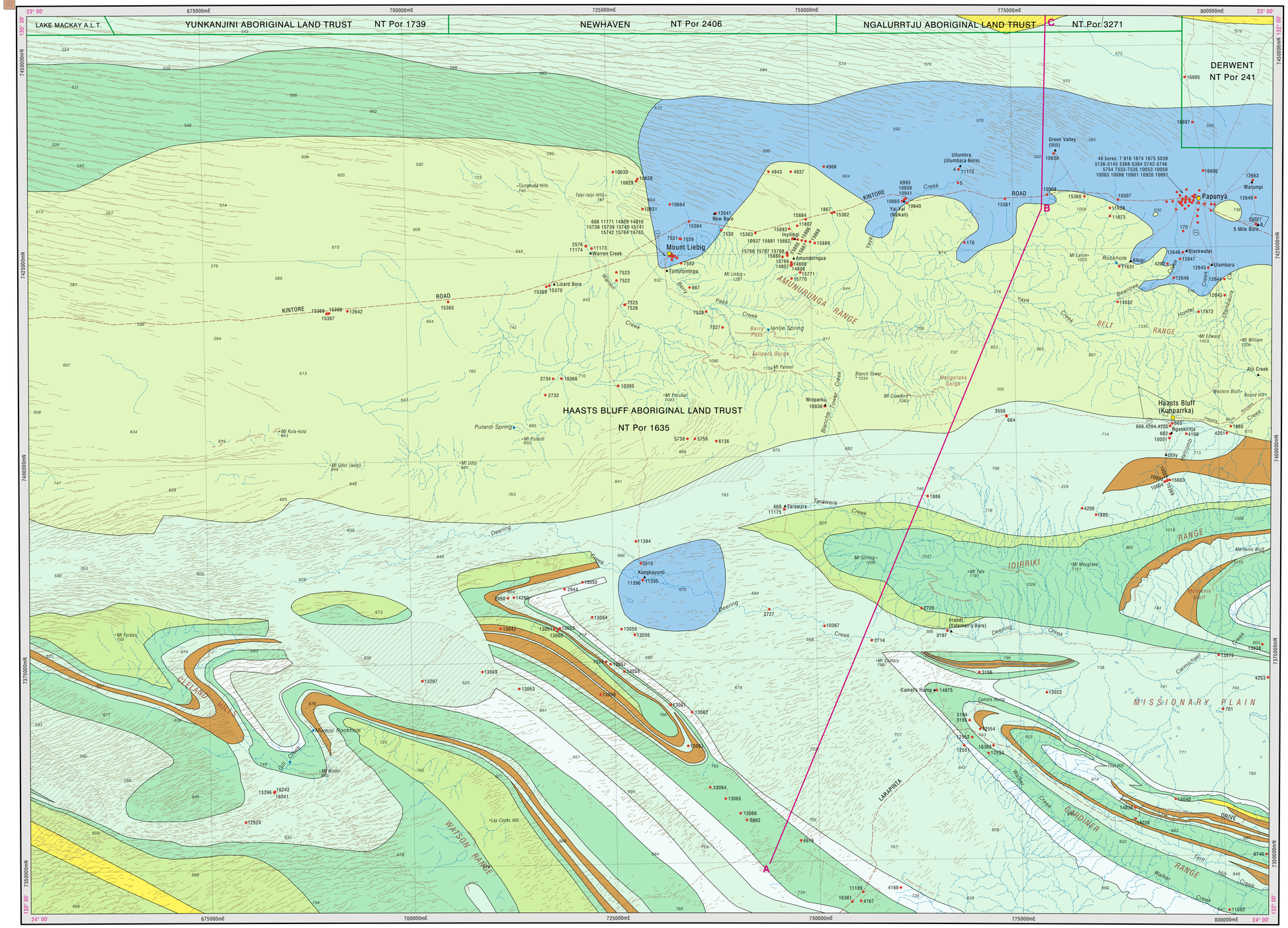
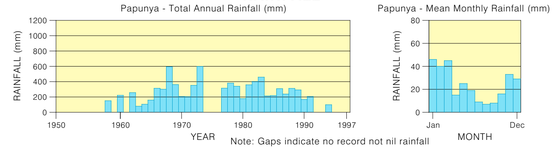


RAINFALL



Note: Gaps indicate no record not nil rainfall

GROUNDWATER

	UNIT	DESCRIPTION
A	Moderate bore yields. Mostly fresh water.	Water supplies from bores are typically between 1 and 5 litres per second. Suitable for most uses.
B	Moderate bore yields. Water quality varies from fresh to brackish. Usually brackish water.	Water supplies from bores are typically between 1 and 5 litres per second. Suitable for most uses depending on water quality which is variable. Hydrogeological advice should be sought if fresh water supplies are required.
C	Very low yielding bores. Water quality varies from fresh to brackish. Usually brackish water.	Water supplies from bores are typically less than 0.5 litres per second. Localised fractured rock aquifers. Fresh water can be found but generally becomes brackish and bore yields decline with time. Generally only suitable for non permanent outstation supplies, emergency water, or low yielding stock and road bores.
D	Moderate bore yields. Water quality varies from fresh to saline. Usually brackish.	Water supplies from bores are typically between 1 and 5 litres per second. Suitable for most uses depending on water quality. Hydrogeological advice should be sought if fresh water supplies are required.
E	Low yielding bores. Water quality varies from fresh to saline. Usually brackish.	Water supplies from bores are typically less than 1 litre per second. Outstation supplies are possible, depending on water quality. Generally suitable for low yielding stock and road bores. Hydrogeological advice should be sought if fresh water supplies are required.
F	Moderate bore yields. Water quality varies from brackish to saline.	Water supplies from bores are typically between 1 and 5 Litres per second. Generally not suitable for drinking water supplies. Generally good for stock water, road bores and emergency supplies.
G	Very low yielding bores. Water quality varies from fresh to saline. Usually brackish water.	Water supplies from bores are typically less than 0.5 litres per second. Localised fractured rock aquifers. Fresh water can be found but generally becomes brackish or saline and bore yields decline with time. Generally only suitable for non permanent outstation supplies, emergency water, or low yielding stock and road bores.
H	Salt lakes, playas, and evaporite deposits.	Hypersaline groundwater and brine caused by concentration of salts by evaporation. Bore yields should be low due to low permeability of these sediments.
I	Untested sandstone units.	Untested sandstone units of variable water quality. Estimated bore yields less than 5 litres per second.
J	Non aquifers.	Low permeability mudstones and clays containing brackish to saline seepage water. Generally unsuitable for bore drilling.
K	Calcrete.	Possibility of enhanced yields in shallow bores due to cavities in the inorganic limestone.

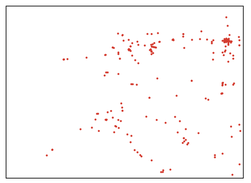
NOTES

1 Fresh water contains between 0 and 1,500 mg/L Total Dissolved Salts (TDS).
Brackish water contains between 1,500 mg/L and 3,000 mg/L TDS.
Saline water contains between 3,000 mg/L and 35,000 mg/L TDS.
Hypersaline water contains between 35,000 mg/L and 100,000 mg/L TDS.
Brine contains greater than 100,000 mg/L TDS.

2 Rainwater usually has TDS < 10 mg/L.
Most sea water has TDS equal to about 35,000 mg/L.

3 Good drinking water; TDS <1,000 mg/L
Fair drinking water: TDS <1,500 mg/L
Emergency drinking water: TDS <4,000 mg/L
Water for cattle: TDS <8,000 mg/L
Water for road construction: TDS <20,000 mg/L

BORE DENSITY



Broad scale aquifer system boundaries based on the aquifer systems map of the Papunya-Yuendumu-Kintore Region 1997 by J.D.H.Wischusen et.al. AGSO.
Additional graphics by G.A.Young.
Cartography by A.M.Wiegele, NTDLPE.

Published and available from
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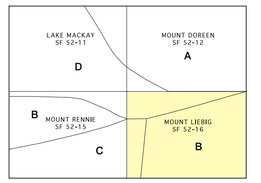
55 North Stuart Highway, Alice Springs, NT.

RELIABILITY DIAGRAM



A Good geological data. Reasonable water bore coverage.

B Reasonable geological data. Reasonable water bore coverage.

C Reasonable geological data. Lack of water bore data.

D Geological data requires ground truthing through drilling. Lack of water bore data.

Compiled 1998 by M.C.Jamieson, J.D.H.Wischusen, NTDLPE.

Geology based on NTDLPE bore drilling data, surface geology from the published 1:250 000 geological series for Mount Doreen (1996), Lake Mackay (1971), Mount Rennie (1968), and Mount Liebig (1968), the solid geology map of the Papunya-Yuendumu-Kintore Region 1997 by J.E.Lau, R.D.Shaw, AGSO, and the Cainozoic geology map of the Papunya-Yuendumu-Kintore Region 1997 by J.E.Lau et.al. AGSO, and M.C.Jamieson, NTDLPE. Base map information prepared from Australian Surveying and Land Information Group 1:250 000 topographic maps supplied through the Land Information Division, NTDLPE.

kilometres 0 5 10 20 30 kilometres

GDA This map was produced on the Geocentric Datum of Australia 1994 (GDA 94)

Black numbered lines are 25 000 metre intervals of the
Map Grid of Australia (MGA) Zone 52 Transverse Mercator Projection
Horizontal Datum: GDA 94 Vertical Datum: AHD (metres)

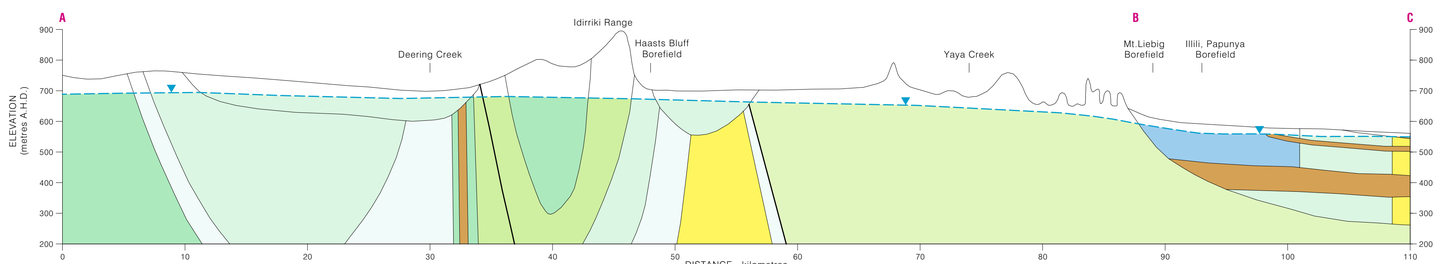
MAP LOCALITY

1 : 250 000 MAP SHEET INDEX

LAKE MACKAY SF 52-11	MOUNT DOREEN SF 52-12	NAPPERBY SF 53-9
MOUNT RENNIE SF 52-15	MOUNT LIEBIG SF 52-16	HERMANNSBURG SF 53-13
BLOODS RANGE SG 52-3	LAKE AMADEUS SG 52-4	HENBURY SG 53-1

LEGEND

- Unit boundary
- Cadastral boundary
- Yuendumu — Major community
- Walkaiba — Family outstation
- Vaughan Springs — Pastoral homestead
- Bore
- 11189 — Registered number of bore
- Major road - unsealed
- Minor road - unsealed
- Track
- Ephemeral watercourse
- Sand ridge
- Cliff, relief ridge
- Line of cross-section



CROSS SECTION A-B-C

ATSIC

Central Land Council
The land is always alive

WATER RESOURCES
NORTHERN TERRITORY
LANDS PLANNING ENVIRONMENT

AGSO
AUSTRALIAN GEOLOGICAL SURVEY ORGANISATION

Western Water Study (*Wiluraratja Kapi*) 1998

HYDROGEOLOGY of MOUNT LIEBIG

1 : 250 000 Map Sheet SF 52-16