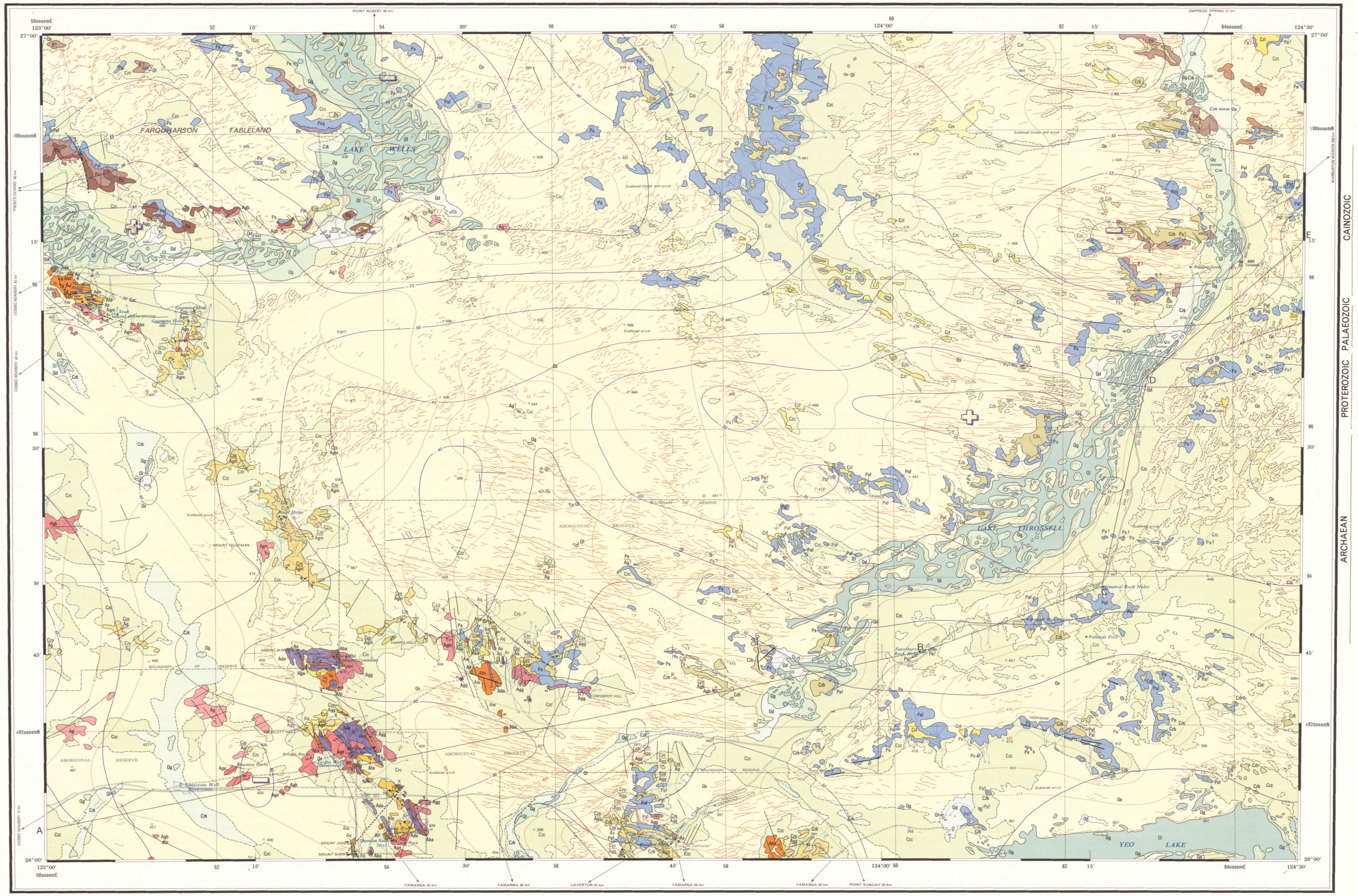
THROSSELL

WESTERN AUSTRALIA

AUSTRALIA 1:250 000 GEOLOGICAL SERIES

SHEET SG 51-15



Reference

- Geological boundary
- Fault (D, U indicate relative movement down, up)
- Plunge of subsidiary fold

Where location of boundaries, folds and faults is approximate, line is broken; where inferred, queried; where concealed, boundaries and folds are dotted, faults are shown by short dashes

- Strike and dip of strata
- Strike and dip of strata, unmeasured
- Vertical strata
- Trend line, Joint pattern, Lineament — airphoto interpretation
- Strike and dip of foliation
- Strike and dip of foliation, dip inderterminable
- Strike and dip of cleavage
- Vertical cleavage
- Direction and plunge of lineation
- BMR Stratigraphic hole
- Dyke, q-quartz, g-granite
- Prospect, little or no production, abandoned
- Minor mineral occurrence
- Cu Copper
- Bore
- Abandoned bore
- Windpump
- Well
- Waterhole
- Ephemeral stream
- Sand dunes
- Form line in metres
- Road
- Vehicle track
- Fence
- "Old Yamarna" Homestead
- Landing ground
- Astronomical station
- 449 Elevation in metres, approximate
- pa Position approximate
- abd Abandoned
- 300–304 Seismic traverse line (BMR 1972) with shot point numbers
- Seismic reflecting horizon, good to fair quality — section only
- Seismic reflecting horizon, poor to questionable quality — section only
- 6100 Seismic refracting horizon showing velocity (m/sec) — section only
- 450 Gravity station with elevation in metres
- −50 Isogal
- Gravity anomaly — relative high
- Gravity anomaly — relative low

Bouguer anomalies are based on the May 1965 observed gravity values at isogal gravity base stations in and near the area. For the calculation of Bouguer anomalies 2.2 g/cm³ has been adopted as an average rock density. The gravity data are preliminary only; refer to BMR gravity maps for more recent data

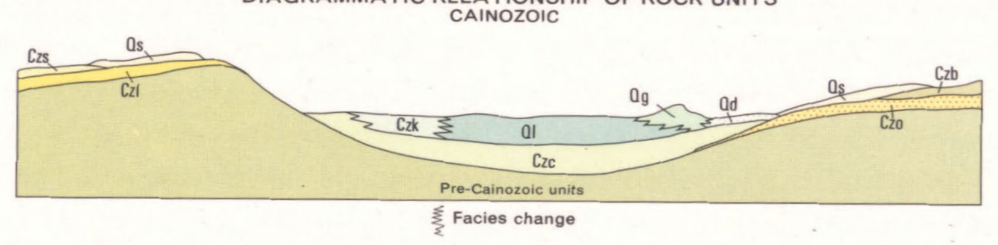
Reference

Era	Period	Unit	Symbol	Description
CAINOZOIC	QUATERNARY		Qd	Clay, silt, sand; marginal to salt lakes: colluvium, minor alluvium
			Ql	Clay, silt and sand, saline and gypsiferous: lacustrine
			Qg	Gypsum and quartz sand; marginal to salt lakes: aeolian
			Qs	Red to yellow quartz sand; longitudinal dunes and plains: aeolian
			Czc	Poorly sorted clay, silt, sand and rock fragments: colluvium, minor alluvium
			Czk	Nodular and cavernous limestone and sandy limestone; minor chalcedony and clay: calcrete
			Czs	Red quartz sand, ferruginous pisoliths, minor clay: residual lateritic soil, in part deflated
			Czl	Pisolitic, nodular and massive laterite
			Czb	Sub-vitreous siliceous rock with angular quartz grains, commonly ferruginized: silcrete
			Czo	Kaolinized, partly ferruginized and silicified crystalline rocks: weathered basement
PALAEOZOIC	EARLY PERMIAN	Paterson Formation	Pa	Undivided, includes one or more of the following facies: Paf Coarse, poorly sorted sandstone, conglomerate, minor siltstone: dominantly fluviatile; Pal Claystone, siltstone, fine sandstone; some erratics rare varves: lacustrine and glacio-lacustrine; Pag Tillite; minor sandstone, siltstone, conglomerate: glacigene
PROTEROZOIC (UPPER PROTEROZOIC*)	ADELAIDEAN		Ps	Flaggy quartz arenite, well sorted, some large-scale cross bedding, ripple marks, minor chert
PROTEROZOIC (LOWER TO MIDDLE PROTEROZOIC*)			Pn	Dolerite
	CARPENTARIAN	P	Pd	Dolomite, dolomitic siltstone and oolitic sandstone; abundant stromatolites; minor chert
			Po	Multicoloured oolitic sandstone, flaggy to fissile fine sandstone and siltstone
			Pq	Quartz arenite, quartzite, well sorted silicified; minor glauconite
ARCHAEAN			Ag	Undivided granitic rocks
			Agb	Medium to coarse granite and adamellite
			Age	Fine to medium granite and adamellite
			Agg	Strongly foliated adamellite and granodiorite
			Agm	Mixed granitic rocks, fine to coarse granite to granodiorite; some nebulitic structures
			Aq	Banded chert, minor phyllite and banded iron formation
			Aw	Quartz – magnetite banded iron formation, minor chert
			Afa	Felsic volcanic rocks, metamorphosed; mostly pyroclastic with minor lavas and pelitic rocks
			Afl	Fine felsic volcanic rocks, mainly lavas, minor tuff
			Afp	Quartz-feldspar porphyry
			As	Metamorphosed sedimentary rocks, phyllite and micaceous schist, metasiltstone
			Ass	Black siliceous shale
			Ada	Medium to coarse mafic rock; metagabbro, amphibolite
			Aba	Fine mafic rock, metabasalt amphibolite
			Ar	Tremolite-chlorite-talc assemblages; mafic to ultramafic; includes high magnesium basalt

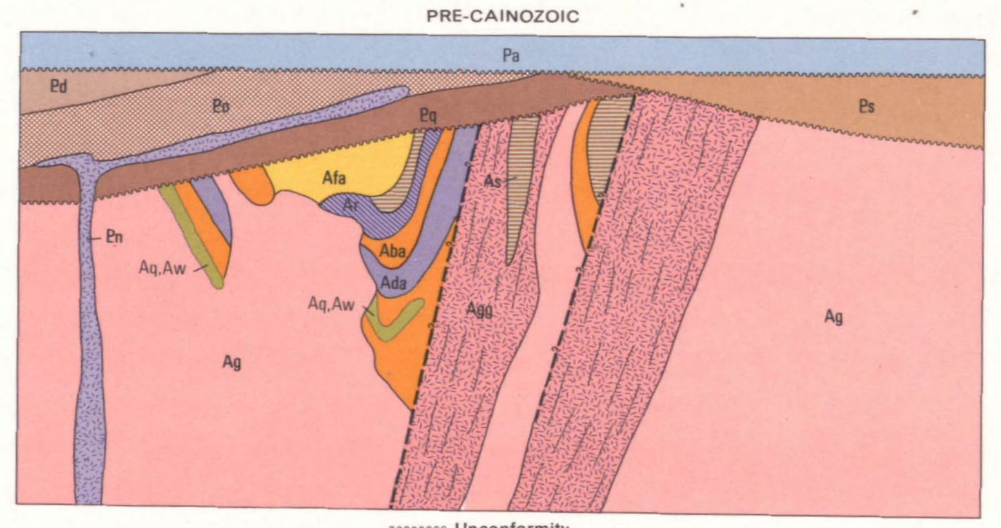
*Subdivisions of the Precambrian time-scale used by the Geological Survey of Western Australia, shown in grey

DIAGRAMMATIC RELATIONSHIP OF ROCK UNITS

CAINOZOIC



PRE-CAINOZOIC



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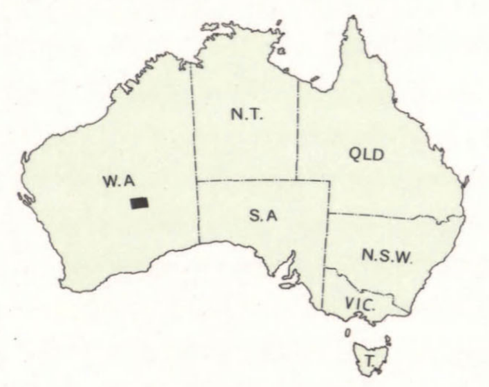


INDEX TO ADJOINING SHEETS

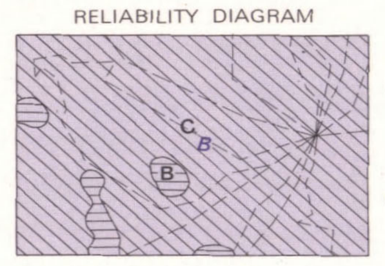
Showing Magnetic Declination 1975

NABBERU SG 51-5	STANLEY SG 51-6	HERBERT SG 51-7	BROWNE SG 51-8	BENTLEY SG 52-5
WILUNA SG 51-9	KINGSTON SG 51-10	ROBERT SG 51-11	YOWALGA SG 51-12	TALBOT SG 52-9
SIR SAMUEL SG 51-13	DUKETON SG 51-14	THROSSELL SG 51-15	WESTWOOD SG 51-16	LENNIS SG 52-13
LEONORA SH 51-1	LAVERTON SH 51-2	RASON SH 51-3	NEALE SH 51-4	VERNON SH 52-1
MENZIES SH 51-5	EDJUDINA SH 51-6	MINIGWAL SH 51-7	PLUMRIDGE SH 51-8	JUBILEE SH 52-5

Scale 1:250 000

GREY NUMBERED LINES ARE 20 000 METRE INTERVALS OF THE AUSTRALIAN MAP GRID, ZONE 51 TRANSVERSE MERCATOR PROJECTION

RELIABILITY DIAGRAM

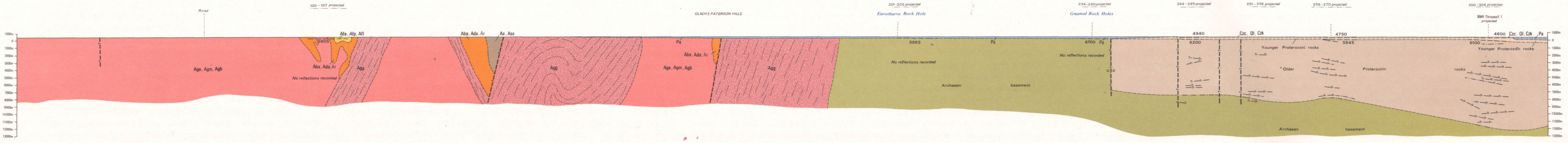


Geology B Detailed reconnaissance and airphoto interpretation
C General reconnaissance: few traverses, mainly airphoto interpretation
Helicopter traverse
Gravity B Reconnaissance

Geology 1971 by M. J. Jackson, P. J. Kennewell BMR, D. C. Lowry, W. J. E. Van de Graaff GSWA
1972 by M. J. Jackson
1973 by J. A. Bunting, R. Chin GSWA
Compiled 1974 by M. J. Jackson, J. A. Bunting, R. Chin, J. Kopras
Gravimetry 1971-72 by Geophysical Branch, BMR
Cartography by Geological Branch BMR
Drawn by Cartographic Drafting Services, Bendigo, Vic.
Printed by Mercury-Walch, Hobart, Australia

Section

Thin Cainozoic units omitted



FIRST EDITION 1977

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SHEET SG51–15

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