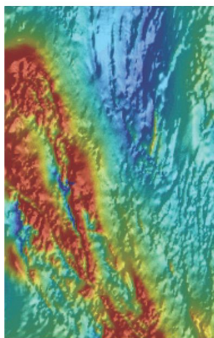


## Department of State Development

Metadata: Gawler Province Basement  
model



Date Printed: 31/03/2015



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## Dataset

**Title:** Gawler Province Basement model

**Custodian:** Geological Survey of South Australia. Department of State Development

**Jurisdiction:** South Australia

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## Description

### Abstract:

PIRSA's early 3D modelling trials targeted the Gawler Province Region. The process of building the Gawler model in 3D GeoModeller began with identifying the stratigraphic units that were to be modelled. Due to the regional scale of the project, the stratigraphic pile represents packages of units aggregated into single units (e.g. Nawa Domain). The input data were prepared utilising appropriate subsets of PIRSA's geoscientific database and spatial data library. These data sources included elevation, solid geology, surface geology, faults, field observations, sectional interpretations based on geological interpretation of unconstrained geophysical inversions. 2D points were used to define contact between units as parameters for interpolation into 3D objects. In addition to the topographic section (top-down view), the modeller created cross-section views of the input data and added further observation and contact points. Stratigraphic pile and contact relationship between units (erosive or onlapping) are further parameters used by 3D GeoModeller for model interpolation. After the input data points were added to the 3D GeoModeller sections, the 3D model was computed. GeoModeller uses kriging interpolators to compute a three dimensional model, utilising the rules of stratigraphic pile as well as conformable and erosional contact of units as defined by modeller. Forward modelling and inversion were not utilised on the Gawler model, therefore the 3D model has not been tested against potential field data (gravity and magnetic intensity). The completed model displays 3D objects representing the major stratigraphic units within the Gawler Province. The model was exported to file formats suitable for viewing in Discover 3D, Gocad or Adobe Reader.

**GEN Name:** Gawler Province, South Australia

**Geographic Extent Polygon:** E95000 N7070000, E865000 N7070000, E865000 N6065000, E95000 N6065000

**North bounding latitude:** N7070000

**South bounding latitude:** N6065000

**East bounding longitude:** E865000

**West bounding longitude:** E95000

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## Data Currency

**Beginning Date:** 2005

**End Date:** 2010

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## Dataset Status

**Progress:** Complete

**Maintenance:** As required

**Version Number:** 1

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## Access

**Stored format:** DIGITAL, 3D-pdf

**Available format(s):** DIGITAL, 3D-pdf, Gocad, Geomodeller

**Access constraint(s):** Data is not to be redistributed without approval from Authorisation Officer.

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## Data Quality

**Positional accuracy:** Vertical accuracy of the interpolated formation volumes, topographic and basement surfaces are variable due to resampling (topographic surface), interpretation (formation boundaries) and interpolation/unconstrained inversions (formation volumes).

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## Contact Information

**Contact organisation:** Department of State Development, South Australia

**Contact position:** Customer Service Centre

**Contact mail address:** GPO Box 1671, Adelaide, SA 5001

**Contact telephone:** 08 8463 3000

**Contact email:** resources.customerservices@sa.gov.au

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## Metadata Dates

**Add date:** 2012-01-25

**Change date:** 2015-03-30

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## Responsible Party

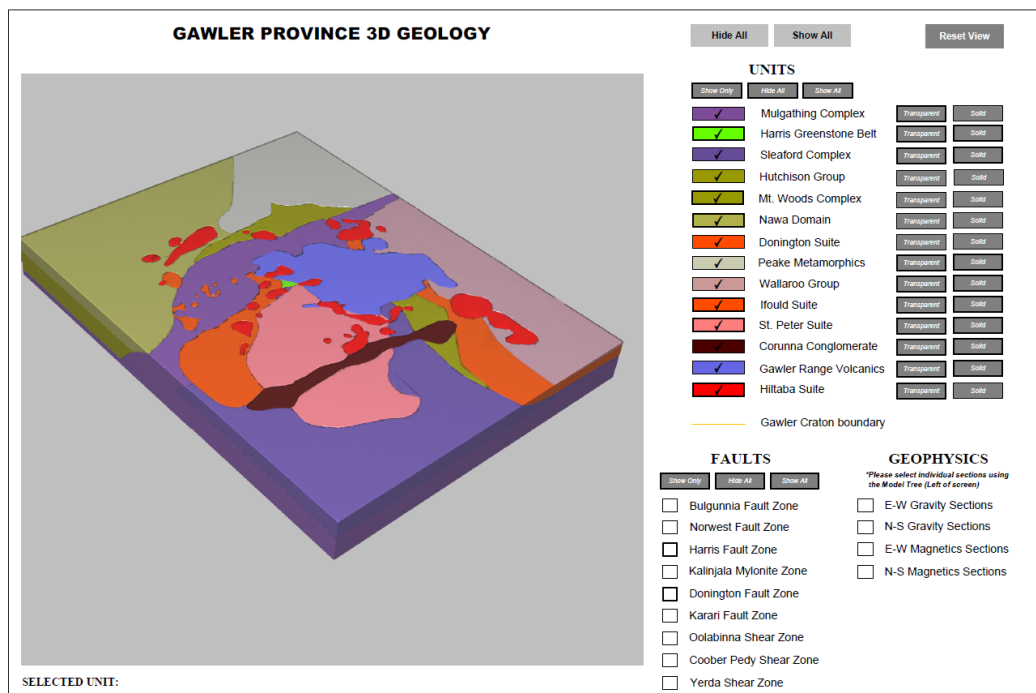
**Responsible party:** Chief Geoscientist, Mapping and Exploration, GSSA

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## Description

**Dimension:** x,y,h

**Sample Graphic(s)**



[www.minerals.pir.sa.gov.au](http://www.minerals.pir.sa.gov.au)  
Model is visible only with Acrobat Reader 8 or later

Created by: Leon Faulkner  
Philippe Calcagno  
Michael Schwarz  
George Gouthas

## Gawler Province Basement Geology model 3D-pdf

### Usage

**Purpose:** Exploration geology, 3D visualisation

**Use:** Exploration geology, 3D visualisation

**Usage limitations:** This model is presented as a 'proof of concept' only and the accuracy (spatial or otherwise) should not be relied upon for exploration or other decision making processes.

## Dataset Associations

### Origin

**Dataset size:** 18.26MB

**Projection:** UTM Zone 53

**Datum:** GDA94

## Dataset Management

**Authorised by:** Chief Geoscientist, Mapping and Exploration, GSSA

### Attributes

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