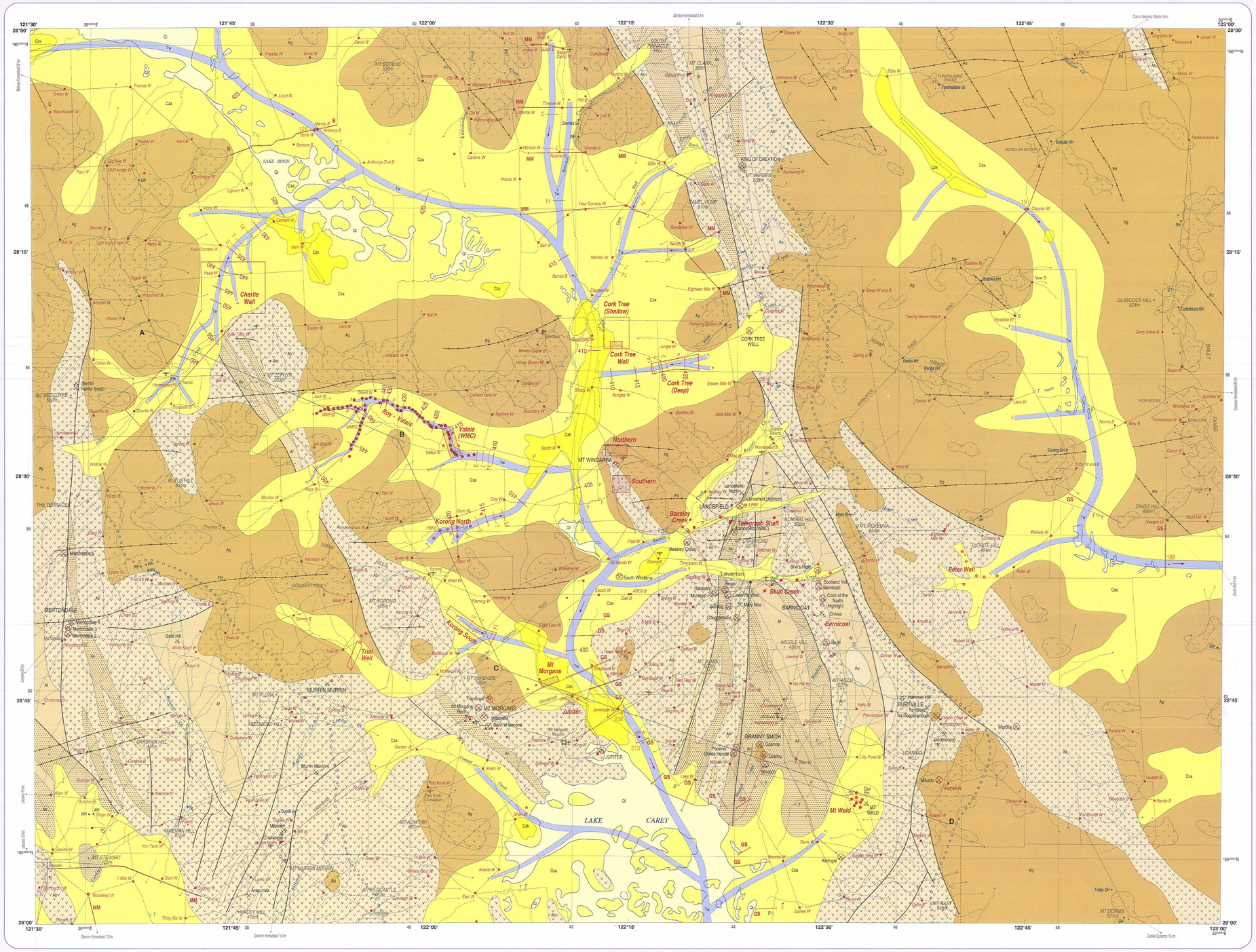
LAVERTON

1 : 250 000 HYDROGEOLOGICAL SERIES

WATER AND RIVERS COMMISSION

SHEET SH 51-2



REFERENCE

AQUIFER TYPES

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

HYDROGEOLOGY

PHANEROZOIC	QUATERNARY	Ql	Playa lake sediments — mostly clay	Minor shallow aquifer, possible small supplies in sands; hypersaline
	CAINOZOIC	Cza	Alluvium and colluvium — clay, silt and sand, minor gravel; concealis palaeochannels	Major shallow aquifer; fresh to hypersaline
		Czk	Calcrete — often with extensive karst development	Significant local aquifer; fresh to saline
	EARLY TERTIARY	Tp	Clay — minor sands; restricted to palaeochannels (section only); equivalent to PERKOLILI SHALE	Aquitard
		Tw	Sand — restricted to palaeochannels; concealed by palaeochannel clay; equivalent to WOLLUBAR SANDSTONE	Major aquifer, fresh to hypersaline
PROTEROZOIC		Pm	MT WELD CARBONATITE — concealed by alluvium (section only)	Major local aquifer; brackish to saline
		Pd	Mafic and ultramafic dykes: interpreted	Very minor local aquifer; brackish to saline
ARCHAEAN		Ag	Granitoid rock: outcrop (indicated by overprint); generally weathered to sandy clay	Local aquifer; fresh to saline
		Ac	Chert and banded iron-formation	Major local aquifer; fresh to saline
		As	Metasedimentary rocks	Minor local aquifer; brackish to saline
		Af	Felsic volcanic and volcaniclastic rocks	Minor local aquifer; brackish to saline
		Ab	Mafic rocks	Minor local aquifer; fresh to saline
		Au	Ultramafic rocks and weathered equivalents	Major local aquifer; fresh to saline

SYMBOLS

GEOLOGY

- hydrogeological boundary
- inferred hydrogeological boundary
- extent of weathering (section only)
- fault or shear zone

SURFACE WATER FEATURES

- intermittent drainage
- surface water divide
- playa lake
- RH, rockhole, gnamma hole, waterhole
- Sp, spring; Sk, soak
- D, dam; T, tank
- P, water pipeline

GROUNDWATER FEATURES

- 450 — isopotential (m AHD)
- direction of groundwater flow
- watertable (section only)
- 3 — isohaline in palaeochannel (TDS g/L)
- 206 — salinity in palaeochannel (TDS g/L)

MINING INFORMATION

- underground mine, opencut
- MT MORGANS — mining locality
- Westralia — mine name

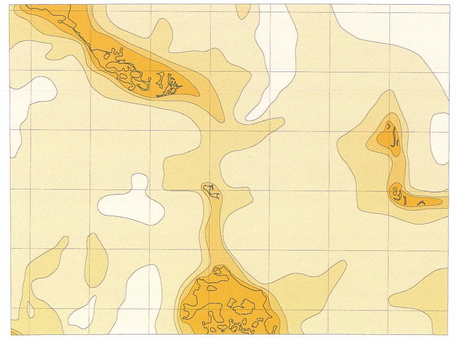
ARTIFICIAL FEATURES

- MMP3 — production bore; yield >50 m³/day
- abandoned bore; yield >50 m³/day
- bore
- well, shaft
- area of detailed groundwater investigation
- borefield (currently in use)
- borefield (disused)
- Mt Weld A — borefield name, cluster of bores
- WRC exploratory line
- MM — Murrin Murrin exploratory line
- GS — Granny Smith exploratory line
- storage reservoir
- P — groundwater pipeline, disused
- mine dewatering

TOPOCADASTRAL INFORMATION

- sealed road
- graded road
- track
- Laverton — airfield, landing ground
- townsite, population less than 10 000
- Mt Morgans — homestead

GROUNDWATER SALINITY



Total dissolved solids (mg/L)

0 — 1000 — 3000 — 7000 — 14000

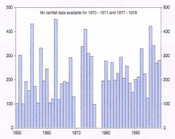
0 10 20 30 40 50 Kilometres

INDEX TO ADJOINING SHEETS

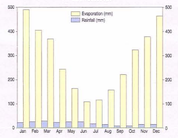
SIR SAMUEL SG 51 - 13	DUKETON SG 51 - 14	ROBERT SG 51 - 15
LEONORA SH 51 - 1	LAVERTON SH 51 - 2	RASON SH 51 - 3
MENZIES SH 51 - 5	EDJUDINA SH 51 - 6	MINIGWAL SH 51 - 7

ANNUAL RAINFALL (mm) AT LAVERTON (1950 - 1998)

Mean annual rainfall 225 mm



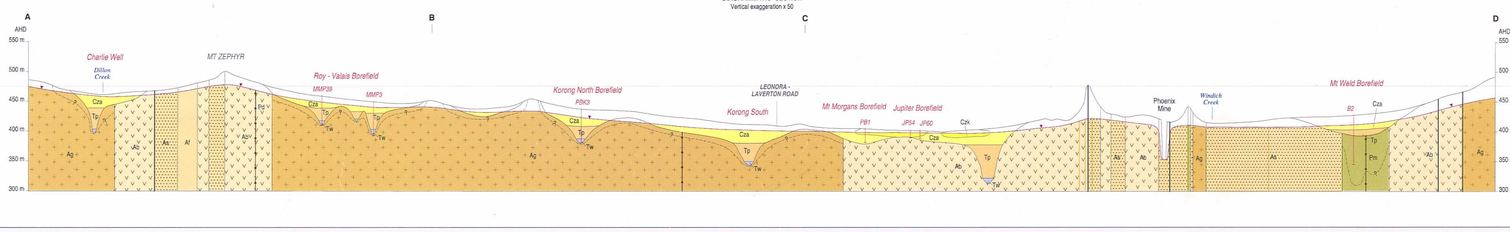
MEAN MONTHLY RAINFALL AND EVAPORATION AT LEONORA P.O.



REGIONAL GEOLOGICAL SKETCH

DIAGRAMMATIC SECTION

Vertical exaggeration x 50



Hydrogeology by S.L. Johnson, 1999

Geology by C.F. Gower, 1976

Edited by R. Dubesi

Cartography by K. Prosser, Water and Rivers Commission

Topography from the Department of Land Administration Sheet SH 51-2 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 Plain Street, East Perth, WA, 6004,
Phone (08) 9278 0300, Fax (08) 9278 0301

This map is also available in digital form

The WRC recommended reference for this map is: JOHNSON, S.L., 1999 Laverton, W.A. Sheet SH 51-2. Western Australia, Water and Rivers Commission, 1:250 000 Hydrogeological Series

GOVERNMENT OF WESTERN AUSTRALIA
Dr KIM HAMES
MINISTER FOR WATER RESOURCES

WATER AND RIVERS COMMISSION
R. PAYNE
CHIEF EXECUTIVE OFFICER

SCALE 1: 250 000

5000 Metres 0 5 10 15 20 25 30 Kilometres

TRANSVERSE MERCATOR PROJECTION

Grid lines indicate 20 000 metre interval of the Australian Map Grid Zone 51

1:250 000 HYDROGEOLOGICAL SERIES

LAVERTON

SHEET SH 51-2