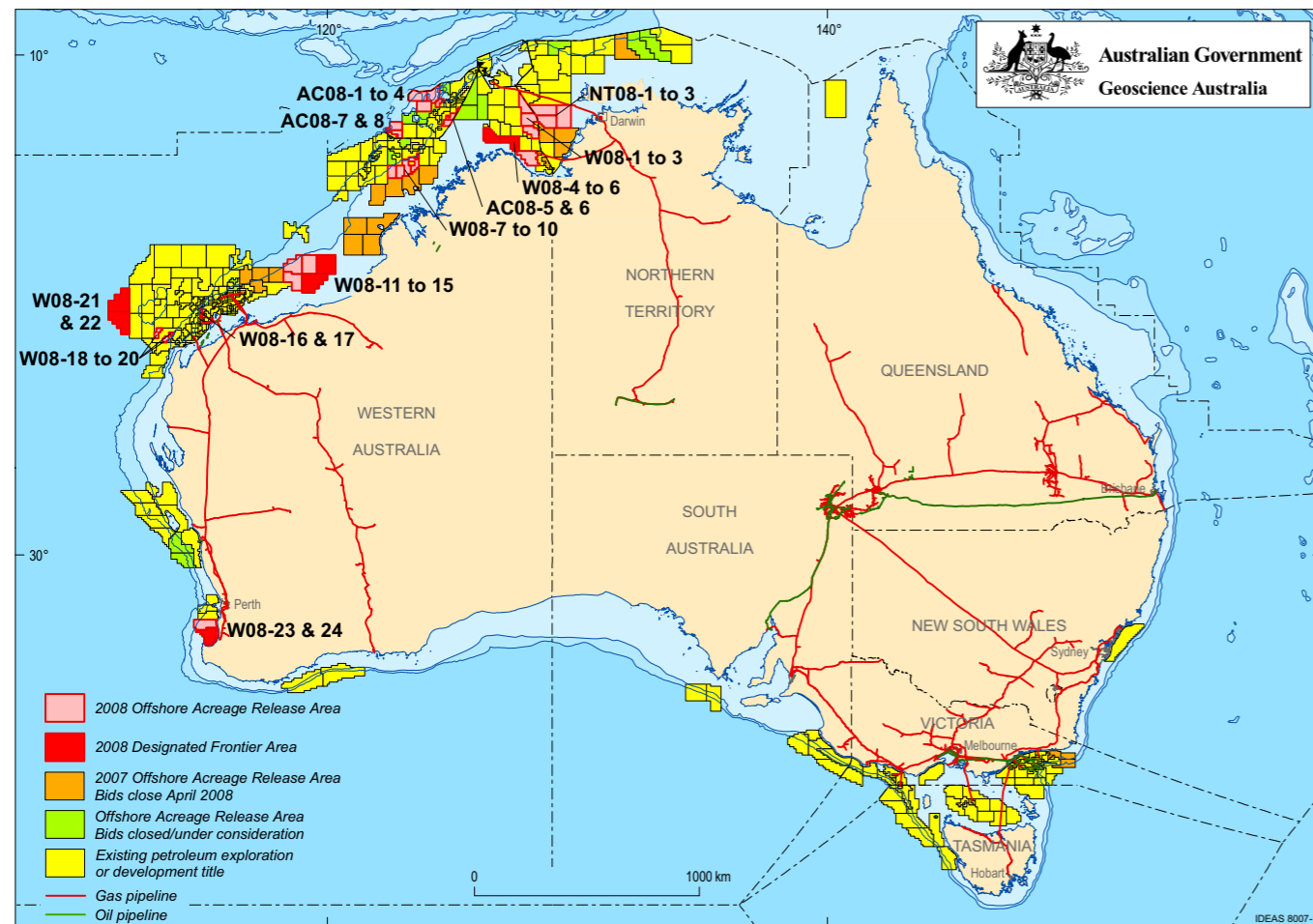


## 2008 Release of Offshore Petroleum Exploration Areas

The 2008 Offshore Petroleum Exploration Acreage release comprises 35 Release areas, located across five basins. The Release areas range from frontier to mature status and offer opportunities for exploration companies of all sizes.

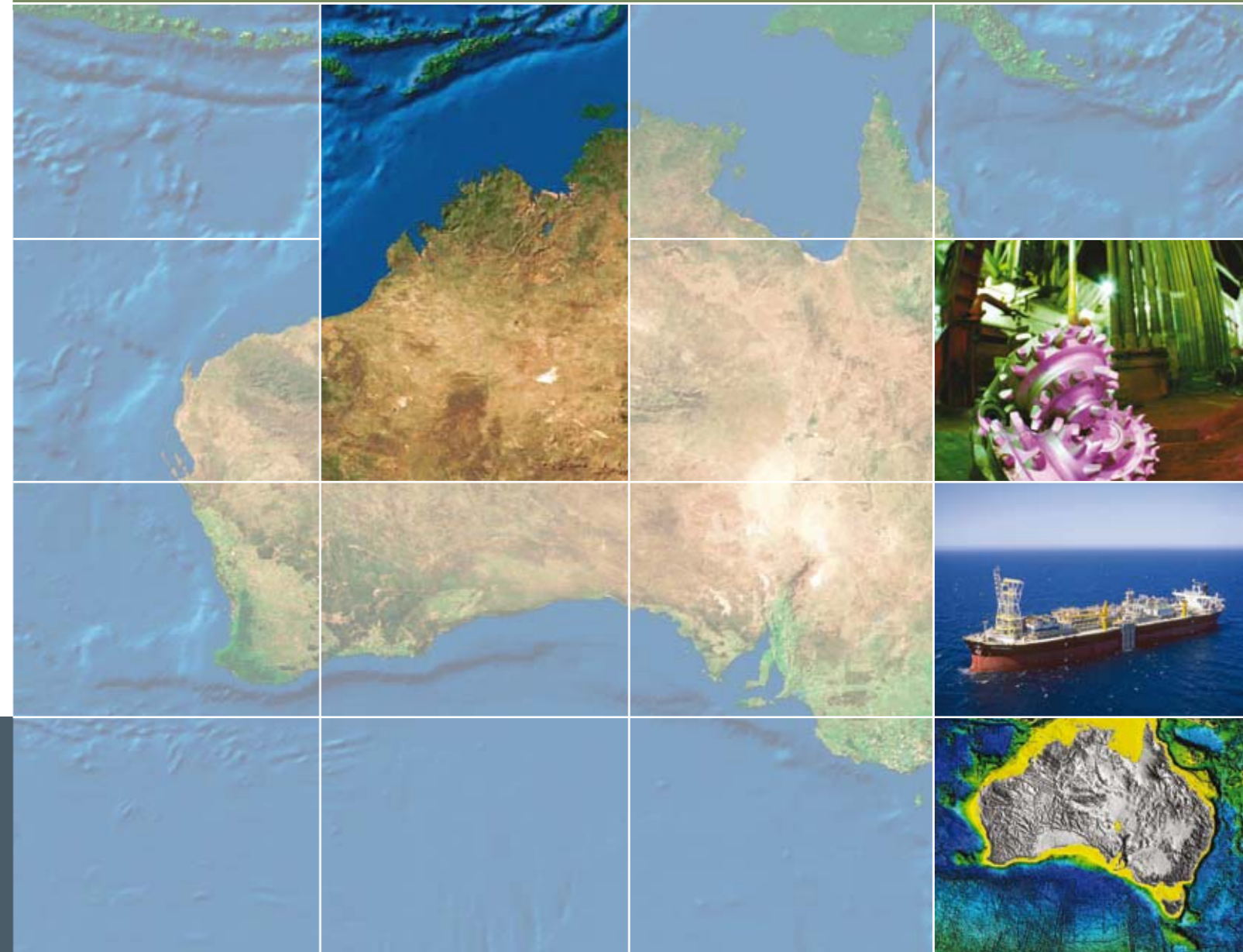
Comprehensive acreage release information packs can be obtained (free of charge) by emailing contact details to: [petroleum.exploration@ret.gov.au](mailto:petroleum.exploration@ret.gov.au)



# EXPLORE AUSTRALIA

## NORTHERN CASWELL SUB-BASIN, BROWSE BASIN TERRITORY OF ASHMORE AND CARTIER ISLANDS

Release areas AC08-7 and AC08-8



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## BIDS CLOSE 9 OCTOBER 2008



Australian Government  
Geoscience Australia

# Current Exploration Opportunities in the Northern Caswell Sub-basin, Browse Basin Territory of Ashmore and Cartier Islands, Offshore Australia. Open for bids until 9 October 2008

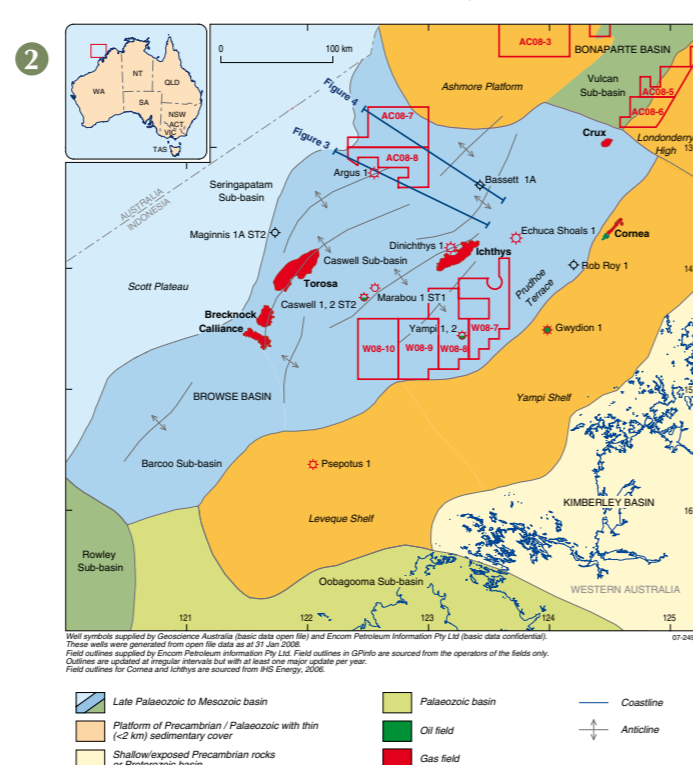
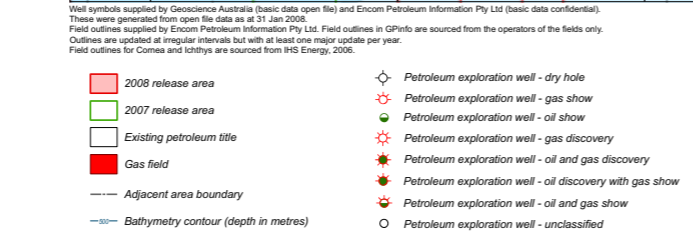
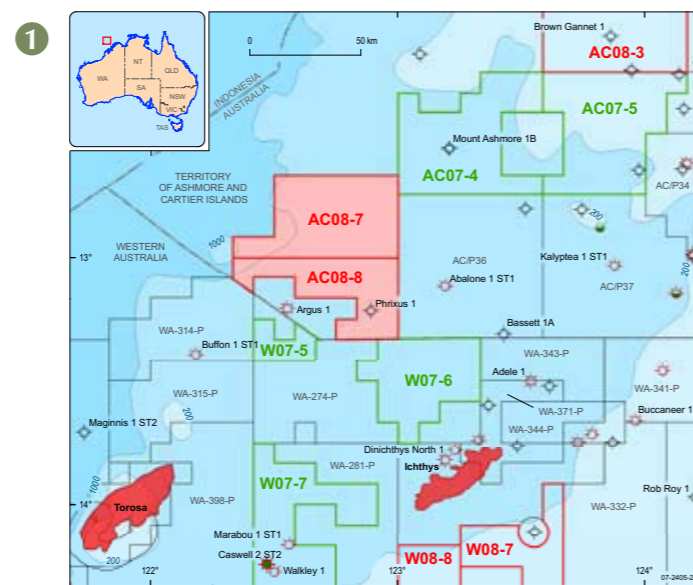
## Release areas AC08-7 and AC08-8

- Under-explored areas directly adjacent to the Argus gas field, where appraisal drilling is planned
- Partial 3D seismic coverage
- Triassic–Early Jurassic (gas) and Late Jurassic–Early Cretaceous (oil) source rocks
- Demonstrated Jurassic sandstone reservoir in Argus 1
- Water depths between 400 and 1450 m
- Special Notices apply, refer to Guidance Notes.

## Geoscience Australia Reports/Products

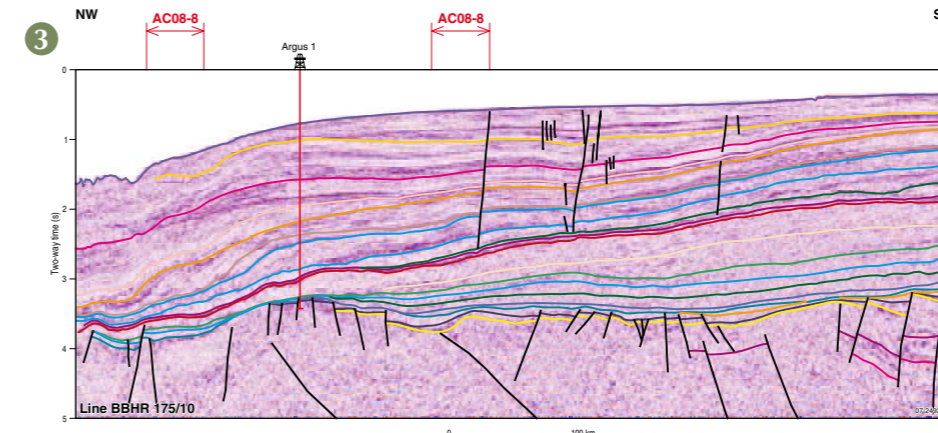
- Browse Basin composite well logs (2005). GeoCat # 61819
- Geoscience Australia survey 267 post survey report - testing natural hydrocarbon seepage detection tools on the Yampi Shelf, northwestern Australia. (2005) GeoCat # 61717
- Oils of Western Australia II: Regional petroleum geochemistry and correlation of crude oils and condensates from Western Australia and Papua New Guinea. (2005) Geoscience Australia and GeoMark Research
- Source rock time-slice maps (TOC, HI, VR), offshore northwest Australia —1:3,000,000 scale. (2004) GeoCat # 61179
- Browse Basin biozonation and stratigraphy chart 7, 2001. GeoCat # 36593
- Interpretations of Geoscience Australia's regional deep-seismic data, survey 119 and 130, (2001) — digital horizon and fault data in ASCII format. (2001) GeoCat # 35244, 35248
- Hydrocarbon migration and seepage in the Timor Sea and Northern Browse Basin, North West Shelf, Australia, (2001). An integrated SAR, geological and geochemical study; GIS (ArcView) format. (2001) AGSO Record 2001/011. GeoCat # 35246
- Characterisation of natural gases from West Australian basins: Browse Basin module. (2000) AGSO and Geotechnical Services non-exclusive study.
- Browse Basin organic geochemistry study North West Shelf, Australia. (1997). AGSO Record 1997/057
- Browse Basin high-resolution seismic survey BBHR-175 and interpretation report. (1997) AGSO Record 1997/038.

Contact Geoscience Australia's Sales Centre for more information or to order these reports or products, phone 61 (0)2 6249 9966, e-mail sales@ga.gov.au



**Relevant Industry Data**

- Australian North West Shelf Digital Atlas, [www.nwsda.com](http://www.nwsda.com)



Age (Ma)	Era	System	Series/Epoch/Stage	Lithostratigraphy	Sequence & BBHR Seismic Horizon	Sea Level	Basin Phase	Hydrocarbon Discoveries and Shows
0-2.6	Quaternary	Quaternary	PLISTOCENE	Barracouta Fm	BB22	200-100-0	INVERSION (2)	Caswell 1
2.6-0.2	TERTIARY	Neogene	MIOCENE	Oliver Fm	BB21			Caswell 2 ST2
0.2-2.6			OLIGOCENE	Cartier Fm	BB19			Discorbia 1
66-2.6	TERTIARY	Paleogene	Eocene	Prion Fm	BB18			Cornea field
2.6-66			Eocene	Grebe Fm	BB17			Focus 1
66-230	MESOZOIC	Cretaceous	PALEOCENE	Bassett Fm	BB16			Sparkle 1
66-70			MAASTRICHTIAN	Puffin Fm	BB15			
70-80			CAMPANIAN	Fenelon and Gibson Fms	BB13			
80-90			CONIACIAN - SANTONIAN	Woolaston Fm	BB12C			
90-100			ALBIAN	Jamieson Fm	BB12B			
100-110			APTIAN	Echuca Shoals Fm	BB12A			
110-120			MALDENIAN	Upper Vulcan Fm	BB10			
120-130			BARREMIAN	Lower Vulcan Fm	BB9			
130-140			MULTIPLYAN	Montara Fm	BB8			
140-150			TITHELIAN	Plover Fm	BB7			
150-230	MESOZOIC	Jurassic	CRETACEOUS	Challis Fm	BB5			Argus 1
150-170			CRETACEOUS	Pollard Fm	BB4			Ichthys field
170-180			CRETACEOUS	Osprey Fm	BB3			Torosa field
180-190			CRETACEOUS	Mt Goodwin Fm	BB2			Brecknock field
190-230	MESOZOIC	Triassic	TRIASSIC	Hyland Bay Fm	BB1			Calliance field
230-240			TRIASSIC	Fossil Head Fm	BB1			
240-250			TRIASSIC	Kulshill Gp	BB2			
250-300	MESOZOIC	Permian	PERMIAN	Point Spring Set	BB1			Scott Reef 1
300-320			PERMIAN	Tannurra Fm	BB1			Cruze field
320-330			PERMIAN	Milligans Fm	BB1			
330-340			PERMIAN	Bonaparte Fm	BB1			
340-360	MESOZOIC	Carboniferous	CARBONIFEROUS	Kimberley Basin	BB1			
360-370			CARBONIFEROUS		BB1			
370-400	MESOZOIC	Devonian	DEVONIAN		BB1			
400-370			DEVONIAN		BB1			
400-2500	PROTEROZOIC		PROTEROZOIC					

1. Location map of Release areas AC08-7 and AC08-8 in the Browse Basin showing existing petroleum title areas, petroleum accumulations and significant wells.
2. Regional setting of the Browse Basin (after Struckmeyer et al, 1998), also showing the location of seismic lines BBHR 175/10 (Figure 3).
3. Seismic line BBHR 175/10 through Argus 1 and Release Area AC08-8, northern Caswell Sub-basin. Location of the line is shown in Figure 2.
4. Tectonostratigraphic summary and hydrocarbon discoveries for the Browse Basin (after Blevin et al, 1998a; Struckmeyer et al, 1998).

NORTHERN CASWELL SUB-BASIN PETROLEUM PLAY ELEMENTS	
Source	Early to Middle Jurassic Plover Formation, Late Jurassic Lower Vulcan Formation, Early Cretaceous Echuca Shoals and Jamieson Formations.
Reservoir	Early to Middle Jurassic Plover Formation, Late Jurassic Montara Formation, Late Jurassic to Late Cretaceous submarine fans and turbidites.
Seal	Late Jurassic to Early Cretaceous Vulcan Formation and Early Cretaceous Echuca Shoals Formation (regional seals). Early to Middle Jurassic Plover Formation and Late Cretaceous Puffin Formation.
Traps	Faulted anticlines, horsts/tilted fault blocks, drape anticlines and stratigraphic traps.
Infrastructure and Markets	Likely region for future gas development, with development plans for the Brewster/ Ichthys field and appraisal drilling of Argus and Torosa fields.