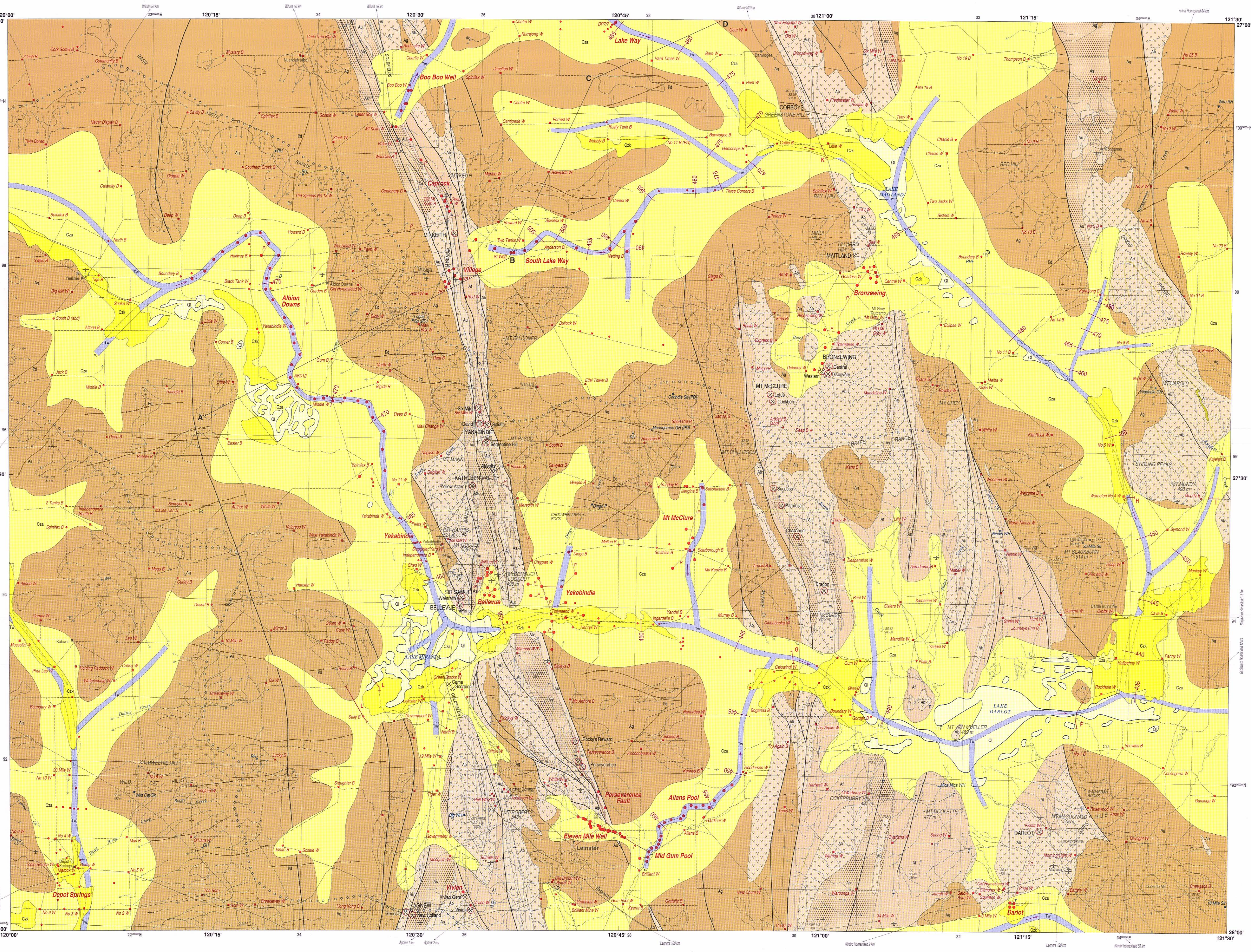


SG 51-13

SIR SAMUEL

1:250 000



**REFERENCE**

**AQUIFER TYPES**

- Surficial deposits — local aquifer, minor to major groundwater resources
- Sedimentary aquifer in paleochannels — major aquifer, major groundwater resources
- Sedimentary aquifer in paleochannels — no groundwater resources (section only)
- Fractured and deeply weathered rocks — local aquifer, minor groundwater resources, locally large supplies from fracture zones and permeable horizons in weathering profile

**HYDROGEOLOGY**

**QUATERNARY**

- Q1 Plays lake sediments — mostly clay
- Q2s Alluvium and colluvium — clay, silt and sand, minor gravel, coarse sandstone
- Q2c Calcrete — often with extensive karst development

**EARLY TERTIARY**

- Td Clay — minor sands, restricted to paleochannels (section only), equivalent to PERCOLLI SHALE
- Tw Sand — restricted to paleochannels, concealed by permeable clay, equivalent to WOLLUMBATI SANDSTONE

**PROTEROZOIC**

- Pd Mafic and ultramafic dykes: interspersed

**ARCHAIC**

- Ag Granitoid rock, outcrop (indicated by overprint); generally weathered to sandy clay
- Ac Chert and banded iron-formation
- Ms Metasedimentary rocks
- At Felsic volcanic and volcanoclastic rocks
- Ar Mafic rocks
- Au Ultramafic rocks and weathered equivalents

**SYMBOLS**

**GEOLOGY**

- Hydrogeological boundary
- Inferred hydrogeological boundary
- Extent of weathering (section only)
- Fault or shear zone

**SURFACE WATER FEATURES**

- Intermittent drainage
- Surface water divide
- Plays lake
- Rockhole, gnamptia hole, waterhole
- Spring, soak
- Swamp
- Sink

**GROUNDWATER FEATURES**

- Isopotential (in AHD)
- Direction of groundwater flow
- Watercourse (section only)

**ARTIFICIAL FEATURES**

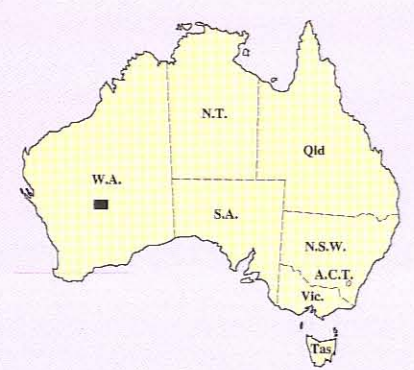
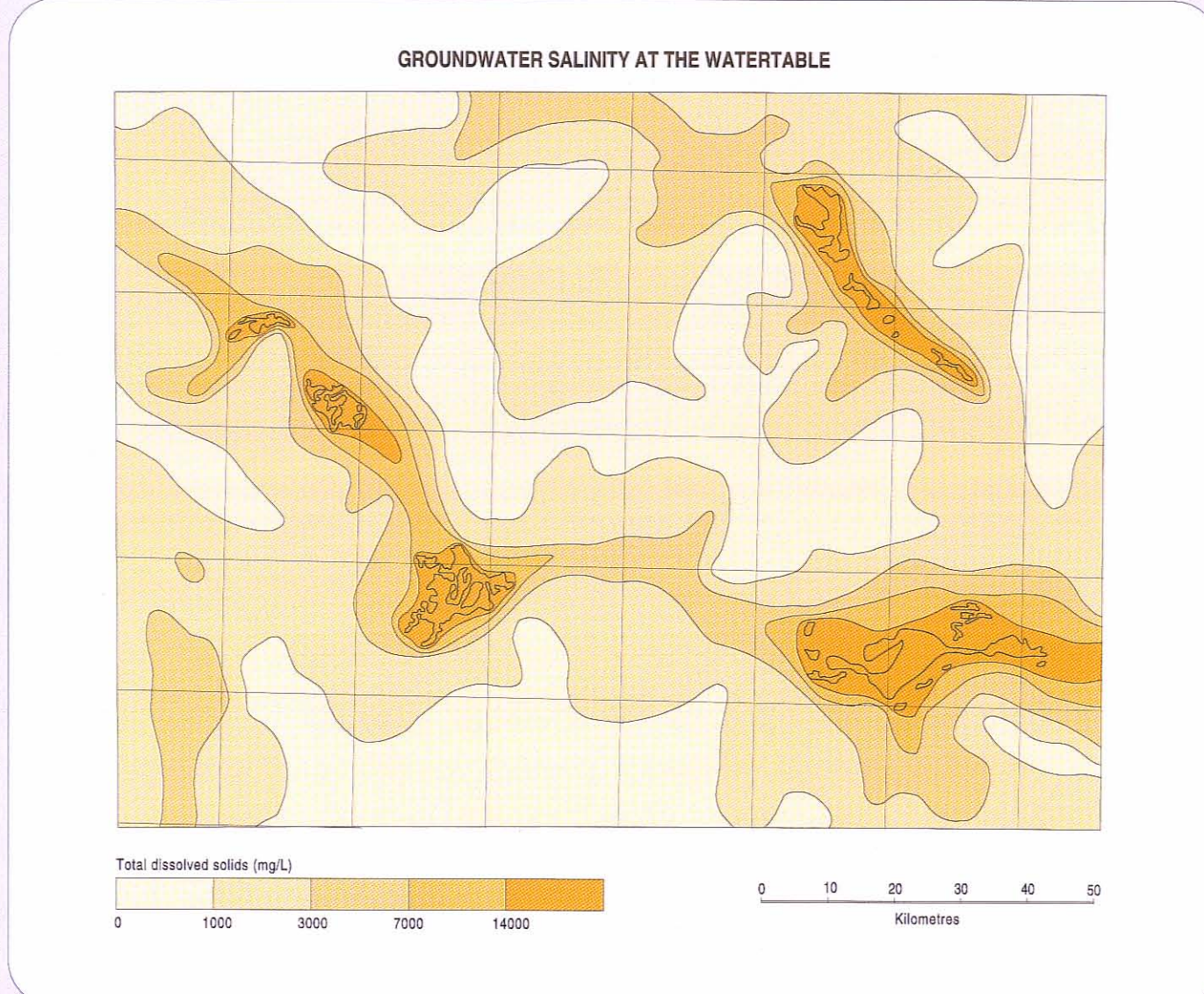
- production bore, yield < 50 m³/day
- abandoned bore, yield < 50 m³/day
- bore
- well
- borefield name, cluster of bores
- WRC exploration drilling line
- groundwater pipeline
- mine discharging

**MINING INFORMATION**

- underground mine, open-cut
- mining activity
- mine name

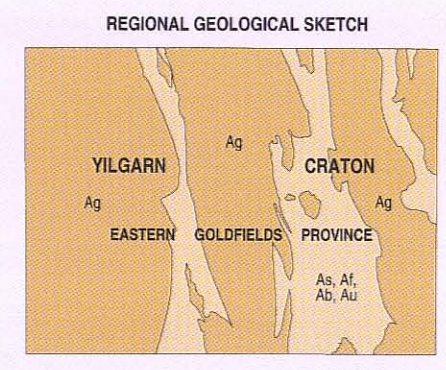
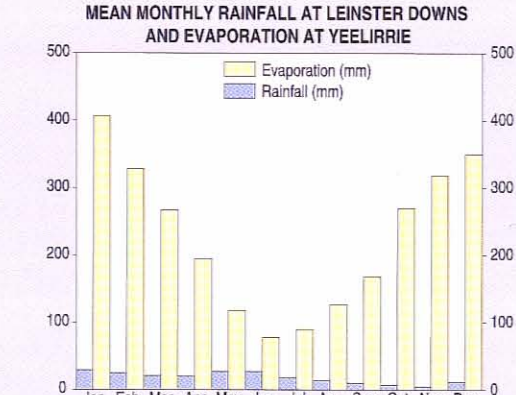
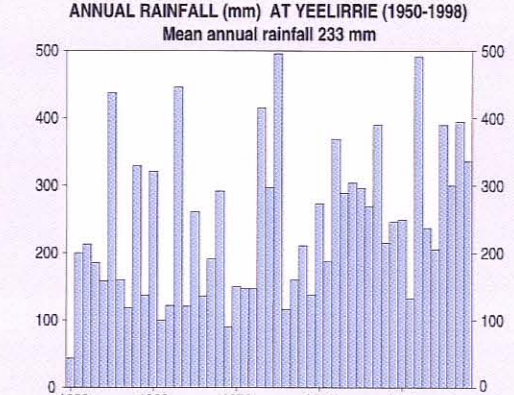
**TOPOCADASTRAL INFORMATION**

- highway
- formed road
- track
- airfield, landing ground
- townsite, population less than 10 000
- homestead
- horizontal control, major, minor



**INDEX TO ADJOINING SHEETS**

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YUJARRI	LEONORA	LAVERTON
SH 50-4	SH 51-1	SH 51-2



Hydrogeology by S.L. Johnson, 1999  
 Geology by T.A. Farrell, 1997, Geological Survey of W.A.  
 Edited by D.P. Commander and R. Duboni  
 Cartography by K. Prosser, Water and Rivers Commission  
 Topography from the Department of Lands Administration Sheet SG 51-13 with modifications from geological field survey  
 Published by the Water and Rivers Commission  
 Copies available from the Water and Rivers Commission, The Hyatt Centre, 3 Park Street, East Perth, W.A. 6004, Phone (08) 9278 9000, Fax (08) 9278 9200  
 This map is also available in digital form  
 The recommended reference for this map is: JOHNSON, S.L., 1999 Sir Samuel, W.A. Sheet SG 51-13: Western Australia, Water and Rivers Commission, 1:250 000 Hydrogeological Series

