MINERAL RESOURCES TASMANIA

Tasmania

TASMANIAN GEOLOGICAL SURVEY

GROUNDWATER PROSPECTIVITY OF TASMANIA

SCALE 1:500000

0 10 20 30 40 50 km

Grid: Australian Map Grid, Zone 55.

The data for this map were derived from the Tasmanian 1:250,000 digital Geological Survey Geological Atlas and is based upon the potential for groundwater within broad rock groups.

This map is not the result of a concise survey and groundwater potential is indicative only. It does not remove the need for site specific investigations.

Groundwater potential data compiled by W.L. Matthews B.Sc. and R.C. Donaldson, M. App. Sc.
Map updated March 2002 by M. Latinovic B.Sc.(Hons).

Digital base information from Information and Land Services Division, Department of Primary Industries, Water and Environment.

Map produced by Data Management Group using G.I.S. software.

SALINITY

Total Dissolved Solids - mg / l

- 0 - 500
- 500 - 1000
- 1000 - 2000
- 2000 - 3500
- 3500 - 7000
- > 7000

LEGEND

AQUIFER TYPE	PROSPECTIVITY	ROCK GROUPS	GENERAL AQUIFER CHARACTERISTICS
POROUS (INTERGRANULAR)	**HIGH**	*Quaternary sand and gravel. Tertiary sediments.*	*Often high yielding where sand, gravel deposits 5+ metres thick. Yields may be limited where thick clay deposits exist. Quality usually suitable for most purposes. Vulnerability to pollution - very high unless layer of low permeability material, eg clay, overlies the aquifer.*
POROUS (INTERGRANULAR)	**LOW - MODERATE**	*Quaternary talus and alluvium deposits.*	*Yields and groundwater storage are generally low, but in areas with low clay percentage some usefull yields are possible. The main drilling targets in all areas are deep underlying aquifers. Water quality is variable. Usually better in high rainfall areas and in the vicinity of streams. Vulnerability to pollution - low (where clay layer overlies the aquifer) to high (where clay layer does not overlie the aquifer).*
FRACTURED	**HIGH**	*Tertiary basalts. Ordivician - Devonian sediments. (Mathinna Beds in North East Tas.) Cambrian volcanics and sediments.*	*Yields adequate for crop irrigation in some areas . Domestic and livestock yields common. Quality usually suitable for most purposes. Vulnerability to pollution - very high unless layer of low permeability material, eg clay, overlies the aquifer.*
FRACTURED	**MODERATE - HIGH**	*Permo - Triassic sediments. Carbonate sequences (limestone, dolomite). Neoproterozoic sediments.*	*Yields suitable for most domestic and livestock purposes. Potential for limited crop irrigation in some areas. Quality variable - dependant on location. Vulnerability to pollution - high unless low permeability material occurs at the surface.*
FRACTURED	**LOW - MODERATE**	*Dolerite, some Tertiary Basalts. Neoproterozoic quartzites and schists. Ordovician sediments (conglomerate, sandstone).*	*Yields generally suitable for domestic and / or livestock purposes. Occasional crop irrigation yields. Quality variable - dependant on location. Vulnerability to pollution - moderate unless highly fractured zones occur without a low permeability cover.*
FRACTURED	**LOW**	*Granitoids. Cambrian mafic - ultramafic complexes.*	*Limited groundwater resources. Highly fractured areas may yield domestic and livestock supplies. Very occassional crop irrigation yields. Quality variable. Vulnerability to pollution - low unless highly fractured zones occur without a low permeability cover.*

NOTE: In areas of low rainfall, water quality can be degraded and usage may be limited.

BOREHOLE YIELD - litres per second

- Unknown
- 0 (Dry hole)
- 0.1 - 0.5
- 0.5 - 1
- 1 - 5
- 5 - 10
- > 10

Borehole data as at July 2002

RELIABILITY
In areas of Tasmania where there is a paucity of, or no water bore data eg. South West Tasmania, the groundwater prospectivity has not been proven.

Groundwater prospectivity data has been generalised for the purpose of this map. See more detailed maps and reports for specific information.

WARNING: INKS ARE LIGHT SENSITIVE

Data correct & plotfile generated: 29-JUL-2002

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