

44. Underground water prospects, Planet Fisheries factory, Dunalley.

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The property owned by Planet Fisheries lies astride the Dunalley-Carlton road adjacent to the Dunalley canal and Norfolk Bay, and has an area of about 0.4 ha. No part of the property is more than 100 m from the sea.

The factory has a limited tank storage capacity of 18,000 l but a daily demand varying between 1,000 and 8,000 l. Consequently an additional water supply is required. The water should not contain more than about 1,000 ppm of dissolved solids.

GEOLOGY

The area is underlain by a thick (>80 m) sequence of uniform grey, blue and red clays of Tertiary age. No other rock type occurs within 400 m of the factory. Little is known about the deposit other than its extent and approximate thickness. No sand component is evident in surface exposures.

HYDROLOGY

Pure clays are not good aquifers, and any water that they may contain will be very saline and drilling and bore development problems are likely. Since the site is near the sea the water quality is likely to be poor.

CONCLUSION

The prospects of obtaining useful water supplies from the clays of the Dunalley canal area are poor. Sand beds are necessary before a satisfactory amount of water can be recovered and none are known. Even if sands could be located the water quality would be very poor.

RECOMMENDATIONS

- (1) Dig small test holes, at least, on the lower western side of the property, to determine the depth to the water table, to sample the water and gain some indication of the thickness of sand.
- (2) Test quality of water for total salt content and check for organic content (where is a septic tank a short distance away).
- (3) If the water is of adequate quality (it may be a little saline due to wind-blown salt from the nearby ocean) and the sand is sufficient thickness a well lined with timber, bricks or concrete liners or a spear would be suitable for this site. The yield would probably be over 100 l/h for a spear, and a small storage tank would be required. A well would be capable of greater yields by virtue of its larger storage and transmission characteristics.