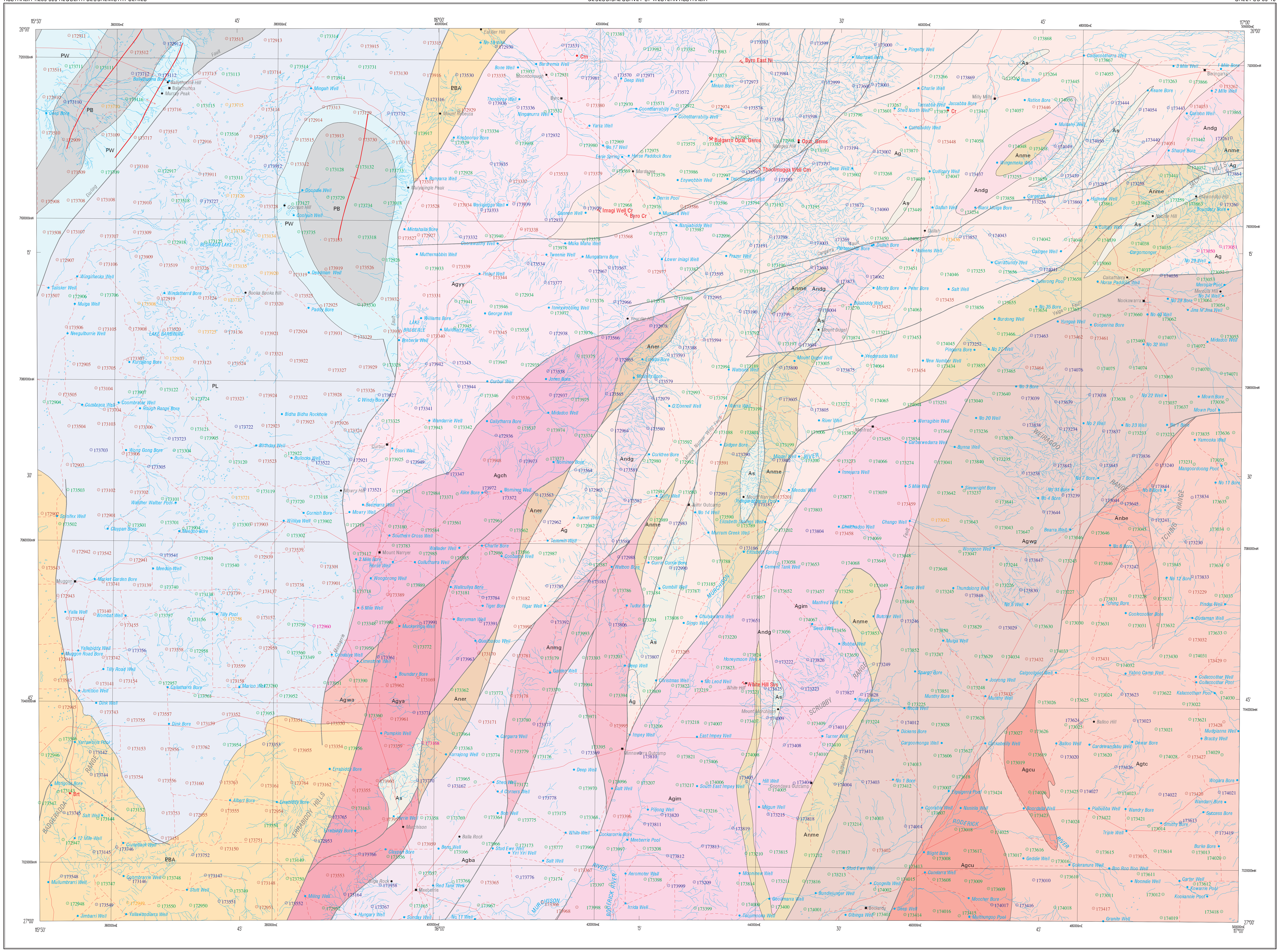
AUSTRALIA 1:250 000 REGOLITH GEOCHEMISTRY SERIES

BYRO

GEOLOGICAL SURVEY OF WESTERN AUSTRALIA

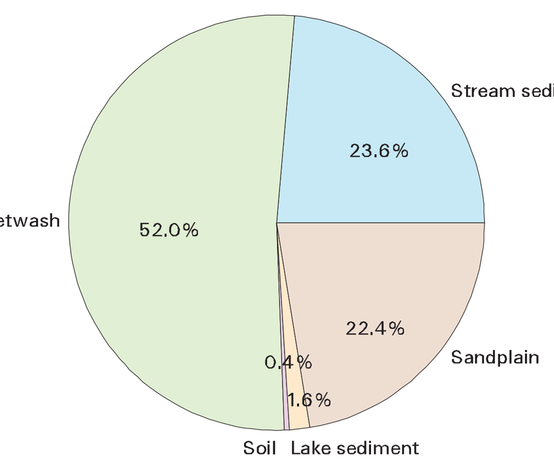
SHEET SG 50-10



SAMPLE LOCATIONS

Sample point reference

172912	Stream sediment
172904	Sheetwash
172960	Soil
172920	Lake sediment
172901	Sandplain



Total sample sites 1016

INTERPRETED BEDROCK GEOLOGY

PHANEROZOIC — EARLY PERMIAN

Byro Group

PB	Bioturbated siltstone and fine-grained sandstone

Wooramel Group

PW	Siltstone, quartzose or feldspathic sandstone, carbonaceous shale, and minor claystone

Lyons Group

PL	Immature sandstone, siltstone, shale, micaceous claystone, and tillite; numerous glacial erratics

PROTEROZOIC

Badgeradda Group

PBA	Siltstone, silty sandstone, feldspathic and quartzose sandstone, and minor pebble-conglomerate lenses

ARCHAEAN — YILGARN CRATON

Narryer Terrane

Agyy	YARRA YARRA GRANITE: coarse-grained, equigranular, leucocratic monzogranite; metamorphosed at granulite facies
Agch	CHURLA GRANITE: coarse-grained, equigranular, leucocratic monzogranite; metamorphosed at granulite facies
Agba	BALLA GRANITE: coarse-grained, porphyritic to equigranular monzogranite, with inclusions of **EURADA GNEISS**; metamorphosed at amphibolite facies
Agim	IMPEY GRANITE: heterogeneous, coarse-grained, porphyritic to equigranular monzogranite; metamorphosed at amphibolite facies
Ag	Coarse-grained, equigranular to porphyritic granite, locally with inclusions of amphibolite, ultramafic rock, metasedimentary rock, or gneiss
Agya	YALLALONG GRANITE: coarse-grained, equigranular, leucocratic monzogranite; metamorphosed at granulite facies
Agwa	WANDARRIE GRANITE: coarse-grained, equigranular, leucocratic monzogranite
As	Undivided metasedimentary rocks, including banded iron-formation, quartz-magnetite rock, pelite, quartzite, conglomerate, sandstone, silicic schist, mylonite, quartz-mica schist, and micaceous quartzite; subordinate metagabbro, ultramafic schist, and amphibolite
Anmg	MILGA GNEISS: granodioritic gneiss
Andg	DUGEL GNEISS: monzogranitic and syenogranitic gneiss
Aner	EURADA GNEISS: monzogranitic to tonalitic gneiss, with inclusions of **MEEBERRIE GNEISS** and veined by **DUGEL GNEISS**
Anme	MEEBERRIE GNEISS: monzogranitic to tonalitic gneiss, veined by **EURADA GNEISS** and **DUGEL GNEISS**

Murchison Granite-Greenstone Terrane

Agwg	WEIRAGOO GRANITE: porphyritic to equigranular monzogranite; metamorphosed at amphibolite facies
Agcu	CUNDARRA GRANITE: coarse-grained, equigranular to porphyritic monzogranite; metamorphosed at amphibolite facies
Agtc	TCHING GRANITE: monzogranite with inclusions of **BEARRA GNEISS**; metamorphosed at amphibolite facies
Anbe	BEARRA GNEISS: dioritic and leucogranitic gneiss, possibly an earlier phase of the **TCHING GRANITE**

Geological boundary — Anticline

Fault — Syncline

SYMBOLS

Formed road		Bulgarro	Opencut, abandoned
Track		Byro East	Prospect
Watercourse			Mineral occurrence
Lake		Brt	Barite
Pool, rockhole, spring, bore, well		Cr	Chromium
Byro	Homestead	Crn	Corundum
Mount Rebecca	Locality	Gems	Gemstones
		Ni	Nickel
		Opal	Opal
		Svs	Silica

Edited by N. Tetlaw, K. Greenberg, and G. Loan

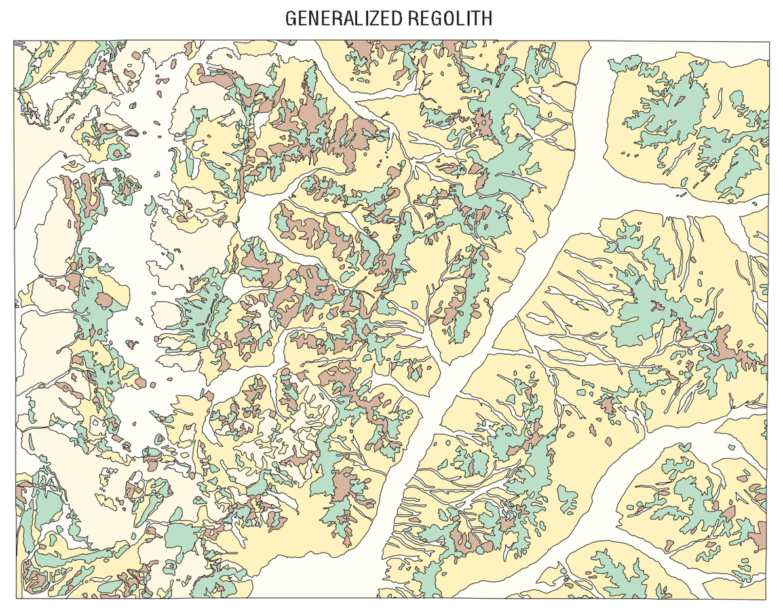
Cartography by M. Vicentic

Topography from Australian Surveying and Land Information Group, and Department of Land Administration Sheets SG 50-10

This map was compiled and produced using a Geographic Information System (ArcInfo), and the data are available in digital form

Published by the Geological Survey of Western Australia. Copies of this map, or extracts of the data, are available from the Information Centre, Department of Minerals and Energy, 100 Plain Street, East Perth, W.A., 6004. Phone (08) 9222 3459, Fax (08) 9222 3444

GENERALIZED REGOLITH



SCALE 1:1 500 000

- Residual
- Exposed
- Colluvial (includes low-gradient slope)
- Alluvial and lacustrine
- Sandplain

SCALE 1:250 000

5000 0 5 10 15 20 25 30
METRES KILOMETRES

UNIVERSAL TRANSVERSE MERCATOR PROJECTION
HORIZONTAL DATUM: GEOCENTRIC DATUM OF AUSTRALIA 1994
VERTICAL DATUM: AUSTRALIAN HEIGHT DATUM
Grid lines indicate 20 000 metre interval of the Map Grid Australia, Zone 50

The Map Grid Australia (MGA) is based on the Geocentric Datum of Australia 1994 (GDA94)
GDA94 positions are compatible within one metre of the datum WGS84 positions

SHEET INDEX

WOORAMEL SG 50-5	GLENBURGH SG 50-6	ROBINSON RANGE SG 50-7
YARINGA SG 50-9	BYRO SG 50-10	BELELE SG 50-11
AJANA SG 50-13	MURGOO SG 50-14	CUE SG 50-15

INDEX TO 1:100 000 MAP SHEETS

BOOKA BOOKA 2045	BYRO 2145	MILLY MILLY 2245
BADGERADDA 2044	CHULYAWARRA 2144	BOOLARDY 2244

Compiled by P. A. Morris 2000

Sampling by S. Brindle, M. Gallen, R. Hackney, S. McGuinness, D. O'Farrel, A. L. Verren, G. White, and P. A. Morris (GSWA)

Total sample sites: 1016; 240 stream sediment, 528 sheetwash, 16 lake sediment, 228 sandplain, and 4 soil

Analyst: Amdel Laboratories
Minimum sample size: 1.5 kg
Fraction of sample analysed: > 0.45mm < 2mm

Geological interpretation after: MYERS, J. S., 1997, Byro, W.A. Sheet SG 50-10 (second edition): Western Australia Geological Survey, 1:250 000 Geological Series; MYERS, J. S., and HOCKING, R. M., 1998, Geological map of Western Australia 1: 2 500 000 (13th edition): Western Australia Geological Survey

The recommended reference for this publication is:
MORRIS, P. A., 2001, Sample locations, Byro, W.A. Sheet SG 50-10, *in* Geochemical mapping of the Byro 1:250 000 sheet *by* P. A. MORRIS and A. L. VERREN: Western Australia Geological Survey, 1:250 000 Regolith Geochemistry Series Explanatory Notes, Plate 1

DEPARTMENT OF MINERALS AND ENERGY
L. C. RANFORD, DIRECTOR GENERAL

GOVERNMENT OF WESTERN AUSTRALIA
CLIVE BROWN, M.L.A.
MINISTER FOR STATE DEVELOPMENT; TOURISM; SMALL BUSINESS; GOLDFIELDS-ESPERANCE

GEOLOGICAL SURVEY OF WESTERN AUSTRALIA
TIM GRIFFIN, DIRECTOR

SAMPLE LOCATIONS

REGOLITH GEOCHEMISTRY SERIES

BYRO

SHEET SG 50-10

FIRST EDITION 2001