMBA R.S.

PROPOSED HIGHWAY

to Adelaide

31°15'

LAKE JOHNSTONE

LAKE GAIRDNER

136°00'

136°30'

ISLAND LAGOON

6235-63 ..... water well

SCALE

KILOMETRES 5 0 5 10 15 20 25 KILOMETRES

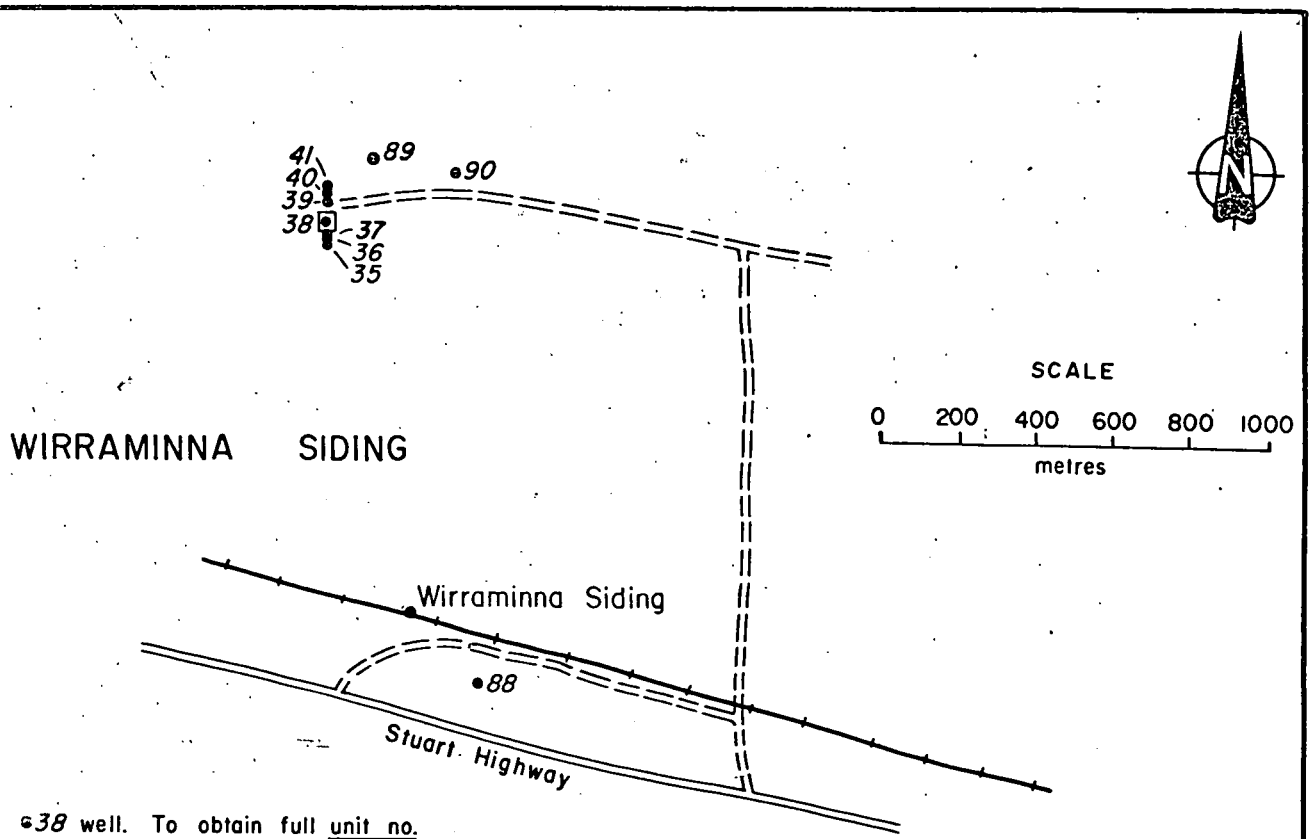
FIG. 2

DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

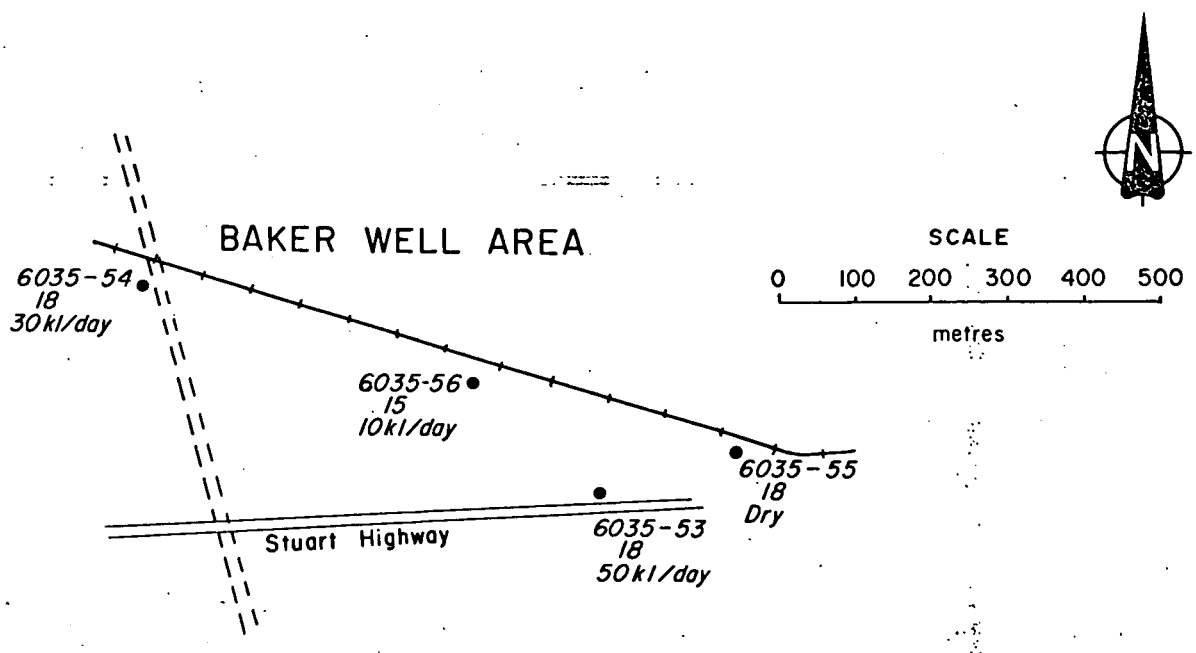
PROPOSED STUART HIGHWAY
PIMBA - BAKER WELL SECTION
WELL LOCATIONS

COMPILED R.E. Read	C.D.O. DATE
DRAWN E.R.C.	SCALE 1:250,000
DATE 26/2/80	PLAN NUMBER 80-158
CHECKED	

1843



•38 well. To obtain full unit no. add prefix 6135WW.



6035-54• .....well and unit number

18.....depth to base of Cadna-Owie Formation in metres

50kl/day....airlifted yield

FIG. 3

DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	COMPILED R.E. Read	C D O DATE
PROPOSED STUART HIGHWAY PIMBA - BAKER WELL SECTION HYDROGEOLOGICAL DATA	DRAWN E.C.	SCALE as above
	DATE 27/2/80	PLAN NUMBER S14685
	CHECKED	