Rept Bk No 37/114
D.M. 127/50
B.M. 16

DEPARTMENT OF MINES

SOUTH AUSTRALIA

REPORT ON DRILLING OPERATIONS

FOR

DEPARTMENT OF WORKS & HOUSING,

TORRENS ISLAND

Following upon a request from the Department of Works and Housing for a bore to be sunk on Torrens Island, investigations were made as to the procedure to be adopted to transport the Plant and Equipment to the Island, and land same, bearing in mind the return of the Plant on the completion of the project.

On 9th February, 1954 Ruston Bucyrus Boring Plant No 19, was towed to the Harbors Board Dockyard at Glanville, and loaded on a punt supplied by the Harbor's Board.

Using the Quarantine launch, the punt was taken to Torrens Island, and at high tide was beached, and made fast, near the cattle jetty.

Next day, a wooden ramp was assembled alongside the punt, and under its own power the Plant was winched off the ramp, and some distance over wooden matting, which was ,laid on the loose sand.

Eventually a tractor was utilised to tow the Plant on to the boring site.

On the next high tide, the punt was refloated, and used to transport the casing and drilling equipment from Glanvill to Torrens Island.

Driller Ashley commenced operations on 17-2-54, and drilling was completed on 22.4.54 at a depth of 366'

Water was cut at 5' 260' and 315' the upper waters showed an analysis of 2220 grns and 4800 grans respectively, and the third 58 grains per gallon.

The 8" casing was seated in a hard limestone bar at 303'6" and the static level of the water was 12' and the supply 6000 gallons per hour.

The bore was then developed by compressed air for 22 hours and at the completion of blowing, the water supply was 12000 gallons per hour. The water stands at 1'6" above surface and is actuated by a high tide, and 8'6" tide causes the water in the bore to rise to an additional 3". Casing stands at 6'6" above ground level. The final analysis of this bore is 54.44 grns per gallon.

The original request of the Department of Works was for a supply of 10000 gallons per hour to provide a water supply for fire fighting purposes, however, the quality of the water is such that same is emintly suitable for growing all types of garden produce and for domestic purposes, being comparable with the water from the bores in the Metropolitan Area.

Details of the bore as follows:

DEPTH	CASING	STATIC LEVEL	SUPPLY	ANALYSIS
366'	Cased to 303'6"	1'6" above surface	12000 GPH	54.44 grns per gall.

Final costs are not yet available and a cost statement will be issued as an addendum to this report.

F.E. ROBERTS

ACTING CHIEF MECHANICAL AND BORING ENGINEER.