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Central Gawler Gold Data Catalogue

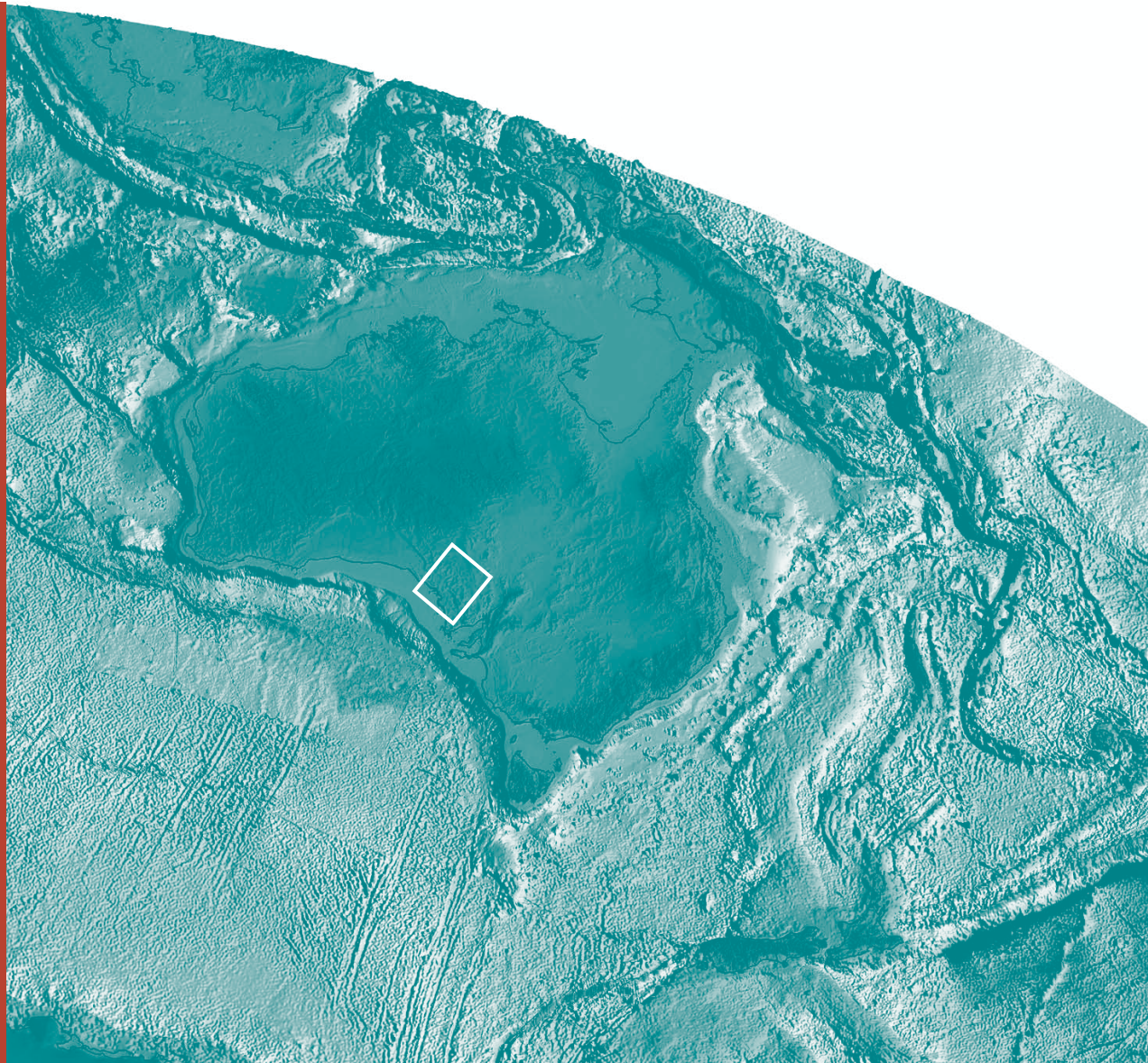
A joint release by Geoscience Australia, Primary Industries
and Resources South Australia (PIRSA) and CRC LEME

Compiled by Matilda Thomas

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2004/5**

**PIRSA Report
Book 2004/4**

**CRC LEME
Open File
Report 202**



Geoscience Australia Record 2004/5
Primary Industries and Resources South Australia, Minerals & Energy Report Book 2004/4
CRC LEME Open File Report 202

CENTRAL GAWLER GOLD DATA CATALOGUE

Compiled by Matilda Thomas

A joint publication by Geoscience Australia (GA), the Department of Primary Industries and Resources South Australia (PIRSA), and the Cooperative Research Centre for Landscape Environments and Mineral Exploration (CRC LEME)

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1. INTRODUCTION

This data catalogue has been compiled for use by members of the Central Gawler Gold Sub Project; a collaborative project set up between the Department of Primary Industries and Resources South Australia (PIRSA), Geoscience Australia (GA) and the Cooperative Research Centre for Landscape Environments and Mineral Exploration (CRC LEME), at both the University of Adelaide and CSIRO, Perth. The following compilation forms the basis of a continuing data location and stocktaking exercise. It is hoped that project members will be able to help identify omissions and contribute new information on relevant data and reference material.

2. DATA CATALOGUING PROCEDURE

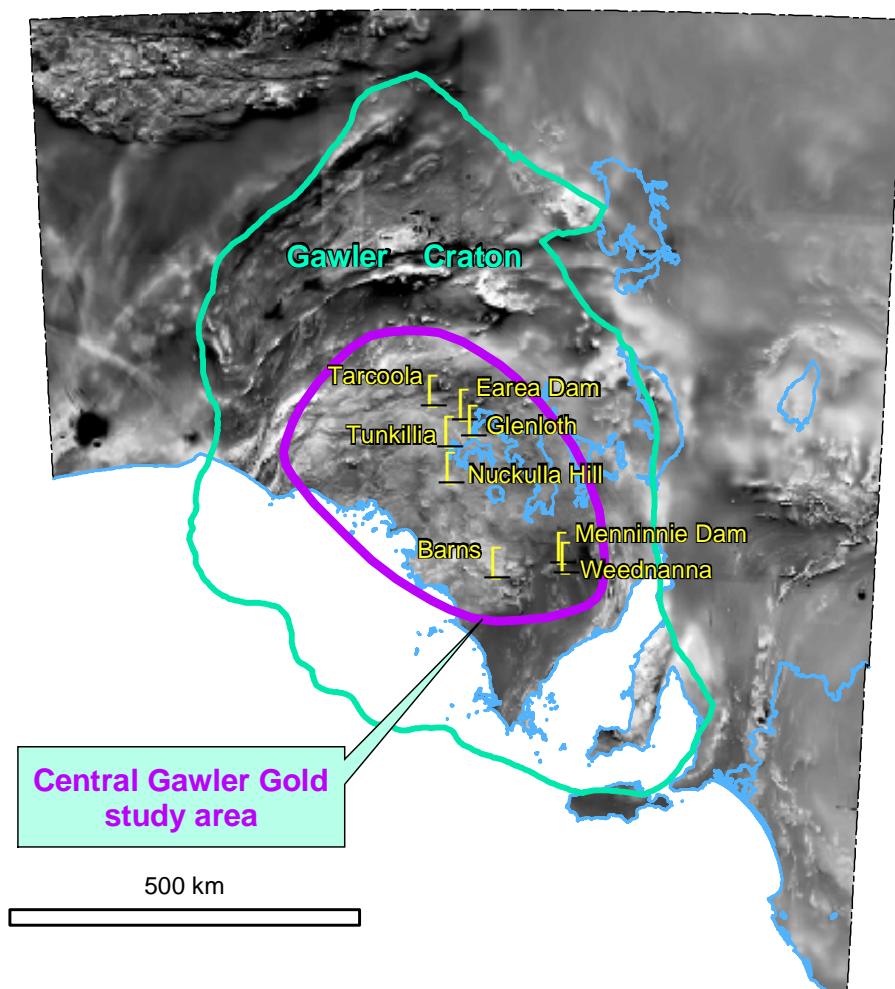
Several steps were taken in the making of this data catalogue. Initially data were collected from known digital records at PIRSA and GA. Much of the data were sourced from PIRSA's South Australia – Gawler Craton GIS dataset. Additional information was gathered from PIRSA and Geoscience Australia's corporate databases and PIRSA's open file records. Information on non-digital data was assembled from PIRSA's pre 1997 open-file records and through communications with the various researchers who have worked in the region.

The non-confidential digital datasets are being compiled into a single location with a view to constructing a Central Gawler Gold Province GIS. This GIS is still at a preliminary stage of development, but will be available to project members by April 2004. It is planned to release the GIS to the public in June 2004.

3. SUMMARY INFORMATION ON DATA TYPES

The following data summaries comprise brief descriptions of the datasets which have been located to date. It includes both the digital and non-digital datasets, as well as information on several confidential datasets. The summary information consists of a general description of the various datasets available for each data type, and a figure showing the data locations within the Central Gawler Gold Study Area.

For data mining purposes the Central Gawler Gold Study Area was loosely defined as per Figure 1. This loose definition encompasses the stricter definitions for the province proposed by Ferris and Schwarz 2003, Drown 2003, and Budd 2002. Confidential, mixed open-file/confidential and open file datasets are marked accordingly. Access to confidential data will be subject to confidentiality agreements.



*Figure 1. Central Gawler Gold Study Area boundary (purple)
Developed for the purpose of data collection in this report.
The locations of key prospects are shown.*

3.1 Geology

3.1.1 Site descriptions

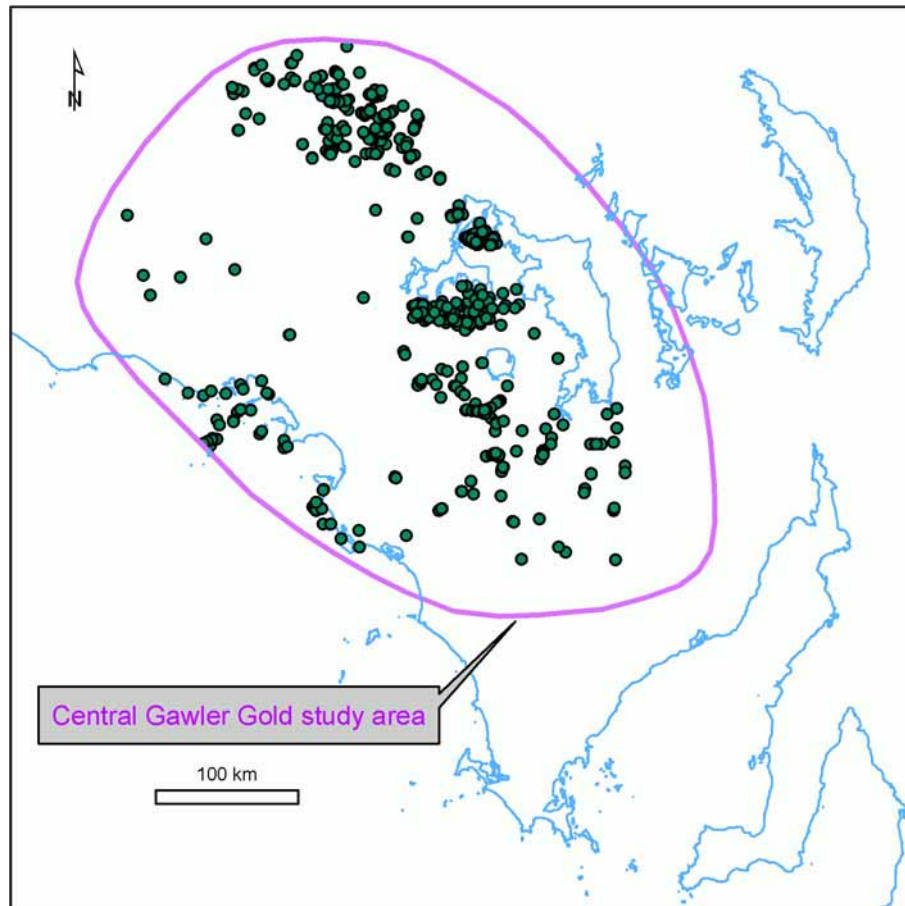


Figure 3.1.1a Subset of GA's sites database showing all rock sites located in the Central Gawler Gold Study Area

The GA OZROCKS 'sites' database has over 733 geological site descriptions entered from 1987 to 2003 for the Central Gawler region (see Fig. 3.1.1a). Some of the site descriptions also contain geochemical and other related information.

The PIRSA ROCK SAMPLES database has over 53,000 rock sample records entered for the Central Gawler Golda region, the majority of which are geochemical down hole drill samples, shown in Figure 3.1.1b. Site information is also stored in PIRSA's Field Obs database.

Status: mixed

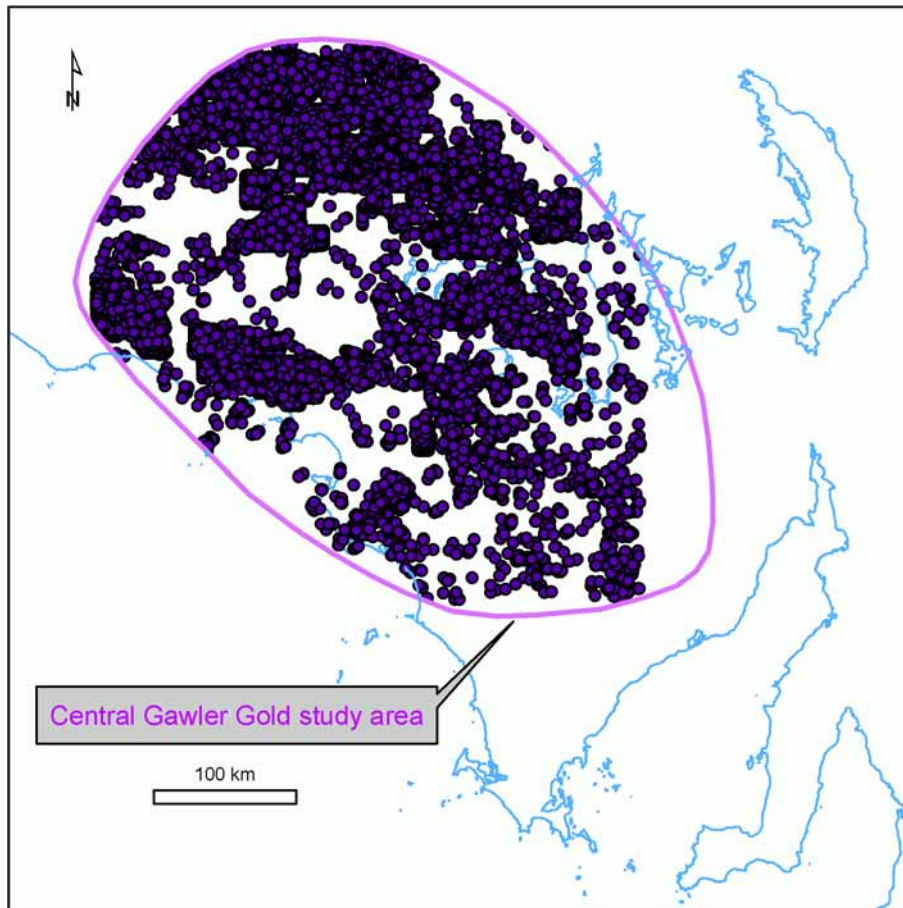


Figure 3.1.1b Subset of PIRSA's ROCK SAMPLES database showing rock sample sites located in the Central Gawler Gold Study Area

3.1.2 Petrological descriptions

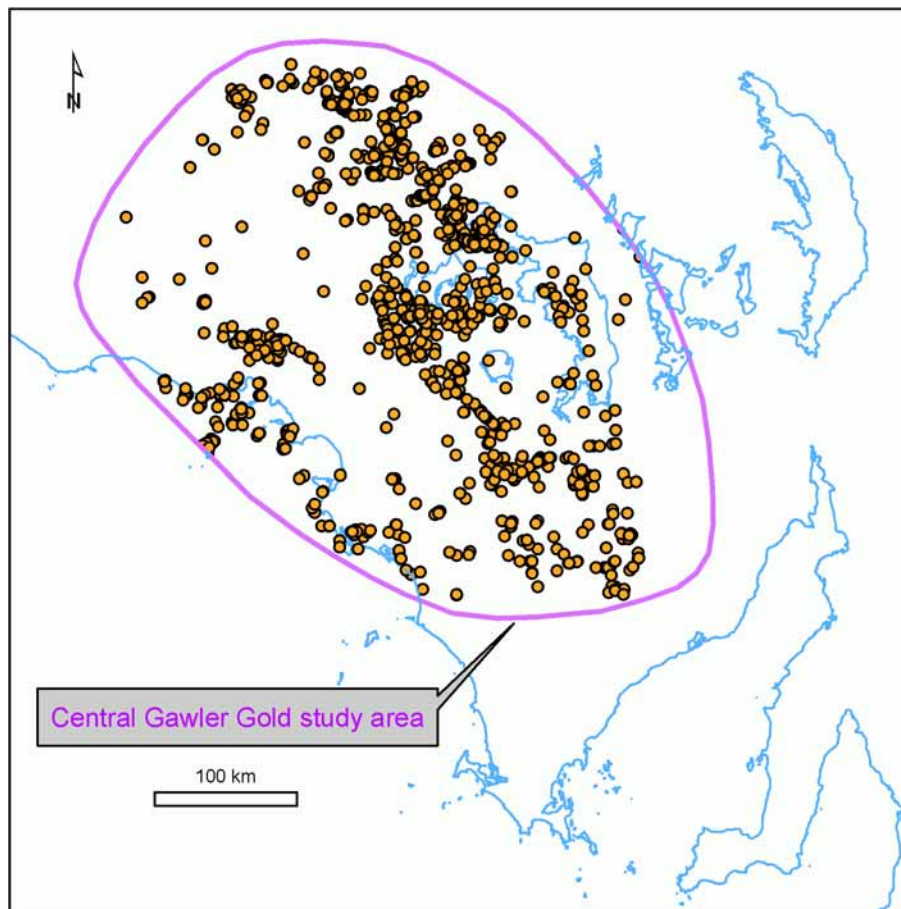


Figure 3.1.2 Central Gawler Gold subset of petrological sites from PIRSA's PETROLOGY database

PIRSA has 15,000 records in their PETROLOGY database, limited to sample number, location, lithology (code only) and a reference, often to a laboratory report which are not readily available in digital format (Fig. 3.1.2). A lot of important geological information relating to these categories remains to be compiled and digitised from open file envelopes held at PIRSA.

GA's PETROG database has several confidential records, however it was not possible to retrieve these records due to limitations of the search facility used to subset the data.

Forty polished thin sections, and 27 fluid inclusion quick plates and doubly-polished sections, have been prepared from samples at Weednanna, Barns and Nuckulla Hill (Roger Skirrow, GA).

3.1.3 Drill hole logs

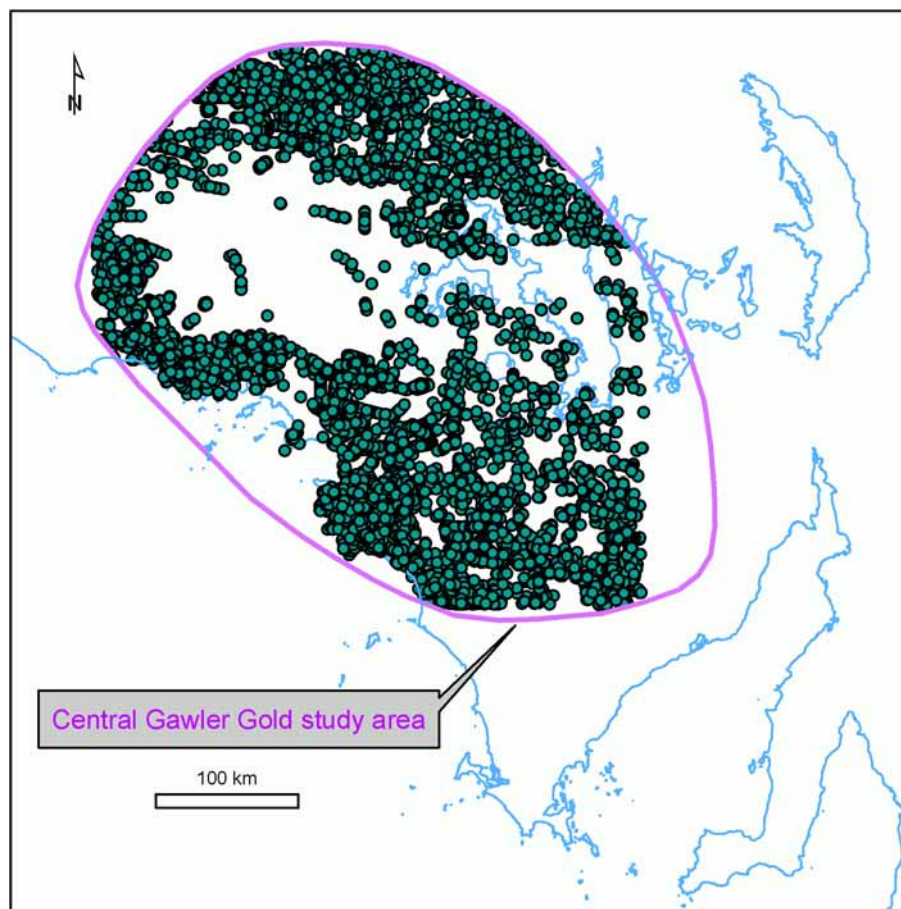


Figure 3.1.3 Drill Holes in Central Gawler Gold Study Area from PIRSA's DRILLHOLE database

PIRSA has over 17,000 records for the Central Gawler region in its DRILL HOLE database, as well as nearly 8,500 records in the STRATIGRAPHIC LOGS database and nearly 1,600 records in the LITHOLOGICAL LOGS database. The represented number of holes probably only equals about 1 in 3 of pre-2000 company holes due to holes being very closely clumped together, although it should include 100% of government sponsored holes. Lithological logs have been completed for all but a very few, unfortunately only a small proportion have been captured digitally. A summary "strat log" is currently compiled from the original lithology drill log by a geologist within PIRSA for selected holes (~1 in 3).

The GA DEVIANT database (still in development) has 21 records for drill holes in the Central Gawler, including 6 mineral exploration holes, 6 petroleum wells, and 5 estuary holes.

Status: mixed

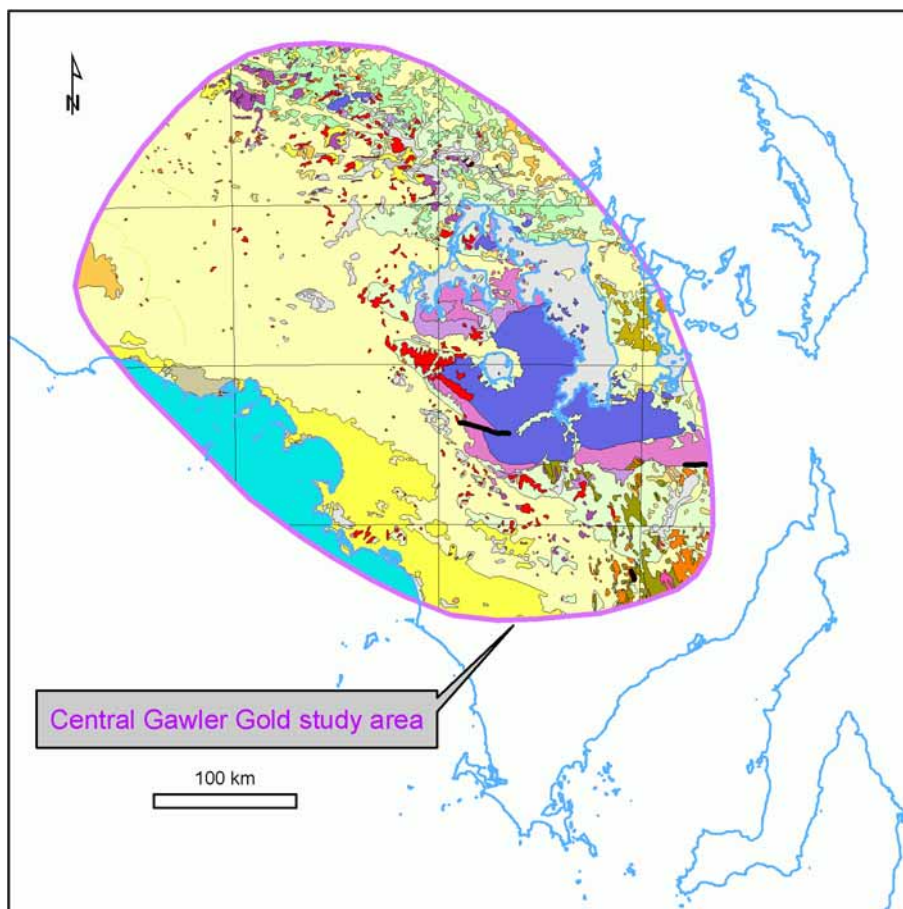
3.1.4 Interpretive products

3.1.4.1 Mineralogical

No mineralogical maps have been located for the Central Gawler Gold area

3.1.4.2 Lithological

1:2,000,000 geology



*Figure 3.1.4.2a. 1:2,000,000 map of South Australia
(Office of Minerals and Energy Resources, 2002)*

The 1:2,000,000 map of South Australia from the Gawler Craton GIS dataset contains short descriptions of each key unit, incorporating stratigraphic and lithologic features to delineate geological boundaries.

Status: open file

1:250,000 geology

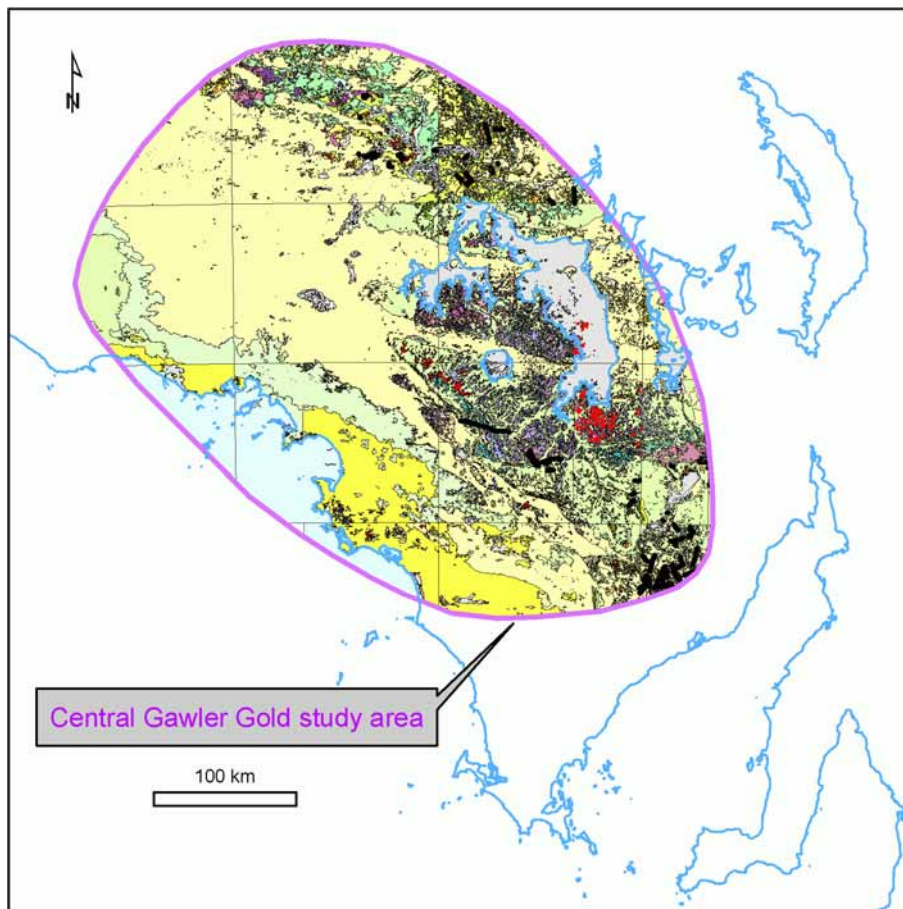


Figure 3.1.4.2b Composite 1:250,000 geology of the Central Gawler study area (for individual 1:250,000 map sheet references see below)

The geology of the Central Gawler is described in 13 1:250,000 Map sheets, namely Barton (Benbow et al. 1995), Tarcoola (Daly 1985), Kingoonya (Cowley and Martin 1991), Fowler (Firman 1978), Childara (Blissett 1977), Gairdner (Blissett 1985), Torrens (Johns et al. 1981), Nuyts (Flint 1987), Streaky Bay (Rankin and Flint 1991), Yardea (Geological Survey of South Australia. 1988), Port Augusta (Geological Survey of South Australia. 1968), Elliston (Flint 1992), Kimba (Flint and Rankin 1991) and Whyalla (Parker and Fanning 1998). See Figure 3.1.4.2b above.

Status: open file

Western Gawler Craton geology

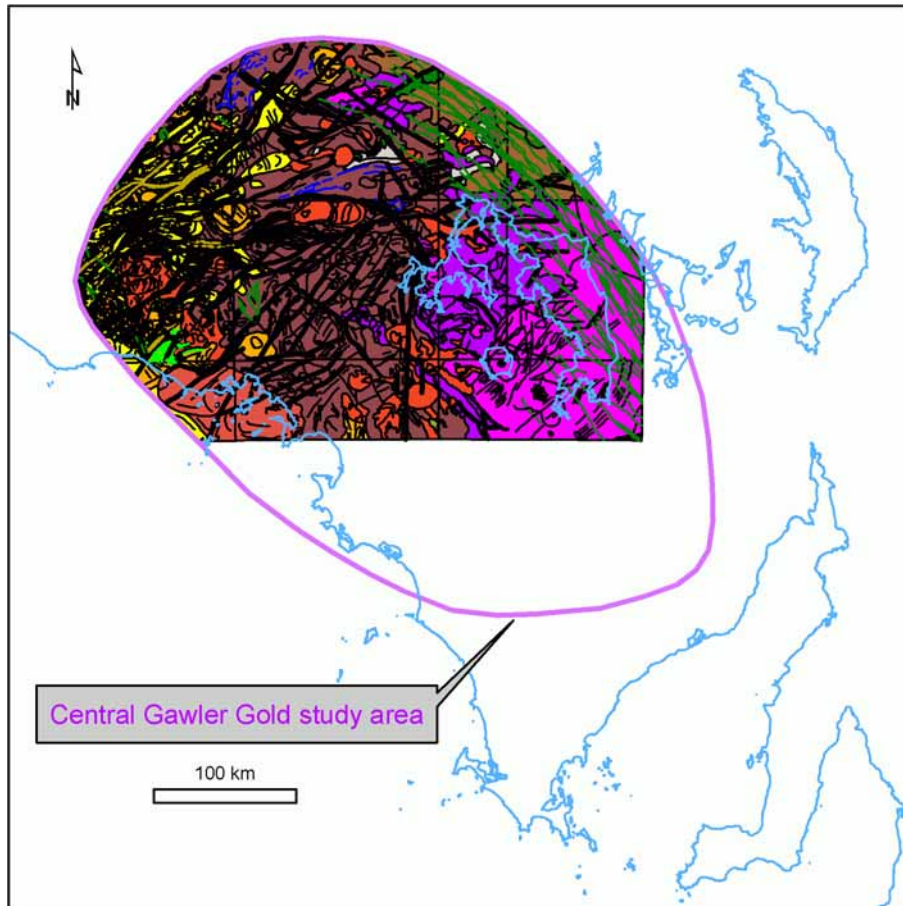


Figure 3.1.4.2c Western Gawler Craton geology subset to the Central Gawler Gold study area (from Fairclough, Daly, and van der Stelt, 1994. Interpreted basement geology for the western Gawler Craton. South Australia. Department of Mines and Energy. Digital Data Set (unpublished).

Status: open file

Southern Gawler Craton Geology

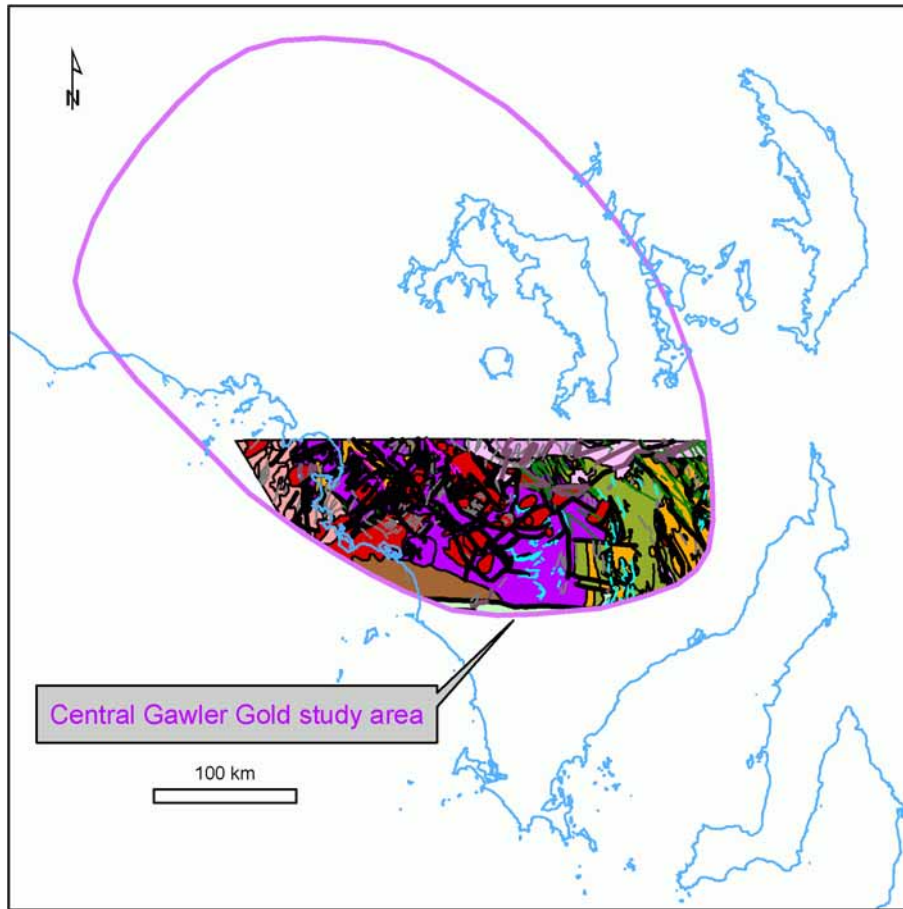


Figure 3.1.4.2d Southern Gawler Craton geology subset to the Central Gawler Gold (from Schwarz, M. P. and Daly, S. J. 1996. *Interpreted basement geology for the southern Gawler Craton. South Australia. Department of Mines and Energy. Digital Data Set (unpublished).*

Status: open file

Stuart Shelf

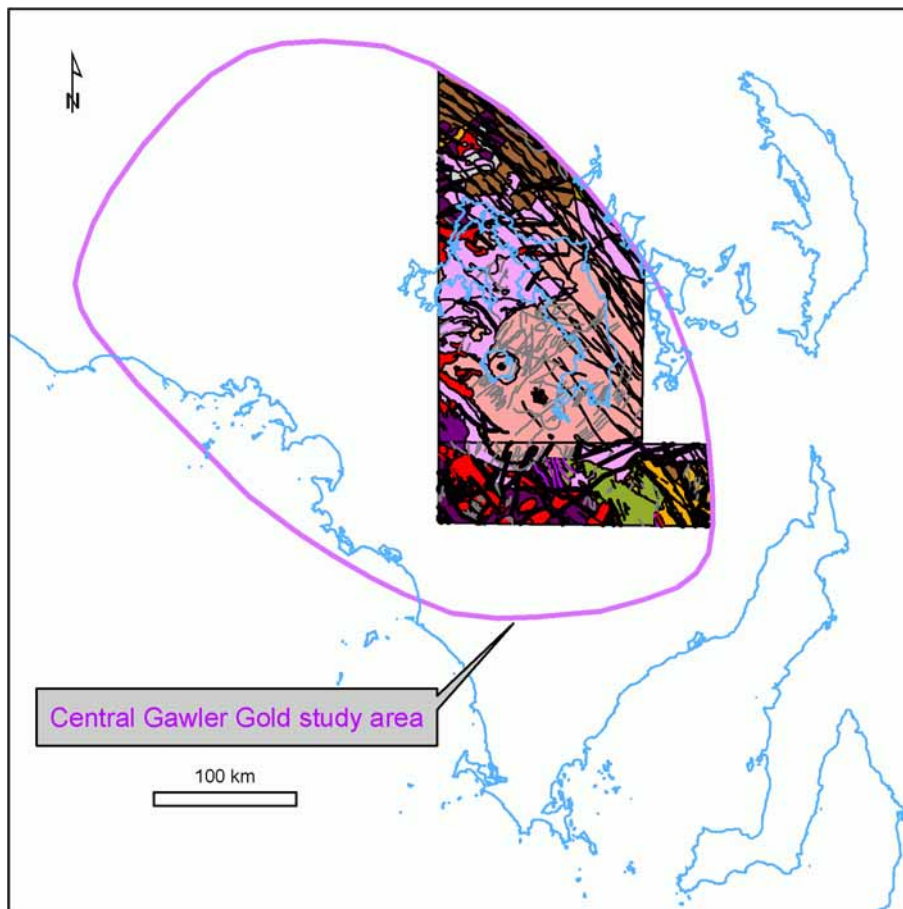


Figure 3.1.4.2e Stuart Shelf geology subset to the Central Gawler Gold Study Area (from PIRSA's Mineral Exploration Data Packages, 8).

Status: open file

Regional geology

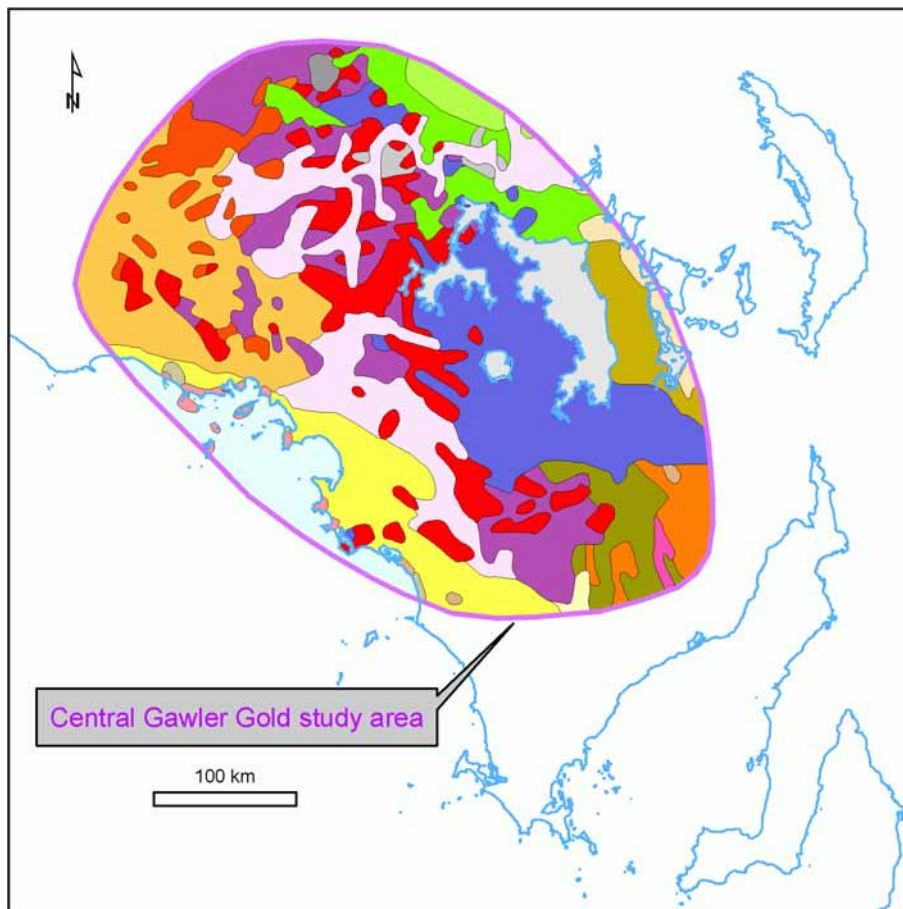


Figure 3.1.4.2f Regional geology subset to the Central Gawler Gold Study Area (from PIRSA's Gawler Craton GIS dataset 2003).

Status: open file

3.1.4.3 Structural

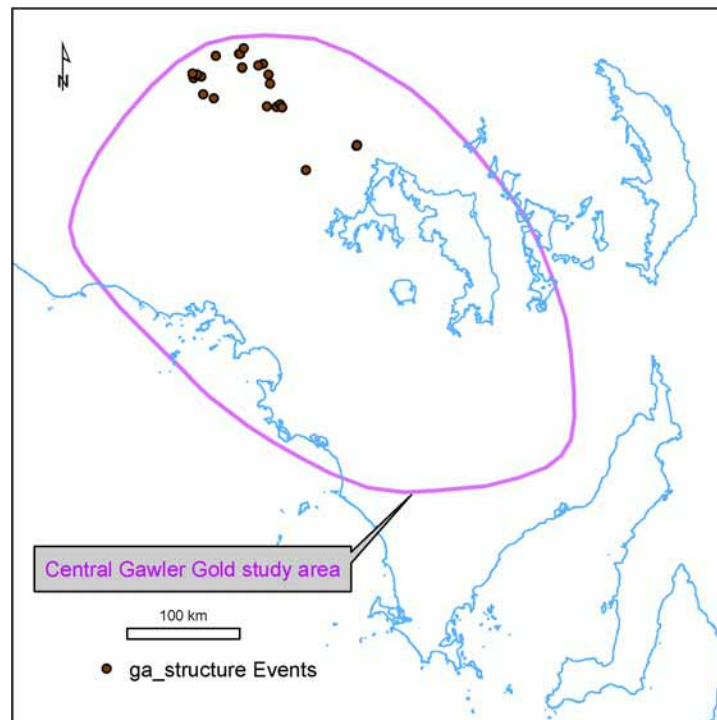


Figure 3.1.4.3a GA Structural records for Central Gawler Gold Study Area

GA has 41 structural records associated with rock samples in their STRUCTURES database (see Fig. 3.1.4.3a).

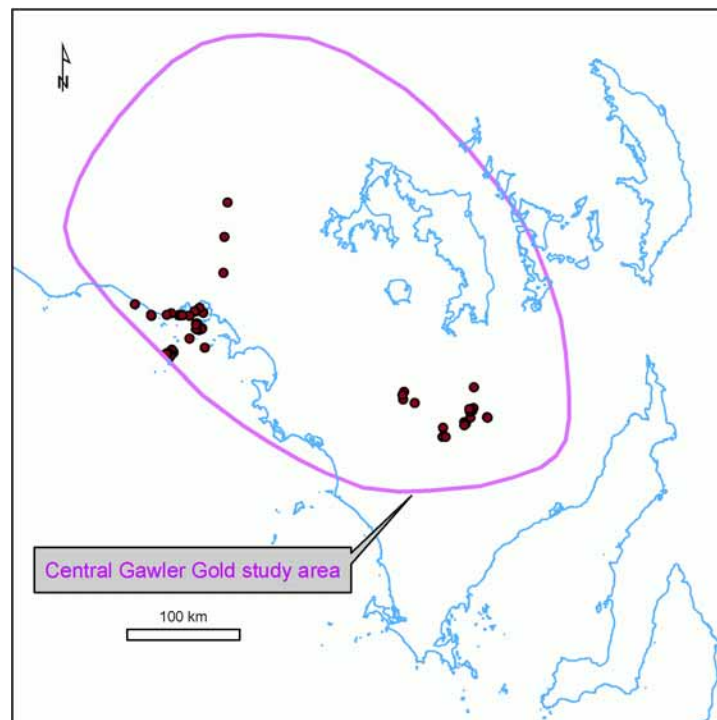


Figure 3.1.4.3b PIRSA Structural records for Central Gawler Gold Study Area

PIRSA has 127 structural records associated with rock samples in their STRUCTURES database (see Fig. 3.1.4.3b).

Status: open file

3.1.4.4 Faults

There are no interpretive fault maps for the region, fault are included as a component of the interpreted basement geology maps.

3.1.4.5 Basins

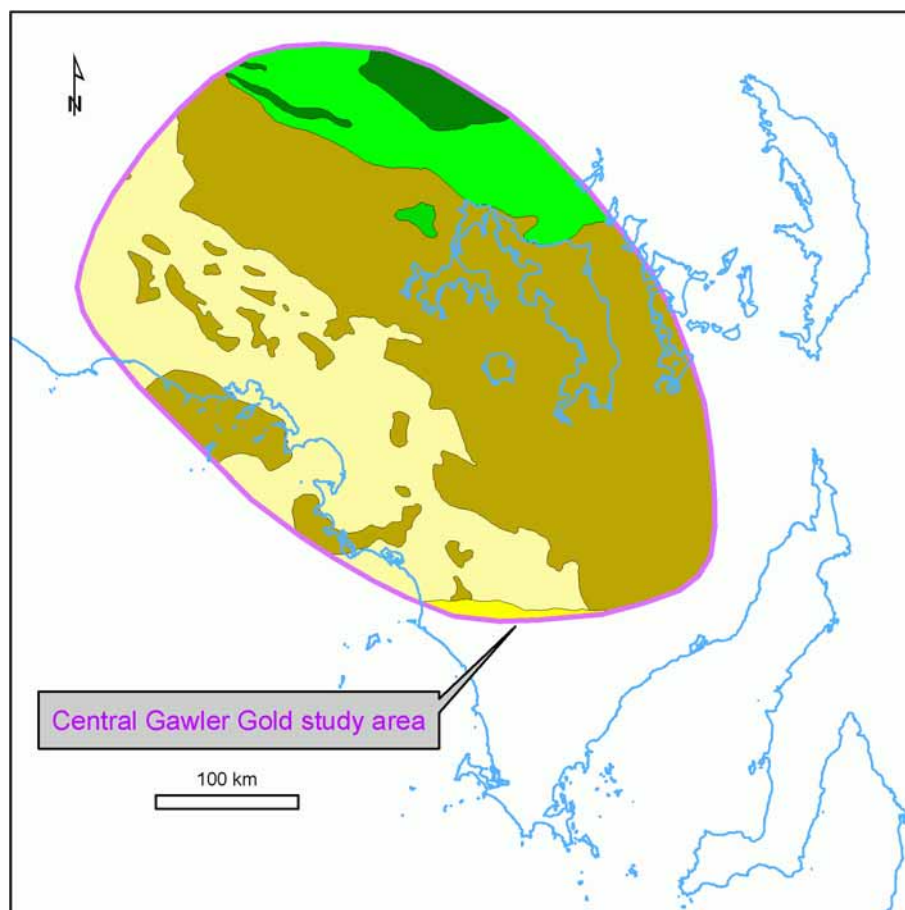


Figure 3.1.4.5 Middle Palaeozoic to Cainozoic basins in the Central Gawler Gold Study Area (from PIRSA's Gawler Craton GIS dataset 2003).

This interpretive map consists of basin outlines which are delineated using stratigraphic and structural boundaries.

Status: open file

3.1.4.6 Tectonics

Regional tectonics

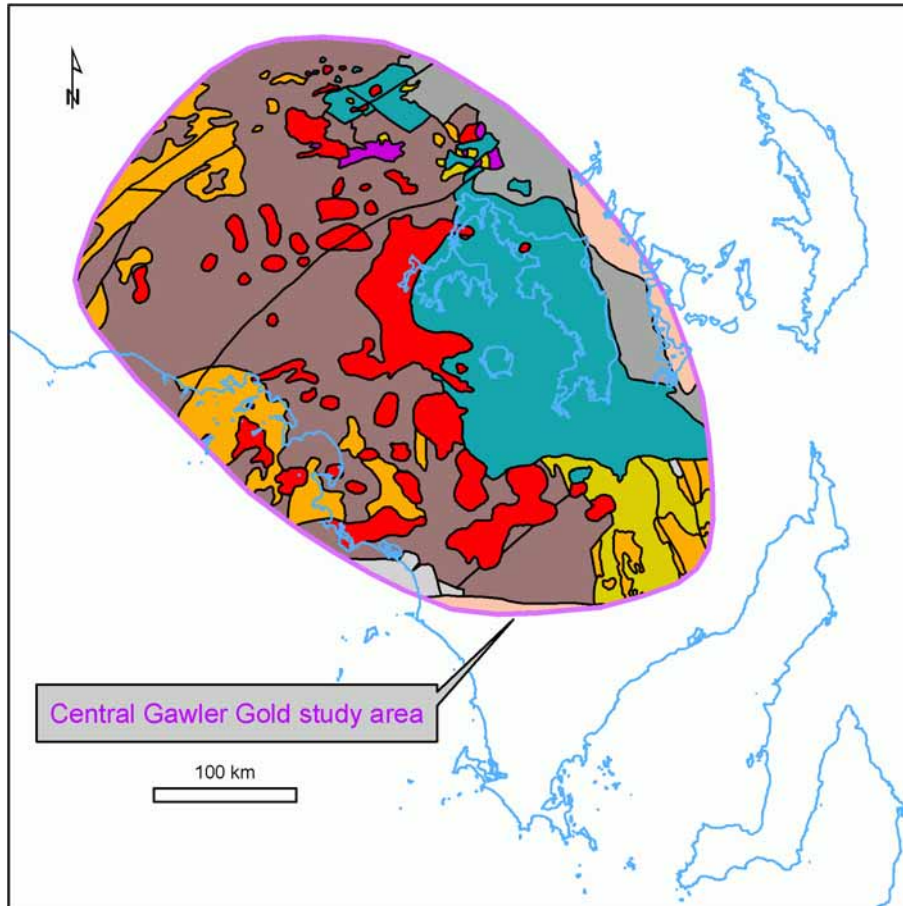


Figure 3.1.4.6a Regional tectonics subset to the Central Gawler Gold Study Area (from PIRSA's Gawler Craton GIS dataset 2003).

Status: open file

Geological Domains

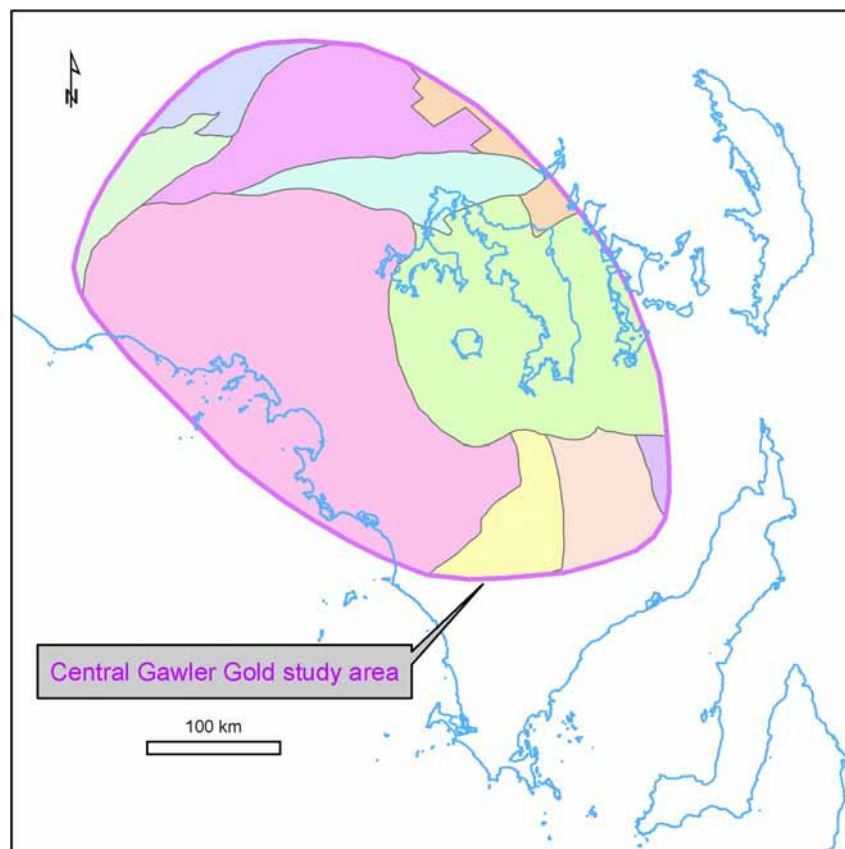


Figure 3.1.4.6 Geological Domains in the Central Gawler Gold Study Area (from PIRSA's Gawler Craton GIS dataset 2003).

This map consists of geological domains outlines subset from PIRSA's Gawler Craton GIS dataset. It contains brief descriptions each domain, using stratigraphic and structural boundaries to delineate each province.

Status: open file

3.1.4.7. Geochronology

PIRSA have 203 geochronology analyses recorded in their GEOCHRONOLOGY database. The GA OZCHRON database has 241 geochronology results for in the Central Gawler, many of these are duplicated records; see figures 3.1.4.7a and 3.1.4.7b for the distribution of samples in both databases.

Status: open file

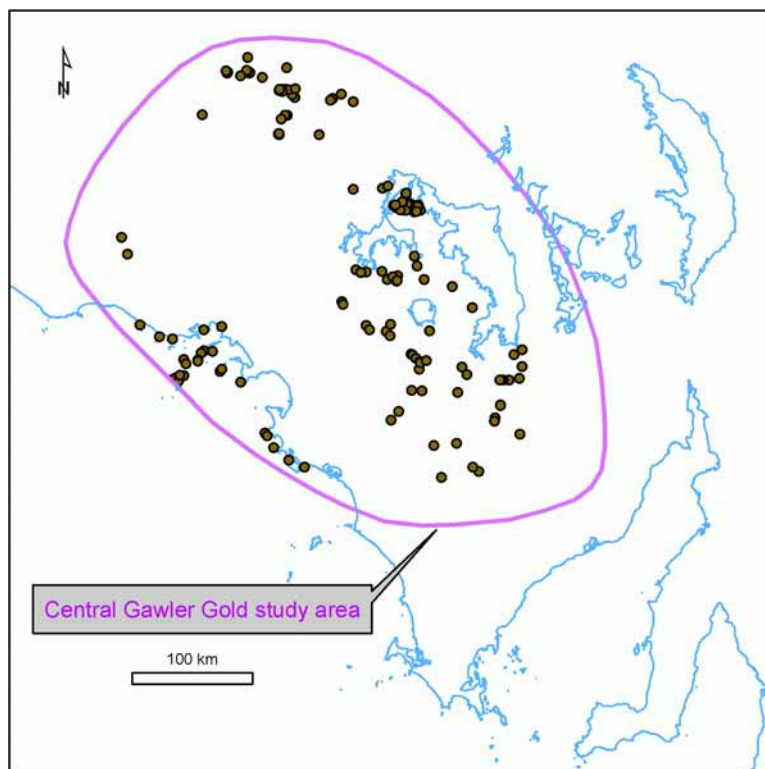


Figure 3.1.4.7a. GA's OZCHRON Geochronology sites

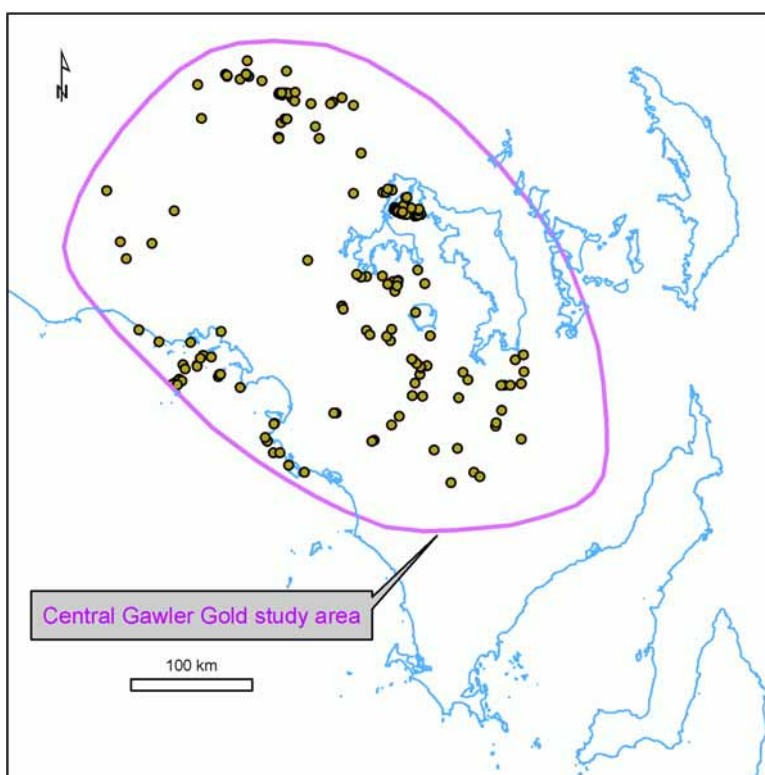


Figure 3.1.4.7b. PIRSA's GEOCHRONOLOGY sites

3.1.5 Miscellaneous

3.1.5.1 Major mineral occurrences in the Central Gawler Gold Study Area

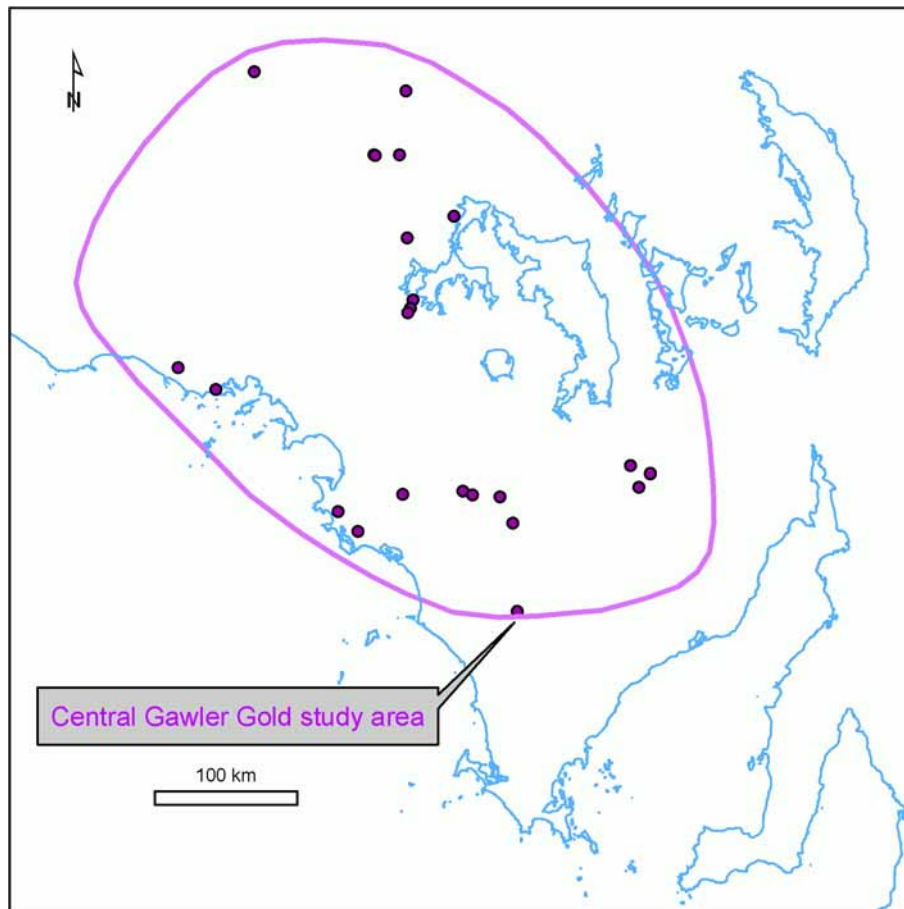


Figure 3.1.5.1 Locations of major mineral occurrences in the Central Gawler Gold Study Area

Major mineral occurrences for the Central Gawler Gold are digitally available and can be downloaded from PIRSA's SARIG map data web page:

Online_Linkage: <https://info.pir.sa.gov.au/geoserver/sarig/frameSet.jsp>

Status: open file

3.1.5.2. Central Gawler Gold Province outlines

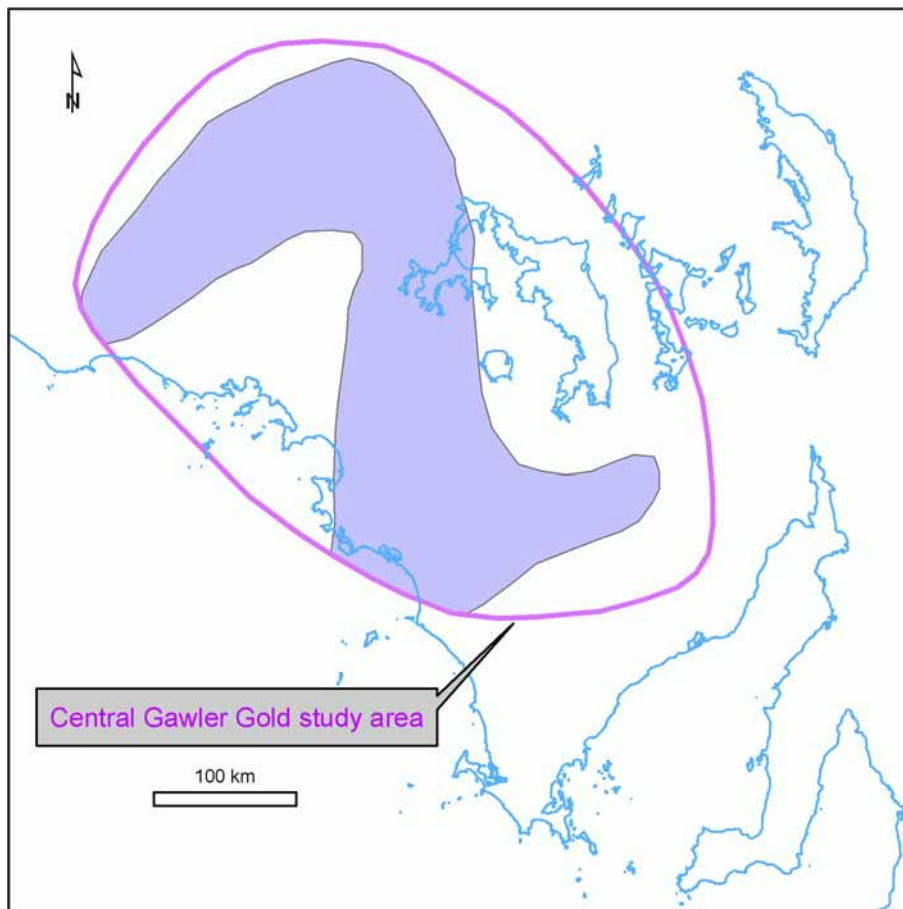


Figure 3.1.5.2. Central Gawler Gold Province outline from Ferris and Schwarz, 2003

In Figure 3.1.5.2. the boundary of the Central Gawler Gold Study Area used for data compiling in this report is shown with the boundary of the Central Gawler Gold Province as defined by Ferris and Schwarz 2003.

3.2 Regolith

3.2.1 Site descriptions

Regolith sites descriptions made in the Central Gawler Gold Study Area by PIRSA, CRC LEME and CSIRO staff (eg. Malcolm Sheard, Mel Lintern) are held in some 20-40 personal field notebooks, and are not likely to be available in digital format in the near future. 178 regolith site descriptions have been made in the vicinity of Tunkillia by Lisa Worrall (GA), these site descriptions are currently being entered into GA's RTMAP 'sites' database. Lisa Gibbons made a number of regolith site descriptions at Old Well north of Tunkillia during her honours fieldwork in 1997 (Gibbons, 1997). These site descriptions are available in non digital format.

3.2.2 Soil site descriptions

Soil site descriptions include CSIRO's Land use maps, (Heyligers et al. 1978) Other soil research in the area includes a study of the soils and some aspects of the hydrology at Yudnapinna Station (Jackson 1958).

3.2.3 Petrological descriptions

Only limited regolith petrological work has been done in the area; in the Harris Greenstone Belt, petrographic descriptions have been done on 30 (50x75 mm) thin sections (Sheard and Robertson, in prep.).

3.2.4 Drill hole logs

Mal Sheard has logged 56 aircore holes from the Harris Greenstone Belt for regolith zonation and 3 HQ drill holes which were cored from surface to protolith. These logs are available as Excel spreadsheets and coloured graphic log columns in the Harris Greenstone Belt Regolith Landscape Report (Sheard and Robertson, in prep.).

Lisa Worrall has logged 100 RC holes drilled at Tunkillia. These logs are currently being entered into a digital database. Lisa Gibbons has logged 9 RAB holes at Old Well, north of Tunkillia. These logs are available in non digital format. Geological logging of drill holes (company and government) will often include a description of the regolith however the quality of this logging is uncertain.

3.2.5 Spectral

PIMA spectra have been generated for ~150 aircore holes from the Harris Greenstone Belt at 2m intervals (~6,000 spectra) and similar spectra generated from ~30 holes at the Boomerang Au prospect (Malcolm Sheard, PIRSA).

Spectral logging of diamond drill core, including regolith, from prospects in the Central Gawler gold province (Weednanna, Nuckulla Hill, Tunkillia and Barns) is currently being carried out with the CSIRO Core Logger in Adelaide at the PIRSA core library. The CSIRO Core logger covers the same part of the spectrum as HyMap and Hyperion and at approximately the same spectral resolution. A measurement is made every centimetre in a continuous scan of the core tray.

3.2.5 Interpretive products

3.2.5.1 Regolith landform maps

An interpretive regolith map for the Lake Harris Greenstone Belt has been produced; Lake Harris Regolith Landform Map, Sheard and Robertson (in press). Lisa Gibbons constructed a regolith landform map for the Old Well Prospect North of Tunkillia (Gibbons 1997). Sean Mahoney (2002) produced a regolith map of the Tarcoola area from a NE trending 20x8km HyMap hyperspectral data strip.

3.2.5.2 Palaeochannels

Palaeochannel reconstructions have been published by Hou, 2003; Hou et al., 2003; Hou et al., 2001a, and b. Palaeochannels in the vicinity of Tunkillia have been delineated in Worrall and Lane 2002. The Worrall and Lane work is available digitally.

3.2.5.3 Regolith dating

Palaeomagnetic work on mega mottles in weathering zones has been done in the vicinity of the Central Gawler Gold Study Area by Brad Pillans at the Australian National University (in prep). The dunes of the Great Victoria Desert, although outside the study area, have been dated by optically stimulated luminescent methodology by Huntly et al., (1998) and probably represent work significant for the Gawler region.

3.2.5.3 Isotope studies

Isotope signatures for Sr + O + C + S from ~60 samples have been determined by Alan Chivas, at the University of Wollongong (in prep).

3.2.6 Vegetation

A detailed plant survey and approximately 100 vegetation samples were collected by Mel Lintern (CRC LEME) for biogeochemical work from the Boomerang Au prospect (~7km southwest of Tarcoola) and the Earea Dam Gold Field (north of the Glenloth Gold Mines) and various other sites in the Central Gawler Gold Study Area (Lintern ed., in prep). There are over 100 vegetation site descriptions for the Tunkillia area held in non-digital notebook form (Matilda Thomas, GA). 30 of these sites have associated biogeochemical analyses – see 3.4.1 Regolith - Biogeochemistry.

CSIRO's Division of Land Use Research made several vegetative cover and land use maps for the agricultural districts of South Australia (Heyligers et al., 1978).

Comment: The Tunkillia vegetation site descriptions coincide with drill hole locations and regolith sites descriptions also held in notebook form (Lisa Worrall, GA).

Status: open file

3.3 Geochemistry

3.3.1 Regolith

3.3.1.1 Analyses

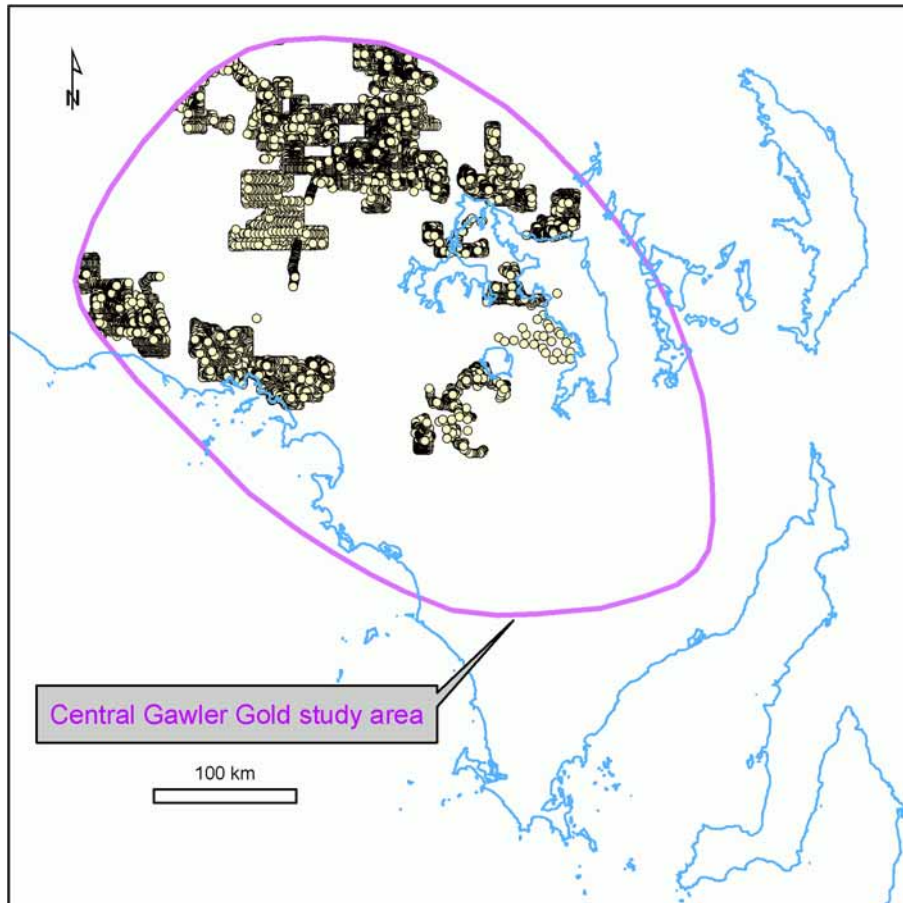


Figure 3.3.1.1 Calcrete analyses in the Central Gawler Gold Study Area

Regolith geochemistry data in the Central Gawler Gold Study Area consists of several calcrete datasets. There are over 33,000 location data points for calcrete samples currently held by PIRSA.

700 samples of regolith materials from 55 aircore hole, three diamond drill cored holes and numerous surface samples from the Harris Greenstone Belt have been analysed for 42 elements.

A report by Lintern et al. (2000) investigates geochemical dispersion of Au and Au pathfinders in the regolith related to the Birthday gold prospect. This study includes calcrete geochemistry and regolith-landform maps.

Status: open file

3.3.1.2 Interpretative products

No interpretive maps of regolith geochemistry have been located, however references to current work in the region is included in the bibliography section at the end of this report.

3.3.2 Bedrock

3.3.2.1 Analyses

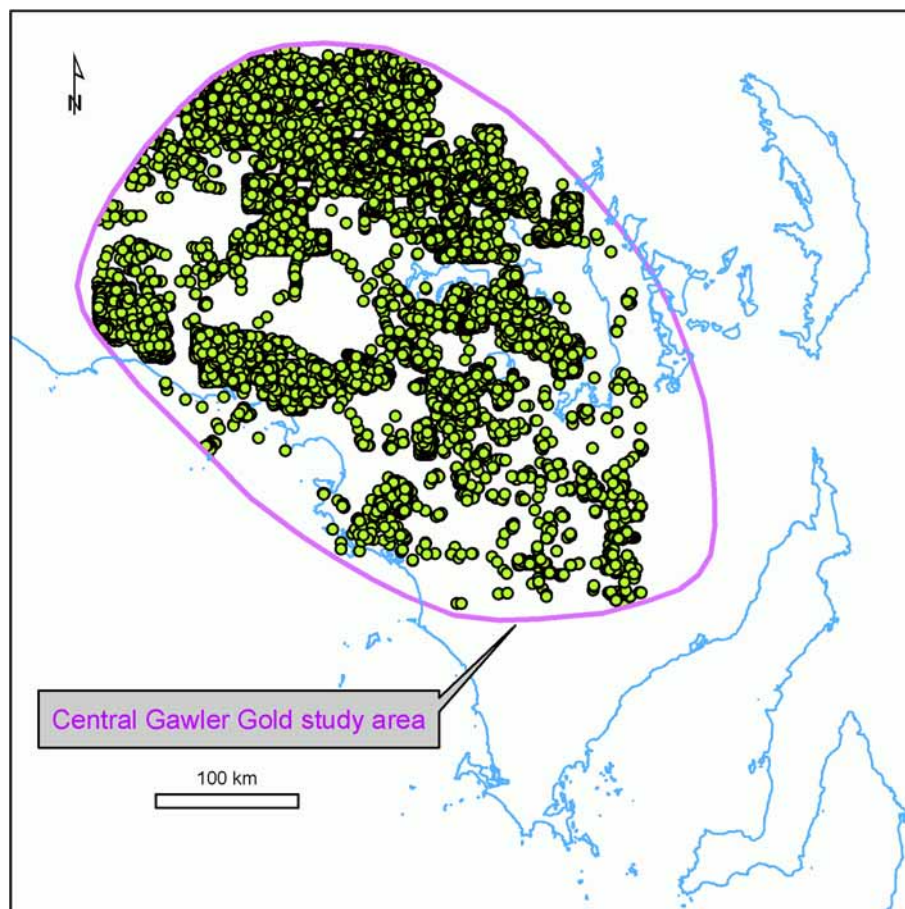


Figure 3.3.2.1a Bedrock geochemistry in the Central Gawler Gold Study Area held by PIRSA

There are over 55,800 geochemistry sample sites recorded in the Central Gawler Study Area (see Fig. 3.3.2.1a). PIRSA has nearly 51,000 analyses in their ROCK GEOCHEM database as well as an additional 4,600 entries in their ROCK GEOCHEM MAJORS database. GA has 265 geochemical analyses in their OZ CHEM database (see Fig. 3.3.2.1b).

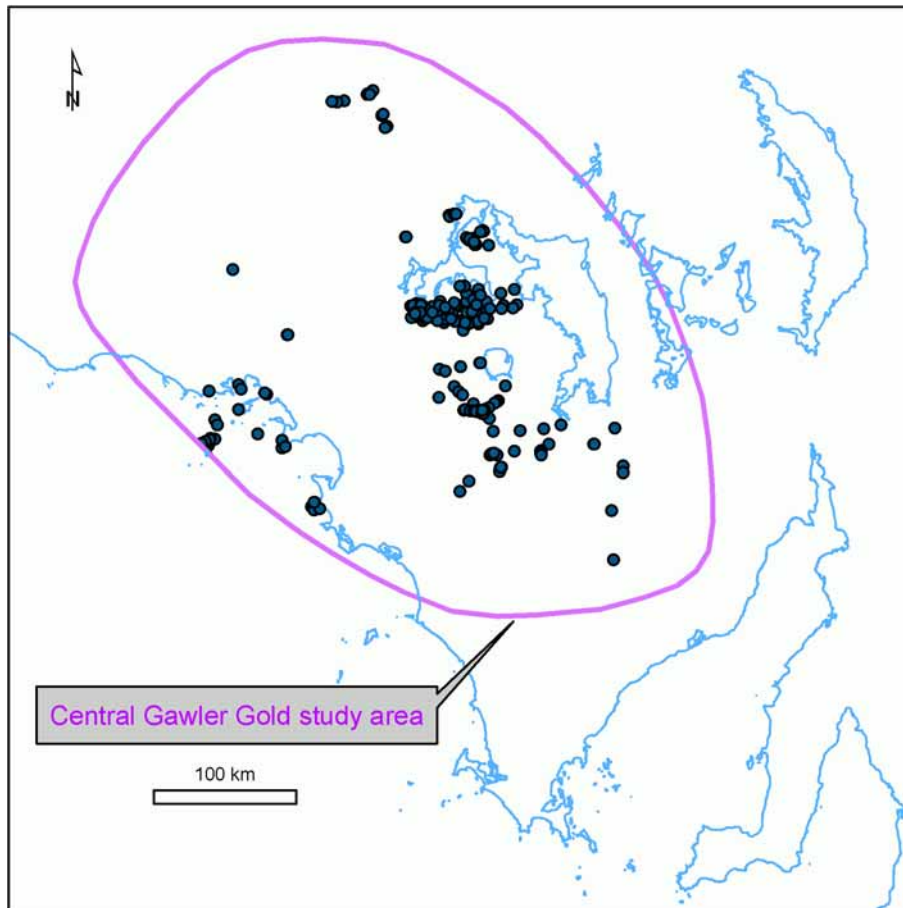


Figure 3.3.2.1b Geochemical analyses from GA's OZCHEM database

Status: mixed

3.3.2.2 Interpretative maps

No interpretive maps have been located.

3.3.3 Biogeochemistry

3.3.3.1 Analyses

78 biogeochemical samples, including Mariana sp., acacia sp. and eucalyptus sp.) have been analysed for XRF and ICP-MS and are held in GA's corporate databases. Approximately 100 samples from the region have been collected for biogeochemical work by Mel Lintern (CRC LEME), including bluebush., acacia sp., Casuarina sp. and eucalyptus sp predominantly from the Boomerang Au prospect (~7km SW of Tarcoola) and the Earea Dam Gold Field (North of the Glenloth Gold Mines).

Status: open file

3.3.3.2 Interpretative products

At this stage no interpretive products have been generated.

3.3.4 Hydrogeochemistry

3.3.4.1 Analyses

CRC LEME (CSIRO) has sampled 94 drill holes at Tunkillia for ground water. The pH, Eh and salinity of the samples were recorded in the field and the groundwater from each hole is being analysed for Au (pre-concentrated in field on activated charcoal), cation/trace elements (filtered to 0.1 microns and acidified with HCl) and anions (filtered to 0.1 microns). When the analyses are complete the data will be available digitally.

Water bores

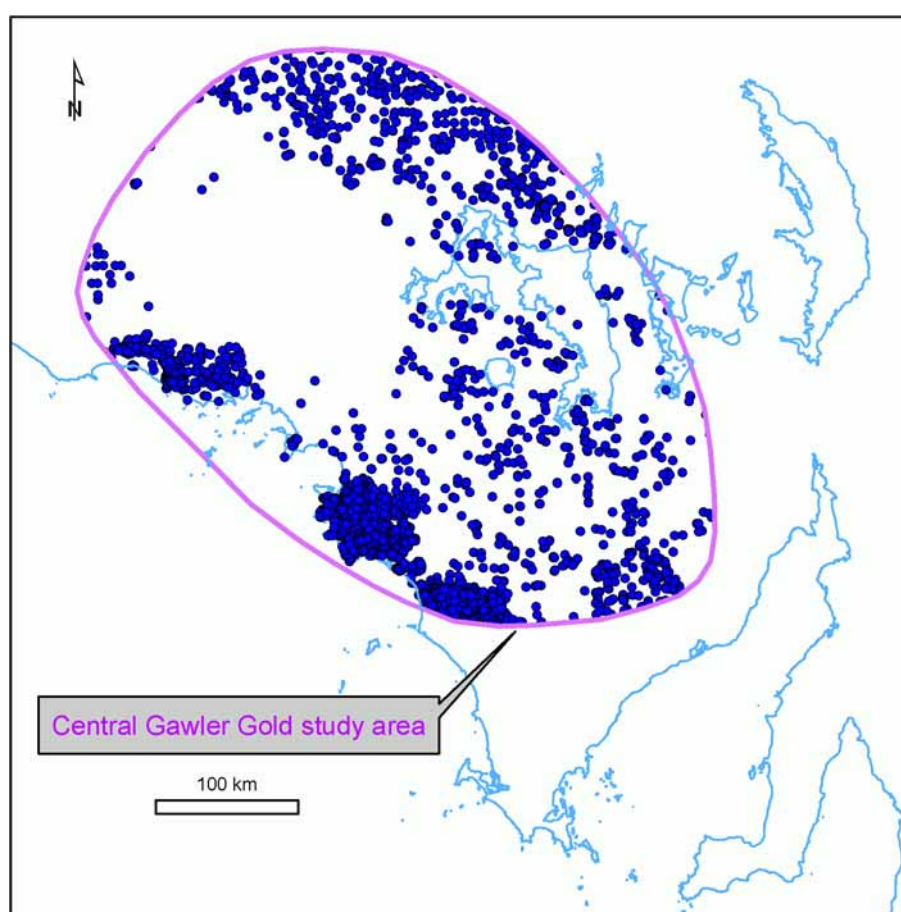


Figure 3.3.4 Water bores located in the Central Gawler Gold Study Area

There are over 3,600 water bores in the Central Gawler Gold Study Area. The location of the bores is available digitally together with information on the

depth to water and, in some instances, basic water chemistry. This data is available from the new Department of Land, Water and Biodiversity Conservation's "Groundwater Resources" database (which includes the old MESA Groundwater Drill hole database), and PIRSA'S DRILLHOLE database (which can be accessed via SARIG). Both of these databases contain information on water chemistry, aquifer details, drill hole logs and hole completion details.

Status: open file

3.3.4.2 Interpretive maps

No interpretive maps have been located.

3.4 Geophysics

3.4.1 Gravity

Twenty one open file company reports mention ground gravity surveys (see Section 4.0). The surveys are located at Charlotte Well on the northern margin of Lake Gairdner (company report number 152), Yellabinna (company report number 230), Lake Gairdner (company report number 278), Lake Labyrinth (company report number 413), Barton and Mungala South (company report number 500), Yudnapinna (company report number 510), Bulgunnia (company report number 518), Tarcoola-Barton (company report number 559), Mount Bosanquet (company report number 562), Cleve (company report number 565), Pinkawillinie (company report number 635 and 636), Mount Glyde (company report number 639), Streaky Bay (company report number 640), Darke Range (company report number 641 and 643), Mount Isabella (company report number 642), Kyancutta (company report number 644), Warrambo (company report number 647), Roopena West, 50km west of Port Augusta (company report number 657), Konanda (company report number 658).

Ground gravity surveys have also been carried out in the Cooper Pedy/Tarcoola area (Biggins, 1996), Kingoonya (Cowley and Martin, 1988), in the Gawler Ranges (Crooks et al, 1996), Redcliff (Finlayson, 1980), Cowell (McMutrie, 1959 and Seedsman, 1958), Hawks Nest (Morris and Flintoft, 1999) and Warripi near Tarcoola (Wightman, 1974).

In addition, 2905 ground gravity measurements are known to have been acquired over an 8 km x 6 km area centred on the Tunkillia prospect. Station spacing of 100 m along lines spaced at 200 or 400m intervals was used for this survey. This dataset is confidential to Helix Resources NL.

Status: mixed

3.4.2 Magnetics

There is near-complete magnetic coverage of SA, although line spacing of surveys varies from 100 -16,000 m. This dataset include magnetics flown as part of the Targeted Exploration Initiative, South Australia (TEISA) (Fig 3.4.2a), the South Australian Exploration Initiative (SAEI) (Fig 3.4.2b), as well as other regional and more detailed surveys (Figs 3.4.2 c,d,e and f). Ultra-detailed company surveys were flown with up to 25m line spacing. Most of the available data is already in the public domain although some of the smaller-scale surveys flown by mining companies are still confidential.

TEISA aeromagnetics

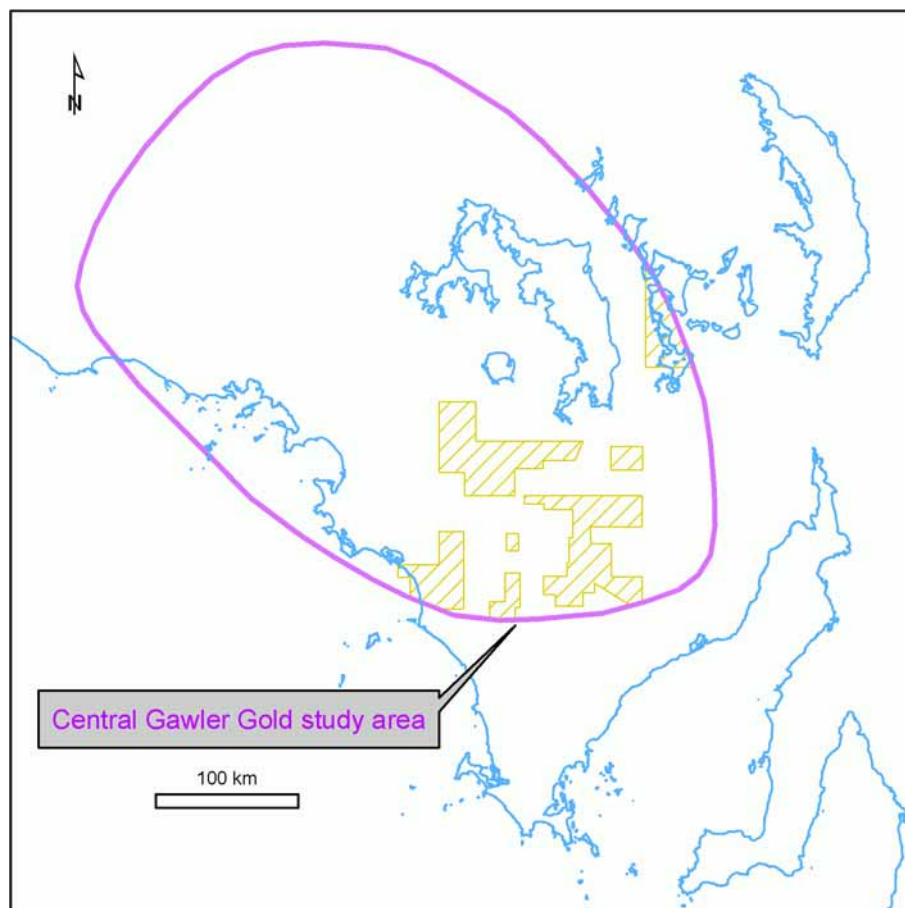


Figure 3.4.2a Locations of TEISA aeromagnetic surveys in the Central Gawler Gold Study Area

The Targeted Exploration Initiative, South Australia (TEISA) aeromagnetic surveys have line spacings between 200m and 400m (see Fig 3.4.2a).

SAEI aeromagnetics

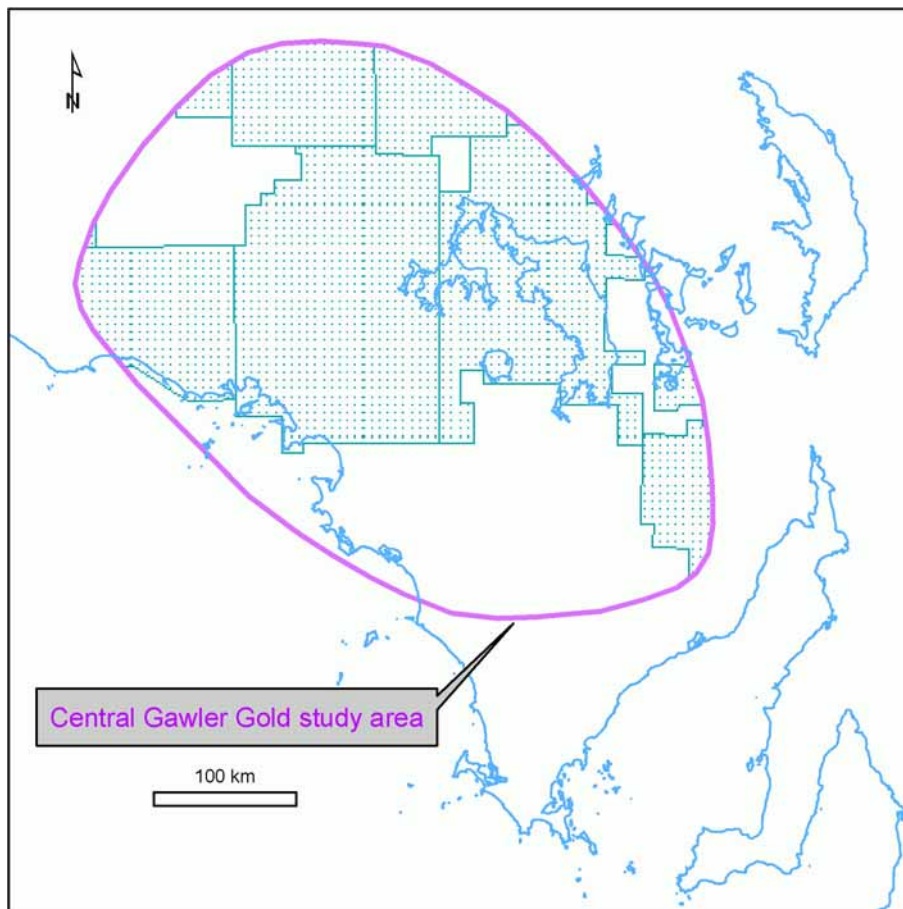


Figure 3.4.2b Locations of SAEI magnetic surveys in the Central Gawler Gold Study Area

Surveys flown for the South Australian Exploration Initiative (SAEI) (Fig 3.4.2b) all have 400m line spacing.

Aeromagnetics 71

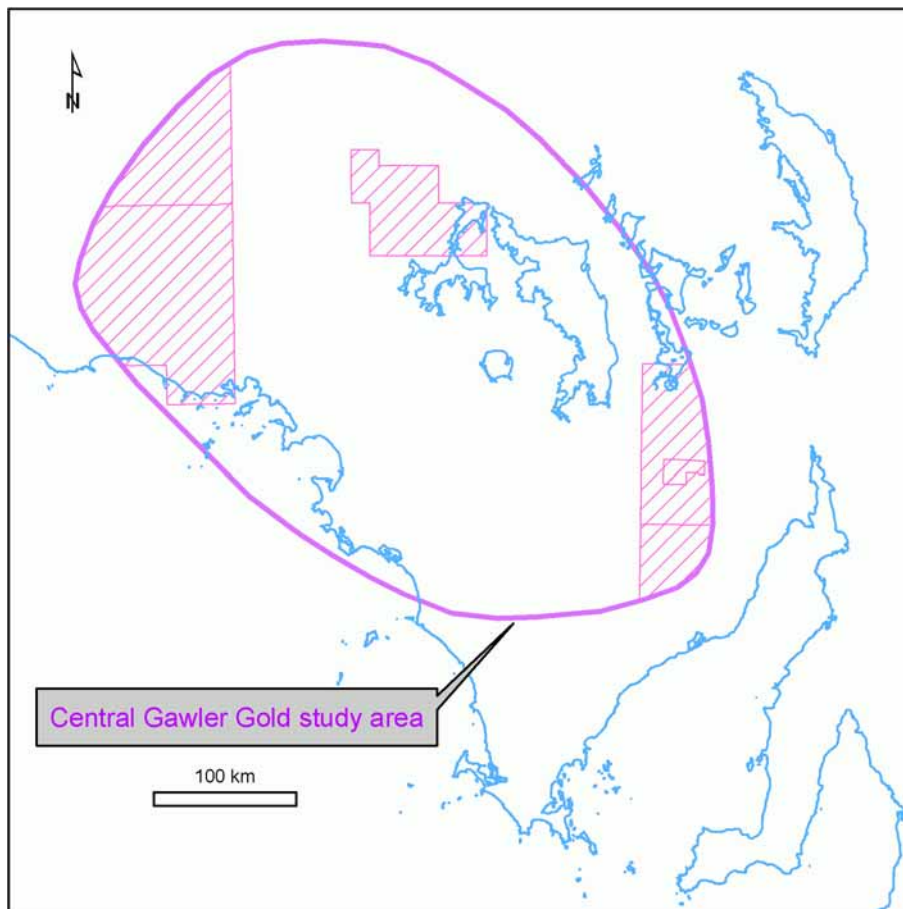


Figure 3.4.2c Locations of Aeromagnetic 71 surveys in the Central Gawler Gold Study Area

The Aeromagnetic 71 surveys were collected in the 1970's and comprise a range of line spacing, varying from 250 m to 1,600 m.

Aeromagnetics 81

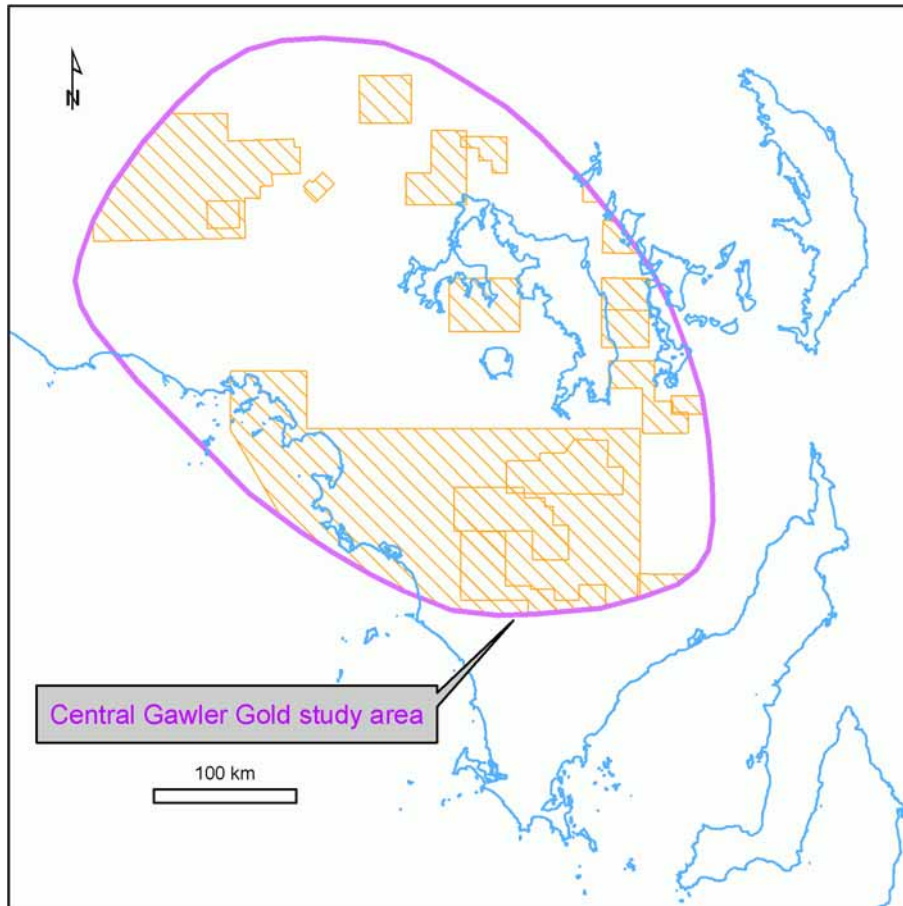


Figure 3.4.2d Locations of Aeromagnetic 81 surveys in the Central Gawler Gold Study Area

Aeromagnetic 81 surveys were flown in the 1980's and include line spacings varying from 150 m to 3,000 m.

Aeromagnetics 91

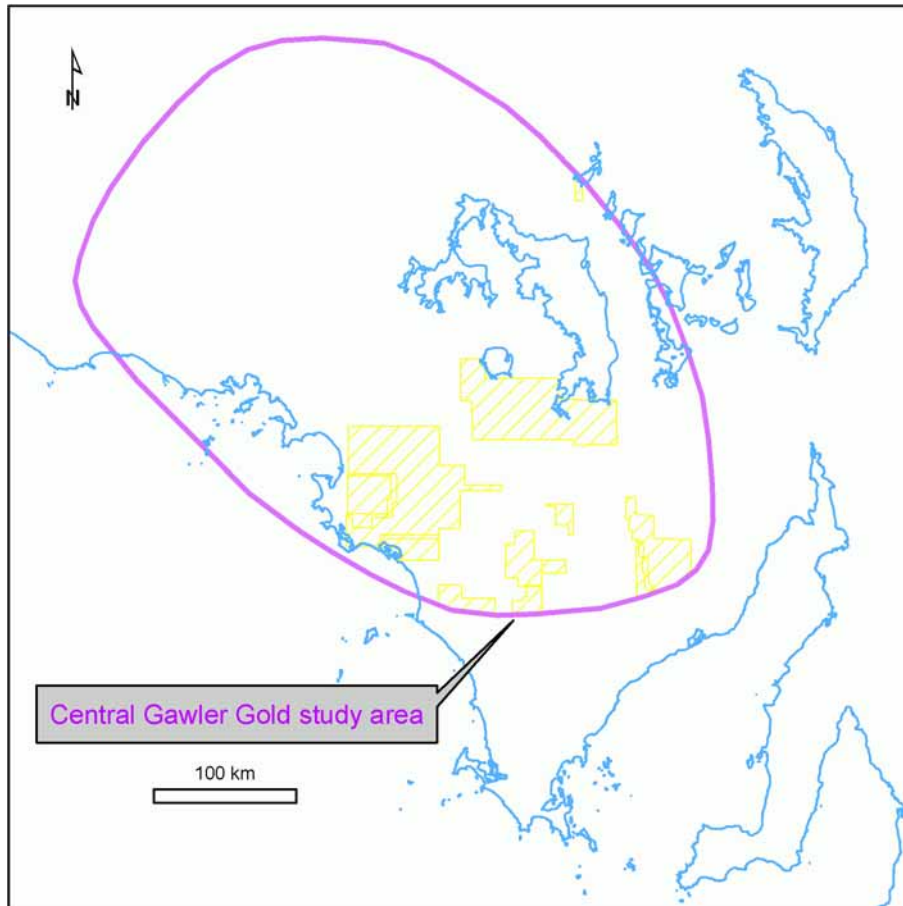


Figure 3.4.2e Locations of Aeromagnetic 91 surveys in the Central Gawler Gold Study Area

The Aeromagnetic 91 surveys are recent surveys dating from the 1990's to present and include line spacings from 100 m to 400 m.

Aeromagnetics – superseded surveys

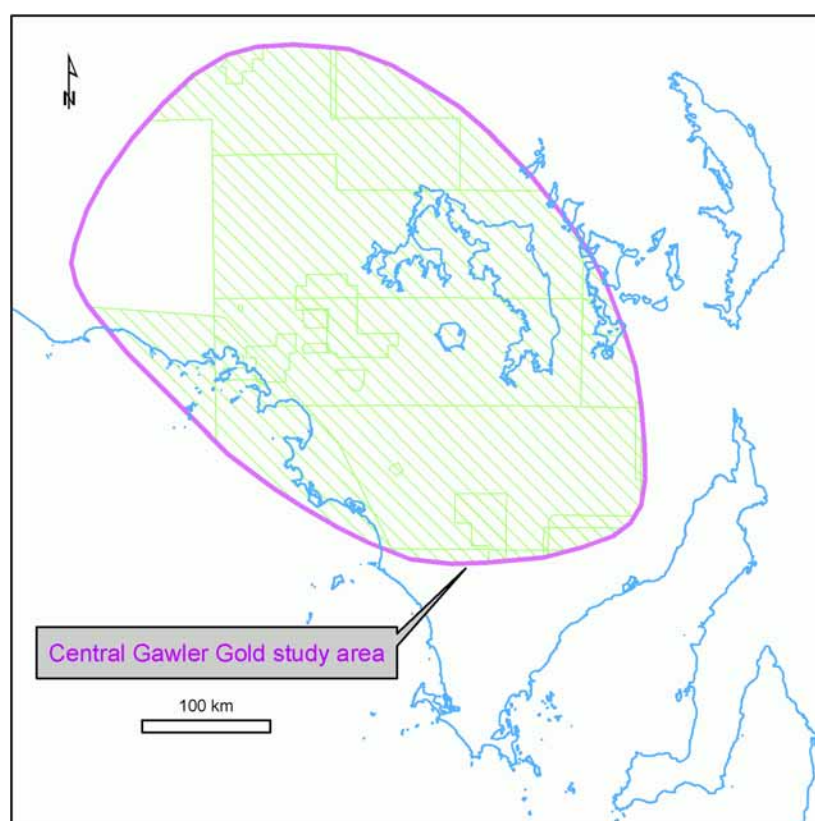


Figure 3.4.2f Locations of superseded Aeromagnetic surveys in the Central Gawler Gold Study Area

There are several superseded company and government aeromagnetic surveys, mostly dating from the 1970's (Fig 3.4.2f). These have a variety of line spacings from 300 m to 16,000 m.

Ground magnetics

Seventeen open file company reports mention ground magnetic surveys (see Section 4.0). The surveys are located at Tarcoola (company report number 2), Blue Dam between Lake Everard and Lake Gardiner (company report number 29), Campbell Rise, 150 km northwest of Woomera (company report numbers 134 and 135), Vivian Well (company report numbers 136 and 137), Gibraltar Rocks (company report number 146), Pinery Dam just north of Lake Gairdner (company report number 155), Tunkillia (company report number 169), Lake Gilles (company report number 240), Streaky Bay (company report number 434), Mount Messenger, southeast of Kimba (company report number 476), Barton-Ooldea (company report number 482 and 483), Mt Bosanquet (company report number 562) and Mt Isabella company report number 642).

Status: open file

3.4.3 Electromagnetics

Airborne Electromagnetic Surveys

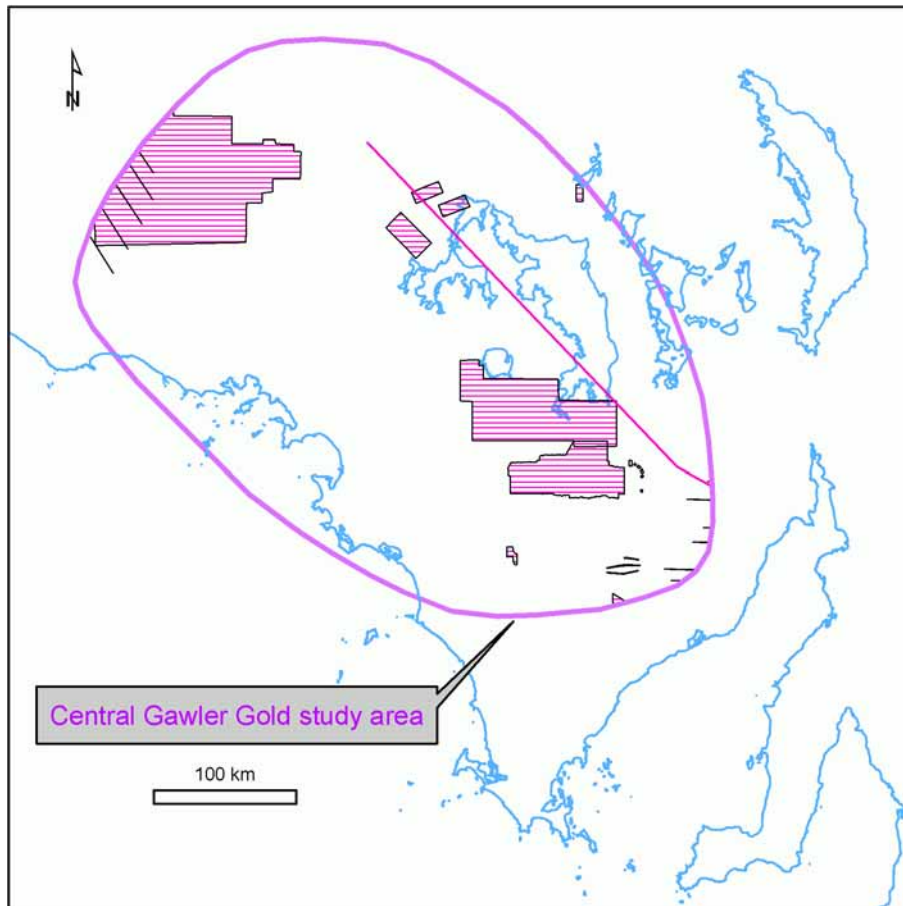


Figure 3.4.3 AEM survey boundaries within the Central Gawler Gold Study Area

AEM surveys flown in the Central Gawler Gold Study Area have been located in PIRSA's open file reports. The names, dates, system, location and other identifying information have been tabulated and attached to a shapefile of the AEM survey boundaries which were scanned and digitised from the open file reports. There are nine major surveys, six smaller surveys, a major traverse and 13 smaller traverse sections in the area as shown above.

Status: mixed

Ground electromagnetics

Three open file company reports mention ground EM surveys (see Section 4.0). The surveys are located at Mount Allalone, north west of Buckleboo on central Eyre Peninsula (company report number 7), Lake Gairdner (company report number 278) and Darke Range (Company report number 641).

Dodds (1991, 1999, 1989, 1995) describes ground EM surveys at Nundroo, Yalata-Ooldea, Port Kenny and Streaky Bay. Ivic (1985) describes a ground EM survey at Saltia Creek near Port Augusta.

Three ground EM surveys in the Tunkillia region have been collected as part of PhD work by Tania Dhu, a CRC LEME student at Adelaide University.

Status: open file

3.4.4 Induced Polarisation

Twelve open file company reports mention Induced Polarisation surveys (see Section 4.0). The surveys are located at Tarcoola (company report number 2), Moornaba (company report number 247), Tarcoola-Barton (company report number 559), Mount Bosanquet (company report number 562), Cleve (company report number 565), Pinkawillinie (company report number 635), Mount Glyde (company report number 639), Streaky Bay (company report number 640), Darke Range (company report number 641), Kyancutta (company report number 644), Warramboos (company report number 647) and Roopena West, 50 km west of Port Augusta (company report number 657).

3.4.5 Seismic

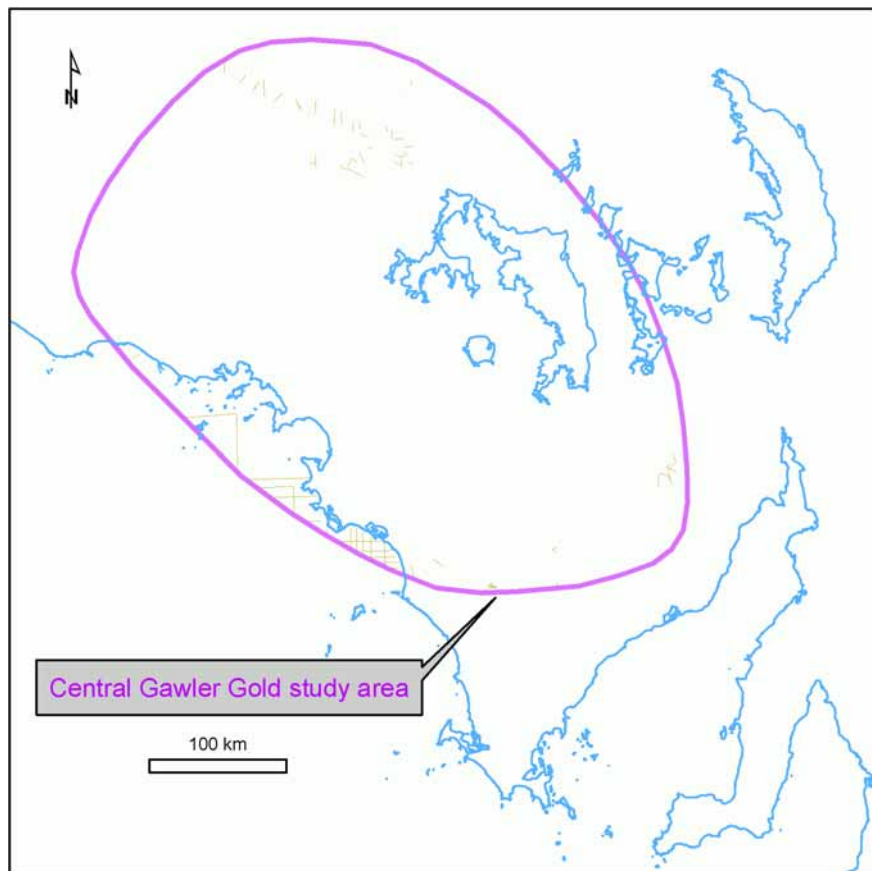


Figure 3.4.5 Seismic lines within the Central Gawler Gold Study Area

There are 76 seismic lines within the Central Gawler Gold Study Area, although several are off-shore lines, and consequently not currently relevant to the Central Gawler Gold region, as illustrated in Figure 3.4.4.

Onshore surveys mentioned in the company reports (Section 4.0) include a survey at Tarcoola (company report number 5) and Tapley Hill (company report number 58). Shallow surveys carried out on the Eyre Peninsula are described in Dixon and Nelson, (1972) and Nelson (1972, 1973 and 1974)

Status: open file

3.4.6 Downhole geophysics

There are 37 downhole geophysical logs in PIRSA's databases. In addition there are 25 downhole geophysical logs from the Tunkillia area available in digital format, although not yet entered in any corporate database. These logs include magnetic susceptibility, induction, gamma and neutron (Lisa Worrall, GA).

Downhole TEM surveys using an Mk 1 SIROTEM receiver and SIROTEM axial probe, with 200m transmitter loops and measurements taken at 5 m intervals, have also been carried out at Menninnie Dam (Hungerford et al., 2003).

3.4.7 Petrophysics

Petrophysical data has been acquired on samples from Nuckulla Hill (Parker, 2003) and Menninnie Dam (Hungerford et al, 2003).

3.4.8 Radiometrics

Radiometric coverages are currently held by both PIRSA and GA. There is a range of line spacings available over the Central Gawler region – see figures 3 3.4.8a and 3 3.4.8b.

Total radiometric coverage

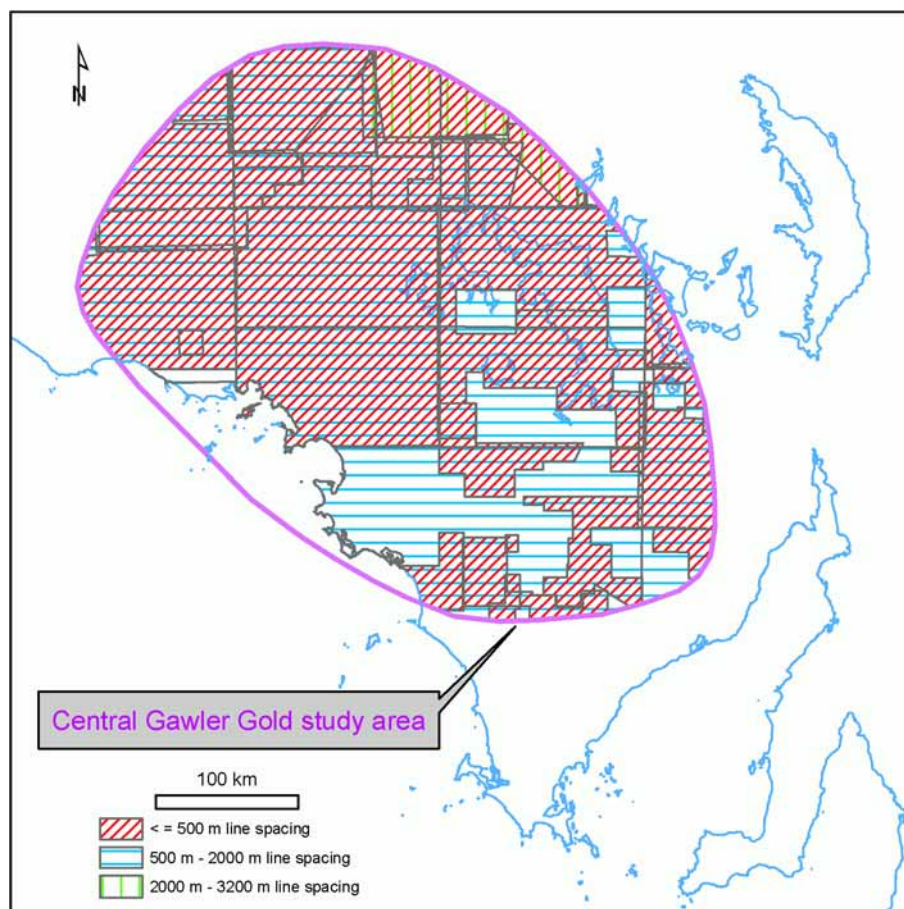


Figure 3.4.8a Total radiometric coverage over Central Gawler Gold Study Area

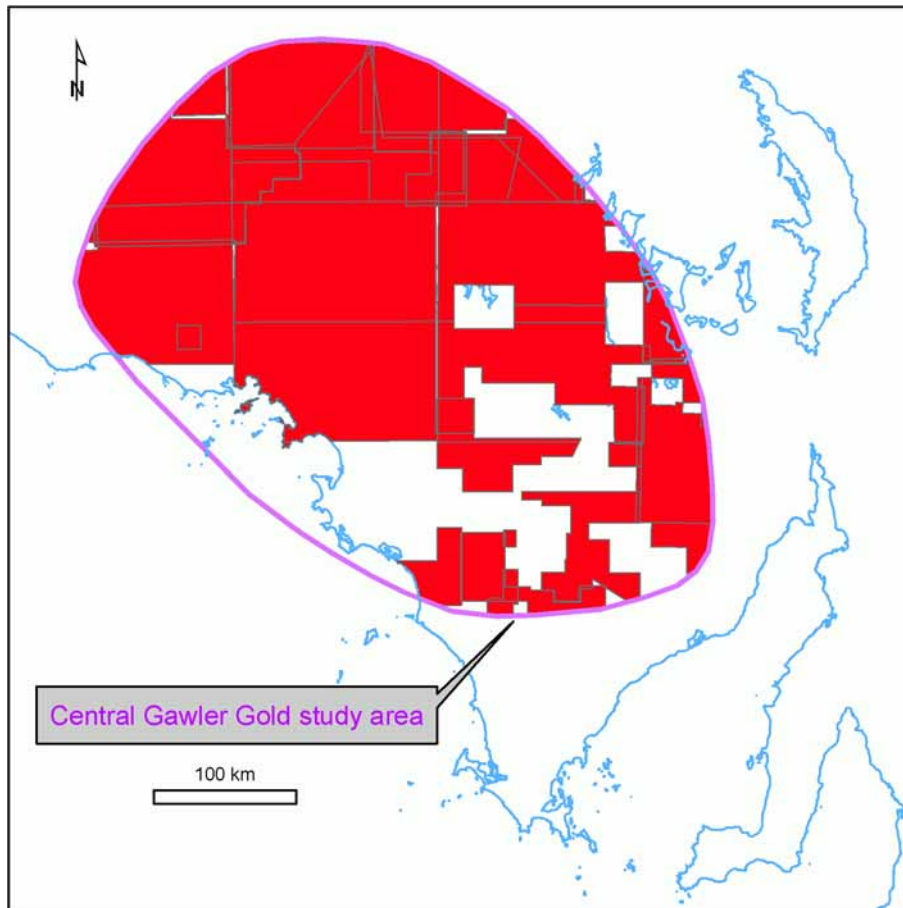
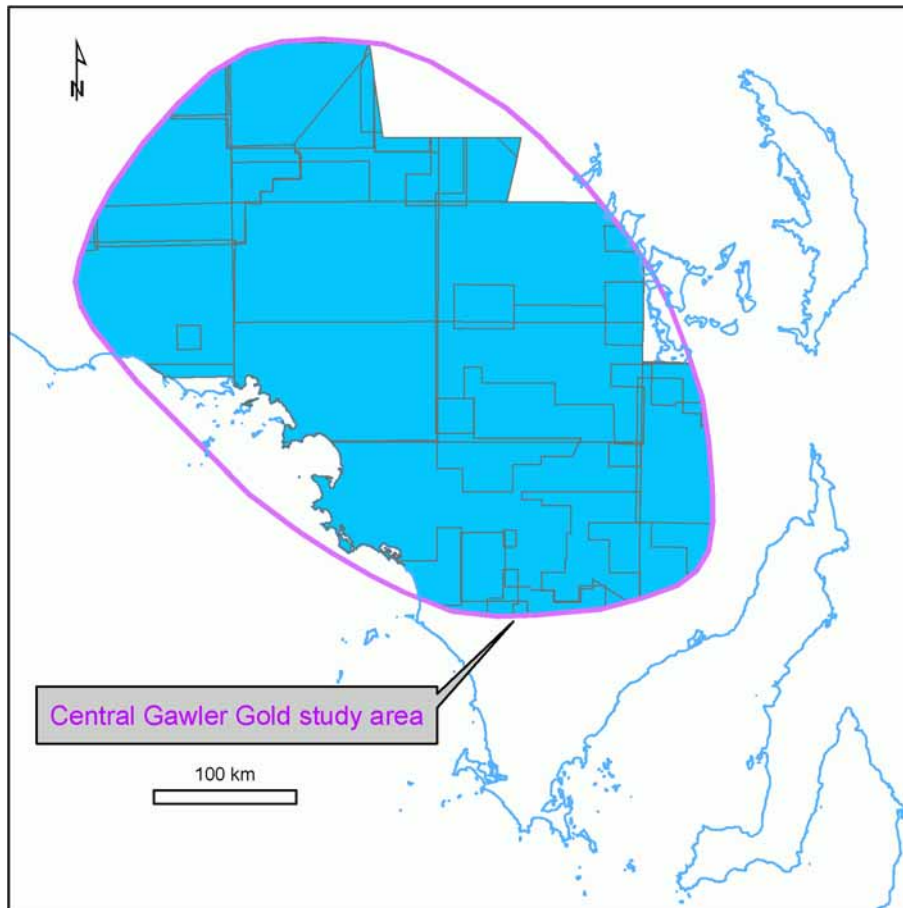
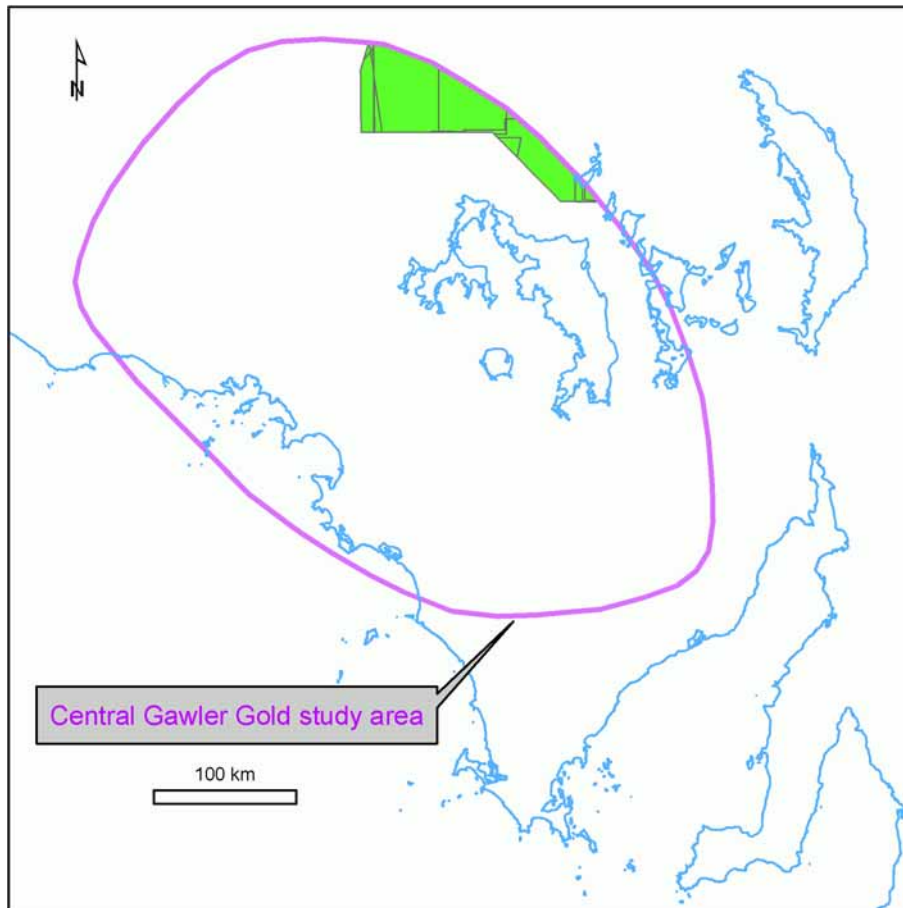


Figure 3.4.8b Radiometrics over Central Gawler Gold Study Area at 500 m line spacing or better



*Figure 3.4.8.3 Radiometrics over Central Gawler Gold Study Area
at 500 m to 2000 m line spacing*



*Figure 3.4.8.4 Radiometrics over Central Gawler Gold Study Area
at 2000 m to 3200 m line spacing*

3.5 Spectral

3.5.1 Landsat TM

A complete Landsat coverage is available for all of SA, In addition the National Mapping Division at Geoscience Australia (ACRES) maintains an archive of Landsat dating back to 1979 (10 + terabytes of data). Landsat distributors can be located at:

<http://www.ga.gov.au/acres/distributor/distmap.htm>.

ACRES also retail an ETM mosaic of bands 2, 4 and 7 for the entire continent.

Status: open file

3.5.2 Aster

The Aster dataset currently available and held by GA and PIRSA is shown in Figure 3.5.2a.

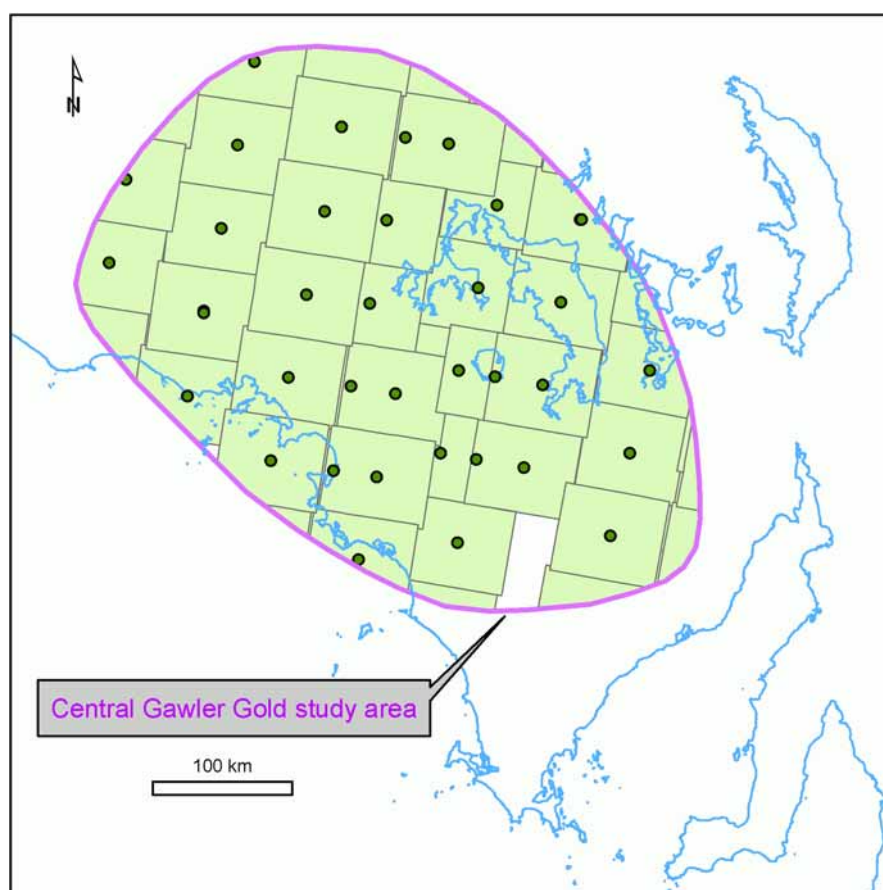


Figure 3.5.2a Aster polygon distribution across the Central Gawler Gold Study Area

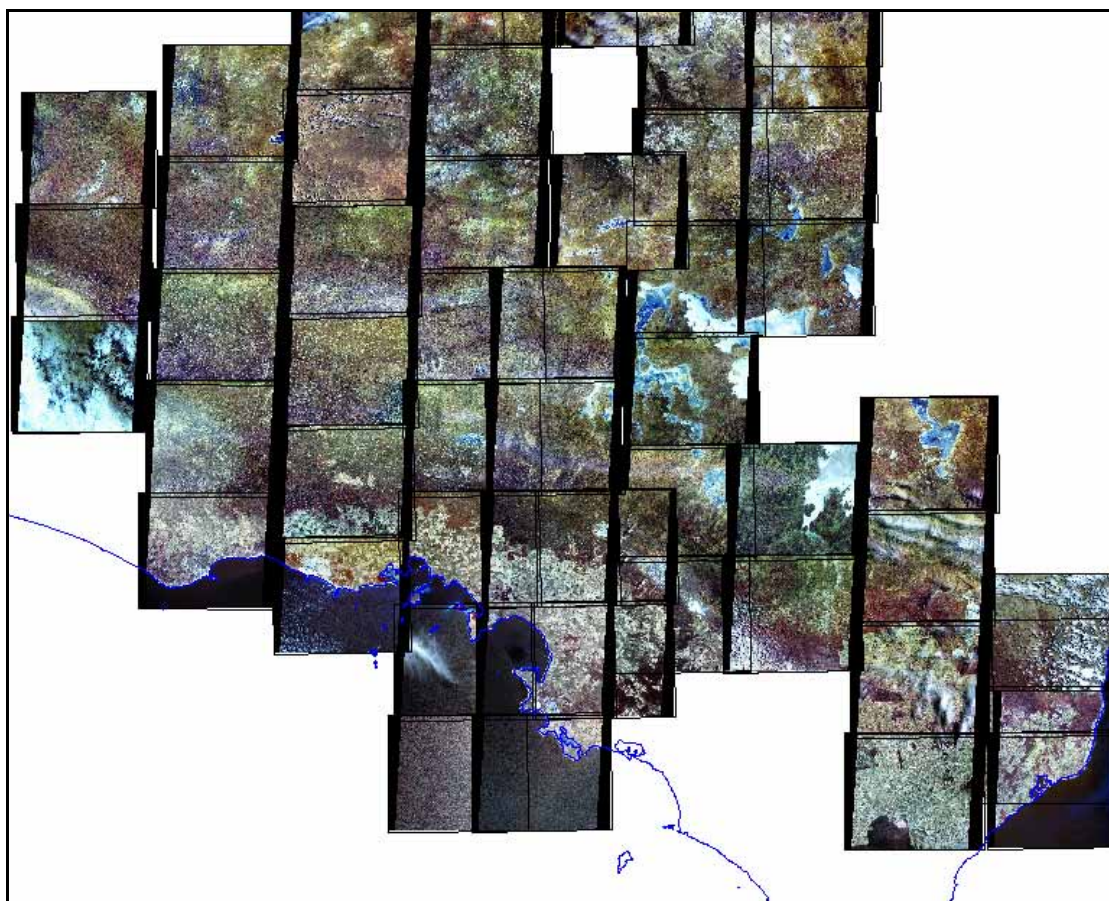


Figure 3.5.2b Aster polygon distribution across the Central Gawler Gold Study Area

Aster data footprints for currently held images in the Central Gawler region are shown in Figure 3.5.2b above.

Status: open file

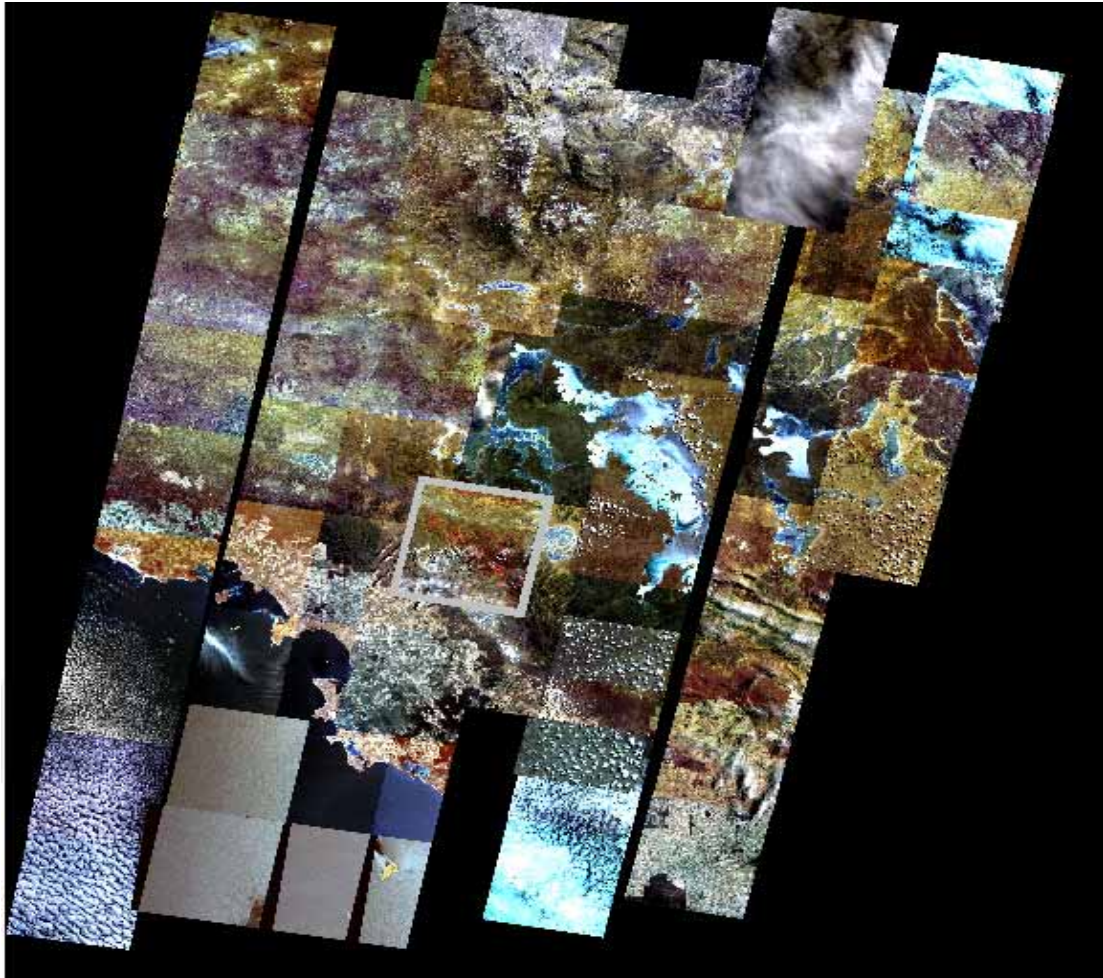


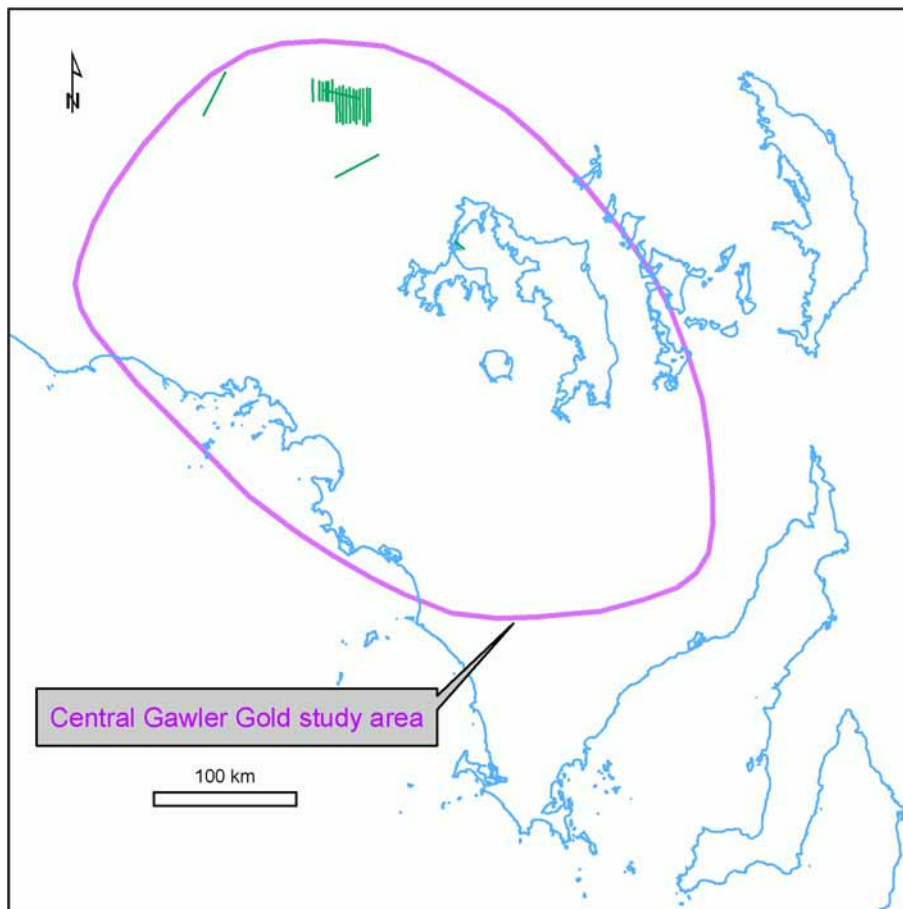
Figure 3.5.2c USGS Aster image distribution across the Central Gawler Gold Study Area

Additional Aster footprints are available from USGS for around AUS\$90 (Figure 3.5.2c). New Aster passes can also be requested through ACRES at GA with an expected delivery of around 3 months.

3.5.3 SPOT

There is currently no SPOT data held by either PIRSA or GA. However, a complete coverage is available and data can be purchased (at fairly high cost) from SPOT Imaging Services at <http://www.spotimage.com.au/>

3.5.4 HyMap



3.5.4 Current HyMap distribution in the Central Gawler Gold Study Area

20 HyMap hyperspectral surveys have been flown in the Central Gawler Gold area, see Figure 3.5.4 (Alan Mauger, PIRSA).

Status: unknown

3.5.5 Radar

AIRSAR data have been collected in vicinity of Lake Barry (Tarcoola sheet). The Lake Barry line is 60km in length, aligned at approximately WNW-ESE and extends approximately as far as the railway line (Ian Tapley, CRC LEME).

3.5.6 PIMA

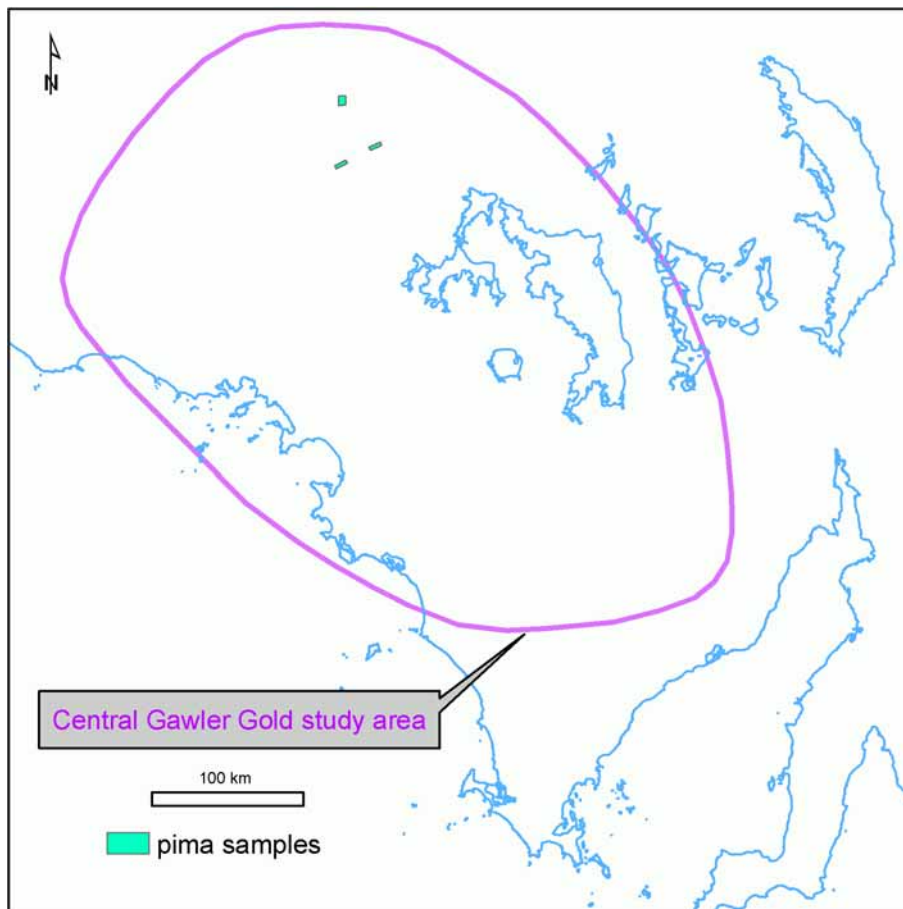


Figure 3.5.6 PIMA sample locality information

PIMA short-wave infrared spectral point data have been collected as both site and downhole data by PIRSA/CRC LEME, but neither GA or PIRSA's databases currently support this type of spectral information. The coverage shown in Figure 3.5.6 corresponds with a rough boundary around the Lake Harris region showing the general locality in which PIMA sampling was undertaken (Mal Sheard, Baohong Hou, PIRSA/CRC LEME).

Status: mixed

3.6 Topographic

3.6.1 (9) second DEM

9 second DEM data is available for all of SA, and is obtainable from PIRSA and the National Mapping Division at GA.

Status: open file

3.6.2 (3) second DEM

A 3 second DEM is not yet available for SA (except Adelaide) and will probably be superseded by 30m resolution Aster DEM.

Status: open file

3.6.3 Aster DEM

It is currently planned to generate a 30 metre (1 second) from Aster data, (see Figure 3.7.2 for Aster data coverages).

Status: open file

3.6.4 Data derived from geophysical surveys

Many of the geophysical surveys in the Central Gawler area are likely to have associated high resolution DEM data available with the datasets; this has not been tabulated for this report.

3.6.5 1:250,000 Topographic (and geological) maps

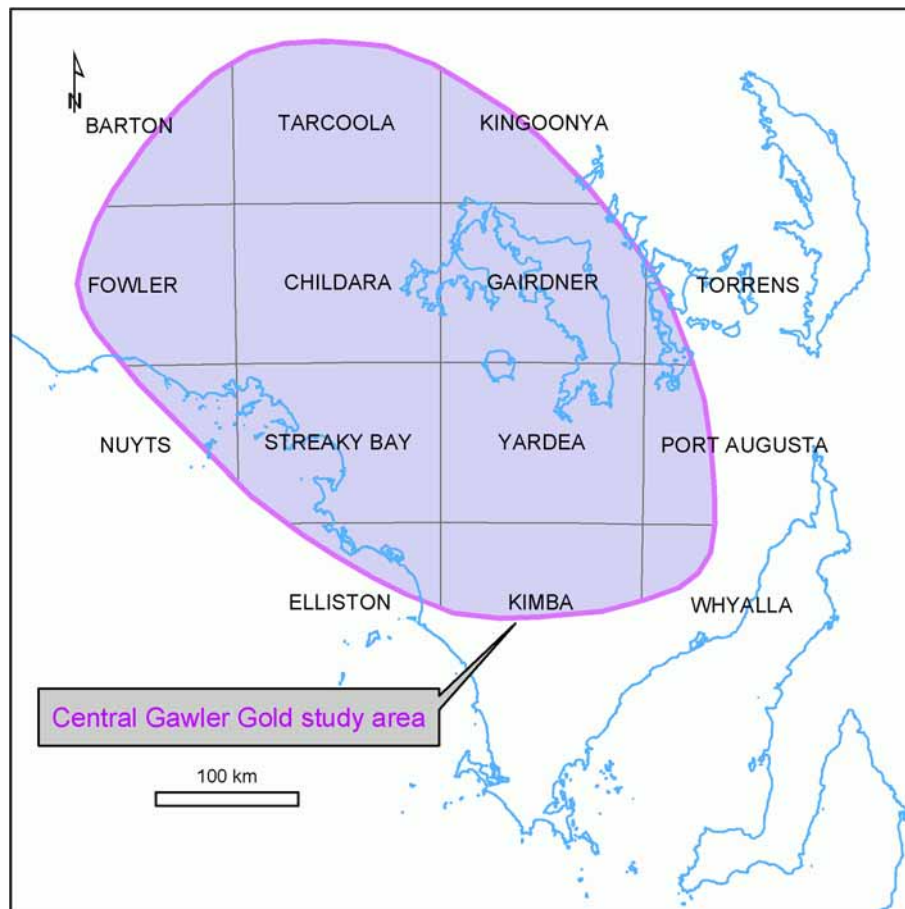


Figure 3.6.5 1:250,000 Topographic (and geological) maps

1:250,000 topographic maps are available from Geoscience Australia. The Geodata 250k Series 2 Topographic maps can be downloaded free of charge from: <http://www.ga.gov.au/sales/#topo>

3.6.6 1:100,000 Topographic maps

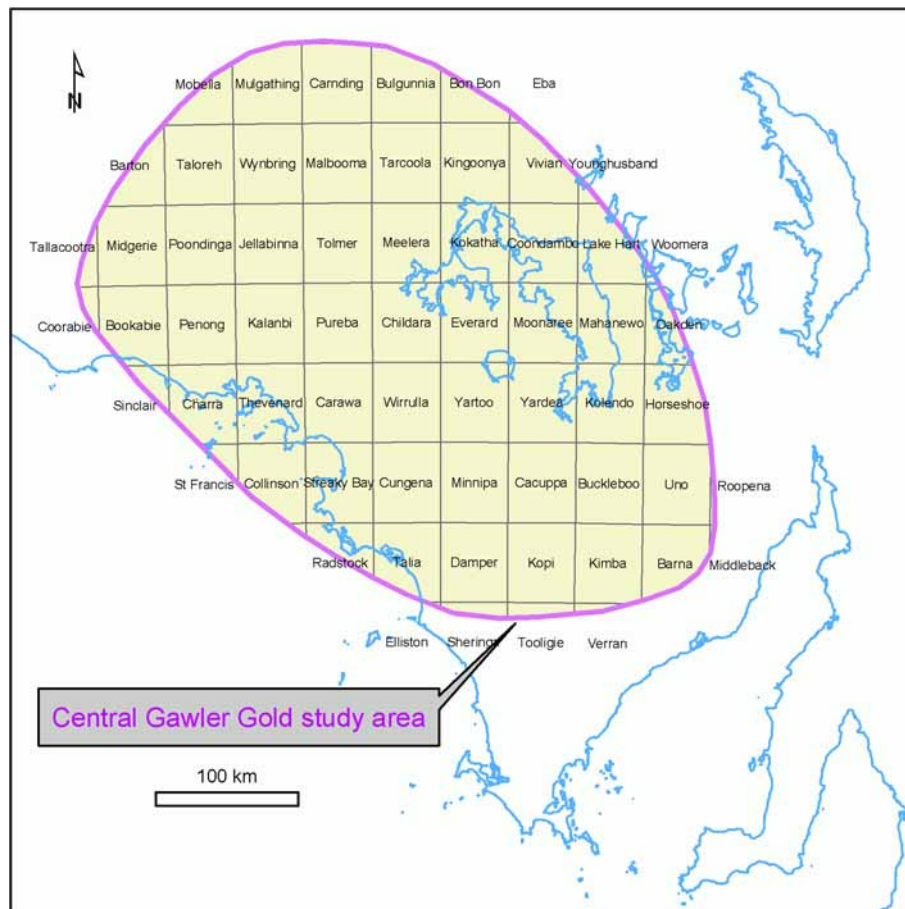


Figure 3.6.6 1:100,000 Topographic maps

Topographic maps are available from many retail map shops. A complete listing of NATMAPS topographic products and on-line catalogue NATMAPS products can be viewed from GA's Sales Centre webpage at:

<http://www.ga.gov.au/sales/>

3.7 Exploration Licences/Tenements

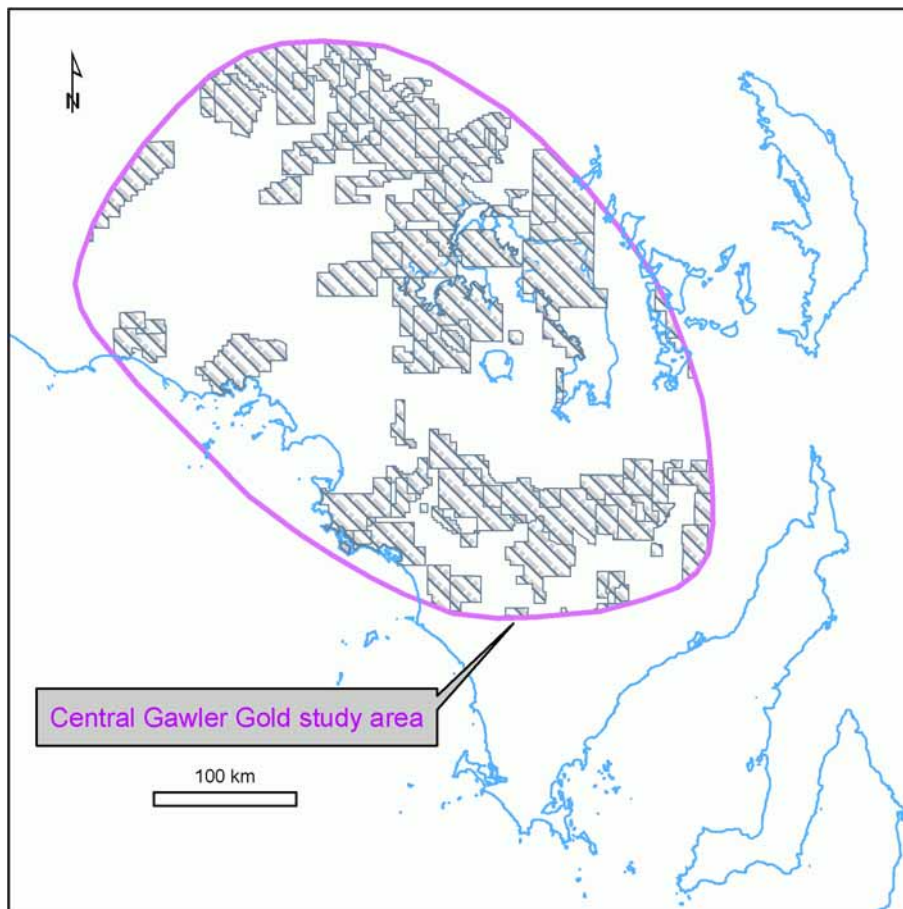


Figure 3.7.1 Mineral Exploration licences in the Central Gawler Gold Study Area September 2003

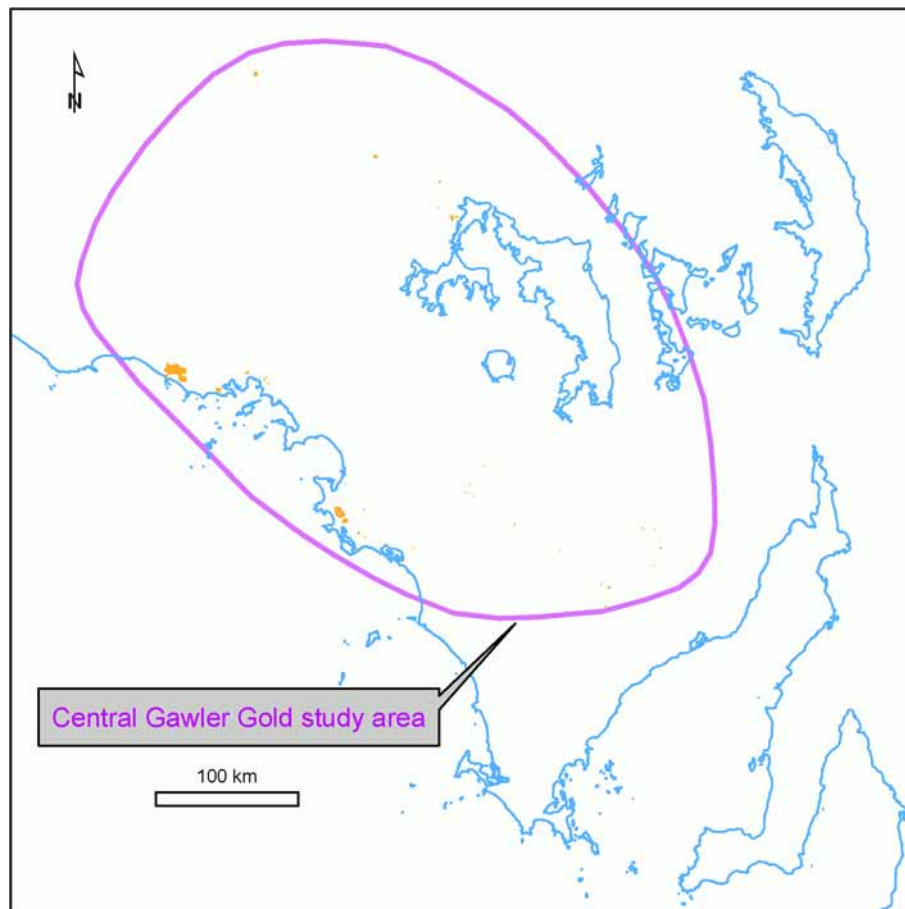
3.7.1 Mineral Exploration Licences

Current Mineral exploration licenses are digitally available and can be downloaded from PIRSA's SARIG map data web page:

Online_Linkage: <https://info.pir.sa.gov.au/geoserver/sarig/frameSet.jsp>

Status: open file

3.7.2 Mineral Production Licences



*Figure 3.7.2 Mineral Production Licences in the Central Gawler Gold Study Area
current at September 2003*

Current mineral production licenses are digitally available and can be downloaded from PIRSA's SARIG map data web page:

Online_Linkage: <https://info.pir.sa.gov.au/geoserver/sarig/frameSet.jsp>

Status: open file

3.7.3 Historical Tenements

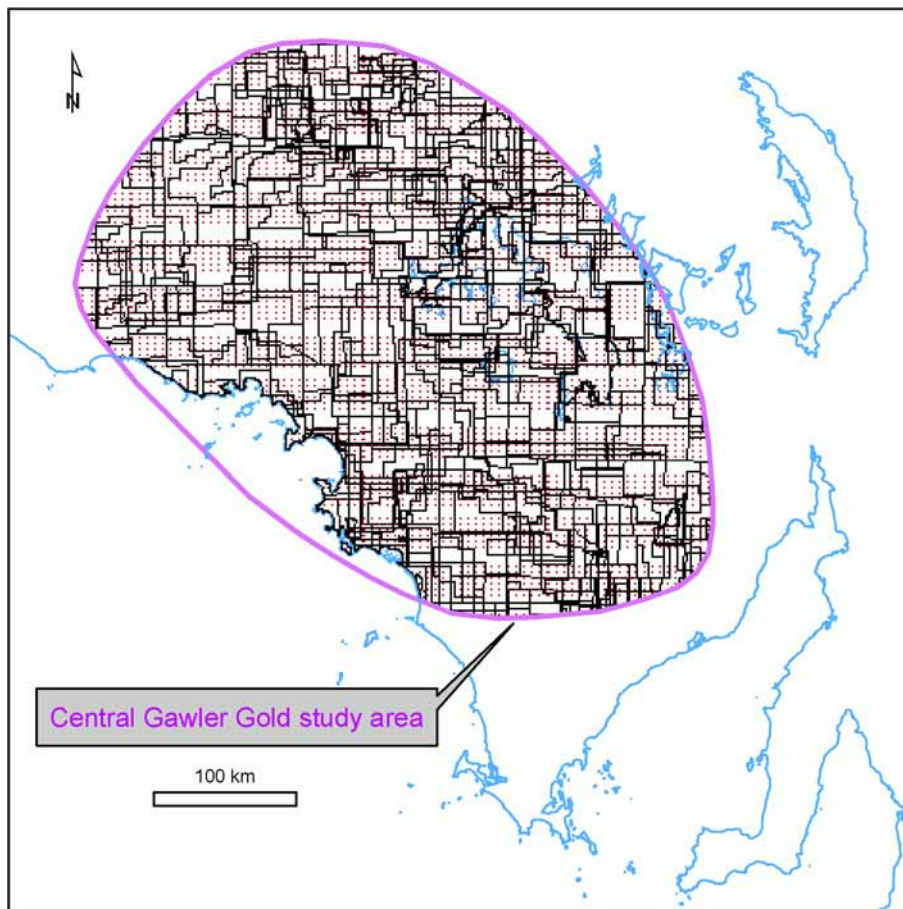


Figure 3.7.3 Historical exploration tenements in the Central Gawler Gold Study Area.

The locations of surrendered (historical) tenements in the Central Gawler Gold Area are shown in Figure 3.7.3 above. These are digitally available and can be downloaded from PIRSA's SARIG map data web page:

Online_Linkage: <https://info.pir.sa.gov.au/geoserver/sarig/frameSet.jsp>

Status: open file

3.7.4 Petroleum Exploration Licences

Current petroleum exploration licence coverages are digitally available and can be downloaded from PIRSA's SARIG map data web page:

Online_Linkage: <https://info.pir.sa.gov.au/geoserver/sarig/frameSet.jsp>

Status: open file

3.7.5 Petroleum Production Licences

There are currently no petroleum production licences in the Central Gawler region.

3.8 Cultural and Regional Layers

3.8.1 National Park Boundaries

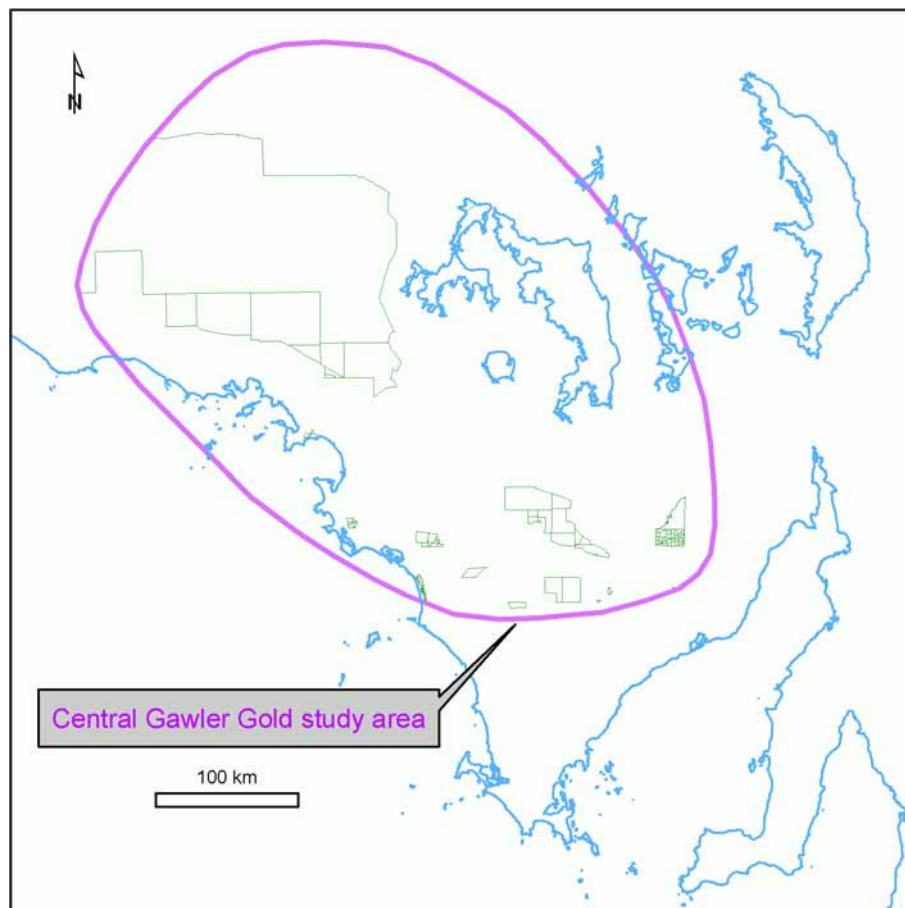


Figure 3.8.1 National Park boundary locations in the Central Gawler Gold Study Area

Current National Park boundaries are digitally available and can be downloaded from PIRSA's SARIG map data web page:

Online_Linkage: <https://info.pir.sa.gov.au/geoserver/sarig/frameSet.jsp>

Status: open file

3.8.2 Roads

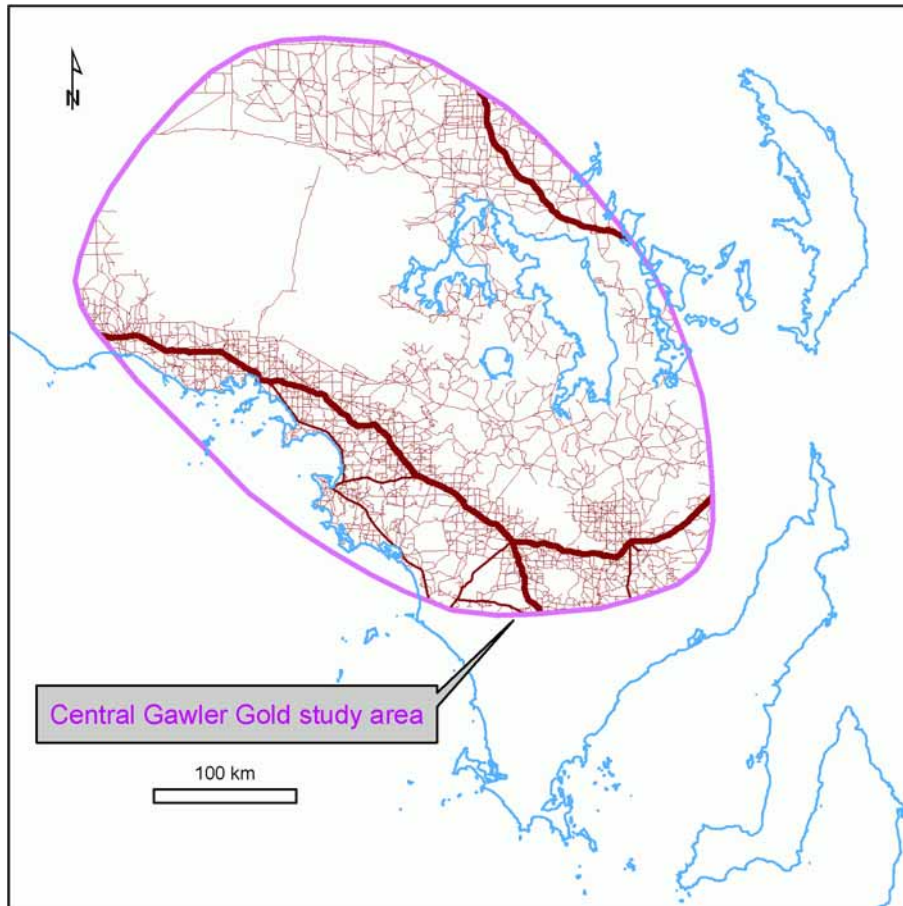


Figure 3.8.2 Main roads in the Central Gawler Gold Study Area

Current road locations are digitally available and can be downloaded from PIRSA's SARIG map data web page:

Online_Linkage: <https://info.pir.sa.gov.au/geoserver/sarig/frameSet.jsp>

Status: open file

3.8.3 Railways

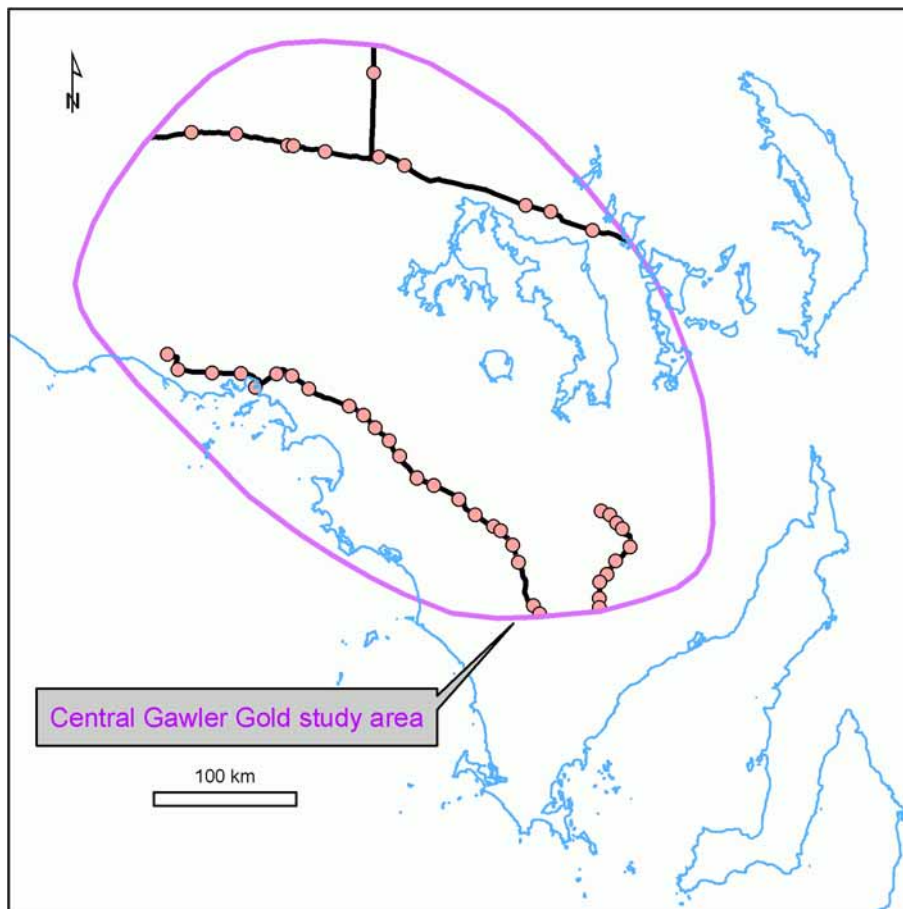


Figure 3.8.3 Railways and stations located in the Central Gawler Gold Study Area

Current railway lines are digitally available and can be downloaded from PIRSA's SARIG map data web page:

Online_Linkage: <https://info.pir.sa.gov.au/geoserver/sarig/frameSet.jsp>

Status: open file

3.8.4 Towns/Settlement localities

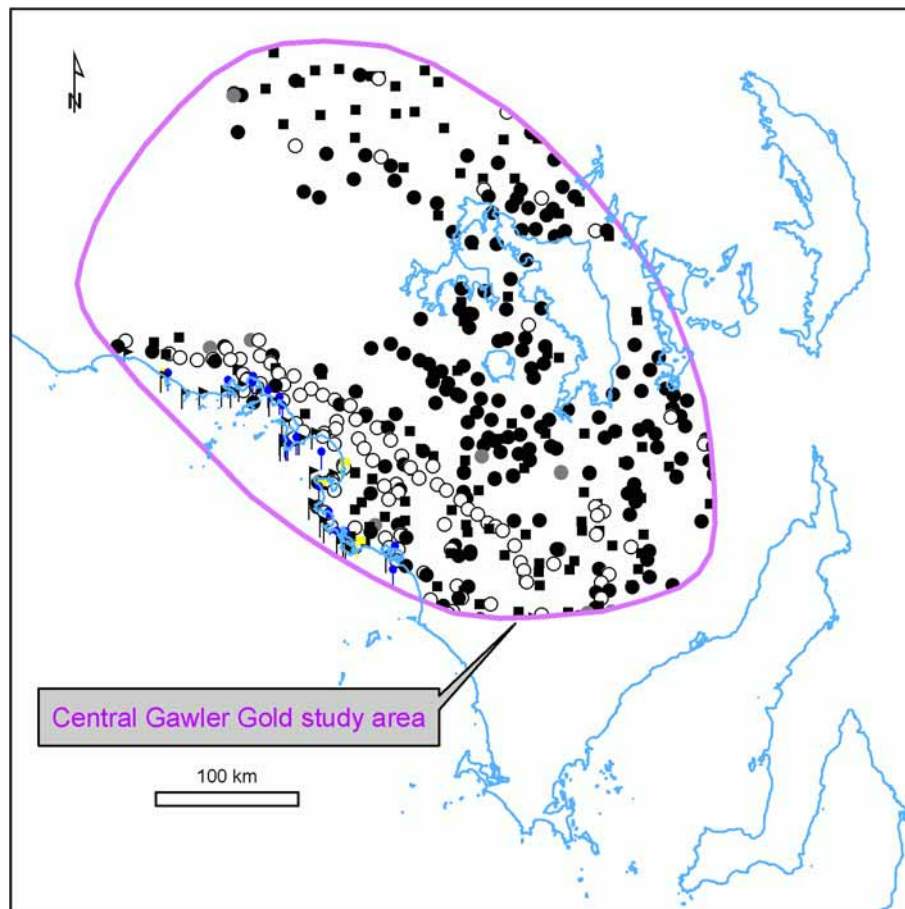


Figure 3.8.4 Towns, Settlements and localities in the Central Gawler Gold Study Area

Current town, settlement and locality names are digitally available and can be downloaded from PIRSA's SARIG map data web page:

Online_Linkage: <https://info.pir.sa.gov.au/geoserver/sarig/frameSet.jsp>

Status: open file

3.8.5 Woomera restricted area

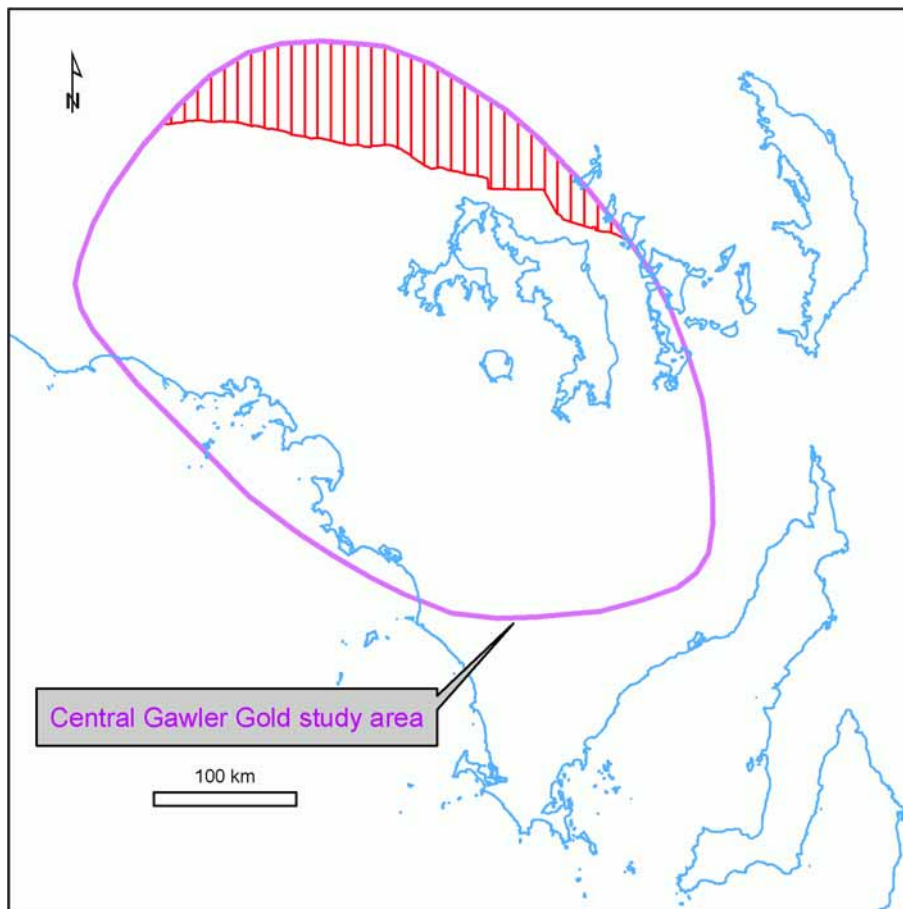


Figure 3.8.5 Woomera restricted area within the Central Gawler Gold Study Area

The Woomera restricted area boundary is digitally available and can be downloaded from PIRSA's SARIG map data web page:

Online_Linkage: <https://info.pir.sa.gov.au/geoserver/sarig/frameSet.jsp>

Status: open file

3.8.6 Other restricted areas

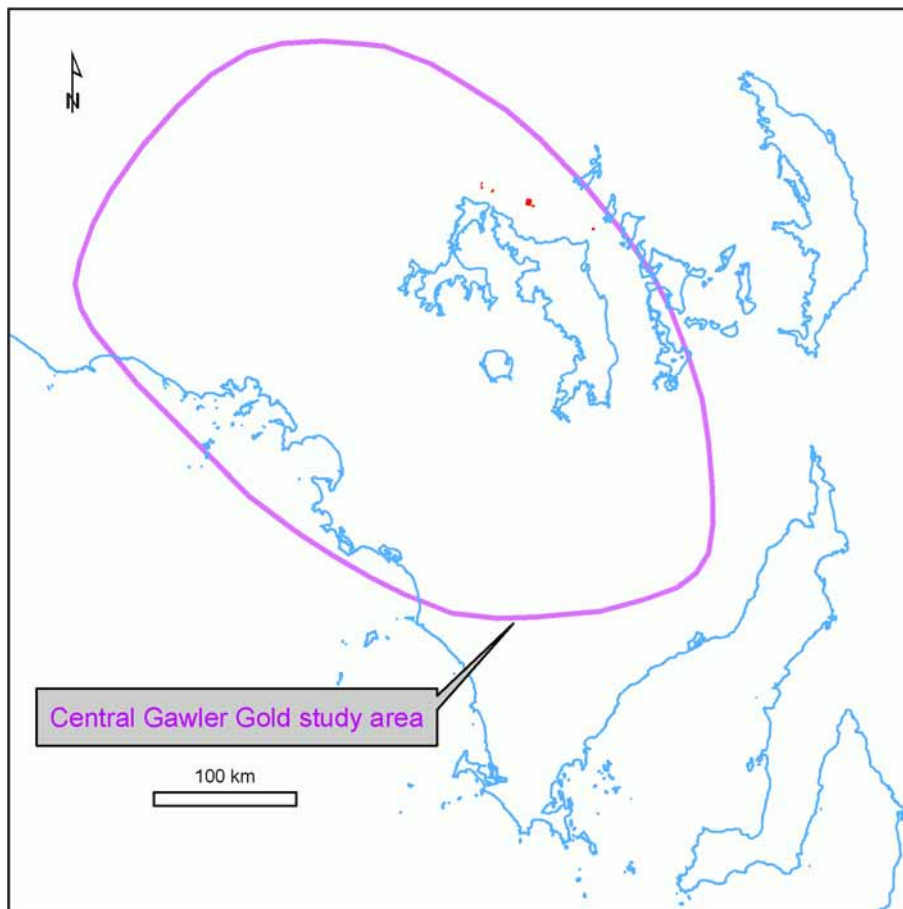


Figure 3.8.6 other restricted access areas within the Central Gawler Gold Study Area

Other restricted access area boundaries are digitally available and can be downloaded from PIRSA's SARIG map data web page:

Online_Linkage: <https://info.pir.sa.gov.au/geoserver/sarig/frameSet.jsp>

Status: open file

3.8.7 Aboriginal land

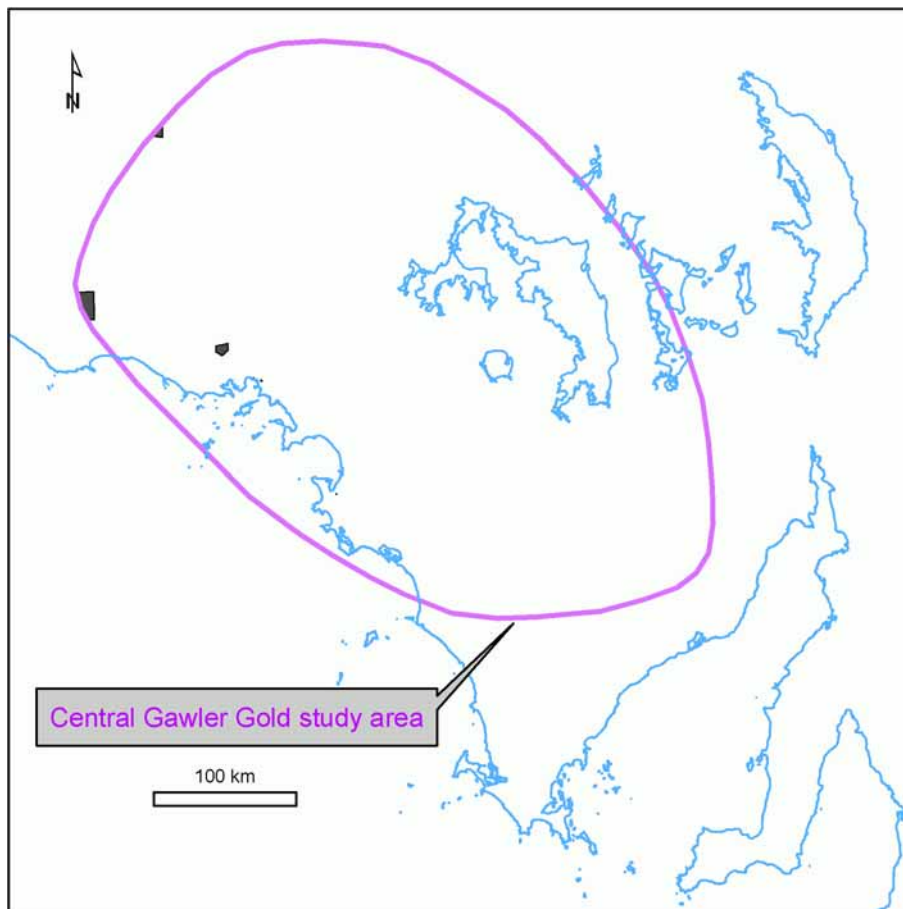


Figure 3.8.7 Aboriginal land areas within the Central Gawler Gold Study Area

Aboriginal land area boundaries are digitally available and can be downloaded from PIRSA's SARIG map data web page:

Online_Linkage: <https://info.pir.sa.gov.au/geoserver/sarig/frameSet.jsp>

Status: open file

3.8.8 National Estates

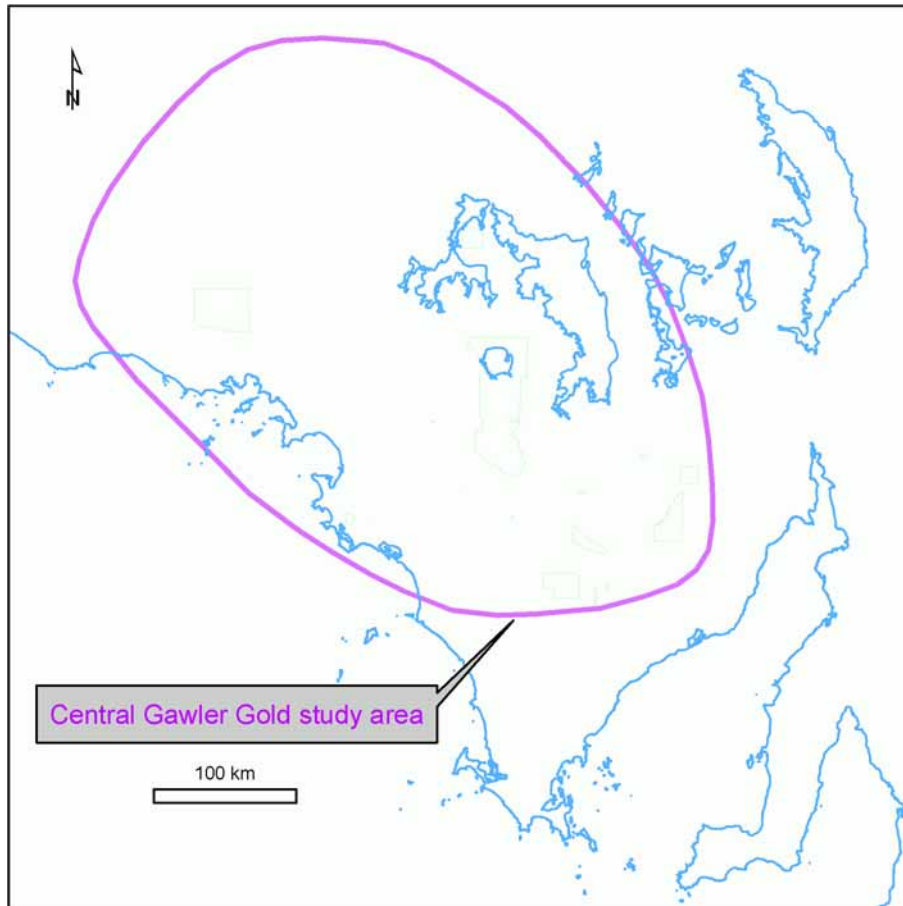


Figure 3.8.8 National Estate areas within the Central Gawler Gold Study Area

Areas with National Estate listing in the Central Gawler Gold Study Area are shown above. These boundaries are digitally available and can be downloaded from PIRSA's SARIG map data web page:

Online_Linkage: <https://info.pir.sa.gov.au/geoserver/sarig/frameSet.jsp>

Status: open file

4. COMPANY REPORTS - ABSTRACTS

1. Abador Gold NL, Outback Mining and Oil Company Pty Ltd. 1998. Bookabie, annual report for the period 18/3/97 to 17/3/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09427:10p; 2 appx, 1 fig, 1 plan, tables

Abstract: Reconnaissance drilling undertaken between Bookabie and Coorabie on western Eyre Peninsula comprised 8 RAB holes totalling 259 m and 41 aircore holes totalling 2448 m. Many holes abandoned before reaching basement due to running sands, water inflow or extremely hard and almost impenetrable silcrete horizons. No significant gold or base metal values returned from calcrete or basement sampling.

2. Aberfoyle Resources Ltd, Afmeco Pty Ltd, BHP Minerals Ltd, Roy Cox and Associates Pty Ltd, Monash University Department of Earth Sciences, AMDEL Ltd, BHP Gold Mines Ltd, Toteff S, Cox R, Freytag IB *et al.* 1990. Tarcoola, progress reports for the period 19/7/84-6/12/90. South Australia. Department of Primary Industries and Resources. Open File Envelope; E03306:v7-15., p324-1797; appendices, figures, plates, references, tables

Abstract: Exploration of Tarcoola gold field began 1984 when promising Au assay values detected from rock and mine dump sampling. Geological mapping, air photo interpretation and photogrammetry plus ground magnetic and IP surveys followed by RAB drilling which detected sub-economic Au in altered granite and basic intrusives and in fractured pyritic arkose. Subsequent exploration comprised aeromagnetic/radiometric survey of greater gold field area, and further rock chip, mine dump and BCL soil sampling. Number of IP anomalies outlined and several significant Au values reported from backhoe trenching. Additional 421 RC holes and 12 diamond holes returned significant values at Perseverance and Last Resource prospects. Ground magnetics results from lines laid out over Mulgathing gold-in-soil geochemical anomaly suggested a granitoid source for gold, but subsequent BCL soil, stream sediment and trench sampling detailed geochemical results in area disappointing. Indicated resources in Perseverance/Last Resource areas calculated in 1990 using economic cut-off grade of 1 g/t Au. In-situ resource of 137,000 t at 4.2 g/t included a mineable 46,000 t at 5.3 g/t. Exploration of Tarcoola region remained on-going since 1990 under different tenure.

3. Aberfoyle Resources Ltd, Afmeco Pty Ltd, Freytag IB, Yates KR, Ryan CR, Palletti E, Poggi JP, Bladier Y, Toteff S. 1984. Tarcoola, progress reports for the period 7/6/78-19/4/84. South Australia. Department of Primary Industries and Resources. Open File Envelope; E03306:6v., p1-323; appendices, figures, references, tables

Abstract: In 1978 exploratory rotary drilling for inferred sediment-hosted roll-front uranium ore bodies buried beneath salt lake topographic depressions east of Tarcoola intersected low levels of uranium (max 14 ppm) at fresh water/brine interfaces in relict deltaic marginal deposits formed where two Tertiary palaeochannels had entered a playa lake. Follow-up seismic refraction and airborne radiometric/magnetic surveys of Peela Swamp region led to further RC drilling which intersected lignite and minor base metal anomalism, but failed to upgrade uranium prospects. Between 1980-82 some earlier indications of stratiform Pb-Zn anomalism in a trough in Carpentarian age Tarcoola Beds investigated by field mapping and ground magnetic surveys, and then confirmed by RAB and percussion drilling, but following interpretation of drill hole sample geochemistry and metal threshold values was decided that occurrences did not warrant further work.

4. Aberfoyle Resources Ltd, Anderson JA, Coutts B. 1992. Waddikee, progress reports for the period 25/6/91 to 25/3/92. South Australia. Department of Mines and Energy. Company Report; E8480:7p

Abstract: Investigation of a magnetic anomaly 25 km SE of Kimba.

5. Aberfoyle Resources Ltd, Coutts BP, Fander HW. 1992. Carpie Puntha and Peterlumbo, technical report for areas relinquished on 13/2/92. South Australia. Department of Mines and Energy. Company Report; E8560:31p; 2 appx, 8 figs, 3

Abstract: Target was base metals in the Cowell-Kimba-Buckleboo region.

6. Aberfoyle Resources Ltd, Curran CA, Drown CG. 1995. Mount Miccollo, annual reports for the period 9/8/93 to 9/8/95. South Australia. Department of Mines and Energy. Open File Envelope; 8818:26p; 2 appx, 3 fig, 6 plans, 2 reps, tables

Abstract: Rock chip sampling of outcrop in the vicinity of Mount Miccollo, 50 km west-north west of Iron Knob, returned anomalous Cu, Pb, Zn and As values. A pronounced circular aeromagnetic anomaly, possibly caused by a colluvium-hidden Gawler Range Volcanics vent, was identified on airphotos and in the field but has

not yet been drilled.

7. Aberfoyle Resources Ltd, Mount Isa Mines Ltd, Pontifex and Associates Pty Ltd, Analabs Ltd, Classic LL, Central MSPL, CSIRO Division of Exploration Geoscience, Australian Laboratory Services Pty Ltd, Toteff S, Anderson JA *et al.* 1995. Mount Allalone, progress and annual reports for the period 14/6/89 to 31/7/95. South Australia. Department of Mines and Energy. Open File Envelope; 8209:7 vol, 26 fiche, 585p; appendices, figures, 85 plans, plates, 15 reps, tables

Abstract: Base metal exploration of two lead-zinc mineralized areas previously discovered by Billiton and WMC within Hutchison Group metasediments near Mount Allalone, north west of Buckleboo on central Eyre Peninsula, comprised ground magnetic and EM surveys, RAB drilling (130 holes, total 6959 m) and RC drilling (67 holes, total 3335 m). The RAB drilling on Paney prospect returned visible galena and RC drilling yielded a best intersection of 2 metres at 2.61% and Zn, down-dip. Extensions were not significantly mineralized. The majority of new drilling work was carried out over grids on the Tin Hut Well prospect. This has disclosed a geochemically anomalous (to 3.56% Pb + Zn) zone 1.8 km long and 250 m wide, which exhibits syngenetic sulphide lead isotope characteristics. An untested EM conductor found east of the Tin Hut Well prospect is also contained within a local target sequence of base metal anomalous carbonates exceeding 100 metres in thickness.

8. Aberfoyle Resources Ltd, Rava BF, Purvis AC, Dean JA. 1992. Corunna, progress and final reports for the period 22/7/91 to 21/7/92. South Australia. Department of Mines and Energy. Company Report; E8520:176p; 8 appx, 1 fig, 20 plans

Abstract: Target was base metals in the Palaeoproterozoic Hutchison Group in the Corunna area. The drilling downgraded anomalous zones.

9. Aberfoyle Resources Ltd, TeakLe M G, Anderson JA, Painter JAC. 1990. Nalara; Pulkatha. Reports for the period from 28/9/88 to 28/3/90. South Australia. Department of Mines and Energy. Company Report; E8104:3 fiche, 78p; 1 appx, 4 fig, 1 plan

Abstract: Target was heavy mineral sands in the Eocene Hampton Sandstone of the Eucla Basin. Trace heavy minerals (max 0.5%) observed in aeolian and lacustrine sediments of Quaternary and late Tertiary age. Target Eocene sands not intersected.

10. Acacia Resources Ltd, Barna Joint Venture, Clarke D, Mackay CR. 1995. Lake Gilles, partial relinquishment report 16/3/95. South Australia. Department of Mines and Energy. Company Report; E8894:21p; 2 appx, 6 plans

Abstract: Magnetic targets 50 km east of Kimba were found to be related to jaspilite formations. No base metal or gold anomalies were revealed during reconnaissance rock chip sampling.
11. Acacia Resources Ltd, Mackay CR. 1995. Karcultaby, final report for the period 1/8/94 to 31/7/95. South Australia. Department of Mines and Energy. Company Report; E8945:68p; 4 appx, 4 plans

Abstract: Gold and metal exploration, east of Streaky Bay, comprised rock chip sampling, ground magnetic and TEM surveys, and RC drilling of two aeromagnetic anomalies (2 holes, total 151 m). No anomalous assays were obtained.
12. Acacia Resources Ltd, Mackay CR. 1995. Myora, final report for the period ending 25/8/95. South Australia. Department of Mines and Energy. Company Report; E8960:2 fiche, 87p; 6 appx, 2 fig, 3 plans

Abstract: Exploration for ironstone hosted Cu-Au in the Tooligie area, 100 km north of Port Lincoln, comprised ground magnetic and TEM surveys and RC drilling (2 holes, total 104 m). Anomalous assays were of low order and possibly related to enrichment by weathering.
13. Adamek P, Rust IP, Krische U, Taylor KS, Davidson GJ, Higgins ML, Elliott PJ, Berg RC, Paterson HL, Uranerz (Australia) Pty Ltd *et al.* 1988. Mount Olinthus. Progress and final reports from 12/7/78 to 7/2/88. South Australia. Department of Mines and Energy. Company Report; E3338:31 fiche, 694p; 17 appx, 193 fig, 109 maps

Abstract: Target was vein-like and vein-type U. Pb, Zn sulphides of Broken Hill or Balmat-Edwards type in Hutchison Group. A number of Pb-Zn anomalies identified. Bulk cyanide leach stream sediment sampling disclosed minor Au anomalies at Mangalo Creek and Mount Miller areas.
14. Adamson CL, CSR Ltd. 1984. Lake MacDonnell, progress and final reports from 8/9/82 to 31/8/84. South Australia. Department of Mines and Energy. Unpublished Report; E4660:39p; 1 appx, 1 fig, 3 maps

Abstract: 129 test pits dug to identify economic deposits of gypsum above water table.

15. Adelaide and Wallaroo Fertilizers Ltd. 1970. Reports in support of suspension applications M.C. 5805, 5806, 5807, 5848. South Australia. Department of Mines and Energy. Company Report; E1299:6p; 4 fig
16. Aerodata Services Pty Ltd, Swan Resources Ltd, Freeport of Australia Inc, Mosig RW, Elliott SD, Marx WT. 1981. Carrieton West. Progress, annual and final reports for the period 13/11/79 to 12/11/81. South Australia. Department of Primary Industries and Resources. Open File Envelope; E03705:2v., 7 fiche, 212p; 5 appx, 6 fig, 16 plans, 8 reps, tables

Abstract: TARGET: Diamonds in the Cradock-Carrieton region. EXPLORATION: Regional and follow up stream sediment and grided loam sampling, heavy mineral processing and SEM microscopy of bulk samples, grid-based ground magnetic surveys, and part of a regional airborne magnetic survey of inferred indicator mineral anomalous areas. RESULTS: Trace quantities of kimberlitic indicator minerals were recovered (principally mechanically weathered picroilmenites, plus one semioctahedral 0.003 carat microdiamond and grains of the carbonatite-diagnostic rare earth phosphate florencite), but those indicators found in the subsequently relinquished western half of the licence were considered to be derived from a distant source. Magnetic interpretation yielded no kimberlitic targets.

17. Agip Australia Pty Ltd, Stockdale Prospecting Ltd. 1982. Stuart Shelf, Arckaringa Basin, progress reports from 11/11/81 to 11/8/82. South Australia. Department of Mines and Energy. Unpublished Report; E6498:3 appx, 13 fig

Abstract: Drilling (39 holes, totalling 3,845 m) investigated coal in Permian sediments of southern Arckaringa Basin. Target unit, Mount Toodina Formation, was absent. No further exploration for coal will be carried out. Geophysical surveys conducted in EL's 796 and 799 for Olympic Dam type mineralization. Magnetic and gravity anomalies over Billa Kalina and Lake Younghusband were investigated. Reconnaissance sampling in EL 799 for kimberlitic indicator minerals.

18. Altman LF, Abadon Holdings NL. 1973. Keynella Rock, spontaneous potential survey for Abadon Holdings, April, 1983. South Australia. Department of Mines and Energy. Unpublished Report; E2276:maps

19. Altman LF, Abadon Holdings NL, Agilis Exploration Services (Aust) Pty Ltd. 1973. Keynella Rock, induced polarization and resistivity survey for Abadon Holdings, March, 1973. South Australia. Department of Mines and Energy. Unpublished Report; E2276:maps

20. AMC Gold Operations Pty Ltd, Drummond AJ. 1991. Lake Labyrinth, final report. South Australia. Department of Mines and Energy. Company Report; E8439:18p; 5 fig

Abstract: Target was Au and base metals around old gold workings. Weakly anomalous Au values were recorded in streams sourcing known mineralized areas.

21. AMDEL Ltd, Webb AW. 1981. Amdel project: geochronology of the Stuart Shelf, progress reports nos 1-3 for the period 27/9/78 to 24/6/81. South Australia. Department of Primary Industries and Resources. Open File Envelope; E03332:39p; 3 fig, tables

22. Amoco Minerals Australia Company. 1983. Mt Finke, progress report from 28 October 1982 to 28 October 1983. South Australia. Department of Mines and Energy. Unpublished Report; E4896:96p; 4 appx, 2 fig, 9 maps

Abstract: Potential for deposits of volcanic/hydrothermal origin assessed. Eight aeromagnetic anomalies associated with inferred syn- or post tectonic granite and may be sourced by pyrrhotite/magnetite in segregations, alteration zones, breccia pipes or roof pendants.

23. Amoco Minerals Australia Company, Miller GC. 1983. Mount Finke, progress and final reports for the period 26/8/80 to 14/6/83. South Australia. Department of Mines and Energy. Company Report; E3961:69p; 9 appx, 6 fig, 20 plans

Abstract: Target was base metals and Au beneath aeolian sand cover near Mount Finke. Some low order base metal values were intersected in metamorphosed granitoid.

24. Anaban Pty Ltd, Brukunga Services Pty Ltd, Bluck RG. 1999. Mangalo, partial relinquishment report for the period 16/4/97-15/10/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09583:17p; 2 appx, figures, tables

Abstract: Geologically unattributed small aeromagnetic features identified approx 10 km south of Mangalo profiled by ground magnetic survey. Elevated metal values reported from calcrete

sampling.

25. Andrewartha J. 1995. Minnipa, surrender report 22/6/95. South Australia. Department of Mines and Energy. Company Report; E8905:1 fiche, 7p

Abstract: Reconnaissance for granite dimension stone, northeast of Minnipa, indicated marked variability in deleterious properties, particularly fracturing. Core sampling was prevented by protracted access negotiation.

26. Andrews DL, Buckle P A, Kennedy DR, Birch JS. 1980. Progress and final reports on Cowell, EL 397, South Australia. CRA Exploration Pty Ltd; E3343:66p; 31 fig

Abstract: A total of 5178 metres drilled failed to intersect uranium mineralization, and coal exploration not warranted.

27. Andrews DL, CRA Exploration Pty Ltd. 1985. Bute, progress and final reports from 24/12/84 to 24/6/85. South Australia. Department of Mines and Energy. Unpublished Report; E5860:maps

Abstract: Reprocessing and interpretation of all available gravity data from previous BMR and SADME surveys and reanalysis of 16 core samples from Bute DDH2 and Bute DDH12 showed no significant results.

28. Ashton SM, Western Mining Corporation Ltd. 1975. Wilkinson Lakes area, South Australia, progress and final reports. South Australia. Department of Mines and Energy. Company Report; E2576:6p; maps

29. Aurora Gold (WA) Pty Ltd, Taylor G. 1998. Blue Dam, annual and final reports for the period 14/2/97 to 13/8/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09352:3 appx, figures, tables

Abstract: In a search for buried Acropolis-style Fe-Cu-Au and Hiltaba Suite intrusive breccia-related contact metasomatic gold and base metal deposits, surficial geochemical sampling and ground magnetics were carried out between Lakes Gairdner and Everard on Eyre Peninsula. Rock and lag sampling of outcropping volcanics, in areas of resultant low-order calcrete gold, arsenic and base metal anomalies, did not generate any targets worthy of further work.

30. Aurora Gold (WA) Pty Ltd, Taylor G. 1999. Ucarro Hill, relinquishment

report for the period 27/1/99-31/12/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09594:21p; 1 appx, 1 fig, 4 plans, tables

Abstract: Area 60 km west of Iron Knob underlain by Hutchison Group metasediments and Gawler Range Volcanics tested by calcrete sampling. No significant assays returned.

31. Austirex Aerial Surveys Pty Ltd, Afmeco Pty Ltd, BHP Minerals Ltd, Poggi JP, Bladier YG, Styles GR. 1983. Mulgathing Rocks, progress and final reports from 16/1/80 to 17/3/83. South Australia. Department of Primary Industries and Resources. Open File Envelope; E03777:3v., 5 appx, 20 fig, tables

Abstract: Exploration by Afmeco for uranium and base metals in an area north of Mount Christie included a consultant's interpretation of previously acquired aeromagnetic and aerial radiometric data (for surveys flown by Austirex in November 1979), ground-based follow-up of radiometric anomalies, including reconnaissance geological mapping and outcrop sampling, plus air-core and diamond drilling (20 holes, total 1134 m) and petrological and spectrometric studies of surficial sediments and basement amphibolite/granulite facies drill core/cuttings. A significant yet restricted thorium anomaly was identified in sedimentary cover near West Well, but testing of the underlying weathered gneiss failed to reveal a nearby primary source for the eroded rare earth mineralization. Exploration for diamonds and base metals by subsequent EL 974 joint-venturer BHP Minerals included RAB drilling of 5 selected aeromagnetic anomalies (13 holes, total 418 m) and soil sampling (379 samples) for base metal values and heavy mineral analysis. No geochemical anomalies or kimberlitic indicators were found.

32. Austirex Surveys Pty Ltd, Afmeco Pty Ltd, BHP Minerals Ltd. 1983. Mulgathing Rocks, progress and final reports from 15/4/80 to 8/7/83. South Australia. Department of Mines and Energy. Company Report; E3777:28p; 1 magnetic tape, 4 maps

Abstract: Thirty three holes drilled but no kimberlitic indicators found.

33. Australasian Mining Corp Ltd, Minoil Services Pty Ltd, Westhoff J. 1971. Pidinga Lakes area. Progress reports for the period 17/12/69 to 17/12/70. South Australia. Department of Primary Industries and Resources. Open File Envelope; E01316:5 fiche, 58p; 24 plans, 3 reps

Abstract: Shallow drilling of sediments on the eastern margin of the Eucla Basin (32 holes, total 1390 m) to test for secondary uranium mineralization, although limited by drilling difficulties, has resulted in the discovery of anomalous radioactive zones associated with extensive lignite beds north and west of Pidinga Lake. Earlier, reconnaissance aerial radiometric surveys had identified the two main lakes in the area as containing the most near-surface radioactivity, although the measured radioactive highs are very localized and not related to the deepest portions of the lakes. A survey of the elevated area of sand dunes in the northwest found a number of unmapped outcrops of Precambrian basement, which on testing failed to show any obvious primary radioactive source.

34. Australasian Mining Corp Ltd, Minoil Services Pty Ltd, Westhoff J, Smith PC. 1971. Pidinga Lakes area. Progress reports for the period 17/12/69 to 17/12/70. South Australia. Department of Primary Industries and Resources. Open File Envelope; E01317:6 fiche, 75p; 1 appx, 23 plans, 4 reps, tables

Abstract: Shallow drilling of sediments on the eastern margin of the Eucla Basin (32 holes, total 1390 m) to test for secondary uranium mineralization, although limited by drilling difficulties, has resulted in the discovery of anomalous radioactive zones associated with extensive lignite beds north and west of Pidinga Lake. Earlier, reconnaissance aerial radiometric surveys had identified the two main lakes in the area as containing the most near-surface radioactivity, although the measured radioactive highs are very localised and not related to the deepest portions of the lakes. A survey of the elevated area of sand dunes in the northwest found a number of unmapped outcrops of Precambrian basement, which on testing failed to show any obvious primary radioactive source. Significant occurrences of Tertiary lignite have been intersected in 57 of 97 uranium exploration drill holes drilled to date on SMLs 316, 365 and 367. Lignite also occurs just below the bottom surface of several of the local salt lakes. The beds occupy variable depths above an undulating Precambrian basement, but their reported thicknesses are extremely approximate due to the drilling and sampling methods used, since no coring has yet taken place which would give accurate results. Recommendations are therefore given for an exploratory work program within the SMLs to help delineate possible areas of greatest economic potential.

35. Australian Blue Metal Ltd. 1969. Mount Taylor and Spring Creek copper mines, progress reports. E859:maps
36. Australian Mineral Development Laboratories Ltd, Watson BL. 1987. Maturity of Arrowie Basin limestone samples, South Australia.

South Australia. Department of Mines and Energy. Company Report; E5530:fiche 6, 1 appx, 7 fig, 3 tables

Abstract: Seven Arrowie Basin limestone drill core samples were analysed to derive calculated aromatic maturity ratios and equivalent vitrinite reflectance values, based on the relative distributions of their phenanthrenes and methylphenanthrenes. Total organic carbon (TOC) content and Rock-Eval pyrolysis data were also derived to measure organic richness and indicate source type.

37. Australian Mineral Development Laboratories Ltd, Watson BL. 1991. Polda Basin source rock studies - data. South Australia. Department of Mines and Energy. Company Report; E8496:4p; 1 fig, 1 table

Abstract: 15 samples from 4 wells were analysed for TOC and Rock-Eval pyrolysis indicators of source rock potential yield.

38. Australian Photogeological Consultants Pty Ltd. 1989. A photogeological investigation of Early Cainozoic coastal landforms in the eastern Eucla Basin, SA. South Australia. Department of Primary Industries and Resources. Open File Envelope; E08219 R :p2-25; 1 appx, 1 fig, 9 plans

Abstract: Reconnaissance photogeological investigation of eastern margins of Eucla Basin carried out using small-scale (RC9 and RC10) aerial photographs, with results being compiled onto 1:100,000 scale base plans. Study confirmed existence of a major dune system bordering basin's eastern side, which had previously been suspected from topographic data. In terms of the generally accepted model for the formation of economic heavy mineral concentrations in beach deposits, two palaeo-bays located through the photogeological study, which appear to face away from the prevailing wind direction and which may therefore offer enhanced prospectivity. It is suggested that smaller dunes on seaward side of very large sand ridge structures may offer sites of possible reworking and reconcentration of heavy minerals.

39. Baglin GR, Ashley J, Rau BJ, Cooper BS. 1981. Bulgunnia, South Australia, progress reports, November 1980 - May 1981. Samedan of Australia; E3293:261p; 6 fig

Abstract: No mineralization intersected in drilling; coal of very low grade discovered in percussion drilling (BPH 1).

40. Baglin GR, David LJ, Warne SB, Ashley J, Samedan Oil Corporation of

Australia, Kennecott Exploration (Australia) Pty Ltd. 1978. Progress reports, El 333, Billa Kalina, South Australia. South Australia. Department of Mines and Energy. Company Report; E3067:50p; 58 fig,

Abstract: Drilling of geophysical anomalies unsuccessful in locating mineralized strata.

41. Baker J, Frewer L, Wroe JA, Freeport Australian Minerals Ltd. 1988. Bulgunnia, progress and relinquishment reports from 28/7/86 to 11/2/88. South Australia. Department of Mines and Energy. Company Report; E6771:2 fiche, 41p; 2 appx, 4 fig, 1 map

Abstract: Target was quartz-pyrite-Au veins associated with the Hiltaba Granite Suite and volcano-sedimentary or Olympic Dam type base metal mineralization 50 km north of Tarcoola. Some high background Au to 0.05 ppm in Gawler Range Volcanics and Hiltaba Granite.

42. Barnes TA. 1972. Mt. Sturt clay deposit progress report SML 633 (+ 4 AMDEL reports). Sadex Pty Ltd; E1820:12p; 1 plan

43. Barrick B, Kirk RB, Australian Occidental Pty Ltd. 1982. Poldia Basin, progress reports from 24/2/82 to 28/10/82. South Australia. Department of Mines and Energy. Unpublished Report; E4932:4 fiche, 125p; 5 appx, 5 maps, 2 tables

Abstract: Offshore data from EPPSA 15 reviewed with all available data to compare the onshore basin morphology. Major facies change in pre Permo-Carboniferous would have to be invoked to engender any prospectivity. Damage to relatively fragile environment severe initially, but rectifiable by careful remedial action. Ground water contamination would have to be addressed in detail.

44. Barrie J, Dominion Mining and Oil NL. 1985. Eucla and Poldia Basin bores, phosphate log results. South Australia. Department of Mines and Energy. Unpublished Report; E6488:2 fiche, 80p

Abstract: Logs from 60 bores as part of a basin review study.

45. Bay Gypsum Pty Ltd, Walhalla Mining NL, Mason MG, Compston DM. 1989. Streaky Bay. Reports for the period from 2/11/87 to 1/11/89. South Australia. Department of Mines and Energy. Company Report; E6944:4 fiche, 104p; 2 appx, 11 fig, 9 plans, 12 plates

Abstract: Target was gypsum in dune and lake deposits; and

ground water for possible water supply. Resource of 4 Mt at 88% gypsum outlined in aeolian dunes.

46. Beach Petroleum NL, Claremont Petroleum NL, Oakman Pty Ltd, Sweetheart Oil Pty Ltd, Laws RA, Nelson RG, Choudhury J, Gravestock DI, Zang W, Sansome A *et al.* 1987. Arrowie Basin, progress and technical reports for the period 29/8/94-28/8/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09050:189p; appendices, figures, 9 plans, 18 reports, tables

Abstract: During term of licences joint venturers commissioned source rock richness, reservoir quality, biostratigraphic age and seismic structural mapping studies of prospective Cambrian and Neoproterozoic sequences in Arrowie Basin subcrop areas lying to east and west of central Flinders Ranges. Work focussed on PEL 45 area over Cambrian Moorowie Syncline where target rocks likely to be most thickly developed. Due to requirement to exercise rights of negotiation under Native Title legislation, in order to gain access to parts of Dolores prospect drilling target which underlies southern margin of Lake Frome, licensees unavoidably delayed since mid-1987 in carrying out licence Years 4 and 5 exploration commitments. Subject licences allowed to expire. Former licensees applied for resumption of tenure of same areas in expectation that new PELs will be granted following addressing of unresolved Native Title issues.

47. Beach Petroleum NL, Claremont Petroleum NL, Oakman Pty Ltd, Sweetheart Oil Pty Ltd, South Australia Department of Mines and Energy, Gravestock DI, Sansome A. 1996. East Arrowie Basin subsurface correlation. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09050:9p; 1 fig, 1 table

Abstract: Examination of petrophysical wireline logs from wells Moorowie 1 and Lake Frome 1 to 3 led to selection of a number of Cambrian lithostratigraphic marker beds for correlation. These include 7 gamma ray markers in lower (or "Red") Pantapinna Sandstone, a limestone marker bed which separates lower and upper parts of Moodlatana Formation, and sand unit markers in lower and upper Billy Creek Formation. Extrapolated depths to a number of these and older Cambrian Hawker Group units calculated where they underlie shallowly drilled Lake Frome wells. Neoproterozoic Brachina Formation predicted to underlie Hawker Group section in all 3 of these wells.

48. Beach Petroleum NL, Claremont Petroleum NL, Oakman Pty Ltd,

Sweetheart Oil Pty Ltd, South Australia Department of Mines and Energy, ACS Laboratories Pty Ltd, Latrobe University School of Earth Sciences, AMDEL Ltd, Gravestock DI, Zang W *et al.* 1996. East Arrowie Basin hydrocarbon potential, summary of work completed from September 1995-March 1996. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09050:101p; appendices, figures, tables

Abstract: From total organic carbon (TOC) screening of 60 samples best results from 1987 analyses of Oraparinna Shale in wells BWM1A-1 (Benagerie Ridge) and BRD-2 (Nepabunna Syncline) respectively. Best TOC values from 1995-96 run of samples from transgressive lower Mernmerna Formation and Oraparinna Shale (0.36-0.48%). Other Cambrian and Neoproterozoic rocks organically lean, with TOC values less than 0.30%. Only 8 core samples of potential reservoirs considered suitable for core analysis. Pantapinna Sandstone best visual porosity in outcrop and thin section. Also has best measured porosity of 16.2% and permeability of 4.5 millidarcies in Lake Frome 2. Sandstones up to 14 m thick cored in lower Billy Creek Formation in Yalkalpo 2. Mostly tight, but one sample has 6% porosity and 10.8 millidarcies permeability. Only carbonate analysed is an oolite from Moorowie Formation. This has porosity of 13.9% but zero permeability due to lack of interconnecting fractures. Fractured, vuggy dolomites of Hawker Group not been cored in wells drilled east of Flinders Ranges. By analogy with Kulpara Formation, lower Wilkawilkina Limestone and Woodendinna Dolomite still offer best targets and have high visual porosity. Cambrian biostratigraphy made progress from studies of trilobites in LNMIO-1 (Benagerie Ridge) and Yalkalpo 2, archaeocyaths in Yalkalpo 2 and LC-43, and acritarchs from 7 wells in east Arrowie Basin. Most significant well is Yalkalpo 2 where 4 of the Cambrian acritarch assemblages found. Thermal Alteration Index values in all acritarch preparations indicate temperatures of 100 degrees to 150 degrees C. Suggests samples buried at least 500 m deeper than present depths, and post-Cambrian thermal event taken place. Apatite fission track studies show 250 million years before present heating event occurred, (end of Early Permian). Age consistent with emplacement of hydrothermal Radium Ridge Breccias and Mount Gee Sinter in Mount Painter Block, and with ages of kimberlitic indicators in Springfield Basin. Since eastern Arrowie Basin largely protected from effects of Late Cambrian Delamerian Orogeny, event may have matured Cambrian source rocks for oil generation. Traps likely to have been in place before oil migration.

49. Beckett TS, Stockdale Prospecting Ltd. 1983. Final report, March 1983.

South Australia. Department of Mines and Energy. Company Report; E4993:10p; 9 maps, 3 tables

Abstract: Low prospectivity for diamonds - all results negative.

50. Benko D, Afmeco Pty Ltd, Aberfoyle Exploration Pty Ltd. 1982. Heartbreak Bore-Tarcoola project, SA, progress and final reports from 16/1/80 to February 1982. South Australia. Department of Mines and Energy. Company Report; E3778:33p; 18 fig

Abstract: Disappointing results for Tertiary uranium and for base metal potential of basement.

51. Berg RC, Paterson HL, Shell Company of Australia Ltd Metals Division, Western Mining Corporation Ltd. 1988. Waddikee, progress reports from 11/5/86 to 11/2/88. South Australia. Department of Mines and Energy. Company Report; E6654:1 fiche, 33p; 10 fig

Abstract: Investigation for Pb Zn in the Cootra-Waddikee region of Eyre Peninsula was limited to office studies.

52. BHP Gold Mines Ltd. 1989. Yeltabinna, progress reports for the period 22/11/88 to 22/8/89. South Australia. Department of Mines and Energy. Company Report; E8125:2 fiche, 12p; 1 fig, 1 plan

Abstract: Target was volcanic hosted epithermal Au in the Gawler Ranges.

53. BHP Gold Mines Ltd, Jarvis DM, Lindemann T, Lindemann C. 1990. Lake Gairdner North. Reports for the period from 10/7/88 to 10/1/90. South Australia. Department of Mines and Energy. Company Report; E8063:2 fiche, 32p; 3 appx, 4 fig, 4 plans

Abstract: Target was epithermal Au in acid volcanics of the Gawler Range Volcanic Province. It is probable that the detectable Au values recorded reflect background levels.

54. BHP Gold Mines Ltd, Lindemann C, Lindemann T, Jarvis DM. 1989. Lake Everard progress reports from 10/7/88 to 10/7/89. South Australia. Department of Mines and Energy. Company Report; E8064:26p; 3 appx, 3 fig, 4 plans

Abstract: Target was volcanic-hosted epithermal Au in the Gawler Craton basement rocks in the Lake Everard region about 60 km S of Kingoonya. Low order Au anomalies considered to reflect normal background levels in this region.

55. BHP Minerals Ltd. 1984. Uro Bluff, SA, partial relinquishment report, April, 1984. South Australia. Department of Mines and Energy. Unpublished Report; E5506:13p; 1 appx, 3 fig, 12 maps
- Abstract: Eleven holes drilled over six magnetic anomalies did not locate any kimberlites - no indicator minerals found in six samples.*
56. BHP Minerals Ltd, Cameron J. 1994. Stafford, annual and final report for the period 30/12/93 to 29/12/94. South Australia. Department of Mines and Energy. Company Report; E08875:93p; 6 appx, 3 plans
- Abstract: Exploration for Archaean VMS deposits comprised one reverse circulation hole over a Sirotem basement conductor. No indicators of massive sulphide mineralization were recognised.*
57. BHP Minerals Ltd, Crowhurst P, Darby RP, Benn C, Read J. 1991. Wirrulla, Cungena, Mortana, Kolballa and Calca, progress and final reports for the period 18/8/89 to 17/12/91. South Australia. Department of Mines and Energy. Company Report; E8230:525p; 11 appx, 20 fig, 15 plans
- Abstract: Target was heavy mineral sands in Tertiary sediments in the Wirrulla, Poochera, Inkster and Streaky Bay areas. Several continuous zones of very low-grade mineralization were intersected.*
58. BHP Minerals Ltd, Dampier Mining Company Ltd, Geoterrex Pty Ltd, Aerodata McPhar Pty Ltd, Velocity Data Pty Ltd. 1984. Cultana, Uro Bluff, Tregolana and Sugarloaf Hill, progress and final reports from 17/9/80 to May 1984. South Australia. Department of Mines and Energy. Unpublished Report; E3917:12 fiche, 365p; 46 appx , 43 fig, 23 maps
- Abstract: 4 holes of 22 intersected mineralization at base of Tapley Hill Formation. Trial Maxiprobe survey needs further testing and 5 km Mini Sosie seismic survey centred on CU9 indicated Tapley unconformity surface varied. 13 aeromagnetic anomalies drilled for kimberlites due to surface magnetite and ironstone.*
59. BHP Minerals Ltd, Stockdale Prospecting Ltd, Mitchell MS, Darby P. 1992. Elliston, progress and final reports for the period 31/8/90 to 15/7/92. South Australia. Department of Mines and Energy. Company Report; E8527:7 fiche, 259p; 15 appx, 20 fig, 3 plans
- Abstract: Target was diamonds (Stockdale) in the Elliston region and mineral sands (BHP) in Tertiary sediments. Three non-diamondiferous kimberlitic intrusions were discovered under 4 to 15*

m of Quaternary-Tertiary cover. BHP drilling indicated low grades under relatively thick Quaternary cover.

60. BHP Minerals Pty Ltd, Cameron J, Dugmore M. 1995. Fowler, annual and final reports for the period 30/8/93 to 29/8/95. South Australia. Department of Mines and Energy. Open File Envelope; 8917:165p; 9 appx, figures, 16 plans, tables

Abstract: Exploration for nickel, chromium and precious metals comprised ground magnetic and Protem surveys and RC drilling (5 holes, total 637 m). No ultramafics were detected and no anomalous assays were returned.

61. BHP Petroleum Pty Ltd, Preston J. 1992. Bight-Duntroon Basins source rock studies - data. South Australia. Department of Mines and Energy. Company Report; E8494:2 fiche, 89p; 8 appx, figures, tables

Abstract: Contains the results of total organic carbon determinations and Rock-Eval pyrolysis/gas chromatography analyses of previously untested drill cuttings comprising coal and shale/claystone samples from Platypus 1 and Echidna 1.

62. BHP Steel Pty Ltd, Handley C, Bubner GJ. 1997. Ironstone Hill, annual and final report for the period ending 21/3/97. South Australia. Department of Mines and Energy. Open File Envelope; 9168:2 fiche, 64p; 5 appx, 2 fig, tables

Abstract: A possible southerly extension to the Iron Duke deposit was indicated by aeromagnetic and gravity data. One 150 m RC drill hole encountered quartz-magnetic BIF with no hematite enrichment.

63. Binks PJ, Carpentaria Exploration Company Pty Ltd. 1985. Barker Dam and Moonlight Dam, final report for the period ending December 1985. South Australia. Department of Mines and Energy. Unpublished Report; E6403:3 fiche, 31p; 2 appx, 4 fig, 8 maps

Abstract: Target was Olympic Dam type mineralization along Torrens Hinge Zone. Testing failed to find previously defined gravity anomaly. Survey identified steep sided anomaly east of Baker Dam. Drilling tested model of hematitic material within fault bounded graben but none intersected. Model using combination of slightly thicker Adelaidean units and thicker sequences of Beda Volcanics most likely.

64. Binks PJ, Carpentaria Exploration Company Pty Ltd. 1980. Mt Sturt,

progress reports from 19th May 1980 to 19th November 1980. South Australia. Department of Mines and Energy. Unpublished Report; E3809:53p; 8 maps

Abstract: 44 holes (total depth 2564 m) intersected traces uranium mineralization in Eocene sediments and associated with carbonaceous sediments in overlying Pliocene sediments.

65. Binks PJ, Carpentaria Exploration Company Pty Ltd. 1980. Yaninee, Eyre Peninsula, progress reports from 16/6/80 to 16/12/80. South Australia. Department of Mines and Energy. Unpublished Report; E3810:125p; 7 maps

Abstract: 114 drill holes totalling 5564 m located on Eocene palaeochannel but no significantly anomalous gamma readings recorded.

66. Binks PJ, Carpentaria Exploration Company Pty Ltd, Geoex Pty Ltd. 1984. Progress reports from 7th April 1979 to 7th January 1981. South Australia. Department of Mines and Energy. Unpublished Report; E3420:147p; 39 maps

Abstract: Drilling of 70 holes (total depth 4441 m) located substantial Tertiary drainage system in excess of 8 km wide, in search for sedimentary uranium - further drilling recommended.

67. Binks PJ, Day LJ, Youles IP, Carpentaria Exploration Company Pty Ltd. 1988. Dunn Hill, progress reports from 18/2/85 to 18/5/88. South Australia. Department of Mines and Energy. Company Report; E6089

Abstract: Target was sedimentary U in Tertiary Narlaby Palaeochannel 30 km east of Ceduna and kaolinite. Thermoluminescence study over the most prospective portion of the Narlaby Palaeochannel carried out as part of an Honours Degree thesis at Adelaide University. Kaolin in excess of 8 m thick intersected in 3 holes. Testing indicated that it was not suitable for paper coating or porcelain applications.

68. Binks PJ, Hooper GJ, Carpentaria Exploration Company Pty Ltd. 1980. Nunjirkompita, progress reports from 19/8/80 to 19/11/80. South Australia. Department of Mines and Energy. Unpublished Report; E3882:75p; 5 maps

Abstract: 85 drill holes totalling 4672 m located in southwest extension of Narlaby palaeochannel which is more than 6 km wide.

69. Binks PJ, Hooper GJ, Carpentaria Exploration Company Pty Ltd. 1981. Poondana Rock, progress reports from 24th January 1980 to 24th January 1981. South Australia. Department of Mines and Energy. Unpublished Report; E3716:172p; 99 maps

Abstract: 124 holes (total depth 6064 m) intersected major Narlaby Palaeochannel system. Traces of uranium mineralization found in Eocene (Pidginga Formation equivalent) sediments and also associated with carbonaceous zones in overlying ?Pliocene (Loxton Sands equivalent) sediments.

70. Binks PJ, Hooper GJ, Carpentaria Exploration Company Pty Ltd. 1981. Waddikee Rock, progress reports from 24th January 1980 to 24th January 1981. South Australia. Department of Mines and Energy. Unpublished Report; E3717:73p; 8 maps

Abstract: 38 holes totalling 825 m failed to intersect palaeochannel sediments - ?Pliocene shallow channel located in southwestern part of EL.

71. Binks PJ, Hooper GJ, Carpentaria Exploration Company Pty Ltd. 1981. Yarranna Hill, progress reports from 24 January 1980 to July 1981. South Australia. Department of Mines and Energy. Unpublished Report; E3715:528p; 40 maps

Abstract: Drilling of 490 holes (total depth 43,000 m) revealed western end of major Tertiary palaeochannel system and intersected significant uranium mineralization in Eocene sands.

72. Binks PJ, Hooper GJ, Owen P, Carpentaria Exploration Company Pty Ltd. 1983. Narlaby palaeochannel area, progress and final reports from 5 January 1981 to 31 December 1983. South Australia. Department of Mines and Energy. Unpublished Report; E4010:636p; 13 appx, 371 fig, 201 maps

Abstract: 560 drillholes totalling 50,600 m delineated low grade uranium mineralization associated with redox fronts in Eocene sands of Narlaby palaeochannel in Yarranna Hill area, but no economic reserves. Traces of mineralization also found in other areas.

73. Binks PJ, Mount Isa Mines Ltd, Solo Geophysics and Co. 1985. Poondinga Rock, progress and final reports from 24/5/83 to 24/2/85. South Australia. Department of Mines and Energy. Unpublished Report; E5077:5 fiche, 113p; 2 appx, 1 fig, 8 maps

Abstract: 13 drill holes (total depth 974.5 m) over a large gravity

anomaly intersected granular amphibolite with variable magnetite which explains magnetic anomalies. Minor pyrite observed and assay values uniformly low.

74. Birch JS. 1978. Report on rotary drilling programme EL 395, Arno Bay, S.A. CRA Exploration Pty Ltd; E3335:5p; 2 fig
75. Bladier Y. 1982. Yalarna, South Australia, progress reports from 4/9/80 to February, 1982. Afmeco Pty Ltd; E3993:32p

Abstract: Uranium exploration for East Alligator River model. Major anomalies due to thorium.

76. Bladier Y, Afmeco Pty Ltd. 1983. Kangaroo Bluff, progress reports from Nov 1981 to 27/1/ 83. South Australia. Department of Mines and Energy. Company Report; E4040:61p; logs, 4 maps, 3 sections

Abstract: Four holes (totalling 528 m) intersected volcanic rocks probably Yardea Dacite and dolerite.

77. Bladier Y, Afmeco Pty Ltd. 1982. Lake Tallacootra, SA, progress reports from 20/5/80 to 25/1/ 82. South Australia. Department of Mines and Energy. Company Report; E3871:32p; 6 fig

Abstract: Drilling shows low uranium background, but some potential for base metals.

78. Bladier YG, Pancontinental Mining Ltd, Nuclear Fuel Development Corporation, Afmeco Pty Ltd. 1983. Ungarra, progress reports from 30 March, 1979 to 7 August, 1983. South Australia. Department of Mines and Energy. Unpublished Report; E3519:140p; 9 fig, 15 maps

Abstract: Very low uranium anomalism associated with Katunga Dolomite - anomalous alkaline syntectonic granites of deep origin.

79. Blight DF, Union Oil Development Corporation Ltd, Stockdale Prospecting Ltd, Ashley Geophysics. 1985. Report on the drilling at Barton, South Australia (appendix 1 to relinquishment report). South Australia. Department of Mines and Energy. Company Report; E8140:vol 1; 2 appx

Abstract: The target was an intense circular magnetic anomaly located 5 km SW of Barton and believed to be caused by carbonatite. Four holes were drilled totalling 360 m. The cause of the anomaly was an ?Ordovician gabbroic body with tholeiitic affinities and no anomalous trace element geochemistry.

80. Boyer DD, Carpentaria Exploration Company Pty Ltd. 1980. October, 1980, plus 4 progress reports. South Australia. Department of Mines and Energy. Company Report; E3544:2p; 4 fig

Abstract: Not prospective due to access problems, depth of overburden and no obvious targets revealed by aeromagnetic survey.
81. Branch CD. 1977. Evolution of the Middle Proterozoic Chandabooka caldera, Gawler Range acid volcano-plutonic province, South Australia. South Australia. Department of Mines. Unpublished Report; 77/107:31p; 18 fig, 4 tables
82. Brash AH, Bailey DP, Hungerford NN, Shell Company of Australia Ltd. 1983. Reedy Lagoon (Mondiepitchnie Hill) progress and final reports from 12/4/81 to 12/1/83. South Australia. Department of Mines and Energy. Company Report; E4113:130p; 13 fig, 11 maps, 16 sections

Abstract: One hole (totalling 668.5 m) intersected only minor pyrite and traces of chalcopyrite.
83. Broken Hill Pty Co Ltd. 1984. Development of iron ore mining at Iron Duke - Iron Duchess and a tramway extension from Iron Baron to Iron Duke, Middleback Ranges, South Australia. South Australia. Department of Mines and Energy. Company Report; E5552:fiche 1-4, p47-184
84. Broken Hill Pty Co Ltd. 1975. False Bay, progress reports, 24/9/74 to 25/3/75. E2462:4p; 1 map

Abstract: Feasibility of saltworks. No technical report.
85. Broken Hill Pty Co Ltd. 1976. Ooldea, South Australia, final report. South Australia. Department of Mines and Energy. Company Report; E2691:maps
86. Broken Hill Pty Co Ltd. 1978. Progress and final reports EL 266, eastern Eyre Peninsula, South Australia. E2869:22p
87. Broken Hill Pty Co Ltd. 1977. Report on part relinquished October, 1977. South Australia. Department of Mines and Energy. Unpublished Report; E3154:12p; 43 fig
88. Broken Hill Pty Co Ltd, Dampier Mining Company Ltd. 1974. Exploration Licence 144 Lake Gilles area, S.A. Report for the quarter ended 30th September, 1974. E2437:1p; 6 fig

89. Broken Hill Pty Co Ltd, Dampier Mining Company Ltd. 1979.
Exploration Licence 512 Chieftan, South Australia. Report for the
quarter ended 20th November 1979. E3694:2p; 1 fig, logs
- Abstract: Assays and reassays to test gold potential of sulphide
rich carbonate and quartzite unit of Lower Middleback Jaspilite
indicate low metal values.*
90. Broken Hill Pty Co Ltd, Dampier Mining Company Ltd. 1978. Lake Hart,
South Australia, progress and final reports. South Australia.
Department of Mines and Energy. Company Report; E3022:19p; 8
fig
91. Broken Hill Pty Co Ltd, Dampier Mining Company Ltd. 1973. Millers
Creek, South Australia, progress reports from 30/9/73 to 31/ 12/73.
South Australia. Department of Mines and Energy. Company
Report; E2320:6p; 1 map, 1 section
- Abstract: Four holes (total depth 424 m) intersected early Permian
marine sediments but no radioactivity.*
92. Broken Hill Pty Co Ltd, Dampier Mining Company Ltd. 1979.
Muckanippie, South Australia, progress and final reports. South
Australia. Department of Mines and Energy. Company Report;
E3334:8p; 12 fig
- Abstract: All 4 drill holes intersected magnetic quartz gabbros or
diorites.*
93. Broken Hill Pty Co Ltd, Dampier Mining Company Ltd. 1981.
Mullaquana, South Australia, partial relinquishment report.
E4387:3p; 2 fig
- Abstract: No coal or oil shale was found in drilling of relinquished
area.*
94. Broken Hill Pty Co Ltd, Dampier Mining Company Ltd. 1976.
Portulacca Ridge area, Andamooka, South Australia, final report.
South Australia. Department of Mines and Energy. Unpublished
Report; E2698:3p; 3 fig
95. Broken Hill Pty Co Ltd, Dampier Mining Company Ltd. 1980. Progress
reports, EL 427, Whyalla North, South Australia. E3407:8p; 1 fig
- Abstract: Potential of area downgraded by drilling and assays of
core in Tapley Hill Formation.*

96. Broken Hill Pty Co Ltd Exploration Department, BHP Minerals Ltd. 1982. Cowell, South Australia, progress reports from 27/10/81 to 27/4/82. South Australia. Department of Mines and Energy. Company Report; E4413:8p; 7 fig, logs

Abstract: No economic mineralization intersected.
97. Broken Hill Pty Co Ltd Exploration Department, BHP Minerals Ltd. 1982. Nalara, South Australia, progress and final reports from 20/10/81 to 20/9/82. South Australia. Department of Mines and Energy. Company Report; E4344:17p; 1 appx, 4 fig, 2 tables

Abstract: Six holes drilled unsuccessfully for Tertiary lignite in Gawler Block.
98. Broken Hill Pty Co Ltd Exploration Department, Dampier Mining Company Ltd. 1982. Siam, South Australia, progress reports from 12/5/81 to 12/2/82. South Australia. Department of Mines and Energy. Company Report; E4215:9p; 4 fig, logs

Abstract: Drilling of anomalies gave negative results for base metals and kimberlites.
99. Brunt D, Tonkin DG, Curtis JL, CSR Ltd. 1986. Cummins, progress and relinquishment reports from 9/12/85 to October 1986. South Australia. Department of Mines and Energy. Unpublished Report; E5987

Abstract: Assessment of existing aerial magnetic surveys followed up by ground magnetic surveys over 19 linear aerial magnetic anomalies interpreted as BIF horizons within Early Proterozoic Hutchison Group. These BIF's and related chemical sediments believed to be potential host rocks for stratiform lead zinc sulphides deposits. Concentrations of base metal and indicator elements not anomalous.
100. Brunt DA. 1972. Caralue Bluff area, Eyre Peninsula, South Australia, final report on review of exploration (formerly SML 343). Mines Administration Pty Ltd; E2143:21p; 5 maps

Abstract: Drilling information in 34 holes totalling over 9,303 feet is summarized in search for Wyoming-type Tertiary sedimentary uranium. Significant radioactivity in two areas - also potential for kaolin deposit.
101. Bubner GJ, Connor AG, Howard JP, Reis E, Weeden RJ, Higgins ML, Davidson GJ, Elliot PJ, Plimer IR, Whiting TH *et al.* 1985. Cleve

Central, progress and final reports from 6/6/79 to 12/10/85. South Australia. Department of Mines and Energy. Unpublished Report; E3541:24 fiche, 435p; 23 appx, 48 fig, 81 maps

Abstract: Exploration for Broken Hill Aggeneys type base metals in Hutchison Group in Mount Shannan area, north of Cleve. Minor zinc and lead mineralization intersected at Silver Monarch and Iragie prospects.

102. Burmine L, Carter DN. 1989. Middleback Ranges, progress report from 28/4/89 to 28/7/89. South Australia. Department of Mines and Energy. Company Report; E8184 :14p; 1 fig

Abstract: Target was small, high grade iron accumulations as feed for a direct reduction plant.

103. Burn NR, Carpentaria Exploration Company Pty Ltd. 1986. Thermoluminescence studies of a uraniferous Tertiary palaeochannel, Eyre Peninsula, South Australia (appx 1 to progress report on EL 1214, Dunn Hill, for period ending 18/2/86). South Australia. Department of Mines and Energy. Company Report; E6089:1 appx

Abstract: Aims of the project were to apply TL methods to the uraniferous Narlaby Palaeochannel and to study the granitic palaeochannel basement as possible source of U. Artificial TL to 162 samples revealed all channel sediments have suffered major radiation damage due to at least 10 ppm U. Microscope studies and TL results indicate the Eocene channel fill is derived from the U rich Hiltaba Granite, thus receiving high inherent radiation damage as well as the likely U source. A genetic model where mineralization is a result of multi-stage U enrichment is proposed.

104. Burton PE, Stockdale Prospecting Ltd. 1989. Port Augusta. Progress and final reports from 27/3/88 to April 1989. South Australia. Department of Mines and Energy. Company Report; E8016:89p; 2 appx, 2 fig, 3 maps

Abstract: Target was gold in 4 areas north of Port Augusta where anomalous Au values were recorded by previous sampling. The high gold values were not duplicated.

105. Bush WE, Oilmin NL, Petromin NL, Transoil NL. 1973. Monburu Tank area, South Australia, progress reports from 2/2/73 to October, 1973. South Australia. Department of Mines and Energy. Company Report; E2184:7p; 2 maps

Abstract: Two holes, total depth 175 feet, intersected limestone but abandoned in fine sand. Not prospective for uranium or lignite.

106. Butt BC, J F Gilfillan and Associates Pty Ltd. 1986. Chadee Curra, progress and final reports from 6/9/85 to 5/6/86. South Australia. Department of Mines and Energy. Unpublished Report; E6383

Abstract: Gypsum is present as gypsite and gyps/arenite accumulated into smooth dune like ridges around a dry lake bed. Potential reserves of 850,000 t at 84% gypsum outlined but calcining tests indicated unbeneficated material is unsuitable for plaster manufacture.

107. Carpentaria Exploration Company Pty Ltd. 1975. Mount Messenger, SA, progress reports 1973-1975. E2296:40p; 23 fig, maps

Abstract: Search for base metals in iron bearing sediments.

108. Carpentaria Exploration Company Pty Ltd, Howe AW, Simpson P. 1976. Mount Messenger. Progress and final reports for the period 14/11/75 to 13/11/76. South Australia. Department of Primary Industries and Resources. Open File Envelope; E02687:5v., 13 fiche, 135p; appendices, 49 plans, 5 reps, tables

Abstract: Ongoing base metal exploration in the Cleve district of eastern Eyre Peninsula comprised detailed regional mapping, extensive geochemical and petrological sampling and percussion drilling of selected geochemical anomalies. Assay results indicate that the 'Lower Schist Unit' and Mount Shannan Formation are major base metal-mineralized horizons, with common graphitic jaspilites, calc-silicate skarns and metamorphosed tuffs containing local Cu enrichments up to 0.38%, Pb to 0.90% and Zn to 0.21%.

109. Carpentaria Exploration Company Pty Ltd, Stockdale Prospecting Ltd, CRA Exploration Pty Ltd, Binks PJ, Boyer DD, Simpson PG, Stephenson PN, Beckett TS, Sainsbury J, French AC *et al.* 1990. Barton Siding, progress reports for the period 9/10/79 to 26/7/90. South Australia. Department of Mines and Energy. Company Report; E3607:300p; 12 appx, 19 fig, 24 plans

Abstract: Target was base metals and diamonds south of Barton.

110. Chaigne M, Pechiney (Aust) Exploration Pty Ltd. 1974. Ifould Lake - Pidinga area, South Australia, final report relinquished area. South Australia. Department of Mines and Energy. Company Report; E2434:logs, 2 maps, 3 sections, 1 tables

Abstract: Drilling of 13 holes (total depth of 465 m, terminating in Precambrian basement) shows Pidinga Formation is poorly developed - only weak radioactive anomalies present.

111. Chaigne M, Pechiney (Aust) Exploration Pty Ltd. 1974. Lake Tallacootra-Pidinga area, final report: relinquished area. South Australia. Department of Mines and Energy. Company Report; E2435:maps
112. Chaigne M, Pechiney (Aust) Exploration Pty Ltd. 1974. Lake Tallacootra-Pidinga area South Australia, final report relinquished area. South Australia. Department of Mines and Energy. Company Report; E2435:10p; 17 logs, 3 maps, 4 sections

Abstract: Weak radioactivity in Pidinga Formation, but poor uranium prospects. 17 holes with total footage of 711.80 metres terminated in Middle Proterozoic basement.

113. Churchill Exploration NL, Olliver Geological Services Pty Ltd, Randell MH. 1994. Lake Younghusband, annual technical report for the period 27/7/94 to 26/7/95. South Australia. Department of Mines and Energy. Open File Envelope; 8943:22p; 9 fig, 1 rep

Abstract: Report comprises a consultant's technical review of the area of ELA 590/93 (subsequently granted as EL 1954) located to the east and north of Glendambo, aimed at giving recommendations for future exploration work. The review includes an assessment of relevant gravity and SAEI aeromagnetic data; some appraisal of previous company investigations in the region; comments on past prospecting activities of competitors; and brief descriptions of possible exploration targets, specifically those hosted by the bed rock as opposed to others based on palaeochannel and playa lake settings. Four targets are outlined which remain either undrilled or unexplained by previous drilling.

114. Ciplys A. 1987. Analysis of rock samples from Red Lake (15/1/87). South Australia. Department of Mines and Energy. Unpublished Report; E3274

Abstract: Assay results only, no text.

115. Ciplys A. 1987. Gold analysis of Peterborough battery tailings from Nillinghoo Goldfield and Terowie (5.2.87). South Australia. Department of Mines and Energy. Unpublished Report; E3274

116. Circosta G, Jarvis DM, Utah Development Company Ltd. 1981. Clucas Hill, South Australia, progress and final reports. South Australia.

Department of Mines and Energy. Company Report; E4100:143p; 8 fig

Abstract: Rock chip sampling of Gawler Range Volcanics, Hiltaba Granite and Archaean basement gave poor results.

117. Circosta G, Utah Development Company Ltd. 1981. Kokatha HS, progress and relinquishment reports on exploration. South Australia. Department of Mines and Energy. Company Report; E4243:152p; 5 fig

Abstract: Rock chip sampling results gave little encouragement for further work.

118. Circosta G, Utah Development Company Ltd. 1981. Relinquishment report - portion of EL 758 - Band Hill, South Australia. South Australia. Department of Mines and Energy. Company Report; E4326:1p; 2 fig

Abstract: No technical information given.

119. Close SE. 1972. Burkitt, South Australia, final report. CRA Exploration Pty Ltd; E2088:15p; 2 maps

Abstract: Burkitt Granite was radiometrically anomalous in airborne survey of acid basement rocks for uranium, but follow up sampling results do not justify further work.

120. Close SE, CRA Exploration Pty Ltd. 1972. Hiltaba, South Australia, progress and final reports from 21/9/72 to 17/10/72. South Australia. Department of Mines and Energy. Company Report; E2127:21p; 7 maps

Abstract: No significant results from sampling of volcanic rocks and Hiltaba Granite in search of uranium.

121. Close SE, Laughton CA, CRA Exploration Pty Ltd. 1973. Lake Anthony and Lake Bring, South Australia, progress and final reports. South Australia. Department of Mines and Energy. Company Report; E2092:88p; 16 maps

Abstract: Traces of uranium in Eocene lignite in lakes not prospective.

122. Cocquio D, Pechiney (Aust) Exploration Pty Ltd. 1976. Progress and final reports, EL164, Ifould Lake, South Australia. South Australia. Department of Mines and Energy. Company Report; E2504,

EL164:maps

123. Cocquio D, Pechiney (Aust) Exploration Pty Ltd. 1976. Progress and final reports EL165, Chundie Swamp, S.A. South Australia. Department of Mines and Energy. Company Report; E2505, EL165:2v.; maps
124. Comlabs Pty Ltd, South Australian Oil and Gas Corporation Pty Ltd, Fishman H, Paran J, Glendening JA, Iredale JA. 1984. Officer Basin geological studies, reports. South Australia. Department of Mines and Energy. Open File Envelope; 8617:69p; 1 appx, figures, 7 plans, plates, 2 reps, tables
125. Commercial Minerals Ltd, Barnes LC. 1995. Poochera kaolin project, final report period ending 27/6/95. South Australia. Department of Mines and Energy. Company Report; E8935:35p; 4 appx, 4 plates

Abstract: Three composite samples, from five RC holes (total 85 m) drilled in kaolinised granite near Colley Hill, exhibited poor raw and fired whiteness due to the presence of fine biotite.

126. Commercial Minerals Ltd, South Australia Department of Mines and Energy, University of South Australia, CSIRO, Analabs Ltd, Barnes L. 1997. Calca, partial relinquishment report for the period July 1993 to June 1997. South Australia. Department of Mines and Energy. Open File Envelope; 9199:2 fiche, 63p; 5 appx, 7 fig, 6 tables

Abstract: Exploration for kaolin, gold and base metals in the Colley Hill-Witera area, southeast of Streaky Bay, comprised aircore drilling (23 holes, total 379 m) and calcrete sampling on a regional 1 km x 1 km grid. Despite the widespread and promising clay mineralization in the area, kaolin obtained from composited drill cuttings samples had poor raw and fired whiteness, due to intercalated fine quartz and disseminated black iron oxide and biotite. Only four calcrete samples assayed greater than 3 ppb Au.

127. Compston D, Cape Range Oil NL. 1987. Mulgathing, final report from 30/3/87 to 30/6/87. South Australia. Department of Mines and Energy. Unpublished Report; E6897

Abstract: Exploration for Au and Pt in BIF's and ultramafic units of Mulgathing Group.

128. Conor AG, McConachy TF, Buckle PA, Aerodata Services Pty Ltd, Geoex Pty Ltd. 1979. Cleve West, progress reports from 23/5/77 to 17/2/79. South Australia. Department of Mines and Energy.

Unpublished Report; E2965:14 fiche, 306p; 16 appx, 8 fig, 44 plans

Abstract: Over 2,000 bedrock samples from RAB drilling. A 5 km zone adjacent to two parallel iron formations in the Campoon Grid in metasediments (particularly graphitic schist) with significant copper, lead and zinc values was patchy and discontinuous. Drilling of a Sirotem anomaly is recommended.

129. Conor CHH. 1995. Moonta Wallaroo data package. South Australia. Department of Mines and Energy. Company Report; E8886:460p; 7 appx, 12 fig, 45 plates

Abstract: A GIS-based data package incorporating a study of all available drillcore and a geological and aeromagnetic interpretation for the Maitland and Wallaroo 1:100 000 sheet areas, northern Yorke Peninsula, site of the famous Moonta and Wallaroo copper-gold mining districts. The data package includes: summary logs of over 370 drill cores, highlighting lithology, alteration and mineralization; geophysical images; geological map coverages; drillhole locations and summary lithology for over 2100 exploration drillholes, 1140 of which intersected more than 5 m of basement; over 3550 geochemical analyses of drill samples from MESA database; current Exploration Licence and Exploration Licence Applications map; interpretative report by consultant C. Connor, with coherent, modern geological synthesis, suggested exploration models and extensive bibliography.

130. Continental Oil Exploration Pty Ltd. 1986. Poldo Basin, progress and final reports from 18/3/86 to 8/9/86, including bore hole study. South Australia. Department of Mines and Energy. Unpublished Report; E6671

Abstract: Borehole study correlated previous borehole information to determine extent of onshore Poldo Basin, previously determined by the -20 milligal contour on the regional bouguer gravity maps. Potential for hydrocarbons lies at depth within Cambrian or older strata which are restricted to a relatively small area onshore in the eastern portion of the permit known as the Kilaroo Subbasin. Geochemical analysis should be performed on 2 of 3 bores recorded as having oil shows.

131. Coombedown Resources NL, Redfire Resources NL, Pitt Research Pty Ltd, Pontifex and Associates Pty Ltd, Martin NH, Miller DT, Purvis AC. 1998. Lake Hanson, Kowal and Gosses areas (Glendambo project), annual and final reports for the period 18/3/97-3/4/2000. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09351:136p; 3 appx, figures, plates, tables

Abstract: Interpretation of existing geophysical and drill hole data, including core chip re-assaying and petrography, carried out for area located approx 60 km NW of Woomera. Interpreted geophysical features of basement are possibly related to subcropping banded iron formations, ultrabasic intrusions, iron rich granite breccias, and intersections of Gairdner Dyke Swarm with Gawler Range Volcanics or Hiltaba Suite granites. Six targets identified, of which four were chosen to undergo further investigation under new tenure.

132. Cowan D. 1980. Petrological report of drill core from Roopena no. 1 and 6, South Australia. Penarroya (Aust) Pty Ltd; E3859:4p

Abstract: Report on 6 samples.

133. Cowley WM, Parker AJ. 1992. Eyre Peninsula Pb-Zn data package. South Australia. Department of Mines and Energy. Company Report; E8385

Abstract: Numerous Pb-Zn-Cu-Ag prospects and mines including the promising Menninnie Dam prospect north of Kimba, occur within graphitic, calcareous and psammo-pelitic metasediments of the Palaeoproterozoic (ca 1900-1850 Ma) Hutchison Group on eastern, central and northern Eyre Peninsula. This data package presents the results of a 1990 SADME drilling programme, results of related geophysical studies and a comprehensive set of regional geological and geophysical maps, reports and selected images. It provides a foundation for future base metal exploration on Eyre Peninsula, one of the most prospective base metal provinces in Australia.

134. CRA Exploration Pty Ltd, Barlow MG. 1994. Campbell Rise. Partial relinquishment report, August 1994. Mines and Energy. South Australia. Company Report; E8796:2 fiche, 13p; 3 fig, 2 plans, 2 tables

Abstract: In the search for diamonds, an airborne magnetic-radiometric survey, 50 km northwest of Woomera, identified possible kimberlite intrusions, which were downgraded by follow up ground magnetics.

135. CRA Exploration Pty Ltd, Barlow MG. 1994. Campbell Rise. Partial relinquishment report, August, 1994. South Australia. Department of Mines and Energy. Company Report; E8796:13p; 3 fig, 2 plans, 2 tables

Abstract: In the search for diamonds, an airborne magnetic-radiometric survey 150 km northwest of Woomera, identified possible kimberlite intrusions, which were downgraded by follow-up ground magnetics.

136. CRA Exploration Pty Ltd, Barlow MG. 1994. Vivian Well. Final report, June 1994. Mines and Energy. South Australia. Company Report; E8795:2 fiche, 13p; 3 fig, 2 plans, 2 tables

Abstract: In the search for diamonds, an airborne magnetic-radiometric survey was flown 150 km northwest of Woomera. It identified kimberlite intrusions, which were downgraded by follow up ground magnetics.

137. CRA Exploration Pty Ltd, Barlow MG. 1994. Vivian Well. Final report, June, 1994. South Australia. Department of Mines and Energy. Company Report; E8795:13p; 3 fig, 2 plans, 2 tables

Abstract: In the search for diamonds, an airborne magnetic-radiometric survey 150 km northwest of Woomera, identified possible kimberlite intrusions, which were downgraded by follow-up ground magnetics.

138. CRA Exploration Pty Ltd, Donnelly MJ. 1991. Garden Well, progress and final reports for the period 31/1/91 to 2/7/91. South Australia. Department of Mines and Energy. Company Report; E8427:36p; 3 appx, 2 fig, 2 plans

Abstract: Target was acid volcanic hosted Cu mineralization in the Moonaree area. Anomalous Cu-Zn values were attributed to dolerite.

139. CRA Exploration Pty Ltd, Finch ID, Mackee GL. 1984. Goode, progress reports for the period 6/12/82 to 5/12/84. South Australia. Department of Mines and Energy. Company Report; E5047:4 fiche, 147p; 5 appx, 30 fig, 6 plans

Abstract: Target was kimberlite, Olympic Dam Cu-Au-U style mineralization and base metals associated with chemosedimentary iron formations. Some elevated base metal values were encountered in drill holes, but the results of kimberlite exploration were inconclusive.

140. CRA Exploration Pty Ltd, Geosystems Pty Ltd, Western Geophysical Company of America, ANU Anthropological Consultancies, McBain DR, Cane S, Gumley CM, Phan YP, Chan SC, Russell JB *et al.* 1986. Ingomar seismic survey, reports for the period December

1985 to November 1986. South Australia. Department of Primary Industries and Resources. Open File Envelope; 6753:2v., 300p; 14 appx, figures, 1 plan, plates, 6 reps, tables

Abstract: The 1986 Ingomar Seismic Survey was programmed to continue the regional investigation of basement depth in PEL 24, and to delineate any possible structural and stratigraphic hydrocarbon traps within troughs of the central-eastern Arckaringa Basin. 10 lines (8 dip, 2 strike) totalling 315.9 km of reflection seismic data were acquired during May-June 1986, and 41 upholes were shot for weathering control. Seismic processing was carried out by Western Geophysical Co., who also undertook the re-processing of 102 line km of 1970-71 SA Mines Dept single fold reflection data. Interpretation of the final sections by licence operator CRAE indicates that the basin/trough structure is more convoluted than originally anticipated. Up to 850 milliseconds of apparent sedimentary section was encountered on line 86AK-14 across the Tallaringa Trough. Two Phillipson Trough exploration/stratigraphic drilling locations, Arkeeta 1 and Wirrida 1, were selected on line 86AK-06 at VPs 1380 and 335 respectively.

141. CRA Exploration Pty Ltd, Geoterrex Pty Ltd, Marinelli JF, Le Messurier LA, Sugden SP, Finch ID. 1988. Wudinna and Chilpuddie Hill, progress reports for the period 30/7/85 to 29/7/ 88. South Australia. Department of Mines and Energy. Company Report; E6459:167p; 4 appx, 24 plans

Abstract: Exploration in the Minnipa-Kyancutta region for U in Recent lake sediments, heavy mineral sands in Tertiary palaeochannels, base and precious metals in basement rocks and diamonds associated with possible kimberlitic intrusions. Trace ilmenite and zircon were recorded in Tertiary sand units. Elevated Au values recorded in two drill holes at the Mambrae prospect were not substantiated by subsequent re-assaying.

142. CRA Exploration Pty Ltd, Mackee GL, Palmer DC. 1990. Durkin, Mulgathing, progress and final reports for the period 5/1/89 to 5/1/ 90. South Australia. Department of Mines and Energy. Company Report; E8073:331p; 15 appx, 177 fig, 11 plans

Abstract: Target was Au mineralization in postulated Archaean greenstone belts in the Mount Christie region, NW of Tarcoola. Weakly elevated Zn-Co-Ni values from 3 rock chip samples. Regional soil geochemical anomalies downgraded by follow-up sampling.

143. CRA Exploration Pty Ltd, Marinelli JF. 1990. Kokatha, progress reports

for the period 14/1/90 to 14/9/90. South Australia. Department of Mines and Energy. Company Report; E8272:74p; 3 appx, 4 fig, 2 plans

Abstract: Target was base and precious metals 35 km south of Kingoonya. Geochemical anomalies at 3 sites were not substantiated by follow-up sampling.

144. CRA Exploration Pty Ltd, Marinelli JF, Mackee GL, Sugden SP. 1990. Charba Hill, Peltabinna Hill and Unalla Hill, progress and final reports for the period 22/12/89 to 14/11/90. South Australia. Department of Mines and Energy. Company Report; E8293:22 fiche, 648p; 21 appx, 34 fig, 56 plans

Abstract: Target was Au and base metals associated with volcanic centres; diamonds. Minor Pb-Zn-Cu-As-Sb mineralization was disclosed at Sherry Dam prospect.

145. CRA Exploration Pty Ltd, McBain DR. 1982. Report on the partial surrender of Gibraltar Rocks, South Australia, 18th January, 1982. South Australia. Department of Mines and Energy. Company Report; E4474:11p; 5 fig

Abstract: Coal prospects insufficient to warrant further exploration; sampling for base metals and diamonds produced no anomalies.

146. CRA Exploration Pty Ltd, McBain DR, Kennedy DR, Finch ID. 1982. Gibraltar Rocks, South Australia, progress and final reports from 15/6/68 to 15/6/82. South Australia. Department of Mines and Energy. Company Report; E4257:16p; 9 fig

Abstract: Reconnaissance ground magnetics failed to locate magnetic anomaly.

147. CRA Exploration Pty Ltd, Newbery SP. 1996. Lake Har, annual and final report for the period ending 7/5/96. South Australia. Department of Mines and Energy. Open File Envelope; 9065:8p; 1 fig

Abstract: No anomalies worthy of follow-up as possible buried kimberlitic intrusives were located by the reprocessing and interpretation of 6000 km of aeromagnetic data from an area 45 km west of Pimba.

148. CRA Exploration Pty Ltd, Palmer DC. 1989. Final and relinquishment report for Mulgathing EL 1529, period ending 31/7/ 89 and partial relinquishment report EL 1526, period ending 6/9/89. South

Australia. Department of Mines and Energy. Company Report; E8236:4 fiche, 129p; 4 appx, 16 fig, 2 plans

Abstract: Target was Au in the Mount Christie-Mulgathing region. Some elevated base metal values were recorded.

149. CRA Exploration Pty Ltd, Palmer DC, Kennedy LD, Sugden SP, Mackee GL. 1991. Cudyea, progress reports for the period 19/2/89 to 13/11/90. South Australia. Department of Mines and Energy. Company Report; E8150:7 fiche, 225p; 10 appx, 9 fig, 8 plans

Abstract: Target was Archaean-hosted Au; hydrothermal Fe and base metals, and Olympic Dam style mineralization in the Mount Christie region 120 km WNW of Tarcoola. No significant mineralization was disclosed.

150. CRA Exploration Pty Ltd, Palmer DC, Mackee GL, Johnston WH. 1989. Mount Eba, reports for the period 9/1/86 to 1/12/89. South Australia. Department of Mines and Energy. Company Report; E6532:17 fiche, 318p; 17 appx, 29 fig, 66 plans

Abstract: Target was Au and base metals in the Lake Labyrinth-Earea Dam region W of Kingoonya. Elevated neodymium values (max. 206 ppm) were recorded from carbonate-altered, andesitic, alkali basalt cored in one of the diamond holes.

151. CRA Exploration Pty Ltd, Placer Exploration Pty Ltd, Moody TC, Parkinson RG, Angus M. 1998. Wynbring South, annual and final reports for the period 13/5/95 to 12/5/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09056:56p; 3 appx, 6 fig

Abstract: Regional calcrete sampling across an area 70-100 km SW of Tarcoola disclosed weak gold anomalism coincident in part with gravity and aeromagnetic features. Detailed follow up sampling warranted.

152. CRA Exploration Pty Ltd, Pontifex and Associates Pty Ltd, Zonge Engineering and Research Organization (ZERO), Barlow MG, Stewart WA, Newbery SP. 1996. Charlotte Well, annual and final reports for the period 1/8/94 to 7/5/96. South Australia. Department of Mines and Energy. Open File Envelope; 8962:122p; 8 appx, figures, 24 plans, 7 plates, 2 reps, tables

Abstract: Ground magnetic, gravity and electrical geophysical surveys were carried out during base metal exploration of SAEI-identified structural and aeromagnetic anomalies along the

northern margin of Lake Gairdner, searching for epithermal Mount Gunson-type mineralization, and possible kimberlites. RC drilling (8 holes, total 542 m) and diamond drilling (2 holes, total 306 m) returned no anomalous assays. Chromites were detected at shallow depth in two holes on the Pascoe Well prospect, and a large magnetic source at the Pinery Dam prospect remains unexplained.

153. CRA Exploration Pty Ltd, Rio Tinto Exploration Pty Ltd, Barlow MG, McInnes DJ, Parkinson RG. 1997. Campbell Rise. Annual and final reports for the period 12/7/93 to 11/7/97. South Australia. Department of Primary Industries and Resources. Open File Envelope; E08814:59p; 3 appx, figures, 13 plans, 4 reps, tables

Abstract: Airborne magnetic/radiometric and ground magnetic surveys were conducted west of Woomera to detect possible kimberlitic pipes. Aircore/RC drilling of a dipolar aeromagnetic anomaly situated on the edge of an interpreted buried Gairdner Dyke (2 holes, total 143 m) intersected mafic rocks with high magnetic susceptibilities but without anomalous metal values. Gravel sampling over aeromagnetic anomalies east of Koolymilka yielded two microdiamonds and numerous kimberlitic indicator grains. No new targets emerged from an airborne electromagnetic survey of this area.

154. CRA Exploration Pty Ltd, Rio Tinto Exploration Pty Ltd, Tesla Airborne Geoscience Pty Ltd, Tesla 10 Pty Ltd, Pitt Research Pty Ltd, University of New England Department of Geology and Geophysics, AMDEL Ltd, Hamersley Iron Pty Ltd, Haines Surveys Pty Ltd, Moody TC *et al.* 1999. Kartanya, annual and final reports for the period 6/3/95 to 5/3/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09044:2v., 359p; 15 appx, figures, 9 plans, plates, tables

Abstract: Previous drilling by WMC at Kartanya prospect yielded several high grade Fe intersections with up to 1% P and 140 ppm Zn. Reassaying of drillhole samples returned reduced levels of these iron ore contaminants, in ranges 0.18-0.23% and 24-100 ppm respectively, from recrystallized hematitic iron formation of the Middleback Subgroup. However, invited expert resource assessment by Hamersley Iron inferred presence of only 8 Mt of low average Fe and high P hematite ore containing intricate intergrowths of very fine grained apatite. Subsequently, recommended prospect-defining airborne and ground magnetic surveys and a gravity survey identified a westerly dipping body, from which a 160 m diamond drillhole recovered BIF with 10-30%

magnetite and average Fe and P of 23.5% and 0.24% respectively.

155. CRA Exploration Pty Ltd, Stewart WA. 1996. Charlotte Well, partial relinquishment report 6/7/95. South Australia. Department of Mines and Energy. Open File Envelope; 9035:31p; 2 appx, 3 fig, 7 plates, tables

Abstract: The source of a large, intense magnetic anomaly at the Pinery Dam prospect, located just north of the northeastern shore of Lake Gairdner, was not disclosed by ground magnetics and aircore and diamond drilling (five holes, total 213 m). No significant assays were returned from analysis of samples of subcropping dolerite and Gawler Range Volcanics.

156. Craton Resources NL. 1998. Mount Wedge, partial relinquishment report. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09387:2 fig, 1 plate

Abstract: No magnetic expression of possible buried granitoid Au-Cu targets was recognized from inspection of aeromagnetic data covering an area 30 km east-northeast of Elliston.

157. Craton Resources NL. 1998. Triple Hill, final report for the period 1/5/97 to 30/4/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09368:1 appx, 1 fig, 2 tables

Abstract: Metasedimentary BIF-hosted mineralization and Cu-Au associated with younger Palaeoproterozoic intrusive granites were targeted east of Cleve. Ground follow-up of linear magnetic highs and low gold and base metal anomalism in stream sediments failed to upgrade the prospectivity of the tenement.

158. Craton Resources NL, CSIRO Division of Exploration and Mining, Southern Geoscience Services, O'Loughlin N, Farrell BL, Giblin A, Ashley J, Russell R, Denton G. 1999. Wedge Hill (Mount Wedge project), annual and final reports for the period 26/5/97-25/5/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09386:92p; 5 appx, figures, 2 plans, plates, 2 reports, tables

Abstract: Ground water sampling, aeromagnetic interpretation, shallow auger sampling and isotope studies carried out over area 30 km NE of Elliston. Heavy mineral concentrates from composite auger samples contained zircon, galena and sphalerite, but lacked kimberlitic indicators. Isotope results inconclusive, and anomalous Zn, Co and Cu in ground water attributed to sulphide formation

within Tertiary carbonaceous deposits.

159. Craton Resources NL, Farrell BL. 2000. Miltalie, final report for the period 27/6/97-26/12/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09579:6p; 2 fig

Abstract: No features of interest evident from interpretation of TEISA aeromagnetics flown in August-September 1999 over area 15 km north of Cowell.

160. CSR Ltd, Delhi Petroleum Pty Ltd, Urangesellschaft Australia Pty Ltd, Elf Aquitaine Triako Mines Ltd. 1986. Lake Torrens, progress reports from 21/7/82 to October 1986. South Australia. Department of Mines and Energy. Unpublished Report; E3769

Abstract: Target was large, high grade base and precious metal deposit in pre-Pandurra Formation basement. A lithogeochemical study of acid volcanics from bottom of several deep drill holes showed all volcanics could be correlated with part of basement volcanic section intersected at Mount Gunson. Anomalous mineralization not detected. Linear magnetic anomaly at Yadlamalka interpreted as being due to a shallow, dyke like body intruding Adelaidean strata. Drilling found elevated base metal values at unconformable contact breccia regolith between Beda Volcanics and overlying Burra Group siltstone.

161. CSR Ltd, Mount Gunson Mines Pty Ltd, Pacminex Pty Ltd. 1979. Mount Gunson drill logs - Pandurra area. South Australia. Department of Mines and Energy. Company Report; E6667:10 fiche, 518p; 2 maps

162. CSR Ltd, Pacminex Pty Ltd, Geoterrex Pty Ltd. 1977. Trial aerial Input EM surveys near Pandurra and Cariewerloo. South Australia. Department of Mines. Company Report; E6674:fiche 6,14,15,17; 2 maps

Abstract: Plans include EM ratio maps on 2 lines flown over a channel setting at Pandurra, and on 4 lines flown over a small basin near Cariewerloo.

163. CSR Ltd, Pacminex Pty Ltd, Mount Gunson Mines Pty Ltd. 1979. Geophysical logging of drill holes - Stuart Shelf. South Australia. Department of Mines and Energy. Company Report; E6680:39 fiche, 117p; 144 maps

164. CSR Ltd, Pacminex Pty Ltd, Mount Gunson Mines Pty Ltd. 1977. Mount Gunson resistivity surveys. South Australia. Department of

Mines. Company Report; E6678:6 fiche, 94p; 17 maps

165. CSR Ltd, Pacminex Pty Ltd, Mount Gunson Mines Pty Ltd, Solo Geophysics and Co. 1981. Mount Gunson gravity surveys. South Australia. Department of Mines. Company Report; 14 fiche, 261p, 47 maps
166. CSR Ltd, Pacminex Pty Ltd, Murdoch Geophysics (Aust) Pty Ltd. 1977. A resistivity survey at Pandurra, near Port Augusta, South Australia, for Pacminex Pty Ltd. South Australia. Department of Mines and Energy. Company Report; E6678:fiche 1,3,4, p3-49; 8 maps

Abstract: Aim was to define a fluvial channel incised into Precambrian bedrock and to delineate between occurrences of fluvial conglomerates and shales within fluvial section.

167. CSR Ltd, Pacminex Pty Ltd, Tonkin DG. 1976. Pandurra, partial relinquishment report for the period 7/4/75-6/4/76. South Australia. Department of Primary Industries and Resources. Open File Envelope; E02720:2 fiche, 42p; 2 appx, 2 fig, 3 plans, tables

Abstract: Surface geological mapping and open hole rotary drilling of 21 stratigraphic holes totalling 8717 m carried out in relinquished portion, which from reviewing results regarded as having low potential for copper and other base metals.

168. CSR Ltd, Placer Exploration Pty Ltd, Western Mining Corporation Ltd, Tonkin DG. 1987. Gunson, Charlinga, Mount Gunson, Pandurra and Pernatty, reports for the period 25/1/80 to 14/2/87. South Australia. Department of Mines and Energy. Company Report; E6962:1688p; 105 appx, 144 fig, 156 plans

Abstract: Target was Cattlegrid-type Cu and Olympic Dam-type Cu-Au-U. Numerous mineralized zones disclosed in Adelaidean and basement rocks.

169. CSR Ltd, Search Exploration Services Pty Ltd, Placer Exploration Pty Ltd, Curtis JL. 1988. Tunkillia Rockhole, progress and relinquishment reports from 13/3/87 to October 1988. South Australia. Department of Mines and Energy. Company Report; E6859:9 fiche, 376p; 3 appx, 10 fig, 8 plans

Abstract: Known mineralization appears to be Middle Proterozoic and associated with tensional fractures and Kimban Orogeny mafic dykes. Exploration included reinterpretation of Kokatha aeromagnetics, flown for SADME in 1978. Exploration tested

possible faults and/or areas of geochemical alteration indicated by aeromagnetics. Ground magnetics consisted of 14 traverses totalling 112.5 line km at Arcoordaby, Pidinga/Michelbar (NW-NNW faults?) and Malbooma ring structure. Drilling (104 RAB holes totalling 354.7 m) at Malbooma, Arcoordaby, and Pidinga anomalies revealed widespread quartzo-feldspathic gneiss, with some fine grained mafic and possible diorite intrusives. Au assays were generally below detection (5 ppb), except 4 holes at Malbooma, and 3 holes at Arcoordaby. Future exploration should concentrate on the intersection of Middle Proterozoic tensional fractures with mafic and/or reducing host rock. Prospective areas are Tarcoola-Pidinga fracture zone and Malbooma ring structure.

170. CSR Ltd, Sumitomo Metal Mining Co Ltd, Nissho Iwai Co (Australia) Pty Ltd, Hunting Geology and Geophysics (Aust) Pty Ltd, Nash CR. 1981. Reconnaissance structural investigation of the southern Stuart Shelf, South Australia. South Australia. Department of Primary Industries and Resources. Open File Envelope; E03703:12v., fiche 29-30,62-3 p1700-1719; 1 appx, 2 fig, 2 reports

Abstract: Photogeological fracture analysis, Landsat interpretation and aerial geophysical data interpretation techniques concurrently applied to problem of identifying deep-seated linear structures on Stuart Shelf. Results of reconnaissance investigation suggest several predominantly NNW- and WNW-oriented "tectonic feature correlations" present in area, which could denote structures that have episodically exerted control upon localization of base metal mineralization in Carpentarian and Adelaidean sediments.

171. CSR Ltd, Sumitomo Metal Mining Co Ltd, Nissho Iwai Co (Australia) Pty Ltd, Pacminex Pty Ltd, Solo Geophysics and Co, I RPaAPL, Baas Becking Laboratories, Hunting Geology and Geophysics (Aust) Pty Ltd, Tonkin DG, Langron WJ *et al.* 1983. Mount Gunson, Pandurra and Charlinga areas, progress and technical reports for the period 25/10/79-19/12/85. South Australia. Department of Primary Industries and Resources. Open File Envelope; E03703:12v., 66 fiche, 1890p; appendices, figures, 13 reports, tables

Abstract: As part of ongoing search for extensions to Cattlegrid orebody style of stratiform Cu-Fe-Mn mineralization within ELs on Stuart Shelf a series of tests conducted. Despite obtaining good understanding of pre-Adelaidean basement relief in region, and likely geological controls on stratabound ore genesis, unable to find better than sub-economic and sparsely distributed base metal values in areas outside of known occurrences.

172. CSR Ltd, Sumitomo Metal Mining Co Ltd, Nissho Iwai Co (Australia) Pty Ltd, Tonkin DG. 1979. Revision of the McLeay Beds, Mount Gunson area, South Australia. South Australia. Department of Primary Industries and Resources. Open File Envelope; E03703:3 fiche, p109-40; 7 fig

Abstract: Report reviews all aspects of paradoxical McLeay Beds. Stratigraphic revision proposed, whereby two new stratigraphic units, to be known as McLeay Regolith and Gunson Member, recognized. Other types of McLeay Beds in present usage now assigned to existing stratigraphic units, either Tapley Hill Formation or Pandurra Formation.

173. CSR Ltd, Tonkin DG. 1985. Summary of exploration on CSR Ltd tenements on the Stuart Shelf, SA, from 1965 to 1985. South Australia. Department of Mines and Energy. Company Report; E6962:p2098-172; 1 appx, 1 fig

Abstract: A detailed chronological summary of exploration describes significant results, and includes statistics on costs and drilling. Of particular interest are descriptions of geophysical surveys and drilling over the then undiscovered Cattlegrid orebody, and the ranking of that prospect against other targets.

174. Currie DA. 1982. Eyre Peninsula, SA, relinquishment report. Pancontinental Mining Ltd; PNC Exploration (Australia) Pty Ltd; Afmeco Pty Ltd; E4848:18p; 4 appx, 43 maps, 1 table

Abstract: Potential for unconformity-related uranium mineralization limited by lack of Middle Proterozoic cover.

175. Currie DP, Pancontinental Mining Ltd, PNC Exploration (Australia) Pty Ltd, Afmeco Pty Ltd, Geoex Pty Ltd, Richardson and McSharry Pty Ltd, Ashley Geophysics. 1983. Tooligie-Verran, Eyre Peninsula, progress reports from 13/11/78 to 11/2/83. South Australia. Department of Mines and Energy. Unpublished Report; E3412:7 fiche, 213p; 12 appx, 7 fig, 13 maps

Abstract: Target is unconformity related uranium deposits over three prospects with geophysical anomalies - further exploration and drilling recommended.

176. Daly SJ, Tonkin DG, Purvis AC, Shi Z. 1994. Colona drilling program. South Australia. Department of Mines and Energy. Company Report; E8768:410p; 122 fig, tables

Abstract: The Colona Drilling Project aimed to test the vicinity of

two ground magnetic profiles across the most southwestern teardrop shaped aeromagnetic anomaly of the Fowler Suture Zone. Forty five holes were drilled totalling 3,732 metres. Five holes were abandoned in Cainozoic cover and the remainder reached crystalline basement. Ten holes have bottom hole core.

177. Daly SJ, van der Stelt BJ. 1992. Archaean metabasic diamond drilling project. South Australia. Department of Primary Industries and Resources. Open File Envelope; E08541 R 2:6v., p1516-901; 2 appx, 27 fig, 21 plans, 8 plates, tables

Abstract: Archaean metabasic diamond drilling project undertaken in 2 locations within NW Gawler Craton. Metasediments in region include banded iron formation, quartz+-feldspar+-garnet+-cordierite gneiss, calcsilicate, carbonate and quartzite. Rocks interlayered with or were intruded by basic and ultrabasic flows or sills prior to granulite facies metamorphism during Sleafordian Orogeny which occurred at 2640-2450 Ma. Metasediments and metabasic rocks also intruded by late orogenic granites and tonalites at this time. Paragneisses, metabasics and late tectonic intrusives all included within Archaean Mulgathing Complex. Correlation with Sleaford Complex in southern Gawler Craton indicates age of sedimentation for Mulgathing Complex greater than 2640 Ma on a basement as old as 3000 Ma. Banded iron formation, quartz+felsdpar gneiss and gneissic granite occur most frequently in outcrop, whereas basic and ultrabasic rocks rarely exposed and deeply weathered. Limited auger and percussion drilling indicated anomalous nickel and chromium values in shallow metabasic rocks. Subject project specifically planned to obtain fresh samples of basic and ultrabasic rocks and to give an understanding of structural relationships with host paragneisses. Petrology, whole rock and trace element geochemistry planned to assess exploration potential and probable tectonic setting for very poorly known rocks. Final aim for drilling project was to determine whether basic and ultrabasic rocks of Mulgathing Complex similar lithologically to those of Eastern Goldfields Province of WA and, if so, to determine their potential for gold, nickel, platinum and chromium enrichments of type which are associated with Archaean MgO-rich rocks in that province. At Kambalda, for instance, extrusion age for nickel-bearing rocks inferred to be 2692+-6 Ma, while gold mineralization at Kalgoorlie slightly younger at 2675+_6 Ma.

178. Dampier Mining Company Ltd. 1978. Progress reports Exploration Licence 306, Lake Younghusband, South Australia. South Australia. Department of Mines and Energy. Company Report; E3030:12p; 11 fig

179. Dampier Mining Company Ltd. 1978. Progress reports Exploration Licence 321, Coondambo, South Australia, 1977-1978. South Australia. Department of Mines and Energy. Company Report; E3035:6p; 5 fig
180. Dampier Mining Company Ltd. 1978. Progress reports, Exploration Licence 322, Mahanewo, South Australia, 1977-1978. South Australia. Department of Mines and Energy. Company Report; E3036:5p
181. Dampier Mining Company Ltd. 1974. Tallacootra, South Australia, progress and final report. South Australia. Department of Mines and Energy. Company Report; E2645 :19p; maps
182. Dampier Mining Company Ltd. 1976. Tallacootra, South Australia, progress reports. South Australia. Department of Mines and Energy. Company Report; E2605
183. Dampier Mining Company Ltd. 1984. Tregolana and Sugarloaf Hill, progress and final reports from 30/9/80 to 22/ 8/84. South Australia. Department of Mines and Energy. Unpublished Report; E3915:2 fiche, 56p; 6 appx, 6 fig, 6 maps

Abstract: Four drill holes (totalling 930 m) testing base of Tapley Hill Formation for sedimentary copper, intersected no mineralization and terminated in Gawler Range Volcanics in one hole (TR3). Two drill holes (totalling 62 m) over aeromagnetic anomaly intersected no kimberlites.

184. Darlington RE, Boyer DD, Simpson PG, Stephenson PN, Binks PJ, Stracke KJ, Sainsbury J, French AC, Robison HR, Wilson PD *et al.* 1988. North Barton siding, progress and final reports from 6/9/79 to January 1988. South Australia. Department of Mines and Energy. Company Report; E3545

Abstract: Exploration for Olympic Dam type mineralization included 6 percussion holes (totalling 742 m). Anomalies are due to variations in magnetite content and slight variations in density of different basement rocks. No anomalous metal values encountered. Of 2 percussion drill holes (totalling 198 m), one was abandoned before intersecting basement in lignitic sands and silts. The other intersected amphibolite.

185. Darlington RE, Carpentaria Exploration Company Pty Ltd. 1979. Coolarrikinna, progress and final reports from 26/7/77 to 26/4/79. South Australia. Department of Mines and Energy. Company Report; E3034:39p; 12 maps

Abstract: Exploration for Olympic Dam-type base metal mineralization - one hole, drilled to test weak magnetic anomaly and stratigraphy, abandoned at 152 m in ?Permian clay.

186. Darlington RE, Carpentaria Exploration Company Pty Ltd. 1979. Mount Eba, South Australia, progress and final reports. South Australia. Department of Mines and Energy. Company Report; E3236:7p; 4 fig

Abstract: All 3 holes drilled to 400 m ended in Pandurra Formation. No mineralization.

187. Darlington RE, Carpentaria Exploration Company Pty Ltd. 1979. Progress reports, Beddome, South Australia. South Australia. Department of Mines and Energy. Company Report; E2980:18p; 2 fig

Abstract: Drilling did not reach base of Pandurra Formation nor did it explain geophysical anomalies. No geochemical anomalies in drill hole.

188. Darlington RE, Carpentaria Exploration Company Pty Ltd. 1979. Progress reports, Bon Bon, South Australia. South Australia. Department of Mines and Energy. Company Report; E3509:6p; 1 fig

Abstract: Although the target (base of Pandurra Formation) was intersected, no geochemical anomalies were found, and pyrite was the only sulphide mineral found.

189. David LJ, Baglin JR, Ashley J, Samedan of Australia. 1980. Bulgunnia, South Australia, progress reports, November 1978 - May 1980. South Australia. Department of Mines and Energy. Company Report; E3293:227p; 16 fig

Abstract: Diamond drilling of gravity anomaly in progress, renewed as EL 693, vols 3-5.

190. David LJ, Clift F, Aquitaine Australia Minerals Pty Ltd. 1982. Open Hill, South Australia, progress and final report for the period ending 28th February, 1982. South Australia. Department of Mines and Energy. Company Report; E4541:11p; 1 appx, 9 fig, 6 maps

Abstract: As Pandurra Formation is over 600m thick and depth to basement is 1 km, area has no economic mineral deposit.

191. David LJ, Greig D, Webb RJ, Baglin GR, Taylor BG, Vujovic P, Watt J, Solo Geophysics and Co, Samedan Oil Corporation of Australia, Esso Aust Ltd. 1985. Roopena, South Australia, progress and final reports from August 1978 to 9/8/ 85. South Australia. Department of Mines and Energy. Unpublished Report; E3292:225 fiche, 1194p; 50 appx, 41 fig, 145 maps

Abstract: Exploration for Olympic Dam type copper uranium mineralization associated with igneous activity in and around Roopena fault. Shallow core holes confirmed stratabound lead, silver, copper and cobalt mineralization in Fresh Well Formation and copper mineralization in Mount Laura Formation. Potential too low to warrant further exploration.

192. David LJ, Samedan of Australia. 1979. Relinquishment report for, Bulgunnia, South Australia. South Australia. Department of Mines and Energy. Company Report; E3537:2p; 7 fig

Abstract: No evidence for shallow basement rocks (Roxby Downs type deposits) or Mesozoic palaeochannel sediments too deep for exploration of Permian coal deposits.

193. Davidson GJ, Shell Company of Australia Ltd. 1984. Carapsee Hill, progress reports from 8/10/83 to 8/7/84. South Australia. Department of Mines and Energy. Unpublished Report; E5262:3 fiche, 67p; 2 appx, 8 fig, 1 map

Abstract: Exhalative sulphide ore bodies associated with BIF (Broken Hill-Aggeney's type) were target. Two magnetic anomalies drilled, three holes (totalling 110 m) in Bosanquet Reservoir anomaly and seven (totalling 203 m) in Pindarra Bullseye anomaly - no significant base metals intersected.

194. Davidson GJ, Webb RJ, Craven B, Dunn PR, Crest Exploration Pty Ltd, Austral Airsurveys Pty Ltd, Geoterrex Pty Ltd, Esso Aust Ltd, Shell Company of Australia Ltd, Wyoming Mineral Corporation. 1985. Gawler, progress and final reports from 9/4/78 to 23/2/85. South Australia. Department of Mines and Energy. Unpublished Report; E3235:30 fiche, 542p; 27 appx, 22 fig, 95 maps

Abstract: Target was uranium in potential host rocks (carbonaceous pelites and carbonate rocks) in Early Proterozoic metamorphics at Middle Proterozoic unconformity; no significant mineralization intersected. Exploration for Broken Hill style stratiform targets in the Lower and Upper Middleback Jaspilites indicated anomalous zinc zones in Hutchison Group ironstone and calcsilicate horizons at Stanley Mine - did not warrant further work.

195. Davies PR, Robison HR, Stracke KJ, Stockdale Prospecting Ltd. 1983. Gawler Range Volcanics project. Progress reports from 3/5/81 to 3/5/83. South Australia. Department of Mines. Company Report; E4267:fiche 1-2,19-22, p3-76; 2 appx, 6 fig, 23 maps

Abstract: Target was diamonds over area covered by Gawler Range Volcanics. Detailed sampling at Unalla Hill reconfirmed an anomaly located during earlier regional sampling. 31 anomalies were selected for follow up. EL's 827, 834, 841 and part EL's 842 and 844 were relinquished.

196. Davies PR, Stockdale Prospecting Ltd. 1982. Relinquishment reports. South Australia. Department of Mines and Energy. Company Report; E4747:3p; 9 maps, 1 table

Abstract: Prospectivity for diamond occurrences is very low.

197. Delhi Australian Petroleum Ltd. 1969. Point Paterson and Port Pirie, progress report and SML application to 7/11/ 69. South Australia. Department of Mines and Energy. Unpublished Report; E1140

Abstract: Investigates feasibility of large scale solar salt production with possibility of bulk salt loading and shipping facility near Redcliff Point. Estimated reserves of 1,250,000 long tons per annum.

198. Delhi Australian Petroleum Ltd, Vam Ltd, Hardman Chemicals Pty Ltd, Caldwell Richards and Sorenson Inc, Easley CT, Willington CM, Adam JR. 1969. Enlarged Point Paterson, and proposed Port Pirie, salt works. Application for SML, and construction feasibility study initial report. South Australia. Department of Primary Industries and Resources. Open File Envelope; E01140:fiche 2-3, p72-146; 3 appx, figures, plates, tables

Abstract: Applicant proposes to undertake a programme to determine the economic feasibility of developing a seawater salt recovery complex on the areas applied for, which will be capable upon completion of the initial stage of development of producing one Mt of washed salt per annum. Further studies will be undertaken to determine whether the complex is capable of development to produce three Mt of salt per annum. If feasibility studies indicate the project is viable and economic, it is proposed to set up solar evaporating areas at Point Paterson and Port Pirie. Programme envisages pumping high density brine from the Port Pirie area to the Point Paterson area into already established crystalliser ponds, where the salt would be precipitated during the months of September through to April and harvested in May through to August.

199. Delhi International Oil Corporation. 1975. Lake Torrens, progress reports from 13/4/73 to 13/4/75. South Australia. Department of Mines and Energy. Unpublished Report; E2299
- Abstract: Exploration to evaluate potential reserves of NaCl in southern part of Lake Torrens and availability of suitable pond sites required for proposed Redcliff Petrochemical Complex. Evaluation of data indicated lake sediments are sufficiently permeable and the brine exists in adequate amounts to be economically viable.*
200. Delhi International Oil Corporation. 1977. Lake Torrens, progress reports from 28/8/75 to 22/8/77. South Australia. Department of Mines and Energy. Unpublished Report; E2643
- Abstract: Market research on utilizing Lake Torrens and Point Paterson salt for production of soda ash or caustic soda in SA, or for salt export. Underground sources of brine also investigated during drilling for base metals. Anomalously high but subeconomic concentrations of Cu, Pb and Zn found in volcanics and Whyalla Sandstone.*
201. Delhi International Oil Corporation. 1977. Redcliff, progress reports from 12/1/76 to 12/7/77. South Australia. Department of Mines and Energy. Unpublished Report; E2736
- Abstract: No technical data included.*
202. Delta Gold Exploration Pty Ltd, Holmes JS. 1999. Goode, first annual and surrender reports for the period 18/3/97-9/4/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09397:57p; 2 appx, 6 fig, 2 reports, tables
- Abstract: Calcrete sampling over a previously sampled area 100 km N-NE of Tarcoola delineated two low order anomalies peaking at 8 and 9 ppb Au.*
203. Delta Gold NL, Holmes JS. 1999. Gibraltar Rocks (Crawford project), surrender report for the period 2/7/98-27/4/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09638:12p; 5 fig
- Abstract: No new work took place to target previously reported low order gold-in-calcrete anomalism.*
204. Dewhurst RH, Uranerz (Australia) Pty Ltd. 1975. Tarcoola area, South Australia, progress and final reports. South Australia. Department of Mines and Energy. Unpublished Report; E2477:95p; 12 fig,

maps

Abstract: Area has low potential for Tertiary uranium.

205. Diamond Ventures NL, Cooper SA. 1998. Elliston, partial relinquishment report for the period from 20/2/96 to 20/2/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09359:4 appx, 1 fig, tables

Abstract: Three of nine untested magnetic anomalies identified by company aeromagnetic data reprocessing for an area east of Elliston were drilled as part of a regional search for buried diamondiferous kimberlites. The resulting three holes (total 179 m) were terminated respectively in non-kimberlitic schist, quartzite and altered mafics. No diamonds were recovered amongst the solely examined + 0.3-1.0 mm heavy mineral size fraction separated from drill cuttings of the overlying Jurassic sediments. No calcrete gold anomalies were located by limited sampling carried out near the Flinders Highway.

206. Diamond Ventures NL, Cooper SA. 1998. Flinders Island, annual and final report for the period 26/5/97 to 25/5/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09447:3 appx, 1 fig, tables

Abstract: Flinders Island, 35 km west-south-west of Elliston, was selected to investigate possible gold mineralization associated with late stage faulting of Hiltaba Suite granites, and to seek extensions to broad, kimberlitic geochemical anomalies found in the Elliston area. Aerial reconnaissance showed little evidence of faulting, and an orientation calcrete sampling programme, although compromised by the existence of at least two phases of calcrete development, returned no anomalous metal values. Processing of heavy mineral soil samples for diamond indicators did not proceed following negative results from the sampling of drill holes near Elliston.

207. Diamond Ventures NL, Cooper SA. 1998. Venus Bay, partial relinquishment report for the period 27/7/94 to 26/1/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09362:8 appx, 2 fig, tables

Abstract: Diamond and gold exploration northwest and east of Venus Bay on Eyre Peninsula comprised heavy mineral sampling, microprobing, drilling (four holes, total 334 m), petrology, palynology and orientation calcrete sampling. Kimberlitic ilmenites and pyrope garnets were found, but the thickness of Tertiary

sediments precludes location of their source. Evidence of the activity of Au-mineralized fluids was found within drill core samples taken from deformed amphibolitic basement. No calcrete gold anomalies were located.

208. Diamond Ventures NL, Hungerford Geophysical Consultants Pty Ltd, Macquarie University, Australia National Key Centre for Geochemical Evolution and Metallogeny of Continents, Cooper SA, Hungerford N, Barron BJ, Belousova E. 1998. Elliston area, western Eyre Peninsula, annual and final reports for the period 20/2/96 to 23/12/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09206:236p; appendices, figures, tables

Abstract: Diamond, gold and platinum group element (PGE) exploration activities carried out east of Elliston comprised aircore drilling (23 holes, total 1188 m), addressing 17 out of 36 interpreted magnetic anomalies plus certain of the kimberlites, with heavy mineral and petrological studies of cover and bedrock lithologies, and geochemical sampling of surficial calcrete, sediments and basement. Numerous kimberlite indicator minerals recovered, but their mineralogy suggested the source intrusive bodies were not diamondiferous, and crystal chemistry studies of contained zircon grains indicated a crustal source for that indicator mineral. An Early to Middle Jurassic age for various of the kimberlite bodies was determined from palynological studies of directly superimposed overburden. PGE assay values for kimberlite intrusions low: however, weak gold anomalism detected by limited calcrete sampling warrants further work.

209. Dodd K, Delhi Australian Petroleum Ltd, Vam Ltd, Hardman Chemicals Pty Ltd, Coffey and Hollingsworth Pty Ltd, Caldwell Richards and Sorensen Inc. 1971. Point Paterson and Port Pirie, progress and final reports from 22/1/70 to 10/ 12/71. South Australia. Department of Mines and Energy. Unpublished Report; E1330

Abstract: Evaluation by various consultants of feasibility of producing salt by solar evaporation for export markets. Recommended that major emphasis be on production of salt and/or brine for manufacture of caustic soda and chlorine.

210. Dodd K, Delhi International Oil Corporation. 1972. Southern Lake Torrens, Mount Grainger, progress reports from 1/1/72 to 31/12/ 72. South Australia. Department of Mines and Energy. Unpublished Report; E1886

Abstract: Feasibility study of salt production at Lake Torrens - Port

Augusta site. Reconnaissance mapping and brine sampling carried out. Laboratory tests indicated sulphate in brines could be removed by addition of calcium chloride.

211. Dodd KC, Delhi Australian Petroleum Ltd, Vam Ltd, Hardman Chemicals Pty Ltd. 1987. Point Paterson, Pirie, progress and final reports from 22/1/70 to 10/12/71. South Australia. Department of Mines and Energy. Unpublished Report; E1330:15 fiche, 3 vol., 458p; 17 appx, 24 fig

Abstract: Investigation of potential coastal site for solar salt as feed for petrochemical plant being considered at Redcliffs.

212. Dominion Gold Operations Pty Ltd, Resolute Resources Ltd, Edgecombe D, Robinson P. 1995. Bulgunnia, second partial surrender report for the period 27/10/92 to 31/8/96. South Australia. Department of Mines and Energy. Open File Envelope; 8996:88p; 4 appx, 1 fig, 2 plans, 1 rep, tables

Abstract: A 577 square km area north of Tarcoola, the subject of this report, was surrendered from EL 1791 in August 1995. Aeromagnetic interpretation of bed rock geology yielded only a few magnetic anomalies with low priority as epigenetic Cu-Au mineralization targets. Calcrete sampling (304 samples taken at a staggered 1.6 x 1.6 km grid spacing) revealed several low-order gold anomalies over areas of thick cover of Pandurra Formation clastics.

213. Dominion Gold Operations Pty Ltd, Resolute Resources Ltd, Edgecombe D, Robinson P. 1995. Lyons Camp, annual and final report for the period 26/8/94 to 25/8/95. South Australia. Department of Mines and Energy. Company Report; E8975 :2 fiche, 70p; 4 appx, 2 plans

Abstract: Infill sampling, 40 km northwest of Tarcoola, did not upgrade low order anomalous gold in calcrete.

214. Dominion Gold Operations Pty Ltd, Resolute Resources Ltd, Gawler Joint Venture, Edgecombe D, Robinson P. 1995. Goode, annual report for the period 28/8/94 to 25/8/95. South Australia. Department of Mines and Energy. Open File Envelope; 8977:3 fiche, 64p; 4 appx, 1 fig, 2 plans, 1 rep, tables

Abstract: Anomalous Cu/Au in calcrete and SAEI-interpreted high amplitude bullseye aeromagnetics in an area 90 km north-north east of Tarcoola warrant further evaluation.

215. Dominion Gold Operations Pty Ltd, Resolute Resources Ltd, Gawler Joint Venture, Edgecombe D, Robinson P. 1995. Warrior, annual and final report for the period 26/8/94 to 25/8/95. South Australia. Department of Mines and Energy. Company Report; E8976:47p; 4 appx, 5 fig, tables
- Abstract: Interpretation of aeromagnetic data plus regional geochemical calcrete sampling, 100 km northwest of Tarcoola, identified four prospects with low order (5-6 ppb Au) anomalies. Infill calcrete sampling of these sites led to the conclusion that drilling was not warranted.*
216. Dominion Gold Operations Pty Ltd, Resolute Resources Ltd, Gow P. 1996. Labyrinth, partial relinquishment report to September 1996. South Australia. Department of Mines and Energy. Open File Envelope ; 9096:1 fiche, 13p; 1 appx, 1 fig, 1 rep, tables
- Abstract: Low Au values were obtained from regional calcrete sampling in two areas northeast of Kingoonya, subsequently interpreted as being underlain by at least 80 m of unprospective Neoproterozoic Pandurra Formation.*
217. Dragon Resources Ltd, Cheetham PL, Hansen MR. 1990. Ifould Lake, progress and final reports for the period 9/1/89 to 9/7/90. South Australia. Department of Mines and Energy. Company Report; E8141:75p; 5 appx, 9 fig
- Abstract: Target was alunite in Lower Miocene-Oligocene lacustrine sediments. Revision of ore reserve calculations based on SADME auger drilling and sampling results from 1984, plus marketing studies, indicated development potential not pursued.*
218. Drexel JF. 1976. The geology of Mount Laura, Whyalla, South Australia. South Australia. Department of Mines. Unpublished Report; 76/146:13p; maps
219. Drexel JF. 1976. The geology of Mt. Laura, Whyalla, South Australia. South Australia. Department of Mines. Unpublished Report; 76/146:13p; maps
220. Dunn M, PNC Exploration (Australia) Pty Ltd. 1987. Petrology and drill core analysis of Gawler Range Volcanics from SADME Myall Creek RC2. South Australia. Department of Mines and Energy. Unpublished Report; E3859
221. Dunn M, PNC Exploration (Australia) Pty Ltd. 1987. Stuart Shelf margins - stratigraphic drilling. Petrography and assays from

SADME diamond drill hole Myall Creek RC2-data. South Australia. Department of Mines and Energy. Unpublished Report; E6854

222. Dunn M, Williams SV, Richardson RL, Lachlan Resources NL, Robertson Research (Aust) Pty Ltd, Pancontinental Mining Ltd, PNC Exploration (Australia) Pty Ltd, Afmeco Pty Ltd. 1985. Rudall, progress reports from 8/9/82 to 7/2/85. South Australia. Department of Mines and Energy. Unpublished Report; E5019:3 fiche, 65p; 4 maps

Abstract: Exploration for unconformity related uranium at base of Middle Proterozoic Blue Range Beds near Driver River Pan radium anomaly. 200 m or more depth too great for further exploration given that anomaly may originate from base of oxidation in Eocene sediments of Polda Basin. Large isolated Rudall magnetic anomaly is either massive magnetite body emplaced in penetrative pipe like structure within Lower Proterozoic Hutchison Group or a basic intrusive.

223. Earth Resources Australia Pty Ltd, Tarcoola Gold Ltd, Insight Mining Pty Ltd, Elberg T, Gum J, Circosta G, Ivey G, Tonkin DG, Bunny MR. 1989. Muckanippie. Progress reports from 5/1/87 to 5/1/89. South Australia. Department of Mines and Energy. Company Report; E6823

Abstract: Target was sheared and altered zones within and on the contacts of the Hiltaba Suite Granites and Muckanippie Diorite. Minor concentrations of Au were disclosed and a soil anomaly was outlined on the Lake Barry grid.

224. Eichenbaum JD. 1971. Progress reports - Cultana, South Australia. Serem (Australia) Pty Ltd; E1722:maps

225. El Raghy S. 1980. Progress report on reconnaissance aeromagnetic and radiometric survey, Childara. Asarco (Australia) Pty Ltd; E3824:1p; 1 fig

Abstract: Work to be deferred as no access for drilling rig.

226. Elliott PJ, Uranerz (Australia) Pty Ltd, Billiton Australia Ltd. 1986. Preliminary interpretation of aeromagnetic and radiometric data, Mount Olinthus. South Australia. Department of Mines and Energy. Company Report; E3338:fiche; 28 maps

227. Englehard Minerals and Chemical Corporation, Sadex Pty Ltd. 1976. Mt Sturt clay deposit, South Australia, progress reports March 1975-April 1976. South Australia. Department of Mines and

Energy. Unpublished Report; E2512:9p; 1 map

228. Equinox Resources NL. 1997. Ceduna. Partial relinquishment report for the period ending 31/8/97. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09242:1 appx , 1 fig, tables

Abstract: Evaluation of SAEI aeromagnetic data southeast of Ceduna, and surface calcrete sampling on a 1 km regional grid for anomalous Au-Cu-Ni, in a search for buried Ernest Henry-Olympic Dam style Cu-Au mineralization, identified an area of limited potential.

229. Equinox Resources NL, Geosurveys of Australia Pty Ltd, Parker AJ. 1999. Christie, annual technical reports for the period 25/10/96-24/10/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09266:39p; 2 appx, 13 fig, 2 reports, 2 tables

Abstract: Reconnaissance calcrete sampling over aeromagnetic features carried out in interdunal corridors 110 km S-W of Tarcoola. Although sampling restricted by excessive depths to calcrete horizon, weakly anomalous gold and copper recorded along a northwesterly trending aeromagnetic feature, possibly defining edge of a body of Hiltaba Suite Granite.

230. Equinox Resources NL, Geosurveys of Australia Pty Ltd, Parker AJ. 1998. Poondinga, partial relinquishment report for the period 23/11/93 to 22/11/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09506:19p; 2 appx, 4 fig, tables

Abstract: Reconnaissance, helicopter-borne geological mapping and rock chip sampling carried out within Yellabinna Regional Reserve. No anomalies identified, but area retains considerable Cu-Au potential. Calcrete and soil sampling in interdunal corridors warranted. Regional calcrete sampling W of Tarcoola disclosed weak gold anomalism, coincident in part with gravity and aeromagnetic features. Detailed follow-up sampling warranted.

231. Equinox Resources NL, Parker AJ. 1996. Tallala Hill, partial relinquishment report for the period ending 22/11/96. South Australia. Department of Primary Industries and Resources. Open File Envelope; 9140:2 fiche, 19p; 1 appx, 6 fig, 3 plans, tables

Abstract: The Cu/Au potential of the coastal area between Fowlers Bay and Colona was downgraded by an absence of significant

aeromagnetic and regional soil/calcrete anomalies. Calcrete results may, however, reflect the effects of ground water and seawater within the thick Plio-Pleistocene cover sediments, rather than a lack of bedrock mineralization.

232. Equinox Resources NL, Phelps Dodge Australasia Inc, Geosurveys of Australia Pty Ltd, Geointerp, Freeman PJ, Parker AJ, Rankin LR. 1998 . Poochera, annual reports for the period 8/1/96-7/1/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09189:207p; 9 appx, figures, 1 plan, 2 reports, tables

Abstract: As part of a search for structurally related Ernest Henry-style Cu-Au mineralization and other possible polymetallic deposits, analysis of aeromagnetic data obtained from an area 60-100 km E to N-E of Streaky Bay indicated presence of Hiltaba Suite granitoids and Gawler Range Volcanics in vicinity of a southerly extension of Yarlbrinda Shear Zone. Soil and calcrete sampling defined several Au anomalies of greater than 10 ppb. 52 RAB/aircore holes (total 2320 m) returned anomalous Ag of up to 11.5 ppm with associated Co and Cr, but only low Au (best 70 ppb from 56-60 m). Second calcrete sampling programme using a power auger defined several weak but coherent targets requiring drilling, and indicated that a lower detection limit required to account for a geochemical dilution effect seen where sampling took place in areas of transported cover. Ground access to follow up remaining targets not achieved.

233. Equinox Resources NL, Phelps Dodge Australasia Inc, Geosurveys of Australia Pty Ltd, Parker AJ. 1999. Nuckulla Hill, partial relinquishment report for the period 6/12/94 to 5/12/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09507:52p; 3 appx, 6 fig, tables

Abstract: Regional stream sediment, rock chip and calcrete sampling in western and northeastern parts of Nuckulla Hill licence returned weakly anomalous values. Prospectivity of surrendered ground for base and precious metals considered to be relatively low compared with that of ground retained nearer Yarlbrinda Shear Zone.

234. Equinox Resources NL, Phelps Dodge Australasia Inc, Geosurveys of Australia Pty Ltd, Parker AJ. 1999. Poochera, partial relinquishment report for the period 8/1/96 to 7/1/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09531:55p; 2 appx, 5 fig, 1 plan, tables

Abstract: Aeromagnetic survey followed by soil and calcrete sampling in Poochera-Wirulla area, over possible southerly extensions to Yarlbirinda Shear Zone. Only slightly elevated Au and Cu values returned, and follow-up sampling in one area revealed no coherent Au anomalism above substantial transported cover. Prospectivity of surrendered ground therefore considered to be relatively low compared with adjacent areas.

235. Equinox Resources NL, Phelps Dodge Australasia Inc, Geosurveys of Australia Pty Ltd, Parker AJ, Hammond RL. 1999. Tallala Hill, annual reports for the period 23/11/93 to 22/11/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E08861:2v. , 184p; 10 appx, 27 fig, 23 plates, tables

Abstract: Exploration in an area north of Fowlers Bay, for shear zone hosted Cu-Au mineralization associated with emplacement of Hiltaba Suite Granite, showed gold and zinc assay values peaking at 0.36 g/t and 635 ppm, together with minor copper and lead, and traces of nickel and platinum group metals. Such results imply that calcrete analysis results from sampling over this area will only truly reflect the tenor of basement mineralization in places where the overlying Tertiary sand and limestone cover rocks are thin or absent.

236. Equinox Resources NL, Phelps Dodge Australasia Inc, Parker AJ. 1997. Childara Dam, annual reports for the period 24/3/95 to 23/3/97. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09063:15p; 4 fig, 1 table

Abstract: Area 80 km E-NE of Ceduna, and entirely within a conservation park and regional reserve, recognized as one of considerable potential for copper and gold mineralization associated with shear zones active around time of emplacement of Hiltaba Suite and related granites. Number of targets generated from a review of previous exploration and aeromagnetic data not pursued.

237. Equinox Resources NL, Phelps Dodge Australasia Inc, Parker AJ, Hammond RL, Teasdale JP. 1995. Poondinga Rock Water (hole) area, annual reports for the period 23/11/93-22/11/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E08860:58p; 2 appx, 7 fig, 2 plans, 12 plates, 6 reports, tables

Abstract: Reconnaissance, helicopter supported mapping and sampling within the Yellabinna Regional Reserve, 70 km N-NW of Ceduna, revealed more extensive basement outcrop than

previously recorded, but returned no anomalous metal values. Infill aeromagnetism confirmed 17 target areas indicative of shear zones or faults active during emplacement of Hiltaba Suite granites, which may have been conducive to possible detrital Au deposition in sediments or breccias near a basal unconformity. Majority of targets fall within Native Title claim zones excluded from heritage clearance, thereby preventing geochemical follow-up.

238. Esso Aust Ltd, Wyoming Mineral Corporation, Craven B, Foy MF, Slade J, Dunn PR. 1980. Uno area (Aroha) South Australia progress reports from 6/6/78 to 5/3/80. South Australia. Department of Mines. Unpublished Report; E3279:131p; 20 fig, gamma logs

Abstract: Exploration of Lower Proterozoic basement and Middle Proterozoic sediments to be continued as EL 637.

239. Esso Aust Ltd, Wyoming Mineral Corporation, Craven B, Webb RJ. 1982. Aroha, South Australia, progress and final reports from 27/3/80 (formerly EL 391). South Australia. Department of Mines. Unpublished Report; E3279:240p; 20 fig

Abstract: Area relinquished after final assessment of base metal and uranium potential.

240. Esso Aust Ltd, Wyoming Mineral Corporation, I R Pontifex and Associates Pty Ltd, University of Adelaide, CSIRO, Geoex Pty Ltd, Craven BL, Toteff S, Webb RJ, Pontifex IR *et al.* 1982. Aroha, progress and final reports for the period 27/5/80 to 26/5/82. South Australia. Department of Primary Industries and Resources. Open File Envelope; E03279:3v., fiche 6-11, 15-33, p324-626; appendices, figures, tables

Abstract: Detailed geochemical, petrological, thermoluminescence and lead isotope studies performed on samples obtained by an ongoing programme of grid-based RAB drilling to concealed basement (143 holes on Uno, total 1932 m; 23 holes on Corunna, total 718 m). Aimed to clarify source lithotypes, likely provenance, and history of radiation damage of potentially uraniferous minerals in drill samples. Results failed to provide encouragement to persist with searching for economic uranium deposits. Base metal potential of the Carpentarian metasediments and banded iron formations of the Middle Proterozoic Hutchison Group investigated to determine background geochemical values, and identify possible quartz-magnetite host horizons suitable for ground magnetism and drilling follow-up. Close-spaced RAB drilling NE of Lake Gilles (287 holes, total 3887 m), plus subsequent ground checking and sample

analyses of the three most prospective such interpreted horizons, showed that target geophysical anomalies caused by fresh intrusive igneous rocks including gabbro, tonalite and metabasalt, while weathered basement otherwise exhibits scant indications of stratiform base metal mineralization.

241. Esso Exploration and Production Australia Inc, Esso Aust Ltd, Pegmin Ltd, Otter Exploration NL, Aberfoyle Exploration Pty Ltd, City Resources Ltd, Nede Pty Ltd, Kokong Holdings Pty Ltd, Lake Gilles Joint Venture, Australian Laboratory Services Pty Ltd *et al.* 1996. Lake Gilles, progress and final reports for the period 2/6/80 to 3/1/96. South Australia. Department of Mines and Energy. Open File Envelope; 3879:38 fiche, 7 v., 919p; appendices, figures, 126 plans, 44 reps, tables

Abstract: Exploration defined an extensive zone of anomalous base metal geochemistry in Lower Proterozoic Hutchison Group banded iron formation metasedimentary rocks west of Lake Gilles. Recent work has identified three NW-trending geochemical corridors and has achieved better definition of the Line C soil anomaly. Additional infill drilling and geophysical investigations for possible down dip extensions of mineralization appear warranted.

242. Fanning M. 1988. Tarcoola gold mine: U-Pb and Pb isotope study. South Australia. Department of Mines and Energy. Company Report; E6925:fiche 4, p186-203; 7 fig, 1 table

243. Fell S, Herbison I, Esso Exploration and Production Australia Inc, Solo Geophysics and Co. 1982. Wombat Flat, South Australia, progress and relinquishment report from 19/2/80 to July 1982. South Australia. Department of Mines and Energy. Unpublished Report; E3783:appendices, logs, maps

Abstract: Initially acquired for exploration of probable Carpentarian sediments for base metal and uranium, but greater potential for coal and oil shale in Mesozoic and Cainozoic. Numerous intersections of coal but no areas of thickening or shallowing of coal seams. Local occurrence of 6 m Tertiary lignite best intersection. Experimental seismic survey by SADME of limited value.

244. Finch ID. 1983. McLachlan, progress reports from 10/8/82 to 7/3/82. CRA Exploration Pty Ltd; E5078:60p; 11 fig, 3 maps

Abstract: Search for stratiform/stratabound base metals of Broken Hill/Aggenys type - eleven holes drilled over magnetic anomalies (t.d. 664 m) intersected magnetite-rich gneisses with low base

metal assays, downgrading prospectivity.

245. Finch ID, CRA Exploration Pty Ltd. 1984. Gosses, progress and relinquished reports from 19/5/84 to July, 1984. South Australia. Department of Mines and Energy. Unpublished Report; E5587:1 fiche, 16p; 2 fig

Abstract: No exploration as area not prospective, due to increasing thickness of cover sequences.

246. Finch ID, CRA Exploration Pty Ltd. 1984. Kalanbi, progress and final reports from 6 March, 1983 to 7 February 1984. South Australia. Department of Mines and Energy. Unpublished Report; E5048:119p; 5 maps

Abstract: High amplitude anomalies tested by 29 holes (total depth 1200 m) in search for cumulate style mineralization. An inferred mafic/ultrabasic suite limited in size to main Kalanbi sequence and mineral province unlikely.

247. Finch ID, Mackee GC, CRA Exploration Pty Ltd. 1983. Moornaba, progress and final reports from 30/3/83 to 21/6/83. South Australia. Department of Mines and Energy. Unpublished Report; E5010:44p; logs, 17 maps, sections

Abstract: Geochemical results of 23 earlier Afmeco holes, 12 new holes (total depth 755 m) and small extent of IP and magnetic anomalies near one hole downgraded area.

248. Finch ID, Mackee GC, CRA Exploration Pty Ltd. 1983. Moornaba, progress and final reports from 30/3/83 to 21/6/83. South Australia. Department of Mines and Energy. Unpublished Report; E5010:44p; logs, 17 maps, sections

Abstract: In search of Roxby Downs or Broken Hill/Aggenys type mineralization geochemical results of 23 holes previously drilled and drilling of 12 holes (755 m t.d.) downgraded potential.

249. Flamingo Resources Pty Ltd, Contract Geophysical Services Pty Ltd, McNab RA, Wheeler M. 1997. Torrens and Woomera, (joint) annual report for the period 26/5/97-12/6/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09355:47p; 1 appx, 10 fig, 18 plans, 2 tables

Abstract: Review of existing geophysical data carried out over area west of and extending for 90 km south of Woomera. Further aerial magnetic surveys seen as necessary to define areas of thin

Pandurra Formation and younger cover, and to locate major lineaments within target areas of pre-Pandurra basement comprising Gawler Range Volcanics and Hiltaba Suite rocks.

250. Flatoak Pty Ltd, Caldera Resources NL, Robinson SH. 1996. Quorn, final report for the period 27/6/94 to 14/12/95. Mines and Energy. South Australia. Company Report; E9003:21p; 2 appx, 1 fig, tables

Abstract: No diamond indicator or base metal anomalies were revealed by the geochemistry of stream sediments sampled at 16 sites near Mount Brown.

251. Fleming HD, Delhi Australian Petroleum Ltd. 1962. Foundations and soils investigations for proposed extensions Augusta Salt Ltd. South Australia. Department of Mines and Energy. Unpublished Report; E1140

Abstract: Lithological logs of test bores 1 to 56 and results of engineering tests on soil samples.

252. Flint DJ. 1988. Summary index for exploration data of Pacminex Pty Ltd, Mount Gunson Mines Pty Ltd, Austminex Pty Ltd, Noranda Australia Ltd, CSR Ltd for the Mount Gunson/Stuart Shelf areas. South Australia. Department of Mines. Company Report; E6591:12p

Abstract: Index specifically relates to data received from CSR Ltd and Mount Gunson Mines Ltd in 1986-1988 at the times of closure of the Cattlegrid mine and held in E6591-6640, 6663-6670, 6674-6683, 6714-6718 and 6712-6729. Other data relating to Stuart Shelf exploration may be accessed through SAMREF.

253. Flint DJ, Dubowski EA. 1990. Cowell Jade petrographic descriptions and chemical analyses - data. South Australia. Department of Mines and Energy. Company Report; E8267:5 fiche, 251p

254. Flitcroft MJN, CRA Exploration Pty Ltd. 1981. Port Kenny, South Australia, final report. South Australia. Department of Mines and Energy. Company Report; E4343

Abstract: No carbonaceous sediments of significant uranium mineralization intersected.

255. Flitcroft MJN, McBain DR, Bubner GJ. 1982. Streaky Bay, South Australia, progress and final reports from 28/10/ 80 to 30/3/82. CRA Exploration Pty Ltd; Murdoch Geophysics (Aust) Pty Ltd; E4049:213p; 23 fig

Abstract: No significant uranium and only minor lignite found in palaeochannels.

256. Fodina Minerals Pty Ltd, Mining Project Investors Pty Ltd, Outokumpu Exploration Australia Pty Ltd. 1995. Buckleboo, annual report for the period 9/8/93 to 8/8/94. South Australia. Department of Mines and Energy. Open File Envelope; 8865:82p; 3 appx, figures, 18 plans

Abstract: Exploration for Early Proterozoic stratiform base metal Pb-Zn-Ag and Cu-Au deposits associated with banded iron formation sediments in the Waddikee- Buckleboo area comprised a detailed review of previous mineral exploration data from the region, plus TEM and ground magnetic surveys of targets selected from this work and a subsequent aeromagnetic interpretation. Target areas for follow-up drilling were identified, but will not be tested until early 1995.

257. Forrest RJ, Grasso RL, Youles IP. 1979. Progress and final reports EL384, Bakers Dam area, South Australia. Oilmin NL; Transoil NL; Petromin NL; Western Nucleare (Australia) Pty Ltd; E3313:16p; 8 fig, 1 plate

Abstract: Negative results of geophysical surveys over a gravity anomaly downgrade mineral prospects of this area.

258. Forwood PS. 1979. Bute, South Australia, progress reports from 10th September, 1978 to September, 1979. North Broken Hill Ltd; E3311:53p; 21 fig, logs

Abstract: Investigation for Mississippi Valley type lead-zinc mineralization in Cambrian basins. Licence renewed as EL 577. See also E2749 and E3767.

259. Forwood PS. 1978. Bute, South Australia, progress reports from June 1976 to 10th June 1978. North Broken Hill Ltd; E2749:82p; 34 fig, logs

Abstract: Scattered signs of mineralization occur in various Cambrian-Proterozoic formations - licence renewed as EL 420. See also E3311 and E3767.

260. Forwood PS. 1979. Port Pirie, South Australia, progress reports from 20th October, 1977 to 20th April, 1979. North Broken Hill Ltd; E3023:90p; 35 fig

Abstract: Minor copper and lead mineralization - licence renewed as EL 519. See also E3606.

261. Forwood PS, Cowley W. 1982. Bute, South Australia, progress and final from 16th April, 1980 to June, 1982. North Broken Hill Ltd; E3767:147p; 160 fig

Abstract: As every major stratigraphic unit has been explored for 6 years, possibility of substantial mineralized zone is remote. See also E2749 and E3311.

262. Forwood PS, Cowley W, Finch ID, Howard JP, Mackee GL, North Broken Hill Ltd, CRA Exploration Pty Ltd. 1984. Cootra, progress and relinquishment reports from 25/2/81 to 28/3/84. South Australia. Department of Mines and Energy. Unpublished Report; E4230:20 fiche, 452p; 5 appx, 25 fig, 59 maps

Abstract: Exploration for stratabound base metals associated with iron rich horizons found magnetic anomalies due to increased magnetite within barren gneissic rocks. Weak tungsten mineralization encountered in mafic granulites at Meanneys still has potential. No uranium anomalies.

263. Forwood PS, Lynch JE, North Broken Hill Ltd, Western Mining Corporation Ltd, Broken Hill South Ltd. 1981. Moonta. Progress reports from 1/9/70 to 25/10/81. South Australia. Department of Mines. Company Report; E6999:fiche 2-28,42-59, p81-1200; 6 appx, 119 maps

Abstract: Target primarily copper sulphide using various geological models, with Pb-Zn of secondary interest, beneath deeper cover than previous exploration by WMC.

264. Forwood PS, Sielecki R, Plimer IR. 1982. Port Pirie, South Australia, progress and final reports from 21st November, 1979 to June, 1982. North Broken Hill Ltd; Australian Aquitaine Petroleum Pty Ltd ; E3606:101p; 40 fig

Abstract: Total of 9208m of drilling but disappointing results. Copper and lead intersections were low grade. See also E3023.

265. Frankcombe KM, CRA Exploration Pty Ltd. 1984. Aeromagnetic interpretation of PEL 24, South Australia. South Australia. Department of Primary Industries and Resources. Open File Envelope; E05648 R 3:fiche 1, 9-11, p30-50; 1 appx, 4 fig, 6 plans, 1 table

Abstract: Three major Permian troughs exist within PEL 24, having shapes controlled by faulting and consequent differential movements on opposing sets of Gondwana-related NW-SE and NE-SW orientated major high angle fault trends. The resultant co-adjacent depressions are interpreted to contain up to 2000 metres of sediments, but their petroleum potential may have been locally influenced by several large crustal intrusions of apparently different character and age.

266. Frankcombe KM, CRA Exploration Pty Ltd, Mintec Systems Pty Ltd. 1984. Gravity interpretation of PEL 24, South Australia. South Australia. Department of Primary Industries and Resources. Open File Envelope; E05648 R 4:fiche 1-2, 11-4, p51-71; 3 fig, 10 plans

Abstract: Different ages are indicated for the three sedimentary troughs in PEL 24 delineated by the previous magnetics interpretation. The Tallaringa Trough has a basal unit of Cambrian limestones which thicken to the southwest. This is overlain by Permian or older sediments with possible interbedded limestone, which is in turn overlain by a veneer of pre-Triassic sediments. The Tallaringa Trough can be divided into two parallel sub-troughs, the northwestern of which is shallower and appears to lack the Cambrian limestones. The Wallira and Phillipson Troughs contain Permian and younger sediments. Although basement depths of up to 1300 metres are obtained from the Wallira Trough, the variable basement topography reduces its potential as an oil generative region. Significant coal measures are present in the upper strata of the Phillipson Trough.

267. French AC, Agip Australia Pty Ltd, Stockdale Prospecting Ltd. 1987. Billa Kalina, relinquishment report from September 1981 to March 1987. South Australia. Department of Mines and Energy. Unpublished Report; E6833:fiche

Abstract: No kimberlitic indicator minerals or diamonds recovered.

268. French AC, Davies PR, Robison HR, Beckett TS, Stockdale Prospecting Ltd. 1985. Lake Anthony, progress and relinquishment reports from 11/8/82 to 11/4/85. South Australia. Department of Mines and Energy. Unpublished Report; E4736:2 fiche, 44p; 1 appx, 4 fig, 3 maps

Abstract: Confirmed existence of palaeochannels and selective accumulation of Tertiary lignites, but extensive cover and lack of modern drainage makes area unsuitable for heavy mineral sampling for kimberlitic type intrusive bodies.

269. Freytag IB. 1980. Progress and final reports, EL 575, Arcoordaby, South Australia. Aberfoyle Exploration Pty Ltd; E3762:14p; 2 fig
- Abstract: Radiometric anomalies due to granite. Poor uranium prospects.*
270. Freytag IB, Aberfoyle Exploration Pty Ltd. 1986. Kalanbi, progress reports from 1/1/86 to 1/6/86. South Australia. Department of Mines and Energy. Unpublished Report; E6501:1 fiche, 7p
- Abstract: Target was platinum group elements. Limited resampling of mafic and ultramafic rocks intersected in previous drilling did not yield anomalous values.*
271. Freytag IB, Abminco NL. 1978. Cariwerloo, South Australia, progress reports. South Australia. Department of Mines and Energy. Unpublished Report; E3123:11p; 5 fig
272. Freytag IB, Bladier YG, Stylls G, Toteff S, Geoex Pty Ltd, Aberfoyle Exploration Pty Ltd, Afmeco Pty Ltd. 1983. Tarcoola, progress reports from 25/1/79 to 1/12/83. South Australia. Department of Mines and Energy. Unpublished Report; E5234:268p; 53 maps
- Abstract: 237 holes, 5975 m, in search for sedimentary uranium, and gold and base metals in basement rocks. Thick altered mafic volcanics interfingering or underlying arkose/conglomerate favourable target.*
273. Freytag IB, Teakle MG, Aberfoyle Exploration Pty Ltd. 1984. Kooralla, progress reports from 4/1/83 to 4/1/84. South Australia. Department of Mines and Energy. Unpublished Report; E4928:3 fiche, 53p; 2 appx, 9 maps
- Abstract: DDH PD1(362 m) testing Kooralla Magnetic Ridge intersected granite and auger gneiss/amphibolite schist; possibly part of Lincoln Complex. Minor pyrite, chalcopyrite and pyrrhotite, but no significant geochemical values - source of anomaly is iron rich minerals.*
274. Furber DV. 1972. Whyalla area, site investigations for solar salt production, December 1971. Broken Hill Pty Co Ltd; E1640:182p; 15 maps
275. Gatehouse CG. 1979. EL 280, Lock coal deposit, South Australia, progress and final reports. South Australia. Department of Mines and Energy. Unpublished Report; E3467:48p; logs, plans

Abstract: Detailed result of 104 drill holes indicate reserves of 200m tonnes of coal where strip ratio is 10:1 or less.

276. Gawler Craton Resources Pty Ltd, Dryga Films Pty Ltd, K R Filsell and Sons, Goldstream Mining NL, Edgecombe D. 1996. Kokatha, partial relinquishment report to 20/10/96. South Australia. Department of Mines and Energy. Open File Envelope; 9133:2 fiche, 9p; 1 appx, 1 fig, 1 plan, tables

Abstract: Calcrete samples, taken adjacent to salt lakes NW of Kokatha, peaked at 7 ppb Au (although most were less than or equal to 2 ppb Au), but are thought unlikely to reflect bed rock geochemistry due to poor calcrete development and low Ca content.

277. Generale de Geophysique. 1971. Geophysical survey at Cultana, S.A. (26th-29th January, 1971). Serem (Australia) Pty Ltd; E1722:maps

278. Geoterrex Pty Ltd, Austirex International Ltd, Solo Geophysics and Co, Geotechnics (Aust) Pty Ltd, Esso Exploration and Production Australia Inc, Rau GL, Herbison I, Greig DD, Webb RJ, Watt JD *et al.* 1983. Wirraminna, Selebi, Lake Gairdner, progress and final reports for the period 13/3/80 to 29/3/83. South Australia. Department of Primary Industries and Resources. Open File Envelope; E03785:3 appx, figures, tables

Abstract: Detailed gravity, ground magnetic, EM soundings (Maxi-Probe) and aeromagnetic surveys were carried out in and adjacent to the NE corner of Lake Gairdner, in a search for concealed Olympic Dam style uranium-copper mineralization associated with a regional gravity high. Two discrete gravity targets were resolved. Percussion drilling of a single test hole to 128 m depth over the most prospective anomaly intersected unprospective Gawler Range Volcanics, possibly the Yardea Dacite. The other gravity target, which was more difficult of surface access for drilling equipment, was not drill tested.

279. Geoterrex Pty Ltd, Pontifex and Associates Pty Ltd, Esso Aust Ltd, Stockdale Prospecting Ltd, Solo Geophysics and Co, Herbison I, Greig DD, Webb RJ, Watt JD, Anderson C *et al.* 1986. Devils Playground, Mount Eba, progress and relinquishment reports for the period 13/3/80 to 28/3/86. South Australia. Department of Primary Industries and Resources. Open File Envelope; E03784:3v., 16 appx, figures, 2 ref, tables

Abstract: Following reviews of existing regional geophysical and geological data for the north-western Stuart Shelf, grid-based

gravity and ground magnetic surveys were run to further outline two broad gravity highs associated with discrete magnetic anomalies, which it was hoped might have potential for Olympic Dam style Cu-U-Au deposits. These features were tested by 2 diamond drill holes. DP2 intersected un-mineralized Pandurra Formation below Mesozoic cover, at 204.5-860 m depth. DP1 (total depth 616.6 m) entered volcanics of a similar density to the Pandurra Formation at 166 m depth. Geochemical and petrographic analysis of the DP1 volcanics, which included both acid and basic material, indicated affinities with both the Gawler Range and Roopena Volcanics, but no genetic relationship to the younger Beda Volcanics. A subsequent detailed gravity survey indicated the existence of a fault between the two drill sites, which probably accounts for the major stratigraphic displacement between them. Water sampling of 13 bores in the vicinity showed no significant uranium values. As part of a second-stage joint venture exploration programme, minor quantities of kimberlite indicator minerals were recovered from the no.10 and Paisley Creek areas, but are thought to be related to secondary sources. Extensive follow-up stream sampling, bulk sediment sampling, ground magnetic surveys, trenching of shallow anomalies and remote sensing investigations of geological structures all yielded negative results for disclosing microdiamonds or kimberlite targets.

280. Getty Oil Development Company Ltd, Getty Australian Coal Company, Cyprus Australia Coal Company, Priddle PG. 1983. Geology of the Arckaringa Basin, South Australia. South Australia. Department of Mines and Energy. Company Report; E5629:p3-80; 3 appx, 17 fig, 20 plans, 41 ref

Abstract: All open file information was reviewed to delineate the overall structure and stratigraphy of the Basin and to identify areas of potential coal development.

281. Gillan M, Miller GC, Duval Mining (Australia) Ltd, Amoco Minerals Australia Company, Pioneer Concrete Services Ltd. 1983. Karari project, progress and final reports from 11/4/81 to January 1983. South Australia. Department of Mines and Energy. Company Report; E4161:80p; logs, 7 fig, 7 maps

Abstract: Exploration for sedimentary exhalative or sabkha type mineralization based on McArthur River model, in Cambrian sequence of Tallaringa Trough. Diamond drilling of two holes to 450 m did not intersect significant mineralization, although pronounced barium and manganese association noted.

282. Gold Copper Exploration Ltd, RMC Minerals Pty Ltd, Sturts Meadows

Prospecting Syndicate NL, Northern Mining Corporation Ltd. 1973. Mining leases - data. South Australia. Department of Mines and Energy. Company Report; E5367:363p; 12 appx, 15 fig, 68 plans

283. Goldstream Mining NL, Edgecombe DR. 1998. Ifould Lake, annual and final report for the period 20/2/97 to 19/2/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09344:6p; 1 fig

Abstract: Exploration for gold and base metals within Archaean and Proterozoic rocks 200 km NW of Ceduna frustrated by limitations to access arising under Aboriginal heritage and Native Title claim clearance procedures. Progress has been confined to reviewing previous exploration data, interpretation of regional geophysics and assessment of regolith/cover sequences.

284. Goldstream Mining NL, Gawler Craton Resources Pty Ltd, K RFaS, Greenhill P. 1998. Kokatha, second partial relinquishment report for the period 19/10/96 to 20/10/97. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09426:4 appx, 1 fig, tables

Abstract: Calcrete sampling on the eastern and western sides of Lake Harris, 30 km south-west of Kingoonya, returned a number of low order anomalies peaking at 9 ppb Au. Two of three RAB holes (total 100 m) drilled south of Kokatha Homestead bottomed in Gawler Range Volcanics below more than 40 m thickness of Mesozoic cover, and the third hole was terminated in GRV at 12 m depth. No anomalous assays were returned. Genuine calcrete is scarce in the salt lakes and dunes which occur over much of the relinquished area.

285. Goldstream Mining NL, Greenhill P. 1999. Baird Bay, annual and final reports for the period 26/5/97 to April 1999. South Australia. Department of Primary Industries and Resources. Open File Envelope ; E09417:11p; 1 fig

Abstract: Calcrete sampling of area SE of Streaky Bay prevented by a thick sequence of Bridgewater Formation calcarenite; rock chip sampling of an outcrop of Gawler Range Volcanics yielded no significant values. Detailed aeromagnetic survey required for target identification.

286. Goldstream Mining NL, Greenhill P. 2000. Crossville, annual and final report for the period 26/3/99-25/3/2000. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09599:19p; 4 appx, 4 fig, 1 report, tables

Abstract: Regional calcrete, lag, rock chip and bulk cyanide leach drainage geochemistry carried out over area immediately to east of Cleve. Gold in calcrete recorded in two areas, which also returned elevated gold values in chip samples of vein quartz. No significant values obtained from lag and BCL work.

287. Goldstream Mining NL, Greenhill P. 1999. Marble Range, annual and partial relinquishment reports for the period 30/4/97 to 16/3/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09372:103p; 9 appx, 4 fig, 8 plans, 1 ref, tables

Abstract: Aircore drilling of gold and base metal targets (23 holes, total 1136 m) undertaken following lag, rock chip and leach sampling and a review of previous aeromagnetic and drillhole data from three separate areas, 40 km west and 50 km NW and NNW of Port Lincoln. No significant results returned, which, together with difficult drilling and regolith sampling conditions, downgraded prospectivity of the areas.

288. Goldstream Mining NL, Parry H. 1998 . Cockabidnie, annual and final reports for the period 18/3/97-17/3/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09333:17p; 3 appx, 5 fig, tables

Abstract: Anomalous Ag peaking at 10,800 ppb recorded in several BCL soil and drainage samples obtained approx 20 km SE of Darke Peak on central Eyre Peninsula. Weakly elevated Au, Cu, Pb and Zn returned from BCL soil and rock chip assays.

289. Goldstream Mining NL, Parry H. 1999 . Heartbreak Hill, partial relinquishment report for the period 27/9/96 to May 1999. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09522:329p; 8 appx, 1 fig, 8 plans, tables

Abstract: Regional and infill calcrete sampling over two areas lying respectively 10 km N and 25 km SE of Tarcoola identified minor, slightly elevated Au and Cu values. Follow-up rock chip sampling and intensive RAB/aircore drilling to basement of selected anomalies (178 holes, total 5047 m) disclosed minor anomalous Au, Cu, Pb and Zn, but failed to intersect significant precious or base metal mineralization.

290. Goldstream Mining NL, Peninsula Exploration Pty Ltd, Parry H. 1998. Coondambo, partial relinquishment report for the period 10/1/97 to 9/7/98. South Australia. Department of Primary Industries and

Resources. Open File Envelope; E09418 :4 appx, 1 fig, tables

Abstract: Reconnaissance calcrete and rock chip sampling plus RAB/aircore drilling (8 holes, total 432 m) were carried out during gold exploration north-east and south-west of Glendambo. Crystalline basement was not reached in the drill holes (maximum depth 96 m), and it was inferred that the anomalous calcrete results were derived from detrital gold within the Pandurra Formation.

291. Goldstream Mining NL, Southern Geoscience Consultants Pty Ltd, Greenhill P, Craven B. 1998. Cummins, annual and final reports for the period 10/1/97 to 16/3/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09323:2v., 132p; 6 appx, 3 fig, 14 plans, tables

Abstract: Thick and often unconsolidated cover sequences of Bridgewater, Uley and Wanilla Formations prevented systematic regolith sampling of much of the area between Wanilla and Peachna, 40 km NW of Port Lincoln, while no coherent base metal anomalies returned from lag/laterite geochemistry carried out over suitable exposures in south of licence area. RAB drilling of selected magnetic anomalies originating in Archaean rocks and Lincoln Complex granitoids (33 holes, total 1442 m) yielded some moderately elevated Au, Cu, Pb and Zn, but no evidence of any potentially prospective hydrothermal alteration observed.

292. Govey AL, CSR Ltd, Pacminex Pty Ltd. 1978. Geophysical logging of drill holes in the Mount Gunson and Pandurra Homestead areas, SA. South Australia. Department of Mines and Energy. Company Report; E6680:fiche 1,2,4-11, p18-63; 3 appx, 4 fig, 47 maps, 1 table

Abstract: Formation responses in study areas and comparisons with earlier logs from Bookaloo area and PL 32 have led to recognition of diagnostic features in identification of different formations.

293. Govey AL, CSR Ltd, Pacminex Pty Ltd. 1978. Geophysical logging of percussion drill holes June-August, 1978. South Australia. Department of Mines and Energy. Company Report; E6680:fiche 2,12-24, p64-87; 2 appx, 2 fig, 36 maps, 1 ref, 1 table

Abstract: Formation responses in 12 drill holes studied. SP and PR logs were run for only 6 holes because of highly saline groundwater conditions. No meaningful electrical logs obtained.

294. Grasso R, Duncan N, Kumunga Pty Ltd, Loongana Pty Ltd, Tennadice

Pty Ltd. 1981. Chundie Swamps, South Australia, progress reports. South Australia. Department of Mines and Energy. Company Report; E3830:56p; 6 fig, logs

Abstract: Drilling results of 20 holes are encouraging.

295. Grasso R, Duncan N, Kumunga Pty Ltd, Loongana Pty Ltd, Tennadice Pty Ltd. 1981. Ifould Lake area, South Australia, progress reports. South Australia. Department of Mines and Energy. Company Report; E3829:44p; 11 fig

Abstract: Drilling results of 14 holes are inconclusive.

296. Grasso R, Duncan N, Loongana Pty Ltd, Kumunga Pty Ltd, Tennadice Pty Ltd. 1981. Ifould Lake, South Australia, progress reports. South Australia. Department of Mines and Energy. Company Report; E3884:25p; 10 fig, logs

Abstract: Drilling results of 7 holes are inconclusive.

297. Gravestock DI. 1994. Officer Basin, South Australia, invitation for applications. South Australia. Department of Mines and Energy. Company Report; E8083 R19:48p; 6 appx, 8 fig, 2 plates, references, tables

Abstract: This petroleum exploration acreage promotional brochure advertises four vacant onshore areas, OF94-A to OF94-D, all situated in the eastern Officer Basin, as being available for licence application until 30 September 1994. One area lies within Pitjantjatjara Lands, two are within Maralinga Tjarutja Lands, and one is outside of any Aboriginal lands.

298. Greig D, Webb RJ. 1982. Warrapie Well, western Eyre Peninsula, South Australia, progress and final reports from 20/2/80 TO 20/2/82. Esso Australia Ltd; Solo Geophysics and Co; E3773:52p; 19 fig

Abstract: Low assay results in gneissic basement and intrusive rocks intersected in drilling.

299. Greig DD. 1981. Poutchina, Port Augusta region, South Australia, progress reports. Esso Australia Ltd - Minerals Department; E3613:116p; 25 fig

Abstract: Field mapping, geophysics and drilling, indicate that no easily accessible sediments are present.

300. Grenfell Resources NL, Clarke DB, Hughes FJ. 1994. Malbooma Siding, progress and relinquishment reports for the period 6/4/92 to 11/7/94. South Australia. Department of Mines and Energy. Company Report; E8663:16p; 2 appx, 2 plans

Abstract: Gold exploration, 30 km west of Tarcoola, comprised assays of three rock chip samples, none of which yielded significant values. The area shows potential for gold mineralization at the Tarcoola Formation-Hiltaba Granite contact.

301. Grenfell Resources NL, McConachy GW. 1999. Carnding, partial relinquishment report for the period 29/9/94 to 8/9/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09475:34p; 3 appx, 2 fig, 1 plan, tables

Abstract: Regional calcrete geochemical sampling (690 samples) on an 800 metre square grid spacing in an area 20-40 km NW and W of Tarcoola was followed up with detailed infill sampling over five weakly anomalous areas. Resulting metal values low and all anomalies were of a limited areal extent, so no drilling targets chosen.

302. Grieg D, Webb RJ, Watt JD, Geoterrex Pty Ltd, Esso Exploration and Production Australia Inc. 1983. Beddomes Dam, progress and final reports from 19/11/80 to 4/1/83. South Australia. Department of Mines and Energy. Unpublished Report; E3942:109p; 2 fig, 3 maps

Abstract: Investigation of Olympic Dam-type uranium-copper mineralization associated with regional gravity high.

303. Grieg DD, Watt JD, Webb RJ, Esso Exploration and Production Australia Inc. 1982. Conndambo, Lake Ross and McArthur Well, progress and final reports from 13/3/80 to 29/12/82. South Australia. Department of Mines and Energy. Company Report; E3786:328p; 4 maps, 62 sections

Abstract: Several localized residual gravity anomalies defined within two regional highs - may be potential Olympic Dam style hematite deposits.

304. Grieg DD, Webb RJ, Watt JD, Geoterrex Pty Ltd, Esso Exploration and Production Australia Inc. 1983. Beddomes Dam, progress and final reports from 19/11/80 to 4/1/83. South Australia. Department of Mines and Energy. Unpublished Report; E3942:109p; 2 fig, 3 maps

Abstract: Exploration for Olympic Dam type uranium-copper mineralization, associated with a regional gravity high.

305. Gum J, Buchholz D, Circosta G, Tonkin DG, Bunny MR, Ivey P, Tarcoola Gold Ltd, Insight Mining Pty Ltd, Earth Resources Australia Pty Ltd. 1989. Glenloth Goldfield. Progress reports from 11/1/87 to 11/1/89. South Australia. Department of Mines and Energy. Company Report; E6821:6 fiche, 272p; 12 appx, 16 fig, 5 plans

Abstract: Target at Glenloth was Au associated with quartz veins in shears in Glenloth Granite. 430 RAB holes drilled in 1980-82 by Santos were relogged and 136 samples analysed for Au, highest value being 0.07 ppm. Petrology on RAB samples does not support hypothesis of a zone of intrusion and alteration as its source. Analysis of 23 surface samples for Au, Sb, As, Mo and W indicated association of Au with dolerites, and in 1 sample, with dacite of the Gawler Range Volcanics. Further work to delineate dolerites is proposed. Target at Kokatha is potential epithermal Au related to faulting around margin of Chandabooka Caldera. Exploration consisted of reinterpretation of BMR Kokatha detailed aeromagnetic survey and drilling of 43 RAB holes, totalling 1576 m. All holes analysed for Au, As, Sb, Mo and W. In general Au was greater than 0.01 ppm and less than 0.03 ppm. 4 of 5 samples from basic dykes and 7 samples from acid volcanics were above detection limit.

306. Harris WK. 1973. Chevron Exploration Corporation palynological examination of selected drill holes, Poldia Basin, Eyre Peninsula EL 37, RB 778. Chevron Exploration Corporation; E2256, EL37

307. Harris WK. 1973. Poldia Basin, Eyre Peninsula, palynological examination of selected drill holes. Chevron Exploration Corporation; E2256

Abstract: Three distinct microfloral units well identified from Late Jurassic, Middle Eocene and mid-Tertiary.

308. Hassan LY, Hawk Investments Ltd. 1987. Gawler, progress report to August 1987. South Australia. Department of Mines and Energy. Unpublished Report; E6887

Abstract: Exploration for Pt group metals in Cr rich layers within layered intrusive at Kalanbi. RAB drilling in a fence across magnetic anomaly (73 holes totalling 2381 m) intersected no Cr bands, but weakly anomalous Pt and Pd values were associated with the highest Cr values. Petrological data suggests these metals unlikely to have been significantly mobilized by metamorphism.

309. Havilah Resources NL, Forwood PS, Giles C. 1999. Bute and Bute

North, annual and final reports for the period 23/3/93-11/12/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E08778:2v., 200p; appendices , figures, 11 plans, plates, references, 8 reports, tables

Abstract: Gold and base metal exploration conducted near Bute comprised IP and ground magnetic surveys and RC drilling (4 holes, total 350 m). Two holes drilled on magnetic targets encountered a Proterozoic dolomite bed containing disseminated magnetite and traces of chalcopyrite, while a third hole collared on a deep IP anomaly reached an altered Proterozoic dolerite containing minor pyrite. The fourth hole sited on an existing base metal anomaly (Wehr's prospect), and passed through 18 m of a mineralized basal Cambrian limestone unit with 1 m-thick stratal intersections containing up to 0.25% Pb and 0.33% Zn.

310. Havilah Resources NL, Giles C, Forwood JA. 1998. Ninnes, annual report for the period 19/6/97 to 18/6/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09410:1 fig, 3 ref, tables

Abstract: A 79 metre-deep RC drill hole on an aeromagnetic and calcrete anomaly located south of Bute returned anomalous zinc from Cambrian limestone over the depth interval 14-26 m (the best grade being 1 m at 1802 ppm from 16 m depth). No evidence of hydrothermal alteration was found in the target pre-Adelaidean Mesoproterozoic basement rocks (felsic volcanics and dolerite).

311. Hazurn Pty Ltd, Crest Resources Australia NL, Elliott Geophysics Pty Ltd, David Tonkin and Associates Pty Ltd, 125 Nominees Pty Ltd, Searle J, Elliott P, Steele MZ, Tonkin DG. 1997. Port Pirie area (part of G2 [Lineament] project), annual and final reports for the period 29/3/96-28/3/00. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09162:71p; 1 appx, figures, 1 plate, references, 1 report, tables

Abstract: Aeromagnetic/radiometric survey carried out within G2 Structural Corridor, SE of Port Pirie. Six "bullseye" magnetic highs, consistent with kimberlite emplacement, and one having potential for associated mineralizing systems, located near Yackamoorundie Inlier, a probable diapiric structure.

312. Helix Resources NL, Livre Holdings Pty Ltd, Cooper SA, Muskett L. 1997. Port Augusta project, third annual and partial relinquishment report to 28/11/96. South Australia. Department of Mines and Energy. Open File Envelope; 9137:4 fiche, 55p; 6 appx, 8 fig, 3 ref, 1 rep, tables

Abstract: Ground magnetic surveys were carried out over seven anomalies northwest of Port Augusta. Those that were shallow enough to be reached by RC drilling (6 holes, total 570 m) were due to magnetic units within the sediments. Drill hole, loam and stream bed heavy mineral samples were negative for indicator minerals, and drill hole samples peaked at (ppm) 160 Cu, 105 Pb, 645 Zn.

313. Helix Resources NL, Livre Holdings Pty Ltd, Diamond Ventures NL, Hungerford Geophysical Consultants Pty Ltd, Solo Geophysics and Co, Cooper SA, Hungerford N, Rau B, Ward B. 1999. Port Augusta, annual and final reports for the period 29/11/93-28/11/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09048:2v., 139p; appendices, figures, references, 3 reports, tables

Abstract: Diamond exploration conducted over large area in vicinity of Port Augusta, comprised ground magnetics over aeromagnetic targets, soil and stream sediment sampling, RC drilling (6 holes, total 570 m), aircore drilling (7 holes, total 160 m), and a gravity survey. Electron microprobe mineralogical data confirmed kimberlitic nature of indicator grains discovered earlier at Sugarloaf Dam and Nutt Knob, but do not indicate likely presence of diamonds. Results, together with absence of observed diamonds in any surface or drill hole sample, downgraded economic potential of licence.

314. Helix Resources NL, Martin AR. 1997 . Blue Dam, final report for the period ending 24/9/96. South Australia. Department of Mines and Energy. Open File Envelope; 9138:2 fiche, 15p; 1 appx, 2 fig, 1 plan, 1 ref, 1 table

Abstract: Anomalous gold and base metal geochemistry, detected in the early 1970s at a sample site between Lakes Everard and Gairdner, in the vicinity of the contact between two Gawler Range Volcanics stratigraphic units was not further substantiated by follow-up rock chip, stream sediment and soil sampling.

315. Helix Resources NL, Martin AR. 1996 . Lake Everard, partial relinquishment report for the period ending 24/10/95. South Australia. Department of Mines and Energy. Open File Envelope; 9023:9p; 2 fig, 2 ref, 1 rep

Abstract: Gold exploration, 70 km southeast of Tarcoola, because of native Title legislation delays, for the first year of tenure only comprised SAEI aeromagnetic interpretation with no field work.

This interpretation failed to identify any magnetic targets with the potential to host gold mineralization in the three areas of the tenement chosen for relinquishment.

316. Helix Resources NL, Martin AR. 1997 . Yardea, partial relinquishment report for the period ending 24/9/96. South Australia. Department of Mines and Energy. Open File Envelope; 9139:2 fiche, 12p; 1 appx, 2 fig, 1 plan, 2 ref, 1 rep, tables

317. Hellsten KJ, Davidson GJ, Elliott PJ, Berg RC, Paterson HL, Shell Company of Australia Ltd, Western Mining Corporation Ltd, Poseidon Ltd. 1988. Sheoak Hill. Progress reports from 15/3/84 to 14/3/88. South Australia. Department of Mines and Energy. Company Report; E5545:238p; 4 appx, 21 fig, 25 maps

Abstract: Target was Pb, Zn, Ag mineralization of the Broken Hill or Aggeneys-Gamsberg type associated with BIFs in Early Proterozoic metasediments. A Pb-Zn anomalous subbasin was outlined at Miltalie North.

318. Hellsten KJ, Elliott PJ, Higgins ML, Berg RC, Paterson HL, Shell Company of Australia Ltd, Western Mining Corporation Ltd, Poseidon Ltd. 1988. Buckleboo. Progress reports from 15/3/83 to 14/3/88. South Australia. Department of Mines and Energy. Company Report; E5074:386p; 10 appx, 112 fig, 83 maps

Abstract: Target was Pb, Zn, Ag mineralization of the Broken Hill or Aggeneys-Gamsberg type associated with BIFs in Early Proterozoic metasediments.

319. Hellsten KJ, Stanley GD, Higgins ML, Shell Company of Australia Ltd. 1985. Middleback Range, progress and final reports from 15/6/83 to 15/6/85. South Australia. Department of Mines and Energy. Unpublished Report; E6284:6 fiche, 191p; 40 fig, 8 maps, 7 ref

Abstract: Exploration for lead, zinc and silver of the Aggeneys/Ginsberg and Broken Hill type associated with magnetite and hematite quartzites within Early Proterozoic Hutchinson Group; geochemical results low.

320. Hellsten KJ, Stanley GD, Shell Company of Australia Ltd. 1984. Sheoak Hill. Progress reports from 15/3/83 to 15/3/84. South Australia. Department of Mines and Energy. Company Report; E5075:118p; 3 appx, 63 fig, 14 maps

Abstract: Target was Pb, Zn, Ag mineralization of the Broken Hill or Aggeneys-Gamsberg type associated with BIFs in Early

Proterozoic metasediments.

321. Henley KJ, Kantsler AJ, Sears H, Steveson BG. 1980. Source rock studies - SA sedimentary basins. Progress reports 1-4, 6, 10, 19-20, 23, 25-26, 36, 38 and 44. South Australia. Department of Mines and Energy. Company Report; E3349:fiche 1-3, p4-125
322. Herbison I, Grieg DD, Webb RJ, Watt JD, Esso Exploration and Production Australia Inc. 1982. Hawks Nest, SA, progress and final reports from 19/8/80 to 29/12/82. South Australia. Department of Mines and Energy. Company Report; E3772:151p; logs, 5 maps, 12 sections

Abstract: Ten holes (total depth 570 m) downgraded gravity anomaly due to Lower Proterozoic BIF, schists and gneiss. Structural setting and anomalous geochemistry indicate potential for breccia-hosted mineralization at base of Middle Proterozoic.

323. Herbison I, Grieg DD, Webb RJ, Watt JD, Haskins PG, Esso Exploration and Production Australia Inc, Aquitaine Australia Minerals Pty Ltd. 1983. Roxby Hill, South Australia, progress and final reports from 19/8/80 to 30/6/ 83. South Australia. Department of Mines and Energy. Unpublished Report; E3878:178p; 10 fig, 1 log, 1 magnetic tape, 16 maps

Abstract: Search for Roxby Downs-style copper mineralization. Drilling of one stratigraphic hole to 499.50 m intersected Adelaidean sediments but not target pre-Pandurra Formation units. No significant mineralization or radiometric responses.

324. Herbison I, Grieg DD, Webb RJ, Watt JD, Rau GL, Solo Geophysics and Co, Austirex International Ltd, Geoterrex Pty Ltd, Esso Exploration and Production Australia Inc. 1983. Wirraminna, Selebi, Lake Gairdner, progress and final reports from 13/3/80 to 29/3/83. South Australia. Department of Mines and Energy. Unpublished Report; E3785:220p; 32 maps

Abstract: Investigation of Olympic Dam-type uranium-copper mineralization, associated with regional gravity high. Two discrete gravity targets resolved but one downgraded by drilling and other not tested.

325. Herbison I, Grieg DD, Webb RJ, Watt JD, Robison HR, Stracke KJ, Emslie DP, Newell BH, Rau LG, Geoterrex Pty Ltd *et al.* 1986. Devils Playground, Mount Eba, progress and relinquishment reports from 13/3/80 to 28/3/86. South Australia. Department of Mines and Energy. Unpublished Report; E3784:appendices, maps

Abstract: Two broad gravity highs associated with discrete magnetic anomalies, with potential for Olympic Dam style hematitic deposits, were drilled, intersecting volcanics. Bore water sampling showed no significant uranium. Kimberlite indicator minerals recovered from No.10 and Paisley Creek areas are related to secondary sources. Extensive follow up showed negative results.

326. Heylen KR, Tonkin DG. 1989. Glenloth Goldfield, progress reports for the period 7/7/89 to 12/12/89. South Australia. Department of Mines and Energy. Company Report; E8223:2 fiche, 31p; 2 appx, 1 plan

Abstract: Target was Au at Glenloth gold field. No significant Au values were recorded from RAB drilling (7 holes, totalling 129 m) but values up to 28 g/t were recorded from rock samples.

327. Hibbird SA, Western Mining Corporation Ltd, North Broken Hill Ltd, Electricity Trust of South Australia. 1988. Doora Vulcan and Bingo East kaolin deposits, Kadina, SA. South Australia. Department of Mines. Company Report; E7001:p1050-117; 4 fig, 10 ref

Abstract: Exploration for high aluminium clay as a fireside additive to Lochiel coal. Drilling delineated 2 kaolin deposits of 427,200 t in the weathered zone of the crystalline basement at Doora Vulcan, and 2,330,970 t a few km south of Kadina. Deposits are overlain by 5-10 m of Quaternary clays and calcrete.

328. Higgins ML, Weeden RJ, Dashlouty SA, Hellsten KJ, Stanley GD, Elliott PJ, Davidson GJ, Berg RC, Billiton Australia Ltd, McSkimming Geophysics Pty Ltd et al. 1986. Harris Bluff, progress and final reports from 7/12/83 to July 1986. South Australia. Department of Mines and Energy. Unpublished Report; E4994:15 fiche, 416p; 20 appx, 106 fig, 45 maps

Abstract: Target was massive lead zinc in Early Proterozoic Hutchison Group, and conglomeratic gold. Mapping, geophysics and sampling located 4 anomalous areas. Drilling (2 holes, 301 m) at Triumph prospect located only pyritic black shale and anomalous dolerite (0.26% Pb and 0.6% Zn). No anomalous gold located.

329. Hill JH, Spark RF, Schindlmayr WE. 1972. Rudall, progress and final reports from October 1971 to 10/9/72. Central Pacific Minerals NL; E1792:32p; 2 maps, 5 ref

Abstract: Radium in carbonaceous sediments was derived from uranium but economic uranium concentrations unlikely.

330. Holcapek F, Abadon Holdings NL. 1973. Summary report on the regional geological setting of the Tarcoola-Glenloth region, S.A. - SML 436, 619, 620, 680, 681, 682, 683. South Australia. Department of Mines and Energy. Company Report; E2071, SML680:maps
331. Holcapek F, Abadon Holdings NL. 1973. Tarcoola-Glenloth region, SA, progress reports from 28/9/72 to 22/ 3/73. South Australia. Department of Mines and Energy. Company Report; E2071:77p; 7 maps
- Abstract: Regional and detailed mapping of area.*
332. Holcapek F, Abadon Holdings NL. 1972. Tarcoola South, final report. South Australia. Department of Mines and Energy. Company Report; E1818:2 maps
- Abstract: No text.*
333. Holcapek F, Abadon Holdings NL, Agilis Engineering Ltd. 1974. Tarcoola-Tolmer Hill area, South Australia, progress and final reports. South Australia. Department of Mines and Energy. Company Report; E2275:14p
- Abstract: Minor gold associated with altered granite and minor copper associated with basal conglomerate uneconomic.*
334. Holcapek F, Agilis Engineering Ltd, Abadon Holdings NL. 1974. Keynella Rock, SA, report on drill results for Abadon Holdings NL. South Australia. Department of Mines and Energy. Company Report; E2276:maps
335. Holcapek F, Agilis Exploration Services (Aust) Pty Ltd. 1973. Mt Mitchell tin prospect, progress report from August 1972 to January 1973 for Abadon Holdings NL. South Australia. Department of Mines and Energy. Company Report; E2072 :19p; 2 maps
- Abstract: Detailed mapping indicates prospect warrants further work.*
336. Holcapek F, Agilis Exploration Services (Aust) Pty Ltd, Abadon Holdings NL. 1972. Geological report for Abadon Holdings NL. South Australia. Department of Mines and Energy. Company Report; E2074:16p; 1 map
- Abstract: Mapping to investigate gold occurrences and structural setting. Sampling of quartz reefs where cutting dolomite slates is*

recommended.

337. Holcapek F, Agilis Exploration Services (Aust) Pty Ltd, Abadon Holdings NL. 1974. Glenloth SA, progress and final reports from April 1973 to 21/2/74. South Australia. Department of Mines and Energy. Company Report; E2282:8p; 5 maps

Abstract: Detailed mapping and drilling of 2 holes (total depth 504 feet) did not locate further target areas.

338. Holcapek F, Agilis Exploration Services (Aust) Pty Ltd, Abadon Holdings NL. 1972. Tarcoola West, South Australia, final report. South Australia. Department of Mines and Energy. Unpublished Report ; E1822:18p; 2 maps

Abstract: Results of regional mapping programme in acid basement.

339. Holcapek F, Benbow MC, Agilis Exploration Services (Aust) Pty Ltd, Abadon Holdings NL. 1973. Tarcoola area, SA, progress reports from 9/6/72 to March 1973. South Australia. Department of Mines and Energy. Company Report; E2073:49p; 9 maps

Abstract: Regional and detailed mapping of Tarcoola Beds and granitic rocks.

340. Homestake Gold of Australia Ltd, David Tonkin and Associates Pty Ltd, Euro Exploration Services, Peachey TR, Tonkin DG. 1998. Petina, annual reports for the period 7/6/96-6/6/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09198:2v., 277p; appendices, figures, 2 plans, plates, 3 ref, 2 reports, tables

Abstract: Calcrete sampling done approx 30 km north of Streaky Bay returned a number of weakly anomalous Au values, one of which (16 ppb) coincided with an 82 ppb value obtained previously from analyses of RC cuttings samples taken in its bedrock drilling at a location adjacent to a northwest-trending demagnetised structure. New geochemical prospect subsequently downgraded by results obtained from infill calcrete sampling (2275 samples taken across the entire tenement).

341. Homestake Gold of Australia Ltd, David Tonkin and Associates Pty Ltd, Euro Exploration Services, Peachey TR, Tonkin DG. 1998. Yardea, annual reports for the period 7/6/96-6/6/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09200:2v., 952p; appendices, figures, 12 plans, plates,

3 ref, 2 reports, tables

Abstract: Regional calcrete sampling carried out approx 140 km NE of Streaky Bay outlined a northeasterly-trending 5 x 1.5 km area containing weakly anomalous gold values of 3-9 ppb (Toondulya prospect), which appear to be spatially related to fractures in foliated basement intruded by mafic rocks. Associated features are a northeasterly-trending mylonitic shear zone, an adjacent magnetic low, and a coincident gravity high. Follow-up aircore drilling of Toondulya anomaly (250 holes, total 10,600 m) revealed a weak, concentrically-zoned Cu-Au anomaly coinciding with an area of deformed basement and secondary alteration. Stream sediment sampling and a second calcrete sampling programme since revealed several additional but also generally weak anomalies.

342. Homestake Gold of Australia Ltd, David Tonkin and Associates Pty Ltd, Tonkin DG. 1996. Petina, partial relinquishment report for the period ending July 1996. South Australia. Department of Mines and Energy. Open File Envelope; 9118:1 fiche, 14p; 7 fig, 2 tables

Abstract: Investigation of the results of previous company exploration concluded that no significant untested aeromagnetic targets were present in an area 60 km southeast of Ceduna. A literature review conducted beforehand had indicated that previous exploration objectives had not included gold or base metals.

343. Hooker Projects Pty Ltd, South Australia Engineering and Water Supply Department, Fleming HD, Saeck J. 1962. Results of foundation and soil investigations for proposed extensions to Point Paterson salt works. South Australia. Department of Primary Industries and Resources. Open File Envelope; E01140:fiche 2-3, p3-71; figures, tables

Abstract: Presents lithological logs of test bores plus results of civil engineering mechanical tests on recovered coastal plain soil samples. This work was done as a project designed to scale up the salt recovery operations at Point Paterson to make them more economically viable, principally through construction of new seawater evaporation pans that would allow less brine loss to seepage, besides repairing and strengthening the embankments and levees of the old installation.

344. Hooper G, Binks PJ, CRA Exploration Pty Ltd. 1984. Yaninee, progress and final reports from 31/3/84 to 1/12/84. South Australia. Department of Mines and Energy. Unpublished Report; E5449:106p; 4 appx, 1 fig, 16 maps

Abstract: Exploration for base and precious metals associated with banded iron formations gave low geochemical values in basement samples.

345. Hooper G, Carpentaria Exploration Company Pty Ltd. 1980. Progress and final reports, Lake Acraman, South Australia. South Australia. Department of Mines and Energy. Company Report; E3520:14p; 10 fig

Abstract: Anomalous areas probably not due to uranium. Resistivity survey and drilling confirm that basement is shallow.

346. Hopwood TP, Coles BD, Analytical Exploration Australia Pty Ltd. 1971. Cowell nephrite deposit, including progress report on Schiller's leases. South Australia. Department of Mines and Energy. Unpublished Report; E5209:2 fiche, 37p; 2 fig, 6 maps, 7 plates

Abstract: Four holes (totalling 103 m) over outcrop on Swains lease intersected no nephrite, one hole on Schillers lease (24 m) gave 3 m intersection of black nephrite. Two areas selected, intermittent contract mining, with slabbing and processing factory proposed.

347. Hopwood TP, Coles BP, Analytical Exploration Australia Pty Ltd. 1970. Cowell nephrite deposits, reports (first report on Swain's lease and second report on Schiller's leases). South Australia. Department of Mines and Energy. Unpublished Report; E5209:2 fiche, 36p; 2 maps, 7 plates

Abstract: From detailed mapping of deposits, two potentially mineable deposits selected. Intermittent contact mining, with slabbing and polishing processing factory, proposed.

348. Hosking AJ. 1976. Exploration Licence application, Depot Creek, South Australia - final report. Preussag Australia Pty Ltd; E2780:17p

349. Howard JP, Le Messurier LA, CRA Exploration Pty Ltd. 1986. Thurlga, progress and relinquishment reports from 20/11/85 to 27/8/86. South Australia. Department of Mines and Energy. Unpublished Report; E6342

Abstract: One microdiamond recovered but follow up sampling gave negative results.

350. Howe AW. 1976. Mount Messenger, SA, final report on relinquished portion (formerly EL 67). Carpentaria Exploration Co Pty Ltd; E2732:maps

351. Howe AW. 1975. Mt Messenger, SA, report on area relinquished on May 25th, 1974. Carpentaria Exploration Co Pty Ltd; E2563:2p; 1 fig

Abstract: After ground inspection and review of magnetics further work is not warranted.

352. Hoyle MWH. 1976. South Australian beach sands EL205, S.A. final report. Australian Anglo American Ltd; D 6181:44p; maps

353. Ivey P, Tarcoola Gold Ltd. 1987. Assay results, igneous petrology and geological logs of Santos RAB cuttings. South Australia. Department of Mines and Energy. Company Report; E3859-III20:fiche 11C, p802-86

Abstract: Drillholes originally from Santos Glenloth gold field, EL 752.

354. J F Gilfillan and Associates Pty Ltd, Butt BC. 1987. Kyancutta, progress and final reports for the period 9/9/85 to January 1987. South Australia. Department of Mines and Energy. Company Report; E6385:245p; 16 appx, 30 fig

Abstract: Target was gypsum in lakes and marginal dunes in the Kyancutta area. Results were reserves at a cut-off of 85% gypsum are 2,777,600 t at an average grade of 90% gypsum.

355. J Slade and Associates Pty Ltd, Slade J. 1980. Aroha, South Australia, aeromagnetic survey: interim reports, intruded dyke interpretation and tectonic interpretation. South Australia. Department of Primary Industries and Resources. Open File Envelope; E03279:fiche 2-3, 14-5, p97-122; 2 appx, figures, 6 ref, tables

356. Jarvis DM, Circosta G, Utah Development Company Ltd, BHP Minerals Ltd. 1982. Band Hill, South Australia, progress reports from 1/12/80 to 30/5/ 82. South Australia. Department of Mines and Energy. Unpublished Report; E4099:13p; 3 appx, 7 maps

Abstract: No kimberlite indicator minerals found. No targets located from geochemical sampling.

357. Jarvis DM, Utah Development Company Ltd. 1981. Nuckulla Hill, South Australia, progress and final reports. South Australia. Department of Mines and Energy. Company Report; E4096:157p; 7 fig

Abstract: Rock chip sampling of Gawler Range Volcanics and Hiltaba Granite gave poor results.

358. Jimbilly Pty Ltd, Youles I. 1997. Port Augusta, annual reports for the period 30/12/94 to 29/12/96. South Australia. Department of Mines and Energy. Open File Envelope; 8864:2 fiche, 9p; 4 fig, 3 reps

Abstract: Exploration for Olympic Dam-type base and precious metal deposits in the area immediately north of the head of Spencer Gulf consisted of the purchase and interpretation of SAEI regional aeromagnetic data, and selection of basement drilling targets. No drilling was performed prior to licence expiry. Two attempts to run a ground magnetic survey over an aeromagnetic anomaly 8 km northeast of Yorkey Crossing were terminated by equipment failure and magnetic storms.

359. Jododex Australia Pty Ltd, St Joe Australia Pty Ltd, Uranerz (Australia) Pty Ltd, Technical and Field Surveys Pty Ltd, Pontifex and Associates Pty Ltd, Scintrex Pty Ltd, Coles B, Street GJ, Olgers F, Brydon WJ *et al.* 1991. Bute and Port Broughton, progress reports for the period 7/6/79 to 18/1/91. South Australia. Department of Mines and Energy. Company Report; E3543:2964p; 51 appx, 188 fig, 141 plans, 8 tables

Abstract: Target was uranium and base metals. Minor concentrations of base metals, uranium, rare earth elements and gold were intersected.

360. Johnson G, PNC Exploration (Australia) Pty Ltd. 1980. Tarcoola 1:250 000 sheet progress and final reports from September 1978 to November 1980. South Australia. Department of Mines and Energy. Company Report; E3426:31p; 5 fig, logs, 31 plans

Abstract: Warrior Channel extends south into EL 419. No mineralization but radiometric anomalies in Eocene and Miocene warrant further examination.

361. Johnson G, PNC Exploration (Australia) Pty Ltd. 1980. Warrior area, Tarcoola 1:250 000 sheet, progress and final reports from 4/4/79 to 26/9/80. South Australia. Department of Mines and Energy. Company Report; E3510:27p; 7 appx, 8 fig, logs

Abstract: 75 holes drilled to determine limits of uranium mineralization in palaeochannels.

362. Kay BD, Williams PK, Goss BJ, Paterson HL, North Broken Hill Ltd, Western Mining Corporation Ltd, Broken Hill South Ltd, Geoex Pty Ltd, Geoterrex Pty Ltd. 1987. Moonta. Progress reports from 9/2/82 to 9/2/87. South Australia. Department of Mines. Company Report; E7001:p25-785; 11 appx, 6 fig, 129 maps

Abstract: Exploration for extensions to known mineralization beneath shallow cover and lode gold deposits. Evaluation of high grade Cu/Au mineralization in Moonta Porphyry host rock at Poona mine included 19 drill holes which defined a reserve of 260,000 t at an average grade of 6.5% Cu and 2 g/t Au. Diamond and percussion drilling at Wheal Hughes located a zone of kaolin alteration in Moonta Porphyry containing mineralization averaging 2-3% Cu and possibly 0.5 - 1 g/t Au. Diamond drilling at Cunliffe aerial magnetic and Sirotem anomaly intersected magnetite-bearing adamellite.

363. Kennecott Exploration (Australia) Pty Ltd, Otter Exploration NL, Creelman RA, Larson AL, Fehlberg B, Warne SB. 1971 . Mount Christie-Mulgathing-Wynbring area. Progress and final reports for the period 29/4/71 to 18/10/71. South Australia. Department of Primary Industries and Resources. Open File Envelope; E01510:14 fiche, 303p; figures, 44 plans, references, tables

Abstract: Special Mining Lease 491 covers an area of poorly exposed Precambrian rocks in the northwest sector of the Gawler Platform of western South Australia. General reconnaissance in late 1969 showed the geology of the area to be dominated by sediments metamorphosed to granulite facies, which have been completely folded, faulted and intruded by granite and acid volcanics. Nickeliferous rock types were noted to occur adjacent to an iron formation at Blackfellow Hill, and land tenure was subsequently secured to assess the nickel and other base metal potential of this granulite environment, as well as carry out basic mapping in conjunction with the exploration to gain an understanding of the geology of this previously uninvestigated area. Mapping of the 1250 sq mile lease and an evaluation of some basic/ultrabasic bodies by auger and percussion drilling has now been completed. Most of the lease covers Carpentarian Granite Intrusives and some late Carpentarian Acid Volcanics. A large anticlinal remnant of granulite occurs in the western section, and other small remnants, surrounded by granite, occur with decreasing frequency eastwards. Basic and ultrabasic rocks appear to be of three types, occurring as normal dykes, plug-like intrusives with kimberlite affinities, and skarns of indeterminate origin. Later phase(?) granite intrusives in two areas were shown to carry anomalous copper contents. Under a joint venture agreement signed in early 1971 Otter Exploration NL undertook to separately carry out iron exploration within SML 491, by investigating a number of known banded iron formation (BIF) occurrences and part funding an aeromagnetic survey intended to disclose other

occurrences concealed under Cainozoic cover. The aeromagnetic data so obtained indicate a generally NE-SW strike direction for the BIF units. Their dips appears to be steep, but their inferred depth extents and probable lateral limits are unreliable because of conflicting results from ground magnetic surveys run over several aeromagnetic anomalies. Examination of BIF outcrops with a strong aeromagnetic signature at Mount Christie and Fingerpost Hill suggests that they have undergone tight folding, possibly of a similar type; the fold axes pitch to the northeast. Fingerpost Hill appears to be an antiformal structure. Lack of BIF outcrop in the West Well aeromagnetic anomaly area precludes any structural data being available, apart from that inferred from the magnetics.

364. Kerr McGee Australia Ltd, Moulton GF. 1969. Final report of exploration on Special Mining Leases 158 and 163, Eyre Peninsula, SA (for the period 1/9/67-1/3/69). South Australia. Department of Primary Industries and Resources. Open File Envelope; E01108:2v., 11 fiche, 68p; 5 appx, figures, 88 plans, tables

Abstract: Following conduct of regional aerial radiometric survey, plus subsequent ground follow-up, 13 diamond holes drilled on areas of anomalous radiation, seeking primary uranium occurrences in basement rocks. In addition, 44 rotary holes drilled across watershed of Driver River to test buried Tertiary sediments for uranium which might be a source for anomalous radon detected in riverbed muds. Concluded that abundant feldspars in basement lithologies responsible for most airborne radiometric anomalies. Uranium mineralization in basement rocks not stratigraphically controlled, but occurs in fault breccias and shear zones with weak sulphide mineralization. Weak radiation zone primarily caused by thorium found to occur in cored Tertiary sediments at base of oxidized zone. Economic mineralization not found, and tenements relinquished.

365. Key Resources Pty Ltd. 1981. Preliminary geological appraisal, Tarcoola-Birthday Trig area. South Australia. Department of Mines and Energy. Company Report; E4315:55p; 4 fig

Abstract: A summary of geology and mineralization, with abstracts.

366. Klingner GD, CRA Exploration Pty Ltd. 1977. Final report on Lake Gairdner, EL 362, South Australia. South Australia. Department of Mines and Energy. Company Report; E 3131:4p; 10 plans

367. Lambourn SS. 1977. An interpretation of the airborne magnetic and radiometric survey of Coompana, Nullarbor, Fowler, and Nuyts

(onshore) 1:250 000 sheet areas, S.A. 1972/3. Bureau of Mineral Resources, Geology and Geophysics. Record; 1977/52:24p; 3 fig, 13 plates, 27 ref

368. Lane PB, Moage L, Coho Australia Ltd. 1984. Lake Torrens, annual reports from 18/6/83 to 17/6/84. South Australia. Department of Mines and Energy. Unpublished Report; E6533:2 fiche, 61p

Abstract: Old Motpena 1 possibly downgrades hydrocarbon potential of PEL because it negated theory of thick younger prospective basin and contradicts limited seismic, and Cambrian thins westwards, displays poor source potential but has moderate reservoir potential.

369. Lane PB, Watson B, Mooney B, Marty P, Coho Australia Ltd, Moage Ltd, Hedon Pty Ltd, Australian Mineral Development Laboratories Ltd. 1982. Coho, Moage Yarrah 1, well completion report. South Australia. Department of Mines and Energy. Unpublished Report; E4693:3 fiche, 74p; 2 fig, 1 map

Abstract: Yarrah No.1 drilled to evaluate Early Tertiary sands and Cambrian dolomite. Results confirmed excellent reservoir quality sands in Early Tertiary and possible reservoir quality in Palaeozoic carbonate rocks. Further work to locate thick Mesozoic section is warranted.

370. Langron WJ, CSR Ltd, Pacminex Pty Ltd. 1977. Gravity survey, Pandurra area, South Australia. South Australia. Department of Mines. Company Report; E6676:fiche 1,6-9,11-4, p3-49; 19 maps

Abstract: Small residual gravity anomalies are most likely related to intrusives and volcanic flows and not to the disposition of the Pandurra Formation. No structures of economic interest were defined.

371. Langron WJ, CSR Ltd, Pacminex Pty Ltd. 1980. Interpretation of geophysics, Illeroo area, South Australia. South Australia. Department of Mines. Company Report; E6676:fiche 5,10,11, p224-37; 7 maps

Abstract: Results indicate little of economic interest in the Illeroo grid. Area to north of present grid is probably more prospective.

372. Langron WJ, Mount Gunson Mines Pty Ltd, CSR Ltd. 1976. Interpretation of Stuart Shelf aerial EM survey. South Australia. Department of Mines. Company Report; E6674:fiche 3, p143-54

373. Langron WJ, Walker RD. 1974. Use of ERTS imagery in detailed metalliferous exploration. Pacminex Pty Ltd; PMR 12/74:figures
374. Le Messurier L A, CRA Exploration Pty Ltd. 1986. Kolendo, partial relinquishment report to 9/7/86. South Australia. Department of Mines and Energy. Unpublished Report; E6583:2 fiche, 14p; 1 fig, 4 maps

Abstract: Gravel sampling gave negative results for kimberlitic indicators.

375. Le Messurier L A, CRA Exploration Pty Ltd. 1986. Thurlga, partial relinquishment report to 9/7/86. South Australia. Department of Mines and Energy. Unpublished Report; E6584:2 fiche, 14p; 1 fig, 4 maps

Abstract: Gravel sampling gave negative results for kimberlitic indicators.

376. Lee RJ, McInerney P, Schindlmayr WE, Stainforth B, Evans RC, Delhi Petroleum Pty Ltd, Aquitaine Australia Minerals Pty Ltd, Urangesellschaft APL. 1982. Lake Torrens, progress and final reports from 28/11/79 to 31/1/82. South Australia. Department of Mines and Energy. Unpublished Report; E3769

Abstract: Field tests continued on salt project to confirm salt crystallization and purification data. Exploration for base metals included reassessment and interpretation of previous geophysical data to development gravity modelling. Stratigraphic drilling did not intersect significant mineralization, although native copper intersected in Willochra Sandstone. Lignite coal seams intersected in Tertiary sediments investigated by further drilling.

377. Leeson B, Mines Exploration Pty Ltd. 1980. Summary and relinquishment report on Lake Harris, South Australia. South Australia. Department of Mines and Energy. Company Report; E3695:11p; 9 fig

Abstract: No evidence for comparison with mineralized Silverton Caldera in Colorado and Chandabooka Caldera, nor for marine base metals in the Archaean.

378. Lemon NM. 1983. Mullaquana, progress and final reports from 8/3/81 to January 1983. BHP Minerals Ltd; E4124:54p; logs, 7 maps, 6 sections

Abstract: Drilling of 29 holes (t.d. 2729 m) indicates possible 100

million tonnes of Tertiary sapropelic lignite and 260 million tonnes of lignite plus oil shale.

379. Lewis P, Andrews DI, Finch ID, CRA Exploration Pty Ltd. 1983. Lake Barry, Lepa and Mt Christie, progress report and final reports from 14/ 2/82 to 15/9/83. South Australia. Department of Mines and Energy. Unpublished Report; E4613:5 fiche, 169p; 15 appx, 42 fig, 4 maps

Abstract: One diamond located probably due to contamination. Magnetic anomalies due to magnetite in Precambrian basement, or maghemite in Quaternary sediments. No kimberlites intersected. Anomalies associated with Aristarchus Rise and Blackfellow Hill ultrabasics probably due to nickel-rich chlorite. Anomalous gold related to quartz veins in sheared granite basic contact.

380. Livre HPL, Commonwealth Scientific and Industrial Research Organisation, Hungerford GCPL, Diamond Ventures NL, Cooper SA, Griffin WL, Hungerford N, Barron BJ, Alley NF, Rowett AI. 1999. Venus Bay, annual and final reports for the period 27/7/94 to 26/7/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E08973:2v., 200p; 22 appx, figures, 2 plans, plates, references, tables

Abstract: Diamond and metal exploration NE of Port Kenny on Eyre Peninsula comprised loam sampling, drilling (7 holes, total 470 m), petrology, heavy mineral analysis, palynology and calcrete sampling. Kimberlitic garnet and ilmenite recovered from soil samples but their source, as indicated by garnet Ni-thermometry, is unlikely to be diamondiferous and is covered by thick Tertiary sediments. Drillhole mineralogy reported traces of gold within zones of deformation, but kimberlitic minerals absent. Regional gold anomalies in calcrete not confirmed by follow-up sampling. Elevated calcrete copper values associated with nickel and cobalt, and arsenic values show a weak correlation with gold. Number of targets remain to be tested.

381. Livre HPL, Cooper SA. 1995. Carawa, annual and final report for the period 27/7/94 to 22/11/95. South Australia. Department of Mines and Energy. Company Report; E8981:101p; 8 appx, 2 plans

Abstract: Diamond exploration over eleven aeromagnetic targets between Wirulla and Ceduna comprised loam sampling, ground magnetic surveys and diamond drilling (12 holes, total 770 m). No indicator minerals or anomalous assays were detected.

382. Lynch JE. 1977. Moonta-Wallaroo investigations. Report on

relinquished sector of Exploration Licence 249 - central Yorke Peninsula. North Broken Hill Ltd; E 3042, EL 249:19p; 7 volumes, 28 plans

383. Mackay CR, Acacia Resources Ltd. 1995. Petina, final report for the period 2/9/94 to 1/9/95. South Australia. Department of Mines and Energy. Open File Envelope; 8969:42p; 3 appx, figures, 2 plans, 2 plates, tables

Abstract: Exploration for basement-hosted Cu-Au and Pb-Zn deposits, 40 km northeast of Streaky Bay, comprised ground magnetic and TEM surveys and one RC drill hole (66 m) over a single airborne magnetic anomaly, chosen for investigation from 2 generated from SAEI data. The results of the surveys and drill hole sample analyses showed that the target anomaly was produced by unmineralized magnetic gabbro.

384. MacMahon Construction Pty Ltd. 1989. Mount Wedge. Reports for the period 26/8/88 to 25/2/89. South Australia. Department of Mines and Energy. Company Report; E8189:2 fiche, 25p; 3 appx, 1 plan

Abstract: Target was heavy mineral sands in the Mount Wedge region of Eyre Peninsula. Minor concentrations of Ti and Zr were recorded in a number of holes; Ti is probably present as hydrated oxides.

385. Marinelli JF, CRA Exploration Pty Ltd. 1989. Dunn Hill, Wallala Hill and Mount Centre. Progress report from 13/2/89 to 13/5/89. South Australia. Department of Mines and Energy. Company Report; E8153:2 ref

Abstract: Target was heavy minerals in the Narlabay palaeochannel in the Nunjikompita - Hiltaba areas on western Eyre Peninsula. 50 holes were drilled totalling 1213 m. Only trace amounts of zircon were disclosed.

386. Martins JJ, Emperor Mines Ltd, Inland Mining Corporation Australia. 1974. Tarcoola project, South Australia, final report. South Australia. Department of Mines and Energy. Unpublished Report; E2506:13p; 9 plans

387. Marx WT, Colchester DM, Stockdale Prospecting Ltd. 1973. Port Augusta area, South Australia, progress and final reports from October 1972 to April 1974. South Australia. Department of Mines and Energy. Company Report; E2140:29p; 21 maps, 2 plates

Abstract: Bulk sampling of three kimberlite sills did not recover any

diamonds or mineralization.

388. Marx WT, Freeport of Australia Inc, Swan Resources Ltd. 1981. Orroroo region, South Australia, relinquishment report. South Australia. Department of Mines and Energy. Company Report; E4519:9p; 11 fig

Abstract: Kimberlitic indicator minerals were found, but no economic diamond deposits.

389. Mason MG. 1978. EL 251, Tregalana-Sugarloaf Hill, South Australia, progress reports. Australian Selection Pty Ltd ; E2784:21p; 5 fig

Abstract: Potential for base metal orebodies is considered high.

390. Mason MG. 1979. Progress and final reports 1-4, Tregolana-Sugarloaf Hill, EL 421, S.A. Sept 1978 - Sept 1979. Australian Selection Pty Ltd; E3410:13p; 3 fig

Abstract: No significant base metal intersected; potential too low to warrant further exploration.

391. Mason MG. 1979. Progress and final reports 1-8, Cultana, EL 374, S.A. Oct 1977 - Nov 1979. Australian Selection Pty Ltd; E3201:14p; 3 fig

Abstract: Few drill holes penetrated target; cost of diamond drilling not commensurate with potential of target.

392. Mason MG. 1977. Progress reports 1-8 for Cultana Block EL 212, Jan 1976 - Oct 1977, S.A. Australian Selection Pty Ltd; E2658:22p; 2 fig

Abstract: The potential for base metal orebodies remains high and warrants further exploration.

393. Mason MG. 1979. Progress reports EL 302, Dingo Hill, South Australia (March 1977 to March 1979). Australian Selection Pty Ltd; E2992:22p; 5 fig

Abstract: Low potential for Olympic Dam type targets but higher potential for stratiform targets on Pandurra erosional surface and beneath Tapley Hill Formation. See also E3635.

394. Mason MG. 1976. Wandearah Block, South Australia, progress and final reports. Australian Selection Pty Ltd ; E2630

395. Mason MG, Australian Selection Pty Ltd. 1977. Progress reports, Uro Bluff Block, EL 187, South Australia. South Australia. Department

of Mines and Energy. Company Report; E2585:94p; 10 fig

Abstract: See also EL329. Some base metal potential.

396. Mason MG, Pedler AD, Uren BJ. 1980. Progress and final reports, EL 509, Dingo Hill, South Australia (August 1979 to August 1980). Australian Selection Pty Ltd; E3635:8p; 2 fig

Abstract: Formerly EL 302 (E2992). Potential for base metal orebodies on Pandurra erosional surface or Olympic Dam type bodies is considered remote.

397. Mason MG, Simpson PG, Australian Selection Pty Ltd. 1979. Progress reports, Uro Bluff Block, EL 329, South Australia. South Australia. Department of Mines and Energy. Company Report; E3072:46p; 13 fig

Abstract: Low development potential for base metals in the Ryall Creek copper prospect; kimberlite near Sugarloaf Dam unlikely to be diamond bearing.

398. McBain DR. 1982. Sheringa, report on surrender; EL 670 - McLachlan and EL 687 - Tuckey, report on partial surrender, Poldia Basin, 17 May 1982. CRA Exploration Pty Ltd; E4659:60p; 7 appx, 9 fig, logs

Abstract: Potential reserves of 72 and 80 million tonnes of Jurassic and Eocene coals not economic. No anomalous base metal values intersected.

399. McBain DR, Frankcombe KM, Came S, Gumley CM, ANU AC, CRA Exploration Pty Ltd, Pacific Oil and Gas Pty Ltd, Solo Geophysics and Co. 1987. PEL 24, Arckaringa Basin. Quarterly progress and technical reports for the period 30/11/83 to 29/11/87. South Australia. Department of Primary Industries and Resources. Open File Envelope; E05648:19 fiche, 5v., 431p; figures, 45 plans, plates, references, 19 reps, tables

Abstract: PEL 24 covering an area of 21,778 square km straddling the southern margins of the Arckaringa and Officer Basins, 100 km south of Coober Pedy, was granted to CRA Exploration Pty Ltd for five years from 30/11/83. That company, in its first foray into onshore Australian oil exploration for many years, planned to investigate the petroleum potential of three largely unknown pericratonic tectonic and thick depositional features termed the Tallaringa, Wallira and Phillipson Troughs. To this end it committed to spend a minimum of \$6.4 million over the licence period on works including substantial new seismic acquisition plus

the drilling of four exploratory wells. Activities carried out by the licensee during its four year term of tenure included: - compilation and assessment of previous company and government exploration data for the region; - the conduct in October-November 1984 of an environmental survey of PEL 24 to identify previously undescribed flora and fauna present there which would require protection from likely impacts of any proposed works; - the conduct as required from August 1984 through March 1986 of anthropological scouting surveys to locate and verify potential sites of Aboriginal significance, and to devise strategies for avoiding or protecting these from interference; - acquisition and evaluation of 170 square km of experimental reconnaissance airborne geochemical survey data performed in July 1984 by contractor Recon Systems Pty Ltd; - acquisition, processing and interpretation of 84.5 line km of reconnaissance experimental Vibroseis profiles along three lines in the central-eastern part of the licence (the 1985 Coober Pedy Seismic Survey) in January-February 1985 using contractor Seiscom-Delta United Pty Ltd; - acquisition of 114 line km of detailed ground magnetic and gravity profiles along four former seismic lines in December 1985-January 1986 using contractor Solo Geophysics and Co.; - acquisition, processing and interpretation of 315.9 line km of regional and semi-detailed Vibroseis reflection profiling along 10 lines spread across the licence area (the 1986 Ingomar Seismic Survey) in May-June 1986 using contractors Geo Systems Pty Ltd and Western Geophysical Co.; - reprocessing of 102 line km of 1970-71 SADM single fold dynamite reflection seismic data in August 1986 by Western Geophysical Co. in Singapore; - acquisition of 130 line km of semi-regional gravity data along five lines over the boundary between the Wallira and Phillipson Troughs in November 1986, again using Solo Geophysics; - drilling of the Arkeeta 1 wildcat/stratigraphic well to 1345 metres total depth in the central Phillipson Trough during December 1986, to sample and evaluate the inferred thickest Permian section within PEL 24.

400. McBain DR, Lewis P, CRA Exploration Pty Ltd. 1982. Bulgunnia, SA, progress and final reports from 11/2/82 to 26/8/82. South Australia. Department of Mines and Energy. Company Report; E4256:130p; 8 appx, 3 logs, 9 maps, 8 ref, 2 sections

Abstract: Not prospective for Permian coal. Anomalous gold and chromium not repeated in follow-up work.

401. McConachy TF. 1978. Final report on Cleve East EL287, South Australia. CRA Exploration Pty Ltd; E2967:15p; 3 fig
402. McConachy TF. 1978. Final report Salt Creek EL282, South Australia.

CRA Exploration Pty Ltd; E2962:8p; 2 fig

403. McConachy TF, BuckLe P A. 1977. Progress reports on Salt Creek EL 282, South Australia. CRA Exploration Pty Ltd; E2962:13p; 4 plans

404. McConachy TF, BuckLe P A, Connor AG, CRA Exploration Pty Ltd. 1979. Cleve, central South Australia, progress reports from 16/2/77 to 17/2/79. South Australia. Department of Mines and Energy. Unpublished Report; E2966

Abstract: Exploration over Hutchison Group banded iron formation showed mineralization present. Best intersection over Mangalo Creek zinc anomaly in biotite muscovite quartz feldspar gneiss to schist was 10 m of 0.15% Pb, 0.71% Zn and 5 ppm Ag. Silicate analyses suggest better base metal values associated with iron formations.

405. McConachy TF, BuckLe P A, CRA Exploration Pty Ltd. 1977. Cleve East, Eyre Peninsula, South Australia, progress reports. South Australia. Department of Mines and Energy. Unpublished Report; E2967:26p; 6 maps

406. McEwin AJ. 1982. Third-order magnetic survey of Yorke Peninsula, SA, February 1982. Bureau of Mineral Resources, Geology and Geophysics. Record; 1982/10:4p; 4 appx, 1 fig, 2 ref, 2 tables

Abstract: Measurements at twenty eight stations.

407. McKay G, Williams SV, Dunn M, PNC Exploration (Australia) Pty Ltd. 1983. Wynbring, progress reports from 13 November 1979 to 10 August 1983. South Australia. Department of Mines and Energy. Unpublished Report; E3752:244p; 3 fig, 2 maps

Abstract: Drilling of 84 holes (total depth 3634 m) investigated fluvial Tertiary channel incised into basement. Minor radiometric anomalies in Wynbring Channel occur at base of surface oxidation, mostly in lignitic palladal clays.

408. McKay G, Williams SV, PNC Exploration (Australia) Pty Ltd, Austirex International Ltd, Surtex Geosurveys Pty Ltd. 1986. Ealbara, progress reports from 25/10/82 to 24/4/86. South Australia. Department of Mines and Energy. Unpublished Report; E4943

Abstract: Exploration for uranium in Tertiary and Proterozoic strata north of Tarcoola included Ealbara aeromagnetic and aerial radiometric surveys. Drilling (76 holes, 6,613 m) intersected minor uranium mineralization.

409. McKirdy D, Santos Ltd, South Australian Oil and Gas Corporation Pty Ltd, Vamgas Ltd, Delhi Petroleum Pty Ltd. 1986. Source rock and petroleum geochemistry of the Arrowie Basin, Arrowie Block. South Australia. Department of Mines and Energy. Company Report; E4879:p453-521; references

Abstract: Part 3 of a study, titled "Petroleum geochemistry and source rock potential of the Arrowie, Pedirka, Cooper and Eromanga Basins, central Australia". Study was based on source rock data for 75 outcrop and shallow drill core samples from 25 localities, source rock studies on Cambrian sediments from Moorowie 1, Coongie 1 and Kalladeina 1 and biomarker data on the Wilkatana 1 oil. Hydrocarbon generating potential of Lower and Middle Cambrian carbonates and shales was assessed and the most likely source of the Wilkatana 1 (Wilkawillina) crude oil was established.

410. McSharry PJ, Getty Mining Pty Ltd. 1976. Report on airborne radiometric study over EL177 Tarcoola area, S.A. South Australia. Department of Mines and Energy. Company Report; E2682, EL177:2 volumes

411. Merritt Mining NL, Mintek Services, Pathfinder Exploration Pty Ltd, Outback Mining and Oil Company Pty Ltd, Borner JE, Fairclough M, Cowden I, Rugless CS. 1998. Myall Creek, progress reports for the period 14/5/98-30/3/2000. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09621:312p; 5 appx, figures, 22 plans, plates, references, 2 reports, tables

Abstract: Exploration for Olympic Dam type Cu-Au in Myall Creek area, comprised surface geological mapping and orientation calcrete sampling, together with re-logging, petrography and geochemical sampling of existing drill core. Intervals below mineralized Tapley Hill Formation investigated following identification of primary sulphide minerals in basement clasts within a basal conglomerate. A 1 metre thick basement zone having metal values of 0.37% Cu and up to 20 ppb Au recorded below unconformity. In addition, values up to 5 ppb Au and 5.8 ppm Ag returned from calcrete sampling over subcropping Hiltaba Suite. However, further exploration work to look for a proximal basement source for geochemical anomaly terminated by a re-allocation of company resources away from mineral exploration.

412. Miller GC, Amoco Minerals Australia Company. 1982. Kingoonya, progress reports from 4/12/80 to 4/6/82. South Australia. Department of Mines and Energy. Unpublished Report; E4033:7

fiche, 71p; 4 appx, 4 fig, 17 maps

Abstract: Of eight holes over magnetic/gravity targets, four intersected probable Gawler Range Volcanics, two cut volcanics of indeterminate age and two located probable Archaean magnetite bearing gneiss - no significant mineralization found.

413. Miller GC, Amoco Minerals Australia Company. 1981. Lake Labyrinth, progress reports from 19/5/80 to 19/11/81. South Australia. Department of Mines and Energy. Unpublished Report; E3822:3 fiche, 22p; 1 appx, 1 fig, 3 maps

Abstract: 290 gravity stations at 250 metre spacing read over complex of magnetic anomalies.

414. Miller GC, Amoco Minerals Australia Company, BHP Minerals Ltd, CRA Exploration Pty Ltd. 1984. Kingoonya, quarterly and final reports from 12/2/80 to 22/2/84. South Australia. Department of Mines and Energy. Unpublished Report; E3726:16 fiche, 327p; 35 maps

Abstract: Six drill holes tested five magnetic gravity anomalies defined by aerial surveys in Middle Proterozoic volcanics and sediments but intersected no significant mineralization. Geochemical sampling over possible biotite adamellite at Company Well found no tin or tungsten and 38 holes over 20 magnetic anomalies failed to intersect kimberlites.

415. Miller PG. 1972. Kimba, South Australia - summary report of exploration of kaolin prospects, period October 1969 - April 1972. Pechiney (Aust) Pty Ltd; E1948:86p; 2 fiche, 12 fig

Abstract: Although considerable reserves of kaolin from weathered crystalline metamorphic rocks, quality not high enough. Fine clay fraction has potential as paper coater after treatment but inadequate in raw condition.

416. MIM Exploration Pty Ltd, Deep Well Mining Pty Ltd, McGeough M. 1999. Ferguson, partial relinquishment report for the period 13/6/95-12/12/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09549:24p; 1 appx, 2 fig, tables

Abstract: No significant metal anomalism, that is, Au greater than 10 ppb, reported from calcrete sampling of an area 30 km SE of Tarcoola.

417. Mines Exploration Pty Ltd, Roberts JB. 1969. Lake Torrens area. Progress and final reports for the period 15/6/66 to 14/11/67. South Australia. Department of Primary Industries and Resources. Open File Envelope; E02356:2 fiche, 48p; 3 fig, 3 plans, 4 ref, 5 reps, tables

Abstract: Extensive geochemical and geological investigations were carried out over exposed and shallowly buried, predominantly flat-lying Lower Cambrian carbonate rocks in an area extending from the western edge of the Flinders Ranges to west of Lake Torrens. It was considered that lead-zinc mineralization revealed by South Australian Department of Mines exploration in the basal Cambrian dolomites of the Ediacara structure, although sub-economic, was significant. In a broader sense, it was also realized that much more extensive nearby occurrences of Lower Cambrian carbonate rocks had not been systematically explored for base metal mineralization. The concept behind this search aim was that, at Ediacara, the mode of occurrence of base metals in small and discontinuous orebodies, concentrated at levels between 100 and 200 ft above the Cambrian-Precambrian contact, is suggestive of some broad stratigraphic control to such mineral emplacement. The resulting work programmed involved detailed stream sediment and rock chip sampling, reconnaissance IP and ground magnetic surveying and diamond drilling of drainage lead anomalies and pseudo-gossanous Fe-Mn enriched outcrops recognized near the northwest margin of Lake Torrens (3 holes, total 642 ft) and near Brachina Gorge (5 holes, total 2525 ft), and geological mapping and petrographic studies of lead-mineralized horizons that were found within a 20 mile-long zone at the western edge of the central Flinders Ranges between Bunyeroo Gorge and Parachilna Gorge. The conclusion was that lead-zinc sulphide mineralization, although undoubtedly extensive in the stratigraphic setting envisaged, was persistently feeble, with no plausible indications of economic metal concentrations, nor clues as to the direction in which such concentrations could be expected.

418. Minotaur Gold NL, Belperio AP. 1999 . Mount Arden, annual and relinquishment report for the period 9/12/97 to 8/12/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09512:11p; 1 appx, 4 fig, references, tables

Abstract: Exploration for Adelaidean and Cambrian sediment-hosted diamonds and Mississippi Valley-type base metal deposits in vicinity of Mount Arden, 40 km north of Port Augusta, comprised a review of previous exploration and the conduct of limited geochemical sampling. No anomalies worthy of follow-up detected.

419. Minotaur Gold NL, Belperio AP, Freeman HS. 1999. Commonwealth Hill, Perfection Well, Wirrida North, Nelson Bore and Ingomar, combined partial relinquishment report for the period 7/10/94 to 6/12/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09494:35p; 1 fig, 3 tables

Abstract: 1389 near-surface calcrete samples collected at a nominal 1000 m x 700 m spacing from relinquished portions of subject licence areas in the Commonwealth Hill area, 100-150 km S to SW of Coober Pedy, and analysed for gold plus other major metallic elements. No significant gold or base metal anomalies revealed.

420. Minproc Engineers Pty Ltd. 1988. Tarcoola gold project scoping study (draft copy). South Australia. Department of Mines and Energy. Company Report; E6925:fiche 1-3,5, p3-175; 13 appx, 6 fig

421. Moage L, Coho Australia Ltd. 1982. Yarrah 1 well tests report. South Australia. Department of Mines and Energy. Unpublished Report; E4446:logs

Abstract: No text, logs only.

422. Morgan PJ. 1974. Lock area, South Australia, progress and final reports exploration. Chevron Exploration Corporation; E2256:12p; maps

423. Morgan PJ. 1974. Lock area, South Australia, progress and final reports from 14/5/73 to 9/8/74. Chevron Exploration Corporation; E2256:122p; logs, 15 maps, 14 sections

Abstract: 135 auger holes and 70 rotary holes (total depth 21,492 feet) indicate low grade anomalous radioactivity is associated with lignite in Late Jurassic Poldia Formation and not with sand units.

424. Mount Gipps Ltd, Juka Mine Management Pty Ltd, Reedy Lagoon Corporation NL, BHP Minerals Ltd, Cooper SA, Fethers GH, Rutter H, Raetz M. 1993. Millers Creek, progress and relinquishment reports for the period 25/7/89 to 27/7/93. South Australia. Department of Mines and Energy. Company Report; E8211:327p; 7 appx, 11 plans

Abstract: Exploration for diamonds in the Millers Creek area 150 km southeast of Coober Pedy comprised an airborne magnetic and radiometric survey and ground magnetic surveys over aeromagnetic anomalies interpreted to represent potential kimberlites. Drilling (8 holes, total 697 m) failed to identify any

kimberlite sources.

425. Mount Gunson Mines Pty Ltd, Pacminex Pty Ltd, CSR Ltd, Austminex Pty Ltd. 1977. Mount Gunson copper mines: petrographic studies. South Australia. Department of Mines and Energy. Unpublished Report; E6611:21 fiche, 1157p; 4 maps
426. Muir PM, Western Mining Corporation Ltd, North Broken Hill Ltd. 1987. Geophysical exploration of the Moonta Porphyry to June, 1987. South Australia. Department of Mines. Company Report; E7001:p895-1042; 23 appx, 54 fig, 51 maps

Abstract: Results from previous geophysical surveys over Moonta Porphyry subcrop are presented. Notes, comments and memos in appendices contain geophysical interpretation of Sirotem, regional gravity, aerial magnetic and ground magnetic surveys and downhole TEM logging. A detailed outline of the geophysics of the Parramatta, Poona and Wheal Hughes areas are also presented including Sirotem, ground magnetics, gravity and IP results.

427. National Mineral Sands Pty Ltd, Swan Reach NL, Peko Exploration Ltd, Geopeko Ltd, Besley RE, Oliver JG, Rothnie C, Jurica A. 1992. Chimpering Rock Hole, Yarrana Hill, Moornaba Rock Hole, Euria Well, Koonibba Mission, Lake Tallacootra, Dunn Hill, Wollana Hill, Mount Centre and Nalara areas (Eucla Basin heavy minerals project), quarterly and annual progress plus technical reports for the period 25/7/89 to 24/7/92. South Australia. Department of Primary Industries and Resources. Open File Envelope; E08219:10v., p2-1423; appendices, figures, 94 plans, plates, references, tables

Abstract: Hitherto untried exploration for heavy mineral sands on eastern margin of Eucla Basin, conducted since 1989 over 10 contiguous licence areas in Ooldea-Barton area centred 150 km NW of Ceduna, comprised a preliminary photogeological survey, modelling of Tertiary shoreline sand sedimentation and deflation history, reconnaissance auger sampling of near surface strata in favourable palaeodepositional settings, and 5 stages of RC/core stratigraphic drilling to basement, at 500 m spacings along 8 regional traverses (926 holes, total 25,306 m). Two zones containing highly anomalous heavy mineral concentrations were discovered near Immarna Siding, with some sand lenses approaching ore grade percentages. No deposits of an economic size were located. Other lesser prospects identified in the Barton Siding and southern playa lake areas found to be overly disseminated within Tertiary sequence, as well as being mantled by deepening Quaternary cover. An attempt to use magnetic data

processing methods to directly detect heavy mineral accumulations buried within raised beaches proved unsuccessful for this particular region.

428. National Mineral Sands Pty Ltd, Swan Reach NL, Peko Exploration Ltd, INCO Australia Ltd, North Ltd, Geopeko Ltd, Rothnie CW, Toteff S. 1997. Chimpering Rock Hole, Lake Tallacootra, Pybung and Chundaria areas (BARTON project), annual reports for the periods 25/7/92 to 24/7/94 and 30/12/94 to 29/12/96. South Australia. Department of Primary Industries and Resources. Open File Envelope; E08219:12v., p1424-697; appendices, figures, references, tables

Abstract: In 1993 the SA Government flew regional aeromagnetics over western Gawler Craton which prompted North Ltd to change direction with its BARTON area exploration programme, to address base and precious metals potential of Precambrian basement underlying Tertiary shoreline sediments of Eucla Basin. North undertook an orientation survey of pedogenic carbonates in its BARTON project tenements, looking for indicative gold traces. Results disappointing and inconclusive. Local cover thicknesses ranging from 6 to 93+ m, complications from presence of interbedded Nullarbor Limestone and silcrete and ferricrete hardbars, and potential long-term leaching of originally exposed calcrete by rainwater are all seen by North as complicating factors to its applying the method confidently on the BARTON licences.

429. National Mineral Sands (SA) NL, Swan Reach NL, Geopeko Ltd, Australian Photogeological Consultants Pty Ltd, Jurica C, Rothnie C. 1992. Yaranna Hill, Euria Well, Kooniba Mission, relinquishment report for the period to February 1992. South Australia. Department of Mines and Energy. Company Report; E8561:148p; 3 appx, 9 plans

Abstract: Target was heavy mineral sands north of Bookabie and in the Koonibba area. Minor low-grade occurrences of heavy minerals were intersected.

430. National Mineral Sands (SA) NL, Swan Reach NL, Geopeko Ltd, Morris L, McInnes P, Bunting JA. 1991. Dunn Hill, Wallala Hill and Mount Centre, Ceduna heavy minerals prospect. Progress reports for the period 21/3/90 to 20/6/91. South Australia. Department of Mines and Energy. Company Report; E8471:173p; 2 appx, 11 plans

Abstract: Target was heavy mineral sands (ilmenite, rutile, zircon) in the Nunjikompita-Hiltaba area. Results were low grade, heavy mineral concentrations consisting predominantly of magnetite.

431. National Mineral Sands (SA) NL, Swan Reach NL, Peko Exploration Ltd, Australian Metallurgical and Mineral Testing Consultants Pty Ltd, Warman International Ltd, Geopeko Ltd, Jurica A, Rothnie C, Watts R. 1990. Ceduna heavy minerals project, annual report, January 1990 to January 1991. South Australia. Department of Primary Industries and Resources. Open File Envelope; E08219:5v., p271-830; 6 appx, 9 fig, 4 ref, tables

Abstract: 348 reconnaissance air-core drillholes completed on subject ELs between 5/7/90-3/10/90. Best heavy mineral sand intersections found near Immarna (EL 1602), with some zones approaching ore-grade percentages. No deposits of economic size located so far. Previous sedimentological studies concluded that two major cycles of marine transgression formed target shoreline deposits around margins of Eucla Basin in SA and WA. First marine transgression was in Early to Middle Eocene (approx 50 million years ago), and the second transgressive cycle, similar to Eocene transgression produced a shoreline retreat to a location beyond the current coastline. Geopeko's recent drilling discovered that two sediment formations host heavy mineral concentrations, and that these deposits differ in age, grain size and heavy mineral assemblage. Metallurgical testwork performed on the two types of heavy mineral assemblages has shown that standard industrial dry-milling separation techniques will produce a marketable ilmenite concentrate.

432. Newbery SP, CRA Exploration Pty Ltd. 1996. Campbell Rise, partial relinquishment report to 7/5/96. South Australia. Department of Mines and Energy. Open File Envelope; 9067:21p; 2 appx, 3 fig, 4 plans, 2 ref, 2 tables

Abstract: A buried dipolar kimberlite target was detected west of Woomera by aeromagnetic and ground magnetic surveys. Sampling of surface gravels for diamond indicators and microdiamonds proved inconclusive. Aircore drilling (2 holes, total 143 m) identified dolerite as the source of the anomaly. No elevated metal values were recorded from either the Post-Palaeozoic cover or bedrock strata penetrated.

433. NewCrest Mining Pty Ltd, Woodgate A. 1999. Wudinna Hill, annual and final report for the period 3/11/97-2/11/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09467:25p; 2 appx, 2 fig, 5 plans, 4 ref, tables

Abstract: Three weak gold anomalies (max 5 ppb) and patchy, weakly elevated copper values detected in calcrete sampled over

an area extending for 20 km immediately NE of Wudinna.

434. NewCrest Mining Pty Ltd, Woodgate A, Mackey C. 1998. Streaky Bay, annual and final reports for the period 7/6/96 to 6/6/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09207:4 appx, figures, 11 ref, tables

Abstract: Exploration for concealed mesothermal, structurally-controlled Cu-Au deposits between Calca and Wirrulla on Eyre Peninsula comprised calcrete sampling, ground magnetics and RC/aircore drilling of four aeromagnetic targets (47 holes, total 2418 m). The majority of drill holes bottomed several metres into Precambrian basement consisting either of layered igneous rocks (monzonite-diorite-gabbro), mafic schists or Hiltaba Suite granite intrusions, with the former often exhibiting signs of weak propylitic alteration. No significant gold or base metal bedrock anomalies were found, except for 3 m grading at 525 ppm Mo in fresh Hiltaba Suite granite at Yantanabie prospect. Weakly elevated supergene Pb (up to 1245 ppm over 3 m in SBRC45 at Colba prospect) and Zn (up to 554 ppm over 3 m in SBRC2 at Petina prospect) were recorded from Cainozoic cover sediments in many of the RAB holes. Several aeromagnetic structural targets remain to be tested. No relationship was discernible between rock type or structure, as interpreted from aeromagnetics, and trends of weakly elevated calcrete copper values (less than 10.2 ppm). Calcrete sampling was thus concluded to be a poor indicator of bedrock mineralization in this area of thick (up to 80 m) Cainozoic cover.

435. Newell BH, Berg RC, Paterson HL, Robison HR, Vreugdenberg DG, Stracke KJ, Stockdale Prospecting Ltd, Shell Company of Australia Ltd Metals Division, Western Mining Corporation Ltd. 1988. Corrobinnie Hill, progress and final reports 23/9/84 to 23/3/88. South Australia. Department of Mines and Energy. Company Report; E5831:6 fiche, 120p; 3 appx, 37 fig, 10 maps

Abstract: Exploration included interpretation of aerial magnetic data and follow up of 5 magnetic anomalies. 1 drill hole (GRO7/1) intersected 32 m of basement without encountering a kimberlitic pipe, but 50 m short of predicted depth to top of magnetic source. Exploration for Broken Hill or Balmat-Edwards type Pb-Zn mineralization in Hutchison Group.

436. Newell BH, Stockdale Prospecting Ltd, Agip Australia Pty Ltd. 1986. Billa Kalina, final and relinquishment report for the period ending 20/3/86. South Australia. Department of Mines and Energy. Unpublished Report; E6500:2 fiche, 11p; 4 fig, 2 maps, 2 ref

Abstract: 355 samples collected, using helicopters, in area 80 km north of Kingoonya. No indicator minerals recovered and remote sensing failed to recognize any surface expression of kimberlite emplacement.

437. Newell BH, Stockdale Prospecting Ltd, Agip Australia Pty Ltd. 1986. Billa Kalina, partial relinquishment report to March 1986. South Australia. Department of Mines and Energy. Unpublished Report; E6499:2 fiche, 5p; 3 fig, 2 maps

Abstract: 31 samples collected 70 km north of Kingoonya. No indicator minerals recovered and remote sensing failed to recognize any surface expressions of kimberlite emplacement.

438. Newell BH, Stockdale Prospecting Ltd, Agip Australia Pty Ltd. 1986. Billa Kalina, partial relinquishment report to March 1986. South Australia. Department of Mines and Energy. Unpublished Report; E6498:2 fiche, 5p; 3 fig, 2 maps

Abstract: 50 samples collected in 2 areas, 50 km NW and 40 km NE of Kingoonya. No indicator minerals recovered and remote sensing failed to recognize any surface expressions of kimberlite emplacement.

439. Newmex Exploration Ltd, Tarcoola Gold Ltd, Bailey DG. 1987. Geology of the Tarcoola gold prospect, South Australia. South Australia. Department of Mines and Energy. Company Report; E6858:vol 7, p893-909; 1 plan, 4 ref

Abstract: Au mineralization occurs within quartz veins occupying the extensional fractures and faults cutting quartz sandstone and claystone of the Tarcoola Formation. Most Au production has been from discrete quartz veins averaging 0.3 m wide, but zones of small quartz veins, each generally less than 1 cm, also contain Au in places. Exploration will target lower grade mineralization than in the large quartz veins, and also investigate possible southern extensions in an area of no outcrop to the S of the Pug Seam fault.

440. Newmex Exploration Ltd, Tarcoola Gold Ltd, Bailey DG. 1987. Tarcoola Project reverse circulation rotary percussion drilling, Tarcoola, South Australia. South Australia. Department of Mines and Energy. Company Report; E6858:vol. 1, p3-195; 2 appx, 3 plans, 3 ref, 1 table

Abstract: The drilling programme, of 25 holes totalling 2437 m, tested the Au content of the mineralized quartz veins and determined the distribution of Au within the Tarcoola Formation.

Elevated Au values in wallrock to quartz veins were found to be commonly associated with pyrite-chlorite-quartz alteration of the wallrock. The quartz veins themselves contain irregularly distributed Au. Significant intersections include 131.25 g/t over 4 m, 19.67 g/t over 2 m and 13.97 g/t over 4 m.

441. Newton Smith J, Ashton Mining Ltd. 1985. Moonaree, report to the Department of Mines and Energy, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; E6463:1 fiche, 11p; 1 appx, 1 fig

Abstract: Target was epithermal gold within Middle Proterozoic Yardea Dacite. Reconnaissance over possible caldera at Ram Well, inferred from Landsat 3 images, found only minor evidence of hydrothermal alteration. EL application withdrawn.

442. Nieuport Pty Ltd, Craton Resources NL, RMG Services Pty Ltd, O'Loughlin N, Hafer M, Farrell BL. 1998. Unalla Hill, Moonaree and South Lake Gairdner (Lake Gairdner project), annual and final reports for the period 25/10/96-24/10/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09230:225p; 6 appx, figures, 4 plans, 8 ref, 2 reports, tables

Abstract: Exploration targeted Olympic Dam style mineralization associated with Hiltaba Suite Intrusives and Gawler Range Volcanics at southern end of Lake Gairdner, between Mount Ive and Moonaree. Sampling of poorly developed calcrete together with rock chip and stream sediment sampling did not confirm any of the targets suggested by promising magnetic signatures and elevated gravity response. Anomalous Au, Cu and Ni reported from ground water sampling, but continued investigation using this tool impeded by lack of further accessible sampling locations.

443. Nissho Iwai Co (Australia) Pty Ltd. 1977. First and second quarterly reports on EL 262 in the Lake Gilles area, South Australia. South Australia. Department of Mines. Company Report; E2845:4p; 5 fig, transparencies

444. Nissho Iwai Co (Australia) Pty Ltd. 1972. Uno area, progress and final reports from 10/12/71 to 10/9/72. E1771:43p; 1 fig, 1 map

Abstract: Drilling of 6 holes (total depth 4170 ft) in Middle Proterozoic Corunna Conglomerate in Uno Syncline located a radioactive horizon in grey sandstone but economic deposit unlikely.

445. Nissho Iwai Co (Australia) Pty Ltd. 1977. Warrior area, SA, progress and final reports from 6/6/75 to 10/7/77. South Australia. Department of Mines and Energy. Company Report; E2591:18p; 13 fig, logs

Abstract: Uranium deposits located in carbonaceous sediments or lignite but more drilling required to determine size and grade.

446. Nissho Iwai Co (Australia) Pty Ltd. 1975. Warripi area (SA) progress and final reports from 16/9/74 to 16/3/75. South Australia. Department of Mines and Energy. Company Report; E2255:28p; 6 fig

Abstract: Licence to be renewed. Further drilling planned downstream along the palaeochannel.

447. Nissho Iwai Co (Australia) Pty Ltd. 1974. Warripi area South Australia, progress and final report. South Australia. Department of Mines and Energy. Company Report; E2390:24p; 2 maps, 6 sections

Abstract: 44 holes to total depth of 1593 m intersected Permian black mudstone and Precambrian basement, but poor uranium potential in Tertiary.

448. Nissho Iwai Co (Australia) Pty Ltd. 1974. Warripi area, South Australia, progress and final reports. South Australia. Department of Mines and Energy. Company Report; E2390:maps

449. Nixon LGB, Donaldson RC, Trail DS. 1972. Medlingie Hill-Streaky Bay area, Eyre Peninsula, progress reports from 15/9/71 to 17/3/73. Endeavour Oil Co NL; E1706:84p; 8 maps

Abstract: Although no sedimentary uranium deposit of the Wyoming roll type or Colorado Plateau type located, drilling of five holes indicated suitable environment and possible palaeochannel. Also potential for kaolin clay deposit. Subsurface geology of Robinson Basin upgraded.

450. Noranda Aust Pty Ltd, Mount Gunson Mines Pty Ltd, CSR Ltd, Pacminex Pty Ltd. 1978. Mount Gunson aeromagnetic surveys. South Australia. Department of Mines and Energy. Company Report; E6677:7 fiche, 37p; 28 maps

Abstract: Magnetic profiles (April 1977) from Pandurra, EL 186.

451. Noranda Aust Pty Ltd, Thomas A, Douch C. 1971. Lake Dutton. Progress and annual reports for the period 5/11/70 to 4/11/71.

South Australia. Department of Primary Industries and Resources. Open File Envelope; E01541:3 fiche, 116p; 1 appx, 1 fig, 4 reps

Abstract: Base metals were targeted in an ongoing regional drilling programme (7 percussion and diamond holes within SML 499, total 2737 ft) of the 'Pernatty Culmination' that addresses the Adelaidean sequence overlying the Pandurra Formation unconformity. Low concentrations of sulphide minerals were found, confined to a tectonically brecciated dolomitic shale occupying a narrow graben. Base metals and silver were assayed for by AAS.

452. Normandy Exploration Ltd, Aztec Mining Company Ltd, Dries S. 1998. Warrior, partial relinquishment report for the period 1/3/97 to 28/2/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09348 :5 fig, 6 ref, 1 table

Abstract: Exploration for possible Proterozoic intrusive-hosted Cu-Au deposits in an area 60 km north-west of Tarcoola included regolith landform mapping and regional calcrete sampling. No significant anomalies were identified within the relinquished area.

453. Normandy Exploration Ltd, Aztec Mining Company Pty Ltd, Sumitomo Metal Mining Oceania Pty Ltd, SC Mineral Resources Pty Ltd, Oxford Resources Pty Ltd, Dries S. 1988. Mulgathing, partial relinquishment report for the period from 19/10/92 to 18/10/97. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09349:5 fig, 6 ref, 1 table

Abstract: No significant gold or base metal anomalies emerged from regolith mapping and regional calcrete sampling 40 km northwest of Tarcoola.

454. North Broken Hill Ltd, Forwood PS, Cowley WM. 1981. Lincolnfields (via Bute) South Australia, progress reports. South Australia. Department of Mines and Energy. Unpublished Report; E4006:25p; 10 fig, 3 reps

Abstract: Drilling on adjoining EL indicates bedrock appears to be shallow.

455. North Mining Ltd, Ingpen IA. 1995. Middleback, annual and final report for the period 1/6/94 to 3/4/95. South Australia. Department of Mines and Energy. Company Report; E08884:18p; references

Abstract: Investigation of two low priority Olympic Dam-style targets between Iron Knob and Iron Baron did not proceed beyond an aeromagnetic interpretation and review of previous work.

456. Norton RP. 1968. Progress report. Tumby Bay Marble Pty Ltd; E885
457. O'Dea PD, Dodd AR, Geoex Pty Ltd, Afmeco Pty Ltd. 1982. Lake Hart, progress reports from 13/1/81 to 6/10/82. South Australia. Department of Mines and Energy. Company Report; E3992:63p; 1 fig, 5 maps, 18 ref, 14 sections

Abstract: Basal unit of Pandurra Formation not prospective for uranium - no shallow magnetic basement.

458. O'Sullivan F R, Matthes B, Tobin S, CRA Exploration Pty Ltd, Geosystems Pty Ltd. 1986. Ingomar seismic survey 1986, final report, operations. South Australia. Department of Mines and Energy. Company Report; E6753:2 fiche, 105p

Abstract: 333.924 km of a 37.5 fold, 300 channel seismic data and 41 upholes shot in May/June of 1986 for the regional investigation of basement depth and to delineate any possible structural and stratigraphic hydrocarbon traps within troughs.

459. Olliver GSPL, Adelaide Resources NL, Drown CG. 2000. Kimba, partial relinquishment report for the period 18/12/95-17/12/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09628:12p; 1 appx, 1 fig, 1 plan, tables

Abstract: No anomalous values reported from regional calcrete sampling in an area 10 to 25 km N-W to S-W of Kimba.

460. Olliver GSPL, Adelaide Resources NL, Drown CG. 2000. Verran, partial relinquishment report for the period 4/4/97-4/4/2000. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09629:13p; 1 appx, 2 fig, 1 plan

Abstract: Reconnaissance calcrete sampling of area near Verran, 25 km SW of Cleve, failed to reveal any geochemical anomalies worthy of follow-up.

461. Olliver Geological Services Pty Ltd, Coombedown Resources NL, Redfire Resources NL, Archimedes Consulting Pty Ltd, Martin NH. 1998. Verran, partial relinquishment report for the period 4/4/97 to 3/4/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09385:2 appx, 3 fig, 2 plates, tables

Abstract: No magnetic or geochemical exploration targets for potential Hutchison Group stratabound Cu-Au mineralization were identified in an area 28 kms north-west of Arno Bay, between

Wharminda and Kielpa.

462. Oolanta Pty Ltd, Menzel BW, Scholz FR. 1990. Yaninee, progress reports for the period 4/1/90 to 4/4/90. South Australia. Department of Mines and Energy. Company Report; E8284:1 fiche, 19p; 2 appx, 3 fig

Abstract: Target was Au and heavy mineral sands. One Au assay of 3.15 g/t recorded.

463. Opal Mining and Exploration NL, Coenraads RR. 1998. Kingoonya. Annual and final report for the period 8/1/96 to 7/1/97. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09306:19p; 3 fig, 12 plates

Abstract: Field inspection of an area of interpreted Recent uplift located between the Coober and Andamooka precious stones fields failed to provide visible encouragement for finding fracture-related gold and base metal mineralization.

464. P SaGFFPL, Forwood PS. 1999. Wallaroo, progress and final reports for the period 16/6/98-15/6/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09532:17p; 1 appx, 5 fig, 1 plate, 2 reports, 1 table

Abstract: Study of regional aeromagnetic data concluded strong, untested basement anomalism continuous along trend leading W-SW offshore from rich Moonta-Wallaroo mining district. Three promising targets in Spencer Gulf, identified from inspection of existing aeromagnetic data. Review of prospect's likely copper potential written and circulated to companies in attempt to attract possible farminees to offshore drilling programme.

465. P S and G F Forwood Pty Ltd, G O Dickson and Associates Pty Ltd, Forwood PS. 1991. Bute, progress and final reports for the period 18/7/89 to 17/7/91. South Australia. Department of Mines and Energy. Company Report; E8212:132p; 2 appx, 10 fig, 8 plans

Abstract: Target was Cu and Au. Exploration included analysis of drill core from the Moonta core library (B43-B45, B48).

466. Pacific Oil and Gas Pty Ltd. 1986. 1985 seismic survey. South Australia. Department of Mines and Energy. Company Report ; E6990:6 fiche, 194p; 1 appx, 2 fig, 12 maps

Abstract: 84.5 km of varying fold seismic data and 9 upholes were shot in January/ February 1985 to assess hydrocarbon potential by

investigating depth to basement and optimal seismic parameters for future seismic work. Data quality varied from good in the areas of deeper reflections to quite poor in many areas where little reflection energy was apparent below 300 m.

467. Pacminex Pty Ltd, United Uranium NL, Mount Gunson Mines Pty Ltd, CSR Ltd, Geoterrex Pty Ltd. 1977. Mount Gunson electromagnetic surveys. South Australia. Department of Mines. Company Report; E6674:17 fiche, 332p; 54 maps

468. Palmer DC, CRA Exploration Pty Ltd. 1989. Mount Eba. Partial relinquishment report. South Australia. Department of Mines and Energy. Company Report; E8155

Abstract: Target was Witswatersrand style conglomerate hosted gold-uranium within Tarcoola Formation conglomerates and Alligator River style uranium over apparently disrupted aeromagnetic anomalies west of Wallabying Range. No anomalous geochemistry was recorded. Magnetic interpretation indicated a flat lying magnetic sheet thought to represent Gawler Range Volcanics.

469. Pan Australian Mining Ltd, Geoimage Pty Ltd, Barclay TJR, Smith P, Walker RN, Green N, Anderson BE. 1990. Kychering West, progress reports for the period 16/11/87 to 17/11/90/. South Australia. Department of Mines and Energy. Company Report; E8128:133p; 6 appx, 9 fig, 9 plans

Abstract: Target was Au, hosted within Tarcoola Formation or Mulgathing Complex, in the Kychering area 70 km west of Tarcoola.

470. Pan Australian Mining Ltd, Hall DH, Barclay TJR, Green NP. 1990. Kychering. Progress and final reports from 14/9/87 to 13/3/90. South Australia. Department of Mines and Energy. Company Report; E6951

Abstract: Target was Au in Lower Proterozoic rocks of the Tarcoola Formation and part of the Mulgathing Complex, possibly as a metamorphosed equivalent of the high grade Au ore bodies of the Granites, NT. Three aerial magnetic anomalies were defined. Rock chip sampling over one anomaly returned weakly anomalous Au values (max 0.101 ppm) from magnetic BIF float, ironstone gossan and pyritic quartz veins in bedrock.

471. Pancontinental Mining Ltd, PNC Exploration (Australia) Pty Ltd, Afmeco Pty Ltd. 1982. Geochemical data Eyre Peninsula, magnetic tape and computer printout. E4848:1 magnetic tape, 1 printout

Abstract: Tape contains 2 files on sample parameters and assay results.

472. Pancontinental Mining Ltd, Power Reactor and Nuclear Fuel Development Corporation. 1980. Eyre Peninsula, South Australia, progress and final reports. E3413:23p; 2 fig

Abstract: Absence of middle Proterozoic cover rock down grades potential for uranium mineralization.

473. Pancontinental Mining Ltd, Power Reactor and Nuclear Fuel Development Corporation, Afmeco Pty Ltd, Geoex Pty Ltd. 1982. Darke Peake, progress reports from 15/7/79 to 27/9/82. South Australia. Department of Mines and Energy. Unpublished Report; E3551:12 fiche, 197p; 12 appx, 12 fig, 48 maps, 15 ref

Abstract: Significant radiometric anomalies in limited potential areas. Follow up detected significant radon anomaly zone of intense hematization of sandstone and schists adjacent to unconformity, and anomalous radium, radon and uranium in drill core and ground water. Further drilling and trenching recommended.

474. Parsons GW. 1974. Progress reports, Exploration Licence no. 24, Mt. Sturt clay deposit, South Australia, May 1973 - Nov. 1974. Engelhard Minerals and Chemicals Corporation; Sadex Pty Ltd; E2244:28p; 6 reports, 26 fig

475. Pasminco Australia Ltd, Haydon RC, Smith RS, Duhig NC, Roark IB, Randell LB. 1996. Lake Gilles, quarterly, annual and final reports for the period 3/6/91 to 16/4/96. South Australia. Department of Mines and Energy. Open File Envelope; 8478:2v., 521p; 16 appx, figures, 52 plans, references, 9 reps, tables

Abstract: Base metal exploration in Hutchison Group metasediments east of Kimba comprised an airborne magnetic-radiometric survey, ground magnetic surveys, RC drilling (338 holes, total 14 663 m) and one 279 m diamond drill hole. Most magnetic features are magnetite-bearing amphibolite or granitoid with weak and discontinuous geochemistry. Reconnaissance air-core drilling traverses of the Galah copper-lead-zinc prospect returned elevated values in calcsilicate near the base of the Warrow Quartzite, peaking at 2750 ppm Zn, 580 ppm Cu and 800 ppm Pb, but no anomalous assays were recorded in follow-up diamond drilling.

476. Pasminco Australia Ltd, Lees TC, Hughes NA, Roark IR. 1995. Mount Messenger, progress and final reports for the period 27/11/92 to 26/11/94. South Australia. Department of Mines and Energy. Company Report; E8742:160p; 4 appx, 47 plans, references

Abstract: Exploration in the Mount Messenger area, southeast of Kimba, comprised an airborne magnetic/radiometric survey, rock chip sampling, mapping, petrology, ground magnetics and air core drilling (50 holes, total 642 m). Base metal anomalism was weak and patchy but pegmatite-related tin anomalies (300 ppm) and one copper anomaly (3150 ppm) have yet to be fully evaluated.

477. Pasminco Australia Ltd, Randell MH. 1995. Bookabie, partial relinquishment report, 25/8/95. Mines and Energy. South Australia. Company Report; E8990:45p; 4 appx, 4 fig, tables

Abstract: Exploration for base and precious metals within an area 40-60 km northwest of Penong, now relinquished from the EL, comprised 5 km of ground magnetic surveys and aircore drilling (13 holes, total 626 m) of 4 resulting features. The drill located sufficiently magnetic rocks to adequately explain the target signatures, but no anomalous assays were recorded from analyses of cover and bedrock material. This work formed a progression from SAEI Area A2 aeromagnetic surveying which was partly sponsored by Pasminco.

478. Paterson HL, Western Mining Corporation Ltd, North Broken Hill Ltd. 1988. Moonta. Progress reports from 10/2/87 to 12/3/88. South Australia. Department of Mines. Company Report; E7001:p786-1048; 3 appx, 79 maps

Abstract: Diamond and percussion drilling at Poona defined an ore body with potential to support a modest mining operation, with 206,000 t at 6.45% Cu and 2 g/t Au of mineable reserves. Four DDH's (totalling 305 m) and 6 reverse circulation holes (totalling 306 m) at Wheal Hughes defined mineralized quartz-tourmaline lodes in a wide zone of kaolin alteration of Moonta Porphyry with grades of 2.5% Cu and 0.6 g/t Au. Thin zones of higher grade material are present which may be amenable to selective mining. Two percussion holes (totalling 136 m) tested a small intense Siroteam anomaly at Parramatta. One hole intersected 2 m at 2.58% Cu.

479. Pechiney (Aust) Exploration Pty Ltd. 1974. Lake Tallacootra, South Australia, progress reports from Jan 1973 to 12/11/74. South Australia. Department of Mines and Energy. Company Report; E2169:16p; 11 maps, 17 sections

Abstract: 73 holes drilled to Precambrian basement - licence to be renewed.

480. Pedler AD. 1981. Dingo Hill, South Australia, progress and final reports (formerly EL 302 and EL 509). Seltrust Mining Corporation Pty Ltd; E4115:6p; 2 fig

Abstract: Potential for base metal ore body is considered low. A cerium anomaly of 680ppm Ce occurs in drill hole SAD-1.

481. Peko Exploration Ltd, Jurica A. 1992. Barton, Pulkatha and Nalara, relinquishment report for the period May 1991 to May 1992. South Australia. Department of Mines and Energy. Company Report; E8630:81p; 2 appx, 11 plans, 2 ref

Abstract: Target was heavy mineral sands in Tertiary sediments in the Eucla Basin, north of Ceduna. Drilling defined anomalous areas in the foredune facies of the Ooldea Sand, but the potentially mineralized Miocene sand unit was not intersected. In EL's 1721 and 1722, a review of data and soil sampling results did not warrant follow up. EL 1721 was partially relinquished.

482. Peko Wallsend Operations Ltd, North Mining Ltd, INCO Australia Ltd, Geopeko Ltd, Rothnie CW, Toteff S, Mills MB, Weissgerber Y. 1999. North Fowlers Bay-Chundaria, annual and progress reports for the periods 15/9/93 to 14/9/98 and 28/10/98 to 12/3/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E08851:2v., 116p; 4 appx, 4 fig, plates, 1 ref, tables

Abstract: North Ltd's Barton project commenced in 1990 across a number of licences progressively taken out over western Gawler Craton, eventually including EL 1865. Initial exploration for heavy mineral sand in Barton-Ooldea area comprised reconnaissance sampling, a photogeologic survey and RC drilling. Zones locally enriched in zircon, ilmenite and leucoxene located, but overall grade and volume insufficient for economic mining. Results of drilling a further 55 holes on EL 1717 released in 1992. Shift in focus to Ni, Au and PGE exploration began with petrology on basement samples from sand drilling, followed by ground magnetics and aircore drilling. The final phase of exploration, which principally involved work within EL 1865, targeted copper and gold associated with Hiltaba Suite Intrusives. No significant values returned from initial geochemical sampling of basement outcrops and existing drill collars.

483. Peko Wallsend Operations Ltd, North Mining Ltd, INCO Australia Ltd,

Geopeko Ltd, Rothnie CW, Toteff S, Weissgerber Y. 1999. South Barton Siding-Pybung, annual and progress reports for the periods 9/8/93 to 8/8/96 and 28/10/98 to 12/3/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E08835:133p; 3 appx, 2 fig, 1 ref, tables

Abstract: North Ltd's Barton project commenced in 1990 across a number of licences progressively taken out over western Gawler Craton, eventually including EL 1853. Initial exploration for heavy mineral sand in Barton-Ooldea area comprised reconnaissance sampling, a photogeologic survey and RC drilling. Zones locally enriched in zircon, ilmenite and leucoxene located, but overall grade and volume insufficient for economic mining. Results of drilling a further 55 holes on EL 1717 released in 1992. A shift in focus to Ni, Au and PGE exploration began with petrology on basement samples from sand drilling, followed by ground magnetics and aircore drilling. Copper intersections peaked at 468 ppm from 12 to 26 m in weathered, quartz-veined amphibolite. Final phase of exploration targeted copper and gold associated with Hiltaba Suite intrusives. No significant values returned from initial geochemical sampling of outcrop and existing drill collars.

484. Peninsula Exploration NL, Goldstream Mining NL, Greenhill P, Parry H, Le Plastrier M S. 1999. Kultanaby, annual and final reports for the period 12/6/96 to February 1999. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09222:62p; 5 appx, 3 fig, 4 plans, tables

Abstract: Regional and infill geochemical sampling of regolith 5 km west of Glendambo returned peak assays of 12 ppb Au and 48 ppm Cu. Regional RAB/aircore drilling targeting these peak calcrete results did not intersect crystalline basement down to 50 m depth (12 holes, total 498 m). Anomalous calcrete results possibly reflect detrital Au in overlying Pandurra Formation.

485. Peninsula Prospecting and Mining Pty Ltd. 1969. Lake Macdonnell, South Australia, progress reports. E902:maps

486. Placer Exploration Pty Ltd, Paterson W. 1998. West Childara Project, annual report for the period 6/12/96 to 5/12/97. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09289:27p; 2 appx, 2 fig, 1 plan, 1 ref, tables

Abstract: Regional calcrete sampling 100 km SW of Tarcoola disclosed weak gold anomalism in the SE portion of the licence, coincident in part with gravity and aeromagnetic features. Detailed follow-up sampling warranted.

487. Plimer IR, North Broken Hill Ltd. 1980. A review of the geology, ore deposits and untested potential of EL 544. South Australia. Department of Mines. Company Report; E6999:fiche 20-1, p1129-200; references

Abstract: Aim was to ascertain whether any obvious targets remained after 20 years of intensive exploration. Exploration was to a depth of 400 m at West Doora and 100 m elsewhere. A number of coincidental gravity and magnetic anomalies of Olympic Dam type mineralization warrant further checking. U minerals occur frequently in the Early Proterozoic rocks and U enrichment occurs in some of the Middle Proterozoic granitic rocks. 2 widely spaced DDHs at Alford intersected a zone of uraninite, and attractive targets for roll-front and calcrete-type U deposits are indicated.

488. PNC Exploration (Australia) Pty Ltd, Geoterrex Pty Ltd, Austirex International Ltd, Century Geophysical Corporation. 1985. Lake Gairdner area, progress reports from 1/11/84 to 1/8/85. South Australia. Department of Mines and Energy. Unpublished Report; E5868:3 fiche, 36p; 2 appx, 1 fig, 10 maps, 3 ref

Abstract: Follow up of radiometric anomalies showed all related to salt lakes except one associated with Yardea Dacite. Two holes (totalling 608 m) testing a prominent fault and one hole in another area failed to identify any prospective lithology.

489. PNC Exploration (Australia) Pty Ltd, Geoterrex Pty Ltd, Surtec Geosurveys Pty Ltd. 1986. Moonabie, progress reports from 1/7/84 to 1/7/86. South Australia. Department of Mines and Energy. Unpublished Report; E5792

Abstract: Exploration of a thick sequence of Middle Proterozoic sediments and volcanics, similar in age and tectonic setting to Olympic Dam, within the Moonabie Graben included Moonabie aeromagnetic, aerial radiometric and aerial EM surveys. Drilling (2 holes, 640 m) did not intersect significant mineralization.

490. PNC Exploration (Australia) Pty Ltd, Nissho Iwai Co (Australia) Pty Ltd. 1979. Warrior area progress and final reports from 3/7/78 to March 1979. South Australia. Department of Mines and Energy. Company Report; E3255:13p; 5 fig, logs

Abstract: Drilling has defined 25 sq km of low grade sedimentary uranium but further work needed.

491. PNC Exploration (Australia) Pty Ltd, Nissho Iwai Co (Australia) Pty Ltd. 1979. Warrior area progress and final reports from 5/12/76 to

February 1979. South Australia. Department of Mines and Energy. Company Report; E2846:11p; 7 fig, logs

Abstract: Drilling has defined 5 sq km area of low grade Tertiary sedimentary uranium but further work needed.

492. Poggi JP, Afmeco Pty Ltd. 1982. Inila, South Australia, progress reports from 21/4/80 to 20/1/82. South Australia. Department of Mines and Energy. Company Report; E3837:40p; 23 fig

Abstract: Scout drilling of 23 holes indicate basement rocks are amphibolite facies grade. Tertiary brown coal intersected.

493. Pondray Pty Ltd, Normandy Exploration Ltd, Burton PE. 1996. Lake Gillies, partial relinquishment report, 12/12/96. South Australia. Department of Mines and Energy. Open File Envelope; 9119:55p; 4 appx, figures, tables

Abstract: While searching for Menninnie Dam type Pb-Zn deposits a ground magnetic survey was carried out over a linear magnetic feature in the Red Dam area, southeast of Lake Gillies. RC drilling (four holes, total 349 m) intersected weakly elevated Pb-Zn, and two of the holes bottomed in monzosyenite containing 8-10% magnetite.

494. Pondray Pty Ltd, Perilya Mines NL, Noranda Pty Ltd, Thornett S, Anderson CG. 1989. Lake Gilles and Moonabie, progress reports for the period 26/1/89 to 30/11/ 89. South Australia. Department of Mines and Energy. Company Report; E8106 :3 fiche, 344p; 5 appx, 35 fig

Abstract: Target was Broken Hill-type silver-lead-zinc mineralization in Lower to Middle Proterozoic Hutchison Group metasediments. Some weakly anomalous Pb and Zn values were delineated. Low quality kaolinite occurrence was outlined.

495. Pontifex I R. 1980. Petrographic report on 10 core samples from Roopena Homestead area. Esso Minerals Pty Ltd; E3859:12p

496. PooLe J S, Dodd AR, Dockery B, Elliott GI. 1982. Fiddle Hill, SA, progress reports from 4/9/80 to 5/10/82. Geoex Pty Ltd; Afmeco Pty Ltd; E3994:68p; logs, 11 maps, 11 ref, 7 sections

Abstract: Drilling of 5 holes (total depth 604 m) intersected volcanics which may be prospective.

497. PooLe J S, Dodd AR, Dockery B, Elliott GJ. 1982. Fiddle Hill, SA,

progress reports from 4/9/80 to 5/10/82. Geoex Pty Ltd; Afmeco Pty Ltd; E3994:68p; logs, 11 maps, 11 ref, 7 sections

Abstract: Drilling of five holes (total depth 604 m) intersected volcanics which may prove prospective.

498. PooLe J S, Poggi JP, Afmeco Pty Ltd. 1982. EL 868 (formerly EL 684, EL 630, EL 618) Tolmer, South Australia, progress reports from 11/8/80 to 10/8/82. South Australia. Department of Mines and Energy. Company Report; E4074:14p; 4 appx, 3 fig, 28 maps, 7 ref, 4 tables

Abstract: Minor possibility of porphyry copper-molybdenum deposit but uranium potential downgraded by presence of only Mulgathing Complex.

499. Poseidon Exploration Ltd, Anderson BE. 1994. Malache Well, annual and final report for the period 30/10/92 to 29/10/93. South Australia. Department of Mines and Energy. Company Report; E8746:26p; 1 appx, 3 fig

Abstract: Base metal exploration in the Malache Well area 15 km west of Tooligie comprised follow-up soil sampling of anomalous areas (Zn, Pb, Ba, Ni, Co) delineated by previous exploration, but failed to repeat the results.

500. Poseidon Exploration Ltd, Stockdale Prospecting Ltd, Anderson BE, Radford N, Foley A, Purvis AC. 1993. Barton and Mungala South, progress and final reports for the period 26/2/91 to 18/11/92. South Australia. Department of Mines and Energy. Company Report; E8411:189p; 7 appx, 6 fig, 17 plans

Abstract: Target was Olympic Dam and Broken Hill styles of mineralization. Reprocessing of aeromagnetic data flown by Stockdale in 1981 and of a helicopter borne regional gravity survey by CRA in 1987, to select targets for detailed ground magnetic and gravity surveys. An orientation geochemical survey (surface lag, BLEG and bulk soil sampling) was also undertaken. Three targets were tested by reverse circulation drilling (5 holes totalling 602 m).

501. Posgold Operations Pty Ltd, Poseidon Exploration Ltd, ACM Gold Ltd, Anderson BE, Robinson P. 1993. Tumby Bay and Butler, progress and final reports for the period 15/7/91 to 30/5/93. South Australia. Department of Mines and Energy. Company Report; E8511:143p; 3 appx, 1 fig, 15 plans

Abstract: Exploration for gold in the banded iron formations of the

Hutchison Group in the Tumby Bay area and west of Arno Bay on Eyre Peninsula, comprised regional BLEG stream geochemical survey and follow-up stream, soil and rock chip sampling. A number of low order zinc, copper and gold anomalies were recorded.

502. Price KD, Jade (Aust) Pty Ltd. 1975. Cowell jade, SA, progress reports from 12/10/73 to 27/6/75. South Australia. Department of Mines and Energy. Unpublished Report; E2310:18p

Abstract: Prospecting for nephrite - commercial interest in black varieties established.

503. Price PL, Mines Administration Pty Ltd, CRA Exploration Pty Ltd. 1976. Palynological laboratory report no. 184/5. South Australia. Department of Mines and Energy. Company Report; E2666, EL213:4p

504. R F Loxton Hunting and Associates. 1976. A photogeological study of part of the Nullarbor Plain. South Australia. Department of Mines and Energy. Unpublished Report; E2645

505. R F Loxton Hunting and Associates, Dampier Mining Company Ltd. 1976. Nullarbor Plain, SA, photogeological scan. South Australia. Department of Mines and Energy. Unpublished Report; E2645:5p; maps

506. R K Workum Consultants Ltd, Moage Ltd, Coho Australia Ltd. 1981. Lake Torrens area, South Australia, a geological evaluation of the hydrocarbon potential. South Australia. Department of Mines and Energy. Unpublished Report; E6533:58p; 8 fig, 32 plates, 28 ref

Abstract: Study of Cambrian stratigraphy to determine nature, source and reservoir potential of sediments. Cambrian likely to thin across PEL to west, and be of restricted shelf nature. This conflicts with interpretation of seismic line AG76A, which indicates relatively thick, flat lying sequence which therefore may be younger and more prospective.

507. Radke F, Watmuff G, Lowder GG, Whitehead SG. 1977. Stratigraphy and petrology of the Gawler Range Volcanics. Progress reports 1-14, 1972-1977. South Australia. Department of Mines and Energy. Unpublished Report; E2038:256p; 30 plates

508. Rankin LR. 1987. Eyre Peninsula field excursion notes for the Field Geology Club of South Australia, Sept. 26 - Oct. 4, 1987. South Australia. Department of Mines and Energy. Unpublished Report; 87/105:1 fiche, 22p; 10 fig, references

Abstract: Examines numerous outcrops illustrating the geological and tectonic evolution of the region. This excursion is based on the EPIC tour of the GSA 8th Australian Geological Convention excursion series in 1986. Report supplements the excursion guide written for the convention and contains additional locality descriptions.

509. Ransom DM. 1979. Final report EL 511, Buckleboo, South Australia. Pegmin Pty Ltd; E3594:28p; 7 fig, 11 plates

Abstract: Potential for uranium deposits associated with Warrow Quartzite downgraded. Further potential may exist within Tertiary palaeodrainage feature but Tertiary sequence may be thin.

510. Rau G, CSR Ltd, Solo Geophysics and Co. 1979. Gravity with levelling (barometric), Yudnapinna reconnaissance line, SA, for CSR. South Australia. Department of Mines. Company Report; E6676:fiche 4,5, p216-23

Abstract: 11 km traverse proved an isolated regional gravity high to be invalid.

511. Rau G, CSR Ltd, Solo Geophysics and Co. 1980. Magnetics and gravity with levelling, Illeroo grid, Port Augusta, SA, for CSR. South Australia. Department of Mines. Company Report; E6676:fiche 1-4, p56-215; 7 maps

512. Redfire Resources NL, Coombedown Resources NL, Martin NH. 1998. Lake Hanson, Kowal (Glendambo project), partial relinquishment report for the period 18/3/97 to 3/4/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09360:4 fig, 1 table

Abstract: As part of a search for base and precious metal mineralization beneath sediment cover, magnetic and gravity data covering the Glendambo area of the northeastern Gawler Craton was reprocessed and interpreted in conjunction with the results of past exploration. Indicated depths to basement were judged excessive and no targets were identified to prompt further work.

513. Reed JA. 1977. Construction materials investigation, Redcliff Petrochemical site, sections 12, 18, 99, 100, 101, 102, 103, 104, 134, hd Winninowie, co. Frome. South Australia. Department of Mines. Unpublished Report; 77/9:maps

514. Reedy Lagoon Corporation NL, Juka Mine Management Pty Ltd, Mount

Gipps Ltd, Fethers GH, Wischer AD, Cooper SA, Sackers DM, Frankcombe K, Rutter H, Hollis JD. 1992. Reedy Lagoon, progress and final reports for the period 3/2/87 to 2/2/92. South Australia. Department of Mines and Energy. Company Report; E6834:824p

Abstract: Target was diamonds, NE of Glendambo. Kimberlitic indicator minerals were recovered but no source rock was identified.

515. Reedy Lagoon Corporation NL, Mount Gipps Ltd, Juka Mine Management Pty Ltd, Geophysical Exploration Consultants Pty Ltd, Fethers GH, Cooper SA, Sackers D, Rutter H. 1991. Peephobie Cliff, progress and relinquishment reports for the period 2/11/87 to 1/5/91. South Australia. Department of Mines and Energy. Company Report; E6961:118p; 4 appx, 2 fig, 4 plans

Abstract: Target was diamonds near Millers Creek, 100 km NE of Kingoonya. The magnetic anomalies identified were not considered likely to be caused by lamberlitic intrusions.

516. Resolute Resources Ltd, Dominion Gold Operations Pty Ltd, Coombedown Resources NL, Robinson P. 1998. Gawler Joint Venture, partial surrender reports for various ELs for periods ending either on 30/6/97 or on 13/10/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09229:5 appx, 3 fig, tables

Abstract: Regional calcrete and rock chip sampling results reported from surrendered portions of nine licences occupying three areas which lie respectively 190 km NW, 120 km N-NW and 120 km W-NW of Tarcoola, within licensee's proven gold-bearing Gawler JV acreage. Assays of 8 and 10 ppb Au from the N-NW area warrant infill sampling.

517. Resolute Resources Ltd, Dominion Gold Operations Pty Ltd, Gawler Joint Venture, Frances D, Robinson P, Coats R. 1999. Barton West and Barton East, partial relinquishment report for the period 14/3/97-26/10/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09605:48p; 3 appx, 2 fig, 2 plans, 1 ref, tables

Abstract: No anomalous assays reported from calcrete and rock chip sampling of Mulgathing Complex terrain, 60 km NW of Barton.

518. Resolute Resources Ltd, Dominion Gold Operations Pty Ltd, Gillman J. 1997. Bulgunnia, third partial surrender report for the period 27/10/92 to 26/10/96. South Australia. Department of Mines and

Energy. Open File Envelope; 9158:2 fiche, 13p; 2 appx, 3 fig, 1 plan, 1 rep, 2 tables

Abstract: No significant Cu or Au values were returned in assays of 13 calcrete samples taken from a 38 sq km area 50 km northeast of Tarcoola, surrendered from EL 1791 in October 1996. Data from 13 coincident gravity stations were also reported.

519. Resolute Resources Ltd, Dominion Gold Operations Pty Ltd, MT Mining Pty Ltd, Gawler Joint Venture, Frances D, Robinson P, Coats R. 1999. Maralinga, relinquishment report for the period 14/3/97-26/10/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09626:18p; 2 appx, 1 fig, 2 plans, 1 ref, tables

Abstract: No anomalous values reported from regional calcrete sampling in an area 230 km west of Tarcoola.

520. Rio Tinto Exploration Pty Ltd, Hamersley IPL, Pal M. 1998. Kartanya iron ore prospect, South Australia. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09044 R 5:2v., p115-264; 5 appx, 3 fig, 3 plans, 16 plates, 3 ref, 16 tables

Abstract: Kartanya iron ore prospect is located in central Eyre Peninsula. Findings of present study are: iron ore resources at Kartanya low in iron and high in deleterious components; prospect has an estimated inferred category resource for high phosphorous (greater than 0.1%) hematite of 8 Mt at an average grade of 59.8% Fe, 5.2% SiO₂, 2.08% Al₂O₃, 1.32% CaO + MgO, and 0.10% TiO₂; resource not economical for exploitation, and ore makeup unsuitable to provide "direct shipping ore" however, scope for product upgrading after processing quite high; tenement contains several anomalies over 2 km long that have greater than 50,000 nT magnetic susceptibility, are distributed along a 15 km strike length, and lie to east of present drilling; tenement has right address, so chance of finding other large, high grade magnetite/hematite deposits exists. Short drill programme of 5 holes suggested to test resource for these characteristics, and to provide further data on its lithological and chemical aspects.

521. Robertson RS, Morris BJ, Janz J, Hill P, Dubowski EA, Crettenden PP. 1992. Tarcoola-Tallaringa bedrock drilling project. South Australia. Department of Primary Industries and Resources. Open File Envelope; E08541 R 1:5v., p1-1515; appendices, figures, 15 plans, plates, references, tables

Abstract: Archaean, Early and Middle Proterozoic rocks of NW

Gawler Craton have features which suggest good prospectivity for base metals, precious metals and other commodities. However, outcrop poor and relatively little exploration in region. Report (RB 91/105) summarized previous exploration and highlighted prospective areas of part of NW Gawler Craton. In 1991 extensive regional programme of RC drilling carried out to bedrock on parts of TARCOOLA, BARTON and TALLARINGA 1:250 000 map areas. 501 holes totalling 16,872 m drilled on traverses mainly along existing tracks, at intervals of between 2.0 and 0.5 km. Ground magnetic surveys also carried out along all traverses, with coverage totalling 668.2 km in 45 traverses. Concurrent with drilling programme, LANDSAT TM imagery covering study area processed and briefly assessed. Work resulted in siting of diamond drill hole on possible hydrothermal alteration zone. Airborne GEOSCAN multispectral scanning survey also carried out over part of TARCOOLA, including this site. Rotary drilling programme showed substantial anomalous base metal and gold values, including following: gold in Archaean Mulgathing Complex rocks; Ni, Cr (Pt, Pd) and Cu, Zn in Mulgathing Complex mafic rocks, mafic gneisses and gneisses; numerous elevated Cu and Zn values in an Early Proterozoic intermediate to basic intrusive complex (Muckanippie Anorthosite Complex). Similar Cu and Zn anomalies also obtained in granitic and pegmatitic rocks on southern margin of anorthosite complex; and Cu, Zn, Pb, As and Au anomalies in Mid Proterozoic Gawler Range Volcanics.

522. Robertson RS, Morris BJ, Janz JK, Hill PW, Dubowski EA, Crettenden PP. 1992. Northwest Gawler Craton drilling investigations, 1991, data package, parts A and B. South Australia. Department of Primary Industries and Resources. Open File Envelope; E08541:6v., 1901p; appendices, figures, 36 plans, plates, references, 2 reports, tables

523. Robinson HA, Otter Exploration NL. 1972. Fingerpost Hill and West Well, South Australia, quarterly report to 29th January 1972. South Australia. Department of Mines and Energy. Company Report; E1857:6p

Abstract: Preliminary study indicates Mt Christie magnetite deposits are not economic because of size, location and high phosphorus content.

524. Robison HR, Davies PR, Stockdale Prospecting Ltd. 1984. Gawler Range Volcanics, relinquishment reports, June 1982 to April 1984. South Australia. Department of Mines and Energy. Unpublished Report; E4747:11p; 2 fig, 9 maps

Abstract: Very low prospectivity.

525. Robison HR, Higgins ML, Hellsten KJ, Stracke KJ, Berg RC, Elliott PJ, Stanley GD, Newell BH, Paterson HL, French AC. 1988. Mount Nott, Mount Ive, progress reports from 16/6/83 to 10/10/88. South Australia. Department of Mines and Energy. Company Report; E4267,fiche 2-17,22-81, p77-296; 35 appx, 64 fig, 357 maps, 37 ref

Abstract: Exploration was for diamonds and exhalative Pb-Zn-Ag of Broken Hill or Aggeneys Gamsberg type in Early Proterozoic Hutchison Group. DDH PP1 was pyritic throughout with minor Pb-Zn intersections in 4 zones of 2-8 m apparent width.

526. Robison HR, Ingham TJ, Burton PE, Emslie DP, Stockdale Prospecting Ltd. 1986. Reedy Lagoon, progress reports from 19/7/81 to 4/5/86. South Australia. Department of Mines and Energy. Unpublished Report; E4345

Abstract: Extensive soil sampling revealed a broad dispersion of kimberlitic indicator minerals. Further exploration failed to define source.

527. Robison HR, Ingham TJ, Stracke KJ, Emslie DP, Newell BH, Agip Australia Pty Ltd, Stockdale Prospecting Ltd. 1987. Arckaringa Basin, progress reports from 12/2/81 to 28/4/87. South Australia. Department of Mines and Energy. Company Report; E4272

Abstract: Exploration over areas covered by Bulldog Shale and resampling of AGIP drillholes. Follow up geophysics and a geochemical traverse over magnetic anomaly BKA-O1 and 22 drill holes (totalling 2507 m) located no kimberlitic bodies.

528. Robison HR, Stockdale Prospecting Ltd. 1984. Gawler Ranges, partial relinquishment report, April, 1984. South Australia. Department of Mines and Energy. Unpublished Report; E5430:11p; 1 fig, 3 maps

Abstract: Exploration, including eleven heavy mineral samples, showed diamond prospectivity to be very low.

529. Robison HR, Stockdale Prospecting Ltd. 1982. Gawler Ranges, SA, diamond exploration relinquishment report, November, 1982. South Australia. Department of Mines and Energy. Company Report; E4836:4p; 4 maps, 2 reff

Abstract: Prospectivity for diamonds extremely low.

530. Rogers JK, Balkau J, Kay BD, Williams PK, Goss BJ, Paterson HL,

Mines Exploration Pty Ltd, Western Mining Corporation Ltd, Geoex Pty Ltd, G O Dickson and Associates Pty Ltd. 1982. Caralue, progress reports from 28/8/79. South Australia. Department of Mines and Energy. Unpublished Report; E3583:56 fiche, 2207p; 17 appx, 13 fig, 114 maps

Abstract: Intensive search for banded iron formation related lead, zinc mineralization included Caralue aeromagnetic survey and Caralue aerial EM survey. Drilling recorded some minor lead, zinc intersections (630 holes totalling 15,500 m).

531. Santich JR, Bay Gypsum Pty Ltd. 1985. Streaky Bay gypsum project. South Australia. Department of Mines and Energy. Unpublished Report; E6236:1 fiche, 28p; 3 appx, 1 fig

Abstract: Investigations into feasibility of exploiting deposits for export. They are the largest proved, yet undeveloped, high grade gypsum resource in Australia close to potential deep water port.

532. Santos Ltd. 1982. Mt Mitchell, South Australia, progress and final relinquishment reports from 19/10/80 to September 1982. South Australia. Department of Mines and Energy. Unpublished Report; E4005:45p; 15 appx, 18 maps, 8 ref, 3 tables

Abstract: Small weak gold mineralization related to dolerite and granite found. Little potential for tin but some potential for nickel mineralization.

533. Sas Z, Gates AH, Gem Exploration and Minerals Ltd, Cultus Pacific NL, Pacific Exploration Consultants Pty Ltd. 1981. Mt Christie, Muckanippie, Lake Barry (Tarcoola prospects) South Australia, progress and final reports. South Australia. Department of Mines and Energy. Company Report; E3596, E3597, E3598:186p; 10 fig

Abstract: Costeaining over ultrabasic plugs did not reveal any kimberlitic indicators.

534. Savage M, Hansen JE, Mount Gunson Mines Pty Ltd, Pacminex Pty Ltd, Geoterrex Pty Ltd. 1975. Interpretation report. Airborne electromagnetic survey, Barringer Input system, of the Winnie Pinnie area, Yudnapinna area, SA, for Pacminex Pty Ltd. Part 2 of 2. South Australia. Department of Mines. Company Report; E6674:fiche 1-3,7-10, p34-142

Abstract: 2406 line km (line spacing: 400 m, survey altitude: 120 m) were flown to map bedrock depressions containing conductive material. Plans include 4th channel contour, isomagnetic contour,

and flight line maps.

535. Scott AK, CRA Exploration Pty Ltd, Solo Geophysics and Co. 1985. Mount Wedge, progress reports from 10/4/84 to 10/1/85. South Australia. Department of Mines and Energy. Unpublished Report; E5457:3 fiche, 70p; 1 appx, 13 fig, 2 plans, 1 ref

Abstract: Unsuccessful exploration for potash in pre-Permian beds involved a limited gravity survey to investigate the structure of the basin.

536. Selman RN, Tonkin DG, Mount Gunson Mines Pty Ltd, Pacminex Pty Ltd. 1975. Pandurra, progress reports from 23/3/73 to 22/3/75. South Australia. Department of Mines and Energy. Unpublished Report; E2273:fiche,

Abstract: Regional exploration for Mount Gunson type mineralization included stratigraphic drilling (157 holes totalling 7,410 m).

537. Seymour DL, AmINCO and Associates Pty Ltd. 1984. Purdilla Well, progress report for the period ending 2/11/84. South Australia. Department of Mines and Energy. Unpublished Report; E5867:1 fiche, 3p

Abstract: Gypsum occurrence reported by Lockhart Jack in 1921 and others. No work reported.

538. Shell Development (Australia) Pty Ltd. 1984. Total organic carbon and rock evaluation pyrolysis data for samples from 11 wells, onshore South Australia. South Australia. Department of Mines and Energy. Unpublished Report; E6846:fiche,

539. Shell Development (Australia) Pty Ltd, Analabs Ltd. 1984. Total organic carbon and Rock-Eval pyrolysis data for samples from 11 wells, onshore South Australia. Mines and Energy. South Australia. Company Report; E8488 R 1:fiche: 1, p3-25; tables

540. Shell Development (Australia) Pty Ltd, Analabs Ltd. 1984. Total organic carbon and Rock-Eval pyrolysis data for samples from 11 wells, onshore South Australia. South Australia. Department of Mines and Energy. Company Report; E8488:fiche 1, p3-25; tables

541. Shell Development (Australia) Pty Ltd, van Niel J. 1984. Palynology of Upper Proterozoic and Cambrian samples from 11 wells in South Australia. South Australia. Department of Mines and Energy. Company Report; E8603:fiche 1, p3-17; tables

542. Shell Development (Australia) Pty Ltd, van Niel J. 1984. Palynology of Upper Proterozoic and Cambrian samples from 11 wells in South Australia. South Australia. Department of Mines and Energy. Company Report; E8603:fiche 1, p3-17; 1 appx, 5 ref, tables

543. Silver Rose Mining NL, Turley S. 1998. Lake Gairdner, annual report for the period ending 10/8/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09438:2 fig, 2 ref, 2 tables

Abstract: Reprocessing and reinterpretation of existing aeromagnetic and gravity data characterizing the bedrock under the southern half of Lake Gairdner National Park has revealed several promising broad geophysical features worthy of continuing investigation.

544. Slack Smith J, Cooper SA, Hungerford N, Hungerford Geophysical Consultants Pty Ltd, Helix Resources NL, Diamond Ventures NL, Livre Holdings Pty Ltd, Independent Diamond Laboratories, Diatech Laboratories. 1997. Pichi Richi Pass, quarterly, annual and final reports for the period 9/12/92 to 1/12/97. South Australia. Department of Primary Industries and Resources. Open File Envelope; E08582:5 fiche, 182p, 11 appx, figures, 4 plans, references, 7 reps, tables

Abstract: Diamond exploration over a much dissected 460 square km area of the south-central Flinders Ranges between Stirling North and Mount Arden comprised aeromagnetic interpretation and heavy mineral processing of a regional suite of 170+ stream sediment samples. Of the many drainage lines surveyed, only Albury and Mundallio Creeks southwest of Pichi Richi Pass were delineated as being distinctly anomalous in kimberlitic indicator minerals. However, extensive microprobe analyses of selected indicator mineral grains have suggested that any related kimberlitic intrusions are unlikely to be diamondiferous. A number of interpreted magnetic targets remain to be assessed by more detailed soil geochemical and ground magnetic surveys, but problems with land access negotiations and communications for entering the prospective ground on Albury Station have latterly proved a major hindrance to further exploration progress.

545. Smith RJ, North Broken Hill Ltd. 1976. Report on a geophysical review of selected prospects, SA. South Australia. Department of Mines. Company Report; E6999:fiche 18-20, p1009-128

Abstract: Reviews 49 prospects selected for further exploration and recommends further work. Prospects fall into four broad classes,

epigenetic Cu and Mo vein type mineralization, bulk low grade Cu orebody, volcanic sedimentary environment or flat lying Cu orebodies - Mount Gunson type.

546. South Australia Department of Mines and Energy. 1991. Nullarbor Plain Conservation Park data for National Parks and Wildlife Service. South Australia. Department of Mines and Energy. Company Report; E8315:84p; 69 fig, 1 plan

Abstract: Data consists of tables and figures submitted to National Parks and Wildlife Service detailing tracks and/or drilling approved in Exploration Licences over the Nullarbor Plain Conservation Park to 1989.

547. South Australia Department of Mines and Energy, Gravestock DI, Sansome A. 1994. Eastern Officer Basin geology and hydrocarbon potential. South Australia. Department of Mines and Energy. Open File Envelope; 8591 R 18:3v., p269-542; 3 appx, 28 fig, 4 plans, references, 4 tables

Abstract: Following the allocation of funding to MESA for petroleum exploration as part of the SA Exploration Initiative, the Department undertook to conduct reconnaissance seismic surveys over selected, poorly known sedimentary basins. As part of this work, the SA portion of the under-explored Officer Basin (100,000 square km) was targeted to rekindle petroleum industry interest through a comprehensive structural re-map of the northeastern area. The report addresses the Officer Basins's sequence stratigraphy and basin architecture, perceived reservoir and source rock potential, and the regional implications of conventional plus unconventional hydrocarbon indications. It includes formation tops for all significant wells, plus annotated wireline logs from selected intervals in 18 wells. The location and number of core analysis, source rock, acritarch and XRD samples are also listed against the log plots in 10 m interval groupings. The acritarch studies form the basis of a biostratigraphic zonation which is incorporated in the correlations used.

548. South Australia Department of Mines and Energy, Shaw RA. 1992. SAEI Triassic Coal Exploration Program. Phase 1 - data review. Summary report. South Australia. Department of Mines and Energy. Open File Envelope; 9051:54p; 2 appx, figures, 12 plans, tables

Abstract: Documents the construction for MESA of a technical database on the potential for undiscovered Triassic coal within small intermontane basins of the north-central Flinders Ranges

region, addressing all alluvium-covered areas that lie within a corridor extending for 50 km either side of the railway line from Marree to Port Augusta. Any target(s) to be selected for later testing by gravity surveys and/or drilling had to meet MESA's economic constraints on size of deposit and thickness of overburden. A total of 220 company Exploration Licence histories and 1550 bore records were reviewed, and the resulting information presented as a series of tables and plans organised around a sheet 1/sheet 2 split of the region of investigation to areas north and south of Parachilna. Concludes, on a preliminary basis, that previous exploration has been insufficient to eliminate the possibility of existence of additional concealed Triassic coal basins.

549. South Australian Centre for Remote Sensing, South Australia
Department of Environment and Land Management, Mauger AJ.
1993. Landsat thematic mapper study of the Yardea Dacite, Gawler Range Volcanics, YARDEA 1:250 000 scale map sheet. South Australia. Department of Mines and Energy. Open File Envelope; 9184 R 1:p3-42; 1 appx, 13 fig, 3 plates, 7 ref, 2 tables

550. South Australian Centre for Remote Sensing, South Australia
Department of Environment and Land Management, Mauger AJ.
1993. SADME review of the mineral potential of the Gawler Craton: geological investigations. South Australia. Department of Mines and Energy. Open File Envelope; 9184:42p; 1 appx, 13 fig, 3 plates, 7 ref, 1 rep, 2 tables

551. South Australian Museum, CRA Exploration Pty Ltd, South Australia
Department of Agriculture, McBain DR, Lay BG, Margarey AA, Kemper C, Reid J, Edwards A. 1986. Proposed drilling operations in PEL 24, and environmental factors. Reports. South Australia. Department of Primary Industries and Resources. Open File Envelope; E06414:3 appx, figures, 9 plates, references, tables

Abstract: Includes, besides the operator's DEF and "Guide to environmental care during exploration", the results of SA State government consultants' pioneering field surveys within the licence of the botanical diversity and vertebrate faunal populations in seldom visited arid sandplain, ephemeral wetland and desert upland areas proposed to be occupied for petroleum drilling operations in late 1986.

552. Southern Cross Refiners Pty Ltd, Maunsell and Partners Pty Ltd, Australian Groundwater Consultants Pty Ltd. 1987. Southern Cross Refinery. Supplement to draft environmental impact statement. South Australia. Department of Mines and Energy. Unpublished Report; E6862

Abstract: Effects of proposal for petrochemical complex at Port Bonython summarized with regard to major issues raised. No major objections to refinery proceeding.

553. Springbett GM, Caplygin S, O'Brien MD, Westcott P, Electricity ToSA. Lock, progress and final reports from 30/2/80 to 14/9/84. South Australia. Department of Mines and Energy. Unpublished Report; E3384

Abstract: Large coal field exists in Poldia Basin, west of Lock, on central Eyre Peninsula. A Jurassic deposit (reserves in excess of 300 mt) and 2 discrete Tertiary deposits (100 mt) have been recognized. The Tertiary deposits are poorly defined and potential exists for large increases in reserves. Report presents geological, hydrogeological, mining and economic assessment of drilling results.

554. St JAPL. 1984. Bute, relinquishment report on exploration from 27/5/83 to 27/5/84. South Australia. Department of Mines and Energy. Unpublished Report; E5193:2 fiche, 31p; 3 appx, 1 fig, 3 maps

Abstract: Drilling (426.6 m) of magnetic high zone in Middle Proterozoic rocks defined source of anomaly as magnetite dispersed in phyllite. 10% of core consisted of quartz and carbonate veins with accessory pyrite, magnetite and chalcopyrite.

555. Steveson BG. 1974. Petrography of the continental shelf islands of South Australia. South Australia. Department of Mines and Energy. Unpublished Report; E2394:393p

556. Steveson BG. 1978. Stratigraphic drilling progress report no.3. South Australia. Department of Mines and Energy. Unpublished Report; E3352:34p

557. Steveson BG, Webb AW, Whitehead SG. 1978. Geochronology of the ancient basement rocks of the Gawler Craton, progress reports 1-16 (1976-78). South Australia. Department of Mines and Energy. Unpublished Report; E2797:179p; 12 fig

558. Stockdale Prospecting Ltd, Beckett TS, Stracke KJ. 1983. Tarcoola-Barton, final (and partial relinquishment) report for the period 13/4/81-12/4/83. South Australia. Department of Primary Industries and Resources. Open File Envelope; E04993 :3 fiche, 17p; 2 fig, 7 plans, 5 ref, 3 tables

Abstract: After two intensive regional reconnaissance programmes

of heavy mineral sampling, backed up by air photointerpretation and drill hole record checks, licensee concluded that tenement areas relinquished have low prospectivity for diamonds. All sample results negative for kimberlitic indicator minerals; reliability of these results confirmed by analyses of concentrate weight.

559. Stockdale Prospecting Ltd, CRA Exploration Pty Ltd, Davies PR, Robison HR, Beckett TS, Emslie DP, Sainsbury J, French AC, Wilson PD, Mackee GL *et al.* 1990. Tarcoola-Barton, progress and final reports for the period 11/4/81 to October 1990. South Australia. Department of Mines and Energy. Company Report; E4266:2871p; 42 appx, 241 plans, references

Abstract: Exploration for diamonds in the Barton region during the period 1981-87 comprised evaluation of targets generated by interpretation of an airborne magnetic-radiometric-VLF-EM survey (Aerodata, 1981). Follow-up work was undertaken without disclosing kimberlitic indicators or kimberlite. Subsequent precious and base-metal exploration comprised an appraisal of existing data, and follow-up IP and gravity surveys (Geoterrex), but with no encouraging results.

560. Stockdale Prospecting Ltd, CRA Exploration Pty Ltd, Poseidon Exploration Ltd, Geoterrex Pty Ltd, Aerodata Services Pty Ltd. 1991. Midgerie, Barton South, and Mount Christie, partial relinquishment report for the period 13/4/81 to 29/9/91. South Australia. Department of Mines and Energy. Company Report; E8562:489p; 11 appx, 21 fig, 76 plans

Abstract: Target was diamonds in the Tallacootra-Barton-Wynbring region; precious and base metal exploration by joint venture partners. No kimberlitic indicators or kimberlites were disclosed. No encouraging results were derived from metal exploration.

561. Stockdale Prospecting Ltd, Geometrics L, Robison HR. 1984. Gawler Ranges, partial relinquishment reports for the period 17/3/83 to 16/3/84. South Australia. Department of Primary Industries and Resources. Open File Envelope; E05430:2 fiche, 18p; 3 fig, 5 plans, 2 tables

Abstract: Integrated regional exploration programme including heavy mineral sampling, air photointerpretation, multi-element analysis of sample concentrates, and aeromagnetic/aeroradiometric survey acquisition plus data interpretation, has shown diamond prospectivity to be very low over the relinquished tenement areas.

562. Stockdale Prospecting Ltd, Greater Pacific Investments Ltd, Western Mining Corporation Ltd, Newell BH, Robisin HR, French AC, Wilson PD, Ferguson J, Tucker DH, Coppin CJ *et al.* 1994. Mount Bosanquet. Progress and final reports for the period 12/9/86 to 23/9/94. South Australia. Department of Mines and Energy. Company Report; E6795:1 appx, 1 fig, references, tables

Abstract: Exploration for diamond and base metals in the Mount Bosanquet area comprised loam sampling, diamond drilling (2 holes, total 138 m), gravity surveys, rock chip sampling, IP and ground magnetics. No carbonatites were intersected, only one kimberlitic ilmenite was detected, and no anomalous base metal values were returned.

563. Stockdale Prospecting Ltd, Mitchell MS, Robison HR, Colgan EA. 1992. Venus Bay, progress and final reports for the period 9/1/91 to 15/7/92. South Australia. Department of Mines and Energy. Company Report; E8422:7 fiche, 258p; 12 appx, 7 fig, 11 plans

Abstract: Target was diamonds, east of Elliston. Three small non-diamondiferous kimberlites were discovered.

564. Stockdale Prospecting Ltd, Weeks AM, Harrison PD. 1992. Arno Bay, progress and final reports for the period 18/7/89 to 11/6/92. South Australia. Department of Mines and Energy. Company Report; E8268:94p; 10 fig, 10 plans

Abstract: Target was diamonds in the Arno Bay area. Work failed to locate an anomaly indicative of a kimberlitic source.

565. Stockdale Prospecting Ltd, Western Mining Corporation Ltd, Newell BH, French AC, Wilson PD, Tucker DH, Potter S D, Paterson HL, Barratt RM, Conan Davies MS *et al.* 1994. Cleve, progress and final reports for the period 27/2/86 to 27/9/94. South Australia. Department of Mines and Energy. Company Report; E06566:891p; 32 appx, 127 plans, references, tables

Abstract: Diamond exploration comprised stream and loam sampling, reprocessing of the Pancontinental 1979 aeromagnetic survey, ground magnetic and Sirotem surveys, trenching, RAB drilling and diamond drilling. Ilmenite and spinel indicators were abundant but no diamonds were recovered from three narrow kimberlitic dykes. Broken Hill style Pb-Zn mineralization was targeted in Hutchison Group rocks north of Cleve. Exploration comprised soil and rock chip sampling, ground magnetic, Sirotem, IP and gravity surveys, diamond drilling and RAB drilling. Anomalous values were reported from the Campoona prospect

(best 5 m 1.14% Zn and 0.11% Pb). Large intersections of high manganese values peaking at 32% Mn were recorded at the Jamieson Tank prospect.

566. Stockdale Prospecting Ltd, Western Mining Corporation Ltd, Wilson PD, Honner KK, Potter S D, French AC, Mitchell MS, Barratt RM, Robison HR, Conan Davies MS *et al.* 1995. Peachna area, progress and final reports for the period 22/9/88 to 21/9/94. South Australia. Department of Mines and Energy. Open File Envelope; 8031:6v., 30 fiche, 1148p; 28 appx, figures, 59 plans, references, 27 reps, tables

Abstract: Broken Hill-type Pb-Zn mineralization and Middleback Range style iron ore were targeted near Lock on central Eyre Peninsula. Iron mineralization detected was either of limited extent, of an insufficient grade or too high in phosphorous. An horizon of variably anomalous Zn (best grade 2.4 m at 0.62% Zn and 0.26% Pb) intersected during broadly spaced drilling indicated a potential for higher grades.

567. Stockdale Prospecting Ltd, Wilson PD, Honner KK, French AC, Sumpton JD, Weeks AM, Harrison PD, Gaunt FM. 1992. Verran, progress and final reports for the period 22/9/88 to 15/7/92. South Australia. Department of Mines and Energy. Company Report; E8086:146p; 5 appx, 17 fig, 18 plans

Abstract: Target was diamonds west of Arno Bay on Eyre Peninsula. No kimberlitic bodies were discovered.

568. Stockdale Prospecting Ltd, Wilson PD, Honner KK, Weeks AM, French AC, Potter S D, Mitchell MS, Finlay SC, Robison HR. 1992. Mount Wedge, progress and final reports for the period 12/10/88 to 11/6/92. South Australia. Department of Mines and Energy. Company Report; E8087:259p; 13 appx, 23 fig, 9 plans,

Abstract: Target was diamonds in the Mount Wedge region. No kimberlitic bodies were detected.

569. Stockdale Prospecting Ltd, Wilson PD, Weeks AM, Honner KK, Mitchell MS, Gaunt GFM, Robison HR, Zweistra P, Fanning CM. 1992. Mount Hope, progress and final reports for the period 22/9/88 to 11/6/92. South Australia. Department of Mines and Energy. Company Report; E8076:18 fiche, 924p; 24 appx, 70 fig, 9 plans, 8 plates

Abstract: Target was diamonds in the Mount Hope area on western Eyre Peninsula. Two kimberlites were located and drilled (42 holes

totalling 1,828 m). Both are small (0.8 and 1.25 ha), occur under 20 to 50 m of Quaternary-Tertiary cover and are non-diamondiferous.

570. Stokoe GC, Rattigan JH, Tonkin DG, Langron WJ, Rau GL, CSR Ltd, Solo Geophysics and Co. 1981. Pandurra, progress and final reports from 7/9/79 to 18/9/81. South Australia. Department of Mines and Energy. Unpublished Report; E3552:fiche,

Abstract: Continued exploration for stratabound base metals included evaluation of stratigraphic drilling on EL 332, preparation of regional Cu and Pb distribution maps and a further 11 stratigraphic drill holes (totalling 1,010 m). Exploration for Olympic Dam type targets in Illeroo area.

571. Stracke KJ, Falk TL, Birch JS, von Strokirch T, Stockdale Prospecting Ltd, Mobil Energy Minerals Australia Inc. 1983. Gilles Downs, Cooyerdoo, progress reports from 11/1/79 to 13/3/83. South Australia. Department of Mines and Energy. Unpublished Report; E3492, E3493:452p; 2 fig, 153 maps, 17 ref

Abstract: No kimberlitic rocks identified - RAB drilling (40 holes totalling 1521 m) carried out in Hutchison Group for base metals and uranium.

572. Stracke KJ, Ingham TJ, Robison HR, Falk TL, Stockdale Prospecting Ltd, Mobil EMAI. 1983. Roopena, progress reports from 16/10/79 to 22/5/83. South Australia. Department of Mines and Energy. Unpublished Report; E3643:105p; 4 fig, 43 maps, 8 ref

Abstract: No kimberlites or diamonds found. Anomalous base metal values located in Hutchison Group.

573. Styles GR, Walker PR, Dockery B, Afmeco Pty Ltd, BHP Minerals Ltd. 1983. Lake Everard, progress and final reports from 31/7/80 to June, 1983. South Australia. Department of Mines and Energy. Company Report; E3825:280p; 53 fig, magnetic tapes, 28 maps, 23 plates, 14 ref, sections

Abstract: Drilling of 21 holes (totalling 667 m) indicate that uranium and diamond potential is low, as no kimberlitic minerals were found, and magnetic anomalies are due to magnetic units in the Gawler Range Volcanics.

574. Swan Resources Ltd, Freeport of Australia Inc, Aerodata Services Pty Ltd, Mosig RW, Elliott SD, Marx WT. 1981. Orroroo, progress and final reports for the period 12/11/79 to 12/11/81. South Australia. Department of Mines and Energy. Company Report; E3705:7 fiche,

212p; 5 appx, 6 fig, 16 plans

Abstract: Target was diamonds in the Cradock-Carrieton region. Trace quantities of kimberlitic indicator minerals were recovered, but were considered to be derived from a distant source.

575. Taipan Resources NL, Koch GR. 1999. Glyde Hill, annual reports for the period 18/6/97-17/6/99. South Australia. Department of Primary Industries and Resources. Open File Envelope; E09382:21p; 4 appx, 7 fig, 2 plates, 2 reports, 3 tables

Abstract: Geochemical sampling carried out in an area of poor calcrete development on the southern shores of Lake Everard, 80 km S-SW of Kingoonya. Peak analyses of 5-7 ppb Au seen to be coincident with interpreted structural features evident in regional aeromagnetic data.

576. Tarcoola Gold Ltd. 1988. Tarcoola gold project reports. South Australia. Department of Mines and Energy. Company Report; E6925:5 fiche, 205p; 13 appx, 6 fig, 4 plans

Abstract: Selected reports indexed separately.

577. Tarcoola Gold Ltd. 1988. Tolmer. Progress reports from 26/10/87 to 26/5/88. South Australia. Department of Mines and Energy. Company Report; E6975:33p; 1 appx, 5 fig, 1 plan

Abstract: Target was Au in contact metamorphic zones in the Tolmer area, 40 km S of Tarcoola. Highly magnetic contact aureoles associated with 2 granite intrusions were delineated by regional magnetic interpretation.

578. Tarcoola Gold Ltd, Insight Mining Pty Ltd, Earth Resources Australia Pty Ltd, Aerodata Holdings Ltd, Australian Photogeological Consultants Pty Ltd, Image Processing Services Pty Ltd, McLean RN, Gum J, Circosta G, Lau G *et al.* 1989. Mount Finke, reports for the period 1/3/87 to October 1989. South Australia. Department of Mines and Energy. Company Report; E6844:208p; 18 appx, 10 fig, 16 plans

Abstract: Target was Au in the Mount Finke region. One sample yielded 1.47 g/t Au, and a small Au nugget was reported from the bed of a lake E of Mount Finke.

579. Tarcoola Gold Ltd, Ivey P, Buchholz DM. 1988. South Mount Finke. Progress and final reports from 16/7/87 to 16/7/88. South Australia. Department of Mines and Energy. Company Report; E6921:3 fiche,

120p; 5 appx, 7 fig, 2 plans

Abstract: Target was Au in the Mount Finke region, 50 km SW of Tarcoola. 49 holes totalling 1055 m were drilling for bedrock samples over magnetic anomalies. No significant Au intersections were recorded.

580. Tarcoola Gold Ltd, Newmex Exploration Ltd. 1988. Tarcoola Goldfield geological investigations - drilling and geological studies. South Australia. Department of Mines and Energy. Company Report; E6858:909p; 16 appx, 120 plans

581. Tarcoola Gold Ltd, Newmex Exploration Ltd, GEO Mining Consultants, Bogacz W. 1988. Structural studies of the Tarcoola gold deposit. South Australia. Department of Mines and Energy. Company Report; E6858:vol 2, p567-618; 1 appx, 20 fig, 1 plan, 21 plates

Abstract: An investigation of tectonic controls of Au mineralization in quartz veins recommended further study of: brecciated zones (in which reefs and veins exhibit an increased Au concentration) to establish structural relationship to primary quartz veining; the relationship of strike-slip faults, which control the structural plane of subsequent veins, and the contact between basement and Tarcoola Formation, as an increased content of Au is expected in the contact zone and its intersection with faults can result in Au enrichment of quartz veins.

582. Tarcoola Gold Ltd, Newmex Exploration Ltd, Gum J. 1988. Results from the second phase of reverse circulation percussion drilling at Tarcoola, South Australia. South Australia. Department of Mines and Energy. Company Report; E6858:vol 1, p196-296, 1 appx, 1 plan

583. Tarcoola Gold Ltd, Newmex Exploration Ltd, Gum J. 1988. Results from the third phase of reverse circulation percussion drilling at Tarcoola, South Australia. South Australia. Department of Mines and Energy. Company Report; E6858:vol 7, p739-892; 1 plan

Abstract: 71 holes were drilled, totalling 3090 m.

584. Tarcoola Gold Ltd, Newmex Exploration Ltd, McKenzie K. 1988. Progress report on exploration and trial mining at the Tarcoola Gold Mine. Mining practice and logistics. South Australia. Department of Mines and Energy. Company Report; E6858 :vol 2, p532-66; 5 appx, 1 table

Abstract: An exploration and development programme to assess

the economic potential of the leases. The mine has been placed on care and maintenance pending a decision about purchasing the leases.

585. Tarcoola Gold Ltd, Newmex Exploration Ltd, Shedden SH. 1988. An assessment of exploration of the Welcome Home Reef, Tarcoola Goldfield, South Australia. South Australia. Department of Mines and Energy. Company Report; E6858:vol 2, p297-314; 1 appx, 4 ref

Abstract: Drilling defined a small resource in the oxidized zone amenable to mining by underground methods. An order of magnitude estimate is 4000 t with a grade in the order of 10 g/t over a strike length of about 100 m to about 35 m depth. Mining may be warranted as an adjunct to other reserves. The weathering of mineralized structures may be important in historically high recovered Au grades, but no intersections of the primary zone were obtained. Base of weathered zone Au enrichment noted in section 490N and elsewhere suggests that this may be an important feature of Au mineralization.

586. Tarcoola Gold Ltd, Newmex Exploration Ltd, Shedden SH. 1988. Crushing and sampling of bulk samples from Tarcoola Gold Mine, Tarcoola Goldfield, South Australia. South Australia. Department of Mines and Energy. Company Report; E6858:vol 2, p315-57; 2 appx, 4 ref, 5 tables

Abstract: Au mineralized rock bulk samples (684.84 t in 25 separate batches) from the Fabian, Ward and Imperial Reefs were selected from 1975 t obtained by trial mining from April to August 1988 and processed. 2 batches from Fabian Reef produced average grades of 29.14 g/t Au and 42.25 g/t Au for a total of 48.66 t. The remaining 23 batches had average grades from 0.32 to 4.33 g/t Au, significantly higher than that indicated by face assaying, but too low to support underground mining, except on a very limited scale.

587. Tarcoola Gold Ltd, Newmex Exploration Ltd, Shedden SH. 1988. Progress report on exploration and trial mining at the Tarcoola Gold Mine: exploration and geology. South Australia. Department of Mines and Energy. Company Report; E6858:vol 2, p358-531; 4 appx, 104 plans, 31 ref, 6 tables

Abstract: The Tarcoola Joint Venture was formed in December 1986 to explore and redevelop the Tarcoola Gold Mine. Trial mining evaluated Ward, Fabian, Imperial and Western Branch Reefs and indicated that the erratic nature of the mineralization

prevented delineation of continuous shoots of mineable dimensions from the existing workings. Diamond drilling to investigate the reef system at the contact between the Tarcoola Formation and the underlying granitoids of the Hiltaba Suite is recommended.

588. Tarcoola Gold Ltd, Newmex Exploration Ltd, Shedden SH. 1988. Report on underground diamond drilling at the Tarcoola Gold Mine. South Australia. Department of Mines and Energy. Company Report; E6858:vol 7, p619-738; 1 appx, 9 plans, 4 ref, 3 tables

Abstract: An underground diamond drilling programme (37 holes totalling 1383.95 m) was carried out from the 2 and 3 levels of the Tarcoola main shaft. The targets were ensions along strike and down dip from stoped areas of steeply dipping narrow quartz veins in the primary zone. 2 holes intersected economically significant mineralization in zones of limited extent, but results confirm the highly erratic distribution of Au in the Tarcoola Reef System.

589. Tarcoola Gold Ltd, Search ESPL, Gum J, Circosta G, Elliott PJ. 1988. Earea Dam, reports on preliminary drilling programs and geological investigation. South Australia. Department of Mines and Energy. Company Report; E8062:138p; 7 appx, 20 fig, 13 plans

Abstract: Target was AU at Earea Dam gold field. Mineralization occurs in a shallowly dipping (25-45 degrees) shear zone. While most of the shear contains anomalous Au, high grade mineralization is associated with lenticular bodies of hematite and/or vein quartz-rich material. Further reverse circulation drilling is recommended.

590. Tardell Pty Ltd, Freytag J. 1990. Roopena, progress reports for the period 6/3/90 to 6/6/90. South Australia. Department of Mines and Energy. Company Report; E8314:5p; 2 plans

Abstract: Target was stratiform Cu in the Pandurra region. Anomalous Cu values (1000 ppm over an intersection of 3 m) were compiled from previous drill hole data.

591. Taylor RJ, Davies M, BHP Minerals Ltd, Austirex International Ltd. 1985. Marcus Hill, progress and final reports from 24/2/84 to October 1985. South Australia. Department of Mines and Energy. Unpublished Report; E5547:1 fiche, 63p; 4 appx, 4 fig, 23 maps

Abstract: 4 of 10 magnetic anomalies selected as low priority kimberlite; 5 holes (totalling 94 m) over the 2 accessible anomalies did not identify magnetic source. Follow up of Lake Hanson anomaly showed weak gravity anomaly coincident with deep

magnetic source - further testing not warranted.

592. Taylor RJ, Tedder I, BHP Minerals Ltd. 1987. Chundie Swamp. Progress and final reports from 19/8/86 to 19/8/87. South Australia. Department of Mines and Energy. Company Report; E6817

Abstract: Heavy mineral potential of Tertiary sediments in Chundie Swamp region investigated with 2 drill traverses (43 holes totalling 863 m) and reconnaissance soil sampling. Heavy mineral content very low.

593. Taylor RJ, Tedder I, Grey K, BHP Minerals Ltd. 1988. Ifould Lake. Progress and relinquishment reports from 19/6/86 to 19/8/88. South Australia. Department of Mines and Energy. Company Report; E6816:223p; 7 appx, 8 fig, 2 maps, 7 ref

Abstract: Target was heavy mineral sands in the Ooldea Range. Low grade heavy mineral values were recorded in several of the 55 drill holes (totalling 864 m).

594. Thakur VK. 1974. Caralue prospect, SA, progress and final reports. Urangesellschaft Australia Pty Ltd; E2419:maps

595. Thakur VK. 1974. Caralue prospect SA, progress and final reports. Urangesellschaft Australia Pty Ltd; E2419:20p; logs, 5 maps, 5 ref, 2 sections

Abstract: Eight holes totalling 2966 m showed Tertiary sediments and Precambrian granites have no significant uranium mineralization.

596. Thomas A, Douch C. 1976. Annual report on SML499, Lake Dutton, S.A. South Australia. Department of Mines. Unpublished Report; 76/900, SML499:19p; figures, maps

597. Tonkin DG. 1973. Franklin Harbour, SA, progress and final reports February 1972 - June 1973. Pacminex Pty Ltd; E1966:100p; logs, 30 maps

Abstract: Significant but non-economic silver-lead-zinc mineralization intersected in five holes drilled on Yeldulkine lead-zinc anomaly.

598. Tonkin DG. 1976. Pandurra, South Australia, relinquishment report for portion of exploration licence. Pacminex Pty Ltd; E2720:maps

599. Tonkin DG. 1971. Quarterly progress report on exploration of SML348, Kimba S.A. 7th August to 7th November 1971. Pacminex Pty Ltd;

600. Tonkin DG, CSR Ltd, Pacminex Pty Ltd, Mount Gunson Mines Pty Ltd. 1978. Groundwater geochemistry in CSR's Stuart Shelf tenements, SA. South Australia. Department of Mines and Energy. Company Report; E6640:1 fiche, 40p; 2 appx, 8 fig, 9 ref,

Abstract: 194 water samples analysed for Cu and Zn and 84 for U. Cu and U significantly higher near known Cu deposits. Associated increased Zn contents present in some places. Significant values found only within 20 km of Mount Gunson, majority occurring in 2 belts trending NW and SW from the Gunson concentrator.

601. Tonkin DG, Govey AL, Langron WJ, CSR Ltd, Pacminex Pty Ltd, Geoex Pty Ltd, Solo Geophysics and Co. 1979. Pandurra, progress and final reports from 7/6/77 to 7/6/79. South Australia. Department of Mines and Energy. Unpublished Report; E3024:fiche,

Abstract: Drilling of 13 holes (totalling 221 m) and 15 stratigraphic holes (totalling 1,983 m) as well as recontouring of aerial magnetic data.

602. Tonkin DG, Ivey P, Tarcoola Gold Ltd. 1987. Black Camp. Progress report from 28/4/87 to 28/10/87. South Australia. Department of Mines and Energy. Company Report; E6882

Abstract: Interpretation (including image processing) of the 1978 SADME Kokatha aerial magnetic survey and the BMR Tarcoola aerial magnetic survey defined 2 ring structures south of Warna Well, which might represent volcanic centres prospective for epithermal Au. Follow up ground magnetic surveys and RAB drilling (32 holes totalling 743 m) provided no significant results.

603. Tonkin DG, Savage M, Hansen JE, Smith RJ, Murdoch RB, CSR Ltd, Pacminex Pty Ltd, Geoterrex Pty Ltd, Murdoch GAPL. 1977. Pandurra, progress reports from 7/4/75 to 7/4/77. South Australia. Department of Mines and Energy. Unpublished Report; E2564:fiche,

Abstract: Work also included drilling (4 holes totalling 2,086 m) and preparation of bedrock lithology maps.

604. Toteff S, Aberfoyle Exploration Pty Ltd. 1985. Tarcoola, partial relinquishment report to 10/9/82. South Australia. Department of Mines and Energy. Unpublished Report; E5234:p291-300; 1 appx, 1 fig, 1 map

Abstract: Geochemical sampling of 46 amphibolites and dolerites for Ag-Co-As mineralization and nine Carpentarian granites in an alteration zone with weak Sn mineralization, did not give encouraging results.

605. Toteff S, Freytag IB, Eadie ET, Aberfoyle Exploration Pty Ltd, Stockdale Prospecting Ltd, Mobil Energy Minerals Australia Inc, Lamontagne Geophysics Ltd. 1986. Middleback Range, progress reports from 9/8/83 to 23/8/86. South Australia. Department of Mines and Energy. Unpublished Report; E5249

Abstract: Exploration, including drilling (3 holes, totalling 538 m) recorded no significant base metal values.

606. Townsend IJ, Gatehouse CG. 1977. Lithologs and coal analyses of lignites and lignitic clays of fifteen holes drilled in the Eucla Basin. South Australia. Department of Mines and Energy. Unpublished Report; E 3105:90p

607. Tyles GR, Walker PR, Dockery B. 1983. Lake Everard, progress and final reports from 31/7/80 to June 1983. South Australia. Department of Mines and Energy. Unpublished Report; E3825:280p; 53 fig, magnetic tapes, 28 maps, 23 plates, 14 ref, sections

Abstract: 21 holes, total depth 667 m - diamond and uranium potential low; magnetic anomalies due to magnetic units in Gawler Range Volcanics.

608. Uranerz (Australia) Pty Ltd. 1991. Bute, progress report for the period 29/8/89 to 28/2/91. South Australia. Department of Mines and Energy. Company Report; E8234:1 fiche, 8p

Abstract: No work undertaken.

609. Utah Development Company Ltd, Ian Pontifex and Associates, Australian Coal Industry Research Laboratories, Australian Groundwater Consultants Pty Ltd, CSIRO Minerals Research Laboratories, Merz McLellan and Partners, Earth Science Computer Services Pty Ltd, Herga and Co Pty Ltd, C H Schlencker and Associates, Warin ON *et al.* 1980. McDouall Peak-Kingoonya area, progress and technical reports for the period 26/8/71-26/11/80. South Australia. Department of Primary Industries and Resources. Open File Envelope; E02239:19v., 2180p; appendices, figures, 178 plans, references, 58 reports, tables

Abstract: Study for coal prospects in SA began 1971. Available

information indicated possibility of Permian sediments extending south beneath Mesozoic cover. 10 reconnaissance drilling traverses taken across strike to cover entire Phillipson Trough of Arckaringa Basin, apart from its NW sector. Hole locations selected to delineate configuration and structure of trough, to test for coal occurrences at shallow depth, and to determine persistence of coal seams. 1971-72 drilling disclosed presence of elongated Permian intracratonic subbasin surrounded by concealed basement rocks. 10 major coal seams of sub-bituminous rank brown coal subcropping within Permian Mount Toondina Beds, together with several lesser seams. At western and southern periphery of Phillipson Trough number of coal seams and thickness decreased, while coal missing from eastern side. However, 2 additional reconnaissance drill holes encountered Permian subbasin containing 10 recognizable coal seams. Numerous coal samples taken from major seams for coal quality determination. Results of drill core and cuttings analyzes showed coal low rank, high volatile type with low ash and sulphur content, consistent in quality throughout area. Intersections from early drill holes showed frequent mudstone band splits in major coal seams. Major coal seams found to mostly occur at depths shallower than 400 ft. Preliminary strip mining feasibility study carried out in Main and West Basin deposits. Concluded that due to overlap of Main and West Basin deposits' seams, strip mining to a 250 ft highwall could possibly be extended over whole Lake Phillipson coal field almost without break. Continued pre-development drilling of both deposits during 1973-1974 proved Lake Phillipson Trough Main and West Subbasins converge at northern limits and then turn west to join Wallira Trough. Estimated gross coal reserves of 3000 Mt exist in region.

610. Utah Development Company Ltd, Merz MaP. 1975. The feasibility and cost of utilizing coal from the Lake Phillipson deposits to generate electricity. South Australia. Department of Primary Industries and Resources. Open File Envelope; E02239:p1056-161; 2 appx, figures, tables

Abstract: Engineering technical report discusses current feasibility of using Lake Phillipson coal for electrical power generation, with aim of determining factors requiring more detailed evaluation in future. Design, construction and commissioning time scale provided by proponent used for formulating mining plan for supply of coal from Lake Phillipson deposits to such a power station. From presentation, cost of power generated for a particular coal fuel cost, under certain engineering conditions assumed for report, can be estimated. Some assumptions are: should be a 2000 megawatts

base load station; project will have an installed generating capacity at 3000 megawatts; must be provision of data to permit comparison of sites for said power station at either Lake Phillipson or Port Augusta; installation design should permit transmission of station's entire power output to Eastern States grid; coal cost and transport cost estimates should be provided; adequate cooling water volumes and quality available at both Lake Phillipson or Port Augusta; coal quality estimates be used which have been compiled from analyzes done on "F" Seam of Main Basin deposit. Information provide reasonable guide to coal properties for combustion purposes. Ultimately, however, will be necessary to conduct detailed sampling and analyzes of coal units from selected mining area, preferably leading to burning of bulk sample in existing power station. Characteristics of coal related to sodium, potassium and magnesium content considered to require most attention in future due to influence on ash fusion properties. Pronounced content of elements possibly results from high salinity of ground water in aquifers associated with coal seams.

611. van Niel J, Shell Development (Australia) Pty Ltd. 1984. Palynology of Upper Proterozoic Cambrian samples from 11 wells in South Australia. South Australia. Department of Mines and Energy. Unpublished Report; E6846:fiche,

Abstract: Most of the 145 core samples were barren of organic microfossils and the amount of organic matter rarely reached source rock levels.

612. Vodic PA. 1979. Report on jade areas covered by Exploration Licence no.455 for period 1st April to 30th September 1979. Petrocarb Exploration NL; E3554:2p; 1 fig

Abstract: Jade samples sent to Taiwan and China for assessment may only be acceptable for carving and therefore not considered as top quality.

613. Wagner (Australia) Ltd, Brown (Australia) Ltd, Preview Resources Pty Ltd, Oakman Pty Ltd, University of Adelaide Department of Geology and Geophysics, McKirdy DM. 1994. Biomarker geochemistry of the Early Cambrian oil show in Wilkatana 1: implications for oil generation in the Stansbury Basin. South Australia. Department of Primary Industries and Resources. Open File Envelope; E08457 R 30:6v., 20p; 1 appx, 8 fig, 16 ref, 3 tables

Abstract: Report reassesses biomarker geochemistry of crude oil show encountered in Wilkatana 1 well, using new analytical data, then compares molecular composition with other Australian

Cambrian oils, and discusses implications of oil discovery in Arrowie Basin for prospectivity of Early Cambrian sedimentary rocks of adjacent Stansbury Basin. Conclusions drawn from current work are: waxy, paraffinic-naphthenic reservoir bitumen from Early Cambrian Wilkawillina Limestone in Wilkatana 1 contains diverse assemblage of biomarker hydrocarbons; molecular fossils indicate Arrowie Basin's only oil show derived from marine organic matter, organic matter accumulated under suboxic conditions, and resulting source rock lithofacies calcareous shale; residual, water-washed Wilkatana 1 crude relatively immature; and black shales within stratigraphic equivalents of formations in Stansbury Basin likely to have generated and expelled Wilkatana-type oil. Timing of oil migration event being investigated.

614. Warne SB, Asarco (Australia) Pty Ltd. 1972. Auger sampling of lakes on Barton and Tallaringa 1:125 000 sheets. South Australia. Department of Mines and Energy. Company Report; E1881:15p

Abstract: Results of 23 auger holes and 10 geobotanical samples from lake sediments.

615. Warne SB, Otter Exploration NL. 1972. Examination of bore holes samples for kimberlite affinities, Mulgathing area, South Australia. South Australia. Department of Mines and Energy. Company Report; E1858:46p; 4 maps

Abstract: Shonkinitic, altered peridotite and dolomitized rock of Aristarchus River show closest relationships to kimberlitic rocks.

616. Warne SB, Turbott MJ, Kennecott Exploration (Australia) Pty Ltd. 1978. Progress reports, Stuart Shelf copper, Nickil, South Australia. South Australia. Department of Mines and Energy. Company Report ; E3136:11p; 6 fig

Abstract: Geophysical interpretation indicates area is a graben structure bounded by northwest trending faults.

617. Watson BL. 1987. Maturity of Arrowie Basin limestone samples, South Australia. South Australia. Department of Mines and Energy. Company Report; E5530 :fiche 6, p302-19; 1 appx, 7 fig, 3 tables

618. Wdzybun P, Fern TN. 1970. Interpretation of the geophysical investigations of SML 322. Tal-Ray Trading Pty Ltd; E 1214, SML 322:18p

619. Webb AW, Radke F, Whitehead S, Till M. 1981. Geochronology of the ancient basement rocks of the Gawler Craton, progress reports 17-

24. South Australia. Department of Mines and Energy. Unpublished Report; E2797(11):77p

Abstract: A continuous project on radiometric dating.

620. Webb AW, Steveson BG, Radke F. 1978 . Geochronology of the Gawler Range Volcanics, progress reports 1-7 (1976-78). South Australia. Department of Mines and Energy. Unpublished Report; E2798:49p; 2 fig

621. Webb AW, Whitehead S. 1981. Geochronology of stratigraphically significant rocks from South Australia, progress reports 31 and 32. South Australia. Department of Mines and Energy. Unpublished Report; E1689:13p

622. Webb JE, Nixon LGB. 1982. Spencers Gulf, progress reports from 16/7/81 to 11/2/82. Sturts Meadows Prospecting Syndicate NL; E4309:30p; 5 maps, 7 ref

Abstract: Potential thought to be stratiform mineralization of Zambian Copper Belt type.

623. Webb RJ, Foy MF. 1982. Moonabie, South Australia, progress and final reports from 19/5/80 to 20/2/82. Esso Australia Ltd; E3782:122p; 13 fig

Abstract: Low potential for base metals, uranium and iron.

624. Webb RJ, Watt JD, Geoterrex Pty Ltd, Esso Exploration and Production Australia Inc. 1983. Canegrass Swamp, progress and final reports from 2/6/81 to 2/3/83. South Australia. Department of Mines and Energy. Company Report; E4249:24p; 3 fig, 8 maps

Abstract: Investigation of Olympic Dam-type copper-uranium mineralization associated with regional gravity high.

625. Weber GB, BP Minerals Australia Pty Ltd. 1981. 1980 exploration report, Gawler Minerals. South Australia. Department of Mines and Energy. Company Report; E4105:99+p; 22 fig

Abstract: All basement outcrops were systematically sampled. Exploration results disappointing but some magnetic features warrant drilling.

626. Weber GB, BP Minerals Australia Pty Ltd. 1981. Wilkinson Lakes area, South Australia, progress reports, December 1978 to April 1981. South Australia. Department of Mines and Energy. Company

Report ; E3339:74p; 21 fig, 6 plates

Abstract: Exploration for uranium and base metal mineralization continued as EL 744, E4105, E3570.

627. Weber GB, BP Minerals Australia Pty Ltd. 1981. Wilkinson Lakes, South Australia, progress reports. South Australia. Department of Mines and Energy. Company Report; E3570:31p; 25 fig

Abstract: Exploration for uranium and base metal mineralization continued in E4105.

628. Websters Find Gold Pty Ltd, Earth Resources Australia Pty Ltd, Milligan IM. 1996. Warrior, partial relinquishment report for the period 7/11/94 to 6/11/95. South Australia. Department of Mines and Energy. Open File Envelope; 9028:19p; 1 appx, 4 fig, 1 rep, 2 ref, 2 tables

Abstract: Sampling of sporadically developed calcrete within Quaternary regolith sands, at 28 sites scattered 80 km west of Tarcoola. One assay returned maximum gold values of 3 ppb and no other anomalous geochemistry. One float sample of bed rock quartz assayed 240 ppm chromium.

629. Weil AJ, Abadon Holdings NL, Agilis Exploration Services (Aust) Pty Ltd. 1974. Keynella Rock SA, progress reports from 17/7/73 to Dec 1974. South Australia. Department of Mines and Energy. Company Report; E2276:56p; 1 map, 15 sections

Abstract: Drilling of 9 holes, total depth 3066 ft, did not encounter economic mineralization. Best intersection was 1-2.1% zinc in fault zone.

630. Weil AJ, Agilis Exploration Services (Aust) Pty Ltd, Abadon Holdings NL. 1974. Keynella Rock, SA, progress reports (previously SML 436). South Australia. Department of Mines and Energy. Company Report; E2276

631. West Australian Petroleum Pty Ltd, Geophysical Services International, Eder J. 1973. Crosslands 3 seismic survey. Petroleum Search Subsidy Acts Report; 73/244:43p; 20 fiche, 10 plates

Abstract: Nine features of interest located by survey. A depth map based on continuous velocity information is recommended before drilling or seismic work.

632. Weste G. 1996. Geology of the Roopena and Uno 1:100 000 sheet

areas, eastern Gawler Craton. South Australia. Department of Primary Industries and Resources. Open File Envelope; 9025:53p; 5 appx, 9 plans, 1 rep, 24 ref, tables

Abstract: Results of regional geological mapping and drill hole data interpretation work for the Roopena and Uno 1:100 000 sheets designed to incorporate an interpretation of recently acquired SAEI detailed aeromagnetic data. The project aimed to produce a reliable and comprehensive compilation of information on economically significant mineralization aspects of each map sheet area, which could be used by future explorers in assessing local exploration potential. Salient elements of this database, which is available from MESA in digital CD-ROM or hardcopy format, consist of a summary geological report, detailed maps of outcrop geology, interpreted maps of pre-Tertiary geology, aeromagnetic TMI images in colour, maps of drill hole and drill traverse locations, a drill hole data spreadsheet which includes stratigraphy and geochemistry plus notes about mineral occurrence and rock alteration fabrics, and macrolithological descriptions of outcrop rock chip samples. A list of selected references pertinent to understanding the geological and tectonic setting of the areas studied in a regional context within the Gawler Craton also forms part of the summary report. Because of the time constraints, limitations were found necessary to the conduct of a full remapping exercise: new stratigraphic names were not applied to those rock units which show only a tenuous correlation with the existing stratigraphy; mapping concentrated on pre-Pandurra Formation rock units, so the northeastern portion of Roopena sheet was not mapped beyond the outcrop of these rocks; the Gawler Range Volcanics were not remapped; Tertiary and Quaternary sediments were not remapped; only cursory attention was given to structural details; only very limited petrology was carried out; and no geochemistry or isotope dating was carried out.

633. Western Mining Corporation Ltd. 1977. Progress reports, Exploration Licence 295, Baker Dam, South Australia, March-Sept 1977. E2971:2p; 2 plans

634. Western Mining Corporation Ltd, Norris MS. 1993. Corrobinnie Hill, partial relinquishment report for the period 1/2/91 to 31/1/93. South Australia. Department of Mines and Energy. Company Report; E8766:106p; 4 appx, 14 fig, 15 plans

Abstract: Base and precious metal exploration in the Palaeoproterozoic Hutchison Group in the Corrobinnie Hill area on Eyre Peninsula. Drilling identified a migmatic, gneissic and

schistose sequence, but no areas of interest. Drill sample assays did not return anomalous results.

635. Western Mining Corporation Ltd, Norris MS, Woffenden SJG. 1995. Corrobinnie Hill, progress and annual reports for the period 8/5/91 to 20/11/95. South Australia. Department of Mines and Energy. Open File Envelope; 8421:3V., 269p; 10 appx, figures, 35 plans, 10 reps, 5 ref, tables

Abstract: Exploration for Palaeoproterozoic ironstone-hosted copper-gold deposits within concealed bed rock, mostly within Pinkawillinie Conservation Park, comprised an airborne magnetic-radiometric survey, gravity, ground magnetic, IP and TEM surveys, and RC drilling (25 holes, total 1605m). Low level copper anomalies were intersected.

636. Western Mining Corporation Ltd, Norris MS, Woffenden SJG. 1995. Woollinie, quarterly, annual and final reports for the period 20/12/91 to 20/11/95. South Australia. Department of Mines and Energy. Open File Envelope; 8572:168p; 8 appx, figures, 19 plans, 6 reps, references, tables

Abstract: Exploration for Broken Hill/Menninnie Dam type Pb-Zn, and later for iron oxide-associated Cu-Au, north of Kimba within and adjacent to the Pinkawillinie Conservation Park, comprised an airborne magnetic/radiometric survey, gravity, ground magnetic, Sirotem and IP surveys, plus aircore drilling (19 holes, total 1147 m) and one 110 m diamond hole to test geophysical anomalies at two prospects. No significant assays were returned from analyses of drilled bed rock samples. Weak anomalism did not justify further work.

637. Western Mining Corporation Ltd, North Broken Hill Ltd, Gold Mines of Australia Ltd, Broken Hill South Ltd, Geoterrex Pty Ltd, William P. 1988. Moonta-Wallaroo exploration data, 1960-1988. South Australia. Department of Mines and Energy. Company Report; E8368

638. Western Mining Corporation Ltd, North Broken Hill Ltd, NorGold Ltd. 1987. Moonta joint venture. Project information brochure. South Australia. Department of Mines. Company Report; E7001:fiche 1, p3-24; 5 fig, 5 ref

Abstract: Moonta project was initiated in 1959 and worked as a joint venture since the early 1960's. Project history, geology, exploration, statistics, metallurgy and details of significant prospects are summarized. A mineable (diluted) reserve of 206,000

t of 6.45% Cu and 1.8 g/t Au was outlined at Poona deposit. Lists commodities and deposit types which have been targets throughout the life of the project.

639. Western Mining Corporation Ltd, Skirrow RG, Cross KC. 1995. Mount Glyde, annual and final reports for the period 20/11/92 to 7/8/95. South Australia. Department of Mines and Energy. Open File Envelope; 8797:322p; 21 appx, figures, 14 plans, plates, 3 reps, references, tables

Abstract: Exploration for Olympic Dam and Acropolic style base and precious metals mineralization, north of Lake Acraman, comprised initial interpretation of SAEI aeromagnetic data plus the conduct of gravity, geochemical, ground magnetic, IP and SiroteM surveys leading to RC drilling (3 holes, total 281 m) and diamond drilling (3 holes, total 278 m) of selected targets. No anomalous assay values were detected, although minor vein deposits in the Rocky Creek area containing malachite, fluorite and quartz-hematite assayed up to 0.95% Cu and 145 ppm Ag.

640. Western Mining Corporation Ltd, Skirrow RG, Cross KC. 1995. Streaky Bay, annual and final reports for the period 8/12/92 to 3/8/95. South Australia. Department of Mines and Energy. Open File Envelope ; 8798:2 v., 378p; 19 appx, figures, 29 plans, 5 ref, 4 reps, tables

Abstract: Gold and base metal exploration east and southeast of Streaky Bay comprised airborne-radiometric, ground magnetic, gravity, TEM and IP surveys, and RC drilling (28 holes, total 1969 m). A weak Au-Ni anomaly, with maximum values of 15 ppb and 7100 ppm respectively, was identified in weathered peridotite in the Wurkagie area. Other coincident gravity, magnetic and IP anomalies were attributed to magnetite-pyrite bearing peridotite and gabbro, or to flanking Carbonaceous Tertiary sediments.

641. Western Mining Corporation Ltd, Stockdale Prospecting Ltd, Paterson HL, French AC, Potter S D, Barratt RM, Mitchell MS, Conan Davies MS, Harrison PD, Woffenden SJG et al. 1994. Darke Range, progress and final reports for the period 4/7/88 to 23/9/94. South Australia. Department of Mines and Energy. Company Report; E08048:242p; 10 appx, 16 plans, references

Abstract: Pb-Zn exploration south of Darke Peak on central Eyre Peninsula comprised ground magnetic, SiroteM, TEM, IP and gravity surveys. EM responses were due to saline groundwater and no other significant anomalies were reported. Diamond exploration northwest of Rudall comprised airborne magnetic-radiometric and ground magnetic surveys, loam sampling and rotary drilling (eight

holes, total 385 m). No significant concentration of indicator minerals was detected and drillhole samples from aeromagnetic targets were non-kimberlitic.

642. Western Mining Corporation Ltd, Stockdale Prospecting Ltd, Paterson HL, Weeks AM, Barratt RM, Harrison PD, Conan Davies MS, Woffenden SJG. 1993. Mount Isabella. Progress and final reports for the period 25/9/89 to 24/9/93. South Australia. Department of Mines and Energy. Company Report; E8243:10 appx, references, tables

Abstract: Exploration for diamonds and base metals in the Mount Isabella area comprised Sirotem, ground magnetics, gravity, airborne magnetic/radiometric surveys, loam and stream sediment sampling and RC drilling (3 holes, total 187m). Stream sediment sampling at the Rosevale prospect, 8.5 km northwest of Ungarra, yielded anomalous Zn and Pb with peak values of 162 and 70 ppm respectively. No significant concentrations of kimberlitic indicators were detected.

643. Western Mining Corporation Ltd, Woffenden SJG. 1993. Darke Range, partial relinquishment report, 3/7/93. South Australia. Department of Mines and Energy. Company Report; E8717:8p; 1 fig, 2 plans, 4 ref

Abstract: Exploration for Pb-Zn mineralization 40 km west of Cleve on the Eyre Peninsula comprised an aeromagnetic survey and semi-regional gravity with no follow-up undertaken in the relinquished area.

644. Western Mining Corporation Ltd, Woffenden SJG. 1995. Kyancutta, annual and final reports for the period 12/8/94 to 20/11/95. South Australia. Department of Mines and Energy. Open File Envelope; 8978:30p; 3 appx, figures, 3 plans, references, tables

Abstract: Exploration for iron oxide-hosted Cu-Au, 15 to 20 km east of Kyancutta, comprised an airborne magnetic/radiometric survey, gravity, ground magnetic and IP surveys and one 70 m drill hole. No anomalous assay values were returned from drill hole sample analysis.

645. Western Mining Corporation Ltd, Woffenden SJG. 1993. Mount Isabella, partial relinquishment report September 1993. South Australia. Department of Mines and Energy. Company Report; E8726:7p; 1 fig, 2 plans, 3 ref

Abstract: Exploration for Pb-Zn mineralization in the Cummins area

on Eyre Peninsula comprised an airborne magnetic and radiometric survey with no follow up undertaken in the relinquished area as it is interpreted to be Archaean basement or possibly Warrow Quartzite.

646. Western Mining Corporation Ltd, Woffenden SJG. 1993. Peachna, partial relinquishment report, 21/9/93. South Australia. Department of Mines and Energy. Company Report; E8721:7p; 1 fig, 2 plans, 4 ref

Abstract: Exploration for Pb-Zn mineralization 60 km of Cleve on the Eyre Peninsula comprised an aeromagnetic survey flown in 1988 with no follow up in the relinquished area.

647. Western Mining Corporation Ltd, Woffenden SJG. 1995. Warrambo, annual and final reports for the period 29/11/93 to 20/11/95. South Australia. Department of Mines and Energy. Open File Envelope; 8899:85p; 5 appx, 21 fig, 10 plans, 2 reps, 8 ref, tables

Abstract: Copper-gold and iron ore exploration, comprised an airborne magnetic/radiometric survey, gravity, ground magnetic and IP surveys, and RC drilling of 5 interpreted anomalies (15 holes, total 895 m). No anomalous assay values were returned from drill chip sample analyses.

648. Western Mining Corporation Resources Ltd, Ramsay RR. 1996. Roopena West, partial relinquishment report, 17/12/96. South Australia. Department of Mines and Energy. Open File Envelope; 9120:22p; 4 appx, 4 fig, 3 plans, 1 ref, tables

Abstract: Exploration for Stuart Shelf type or Mount Isa Eastern Succession type Fe-oxide associated Cu-Au in the Roopena West area, northeast of Iron Knob, comprised gravity infill, IP surveys and reconnaissance lag sampling. No significant anomalism was detected.

649. Whitby KJ. 1976. Geology and coal resources EL213, South Australia. Clifford McElroy Associates; CRA Exploration Pty Ltd; E2666, EL213:37p; maps

650. White AH, Comalco Ltd. 1980. Lake Gairdner, quarterly report (January quarter) and final report. South Australia. Department of Mines and Energy. Company Report; E3732:2p; 1 fig

Abstract: Exploration abandoned due to difficult access to lake surface.

651. Whitehead SG, Henley KJ, Collins B. 1979. Description of Moonabie Volcanics and some gneisses from Elbow Hill. South Australia. Department of Mines and Energy. Unpublished Report; E3622:24p

Abstract: Petrographic descriptions and suitability for Rb-Sr dating.

652. Whitten GF, Wright RG, South R. 1976. Geochemical exploration in the Earea Dam Glenloth mining fields Grid F5, Block 436. South Australia. Department of Mines. Departmental Report; 76/3:maps

653. Williams SV, Border AJM, Border SN, PNC Exploration (Australia) Pty Ltd, Robertson RAPL. 1982. Warrior area, Tarcoola 1:250 000 sheet, progress reports and results of uranium exploration from March 1981 to April 1982. South Australia. Department of Mines and Energy. Company Report; E3510:32p; 29 fig, 15 tables

Abstract: Drilling of 543 holes defined widespread uranium mineralization in Eocene lignitic sediments but uneconomic at present prices.

654. Williams SV, McKay G, PNC Exploration (Australia) Pty Ltd, Surtex Geosurveys Pty Ltd. 1987. Warrior, progress and final reports from 28/7/82 to January 1987. South Australia. Department of Mines and Energy. Unpublished Report; E4846

Abstract: Investigation of gold and uranium potential of Middle Proterozoic Fabian Quartzite Member near Malbooma Siding. Drilling (7 holes totalling 450 m) near the Kytchering gold mine disclosed no significant Au values.

655. Williams SV, PNC Exploration (Australia) Pty Ltd, Solo Geophysics and Co. 1988. Roopena. Progress reports from 29/9/86 to 29/6/88. South Australia. Department of Mines and Energy. Company Report; E6778:166p; 4 appx, 17 fig, 19 maps

Abstract: Target was U in Proterozoic rocks in areas largely concealed by alluvial or weathered materials. In the Wartaka Grid minor torbernite mineralization was located during mapping in large vein, and secondary U, Cu mineralization intersected in two drill holes at contacts with dolerite dykes. Analysis of drill cuttings and ground water from RAB drill holes gave generally low geochemical values, with elevated U and Cu values related to the Roopena Fault.

656. Wilson PD, Stockdale Prospecting Ltd, Aerodata McPhar Pty Ltd. 1989. Lyons, Mount Christie, Barton, Immarna and Immarna South. Relinquishment report. South Australia. Department of Mines and

Energy. Company Report; E8140:6 vol

Abstract: Exploration for diamonds in the Barton region. Evaluation of 142 potential kimberlite targets generated by geophysical surveys, with each followed by a drilling programme (59 holes totalling 4359 m). No potentially diamondiferous rocks were discovered.

657. WMC Resources Ltd, Normandy Exploration Ltd, Normandy Gold Ltd, Woffenden SJG, Ramsay RR, Downie AJ, Derriman MDJ, Winsor CN, Dries S. 1998. Roopena West, annual reports for the period 1/10/93-30/9/98. South Australia. Department of Primary Industries and Resources. Open File Envelope; E08900:2v., 115p; 7 appx, figures, 5 plans, references, 5 reports, tables

Abstract: Infill aeromagnetic and gravity surveys undertaken approx 50 km west of Port Augusta were followed by IP and lag sampling. Anomalous Cu and Au values returned, but only a minimal IP response recorded. Regolith mapping carried out in anticipation of access being granted for a more detailed geochemical assessment.

658. Wongela Geophysical Pty Ltd, Teton Exploration and Drilling Co Pty Ltd, Mines Administration Pty Ltd, Brunt D. 1972. Review of exploration in the Caralue Bluff area, Eyre Peninsula, South Australia, for the period 1/11/70 to 31/10/72. South Australia. Department of Primary Industries and Resources. Open File Envelope; E02143:3 fiche, 21p; 5 plans, 1 rep, tables

Abstract: As part of a larger ongoing exploration programme occurring in adjoining SMLs across central Eyre Peninsula, the SML 645 licensee carried out reconnaissance ground water sampling and analysis, airborne radiometric surveying, studies of existing drill cores and cuttings and open-hole drilling (26 holes, total 9303 ft), partly to check for a possible geochemical redox cell associated with uranium occurrences (assays to 0.029% U₃O₈) discovered in two earlier exploration holes drilled near Tuckey by Kerr-McGee Corp., and also to extend the uranium search southwestwards from Konanda. To address the former objective a detailed gravity survey (6 sq miles, 165 stations) was acquired in the vicinity of drillholes DP24 and DP30 to locate the location of a sinuous U-bearing fluvial channel. In the area between Rudall and Tuckey, significant uranium values were found to be associated with Tertiary channel sands infilling palaeovalleys on Precambrian basement; 5 of 8 drill holes that encountered the channel sand had anomalous radioactivity due to uranium mineralization. In the

second area near Konanda, uranium appears to be tied up in lignite and carbonaceous shale. The general area is prospective, but deposits would not be large, although to offset this depths of access for mining would probably not be great. Kaolin clay deposits with commercial promise were intersected as a thick section by drilling in the vicinity of holes DP13 and DP14. Further drilling and testing is required for determining the economic potential of both uranium and kaolin.

659. Woodall R, Triglavcanin FA, Larsen SK, Hall HE, Gold Mines of Australia Ltd, Western Mining Corporation Ltd, North Broken Hill Ltd, Broken Hill South Ltd . 1970. Moonta. Progress reports from 1/9/60 to 31/8/70. South Australia. Department of Mines. Company Report; E6999:fiche: 1,2,28-42, p4-80; 2 fig, 88 maps, 17 ref

Abstract: Exploration was for extensions to known mineralization beneath shallow cover. The most significant mineralization was intersected along the West Doora-Vulcan line where numerous small lodes occur in an en-echelon arrangement. DDH 38 intersected 351 feet at 0.41% Cu, 13 feet at 1.91% Cu and 12 feet at 4.39% Cu.

660. Woodroffe GK, South Australia Department of Lands. 1987. Nunnyah Conservation Reserve management plan. Draft report. South Australia. Department of Mines and Energy. Unpublished Report; E6787

Abstract: Reviews cultural and natural history and environmental impact.

661. Wright RG, Newmont Pty Ltd, Dampier Mining Company Ltd. 1978. Progress and final reports, The Twins, South Australia. South Australia. Department of Mines and Energy. Company Report; E3031

662. Wyoming Mineral Corporation, Esso Aust Ltd, I RPaAPL, J SaAPL, Dunn PR, Foy MF, Craven BL. 1980. Uno (Aroha), progress reports for the period 6/3/78 to 5/3/80. South Australia. Department of Primary Industries and Resources. Open File Envelope; E03279:3v., 10 fiche, p3-323; appendices, figures, references, tables

Abstract: Exploration for uranium targeted Lower Proterozoic Cleve Metamorphics and unconformably overlying sandstone, conglomerate and rhyolite units of Carpentarian age, searching for analogues to deposits of Alligator Rivers (NT) uranium province. Aerial geophysical surveys flown to assist in defining structure of

the Lower Proterozoic basement hidden beneath an extensive Tertiary to Recent soil, silcrete and laterite cover. Regional shallow drilling programme (293 holes, total 7382 m) undertaken to identify and sample basement units, and geological mapping at 1:20,000 scale, plus ground follow-up of significant radiometric and aeromagnetic anomalies, also undertaken. Work to date failed to disclose economic concentrations of uranium, but evaluation of mineral potential of deeply weathered Lower Proterozoic complex across whole licence area, both for uranium and for base metal targets, will be continued for a second period of tenure.

663. Youles IP, Oilmin NL. 1984. Yandra relinquishment report 3/5/84. South Australia. Department of Mines and Energy. Unpublished Report; E5450:31p; 3 appx, 2 fig

Abstract: Two drill holes (totalling 122 m) over gravity magnetic high intersected unmineralized basic rocks.

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Notes: Marree; Lake Eyre; Birdsville Track; Oodnadatta;

Abstract: Data collected from 116 flowing and 24 non-flowing wells included shut in pressure, temperature, flow rate, pH, headworks condition and full chemical analyses of water samples. Observation network to monitor controlled flowing wells every two years.

Alley NF. 1996. Palynological dating and correlation of Late Eocene sediments from the Eucla Basin, South Australia, (for) Diamond Ventures NL. South Australia. Department of Mines and Energy. Unpublished Report; RB 96/3:7p

Abstract: A sample from CAR3-1 well is Late Eocene in age and correlative with the marginal marine upper part of the Pidinga Formation.

Alley NF. 1996. Palynological dating and correlation of Mesozoic and Tertiary sediments from Eyre Peninsula, SA. South Australia. Department of Primary Industries and Resources. Report Book; 96/00002
Notes: VB06 1; VB07 1; VB08 1; VB09 1; VB10 1. Port Kenny

Abstract: Sediments analyzed from VB06 and VB07 are correlative with an early phase of the Garford Formation, either in the Middle Miocene or the Early Miocene. The environment of deposition appears to have been fairly open marine, or at least an estuarine setting that was open to the ocean. Sediments from VB09 and VB10 are correlative with the Eocene Pidinga Formation, possibly a Middle Eocene marine phase. The assemblage from VB08 is ambiguous but is probably Mesozoic, and thus a correlation with the Late Jurassic Polda Formation is indicated.

Alley NF. 1993. Palynological dating of borehole samples from the Polda Basin area, Eyre Peninsula. South Australia. Department of Mines and Energy. Unpublished Report; RB 93/002:8p

Alley NF. 1991. Palynological dating of borehole samples, Millers Creek area. Juka Mine Management. South Australia. Department of Mines and Energy. Unpublished Report; RB 91/022

Alley NF. 1983. Palynology of selected Cainozoic samples from Tarcoola 1:100 000 map sheet. South Australia. Department of Mines and Energy. Unpublished Report; RB 83/076:9p

Abstract: Eocene, Pliocene and Plio-Pleistocene age for samples from Tarcoola bores.

Alley NF. 1987. Permian palynofloras from SADME Bulgunnia 1 and 2 wells, Arckaringa Basin. South Australia. Department of Mines and Energy. Unpublished Report; RB 86/088:2 fiche, 6p; 1 appx, 1 fig

Abstract: Poorly preserved palynofloras in 3 samples correlated with the Permian Stage 3B of Price (1983) and Interval Zone PP2.2 of Price and others, (1985). Age is Early Permian (Sakmarian).

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Abstract: New data and an explanation for the origin of the ridges and of Tertiary silcrete.

Ambrose GJ, Flint RB. 1979. A regressive Tertiary lake system and silicified strandlines, Billa Kalina area, S.A. South Australia. Department of Mines and Energy. Unpublished Report; RB 79/104:32p; 15 fig

Abstract: A system of parallel arcuate ridges etched out by later erosion.

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Anderson CG. 1978. Magnetic and gravity interpretation on Kingoonya 1:250 000 sheet. South Australia. Department of Mines and Energy. Unpublished Report ; RB 78/80:9p; 8 fig

Anderson CG. 1980. Magnetic and gravity interpretation on the Stuart Shelf. South Australia. Department of Mines and Energy. Unpublished Report; RB 79/149:20p; 5 fig

Abstract: Presents an interpretation of broad scale basement features outlined by the regional geophysical data.

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Abstract: Tracing doleritic dykes as a means of determining Pandurra Formation isopachs.

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Notes: Menninnie Dam prospect

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Notes: Iron Duke deposit

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Abstract: Study of Broken Hill silver halides, lead phosphates and the Kielpa Aerolite.

Barclay CJ, Jones JB. 1971. The Kielpa meteorite (an olivine-bronzite chondrite). Geological Society of Australia. Journal; 17(2):221-6

Abstract: Discovered in late 1948, weighing 13.6 kg.

Barnes LC, Flint RB. 1984. Kattata mine, Section 16, Hundred Moorkitabie, Eyre Peninsula. South Australia. Department of Mines and Energy. Unpublished Report; RB 84/004:26p; 2 appx, 1 map, 5 plates

Abstract: No production reported from mine sited on granite equated with Hiltaba Granite - based on sampling and mine inspections, mine has low base metal potential.

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Abstract: Middle Proterozoic granite ideally suited for use as dimension and monumental stone. From 1975 to end of 1985, 7,200 t of granite quarried. Indicated recoverable reserves 50,000 t.

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Belperio AP. 1988. Fowlers Bay rotary drilling report and revision of the Quaternary geology around Fowlers Bay. South Australia. Department of Mines and Energy. Unpublished Report; RB 88/093

Abstract: Shallow drilling (less than 30 m) at 14 sites intersected a regressive coastal sequence of Quaternary bioclastic sediments deposited in coastal aeolian, littoral, lagoonal and evaporative-lagoonal environments. Major calcrete carapaces assist the subdivision. Dune calcarenites of the Upper Member of the Bridgewater Formation are correlated with lagoonal and intertidal deposits of the Late Pleistocene Glanville Formation. Lower member of the Bridgewater Formation is however, a composite complex of dune calcarenites that accumulated throughout the Pleistocene. Other sea level high stands of the Pleistocene are not as clearly represented.

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Abstract: Large, extinct, benthonic foraminafera 'Lepidocyclina' with tropical affinities found at 2 localities in Nullarbor Limestone outcropping on eastern margin of Eucla Basin. Species is 'L. howchini' Chapman and Crespin. At both localities zone is within 1-2 m of local base of Nullarbor Limestone, and is more bryozoal than usual for the formation. The zone is a time correlative of the 'L. howchini' zone in the Saint Vincent and Murray Basins, representing a regional transgressive/warm water mass/climatic episode of early Middle Miocene age.

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Abstract: Narrow granodiorite dykes at Point Brown exhibit conspicuous banded margins and show systematic variation in mineralogy, geochemistry and grain size. These phenocryst poor, biotite rich layers originated by dynamic crystal sorting during intra magmatic flow. Such features in granitoid magma have not been previously recorded in SA.

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Abstract: Geochemical characteristics of a seasonal ephemeral lake.

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Abstract: No hydrocarbon shows.

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Abstract: A survey of 300 bores, wells and springs.

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Abstract: Time series techniques can be used to produce empirical models of variations in piezometric/water table heads of aquifers - results varying from poor to very good were obtained.

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Notes: Report Book title: South Australian resources. Technical sessions. Abstracts, edited by W.V. Preiss

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Notes: Technical paper; no.4

Cooper BJ. 1980. Biostratigraphy of Permian samples from SADME Lock no.1. South Australia. Department of Mines and Energy. Unpublished Report; RB 80/109:4p

Abstract: Report on 5 drill samples.

Cooper BJ. 1982. Late Palaeozoic palynology of SADME Konkaby bore 2, Mulgathing Trough. South Australia. Department of Mines and Energy. Unpublished Report; RB 82/45:4p

Abstract: Latest Carboniferous and earliest Permian ages are determined for 3 core samples.

Cooper BJ. 1983. Palynology of selected Cainozoic samples from the Tarcoola 1:250 000 sheet. South Australia. Department of Mines and Energy. Unpublished Report; RB 83/091

Abstract: Most samples are Early Tertiary from drilling by Afmeco Pty Ltd and Aberfoyle Exploration Pty Ltd.

Cooper BJ. 1980. Palynology of selected samples from Kimba 1:250 000 sheet, Eyre Peninsula, no.2. South Australia. Department of Mines and Energy. Unpublished Report; RB 80/133:2p

Abstract: Woody material and very rare palynomorphs suggest Cainozoic age for core sample.

Cooper BJ. 1981. Palynology of selected samples from the Kimba 1:250 000 sheet, Eyre Peninsula no.3. South Australia. Department of Mines and Energy. Unpublished Report; RB 81/18:3p

Abstract: Age of drill core samples using palynology.

Cooper BJ. 1980. Palynology of selected samples from the Poldia Basin. South Australia. Department of Mines and Energy. Unpublished Report; RB 80/108:2p

Abstract: Report on sludge samples.

Cooper BJ. 1984. Palynology of trench samples from the region of Millers Creek woolshed, Kingoonya 1:250 000 sheet. South Australia. Department of Mines and Energy. Unpublished Report; RB 84/24:2p

Abstract: A late Palaeozoic age suggested for one of two samples (mudstones) containing sparse microflora and underlying Cadnaowie Formation.

Cooper BJ. 1984. Palynology of trench samples from the region of Millers Creek Woolshed, KINGOONYA 1:250 000 sheet. South Australia. Department of Mines and Energy. Unpublished Report; RB 82/024 :2p

Abstract: Late Palaeozoic age suggested for one of two mudstone samples containing sparse microflora and underlying Cadnaowie Formation.

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Cooper BJ. 1980. Palynology of two samples from Kimba 1:250 000 sheet, Eyre Peninsula. South Australia. Department of Mines and Energy. Unpublished Report; RB 80/129:1 page

Abstract: Identification of outcropping samples suggest dry land environment during Quaternary or Recent.

Cooper BJ, Harris WK, Meyer GM. 1981. Late Palaeozoic Coolardie Formation, Polda Basin. South Australia. Department of Mines and Energy. Unpublished Report; RB 81/84:8p; 2 fig

Abstract: Records discovery and naming of late Palaeozoic glacial sediments in Polda Basin.

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Abstract: Data from a stratigraphic well.

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Abstract: Includes table of isotope ratios, age estimates and chemical analyses of rocks.

Coppens KT. 1997, A geochemical study of the Hopeful Basalt and Lake Harris Komatiite, the relationship between them and their economic potential for nickel and gold: BSc (Hons) thesis, University of Adelaide, Adelaide, Australia (unpublished).

Cowley WM. 1991. Beda Volcanics and Backy Point Formation of the eastern Gawler Craton. South Australia. Department of Primary Industries and

Abstract: Beda Volcanics and Backy Point Formation crop out in only a few localities on north-eastern Eyre Peninsula, north of Whyalla, but drilling has shown them to extend approx 170 km to the north below younger cover. The Beda Volcanics comprise subaerial, deuterically altered, amygdaloidal and massive tholeiitic basalts rich in haematite, chlorite and calcite, but with primary igneous textures well-preserved. Interbedded Backy Point Formation consists of fluvial quartz and lithic sandstone, arkose and conglomerate. Sandstone and arkose characterized by well-rounded detrital grains, but have variable matrix mineralogy. Sequences of fine-grained, red-brown siltstone and shale and sandstone intersected in widely scattered drillholes near the Torrens Hinge Zone may represent Backy Point Formation, younger Adelaidean Callanna Group, or both. Concluded that Beda Volcanics are Mesoproterozoic, with a minimum extrusive age of 1076 Ma. Extrusion of the Beda Volcanics and intrusion of the feeder dykes of the Gairdner Dyke Swarm occurred in response to NE-SW directed extension, which can be compared with the modern-day East African intracontinental rift system, where continental tholeiitic "flood" basalts and fluvial and lacustrine sediments are characteristic.

Cowley WM. 1989. Definition - the Curdlawidny Siltstone Member of the Andamooka Limestone near 'Parakylia', west of Roxby Downs. South Australia. Geological Survey. Quarterly Geological Notes; 112:5-10

Cowley WM. 1990. Early Cambrian Andamooka Limestone and Yarrowurta Shale of the Stuart Shelf. South Australia. Department of Mines and Energy. Unpublished Report; RB 90/17:27p

Abstract: Early Cambrian (Atdabanian to Botomian) sediments, known from limited outcrop and over 70 drill holes, are divided into the Andamooka Limestone, including the Curdlawidny Siltstone Member, and the overlying Yarrowurta Shale. The Andamooka Limestone comprises up to 166 m of dolomitised peritidal to subtidal limestone deposited in an open shelf environment. It is only locally fossiliferous. The Curdlawidny Siltstone Member (up to 25 m thick) and Yarrowurta Shale (up to 90 m thick) represent intertidal sedimentation of unfossiliferous terrigenous clastics. Previous correlations with the Adelaide Geosyncline are supported and refined. Economic potential is low.

Cowley WM. 1995. Geology of Whyalla Conservation Park. South Australia. Department of Mines and Energy. Unpublished Report; RB 95/16:8p

Abstract: The Whyalla Conservation Park lies near the eastern margin of the Archaean to Middle Proterozoic (Mesoproterozoic) Gawler Craton, where it is overlain by Late Proterozoic (Neoproterozoic) shelf sediments. The Pandurra Formation, a Mesoproterozoic red, purple and white sandstone and conglomerate unit deposited late in the history of the Gawler Craton, dominates the geology of the park; outcrops are surrounded by Quaternary alluvium and

low-angle slope deposits. Early Proterozoic (Palaeoproterozoic) Moonabie Formation, Mesoproterozoic Hiltaba Suite and Neoproterozoic Tapley Hill Formation occur near the park and may be present below the Quaternary cover.

Cowley WM. 1991. Lincoln Dale, Kyimba and Bunora drilling traverses, southwest of Kimba - well completion report. South Australia. Department of Mines and Energy. Unpublished Report; RB 91/037:1 fiche, 58p

Abstract: Fifteen rotary holes, 13 with bottom-hole core, tested 3 aeromagnetic anomalies for the presence of Hutchison Group, which is prospective for lead-zinc-silver. Low grade meta-sediments and possible acid volcanics of the Hutchison Group were intersected in 2, possibly 3 of the areas. Also recovered were amphibolite, Lincoln Complex gneiss and Sleaford Complex gneiss. Anomalous Ag, As, Pb, Zn and Cu was detected in several holes. These previously unknown occurrences of Hutchison Group rocks increase the prospectivity of the under-explored area and further work is warranted.

Cowley WM. 1985. Mineral potential of proposed extension to Pinkawillinnie Conservation Park, Eyre Peninsula, SA. South Australia. Department of Mines and Energy. Unpublished Report; RB 85/046:2 fiche, 20p

Abstract: Based on regional geological mapping by SADME, area is probably underlain by Sleaford Complex and Hiltaba Suite. Possible subsurface are Hutchison Group, Corunna Conglomerate, Lincoln Complex granite and granodiorite, and Gawler Range Volcanics. Mineral potential is significant but impossible to assess with existing information. Reappraisal of data to hand, detailed low level aeromagnetic radiometric surveying, and trial rotary air drilling with bottom hole coring are recommended.

Cowley WM. 1991. The Pandurra Formation. South Australia. Department of Mines and Energy. Unpublished Report; RB 91/007:2 fiche, 43p
Notes: Includes report literature review

Abstract: Pandurra Formation crops out in a broad belt extending 230 km NW from Whyalla and near Pernatty Lagoon and is present in the subsurface for a further 200 km to the NW. Possible equivalents exist on Eyre Peninsula and near Lake Frome. Copper mineralization is prominent in the upper part of the Pandurra Formation near Pernatty Lagoon, and includes the Cattlegrid deposit. Potential for placer gold and redox uranium deposits has not been fully evaluated.

Cowley WM. 1991. Wilklow DDH-1, northwest of Cowell - well completion report. South Australia. Department of Mines and Energy. Unpublished Report; RB 91/030:2 fiche, 21p
Notes: Part of the Eyre Peninsula data package

Abstract: Wilklow DDH-1 was drilled east of Miltalie mine, NW of Cowell to test an IP/resistivity anomaly. The hole recovered migmatitic Cook Gap Schist of the Palaeoproterozoic Hutchison Group to 152.5 m. Biotite, garnet and sillimanite are prominent in the schist, which locally contains graphite, pyrite, traces of galena, and thin marble and amphibolite interbeds. The anomaly is thought to be due to graphite and possible sulphides in greater concentrations than in Wilklow DDH-1 below or adjacent to the drill hole. The shallow sourced anomaly could be effectively investigated by further geophysical survey lines and shallow drilling near the drill hole.

Cowley WM, Fanning CM. 1991. Low grade Archaean metavolcanics in the northern Gawler Craton. South Australia. Geological Survey. Quarterly Geological Notes; 119:2-16

Cowley WM, Martin AR. 1990. Definition - the Proterozoic Labyrinth Formation north of Kingoonya. South Australia. Geological Survey. Quarterly Geological Notes; 110:12-7

Cowley WM, Martin AR. 1991. Geology of the Kingoonya 1:250 000 map sheet area. South Australia. Department of Mines and Energy. Unpublished Report; RB 91/041:203p

Abstract: Extensive field geological mapping, augmented by petrological and geochemical studies, reinterpretation of company drilling and water-bore logs and a nine-hole drilling programme has detailed the geology of the Kingoonya area. The stratigraphy spans six major geological provinces. Sections on Tertiary palaeogeography, structural history and economic geology are included, together with summaries of petroleum and mineral exploration data and drill hole stratigraphy.

Cowley WM, Martin AR. 1988. Kingoonya geophysical and stratigraphic drilling project: well completion report. South Australia. Department of Mines and Energy. Unpublished Report; RB 88/081:2 fiche, 48p

Abstract: 9 rotary drill holes, with bottom-hole coring, were drilled along a ground magnetic and gravity traverse from Mount Eba to Rocky Hill to provide information on concealed Middle Proterozoic sediments and volcanics. Dacites of the Gawler Range Volcanics, lithic sandstones of the Pandurra Formation, dolerite of the Gairdner Dyke Swarm and a probable weathered ultramafic rock of uncertain age were recovered. These rocks are overlain by Jurassic Algebuckina Sandstone in the east, and by variable thicknesses of Tertiary and Quaternary sediments. Area has potential for Ni, Cr, PGE, or possibly Au, Sn or Pb-Zn, but further drilling is recommended. Aerial magnetic and gravity contour maps from surveys for Amoco are presented.

Cowley WM, Martin AR. 1991. Kingoonya, South Australia - sheet SH/53-11 International Index. South Australia. Geological Survey. 1:250 000 Geological Series - Explanatory Notes.; 64p

Cowley WM, Parker AJ. 1988. Drilling in the Torrens Hinge Zone, Spencer Shelf region between Bute and Port Germein, 1968-1983. South Australia. Department of Mines. Unpublished Report; RB 88/067:4 fiche, 134p

Abstract: Report presents summarized geological logs of 93 diamond drill and 4 percussion drill holes drilled by SADME and exploration companies. Logs of 2 early water bores drilled near Port Pirie are also included. Holes intersected Cambrian, Late Proterozoic (Adelaidean) and Early to Middle Proterozoic rocks below extensive Cainozoic cover. Stratigraphic relationships and anomalous geochemistry are presented.

Cowley WM, Parker AJ. 1987. Gold in Burra Group sediments, Port Pirie region. South Australia. Geological Survey. Quarterly Geological Notes; 104:5-13

Abstract: Low but persistent values associated with carbonaceous sediments.

Cowley WM, Thomson BP, McCallum WS. 1988. Torrens Hinge Zone Project: Bute region. Second and final report. South Australia. Department of Mines and Energy. Unpublished Report; RB 88/57:3 fiche, 74p; 3 appx, 2 fig, 3 maps

Abstract: Torrens Hinge Zone Project aimed to demonstrate the existence of prospective metalliferous rocks beneath the Cainozoic cover, to stimulate exploration and to investigate the transition between the Adelaidean sequences of the well exposed Adelaide Geosyncline and those of the flat lying Stuart Shelf and Spencer Shelf. Previously unreported data pertaining to the Bute portion of the project recorded in the 1970's are presented.

CRA EPL. 1984. Burkitt, radiometric total count data, 1:50 000 scale. South Australia. Department of Mines and Energy. Plan.; 84-151:1 map

Abstract: Rereleased company information.

Craig MA, Wilford JR, Tapley IJ. 1999. Regolith-landform mapping in the Gawler Craton - an alternative approach. MESA Journal; 12:17-21

Creaser RA, Fanning CM. 1993. A U-Pb zircon study of the Mesoproterozoic Charleston Granite, Gawler Craton, South Australia. Australian Journal of Earth Sciences; 40(6):519-26

Creaser RA, White AJR. 1991. Yardea Dacite - large-volume, high-temperature felsic volcanism from the Middle Proterozoic of South Australia. Geology; 19(1):48-51

Crettenden PP. 1991. Geological investigations, Lake Labyrinth Goldfield, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 91/035:44p

Abstract: Production since 1912 totals 5206.4 g from 146.3 t of ore with

average head grade of 35.6 g/t Au bullion. Au was won from shear zones and ferruginous quartz veins within Archaean Kenella Gneiss. Sub-vertical shear zones and quartz veins strike east-west and vary in width from 0.15-0.6 m. Soil sampling on a grid over the main workings revealed two anomalous zones greater than 0.01 ppm Au. The peak value was 0.074 ppm Au, 200 m east of the main workings. Limited rock chip sampling from accessible underground workings and grab samples of mullock heaps produced peak values of 0.61 ppm Au for underground samples and 22 ppm Au for surface samples. Multielement geochemistry has shown a correlation of Au with Cu, Pb, Zn and As.

Crettenden PP. 1990. Geological investigations of the Earea Dam Goldfield, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 89/075:137p

Abstract: Au was discovered near Earea Dam 50 km SE of Tarcoola in 1899. Production to date totals 59,237.59 gms of Au bullion from 1868.63 t of ore, with an average head grade of 35.33 g/t Au. Au bearing quartz was mined from an E-dipping shear within the Archaean Kenella Gneiss. Rock chip sampling by SADME revealed anomalous Au values associated with amphibolite dykes. Tarcoola Gold Ltd carried out a 2-phase drilling programme of 4 diamond and 16 reverse circulation drillholes, intersecting significant mineralization SW of the Wilgena Enterprise Mine. As the grade of ore is sporadic and patchy, further drilling is required to delineate the potential ore zone.

Crooks A. 1996. New exploration targets - vent breccias in the southern Gawler Ranges. MESA Journal; 2:9-11

Crooks AF. 1999. Glass shards in the Gawler Range Volcanics, Gawler Ranges, South Australia. South Australia. Department of Primary Industries and Resources. Report Book; 99/00013:14p

Abstract: Compilation of information about those stratigraphic units within the Gawler Ranges which contain glass shards, cross-indexed to the literature reference, plus rock sample locations where available. Brings together information previously spread throughout a number of unpublished petrological reports.

Crooks AF. 1991. Mineral occurrences of the Kingoonya 1:250 000 map sheet area. South Australia. Department of Mines and Energy. Unpublished Report; RB 91/084

Abstract: Twenty one mineral occurrence summaries from the MINDEP data base.

Crooks AF. 2000. Mineral potential of the proposed Gawler Ranges National Park. South Australia. Department of Primary Industries and Resources. Report Book; 2000/33:25p

Abstract: In late 1999, the SA Government approved the purchase of 1000 sq km of land in, and adjacent to, the Gawler Ranges, for the creation of the Gawler Ranges National Park. This land has significant mineral potential, and has been subjected to ongoing mineral exploration company interest. Copper-gold, silver-lead-zinc, uranium, heavy mineral sands, graphite, kaolin and building stones are some of the commodities which have been recorded in the area, and have the potential to occur as economic deposits.

Crooks AF, Hill PW, Polito P, Abbot PJ, Crettenden PP, Gray N, Major RB. 1996. Gawler Ranges drilling report 1994. South Australia. Department of Primary Industries and Resources. Report Book; 96/24:240p

Abstract: The Mesoproterozoic Gawler Range Volcanic-Hiltaba Granite Suite related Olympic Dam style Cu-U-Au mineralization, and Menninnie Dam replacement style Pb-Zn-Ag mineralization, have served to raise the prospectivity of the Gawler Ranges. The release, by CRA, of detailed aeromagnetic data in 1993 prompted renewed industry interest in the YARDEA 1:250 000 map area. Geological investigations and drilling, undertaken by MESA in 1994, centred on the search for possible vents and intrusions with associated late stage fluid conduits and alteration haloes. 63 RC and 5 deeper air-hammer drilled holes (total 2558 m) were drilled to investigate basement geology and structure in areas picked on the basis of interpreted regional magnetic anomalies. The holes were sited along 18 confirmatory ground magnetic and gravity traverses laid out across these anomalies. This work uncovered: a possible vent structure with exotic matrix supported blocks in the "Yardea" homestead area; a possible concealed vent with associated alteration and silicification WNW of 'Kolendo'; a hematite breccia-epithermal quartz stockwork above a possible granite intrusion near Sherry's Dam-Tanner's Dam; evidence of fluid flow in open fractures, with associated terminated quartz crystals and minor fluorite, in outcrop and in drill cuttings. During drilling, additional notice was taken of the nature and depositional history of the sedimentary cover, if present, besides testing of the salinity and potential flow of any ground water encountered, particularly when holes were sunk in the vicinity of inferred Tertiary palaeochannels. No aquifers containing potable water were found.

CSR Ltd, Austminex Pty Ltd, Pacminex Pty Ltd, Mount Gunson Mines Pty Ltd. 1978. Mount Gunson - biogeochemistry. South Australia. Department of Mines and Energy. Company Report; E6639:5 fiche, 84 p; 9 appx, 10 plans, 4 plates
Notes: Includes: D.G. Tonkin, 1978. A biogeochemical orientation survey over the Cattlegrid and MG14 areas - Mount Gunson. Fiche 1,2 p3-84; 5 appx, 9 fig, 4 plates, 8 ref, 1 table. Plans detailing results of Austminex biogeochemical survey at Pernatty Lagoon, 1966. Fiche 3-5; 10 maps

Abstract: Orientation survey found anomalous base metal concentrations in

trees growing over Cattlegrid, but not over MG14. These concentrations probably due to bedrock geochemical anomaly which is due to shallow water table combined with permeable ore and overburden horizons. Austminex plans include biogeochemical results, geological maps and follow up drilling results.

CSR Ltd, Mount Gunson Mines Pty Ltd. 1983. Geology of the Cattlegrid mine, 1972-1982. South Australia. Department of Mines and Energy. Unpublished Report; E5429:10 fiche, 482 p; 2 appx, 32 fig, 4 maps

Abstract: Updated summary of large amount of data, largely from internal company reports, relating mainly to pit area geology but including sections on regional setting, evaluation, ore reserves, exploration, research, mill production reports and shipping summaries.

Curtis JL, Brunt DA, Binks PJ. 1990. Tertiary palaeochannel uranium deposits of South Australia. In: Hughes, F E (Ed.), Geology of the Mineral Deposits of Australia and Papua New Guinea. Volume 2. Parkville, Vic.: Australasian Institute of Mining and Metallurgy.; 1631-6
Notes: AusIMM Monograph Series; no.14

Curtis JL, Van Der Stelt BJ, Parker AJ. 1993. Pre-Adelaidean basement to the Stuart Shelf, South Australia: drillhole database and preliminary geological interpretation. South Australia. Department of Mines and Energy. Unpublished Report; RB 93/035:238p

Abstract: The geology and mineralization of the prospective northeast segment of the Gawler Craton is the focus of the Stuart Shelf Basement Project. Geological and technical data from selected open-file drillholes (those the intersected pre-Adelaidean basement) were compiled into a comprehensive GIS data base.

Daly S. 1975. Notes on the Tarcoola 1:250 000 preliminary geological map. South Australia. Department of Mines and Energy. Unpublished Report; RB 75/002:34p; 3 fig

Abstract: A brief summary of the geology of the area.

Daly S. 1979. The Wilgena Hill jaspilite. South Australia. Department of Mines and Energy. Unpublished Report; RB 79/28:8p; 1 fig, 8 plates

Daly S. 1985. TARCOOLA map sheet. South Australia. Geological Survey. Geological Atlas 1:250 000 Series, sheet SH/53-10.

Daly S. 1993. Mineralisation associated with the Gawler Range Volcanics and Hiltaba Suite granitoids: Earea Dam Goldfield Glenloth Goldfield and Tarcoola Goldfield. In: Drexel, J.E, Preiss, WY & Parker, A.J. (editors), The geology of

South Australia. Vol. 1, The Precambrian. Geological Survey of South Australia, Bulletin 54.

Daly S. 1996. Gawler Craton. In Newton, A.W. (compiler), Mineral Exploration and Development in South Australia. Department of Mines and Energy. Report Book 96/1 (unpublished).

Daly S. 2001. Gold potential of South Australia. Poster display at New GenGold Conference, 2001, Perth (unpublished).

Daly S, Benbow MC, Blissett AH. 1979. Archaean to Early Proterozoic geology of the northwestern Gawler Craton. In: Symposium on the Gawler Craton, Australian Mineral Foundation, 11 December, 1979. Extended Abstracts Compiled by A.J. Parker. Adelaide: Geological Society of Australia. South Australian Division.; 16-9

Abstract: Interlayered basic sills with banded iron formation and subjected to granulite facies metamorphism.

Daly SJ. and Fanning CM. 1990. Archaean geology of the Gawler Craton, South Australia. In: Glover, J.E. and Ho, S.E. (Compilers), 3rd International Archaean Symposium, Perth, 1990. Extended abstracts. Geoconferences (WA) Inc., Perth, pp91-92.

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Daly SJ. Fanning CM. and Fairclough MC. 1998. Tectonic evolution and implications for exploration potential of the western Gawler Craton. AGSO Journal of Australian Geology and Geophysics, 17:145-168

Daly SJ. and van der Stelt BJ. 1992, Archaean metabasic diamond drilling project (Northwest Gawler Craton Drilling Investigations 1991; Data Package Part B): South Australia. Department of Mines and Energy, Confidential Envelope, 8541 (unpublished).

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Daly S, Webb AW, Whitehead SG . 1978. Archaean to Early Proterozoic banded iron formations in the Tarcoola region, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 77/148:13p; 3 fig

Daly SJ. 1988. Bulgunnia 1 and 2 well completion report. South Australia. Department of Mines and Energy. Unpublished Report; RB 88/038:4 fiche, 111p

Abstract: Bulgunnia 1 tested acid and basic volcanics, extruded from a major fracture, interbedded with probable coarse grained breccia. Bulgunnia 2 tested sedimentary breccia with possible volcanic interbeds. Project aimed to encourage exploration in shallow basement, predominantly Mid-Proterozoic sediments deposited adjacent to active faults with associated subaerial or submarine volcanic vents. Granitic breccia in Bulgunnia 1 contains anomalous Ba and fluorite. Sediments and interbedded volcanics prospective for Olympic Dam style mineralization.

Daly SJ. 1986. Excursion guide, Tarcoola 1:250 000 map sheet area. South Australia. Department of Mines and Energy. Unpublished Report; RB 86/042:19p

Abstract: The geology of 42 outcrops is briefly described. All are Precambrian in age and each site is located on a 1:000 000 geological map.

Daly SJ. 1986. The Mulgathing Complex. South Australia. Department of Mines and Energy. Unpublished Report; RB 86/041:1 fiche, 18p

Abstract: An Archaean metasedimentary sequence with interlayered mafic and possibly acid volcanics, forms basement of larger part of northern Gawler Craton. These rocks have been complexly folded, subjected to granulite facies metamorphism and are clearly related to the Sleaford Complex on southern Eyre Peninsula.

Daly SJ. 1981. The stratigraphy of the Tarcoola 1:250 000 map sheet area. South Australia. Department of Mines and Energy. Unpublished Report; RB 81/5:36p; 6 fig, 1 table

Abstract: A summary of the stratigraphy.

Daly SJ. 1984. Wilgena 1: stratigraphic drillhole, Tarcoola. South Australia. Geological Survey. Quarterly Geological Notes; 91:3-9

Abstract: Sited on a notable magnetic anomaly, but total depth of 973 m failed to reach magnetic basement.

Daly SJ. 1984. Wilgena 1 well completion report. South Australia. Department of Mines and Energy. Unpublished Report; RB 84/13:161p; 5 appx, 2 fig, 6 maps, 14 plates, 2 tables

Abstract: Wilgena 1 (973 m) intersected 964 m of Tarcoola Formation within the Wilgena Subbasin without intersecting magnetic basement. Thin dacitic to basaltic tuffs and basaltic flows interbedded with carbonaceous siltstones indicate contemporaneous volcanism throughout. Base metal values low but exploration potential near basin margins.

Daly SJ, Horn CM, Fradd WP. 1988. Tarcoola gold field. South Australia. Department of Mines and Energy. Unpublished Report; RB 87/130:1 fiche, 11p

Abstract: Between 1901 and 1986, 2.387 t of Au produced. Potential for open cut mining of the Tarcoola Blocks mine and nearby granite being investigated. Au occurs in both subvertical quartz reefs which cross cut folded Mid Proterozoic Tarcoola Formation sediments and in altered younger granite.

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Daly SJ, Horn CM, Fradd WP. 1990. Tarcoola Goldfield. South Australia. Department of Mines and Energy. Unpublished Report; RB 90/078:83-4
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Notes: Issue title: Cool-water of the northeastern Otway Basin, southeastern Australia. Conference, organized by the Australasian Sedimentologists Group, Geelong, Victoria, January 14-19, 1995

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Department of Housing and Urban Development 1995. Workshop on Native Vegetation Mapping and Analysis, 7 Aug 1995, Black Hill Conference Centre, Athelstone SA, Notes. South Australia, , Adelaide SA; 100p

Abstract: The papers presented at this workshop cover topics relating to vegetation mapping and assessment including mapping methods, the status of mapping in the agricultural region and the arid zone, the use of remote sensing, native vegetation mapping information, the mapping program for South Australia and standards for tables, maps and reports.

Depers A. 1974. Sedimentary facies at Yatala Harbour and a geochemical comparison with Port Pirie sediments, Spencer Gulf, S.A. University of Adelaide. B.Sc. Hons Thesis.;

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Dickson BL. 1995. Uranium-series disequilibrium in Australian soils and its effect on aerial gamma-ray surveys. Journal of Geochemical Exploration; 54(3):177-86

Direen NG, Lyons P, Jagodzinski EA, Milligan PR. and Skirrow RG. 2002. A first-generation 3D-model of the crustal architecture of the north-eastern Gawler Craton and implications for Olympic Dam-style mineral systems In: Preiss, W.V. (Ed.), Geoscience Geoscience 2002: expanding horizons. 16th Australian Geological Convention, Adelaide, 2002. Geological Society of Australia. Abstracts.

Dixon HW, Nelson RG. 1972. Flinders Highway no.9, Talia-Port Kenny-Streaky Bay section, County Robinson, geological investigations. Client: Highways Department. South Australia. Department of Mines and Energy. Unpublished Report; RB 72/75:6p; 2 appx, 2 maps

Abstract: Excavation conditions determined by visual inspection of test pits and by shallow seismic traverses.

Dodds AR. 1990. Geophysical investigations of salinity problems at two catchments on Eyre Peninsula, S.A. South Australia. Department of Mines and Energy. Unpublished Report; RB 90/026:36p

Abstract: At the request of the Department of Agriculture, Wanilla and Darke Peake catchments were studied by TEM and VES surveys and results from a recent aeromagnetic survey, in an effort to understand the mechanisms involved in the development of saline seeps. Basement rocks have a resistivity of over 100 ohm-m, with narrow, shallow, linear features of about 20 ohm-m indicating probable preferred water flow channels. Anomalous magnetic trends correlate with these conductive linears particularly where saline seeps are also observed.

Dodds AR. 1996. A groundwater and basement surface study of the northwest Gawler Craton, SA. South Australia. Department of Mines and Energy. Report Book; 97/6:23p

Abstract: A Transient Electromagnetic (TEM) survey don in 1995 improved knowledge of the basement topography and detected permian basins which were previously unknown. The current survey extends that knowledge and precedes drilling to improve the knowledge of water resources, which may be needed as a result of increased gold and base metal exploration in the area. All available data has been integrated to yield a map showing the elevation of the unweathered surface of the northwest Gawler Craton, which is considered to be basic to the understanding of the overall groundwater situation, as there are no known major water resources in this area.

Dodds AR. 1996. Report on a test TEM survey over a haematite orebody at Hawks Nest, SA. South Australia. Department of Mines and Energy. Report Book; 96/39:12p

Abstract: A newly-discovered, small, non-outcropping hematite orebody has been outlined at Hawks Nest on the Stuart Shelf by MESA scout drilling. As a trial procedure a Transient Electromagnetic (TEM) survey was conducted over the known subcrop limits, the results of which indicated that the body might be a weak conductor, but the response is weak and inconsistent. For this ore type, gravity surveying appears to be a more definitive exploration tool, but TEM might be of some value.

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Abstract: There are no known major ground water resources in the Garford area, which borders the Barton and Ooldea Ranges dunefield and Great Victoria Desert south west of Coober Pedy. The ground water used by graziers for stock watering occurs in sediments and weathered basement overlying the

Gawler Craton, and is generally found largely by chance drilling efforts. To remedy this a transient electromagnetic survey of the area was aimed to improve knowledge of basement topography, near Tertiary palaeochannels where greater supplies of groundwater might be found. The survey mapped basement depth and detected partially delineated porous sediments within the overlying Permian basins. However, the TEM survey results do not show variations in the type of clays deposited above the palaeochannels, nor do they differentiate between Permian and Tertiary sediments.

Dodds AR. 1991. Report on a transient electromagnetic survey at Nundroo, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 91/097:22p

Abstract: Information on the resistive properties of overburden and bed rock, and on the thickness of the overburden was obtained for a regional study of the geology. The results show the water-table at a depth of 12-46 m with ground water salinity approximating that of sea-water in most areas. The depth to bed rock varies from 26 to 89 m. The conductive environment is absent at one location, possibly because of very shallow bed rock precluding the presence of ground water. The survey penetrated well into bed rock. Any sulphide conductors of other than trivial size and conductivity within 50 m or more of bed rock surface should have been detected. Five anomalies are identified which could be caused by bed rock conductors. None of them give any indication of being caused by a strong conductor.

Dodds AR. 1999. Report on a water search program over the Yalata-Ooldea Road. South Australia. Department of Primary Industries and Resources. Report Book; 99/27:19p

Abstract: Transient Electromagnetic (TEM) survey used to prospect for ground water at three locations on road between Yalata and Ooldea, on thesis that water would be available in either deeper overburden or fractured basement. Overburden targets located at all three sites and fractured basement sites at 30 km and 60 km sites.

Dodds AR. 1989. Report on geophysical surveys over freshwater lenses near Port Kenny, SA. South Australia. Department of Mines and Energy. Unpublished Report; RB 89/056:32p

Abstract: Thulinippie and Witera wells tap freshwater lenses floating on saline ground water in a sedimentary basin near Port Kenny on the west coast of Eyre Peninsula. A Geonics EM-34 conductivity meter provided tentative information at Witera, but subsequent Sirotem and Vertical Electrical Sounding surveys at Thulinippie gave better results. Thulinippie lens extends 200 m to the NE of the well where it is delimited by a basement ridge extending to within 17 m of surface. Witera lens was less well defined, but appears to be small and circular,

with a radius of 100-200 m. A larger lens may underlie the House and Old Witera wells.

Dodds AR. 1995. A TEM groundwater survey at Streaky Bay Water Reserve, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 95/003:12p

Abstract: Brief Transient Electromagnetic (TEM) survey to map levels of groundwater in and around the Streaky Bay Water Reserve. Results indicate the thickness and extent of the lens and may indicate an area to the west containing water of intermediate salinities (102 g/l).

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Dowling SE and Hill RET. 1998, Komatiite-hosted nickel sulphide deposits, Australia: Special Jubilee Issue of Australian Geological Survey Organisation Journal, v. 17(4), p. 121-127.

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Drown CG. 2003. The Barns Gold Project - discovery in an emerging district. MESA Journal, 28:4-9.

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Notes: Extended abstracts of the #5th Geophysical Conference and Exhibition, # Perth, 22-27 February, 1987, edited by M. Middleton and D. Pridmore.

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Facelli JM, Brock DJ. 2000. Patch dynamics in arid lands: Localized effects of *Acacia papyrocarpa* on soils and vegetation of open woodlands of south Australia. *Ecography*; 23(4):479-91

Abstract: Although the importance of plant-created heterogeneity in arid lands has long been recognized, little information is available on the dynamics of these patches. We studied the changes in soil and vegetation associated with the presence of a long-lived tree, Acacia papyrocarpa, in arid lands of south Australia. The soil under young individuals was not different from the soil in the surrounding open spaces, confirming the assumption that establishment does not occur preferentially in high fertility patches. The amount of organic matter, total N, total S, total and available P, and soil salinity increased with the age of the tree until maturity, and declined as the canopy of the tree became more

fragmented. The content of organic mater and total and available P remained higher than that in the matrix soil for at least fifty years after the death of the tree. There were several species almost completely restricted to the canopy environment. Some, but not all of them, have bird dispersed seeds. One of these species (Enchylaena tomentosa) established and grew better in soil collected under tree canopies in a glasshouse experiment, independently of light environment. After the death of the trees the under-canopy species declined rapidly, and the patches were colonized by invasive annual species, and short lived perennials. Our results suggest that patch dynamics driven by the population dynamics of woody perennial species have paramount importance for the ecosystem, and community dynamics of arid lands.

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Abstract: Descriptions of 12 localities.

Fanning CM, Flint RB, Preiss WV. 1983. Geochronology of the Pandurra Formation. South Australia. Geological Survey. Quarterly Geological Notes; 88:11-6

Abstract: An age of 1424 Ma suggests that deposition was the final phase of Gawler Craton sedimentation.

Farrand MG. 1983. Graphite in an argillaceous rock. South Australia. Department of Mines and Energy. Unpublished Report; RB 83/23:2p

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Farrand MG. 1990. Mafic, intermediate and acid rocks from near Tarcoola, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 90/42:8p

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Farrand MG. 1987. Miscellaneous thin sections from the Proterozoic and Cambrian of South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 87/110:1 fiche, 14p

Abstract: Rocks from Saint Frances Island include trachyte, trachyandesite and rhyolite. Drill core from Dampier DDH1 includes two types of dolerite, and from Afmeco KGB3 fresh dolerite or basalt. Other specimens examined include basalt and gneiss from the Willyama Inlier and Cambrian rhyodacite from Parachilna.

Farrand MG. 1989. Miscellaneous thin sections of Archaean and Early Proterozoic rocks from the Gawler Craton. South Australia. Department of Mines and Energy. Unpublished Report; RB 89/078:29p

Abstract: Samples are mainly of granitoid composition with minor intermediate and mafic types. Textures include gneissic, schistose, aplitic and mylonitic. Deep crustal origin is suggested by the presence of orthopyroxene and garnet in a few granitoids and one is of charnockitic affinity. Retrograde metamorphism is associated with silicification and widespread grain size refinement by dynamic recrystallization. One specimen is of a BIF.

Farrand MG. 1988. Moonabie Formation sediments from Hummock Hill Quarry, Whyalla, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 88/009:1 fiche, 7p

Abstract: 5 thin sections consist of conglomeratic sandstones and silty mudstones. Sandstones are typical Moonabie Formation and include a framework component of reworked acid pyroclastics and a sericitic matrix.

Mudstones are weakly foliated and may possibly be correlated with Wandearah Metasiltstone intersected in Wokurna DDH4 drillhole.

Farrand MG. 1988. Moonabie Formation sediments from Hummock Hill quarry, Whyalla, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 88/009:1 fiche, 7p

Abstract: 5 thin sections consist of conglomeratic sandstones and silty mudstones. Sandstones are typical of Moonabie Formation and include a framework component of reworked acid pyroclastics and a sericitic matrix. Mudstones weakly foliated and may possibly be correlated with Wandearah Metasiltstone intersected in Workurna DDH 4 drillhole.

Farrand MG. 1987. Opaque minerals in metasediments from DDH Broadview no.1 near Kimba, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 87/122:1 fiche, 7p

Abstract: Opaque minerals from Early Proterozoic Mount Shannan Iron Formation are pyrite, pyrrhotite, magnetite and chalcopyrite.

Farrand MG. 1987. Petrographic classification of six specimens of the Gawler Range Volcanic suite. South Australia. Department of Mines and Energy. Unpublished Report; RB 87/112:1 fiche, 11p

Abstract: Fine grained and altered rhyolite, dacites, andesite and basalt defined.

Farrand MG. 1990. Petrography and chemistry of three rocks selected as geochemical standards. South Australia. Department of Mines and Energy. Unpublished Report; RB 90/044:12p

Abstract: A trachyandesite from the Gawler Range Volcanics at Buckleboo and an alkali basalt from the main quarry at Mount Schank are suitable for Departmental geochemical standards. A sample from an outcrop of Heatherdale Sahle at Carrickalinga Head is a limestone and is suitable as a standard limestone. Major, minor and trace elements determinations from Analabs and Classic Laboratories showed good correlation between laboratories and techniques of analysis for major elements but poor correlation for trace elements.

Farrand MG. 1989. Petrography and interpretation of Lower Adelaidean sediments in drillholes near Port Pirie. South Australia. Department of Mines and Energy. Unpublished Report; RB 89/035:1 fiche, 13p

Abstract: Thirty five thin sections from drill core indicate that conglomeratic sandstones classified as Emeroo Subgroup, and red siltstones classified as Callanna Group, could alternatively be lateral equivalents of 1 major sedimentary cycle. Sandstones may have been deposited in distributary

channels and the siltstones in ponded and evaporating floodwater from the same initial detrital load. This may apply only to a transitional zone, 12 m thick in PP12 and probably PP13.

Farrand MG. 1983. Petrography of eight volcanic rocks from the Tarcoola area. South Australia. Department of Mines and Energy. Unpublished Report; RB 83/057:17p; 2 maps

Abstract: Rocks mainly from Middle Proterozoic Gawler Range Volcanics, one possibly from Tarcoola Beds and one, unidentified, is of economic interest due to highly mafic character.

Farrand MG. 1986. The petrography of eighteen rocks from the Gawler Craton near Kingoonya, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 86/006:1 fiche, 29p

Abstract: Heterogeneous collection of rocks includes granitoids, gneisses, volcanic rocks, quartzites, banded iron formations and silicified stromatolites.

Farrand MG. 1986. Petrography of forty two rocks from near Kingoonya. South Australia. Department of Mines and Energy. Unpublished Report; RB 86/073:1 fiche; 26p

Abstract: A heterogeneous collection of volcanic rocks, schists, gneisses, granitoids, microgranites, metabasics, greisenised quartzites, cherts and jaspilites.

Farrand MG. 1988. Petrography of Proterozoic Blue Range Beds in Newland DDH1, western Eyre Peninsula. South Australia. Department of Mines and Energy. Unpublished Report; RB 88/66:1 fiche, 10p

Abstract: A sandstone and 3 conglomerate samples consist mainly of quartzite and monocrystalline quartz clasts, but also contain substantial feldspar, principally microcline. Much of the microcline is fresh and some contains inclusions of quartz. Chemically active solutions passing through the clay matrix have caused alteration of feldspar and generated sericite and mica flakes in an expanded matrix. In the source terrain, metamorphic quartzites and fresh granitoids were exposed, but there is no evidence of any Gawler Range Volcanics. Some clasts have been recycled from earlier sediments.

Farrand MG. 1987. Petrography of sixteen rocks from the Kingoonya area. South Australia. Department of Mines and Energy. Unpublished Report; RB 87/104:1 fiche, 21p

Abstract: Rocks include drill core and cuttings from BHP and Esso drill holes and consist of rhyolitic, andesitic, gabbroic, basaltic and granitic igneous rocks, arenaceous metasediments, ironstones and sediments.

Farrand MG. 1988. Petrology of outcrop and drill-core specimens from the Kingoonya district, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 88/008:1 fiche, 14p

Abstract: Samples from ERD 1-9 near Mount Eba and Wallabyng Range include dacites, dolerites, trachyandesite, talcose serpentinites, lithic sandstones of the Labyrinth Formation and brecciated and recrystallized cherts.

Farrand MG. 1988. Petrology of outcrop and drillcore specimens from the Kingoonya district, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 88/008:1 fiche, 14p

Abstract: Outcrop and core from ERD 1-9 near Mount Eba and Wallabyng Range include dacites, dolerites, trachyandesite, talcose serpentinites, lithic sandstones of the Labyrinth Formation and brecciated and recrystallized cherts.

Farrand MG. 1983. Petrology of three kaolin-rich rock specimens, Cultana area. South Australia. Department of Mines and Energy. Unpublished Report; RB 83/10:5p

Abstract: One specimen of kaolinized siltstone is probably Adelaidean.

Farrand MG. 1983. The petrology of twenty-nine rocks from the far west coast and the Nuyts Archipelago, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 83/33:50p; 1 map

Abstract: Rocks examined indicated possible nature of concealed basement of Eucla Basin.

Farrand MG. 1991. Recrystallised dolomites from the Tarcoola region. South Australia. Department of Mines and Energy. Unpublished Report; RB 91/095:1 fiche, 11p

Abstract: Progressive alteration through recrystallization without significant metasomatism or dynamic metamorphism has taken place in 8 specimens of what are assumed to be original sedimentary dolomites. The present paragenesis includes talc and chlorites of both penninite and antigorite affinities. A zeolite forms inclusions in veins of coarsely recrystallized dolomite. Minor sphene and pseudomorphs after pyrite are present.

Farrand MG. 1988. Volcanic and sedimentary rocks from the Wirrulla region, Gawler Craton, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 88/050:1 fiche, 13p

Abstract: Volcanic rocks include dacite, rhyodacite and rhyolite. They comprise both magmatic and pyroclastic types and are similar to the Gawler Range

Volcanics. Sediments include quartz sandstones and mudstones but almost all have been modified by pedogenic processes to form silcrete, calcrete and laterite.

Farrand MG. 1986. Zircons for age dating in Gawler Range Volcanics. South Australia. Department of Mines and Energy. Unpublished Report; RB 86/075:1 fiche, 10p

Abstract: Assessment of suitability for age determination by means of uranium lead isotopes ratios in zircons.

Farrand MG, Belperio AP. 1987. Petrological examination of Quaternary coastal sediments from western South Australia between head of the Bight and Sheringa Lagoon. South Australia. Department of Mines and Energy. Unpublished Report; RB 87/043:3 fiche, 82p; 1 fig, 3 maps

Abstract: 49 samples of calcareous sediments collected along the west coast of Eyre Peninsula examined in thin section. Factors such as extent of recrystallization and ratio of calcium and magnesium in framework and matrix material are assessed as indicators of relative age. 4 samples were analysed by XRD to check mineralogical interpretations and 2 were analysed for sylvite content. Some lithological and pedological features may be misleading and field relationships are more reliable indicators of age.

Ferguson J. 1980. Kimberlite and kimberlitic intrusives of southeastern Australia. Mineralogical Magazine; 43(330):727-31

Abstract: Fifteen separate occurrences ranging from Permian to late Jurassic.

Ferguson J, Burne RV. 1981. Interactions between saline redbed groundwaters and peritidal carbonates, Spencer Gulf, South Australia: significance for models of stratiform copper ore genesis. BMR Journal of Australian Geology and Geophysics; 6(4):319-25

Abstract: Mobilization of Fe and Mn from the aquifer sediments into coastal complexes.

Ferguson J, Burne RV, Chambers LA. 1983. Iron mineralization of peritidal carbonate sediments by continental groundwaters, Fisherman Bay, South Australia. Sedimentary Geology; 34(1):41-57

Abstract: Precipitation from saline groundwater emerging from a red bed aquifer.

Ferguson J, Burne RV, Chambers LA. 1982. Lithification of peritidal carbonates by continental brines at Fisherman Bay, South Australia, to form a megapolygon/spelean limestone association. Journal of Sedimentary Petrology; 52(4):1127-47

Abstract: Aragonite precipitation and cementation of Holocene marine carbonates near groundwater springs.

Ferguson J, Chambers LA, Donnelly TH, Burne RV. 1988. Carbon and oxygen isotopic composition of a recent megapolygon-spelean limestone, Fisherman Bay, South Australia. Chemical Geology (Isotope Geoscience Section); 72(1):63-76

Abstract: Saline carbonate-rich ground water springs cementing marine carbonate sands.

Ferris GM. 2001. The geology and geochemistry of granitoids in the CHILDARA region, western Gawler Craton, South Australia: implications for the Proterozoic tectonic history of the western Gawler Craton and the development of lode-style gold mineralisation at Tunkillia. University of Tasmania. M.Sc. thesis (unpublished).

Ferris GM. 2001., Childara bedrock drilling program. Primary Industries and Resources, South Australia. Report Book, 2001/04.

Ferris GM. 1991. Kaolinization in the Streaky Bay area, western Eyre Peninsula. University of Adelaide. Department of Geology and Geophysics. B.Sc. Hons Thesis.; 75p

Ferris GM. 2000. Insights into tectonic evolution of the western Gawler Craton - Childara bedrock drilling. MESA Journal; 19:28-31

Ferris GM. 1993. Review of exploration for kaolin in the Kimba area, Eyre Peninsula, South Australia. Mines and Energy South Australia. Unpublished Report; RB 93/037:127p

Abstract: During 1969-72 kaolinised bedrock south of Kimba on northern Eyre Peninsula, was investigated by Pechiney and CSR Ltd as a potential source of alumina.

Ferris GM. 1994. Review of heavy mineral sand exploration in South Australia - the Eucla Basin. South Australia. Department of Mines and Energy. Report Book; 94/22:63p

Abstract: The Cainozoic Eucla Basin has been the focus of recent heavy mineral exploration due to the recognition of Tertiary coastal features including the Ooldea Range. Hypsometric and Landsat data, together with detailed work on the Tertiary stratigraphy of the Basin and surrounding palaeodrainage channels, and on the palaeogeographic setting, has greatly enhanced the search for heavy minerals. Terrigenous sediments of the Immarna Group occur along the eastern margin of the Basin, with the Ooldea Sand and Hampton Sandstone being the main stratigraphic units which host mineralization. Two

heavy minerals strandlines within the Hampton Sandstone were outlined at Immarna by Geopeko. Metallurgical testing showed the deposit comprised predominantly ilmenite, which gave an average TiO₂ assay between 61 - 62.1%. Numerous low grade anomalous zones were outlined throughout the Basin, but most drilling was at 1 km intervals and consequently, narrow high grade zones may have been missed. Most exploration focussed on the Ooldea Range and other coastal features including headlands, embayments, strandline beaches, islands and linear shorelines outlined by photogeomorphic mapping. With the release of new aeromagnetic data for the northwestern Gawler Craton offering new exploration potential, exploration companies should incorporate heavy mineral exploration within future drilling programs in the Eucla Basin.

Ferris GM, Barovich K. and Hand M. 2002. Putting the Hiltaba Suite into a tectonic context. In: Preiss, W.V. (Ed.), Geoscience 2002: expanding horizons. 16th Australian Geological Convention, Adelaide, 2002. Geological Society of Australia. Abstracts, 67:63.

Ferris GM, Fairclough MC. 1996. Review of mineral exploration - CHILDARA region. South Australia. Department of Mines and Energy. Report Book; 96/16:61p
Notes: Includes report literature review

Abstract: Mineral exploration on CHILDARA 1:250 000 geological map sheet was reviewed from SADME open file Envelopes, to complement an overview of regional prospectivity supported via the recent acquisition of high quality aeromagnetic data and a compilation of three other 1:250 000 map sheet summaries of previous exploration over the western Gawler Craton. Shear zones on CHILDARA, particularly those associated with the Hiltaba Suite intrusives, warrant further exploration. Essentially, CHILDARA remains underexplored with many exploration targets.

Ferris GM, Gray ND, Pain AM. 1998. Reconnaissance granite sampling of the Mesoproterozoic Hiltaba Suite granite on northern Eyre Peninsula, South Australia, for dimension stone. South Australia. Department of Primary Industries and Resources. Report Book; 97/00028:373p

Abstract: Reconnaissance sampling of Mesoproterozoic Hiltaba Suite granite on northern Eyre Peninsula, to identify all potentially quarryable granite varieties, was carried out by MESA during 1996/97. A total of 157 outcrops were inspected and 99 samples collected for polishing. Currently, four Hiltaba Suite granite varieties are quarried on Eyre Peninsula, including Calca Red (Streaky Bay area), Minnipa Red, Desert Lilac (Minnipa area) and Desert Rose (Wudinna area). This survey identified three potentially "new" granite varieties: a pale pink, medium-grained granite similar in texture to Desert Lilac at Poondana Rock north of Wudinna, a medium to coarse-grained slightly less red variant of Minnipa Red from north of Minnipa, and a finer-grained Minnipa Red variant from the Buckleboo area. These outcrops, together with twelve other outcrops which offer potential to provide future commercial reserves of

currently available granite building stone varieties, all warrant further investigation.

Ferris GM, Keeling JL. 1993. Review of exploration for kaolin near Poochera, northern Eyre Peninsula, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 93/018:4 fiche, 152p

Abstract: Kaolin deposits, SW of Poochera on northern Eyre Peninsula, formed by deep weathering of Early to Mid-Proterozoic crystalline basement rocks, which are now blanketed by Late Tertiary to Quaternary terrestrial sediments.

Ferris GM. and Schwarz MP. 2003. Proterozoic gold province of the central Gawler Craton. MESA Journal 30:4-12.

Ferris GM. Schwarz MP and Heithersay P. 2002. The geological framework, distribution and controls of Fe-oxide and related alteration, and Cu-Au mineralisation in the Gawler Craton, South Australia: Part 1: geological and tectonic framework. In: Porter, T.M. (Ed.), Hydrothermal iron oxide copper-gold and related deposits: a global perspective. Vol. 2. PGC Publishing, Adelaide, pp.9-32.

Finlayson B. 1980. Redcliff gravity survey. South Australia. Department of Mines and Energy. Unpublished Report; RB 80/36:6p; 4 fig

Abstract: The Redcliff site has a narrow valley filled with low density sediments. Two faults bound the area.

Finlayson B. 1980. Redcliff Point seismic survey. South Australia. Department of Mines and Energy. Unpublished Report; RB 80/132:8p; 3 fig

Abstract: Seismic survey has confirmed existence of a trough up to 450m deep and 3.5km wide.

Firman JB. 1978. Fowler, South Australia - sheet SH/53-13 International Index. South Australia. Geological Survey. 1:250 000 Geological Series - Explanatory Notes.; 23p

Firman JB. 1973. Preliminary notes on the geology of the eastern margin of the Eucla Basin - Fowler 1:250 000 sheet area. South Australia. Department of Mines and Energy. Unpublished Report; RB 73/85:41p; 8 appx, 13 maps

Firman JB. 1983. Silcrete near Chundie Swamp: the stratigraphic setting. South Australia. Geological Survey. Quarterly Geological Notes; 85:2-5

Abstract: Predating the Miocene Nullabor Limestone and Etadunna Formation.

Firman JB. 1974. Upper Cainozoic stratigraphic units of the Gawler Block and Eucla Basin in South Australia. South Australia. Geological Survey. Quarterly Geological Notes; 52:1-4

Abstract: Three new units are defined.

Flint DJ. 1983. Moonta-Wallaroo mining field - production statistics 1860-1938. South Australia. Department of Mines and Energy. Unpublished Report; RB 83/11:16p; 4 maps

Abstract: 9.1 million tonnes of crude ore and 2.5 million tonnes of dressed ore, averaging 3.39% and 3.61% copper respectively.

Flint RB. 1993. Mesoproterozoic. In: Drexel, J.F., Preiss, W.V. and Parker, A.J. (Eds), The geology of South Australia. Vol. 1, The Precambrian. South Australia. Geological Survey. Bulletin, 54:106-169.

Flint RB. 1993. Chapter 5: Mesoproterozoic. In Drexel, J.F., Preiss, W.V. and Parker, A.J., 1993. The geology of South Australia. Vol 1. The Precambrian. South Australian Geological Survey Bulletin, 54.

Flint DJ, Dubowski EA, Sahl M, Rehaili M. 1983. Ferns aggregate quarry - report no.3, geological investigations 1982, County Jervois, Hundred Hawker, Section 385. South Australia. Department of Mines and Energy. Unpublished Report; RB 83/084:36p; 2 fig, 3 maps

Abstract: Includes detailed mapping with stadia surveying, drilling proposals and suggestions for future quarry development.

Flint DJ, Gravestock DI, Newton AW. 1989. An assessment of the mineral potential of Maralinga Lands. South Australia. Department of Mines and Energy. Unpublished Report; RB 89/014:2 fiche, 54p

Abstract: Possible models for mineralization are examined and mineral potential is high, and is prospective as follows: Archaean to Middle Proterozoic rocks of the western Gawler Craton for base metals, Au, U, Ni-Cr-Co, Pt and magnetite. Late Proterozoic to Cambrian sediments of the Officer Basin for base metals, U, petroleum, evaporites and phosphate. Permian Arckaringa Basin for S and possibly oil shale. Diamond bearing kimberlites and lamproites emplaced during the Mesozoic and reworked into younger sediments. Cainozoic sediments for U in palaeochannels, heavy minerals in palaeo beach sands, palygorskite, evaporites and opal.

Flint RB. 1992. Elliston, South Australia, sheet SI/53-6 International Index. South Australia. Geological Survey. 1:250 000 Geological Series - Explanatory Notes.; 40p

Flint RB. 1990. Explanatory notes, Elliston 1:250 000 map sheet. South Australia. Department of Mines and Energy. Unpublished Report; RB 90/074:95p

Flint RB. 1986. Explanatory notes Nuyts 1:250 000 map sheet area. South Australia. Department of Mines and Energy. Unpublished Report; RB 86/007:1 fiche, 42p

Abstract: Proterozoic basement outcrop consists of syn- and post-Kimban Orogeny granitoids, volcanics and basic dykes. Geochronology, field relationships and regional correlation is reported. Previous investigations, reserves and quality of the Lake McDonnell gypsum deposit are summarized.

Flint RB. 1987. Nuyts, South Australia - sheet SI/53-01 International Index. South Australia. Geological Survey. 1:250 000 Geological Series - Explanatory Notes.; 30p

Flint RB, Crooks AF. 1981. Geology of Hart, Fenelen and Masillon Islands of the Nuyts Archipelago, Nuyts 1:250 000 map sheet. South Australia. Department of Mines and Energy. Unpublished Report; RB 81/100:19p; 2 fig, 6 plates

Abstract: Collates all geology of these islands.

Flint RB, Crooks AF. 1981. Geology of islands within the Investigator Group, Elliston 1:250 000 map sheet. South Australia. Department of Mines and Energy. Unpublished Report; RB 81/4:25p; 1 fig, 6 plates

Abstract: Major rock groups are Middle Proterozoic granites and Middle Pleistocene calcarenites.

Flint RB, Crooks AF. 1984. Geology of Nuyts Reefs, Sinclair Island, Purdie Islands, Lounds Island, Lacy Island and Evans Island of the Nuyts Archipelago. South Australia. Department of Mines and Energy. Unpublished Report; RB 84/025:53p; 1 appx, 5 fig, 9 plates, 9 tables

Abstract: Middle Proterozoic granitic rocks overlain by calcretes associated with Pleistocene Bridgewater Formation.

Flint RB, Crooks AF. 1982. Geology of Smooth, Egg, Dog and Freeling Islands of the Nuyts Archipelago. South Australia. Department of Mines and Energy. Unpublished Report; RB 82/11:14p; 2 fig, 3 plates

Abstract: Collates all geological work on the islands.

Flint RB, Crooks AF. 1982. Geology of St Francis and West Islands, Nuyts Archipelago. South Australia. Department of Mines and Energy. Unpublished Report; RB 82/10:24p; 2 fig, 3 plates

Abstract: Collates all geological work on the islands.

Flint RB, Crooks AF. 1981. Geology of Waldegrave and Cap Islands (Elliston and Kimba 1:250 000 map sheets). South Australia. Department of Mines and Energy. Unpublished Report; RB 81/28:15p; 1 fig, 5 plates, 3 tables

Abstract: Summarises all available geological information.

Flint RB, Fanning CM, Rankin LR. 1988. Carapsee Granite of central Eyre Peninsula. South Australia. Geological Survey. Quarterly Geological Notes; 105:2-6

Flint RB, Fanning CM, Rankin LR. 1988. The Late Proterozoic Kilroo Formation of the Poldas Basin. South Australia. Department of Mines and Energy. Unpublished Report; RB 88/006:1 fiche, 30p; 1 appx, 4 fig

Abstract: Drillhole intersected fully cored sequence of 793 m of interlayered amygdaloidal basalts and evaporite bearing reddish-brown mudstones defined here as Kilroo Formation (new name) below Carboniferous-Permian sediments. K-Ar geochronology and geochemistry indicate a Late Proterozoic age, probably equivalent to initial sequences in Adelaide Geosyncline. Poldas Basin is used here for all sediments from ? Middle Proterozoic to Tertiary.

Flint RB, Fanning CM, Rankin LR. 1988. The Late Proterozoic Kilroo Formation of the Poldas Basin. South Australia. Geological Survey. Quarterly Geological Notes; 106:16-23

Flint RB, Parker AJ. 1981. The Blue Range Beds, central Eyre Peninsula. South Australia. Geological Survey. Quarterly Geological Notes; 80:12-5

Abstract: Unmetamorphosed arenites of Middle Proterozoic age.

Flint RB, Rankin LR. 1989. Explanatory notes for the Kimba 1:250 000 geological map. South Australia. Department of Mines and Energy. Unpublished Report; RB 90/001:3 fiche, 113p

Flint RB, Rankin LR. 1991. Kimba, South Australia, sheet SI/53-7 International Index. South Australia. Geological Survey. 1:250 000 Geological Series - Explanatory Notes.; 46p

Flint RB, Rankin LR. 1991. The Saint Francis Granite of the southwestern Gawler Craton. South Australia. Department of Mines and Energy. Unpublished Report; RB 91/011:1 fiche , 16p
Notes: Includes report literature review

Abstract: Volcano-plutonic rocks of the Nuyts Archipelago represent a discrete phase of felsic magmatism at about 1630 Ma. Associated with the Nuyts Volcanics are grey alkali granites, leucogranites and leucoporphyrines - here defined as the Saint Francis Granite. Geochemistry and petrology of the Saint Francis Granite are distinctive in the region.

Flint RB, Rankin LR. 1991. The St Francis Granite of the southwestern Gawler Craton. South Australia. Geological Survey. Quarterly Geological Notes; 119:17-23

Flint RB, Rankin LR, Fanning CM. 1990. Definition - the Palaeoproterozoic St Peter Suite of the western Gawler Craton. South Australia. Geological Survey. Quarterly Geological Notes; 114:2-8

Flint RB, Rankin LR, Fanning CM. 1990. The Palaeoproterozoic St. Peter Suite of the western Gawler Craton. South Australia. Department of Mines and Energy. Unpublished Report; RB 90/059:18p

Abstract: A suite of intrusives (Saint Peter Suite - new name) along western Eyre Peninsula display a wide range in composition, texture and relationships. The features are typical for mingling and mixing of felsic and mafic magmas, with U-Pb geochronology suggesting an intrusive age of 1620 +/- 4 Ma.

Flintoft MW, Horn CM. 1989. Compilation of exploration data available on the Tarcoola Blocks Goldmine, Tarcoola, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 89/088:4 fiche, 149p

Notes: Includes report literature review

Abstract: Data package is compilation of recent exploration data (see SADME E6858), and some SADME data. Tarcoola Joint Venture (Tarcoola Gold Ltd and Newmex Ltd) formed in December 1986 to explore and redevelop the Tarcoola Blocks Goldmine. Encouraging Au assays indicating potential for production of high grade ore without substantial underground development were produced. 37 underground diamond drillholes on No.2 and 3 levels tested Ward, Imperial, Fabian, Western Branch and McKechnie Reefs. Trial mining undertaken in 4 areas accessible from 2 level to establish mining parameters, grade distribution and geological characteristics. No ore reserves were delineated.

Forbes BG. 1984. Compositions of some Adelaidean and Cambrian sedimentary rocks, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 84/101:1 fiche, 10p; 1 fig

Abstract: 56 analyses of sedimentary rocks from Newmont SR 13/2, Amoco SCYW 1A, Utah WD009 and WD012 and SADME Depot Creek 1 - many are carbonate rich and include diamictite, sandstone, siltstone and shale. B, Ba, Cu, Zn, V, Ga, Pb, Rb and C also recorded.

Forbes BG, Blissett AH, Whitehead SG. 1977. Pillow structures in an older Precambrian hornfels near Kokatha. South Australia. Geological Survey. Quarterly Geological Notes; 64:5-9

Forbes BG, Coats RP, Daily B. 1982. Flinders Ranges - Precambrian geology of the Adelaide Geosyncline and Cambrian of the Flinders Ranges. In: Fourth International Symposium on Antarctic Earth Sciences, August 1982, Adelaide University, South Australia. Guide to Excursion A - Archaean, Proterozoic and Lower Palaeozoic Geology, Eyre Peninsula and the Flinders Ranges, South

Australia. Adelaide, the University.; 37-62

Abstract: Descriptions of 11 localities.

Fradd WP. 1988. Earea Dam Goldfield, historical review and production records. South Australia. Department of Mines and Energy. Unpublished Report; RB 88/040:1 fiche, 37p

Notes: Includes report literature review

Abstract: Earea Dam Goldfield is 38 km ESE of Tarcoola. Discovered in 1899, average grade of ore treated was 35.33 g/t Au total yield 59,237.39 g of gold bullion. Report provides historical outline and brief description of workings.

Fradd WP. 1984. Glenloth gold battery, ore treated and gold bullion recovered, 1904-1963. South Australia. Department of Mines and Energy. Unpublished Report; RB 84/064:2 fiche, 71p; 2 fig, 2 plates

Abstract: 13,869 tonnes of ore treated, with recovery of 260,080 grams of gold bullion by amalgamation and cyanidation. 34,500 grams of gold remain in tailings on site.

Fradd WP. 1987. Gold production from Peterborough State Battery for the period 1/1/84 to 31/ 12/86 - historical report no.3. South Australia. Department of Mines and Energy. Unpublished Report; RB 87/089:1 fiche, 15p; 1 appx, 1 fig, 2 tables

Abstract: From 1/1/84 to 31/12/86, 435,26 t of ore treated at the battery and 5,629.69 g of gold bullion recovered. Battery operates on an intermittent basis crushing ore on demand.

Francis G, Segnit ER. 1981. Lepidocrocite from Iron Monarch, South Australia. Australian Mineralogist; 36:187-8

Abstract: Coating cavities in brecciated iron ore.

Furber DV, Cook JN. 1975. Middleback Range iron ores. In: Knight, C L (Ed.), Economic Geology of Australia and Papua New Guinea - 1. Metals. Parkville, Vic.: Australasian Institute of Mining and Metallurgy.; 945-51

Notes: AusIMM Monograph Series; no.5

Garner A, McPhie J. 1999. Partially melted lithic megablocks in the Yardea Dacite, Gawler Range Volcanics, Australia: implications for eruption and emplacement mechanisms. Bulletin of Volcanology; 61(6):396-410

Gatehouse CG. 1981. Colton no.1 - well completion report. South Australia. Department of Mines and Energy. Unpublished Report; RB 81/78:9p; 1 fig

Abstract: Drilling intersected Bridgewater Formation, Poelpena Formation and Precambrian, but no lignite.

Gatehouse CG. 1980. Mucka Cudla no.1 well completion report. South Australia. Department of Mines and Energy. Unpublished Report; RB 80/145:10p; 1 fig, logs

Abstract: Low quality lignite found but coal potential of northwest extension of Polda Basin downgraded.

Gatehouse CG. 1980. A report on the relinquished areas of EL 280 outside the area of EL 434. South Australia. Department of Mines and Energy. Unpublished Report; RB 80/56: 9p; 2 fig

Abstract: A summary of drilling and geology of relinquished area. Further exploration is warranted.

Gatehouse CG. 1981. Tuckey no.1 well completion report. South Australia. Department of Mines and Energy. Unpublished Report; RB 81/19:12p; 1 fig

Abstract: Drilling confirms presence of Polda Formation near eastern end of Polda Basin.

Gatehouse CG, Cooper BJ. 1981. The late Jurassic Polda Formation, Eyre Peninsula. South Australia. Department of Mines. Unpublished Report; RB 81/116:5p; 2 fig

Abstract: A formal definition of the Polda Formation.

Gatehouse CG, Cooper BJ. 1982 . The Late Jurassic Polda Formation, Eyre Peninsula. South Australia. Geological Survey. Quarterly Geological Notes; 81:13-6

Abstract: A formal definition.

Geological Society of Australia 1986. Excursion: kimberlitic rocks of South Australia. In: Ferguson J (Comp.), Fourth International Kimberlite Conference Pre-Conference Field Excursion Guide to Southeastern Australia, 1-10 August, 1986. Sydney: Geological Society of Australia.; 88-109
Notes: El Alamein; Orroroo; Terowie;

Geological Survey of South Australia. 1968. Port Augusta, South Australia, 1:250,000 geological series, sheet SI/53-4. Geological Survey of South Australia. 1 map

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Abstract: Detailed 3 m magnetic grid and interpreted information from the Wilgena Enterprise mine shows the usefulness of this type of detailed geophysical data for geological mapping and defining tectonic features. This, combined with future multichannel spectral radiometric and rock chip geochemical data, should greatly increase knowledge of a possible Au-basic dyke association with fracture control. It would also assist in future studies of the mineralization in the Tarcoola Au-Sn mineral province.

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- Abstract: Areas of high electrical transmissivity and depth to resistive basement are delineated as feasibility study for future EM and IP surveys.*
- Gerdes RA. 1978. A geophysical study of the Broughton area in Wallaroo and Blyth 1:100 000 sheet areas. South Australia. Department of Mines and Energy. Unpublished Report; RB 78/109:35p; 16 fig
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- Abstract: Thickness of Tertiary sediments and depth to metamorphic basement estimated.*
- Gibbons L. 1997, Regolith study of the Old Well gold prospect, Tarcoola District, Gawler Craton: Honours Thesis, The University of Adelaide, Department of Geology and Geophysics.
- Gibbons L, Lintern M. 1998. Regolith geology and geochemistry at Old Well prospect, Gawler Craton, South Australia. In: Britt, A F & Bettenay, L (Eds.), Regolith '98. Australian Regolith and Mineral Exploration. New Approaches to an Old Continent. 3rd Australian Regolith Conference, Kalgoorlie, Western Australia, 2-9 May, 1998. Program and Abstracts. Wembley, WA: Cooperative Research Centre for Landscape Evolution and Mineral Exploration.; 42

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Abstract: The interaction of basic magmas from the mantle and acid magmas from the crust.

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Notes: Last Resource prospect; Wanderpropa prospect; Garford prospect; Tunkillia prospect; Nuckulla Hill prospect; Challenger prospect; Hiltaba prospect; Perseverance prospect; Tarcoola region;

Abstract: Brief review of company exploration activity.

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Abstract: Vegetation is mapped according to perceived homogenous units delineated from aerial photography classified using an image analysis system and remotely sensed images. These areas are termed mapping units and may or may not be directly related to a particular suite of species that commonly occur together. Plant assemblages are defined using site based plant records and numerical analysis with a measure of dissimilarity. Through the compilation of sound scientific data and statistical inference, the part of vegetation mapping that can be described as an art form can be minimized. Successful vegetation mapping should identify a domain which increases the probability that an event occurs and should help in the location prediction of species, groups of species and their associated environments.

Goodwins D. 1995. The use of native vegetation mapping information. Workshop on Native Vegetation Mapping and Analysis, 7 Aug 1995, Black Hill Conference Centre, Athelstone SA, Papers. South Australia, Department of Housing and Urban Development, Adelaide; 6p

Abstract: Since European settlement, the vegetation of South Australia has been exposed to varying degrees of unnatural disturbance, ranging from broadscale clearance, where vegetation is cleared for crop, cultivation to increased grazing pressure, fertilization, erosion, modified fire frequencies, logging and invasion by introduced plants. The mapping of the different types of native vegetation is difficult to justify on a cost benefit analysis because so many benefits are intangible, but native vegetation is a natural resource that needs to be quantified. It is still not known whether certain types of native vegetation have been totally cleared in South Australia because there are no mapping benchmarks with which to compare remnants.

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Abstract: Southern edge of Australia is the site of non-tropical biogenic carbonate formation over a greater expanse of continental shelf than the Great

Barrier Reef. Variety of modern environments and sedimentary facies in region, and major factors responsible for sediment accumulation and preservation are summarized.

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Abstract: The distributions of Iridomyrmex purpureus s.s., 'yellow species', I. viridiaeneus, 'small purple species', and 'blue species' were investigated in the Gawler Ranges and Eyre Peninsula of South Australia, in relation to climate, soils and vegetation. A N-S gradient of increasing rainfall is accompanied by a gradient of increasing diversity (species richness) of local ant faunas.

Greenwood G, Boardman R. 1990. Climatic change and some possible effects upon the terrestrial ecology of South Australia. In: Noble, J C, Joss, P J & Jones, G K (Eds.), *National Mallee Conference: the Mallee Lands: a Conservation Perspective*, April 1989, Adelaide SA, Proceedings. CSIRO Publications, East Melbourne; 135-9

Abstract: Given the climatic scenario for South Australia over the next 50 years, there are a number of broad ecological effects likely to become apparent. In this study, the effect of the changing climate has been examined with reference to 11 representative climate stations in South Australia that extend geographically and climatically across the range occupied by ecosystems containing tree species. The consequences of change upon the distribution, ecology, extent and productivity of five broadly defined natural vegetation types are examined.

Grucke DR. 1997. Distribution of C3 and C4 plants in the late Pleistocene of South Australia recorded by isotope biogeochemistry of collagen in megafauna.

Abstract: Stable carbon isotope analyses on fossilized collagenic material in megafaunal bones can provide information regarding the palaeodiet (either C3 or C4 plants) of these animals. The percentage of trees and shrubs estimated from palaeofloral records in southeastern Australia and the dietary preferences of megafauna were found to be positively correlated. The dietary preferences of megafauna analyzed indicated that megafauna were opportunistic and changed their diet in response to environmental change. This suggests that megafauna diet can not be founded on dental morphology alone. Fossilized collagenic material in vertebrate remains can provide an insight into the broadscale nature of the vegetation. This approach is a good complement for other palaeoecological data by providing evidence for past climates in relation to the proportion of C3 and C4 plants.

Gunn PJ. 1967. Gravitational and magnetic interpretation of the Middleback Range area, South Australia. University of Melbourne. Department of Geology. M.Sc. Thesis.; 182p

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Abstract: Computer modelling of geophysical data provides structural information and emphasises the effects of weathering.

Hafer MR. 1991. Origin and controls of deposition of the Wheal Hughes and Poona copper deposits, Moonta, South Australia. University of Adelaide. B.Sc. (Hons) thesis (unpublished).

Hand M, Barovich K, Swain G, Woodhouse A and Schwarz M. 2002, A sedimentary window into the Late Archaean Gawler Craton - the GATE project (ppt presentation): Gawler Craton 2002: State of Play Workshop, 5-6 December 2002, Adelaide: Minerals and Energy Resources of South Australia.

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Abstract: Summary of geophysical exploration since 1961.

Hall JMG. 1980. Refraction survey, northwest Mulgathing Trough. South Australia. Department of Mines and Energy. Unpublished Report; RB 80/49:8p; 4 fig

Abstract: Refraction work shows that the trough splits and shallows with one branch ending abruptly against shallow basement.

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Call Number: S551.8 PAL.3

Abstract: Palynological analysis of core E55-6 obtained from offshore western Victoria, provides a record of vegetation and climate change in the southeastern South Australia and western Victorian region spanning much of the last 125,000 years. An accompanying oxygen isotope record provides a chronology for the sequence. The pollen record suggests that maximum effective precipitation occurred during the height of the Last Interglacial with wet sclerophyll forest and rainforest widespread in the region. There is no clear record of the Holocene due to the presence of mudflow sediments in the top of the core. The pollen evidence also suggests that the continental shelf exposed at sea levels was colonized by a mosaic of coastal vegetation including Myrtaceae dominated scrub, eucalypt and Casuarina woodland, Asteraceae and Chenopodiaceae dominated heath and grassland. The charcoal record gives evidence of increased burning during the height of the Last Interglacial period, most likely in response to increased fuel loads with the expansion of eucalypt dominated forest. This record also indicates a second phase of increased burning, which gives possible evidence for increased anthropogenic activity in the region.

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Abstract: Dating of carbonaceous silt from two drill holes.

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Abstract: A summary of palynological examinations from drill holes.

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- Abstract: A brief survey programme assessed the IP/resistivity technique in the Miltalie Mine environment, and provided sub-surface electrical information for siting diamond drill holes.*
- Harvey TV, Harvey LM, Dodds AR. 1991. Electrical properties of rocks and surficial cover as a guide for exploration for minerals and groundwater on Eyre Peninsula, SA. South Australia. Department of Mines and Energy. Unpublished Report; RB 91/032:4 fiche, 18p
Notes: Includes report literature review. Part of the Eyre Peninsula data package
- Abstract: The prospecting effectiveness of electrical geophysical methods is determined by both the mineral sought and the environment in which it is sought.*
- Hawke B. 1987. Vegetation analysis with biogeographic implications in North-East Eyre Peninsula, South Australia. B.Sc. (Hons.) Thesis, University of Adelaide;
- Haynes DW, Cross KC, Bills RT and Reed MH. 1995. Olympic Dam ore genesis: a fluid-mixing model. *Economic Geology*, 90:281-307.
- Heard LMB, Channon B. 1997. Guide to a native vegetation survey: using the biological survey of South Australia. Dept. of Housing & Urban Development, Adelaide;
Notes: Includes maps.
- Hein KAA. 1989. The geology and genesis of mineralization at the Tarcoola goldfield, Tarcoola, South Australia. University of Adelaide. Department of Geology and Geophysics. B.Sc. Hons Thesis.;
- Hein KAA, Both RA, Bone Y. 1994. The geology and genesis of the Tarcoola gold deposits, South Australia. *Mineralium Deposita*; 29(3):224-36
Notes: Special issue: Australian Proterozoic gold-copper deposits, edited by B.G. Lottermoser
- Abstract: Reinterpretation of the relationship between Tarcoola Formation and the adamellite, and mineralogical and petrological studies.*
- Helix Resources, 2002, Presentation to the South Australian Resource and Exploration Conference. (see <http://helix.net.au/web/archives.asp>)
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Abstract: State Government and exploration company data are compiled into a review of the geology and resource potential of the region. Attention is directed to the relative lack of basic lithological, petrophysical and biostratigraphic data, despite the intensity of drilling, and to the sparse coverage by geophysical surveys. Recommendations to redress this imbalance are made, so that the geology and economic potential can be better appreciated.

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Abstract: State government and company exploration data compiled into a comprehensive review of geology and resources potential of Arckaringa Basin region.

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Notes: AusIMM Monograph Series; no.14

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Abstract: Seven mineral occurrence summaries from the MINDEP data base.

Hill P, Crooks AF. 1991. Mineral occurrences of the Gairdner 1:250 000 map sheet area. South Australia. Department of Mines and Energy. Unpublished Report; RB 91/089

Abstract: Five mineral occurrence summaries from the MINDEP data base.

Hill P, Crooks AF. 1991. Mineral occurrences of the Kimba 1:250 000 map sheet area. South Australia. Department of Mines and Energy. Unpublished Report; RB 91/085

Abstract: Thirty four mineral occurrence summaries from the MINDEP data base.

Hill P, Crooks AF. 1991. Mineral occurrences of the Streaky Bay 1:250 000 map sheet area. South Australia. Department of Mines and Energy. Unpublished Report; RB 91/088

Abstract: Seventeen mineral occurrence summaries from the MINDEP data base.

Hill P, Crooks AF. 1991. Mineral occurrences of the Yardea 1:250 000 map sheet area. South Australia. Department of Mines and Energy. Unpublished Report; RB 91/086:various paging; 1 fig

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Hopton DL. 1983. Environmental analysis of the Late Precambrian Appila Tillite equivalent at Depot Flat, southern Flinders Ranges, South Australia. University of Adelaide. Department of Geology and Mineralogy. B.Sc. Hons Thesis.; 41p

Abstract: Younger phase of Sturtian glaciation.

Horn CM. 1986. Review of gold tailings in South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 86/045:1 fiche, 25p

Abstract: Stockpiles of tailings from abandoned gold mines are small and probably do not warrant retreatment individually.

Horn CM. 1988. Review of gold tailings in South Australia. Mineral Resources Review, South Australia; 156:57-64

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Horn CM, Fradd WP. 1985. Appraisal of gold tailings at Tarcoola Blocks mine. South Australia. Department of Mines and Energy. Unpublished Report; RB

85/041:2 fiche, 26p; 3 appx, 2 fig, 8 plates, 8 ref, 5 tables

Abstract: An indicated 29,100 t of tailings containing 1.88 g/t Au, 2 g/t Ag, 70 ppm Cu, 1200 ppm Pb, 350 ppm Zn, and 80 ppm As in two separate dumps. Cyanidation leach tests show 60% of Au in truck dumps and up to 50% of Au in main battery sands could be readily extracted.

Horn CM, Fradd WP. 1985. Appraisal of gold tailings at the Tarcoola State Battery and Cyanide Works. South Australia. Department of Mines and Energy. Unpublished Report; RB 85/018:2 fiche, 23p; 3 appx, 2 fig, 1 map, 5 plates, 8 ref, 4 tables

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Horr GM. 1977. Precambrian spilites and the Pandurra Formation of the Stuart Shelf, near Port Augusta, South Australia. Adelaide University. Department of Geology. B.Sc. Hons Thesis.; 32p

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Hou B, Frakes LA and Dodds AR. 2001. Recent drilling in the Garford Palaeochannel Gawler Craton - testing of a model derived from interpreted geological, geophysical and spectral methods. MESA Journal 20:24-27.

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Hough LP. 1987. Well velocity survey for drill hole CRAE KD1A EL1054, Poldia Basin. South Australia. Department of Mines and Energy. Unpublished Report; RB 87/052:2 fiche, 13p; 6 fig, 2 maps, 2 tables

Abstract: Drill hole on SADME seismic line PB83-001 at shot point 338, within EL 1054 to provide correlation between 1983 seismic reflection profile, and lithological and geophysical logs. Drilling to 1,398 m encountered Miocene, Eocene, Jurassic, Permian and Cambrian sequences. A good correlation was obtained between geological formation and seismic velocity.

- Howchin W. 1928. The Sturtian Tillite and associated beds on the western scarps of the southern Flinders Ranges. Royal Society of South Australia. Transactions and Proceedings; 52:82-94
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Notes: AusIMM Monograph Series; no.22
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- Huntley DJ, Prescott JR, Sheard MJ. And Lintern, MJ. 1999. Optical luminescence dating of Quaternary dunes and its implications for mineral exploration: Great Victoria Desert, South Australia. In Rowett, a. 1999. Exploring Ancient Landscapes Workshop, Abstracts. [PIRSA Regolith-Palaeochannel Workshop]. Adelaide, December 10th, 1999.
- Hyde M. 1995. Pre European vegetation mapping in SA. Workshop on Native Vegetation Mapping and Analysis, 7 Aug 1995, Black Hill Conference Centre, Athelstone SA, Papers. South Australia, Department of Housing and Urban Development, Adelaide; 5p
- Abstract: Only two 1:50000 map sheets of pre European vegetation have been published. A systematic program of completing the mapping based on survey data contained in the original Hundred Books of South Australia is required. It is particularly important in districts where valuable native plant community remnants are being damaged or destroyed through inappropriate planting programs. As a prerequisite for revegetation projects, pre European vegetation mapping must be completed and a two stage mapping process is described. The information in the Hundred Books is transcribed onto a cadastral only map sheet, then evidence of each of the vegetation boundaries is sought in the field to compile a species list. A series of ground truthing sites were created to record typical examples of vegetation units, the native species listed and their cover and abundance recorded. Known biological survey sites were assigned to the relevant mapped units and full species lists compiled.*
- Hyde MK. 1994. South Australia: [grassland communities and significant sites]. In: McDougall, K L & Kirkpatrick, J B (Eds.), Conservation of Lowland Native Grasslands in South-Eastern Australia. World Wide Fund for Nature Australia; 116-28

Abstract: Since no previous survey had been made of grasslands in South Australia, identification of the original grassy communities was made by soil survey and

comparison with Victorian grassland communities on similar soil. Four communities were recognized, swamp fringe, Mallee Stipa grasslands, sublittoral Triodia hummock communities and mid north tussock grasslands. Descriptions are given of the environment, and distribution and floristics of these communities have been mapped with special reference to significant sites, threats and management recommendations. A comprehensive table of species distribution within the plant communities is appended.

Ireland C, Lay B. 1999. The islands of Lake Gairdner National Park in arid South Australia: an initial appraisal of biodiversity and land condition. Range Management Newsletter; 99(2):1-12

Abstract: Lake Gairdner National Park SA consists of 5500 sq km of salt lakes within which are numerous islands that have never been under pastoral lease and qualify as wilderness of the highest quality under the criteria of the National Wilderness Inventory. The land condition of the park has been assessed as considerably better than that of the Flinders Ranges and Gammon Ranges National Parks, where long periods of historic total grazing pressure have prevailed. However, vegetation degradation, soil erosion problems and concentrations of feral animals, although not as severe, were evident, even on the most remote islands. This paper reports the main objectives for the initial appraisal of biodiversity and land condition in the park, which included an inventory of biodiversity, formalization of a system of monitoring sites (photopoints), evaluation and documentation of existing land management problems and threats to the integrity of the natural ecosystems of the park, and where applicable, to suggest some strategies for addressing or mitigating these problems or threats.

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Call Number: S631.4 AUS

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- James IW. 1974. Investigations into relations between the dihydrate phosphate minerals of Al and Fe. University of Adelaide. B.Sc. Hons Thesis.;
- Janz, J., 1990. The mineralogy and paragenesis of the Poona Mine copper deposit. Flinders University. B.Sc. (Hons) thesis (unpublished).
- Janz JK. 1993. Geochemical check analyses from the 1991 Tarcoola Tallaringa bedrock drilling program. South Australia. Department of Mines and Energy. Unpublished Report; RB 92/005
- Abstract: Geochemical cross check samples from the 1991 Tarcoola/Tallaringa Bedrock Drilling programme were submitted to various analytical laboratories to ensure accurate geochemical reporting in Departmental data packages. Results showed that acceptable geochemical consistency between laboratories was achieved.*
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Abstract: Correlation of lower Rogue Formation with Blanche Point Formation.

Morris BJ. 1987. Appraisal of gold tailings, Glenloth Goldfield. South Australia. Department of Mines and Energy. Unpublished Report; RB 87/107:1 fiche, 28p; 3 appx, 2 fig, 1 map, 5 plates, 2 ref

Abstract: Gold ore treated by 5 head stamp battery between 1904 and 1924, then by 10 head stamp battery between 1935 and 1963 on adjacent sites. Tailings stored on both sites, an indicated total of 13,620 t containing 5.8 kg of Au at average grade of 1.16 g/t Au remain. Cyanidation leach tests indicate cyanidation may extract 48.7% of contained Au without grinding and 74% with grinding. Tailings may be treated on site.

Morris BJ. 1983. Geology of Birthday ballast quarry. Mineral Resources Review, South Australia; 152:36-8

Abstract: Quarry suitable for expansion, with good reserves.

Morris BJ. 1984. Geology of Tarcoola ballast quarry. Mineral Resources Review, South Australia; 153:62-4

Morris BJ. 1981. Geology of Tarcoola ballast quarry (Tarcoola 1:250 000) Australian National. South Australia. Department of Mines and Energy. Unpublished Report; RB 81/44: 8p; 2 appx, 4 fig, 1 plate

Abstract: Quarry expansion is limited. Diamond drilling proposed.

Morris BJ. 1979. An investigation of heavy-mineral sands along the coast of Eyre Peninsula. Mineral Resources Review, South Australia; 147:51-9

Abstract: Eastern coastline contains small concentrations, western coast is occupied by calcareous dune sands.

Morris BJ. 1992. Kingoonya bedrock drilling, 1991. South Australia. Department of Mines and Energy. Unpublished Report; RB 92/039:104p
Notes: Part of Kingoonya data package

Abstract: Thirty six reverse circulation drill holes, totalling 1448 m (av 40.2 m), were drilled to determine bedrock geology and geochemistry below sedimentary cover, in areas recommended following compilation and appraisal of all available geological and geophysical data on the Kingoonya sheet. Drilling was not extensive, and in one area failed to reach bed rock, but some anomalous bed rock geochemistry was encountered including: molybdenum associated with hydrothermally altered Hiltaba Suitemicro-granite and Tarcoola Formation quartzite; base metals and gold associated with Gawler Range Volcanics, dolerite and andesite within Tarcoola formation black shale; gold, zinc and rare earths associated with basalt and acid volcanic layers within Labyrinth Formation. The aeromagnetic anomalies tested appear to be due to basaltic layers with potential for associated volcanogenic massive sulphide mineralization.

Morris BJ. 1984. Review of phlogopite in kimberlitic rocks as a possible source of vermiculite in South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 84/075 :1 fiche, 17p; 6 fig, 1 map, 1 plate, 22 ref

Abstract: Data summarized on potential phlogopite-bearing kimberlitic rocks, which were investigated during exploration for diamonds and base metals, and are large enough to be of economic interest.

Morris BJ. 1983. Rock chip sampling of Mount Mitchell tin workings. Mineral Resources Review, South Australia; 152:23-7

Abstract: Geochemical survey indicates grade of 250 ppm tin - further exploration needed.

Morris BJ. 1981. Rock chip sampling - tin prospect near Warna Rock Hole (Tarcoola 1:250 000). South Australia. Department of Mines and Energy. Unpublished Report; RB 81/7:8p; 5 fig

Abstract: Sampling indicates that tin mineralization is widespread in the Kingoonya-Glenloth-Tarcoola 'tin province'.

Morris BJ. 1984. Tin prospect near Warna Rock Hole - rock chip sampling. Mineral Resources Review, South Australia; 153:69-73

Abstract: Tin content too low to warrant detailed exploration.

Morris BJ, Davies MB, Newton AW. 1998. Iron ore deposits of the northern Gawler Craton. In: Berkman, D A & Mackenzie, D H (Eds.), *Geology of Australian and Papua New Guinean Mineral Deposits*. Carlton, Vic.: The Australasian Institute of Mining and Metallurgy.; 401-6
Notes: AusIMM Monograph Series; no.22

Morris BJ, Flintoft MW. 1999. Calcrete sampling, Hawks Nest prospect: highlighting the mineral potential. South Australia. Department of Primary Industries and Resources. Report Book; 99/00024:106p

Abstract: Mines and Energy SA completed exploration programme for iron ore at Hawks Nest prospect during 1995 and 1996. Along with detailed magnetic and gravity surveys, programme included 110 RC-hammer drill holes. Analysis of drill cuttings revealed highly anomalous Au, Cu, Pb and Zn values, which prompted a calcrete sampling programme to test precious and base metal potential of iron ore prospect. Orientation samples collected from trenches dug at 2 sites (A and B), and analyzed for Au, Ag and Cu by low detection cyanide leach method. Samples also analyzed for other minerals. Ultra low gold detection limit allowed interpretation of values in 1-10 ppb range. Site A un-mineralized area, while Site B was above drill hole HKN 99 which had intersected 4 m of 4 g/t Au. Northern grid and western grid selected for subsequent full calcrete sampling programme and detailed grids completed over 3 drill holes that intersected significant gold mineralization. Calcrete at Hawks Nest prospect found to be effective sampling medium for gold mineralization. Poor geochemical response obtained from detailed Grid HKN 53, however, several significant gold anomalies located by calcrete sampling programme, and further investigations of these areas recommended. Anomalous silver in calcrete with associated arsenic found to be possible indicator of base metal mineralization, which has important implications for mineral exploration in area.

Morris BJ, Flintoft MW. 1999. Calcrete sampling of the Hawks Nest prospect - highlighting the mineral potential. MESA Journal; 15:5-7

Morris BJ, Hill PW, Ferris GM. 1994. Barton bedrock drilling project 1993. South Australia. Department of Mines and Energy. Unpublished Report; RB 94/019:720p

Abstract: 184 reverse circulation drill holes were drilled on BARTON, near western margin of the Gawler Craton, to determine bedrock geology and geochemistry below extensive deposits of Tertiary sand and Great Victoria Desert sand dunes. 146 holes intersected basement, from 9 m to greater than 110 m deep, revealing an amphibolite-granulite facies terrain comprising granitoid gneisses with abundant mafic and ultramafic rocks. Anomalous base and precious metal values are widespread and three areas of layered mafic-ultramafic complexes, containing up to 20% chromite, are outlined. Potential for lode-gold style deposits similar to the Western Australian Shield is indicated

and the discovery of lamprophyre dykes indicates potential for metallic and diamond mineralization. Significant heavy mineral concentrations may be present in the Tertiary sands of the Ooldea and Barton Ranges. The regional investigations have significantly upgraded the mineral prospectivity of the area making it an attractive exploration target for a variety of commodities.

Morris BJ, Sibenaler XP. 1980. Geochemical reconnaissance of the Gawler Range Volcanics (Yardea, Gairdner, Tarcoola, and Port Augusta). South Australia. Department of Mines and Energy. Unpublished Report; RB 80/21:10p; 11 fig

Abstract: A summary of geochemical exploration revealed trace amounts of molybdenum, silver and tin mineralization.

Morrison RS. 1982. The geology, petrology and geochemistry of SW Saint Francis Island, SA. Adelaide University. Department of Geology and Mineralogy. Hons Thesis.; 21p

Morrison RS. 1982. A preliminary investigation into the applicability of gamma ray spectrometry in regional mapping of the Gawler Craton. South Australia. Department of Mines and Energy. Unpublished Report; RB 82/35:30p; 14 fig, 10 ref

Abstract: Lithologies and hidden contacts can be distinguished by portable spectrometer.

Mowling FA. 1979. The natural vegetation of Eyre Peninsula, 1979. Nature Conservation Society of South Australia, Adelaide; 102p; map

Mumme IA. 1965. An hypothesis on the origin of thucholite mineralization at the Wallaroo-Moonta mining field, South Australia. Royal Society of South Australia. Transactions; 89:255-6

Murray Wallace CV, Belperio AP, Picker K, Kimber RWL. 1989. Marginal marine aminostratigraphy of the last interglacial in Southern Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 89/086:1 fiche, 21p

Abstract: Amino acid racemization data provide the basis for a predictive model for relative dating of Late Quaternary coastal sequences.

Murray Wallace CV, Kimber RWL, Belperio AP. 1988. Holocene palaeotemperature studies using amino acid racemization reactions. South Australia. Department of Mines and Energy. Unpublished Report; RB 88/053:1 fiche, 8p

Abstract: Potential of applying amino acid racemization to Holocene molluscan samples from the Southern Hemisphere is explored.

Murray Wallace CV, Kimber RWL, Belperio AP, Gostin VA. 1987. Aminostratigraphy of the last interglacial in Southern Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 87/115:1 fiche, 15p; 1 fig, 28 ref, 1 table

Abstract: Application of amino acid racemization reactions is explored for regional chronostratigraphic correlation of Last Interglacial marginal marine sediments.

Murray Wallace CV, Kimber RWL, Gostin VA, Belperio AP. 1987. Amino acid racemisation dating of the "Older Pleistocene marine beds", Redcliff, Northern Spencer Gulf, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 87/114:1 fiche, 15p; 2 fig, references, 1 table

Abstract: Extent of racemization (epimerization) for a range of amino acids in specimens of fossil bivalvia "Anadara trapezia" suggest Penultimate Interglacial age (oxygen isotope stage 7) approximately 200,000 years B.P., consistent with geological context of fossiliferous marine strata.

Murray Wallace CV, Kimber RWL, Gostin VA, Belperio AP. 1988. Amino acid racemisation dating of the "Older Pleistocene marine beds", Redcliff, northern Spencer Gulf, South Australia. Royal Society of South Australia. Transactions; 112(2):51-5

Abstract: An interglacial age of 200,000 years - illustrating the value of the method for Quaternary dating.

National Land & Water Resources Audit. 2001. Australian native vegetation assessment 2001. National Land & Water Resources Audit; 332p
Call Number: 628.1(94) NAT.5 [pt.6]

National Land & Water Resources Audit. 2001. Major vegetation groups and their status in each State and Territory: bioregions in South Australia. Australian Native Vegetation Assessment 2001. National Land & Water Resources Audit. (http://audit.ea.gov.au/anra/vegetation/docs/Native_vegetation/nat_veg_sa.cfm)

National Land & Water Resources Audit. 2002. Native vegetation in Australia: major vegetation groups. National Land & Water Resources Audit, Canberra; 1 map
Call Number: MAP HC Australia
Notes: 1:11,000,000 scale.

Nature Conservation Society of South Australia. 1972. The Gawler Ranges: report on a survey. Nature Conservation Society of South Australia, Adelaide;
Notes: Includes maps.

Nature Conservation Society of South Australia. 1969. Hambidge, Hincks and Blesing: an assessment of three areas on Eyre Peninsula. Nature Conservation Society of South Australia, Adelaide;

Nelson RG. 1975. Mulgathing area, final report on geophysical survey. Client: Uranerz (Aust) Pty Ltd. South Australia. Department of Mines and Energy. Unpublished Report; RB 75/46:10p; 15 fig, maps

Abstract: The Permian Durkin Trough was verified by seismic and gravity surveys.

Nelson RG. 1975. Mulgathing area, progress report on geophysical survey. South Australia. Department of Mines and Energy. Unpublished Report; RB 75/5:9p; 3 fig

Abstract: A Permian palaeochannel lying with basement was outlined by seismic traverses.

Nelson RG. 1976. The Mulgathing Trough. South Australia. Geological Survey. Quarterly Geological Notes; 58:5-8

Nelson RG. 1973. Railways bridge at Yorkey's Crossing, Port Augusta, seismic refraction survey - Commonwealth Railways of Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 73/186:5p; 1 fig, 2 maps, 1 section

Abstract: Hard bedrock of Corraberra Sandstone Member a few metres below surface.

Nelson RG. 1974. A re-evaluation of seismic velocities recorded in calcretes: Flinders Highway, Talia-Port Kenny-Streaky Bay section. South Australia. Department of Mines and Energy. Unpublished Report; RB 74/175:17p; 3 appx, 14 fig, 4 plates, 7 ref

Abstract: Same velocities recorded as in 1972 survey.

Nelson RG. 1974. Seismic refraction investigation of a tank site at Whyalla. Electricity and Water Supply Department. South Australia. Department of Mines and Energy. Unpublished Report; RB 74/209 :5p; maps, 2 ref

Abstract: Rocks within 3 metres of surface have low velocities.

Nelson RG. 1972. Seismic refraction survey: Eyre Peninsula section, Eyre Highway, Penong to Bookabie, County Kintore. Client: Highways Department. South Australia. Department of Mines and Energy. Unpublished Report; RB 72/26:26p; 1 map, 1 ref

Abstract: Description of proposed cuttings and rippability of calcrete.

Nelson RG. 1972. Seismic refraction survey: Eyre Peninsula section, Flinders Highway, Talia to Streaky Bay, County Robinson. Client: Highways Department. South Australia. Department of Mines and Energy. Unpublished

Report; RB 72/46:27p; 1 map, 1 ref

Abstract: Description of proposed cuttings and rippability of calcrete.

Nelson RG, Greenhalgh SA. 1985. Seismic studies of deep crustal structure in the Adelaide Geosyncline. Bureau of Mineral Resources, Geology and Geophysics. Record; 1985/7:48-58

Notes: Abstracts of the ACORP Deep Seismic Reflection Profiling Workshop, Canberra, May, 1982

Newell R, Quast K. 1988. Preliminary testing of Tarcoola gold ore. In: Contemporary Gold - Bendigo. A Workshop for the Gold Extraction Industry, Bendigo College of Advanced Education, 27-29 September, 1988. Papers. Bendigo, Vic: Bendigo College of Advanced Education. Department of Metallurgy.; 14p

Abstract: Tests show good recovery by simple cyanidation.

Newton AW. 1993. Barton/Colona drilling. South Australia. Department of Mines and Energy. Report Book; 93/053:12-5

Notes: Report Book title: South Australian resources. Technical sessions. Abstracts, edited by W.V. Preiss

Newton W, Davies M, Morris B. 1997. Emerging new resources for world class iron ore and steel production in South Australia. MESA Journal; 7:6-11

Nichol D. 1975. Amethyst deposit, Hundred of Kelly. Mineral Resources Review, South Australia; 138:99-102

Abstract: Less than 5% is gem quality material.

Nichol D. 1975. The colour of nephrite jade from Cowell. South Australia. Geological Survey. Quarterly Geological Notes; 53:9-12

Abstract: Formed by metamorphism of impure dolomite.

Nichol D. 1974. Graphite deposit near Carpa, County of Jervois, Hundred of Hawker, Sections 43 and 44 (Client: P Wake). South Australia. Department of Mines and Energy. Unpublished Report; RB 74/138:8p; 2 maps, 3 ref

Abstract: Further investigation of Lower Proterozoic quartz-graphite schist recommended.

Nicolle D. 2000. A review of the *Eucalyptus calycogona* group (Myrtaceae) including the description of three new taxa from southern Australia. Nuytsia; 13(2):303-15

Abstract: Eucalyptus L'Herit series Heterostemon Benth. (Myrtaceae) is described, and a key is provided for the seven species now recognized. E. calycogona is described under a reduced circumscription with two new subspecies and a new specie. E. calycogona subsp. calycogona occurs in the

wheatbelt are of southern Western Australia and disjunctly in South Australia, mainly on the Eyre Peninsula. New subspecies of *E. calycogona* described are: subsp. *spaffodii* (restricted to the Eyre Peninsula), and subsp. *trachybasis* which is widespread in eastern South Australia, western Victoria and just extending into New South Wales. The new species described, *E. prolixa*, is endemic to the goldfield regions of Western Australia. Distribution maps and representative illustrations are provided for the newly described taxa.

Nicolle D. 1997. A taxonomic revision of the *Eucalyptus striaticalyx* group (*Eucalyptus* series *Rufispermae*: *Myrtaceae*). *Nuytsia*; 11(3):365-82

Abstract: A taxonomic revision of Eucalyptus striaticalyx W. Fitzg. sens. lat. has been undertaken based on morphological characteristics observed through field studies, herbarium research and seedling trials. It has a widespread distribution in remote parts of southern Australia and exhibits great morphological variation across its distribution. Three new species and two new subspecies are described and keys, maps and representative illustrations for all the described species are provided.

Nicolle D, Conran JG. 1999. Variation in the *Eucalyptus flocktoniae* complex (*Myrtaceae*) and the description of four new taxa from southern Australia. *Australian Systematic Botany*; 12(2):207-39

Abstract: Eucalyptus flocktoniae is considered to be a complex distinguished from within Eucalyptus series Subulatae by decurrent juvenile leaves and glossy adult leaves. The geographical range of E. flocktoniae was examined to quantify the patterns of variation in both adult and seedling morphology. Three related species were also studied to assess similarity and relationships to E. flocktoniae. Phenetic analysis of adult and juvenile data sets indicated that the E. flocktoniae complex consisted of five distinct taxa, distinguishable from one another in eleven characters. A key and distribution maps are provided for taxa of the E. flocktoniae complex.

Nixon LG. 1975. The stratigraphy and structure of the Moonabie Formation at Mount Laura, South Australia. South Australia. Geological Survey. Quarterly Geological Notes; 56:10-2

Nixon LG. 1975. The stratigraphy and structure of the Moonabie Formation, at Mount Laura, South Australia. South Australia Geological Survey. Quarterly Geological Notes; 56:10-2

Olliver JG. 1975. Corunna barite deposit. Co Hore-Ruthven Eyre planning area. South Australia. Department of Mines and Energy. Unpublished Report; RB 75/49:12p; 1 fig

Abstract: Barite is too high in silica for oil drilling.

Olliver JG, Barnes LC. 1990. Celestite in South Australia. A review of production use, tenure and geology. South Australia. Department of Mines and Energy. Unpublished Report; RB 90/070:88p

Notes: Includes report literature review

Abstract: Celestite (SrSO₄), is the only known raw material suitable for production of strontium carbonate and other compounds which are used in the television and computer industries. Historically, only 113 t have been mined in Australia, all from Wooldridge Creek, 40 km NW of Oodnatta. Exploration programmes in 1969-70 by CRA at Wooldridge Creek and Mount Arthur, and in 1986-89 by Status Minerals near Lake Eyre South were unsuccessful. Further study is warranted at other known celestite occurrences as demand for strontium compounds is strong and growing. Any proven deposits will provide valuable opportunities for downstream processing.

Olliver JG, Dubowski EA, Barnes LC. 1988. Reappraisal of gypsum reserves near Streaky Bay, Eyre Peninsula. Mineral Resources Review, South Australia; 156:69-74

Olliver JG, Nichol D. 1978. Barite deposits near Whyalla, northern Eyre Peninsula. Mineral Resources Review, South Australia; 42:90-100

Olliver JG, Nichol D. 1975. Mount Laura barite deposit, Section 26, Hundred of Cultana, County of York. R.C.Davison. South Australia. Department of Mines and Energy. Unpublished Report; RB 75/16:9p; 2 fig, 1 plan

Abstract: Quantities of barite are too small for further development.

Olliver JG, Nichol D. 1975. Mt Whyalla barite deposit out of Hundreds, Co Manchester. South Australia. Department of Mines and Energy. Unpublished Report; RB 75/63:12p; 2 fig, 1 plan

Abstract: 2,188 tonnes of high quality barite was produced from 1938 to 1967.

Oussa SA. 1995. Structural evolution of the Kalinjala Mylonite Zone. In: Clare Valley Conference, Organized by the GSA Specialist Group in Tectonics and Structural Geology, Clare Valley, 25-29 September 1995. Geological Society of Australia. Abstracts.; 40:132

Outback Oil Company NL, Aero Exploration Pty Ltd. 1984. ELLISTON aeromagnetic contour maps of total intensity, 1:250 000 scale. South Australia. Department of Mines and Energy. Plan.; 84-56

Abstract: Includes original on and offshore regional aeromagnetic contoured data.

Owen HB. 1963. The geology of Iron Monarch orebody. In: Australasian Institute of Mining and Metallurgy Annual Conference, Port Pirie and Whyalla, South Australia, 14-24 August, 1963. Technical Papers. Melbourne: AusIMM.; 9p
Notes: Whyalla. Technical paper; no.6

- Owen HB. 1964. The geology of Iron Monarch orebody. Australasian Institute of Mining and Metallurgy. Proceedings; 209:43-67
Notes: Includes discussion and contributions by J.A. Dunn, H.B. Owen, O.A. Jones, J. Sofoulis and G.F. Whitten p58-67
- Owen HB, Whitehead S. 1965. Iron ore deposits of Iron Knob and the Middleback Ranges. In: McAndrew, J (Ed.), Eighth Commonwealth Mining and Metallurgical Congress, Australia and New Zealand, 1965. Publications. Volume 1. Geology of Australian Ore Deposits. 2nd Ed. Melbourne: Australasian Institute of Mining and Metallurgy.; 301-8
- Owens HM, Hudspith TJ, Robinson AC, Dobrzinski I, Armstrong DM, Pedler LP, Lang PJ. 1995. A biological survey of Yumbarra Conservation Park South Australia. South Australia, Department of Environment and Natural Resources, Adelaide; 95p; maps

Abstract: In March 1995, a two week development oriented biological survey of the vegetation and vertebrate fauna of Yumbarra Conservation Park SA and surrounding areas was undertaken. With more intensive sampling than previous regional surveys, this survey recognized eight plant communities with 215 plant species, 11 of which were introduced and another four plant communities in surrounding areas, 17 mammal species of which four were introduced, 101 bird species, of which one was introduced and 46 reptile species were recognized. Additional biological information which supports the great conservation and wilderness significance of the Yellabinna dunefield area, is addressed along with the conservation reserve status, the impact of mineral exploration and cultural values. The survey can be seen as a model for the future gathering of the more detailed biologically information on relatively small and discrete areas such as conservation reserves in a systematic way which is completely compatible with existing biological survey information.

- Pain AM. 1985. Geological investigations calccrete deposit, Coomaba. Pavement materials, Tod Highway Kankoo to Yelanna section, Sections 50,52, Hundred Shannon. Client: Highways Department. South Australia. Department of Mines and Energy. Unpublished Report; RB 85/009:2 fiche, 16p; 1 fig, 1 map, 7 plates, 3 ref, 1 table

Abstract: A patch of calccreted Bridgewater Formation calcarenite found to be suitable for production of crushed rock to reconstruct the highway.

- Pain AM. 1980. Rhyolite sealing aggregate deposit, Kingoonya. South Australia. Department of Mines and Energy. Unpublished Report; RB 80/113:7p; 2 fig, 3 plates

Abstract: Testing and drilling indicate large reserves of porphyritic rhyolite suitable as a sealing aggregate.

Pain AM, Scott DC, Harris RJ. 1980. Monument Hill sand deposit, Port Augusta, South Australia. Mineral Resources Review, South Australia; 149:40-5

Abstract: 180,000 tonnes of sand conforming to standard.

Pain AM, Valentine JT, Hayball A. 1992. Reconnaissance drilling of construction sand deposits, northern Yorke Peninsula. Report no.1. South Australia. Department of Mines and Energy. Unpublished Report; RB 92/056:255p

Abstract: 66 auger holes averaging 9.6 m, and 96 reverse circulation holes averaging 33.6 m have outlined a Tertiary palaeochannel extending for over 60 km from near Alford to Ardrossan. The channel is open to the north.

Parker AJ. 1978. Petrological descriptions of 60 rocks from the Middle Camp, Narridy Creek and Plug Range area, Eastern Eyre Peninsula. South Australia. Department of Mines and Energy. Unpublished Report; RB 78/19:46p

Parker AJ. 1978. Structural, stratigraphic and metamorphic geology of Lower Proterozoic rocks in the Cowell/Cleve district, eastern Eyre Peninsula. Adelaide University. Department of Geology. Ph.D. Thesis.; 2v.

Parker AJ. 1979. Stratigraphic subdivision of the Hutchison Group on northeastern Eyre Peninsula. In: Symposium on the Gawler Craton, Australian Mineral Foundation, 11 December, 1979. Extended Abstracts Compiled by A.J. Parker. Adelaide: Geological Society of Australia. South Australian Division.; 20-3

Abstract: Four major tectonic events recognised.

Parker AJ. 1980. The Kalinjala Mylonite Zone, eastern Eyre Peninsula. South Australia. Geological Survey. Quarterly Geological Notes; 76:6-11

Abstract: A major lineament with intense ductile deformation.

Parker AJ. 1980. The Kalinjala mylonite Zone, eastern Eyre Peninsula. South Australia. Department of Mines and Energy. Unpublished Report; RB 80/65:7p; 3 fig, 1 plate

Abstract: A major linear Zone of intense deformation in eastern Eyre Peninsula.

Parker AJ. 1980. The six 1:100 000 compilation sheets of Whyalla - a progress report. South Australia. Department of Mines and Energy. Unpublished Report; RB 80/93:36p; 10 fig, 8 tables

Abstract: A resume of stratigraphy, structure and tectonic evolution, with six preliminary geological maps.

Parker AJ. 1980. Microstructural development of mylonites near Cowell, eastern Eyre Peninsula, South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 80/19:14p; 8 fig

Abstract: A mylonite Zone has developed by deformation and recrystallization of gneisses during a regional fold event.

Parker AJ. 1983. Precambrian correlation of the Lake Superior region, North America, and the Gawler Craton. South Australia. Department of Mines and Energy. Unpublished Report; RB 83/080:56p; 10 fig, 1 map, 39 ref, 15 plates

Abstract: Geology of Lake Superior outlined - many similarities in tectonic evolution and depositional style of the two provinces

Parker AJ. 1987. Archaean to Middle Proterozoic mineralization of the Gawler Craton (including the Stuart Shelf region). South Australia. Department of Mines and Energy. Unpublished Report; RB 87/084:1 fiche, 28p; 7 fig, 51 ref

Abstract: Scope for mineralization ranges from Late Archaean iron and base metal deposits to Middle Proterozoic Cu-U-Au-Ag and rare earth elements.

Parker AJ. 1990. Eyre Peninsula base metal potential. South Australia. Department of Mines and Energy. Unpublished Report; RB 90/078: 49-52
Notes: Report book title: South Australia - Exploration Towards 2000, Seminar, Adelaide, 13 December, 1990. Extended abstracts, compiled by A.J. Parker

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Parker, A.J., 1993. Palaeoproterozoic. In: Drexel, J.F., Preiss, W.V. and Parker, A.J., (Eds), The geology of South Australia. Vol. 1, The Precambrian. South Australia. Geological Survey. Bulletin, 54:51-105.

Parker, A.J., 1996. Shear zone hosted Proterozoic gold, Nuckulla Hill. In: Preiss, W.V. (Ed.), Resources '96. Convention abstracts. Mines and Energy South Australia, pp.102-105.

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Parker J. 1997. Role of calcrete sampling in the discovery and delineation of gold mineralisation in the Yarlbinda Shear Zone, western Gawler Craton. In: Gold Exploration Using Calcrete Geochemistry - Background and SA Case Studies

Workshop, in Association With the 38th AMIRA Annual Technical Meeting, Adelaide, 10 September, 1997. Papers. Glenside, SA: the Foundation.; 5p

Parker, A.J., 2003. Geophysical characteristics of shear zone-hosted Proterozoic gold, Nuckulla Hill, South Australia. In: Dentith, M.C. (Ed.), Geophysical signatures of South Australian mineral deposits. University of Western Australia. Centre for Global Metallogeny. Publication, 31.

Parker AJ, Cowley WM, Thomson BP. 1990. The Torrens Hinge Zone and Spencer Shelf with particular reference to Early Adelaidean volcanism. In: Jago, J B & Moore, P S (Eds.), The Evolution of a Late Precambrian - Early Palaeozoic Rift Complex: the Adelaide Geosyncline. Geological Society of Australia. Special Publication.; 16:129-48

Parker AJ, Daly SJ. 1982. Symposium on the Gawler Craton - drill hole logs. South Australia. Department of Mines. Unpublished Report; RB 82/009:60p; 2 fig, 41 plans

Abstract: Logs and core photographs of 37 holes.

Parker AJ, Fanning CM. 1998. Whyalla, South Australia - sheet SI/53-08 International Index. South Australia. Primary Industries and Resources SA. 1:250 000 Geological Series - Explanatory Notes.; 52p

Parker AJ, Fanning CM, Flint RB. 1981. Archaean to Middle Proterozoic geology of the southern Gawler Craton, South Australia: excursion guide. Adelaide, Geological Survey of South Australia.; 77p

Abstract: A field guide for a six day excursion.

Parker AJ, Fanning CM, Flint RB. 1985. Geology. In: Twidale, C R, Tyler, M J & Davies, M (Eds.), Natural History of Eyre Peninsula. Adelaide: Royal Society of South Australia.; 21-45

Abstract: Part of the Gawler Craton tectonic province.

Parker AJ, Fanning CM, Martin AR, Rankin LR. 1986. Archaean - Early Proterozoic granitoids, metasediments and mylonites of southern Eyre Peninsula, South Australia. In: Geological Excursions of the Adelaide Geosyncline, Gawler Craton and Broken Hill Regions. Excursion Guide of the Eighth Australian Geological Convention, Flinders University, Adelaide, February 16-21, 1986, Compiled by A.J Parker. Adelaide: Geological Society of Australia. South Australian Division.; 65p

Parker AJ, Flint RB. 1983. Whyalla, South Australia, sheet SI/53-8. Zone 5. South Australia. Geological Survey. 1:250 000 Geological Atlas Series.; 1 map

Parker AJ, Lemon NM. 1981. Reconstruction of the early Proterozoic stratigraphy of the Gawler Craton, South Australia. South Australia. Department of Mines.

Unpublished Report; RB 81/92:48p; 18 fig

Abstract: Stratigraphy and model of sedimentation are revised based on detailed structural mapping.

Parker AJ, Lemon NM. 1982. Reconstruction of the Early Proterozoic stratigraphy of the Gawler Craton, South Australia. Geological Society of Australia. Journal; 29(2):221-38

Abstract: Recognition of major folding has necessitated revision of the stratigraphy.

Parker AJ, Thomson BP. 1977. Preliminary report on stratigraphic drilling in EL 207 and adjacent areas, northern Yorke Peninsula. South Australia. Department of Mines and Energy. Unpublished Report; RB 77/142:6p; 6 fig

Parker AJ, Rickwood PC, Baillie PW, McClenaghan MP, Boyde DM, Freeman MJ, Pietsch BA, Murray CG and Myers JS. 1987. Mafic Dyke Swarms of Australia. In: Halls, A.C. and Fahrig, W.F. (Eds), Mafic dyke swarms. Geological Association of Canada Special Paper, 34:401-417.

Parker J, Thomson BP. 1979. Preliminary report on stratigraphic drilling in northern Yorke Peninsula. Mineral Resources Review, South Australia; 147:61-7

Abstract: Adelaidean sediments thin flat lying and comparable to Stuart Shelf with some copper mineralization.

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were used to test for age-glass separation of Australian Eocene cuticle samples. Seventy-two samples from 27 different localities were examined from which 705 cuticle types were identified. Neither classification nor ordination showed clear-cut correlation with age-classes. The inability of the analysis to recognise the chronological distinction is believed to be due to vegetation heterogeneity, whose input into the depositional environment is influenced by a range of factors, including geography, climate, sedimentary facies changes and taphonomic biases. Stepwise multiple discriminant analysis carried out on a reduced data set was partially successful in eliminating the influence of vegetation heterogeneity. Fifty-one parataxa selected by preliminary X "SUP 2" tests were reduced to 22 principal indicators which were ranked according to their ability to distinguish age-classes. Combining these indicators into linear discriminant functions enabled separation of the Early Eocene, lower Middle Eocene and Late Eocene with 100% accuracy, and the upper Middle Eocene and middle Middle Eocene with 95.7% and 83.3% accuracy, respectively.

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Abstract: This report updates the first comprehensive South Australian State of the Environment report, evaluates the effectiveness of management initiatives since 1988 and provides a guide to policies for future environmental management in the State. Much has been done to advance ecologically sustainable development and a review of progress covers the areas of the atmosphere, water resources, aquatic environment and resources, land resources, forests, biodiversity, population and health, waste, noise, agriculture, energy, transport, mining and petroleum industry, heritage, leisure and urban development. Among the priorities for action identified are: the need to reduce the high level of water consumption per person, the importance of wetland management and maintenance, conservation and management of fish stocks, relief of land salinization, proper management of native vegetation to preserve biological diversity and prevent further land degradation, conservation of non vascular plants and invertebrates and biological control of rabbits.

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Abstract: The first comprehensive South Australian State of the Environment report is updated, the effectiveness of management initiatives since 1988 evaluated, and a guide provided to policies for future environmental management in South Australia. Much has been done to advance ecologically sustainable development and a review of progress covers the areas of the atmosphere, water resources, aquatic environment, land resources, forests, biodiversity, population and health, waste, noise, energy, transport, agriculture, mining and petroleum industry, heritage, leisure, and urban development. Priorities for further action include reduction of the high level of water consumption per person, wetland management, conservation and management of fish stocks, land salinity control, management of native vegetation to preserve biodiversity and prevent further land degradation, conservation of nonvascular plants and invertebrates, and biological control of rabbits.

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Abstract: Nine day geological field reconnaissance made of sediments underlying the centreline of the rocket range, over an area extending from 30 to 60 miles out from Woomera, for the purpose of planning seismic recorder layouts for detecting the impacts of ballistic testflight objects.

South Australia Department of Mines and Energy. Plan; 1985. (6133-I) Detailed aeromagnetic contour map, 1:50 000 series. South Australia Department of Mines and Energy. 85-509:1 map

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Abstract: The lineament mapping methods which were a crucial factor in the discovery of Olympic Dam, the world's largest known Cu-U-Au-Ag deposit, and of several other lesser Australian orebodies, have now been applied for the first time to the predominantly deep basement eastern portion of South Australia in a tectonic mapping study underway at MESA. This report gives essential background information about the preferred and most reliable techniques for lineament mapping, and provides examples of calibre, scope and versatility of GIS-based geoscientific data now available to such studies, thereby illustrating the as yet largely untapped potential of lineaments as an exploration tool. It is held by the author that the more timely and deliberate use of this tool within Australia should also have led to an earlier discovery date for the Century orebody in Queensland, which is currently the world's largest Pb-Zn deposit, and further, could likewise have advanced the finding of the world-class Boddington, Plutonic and Kanowna Belle Au deposits in Western Australia.

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South Australia Threatened Species Strategy Steering Committee. 1993. Draft threatened species strategy for South Australia. South Australia, Department of Environment and Natural Resources, Adelaide; 67p

Abstract: South Australia is the only State to have its native vegetation protected by specific legislation and was the first to enact legislation to establish marine protected areas. The early development of the State placed emphasis on development of and production from its natural resource base. The long term implications of this development are now more apparent. There has been a loss of vegetation and soils, increasing salinization of land and waterways, pollution of coastal waters and estuaries, over exploitation of biological resources and the extinction of species of native fauna, with many more species of flora and fauna and some ecological communities under threat. Concurrent with this understanding is an increasing effort by South Australians to repair these deleterious effects on the environment to enable future generations to inherit a State that retains a continuing diversity of biological resources.

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Abstract: Highlights the continuous nature of mallee patterns, which stems from: 1) the independent climatic-edaphic response patterns of different species, especially the independence of the upper and lower strata; and 2) the effects of the E-W biogeographic cline across S Australia and other related, localised historical factors. Mallee floristic patterns may appear discontinuous over small areas, but at the State level, divisive classification is arbitrary. Conservation criteria such as rarity and representativeness need reconsideration in view of this floristic continuity.

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Statham Lee L. 1994. Palaeodrainage and its economic potential in the Officer Basin and Musgrave Block. South Australia. Department of Primary Industries and Resources. Report Book; 94/00030:21p

Abstract: Vast agglomeration of Tertiary palaeodrainage can be observed in the Officer Basin using NOAA-AVHRR images. Images in this report are an example of results which can be achieved using NOAA-AVHRR imagery as aid to mineral exploration. Palaeodrainage in this region is of economic interest for possible occurrences of placers of heavy metals such as gold, platinum and uranium, and also for alluvial deposits of gold and diamonds occurring in sites that were once suitable for chemically reducing or physically ponding such sedimentary mineral types.

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- Taylor RJ. 1970. The geophysical interpretation of some gravity and magnetic anomalies in the Middleback Ranges area of South Australia. Adelaide University. Department of Economic Geology. B.Sc. Hons Thesis.; 30p

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- Teasdale J. 1997. The interpretive geology and tectonothermal evolution of the western Gawler Craton. Ph.D thesis, University of Adelaide.
- Tesselaar JM. 1994. A geophysical investigation of the Lake Harris Komatiite, South Australia: BSc (Hons) thesis, University of Adelaide, Adelaide, Australia (unpublished).
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Abstract: Outline of history and concept of project with geological interpretation and mineralization.
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Abstract: Results of drilling which aimed to study relationships between Roopena Volcanics and older rocks.

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Abstract: Exploration results unfavourable for further Cattlegrid or MG14 type mineralization. Work included orientation biogeochemical surveys at Cattlegrid and MG14, trial resistivity profiling in Mount Gunson and Oakden Hills areas. Reinterpretation of INPUT data by amplitude ratio analysis, interpretation of Winnie Pinnie low level aerial magnetic data, biogeochemistry at New Mosely Dam, interpreted bedrock lithology maps, geophysical logging of drill holes from Lake Dutton and Bookaloo, Crone pulse EM profiles at Cattlegrid and INPUT anomaly J and petrography of MG14 drill core. MG14 deposit contains 860 000 t at 2.08% Cu, but there are milling and recovery problems. Embayments of Woocalla Dolomite considered prospective.

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Notes: Lead-zinc data package contributors: Horn, C M; Robertson, R S; Morris, B J; Parker, A J; Newton, A W; Rankin, L R; Martin, A R; Flint, F B; Daly, S J; Cowley, W M

Abstract: Four main styles of mineralization have been identified and the following areas worthy of further investigation have been outlined. Broken Hill style: associated with BIF and schist of Early Proterozoic Hutchinson Group on eastern Eyre Peninsula. Gamsberg (or Balmat-Edwards) style: associated with metamorphosed calc silicate and dolomite of the Hutchison group (northern and central Eyre Peninsula). Mount Isa style: Early Proterozoic (1800-1730 Ma) acid volcanics and associated dominantly fine-grained, sediments. McArthur River style: Middle Proterozoic in black shale, siltstone, dolomite and chert associated with tuffaceous volcanics and major structural features. A style of mineralization not noted for Pb Zn but containing appreciable Ag, is Olympic

Dam. In the Roopena area, mineralization in underlying altered hematitic breccias suggests affinities with Olymic Dam.

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Abstract: Further work not recommended due to coal quality and remoteness.

Townsend IJ , Morris BJ, Farrand MG. 1994. Review of diamond resources in South Australia. South Australia. Department of Mines and Energy. Unpublished Report; RB 94/34:18p

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Notes: Report book title: South Australia - Exploration Towards 2000, Seminar, Adelaide, 13 December, 1990. Extended abstracts, compiled by A.J. Parker

Tucker DH, Nelson RG. 1991. Interpretation and exploration significance of the 1988 Eyre Peninsula airborne magnetic survey, South Australia. In: Exploration in a Changing Environment. The Australian Society of Exploration Geophysicists 8th Conference and Exhibition and the Geological Society of Australia Exploration Symposium, Sydney, February 17-21, 1991. Geological Society of Australia. Abstracts.; 30:31-3

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Abstract: An examination of the geological history of the Gawler Ranges Volcanic Complex.

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Twidale CR, Campbell EM. 1993. Fractures: a double edged sword. A note on fracture density and its importance. Zeitschrift Fur Geomorphologie; 37(4):459-75

Abstract: Illustrated by a comparison of the Gawler Ranges massif and the inselberg landscape of northern Eyre Peninsula.

- Twidale CR, Shepherd JA, Thomson RM. 1970. Geomorphology of the southern part of the Arcoona Plateau and the Tent Hill region, west and north of Port Augusta, South Australia. Royal Society of South Australia. Transactions; 94:55-68
- Valentine JT. 1994. Graphite in South Australia - a review of production, use and geology. South Australia. Department of Primary Industries and Resources. Report Book; 94/00024:49p
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- Abstract: A natural history of the forests and woodlands of South Australia. Birds, plants and trees are identified and individual essays indicate how all the organisms interact with each other in the ecosystem.*
- Wallace MW, Gostin VA, Keays RR. 1992. Sedimentology of the Late Proterozoic Acraman impact ejecta horizon, South Australia. In: Earth Sciences, Computers and the Environment. Eleventh Australian Geological Convention, Ballarat, January 18-25, 1992. Geological Society of Australia Abstracts.; 32:153
- Wallace MW, Williams GE, Gostin VA, Keays RR. 1990. The Late Proterozoic Acraman Impact - towards an understanding of impact events in the sedimentary record. South Australia. Department of Mines and Energy. Mines and Energy Review; 157:29-35
- Abstract: A well documented geochemical anomaly attributed to an impact event.*
- Waller DR, Quilty JH, Lambourn SS. 1972. Eucla Basin airborne magnetic and radiometric survey, SA, 1970. Bureau of Mineral Resources, Geology and Geophysics. Record; 1972/60:11p

Ward LK. 1949. The genesis of the iron ores of the Middleback Range, South Australia. Australasian Institute of Mining and Metallurgy. Proceedings; 152-153:229-40

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Watkins N, Flint RB. 1983. Proterozoic intrusives, Streaky Bay area. South Australia. Department of Mines and Energy. Unpublished Report; RB 83/082:21p; 1 fig, 4 maps, 11 plates, 6 ref

Abstract: Middle Proterozoic age indicated from some granitoids, probably intruded during final stages of Kimban Orogeny.

Watkins NL, Flint RB. 1983. Proterozoic intrusives, Streaky Bay area. South Australia. Department of Primary Industries and Resources. Report Book; 83/00082

Abstract: The intrusives are dominated by granite, N-S oriented diorite dykes up to 50 m wide, and late stage aplitic and pegmatitic veins with variable orientation. A Middle Proterozoic age is indicated for some of the granitoids, which were probably intruded during the final stages of the Kimban Orogeny.

Watkins NL, Latinovic M. 1996. South Australian steel and energy project. Geotechnical logging of boreholes from iron ore deposits. South Australia. Department of Mines and Energy. Report Book; 96/35:102p

Abstract: MESA are investigating the geometry and ore grades of banded iron formation deposits within the Gawler Craton near Coober Pedy, for possible use in the production of pig iron. Core samples from five diamond cored boreholes were logged to determine and compare the geotechnical features of soil and rock material at the Hawks Nest, Sequoia, Giffen Well and Peculiar Knob prospects. The logging defined aspects such as division of engineering geological units, rock substance strength, degree of weathering, Rock Quality Designation and a description of rock mass defects and structure. Inspection of core from the Peculiar Knob prospect compared the general geotechnical aspects of this site with other sites. This report is intended to be a preliminary phase geotechnical characterisation of the sites, from which further detailed geotechnical investigations can be carried out.

Watmuff IG, Morris BJ. 1994. Soil air carbon dioxide and oxygen as a guide to oxidising sulphide concealed beneath shallow cover. Soil air CO₂/O₂ project: review report 1. South Australia. Department of Mines and Energy. Report Book; 95/44:34p
Notes: Includes report literature review

Abstract: A joint project to appraise the soil air CO₂/O₂ technique as a guide to concealed oxidizing sulphides. Testing was conducted over known mineralization in a variety of geological and geographical settings including the Mount Lofty Ranges, Moonta District, Eyre Peninsula, Stuart Shelf and the Olary Block. Encouraging results were obtained from some localities but generally results were ambiguous due to near surface active soil zones and the shallow sampling depth (75 cm). It is essential that future gas sampling be from 3-5 m depth, avoiding the active soil zone and any calcrete horizons. It is recommended that orientation studies be undertaken to test the most suitable sampling depth. This would involve shallow drilling, and it is also recommended that drill hole samples be tested for sulphur gases, particularly CS₂ and COS, which are also potential indicators of oxidizing sulphide.

Watmuff IG, Morris BJ. 1993. Soil air CO₂/O₂ project, progress report VII, Menninnie Dam, Eyre Peninsula. South Australia. Department of Mines and Energy. Unpublished Report; RB 93/039:1 fiche, 18p

Abstract: Soil air carbon dioxide (CO₂) and oxygen (O₂) measurements as a guide to oxidising sulphide have been assessed over areas of known mineralization in a variety of geological and geographical settings. The rationale is that sulphide oxidation in the presence of water and oxygen will produce sulphuric acid which in turn will attack any carbonates present to produce CO₂. Oxygen is consumed in the process. Both CO₂ and O₂ are easily measured to an acceptable accuracy in the field with portable equipment.

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Webb AW, Thomson BP. 1977. Archaean basement rocks in the Gawler Craton, South Australia. Search; 8(1/2):34-6

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Abstract: Dating of 663 rocks to determine stratigraphic, magmatic and tectonic history.

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Abstract: 161 magnetic anomalies of greater than 200 gammas were recorded. Of these 7 are greater than 3000 gammas. No radiometric anomalies were recorded.

White A, Milligan PR. 1986. Geomagnetic variation anomaly on Eyre Peninsula, South Australia. Exploration Geophysics; 17(1):32-4

White RE. 1967. The seismicity and crustal structure of South Australia. Adelaide University. Department of Physics. Ph.D. Thesis.; 158p

Abstract: Study based on network of seismograph stations operating since 1963 indicates average crustal thickness in area covered is 40 km.

Whitten G. 1963. The investigation of two types of aeromagnetic anomalies on Eyre Peninsula. In: Australasian Institute of Mining and Metallurgy Annual Conference, Adelaide, South Australia, 14-24 August, 1963. Technical Papers. Melbourne: AusIMM.; 4p

Whitten GF. 1963. Drilling of the Warrambo aeromagnetic anomalies, central Eyre Peninsula. Mining Review, Adelaide, 115:70-79.

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Wightman WE. 1974. Gravity survey at Warripi area near Tarcoola for Nissho-Iwai Co (Aust) Pty Ltd. South Australia. Department of Mines. Unpublished Report; RB 74/168:5p; 6 fig, 1 ref

Abstract: Survey confirms major basement valleys located by drilling.

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Meteorite Impacts and Planetary Evolution. Geological Society of America. Special Paper; 293:209-24

Williams GE. 1986. The Acraman Impact Structure: source of ejecta in Late Precambrian shales, South Australia. Science; 233(4760):200-3

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Abstract: A diameter of at least 90km.

Williamson HD. 1989. Reflectance from shrubs and under-shrub soil in a semiarid environment. Remote Sensing of Environment; 29(3):263-71
Call Number: S550.83 REM

Abstract: The reflectance of vegetation and soil and the relationship between these two variables are often very different in semiarid areas compared to more temperate areas where much of the research in remote sensing has been undertaken. In this study, reflectance data were recorded from nine plant species and nine terrain units using a radiometer in a semiarid shrubland of South Australia. Reflectance from the plant was affected significantly by changes in the soil underneath the shrubs. No single soil line was found to be applicable for use in vegetation indices which allow for changes in soil reflectance. The normalized difference and perpendicular vegetation indices were analyzed and found to reduce the effect of the soil as changes in soil reflectance altered the red and near infrared bands similarly.

Williamson HD. 1988. Soil influences on vegetation reflectance of a semi-arid shrubland. In: Guyenne, T D & Hunt, J J (Eds.), Remote Sensing. Proc. IGARSS '88 Symposium, Edinburgh, 1988. Vol. 2. European Space Agency, ESTEC, Noordwijk; ESA SP-284; 837-40

Abstract: Reflectance data were recorded from nine vegetation species and nine terrain units using a radiometer in a semi-arid shrubland of South Australia. Many of the vegetation species showed distinct spectral responses. Reflectance from vegetation was affected significantly by changes in soil background.

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Wood JG. 1937. The vegetation of South Australia. Government Printer, Adelaide; 164p

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Abstract: This interpretation of magnetic and gravity data was undertaken as part of an interpretation of the northern Gawler Craton, and was carried out without reference to any previous geophysical interpretation. Most of the work is based on the widely spaced BMR aeromagnetic survey plus a number of more detailed but restricted surveys undertaken in the southwestern quadrant of the area, together with the SADME regional gravity map. Six separate provinces possessing differing magnetic and structural characteristics were identified, as were 4 families of arc-shaped lineaments.

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enrichment in Archaean to Lower Proterozoic rocks; complex magnetic and/or gravity anomalies as potential volcanic or diatreme complexes; kimberlites/carbonatites from geophysical and/or geochemical data; and Olympic Dam type and other metalliferous prospects. Also suggested that a project be commissioned to stratigraphically subdivide the Pandurra Formation using downhole composite geophysical log information, to assist in estimating depth to pre-Pandurra targets.

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6. CONCLUSIONS

This compilation of data type and location information for the Central Gawler Gold Study Area is by no means complete, much data is still held in the corporate databases at GA and PIRSA and needs further, more detailed searches to extract it. The many stand-alone databases at GA are currently being merged into one relational database and consequently not all relevant information was able to be extracted at the time of this report. Both PIRSA and GA have many datasets which have not yet been entered into any database, and both have restrictions on extracting confidential data for reporting purposes. Database administrators will need to address this problem with reporting before the confidential data can be accessed. Also a great deal of unpublished university and company data have not been able to be described in detail in this report. Further work needs to be done in locating and digitising legacy data, and this will require detailed searches of open file reports (held at PIRSA) and possibly tracking down the original data with the relevant company

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All references cited in the text are included in the bibliography (section 5.0).