

*In Brief*

## ***Collaboration delivers*** NEW INFORMATION ***to support*** MINERAL EXPLORATION

As part of the National Geoscience Accord, Geoscience Australia is collaborating closely with its state and territory counterparts in regional geoscientific studies to encourage mineral exploration.

GA is partnering with the Northern Territory Geological Survey (NTGS) and the Geological Survey of Western Australia (GSWA) on the North Australia and Tanami projects. In the Gawler Craton, we are collaborating with Primary Industry and Resources, South Australia (PIRSA) on the Gawler Project.

The recently released NTGS Report 18, 'Gold mineral system of the Tanami region', by Wygralak et al (order at [www.minerals.nt.gov.au/ntgs/](http://www.minerals.nt.gov.au/ntgs/)) documents the results of a joint NTGS-GA study on the genesis and geological controls on lode gold deposits in the Tanami region.

This report emphasises the importance of second-order structures associated with the D5 deformation event dated at younger than 1815 million years, and emphasises the range of pressures and temperatures of ore formation and the role of fluid reduction as a gold trapping mechanism.

### **More joint reports to come**

Forthcoming joint reports with the NTGS include 'Geology and origin of some Cu-Pb-Zn (-Au-Ag) deposits in the Strangways Metamorphic Complex, Arunta Region, Northern Territory' by Hussey et al, which will document the geology and genesis of Zn-Pb-Cu-Ag and Cu-Au deposits in the eastern Arunta to the east-north-east of Alice Springs. A series of reports by Worden and co-workers will summarise the results of joint geochronology studies through the Northern Territory.

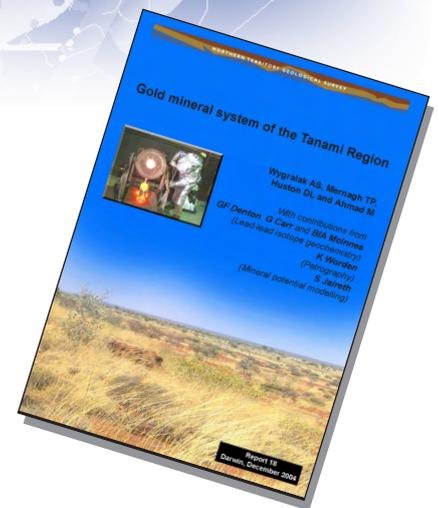
Joint work with GSWA on prospects in the western Tanami region will also be released as a GSWA report entitled 'Preliminary studies of the geologic setting of lode gold deposits in the western Tanami region, Western Australia' by Bagas et al. A 3D model of the architecture of the Tanami region was established through GA-NTGS-GSWA collaboration. It can be viewed at [www.ga.gov.au/map/web3d/tanami/index.jsp](http://www.ga.gov.au/map/web3d/tanami/index.jsp).

This site will soon be updated to include results of geophysical inversions of potential field data (see '3D inversion modelling in the Tanami region' by Meixner in this edition of AusGeo News) and depth-to-magnetic-basement as determined by Euler deconvolution of aeromagnetic data. A deep crustal seismic reflection survey is planned to test the geological models and develop a more robust understanding of the regional architecture, and especially the regional-scale controls on gold mineralisation.

### **GA staff present results at AGES**

GA staff presented results of collaborative scientific results at the NTGS Annual Geoscience Exploration Seminar (AGES) held in Alice Springs in March. More than 140 delegates, mostly from industry, attended AGES 2005 where GA scientists from the North Australia-Tanami Project presented three talks.

Claoue-Long et al suggested the possibility that the oldest sedimentary rocks in the Tanami, Arunta and Tennant regions were correlated and formed part of a 1840-1800 million year old basin or series of basins that may have extended from Mt Isa in Queensland to Halls Creek in Western Australia.



Cross et al showed that the Tanami Group, which hosts most of the gold in the Tanami region, was deposited ~1840 million years ago and may correlate with units in the Halls Creek region.

Meixner and Lane presented the results of gravity and magnetic inversions that mapped in 3D the distribution and geometry of granites and host units to gold.

Abstracts for these presentations can be downloaded from the NTGS website ([www.minerals.nt.gov.au/ntgs/](http://www.minerals.nt.gov.au/ntgs/)).

**For further information, phone David Huston on +61 2 6249 9577 (email [david.huston@ga.gov.au](mailto:david.huston@ga.gov.au))**

# NEW geoprovince-scale assessment of *Mineral Potential*

Subbash Jaireth and Yanis Miezitis

The online *Australian Mines Atlas* offers new geoprovince-scale qualitative assessments of mineral potential for 15 major styles of Australian mineral deposits.

The new assessments create a national-scale map and GIS (Geographic Information System) layer equivalent to other national-scale natural resource maps/GISs, such as those covering biogeographic regions, land tenure and forest cover, that are vital for informed land-use decisions. The province-scale assessment can also be used to assist in selecting future areas for regional studies.

Mineral potential and certainty maps are available for individual gold and base metal deposit styles. Composite mineral potential maps for gold and base metals deposits are also available. These maps represent the highest level of potential for any of the deposit styles in a region. The maps also show known major gold and base metal deposits. The GIS provides access to descriptive models of deposit style, assessment criteria, assessment sheets of provinces for the selected deposit style, and time–event plots of major geoprovinces.

The GIS provides a method and tool to compare the mineral potential of individual provinces for selected major deposit styles. This comparative analysis of mineral potential at geoprovince scale shows that areas of high potential—Mount Isa, New England Fold Belt, Lachlan Fold Belt, Musgrave, Tennant Creek and Arunta regions—extend under shallow cover.

The analysis also delineates regions with moderate and moderate-to-high potential but low levels of certainty for some deposit styles. These areas might be targeted for detailed studies to assess their potential with greater certainty.

For example, the Gawler Craton and the Eastern Mount Isa Inlier are known regions of high potential with high levels of certainty for iron oxide copper–gold deposits. However, the Curnamona Province, Mount Painter Block, Georgetown Block and Southern Arunta also have moderate and moderate-to-high potential for these deposits.

Similarly, the Adelaide Fold Belt is known for copper sandstone, hosting several small deposits, while mineral potential assessments indicate significant potential for these deposits in the Amadeus, Bangemall, Southern Bonaparte, Canning, Ngalia, Ord, Polda and Savory basins and Paterson Province.

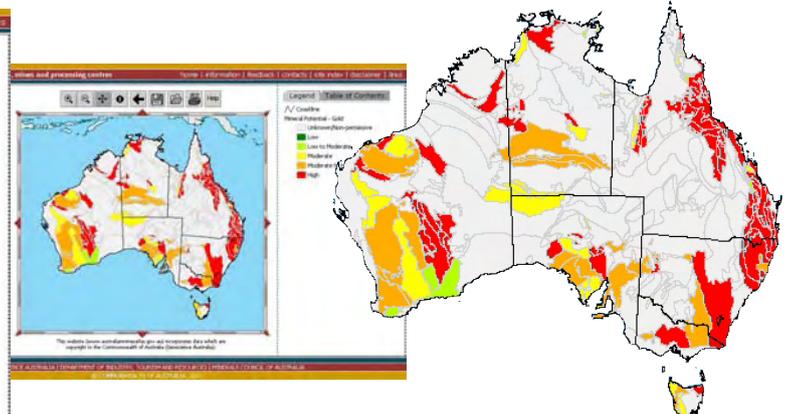
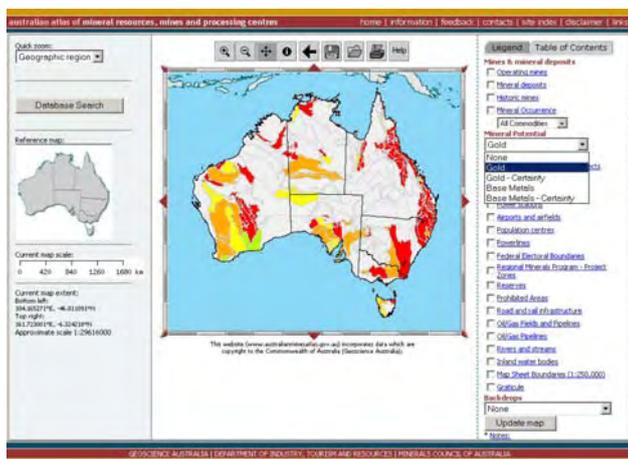
Four types of orthomagmatic nickel deposits, as well as lateritic nickel deposits, are included in the new assessments. The results highlight regions with known high potential for nickel deposits, such as komatiite type deposits in the Eastern Goldfields and the Southern Cross subprovinces of the Yilgarn Craton, as well as the high potential for basal nickel cobalt sulphide (Voisey's Bay style) in the Pilbara Craton, the Musgrave Complex and the Halls Creek Orogen.

Significant lower levels of potential for all five types of nickel deposits are outlined in other provinces, including the Albany–Fraser Orogen where moderate potential for basal types of nickel deposits extends under the shallow cover of the Eucla Basin.

The available regional geoscience databases and research results of Geoscience Australia, state and territory agencies, and other sources show potential for flood basalt nickel–PGE type deposits (Norilsk type)—in the widespread Antrim Plateau basalts in northern Australia, the dolerite sills of the Bangemall Basin, and the Table Hill Volcanics in the Officer Basin in Western Australia.

Extensive mafic sills and dykes in the northwest Officer Basin and western extensions of the Bangemall Basin may represent eroded feeders to the Table Hill Volcanics and are currently being explored for Norilsk type nickel–PGE deposits.

The web address of the atlas is [www.nationalminesatlas.gov.au](http://www.nationalminesatlas.gov.au)



# AUSTRALIA'S Maritime Boundaries 2005

Geoscience Australia has updated Australia's maritime boundaries in cooperation with relevant Commonwealth and state government agencies.

Australia's Maritime Boundaries 2005 (AMB 2005) will soon be available as digital data suitable for geographic information systems. This data will replace the Australian Maritime Boundaries Information System (AMBIS) 2001 Version 1.1 data released in October 2001.

The boundaries include the outer limits of the coastal waters, territorial sea, contiguous zone, exclusive economic zone (EEZ) and continental shelf. The delineation of these boundaries has strategic, economic and environmental implications for Australia.

Extensive work has been carried out to validate and, where necessary, update the territorial sea baseline from which the outer limits are derived. The straight baseline components of the territorial sea baseline have also been amended, with the new locations to be redefined by proclamation under the *Seas and Submerged Lands Act 1973*.

For the first time, the data also includes boundaries adjacent to the Australian Antarctic Territory and areas of continental shelf beyond 200 nautical miles from the baseline, as submitted by Australia to the United Nations Commission on the Limits of the Continental Shelf in November 2004.

AMB 2005 data is clearly attributed, providing information about the source material used to determine the baseline and linking the baseline with the various limits. The data is available in geographical coordinates related to the WGS84 datum used on charts and by mariners more generally.

Geoscience Australia has a lead role in determining the seaward limits of Australia's maritime jurisdiction. We carry out this role in accordance with the provisions of the United Nations Convention on the Law of the Sea and various domestic legislation, in particular the *Seas and Submerged Lands Act*.

Agencies use maritime boundary data for many purposes, including coastal surveillance, management of fisheries and fishing permits, management of petroleum leases and distribution of royalties, and legislative enforcement.

The AMB 2005 data is suited to most geographic information systems and is available in three common industry formats:

- ESRI ArcInfo export format (.e00 files)
- ESRI Shape Files (.shp, .shx, .dbf files)
- Map Info tables (.mid, .mif files).

Maritime Boundaries data can be downloaded free of charge from Geoscience Australia's website at <http://www.ga.gov.au/> or bought on CD-ROM.

**To order copies of the CDs phone Freecall 1800 800 173 (in Australia) or +61 2 6249 9966 (email [mapsales@ga.gov.au](mailto:mapsales@ga.gov.au))** ☐

## Remote sensing operations *evolving*

Operations of the Australian Centre for Remote Sensing (ACRES) will be conducted in-house by Geoscience Australia from 1 July, ending a 25-year period during which ACRES' operations have been contracted out.

The change will better align ACRES' national mapping and geospatial information functions with the information needs of Australian Government policy drivers, the spatial information industry and the Australian public. (For more detail see AusGeo News 76, "New directions for National Mapping Division").

The move follows a detailed review of ACRES in 2004 that recommended taking a more proactive national approach to remote sensing, and complements the role of the National Remote Sensing Technical Reference Group (see AusGeo News 77), which also formed in response to the review.

The review confirmed the ongoing importance of ACRES in providing medium-resolution imagery for public-good applications, such as environmental monitoring and crop forecasting. These outputs are becoming increasingly valuable in fulfilling state, national and international commitments through such programs as the National Carbon Accounting Scheme.

The National Remote Sensing Technical Reference Group met in April for the second time to provide further input to ACRES' LANDSAT 'contingency' plan. Through the reference group and closer relationships with remote sensing users in Geoscience Australia, ACRES will operate more strategically and will build a deeper understanding of the requirements of public-good imagery.

ACRES will continue to be identifiable to distributors and other clients as Geoscience Australia's remote sensing unit. Its products and processes, such as the online catalogue, will continue.



Geoscience Australia is committed to ensuring that ACRES' business processes will function seamlessly during the transition process.

**For more information, phone Dr Adam Lewis on +61 2 6249 9353 (email [adam.lewis@ga.gov.au](mailto:adam.lewis@ga.gov.au))** ☐

# Australia's aeronautical charts *GO DIGITAL*

Geoscience Australia is collaborating with Airservices Australia to revise their World Aeronautical Charts (WAC).

World Aeronautical Charts are 1:1 000 000 scale paper maps used by pilots for flight planning and in-flight navigation on extended cross-country flights at low to medium altitudes and medium to high airspeeds. Forty-two WAC sheets provide complete coverage of Australia.

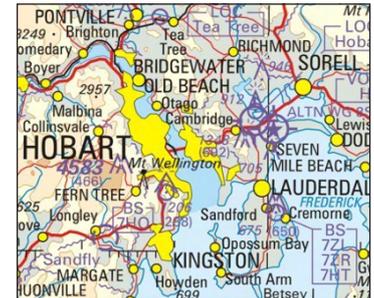
Whereas previous WAC revisions involved traditional manual cartographic techniques on film, the new Tasmania WAC has been produced from Geoscience Australia's fundamental topographic database, GEODATA TOPO-250K Series 2.

This new collaboration involves extracting the 1:250 000 scale topographic data from Geoscience Australia's seamless geographic database. Using the previous edition maps as a guide, the features are then tagged for future use at 1:1,000,000 scale. The update aeronautical information from Airservices Australia is then incorporated into the new data base. The refreshed data is then symbolised, cartographically offset and annotated to produce a WAC with the same look and feel as previous editions.

New WACs for Albany, Armidale, Cooper Creek and Perth will soon be available as part of an ongoing agreement between the agencies for the production of a national 1:1 million scale seamless database and the complete revision and production of the entire WAC series covering Australia.

As with the production of Geoscience Australia's 1:250 000 topographic NATMAP products, four spatial information companies are being contracted to produce the WACs.

Airservices Australia and Geoscience Australia have a long history of working together to produce various scale flight navigation charts like the WACs, 1:500 000 scale Visual Navigation Charts (VNC) and 1:250 000 scale Visual Terminal Charts (VTC).



▲ **Figure 1.** [Extract of 1:1 million scale World Aeronautical Chart for Hobart, Tasmania]

Working together has many benefits for both agencies. Future revision of the digital data will be more efficient. The same data can be used in the production of other maps like Airservices Australia's VNCs and Geoscience Australia's Global Map data. Digital data could also enhance Airservices Australia's 'Flying Around' (a new online delivery of VTCs), or be used in any future online or in-flight navigation. ▣

## AusGeoRef

Australian Geoscience References



### Find

Information about:

- Australian geoscience
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 or e-mail Geoscience Australia's Library.  
 (Reference.Library@ga.gov.au)**

## Product News

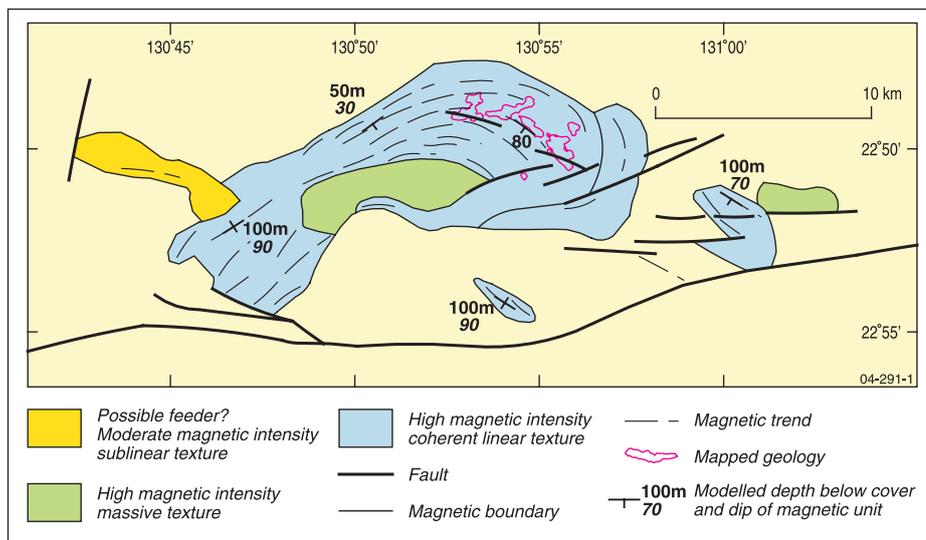
# Arunta's mafic-ultramafic intrusions *exposed*

Geophysical interpretation of Proterozoic mafic-ultramafic intrusions in the Arunta Region, central Australia is now available online.

This study by Geoscience Australia utilised magnetic and gravity datasets to 'see through' alluvial cover and define the total subcropping extent of 14 mafic-ultramafic intrusions. A further series of nine possible mafic-ultramafic bodies was

also identified based on the bodies' geophysical signatures. Depth-to-magnetic source modelling indicated that the majority of the bodies subcrop beneath the alluvial cover at depths of less than 120 metres. The web record is viewable via [http://www.ga.gov.au/rural/projects/NAP\\_results\\_products.jsp](http://www.ga.gov.au/rural/projects/NAP_results_products.jsp)

**For more information, phone Tony Meixner on +61 2 6249 9636 (email [Tony.Meixner@ga.gov.au](mailto:Tony.Meixner@ga.gov.au))**



**Figure 1.** Geophysical interpretation of the total subcropping extent of the Andrew Young Hills mafic intrusion, showing that the intrusion's subsurface extent far exceeds the outcropping extent. Magnetic source modelling defines the intrusion as a broad inclined synform with a maximum depth of burial beneath alluvial cover of approximately 100 metres.

## Plotting On-Line update



Geoscience Australia has updated Plot-it, the popular online geochemical plotting system.

The release of Plot-it Version 2 gives GA staff and clients an easily accessible and improved software application for retrieving and visualising geochemistry data and now geological drilling data.

Direct access to Plot-it has also been made available from the National Geochronology database website ([www.ga.gov.au/oracle/ozchron/TOC.jsp](http://www.ga.gov.au/oracle/ozchron/TOC.jsp)), where plotting time-space diagrams is possible.

The application has been written in Java to run on a standard web browser through Geoscience Australia's intranet and over the internet ([www.ga.gov.au/gda](http://www.ga.gov.au/gda)). Java Runtime Environment 1.4.2\_05 or above is required in order to take advantage of all the features, and we recommend the latest JRE version 1.5 (available from [www.java.com/en/index.jsp](http://www.java.com/en/index.jsp)). For users who do not have this software, a simplified HTML-only version gives access to the geochemical data.

The system allows users to retrieve data from selected Geoscience Australia databases or to load files from a local file system. The data can be further queried or filtered, grouped and plotted as X-Y graphs, ternary diagrams, spidergrams and histograms. Overlays/classifications can be added to X-Y and ternary diagrams. Other features include lines of best fit, stacked/multiple plotting, logarithmic scales, zoom in/out, enlargement and reduction of graph size, and modification of symbol type and colour.

### New features

- Importing—import data from Linear Geology, Geoscience Australia's drillhole and sections database, from five categories: logs, geochemistry, alteration, lithology and grainsize; merge multiple files
- Filtering/grouping—filter rows using a query; group rows highlighted in stacked X-Y and triangle graphs

- Calculating/querying—new analytes and metadata query
- Saving/exporting—save stats reports as HTML files; save plots as high-quality PNG images
- Graphing—plotting section and downhole logs; reload plotted graphs with the plotting history; save and reload legends as .csv files; remove and restore legend points
- Stacked diagrams—zoom in, zoom out, enlarge and reduce stacked graphs simultaneously
- X-Y diagrams—gridlines and overlays are now available; both axes display logarithm values when selected; adjustable maximum and minimum values on both axes
- Spider diagrams—Y axis displays logarithm values when selected

**For more information, phone Neal Evans on +61 2 6249 9698 (email [Neal.Evans@ga.gov.au](mailto:Neal.Evans@ga.gov.au))**

# New biomarker study of WA oils



The release of *The Oils of Western Australia II Study* completes a trilogy of reports on biomarker fingerprinting of Australia's oils and condensates produced by Geoscience Australia and GeoMark Research of Houston USA.

Previous regional studies in the series include *The Oils of Western Australia* (1996) and *The Oils of Eastern Australia* (2002).

The work has involved collaboration between Geoscience Australia's Petroleum and Marine Division and GeoMark Research to geochemically characterise Australia's petroleum accumulations into genetically related families. This data provides the exploration industry with an understanding of the petroleum systems operating in each basin, and indicates their importance to future exploration.

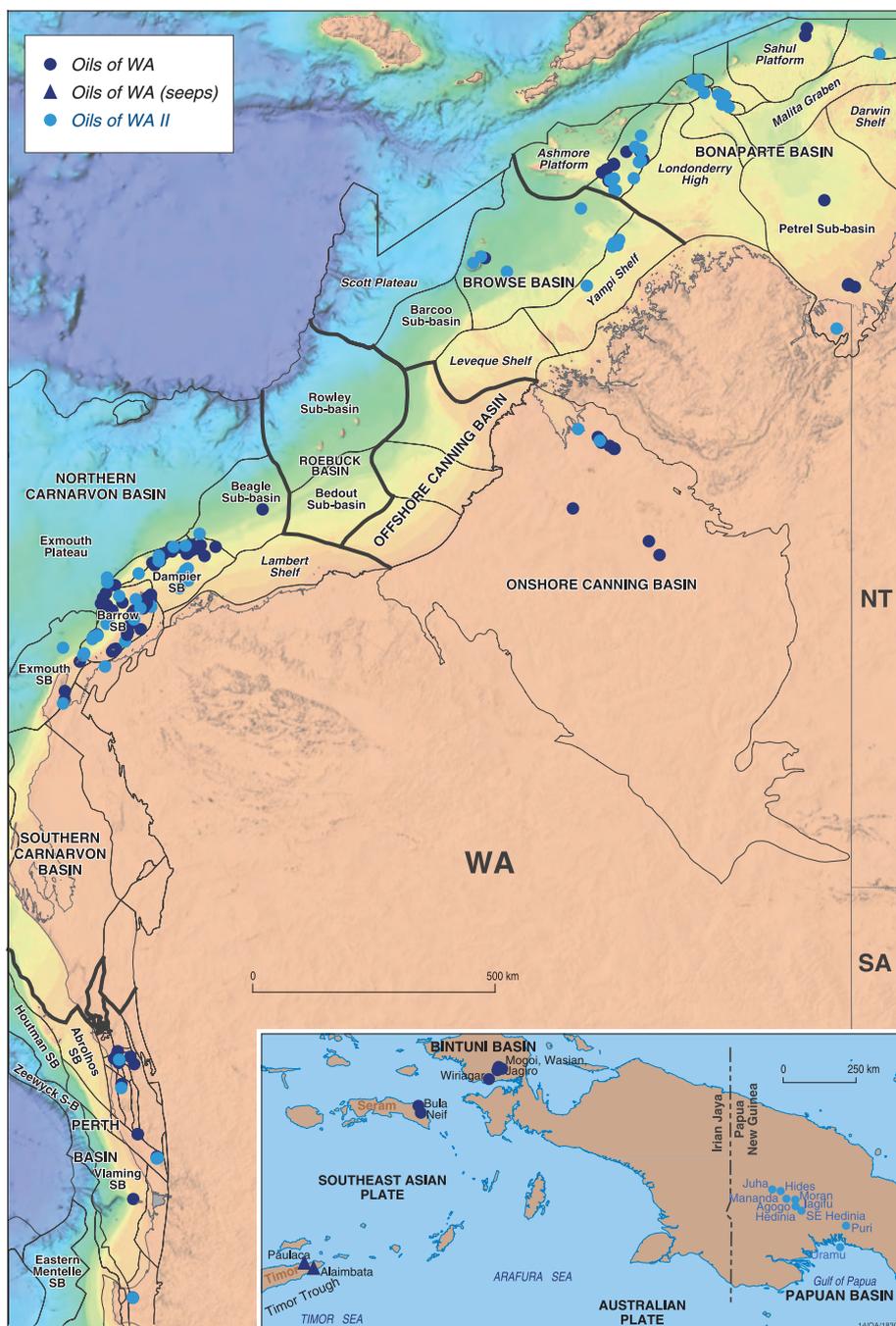
The new study was undertaken in response to the industry's continuing interest in WA and its continental shelf as a major petroleum province, with recent drilling occurring in deeper water and less explored portions of the Bonaparte, Browse, Carnarvon and Perth basins.

To better understand the origin of the oils and condensates in these basins, Geoscience Australia and GeoMark Research expanded the 1996 western Australian study by including an additional 141 samples from the Perth, Carnarvon, Canning, Browse and Bonaparte basins and 15 samples from the Papuan Basin, Papua New Guinea.

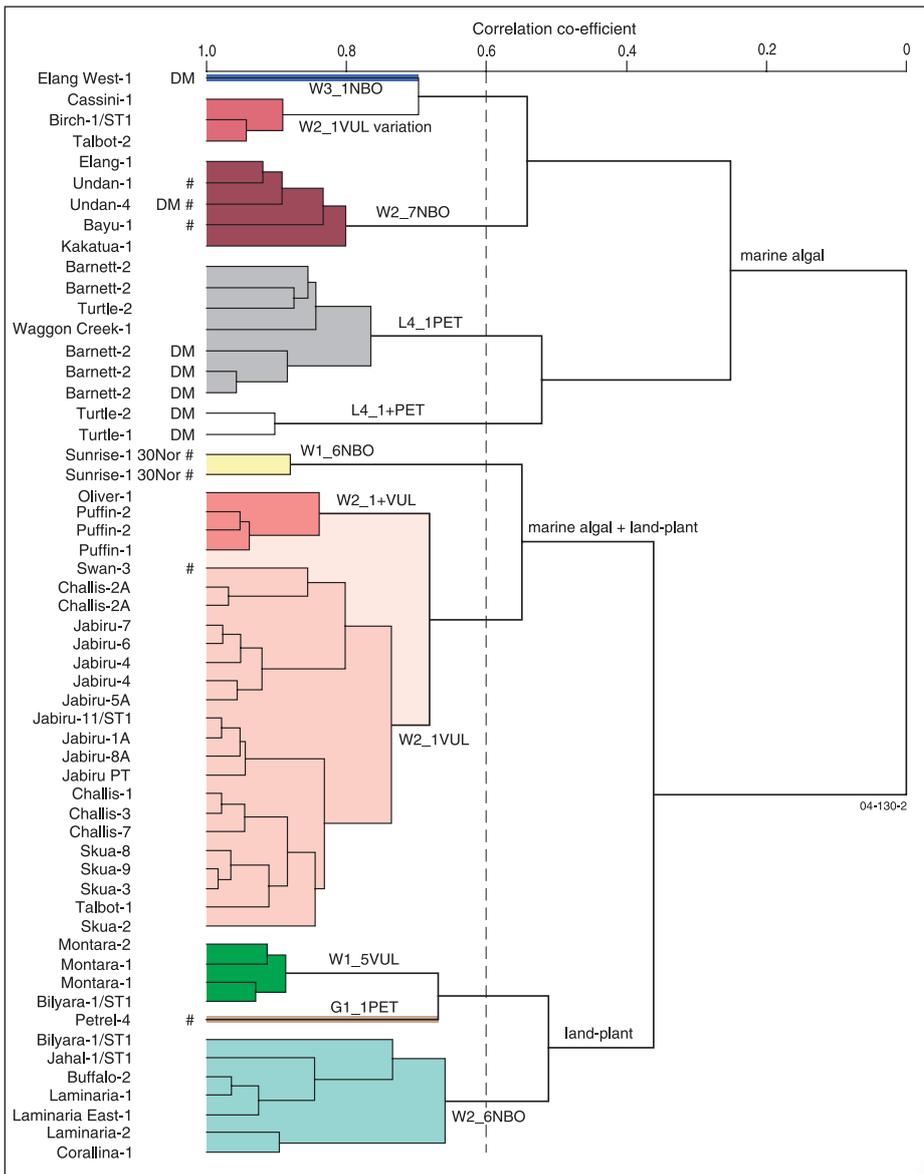
These samples (figure 1) were selected to infill and broaden the geographic range of the 160 oils analysed in the initial study, as well as accumulations discovered up to March 2000.

## Study outputs

- The new study:
  - determines the genetically distinct oil and condensate families in each basin/sub-basin (figure 2)
  - maps their geographical distribution (figure 3)
  - distinguishes families with a single source from those with multiple sources and more complex charge histories
  - uses the geochemical characteristics of the families to determine the nature of their source facies, thermal maturity level and degree of preservation
  - deduces the most likely source units for each family by comparing its geochemistry with published source rock information, regional stratigraphy, and hydrocarbon generation, expulsion and migration models.



◀ **Figure 1.** Location map showing oil and condensate samples analysed in Study I (dark blue) and Study II (pale blue) in *The Oils of Western Australia* series.



◀ **Figure 2.** Dendrogram showing the oil and condensate families in the Bonaparte Basin.

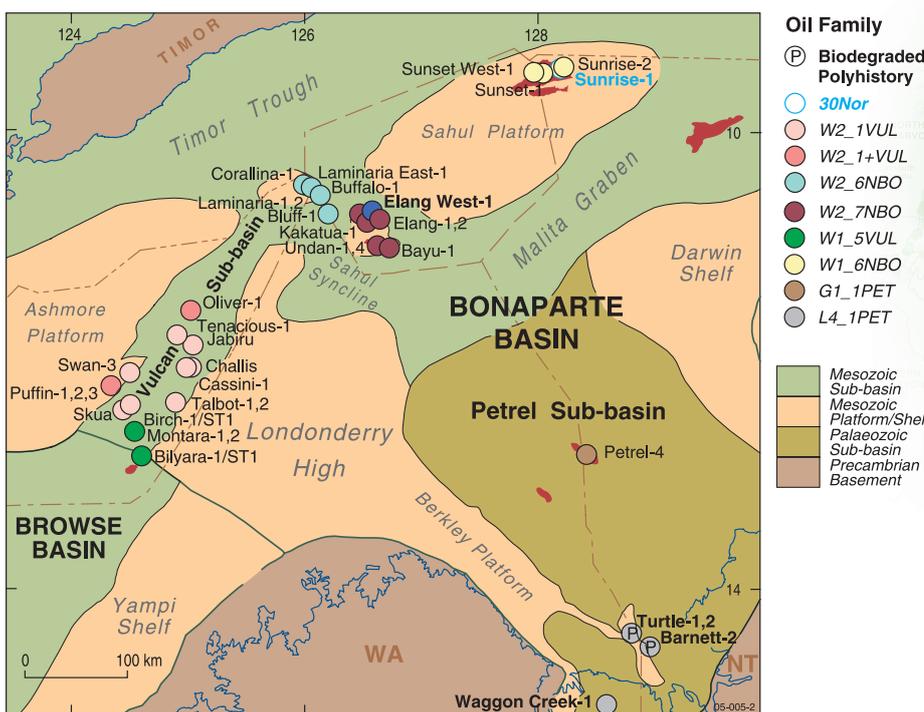
### Study structure

The *Oils of Western Australia II Study* comprises a Microsoft Access™ relational database with basic geochemical data, an ESRI ArcView 3.2™ package georeferencing the petroleum wells and linking to a geochemical charting application, and a written report.

The report's first section gives an overview of the petroleum geology of the basins studied. The second section details the geochemistry of the oils and condensates, reviews the published geochemical studies of each basin, and interprets the newly acquired data together with data collected in the 1996 study.

The *Oils of Western Australia II Study* is priced at US\$21,250. All three studies are available from GeoMark Research Inc.

**For more information, phone Dianne Edwards on +61 2 6249 9782 (email [dianne.edwards@ga.gov.au](mailto:dianne.edwards@ga.gov.au)) or Stephen Brown, GeoMark Research, Inc. on +1 281 856 9333 (email [sbrown@geomarkresearch.com](mailto:sbrown@geomarkresearch.com))**



◀ **Figure 3.** The geographic distribution of the oil and condensate families in the Bonaparte Basin.

## Events

# Team Australia *scores points* in Toronto



With most commodity prices at 10 to 15 year highs, the mood was buoyant at the 73rd Prospectors and Developers Association of Canada's (PDAC) Annual International Convention, Trade Show and Investors Exchange, reflecting the mineral exploration industry's optimistic outlook.

Held in Toronto from 6 to 9 March, PDAC 2005 attracted a record 12,000 delegates, exhibitors and guests from some 85 countries, including 35 official delegations. In the trade show, 283 exhibitors occupied 460 booths, and 362 companies exhibited in the investors exchange.

Australia's profile was boosted by the attendance of the Hon. Paul Holloway MLC, the South Australian Minister for Mineral Resources Development, who led a state delegation. Mr Bill Fisher, Australia's recently appointed High Commissioner to Canada, also added his support to the Australian promotion. Mr Fisher is the son of Dr Norman Fisher, a former Director of Geoscience Australia's predecessor, the Bureau of Mineral Resources.

The Australian pavilion presented a high-profile 'Team Australia' promotion that combined industry and government exhibitors. All states and the Northern Territory, as well as the Australian Government (Geoscience Australia), were represented alongside industry exhibitors ENCOM Technology, Intrepid Geophysics, ioGlobal, Gekko Systems Ltd, and AME Australian Mineral Economics.

A grant from the Australian Government's Department of Education, Science and Training supported a substantial upgrade to the information technology facilities in the Australian pavilion and enhanced Australia's whole-of-country approach to the exhibition. The grant was made under the International Science Linkage program, which is part of the government's Backing Australia's Ability—Building Our Future Through Science and Innovation initiative.

The government's display highlighted Australia's premier exploration provinces, undiscovered mineral potential, and scientific and technical expertise in mineral exploration.

The half-day Australian seminar, 'Exploring Downunder', was very well attended. Companies active in Australia, including several Canadian companies, presented case histories of Australian discoveries and exploration experiences. Presentations were made by Placer Dome Asia Pacific, Teck Cominco, LionOre Mining International, Minotaur Exploration, Copper Strike and Golden Cross Resources. Geoscience Australia contributed on behalf of the Australian governments.

Lynton Jaques from Geoscience Australia delivered a presentation showing how deep crustal seismic imaging was providing new insights into the geology and mineral potential of Australia's mineral provinces.

**For more information, phone Mike Huleatt on +61 2 6249 9087 (email [mike.huleatt@ga.gov.au](mailto:mike.huleatt@ga.gov.au))**

## Events Calander 2005

### AMSA2005

Australian Marine Sciences Association  
11 to 13 July  
Crowne Plaza, Darwin  
Contact: PO Box 902, Toowong Qld 4066  
e-mail: [amsa2005@amsa.asn.au](mailto:amsa2005@amsa.asn.au)  
[www.amsa.asn.au](http://www.amsa.asn.au)

### Central Australian Basins Symposium

16 to 18 August  
Alice Springs Convention Centre  
Contact: Greg Ambrose, Northern Territory Geological Survey, Department of Business, Industry and Resource Development, GPO Box 3000, Darwin NT 0801  
*phone* +61 8 8999 5342  
fax: +61 8 8999 6824  
e-mail: [greg.ambrose@nt.gov.au](mailto:greg.ambrose@nt.gov.au)  
<http://conferences.minerals.nt.gov.au/cabs/contacts.html>

### AAPG International Conference & Exhibition

American Association of Petroleum Geologists  
11 to 14 September  
Paris, France  
Contact: AAPG Convention Department, PO Box 979, Tulsa, Oklahoma 74101-0979 USA  
*phone* +1 918 560 2696  
fax +1 918 560 2684  
e-mail: [convenc2@aapg.org](mailto:convenc2@aapg.org)  
<http://www.aapg.org/paris/>

### SSC2005

Spatial Sciences Institute Biennial Conference  
12 to 16 September  
Melbourne Exhibition and Conference Centre  
Contact: ACTS Conferencing Pty Ltd, GPO Box 2200, Canberra ACT 2601  
*phone* +61 2 6257 3299  
fax: +61 2 6257 3256  
e-mail: [ssc2005@ausconvservices.com.au](mailto:ssc2005@ausconvservices.com.au)  
<http://www.spatialsciences.org.au>

### New Exploration Opportunities Workshop

13 & 14 October  
Geoscience Australia, Canberra  
Contact: Jenny Maher, Geoscience Australia, GPO Box 378, Canberra ACT 2601  
*phone* +61 2 6249 9111  
fax +61 2 6249 9980  
e-mail: [jenny.maher@ga.gov.au](mailto:jenny.maher@ga.gov.au)

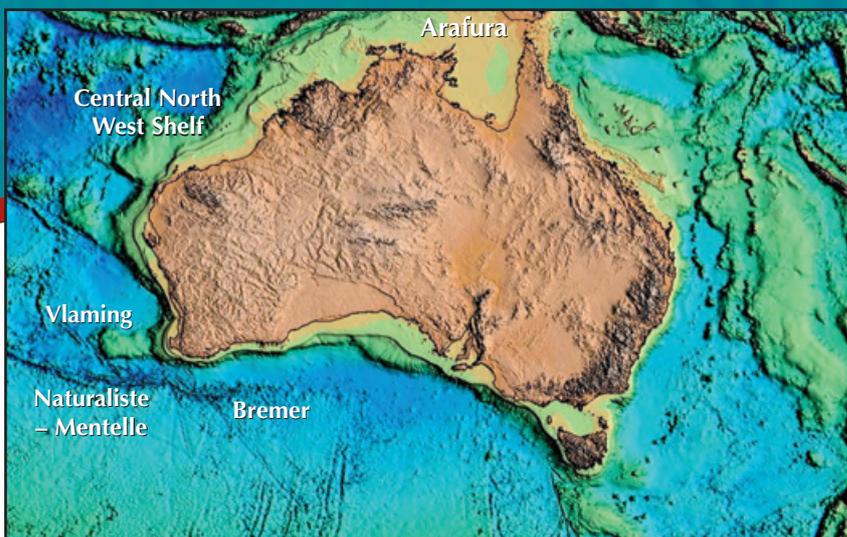
### Mining 2005

26 to 28 October  
Carlton Crest Hotel, Brisbane  
Contact: Mining 2005, PO Box 1153, Subiaco WA 6904  
*phone* +61 8 9388 2222  
fax +61 8 9381 9222  
e-mail: [abbie@verticalevents.com.au](mailto:abbie@verticalevents.com.au)  
<http://www.mining2005.com.au>

# GEOSCIENCE AUSTRALIA WORKSHOP

—13 & 14 October 2005, Canberra

Geoscience Australia  
Cnr Jerrabomberra Ave &  
Hindmarsh Drive, Symonston  
Canberra ACT 2609



## New Exploration Opportunities Workshop *focusing on* AUSTRALIAN FRONTIER BASINS

- *Bremer, Mentelle, and Vlaming Sub-basins of the South West margin*
- *Arafura Basin*
- *Central North West Shelf*
- *and future areas*

The Australian Government is funding a major four-year program of data acquisition to assist the petroleum exploration industry in the search for a new oil province.

Geoscience Australia is undertaking a program of seismic acquisition, geological sampling and oil seep detection over a number of Australian Frontier Basins.

**Data acquired through this new petroleum initiative will be made available at this workshop, including interpretation results of the new seismic data acquired from the South West margin and results from the hydrocarbon seeps studies.**



**Australian Government**  
**Geoscience Australia**

## Proposed program

13th October 2005

Morning Session – Overview of Geoscience Australia’s petroleum program

Mid morning session – Southwest Frontiers – Bremer, Mentelle & Vlaming

Afternoon session – Southwest Frontiers Workshop

14th October 2005

Morning session – Arafura Basin Studies

Mid morning session – Central North West Shelf and Future areas.

Afternoon session – Northern and Future Frontiers workshop.

## Details

Name \_\_\_\_\_ Position \_\_\_\_\_

Company/agency/institution \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

Email \_\_\_\_\_

A registration fee of around \$100 (GST Inclusive) covering morning/afternoon tea and lunches is likely to be required. Invoices will be sent once this is finalised.

### **REGISTER YOUR INTEREST BY CONTACTING**

Jenny Maher, Geoscience Australia

Tel: +61 2 6249 9111 Fax: +61 2 6249 9980

Email: [jenny.maher@ga.gov.au](mailto:jenny.maher@ga.gov.au)