3D model of the greater McArthur Basin

ANZLIC Identifier:	05599886D801ED1FE050CD9B21444AEF
Title:	3D model of the greater McArthur Basin
Custodian:	Northern Territory Geological Survey (NTGS) Department of Primary Industry and Resources
Abstract:	The Northern Territory Geological Survey (NTGS) has built a 3D structural model of the Wilton package in the greater McArthur Basin area (Northern Territory, Australia). The model is composed of two stratigraphic horizons and 73 faults surfaces and has been updated in the Tanumbirini region (SE of the Mallapunyah fault). The horizon and fault surfaces were generated from a series of 1D, 2D and 3D data. This DIP contains 2D GIS objects, 2D cross sections and 3D digital objects grouped as wells, faults, and horizons. The data objects and the GOCAD project are all referenced in GDA 94 zone 53.
Search Word(s):	greater McArthur Basin, 3D model, Wilton package, GOCAD-SKUA, regional model, Beetaloo sub-basin, Roper Group,
Bounding Coordinates:	North Bounding Coordinate: -13.9739 South Bounding Coordinate: -17.525 East Bounding Coordinate: 135.5984 West Bounding Coordinate: 132.5142
Reference System Information:	The GOCAD project is supplied in Geocentric Datum of Australia (GDA94), Map Grid of Australia Zone 53 [EPSG: 28353].
Data Currency Start Date:	November 2013
Data Currency End Date:	March 2017
Progress:	In Progress
Maintenance and Update Frequency:	As Required
Access Constraint:	The data or product is copyright of the Northern Territory Government. The data and other information may be reproduced or used to develop other products but any such copies or works must acknowledge the Northern Territory Geological Survey, on behalf of the Northern Territory of Australia as the source of the original data or information.

Lineage:

The 3D model is derived from the following input datasets:

- Surface geology and cross sections from published second edition 1:250000 scale geological maps
- Balanced cross-sections based on field work in the Urapunga-Roper River 1:250000 scale geological mapsheets
- Seismic interpretation of the Beetaloo historic seismic survey and reprocessed (2014) Roper Valley seismic survey
- Well path and stratigraphic markers from petroleum wells and other drillholes
- Fault geometry interpreted from surface and subsurface geology
- Fault movement from Betts et al 2014 and from field structural investigations
- Stratigraphic column synthesised from Ahmad et al 2013 and from Abbott and Sweet 2000 (sequence stratigraphy) including contact relationships between units.

Positional Accuracy:

Positional accuracy of the final 3D model is limited to the cell resolution of 1200 x 400 m (horizontal-vertical resolution respectively).

Attribute Accuracy:

There is no attribution of the 3D model and associated data.

Logical Consistency:

Data is logically consistent for the purpose of building a 3D model of the greater McArthur Basin.

Completeness:

Partially complete.

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