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Department of Resources, Energy and Tourism



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Geoscience Australia

2009 RELEASE OF OFFSHORE AREAS FOR GREENHOUSE GAS STORAGE ASSESSMENT

AREAS GIPP-01, GIPP-02 AND GIPP-03

GIPPSLAND BASIN

VICTORIA AND TASMANIA

BIDS CLOSE: The later of the 6 months after the release of the acreage or 2 months after the regulations under the Act have been promulgated

- Water depths are generally less than 200 m but are greater than 3000 m in the NE
- Storage potential in major pinch-out play and long distance dissolution/residual trapping
- Moderate seismic and well coverage
- Proximal to existing infrastructure

Special Notices apply, refer to **Guidance Notes for Applicants**.

GREENHOUSE GAS (GHG) ACREAGE RELEASE – 2009

GIPPSLAND BASIN, VICTORIA AND TASMANIA

The Gippsland Basin is located in southeastern Victoria and extends southward into Tasmanian waters. The basin is primarily situated offshore with water depths reaching up to 4000 m. Comprising a world-class petroleum province, the Gippsland Basin has giant oil and gas producing fields, existing infrastructure with widespread seismic coverage and extensive well distribution. The release areas are located along the southern margin of the Gippsland Basin. The release areas are based on the expected fluid migration pathways.

Reservoir: Top Latrobe Group and intra-Latrobe Group.
 Seal: Lakes Entrance Formation regional seal; intra-formational seals of the Latrobe Group.
 Trap: Major pinch-out plays and migration dissolution/residual trapping.

Refer to O'Brien et al., 2008 for stratigraphic information.

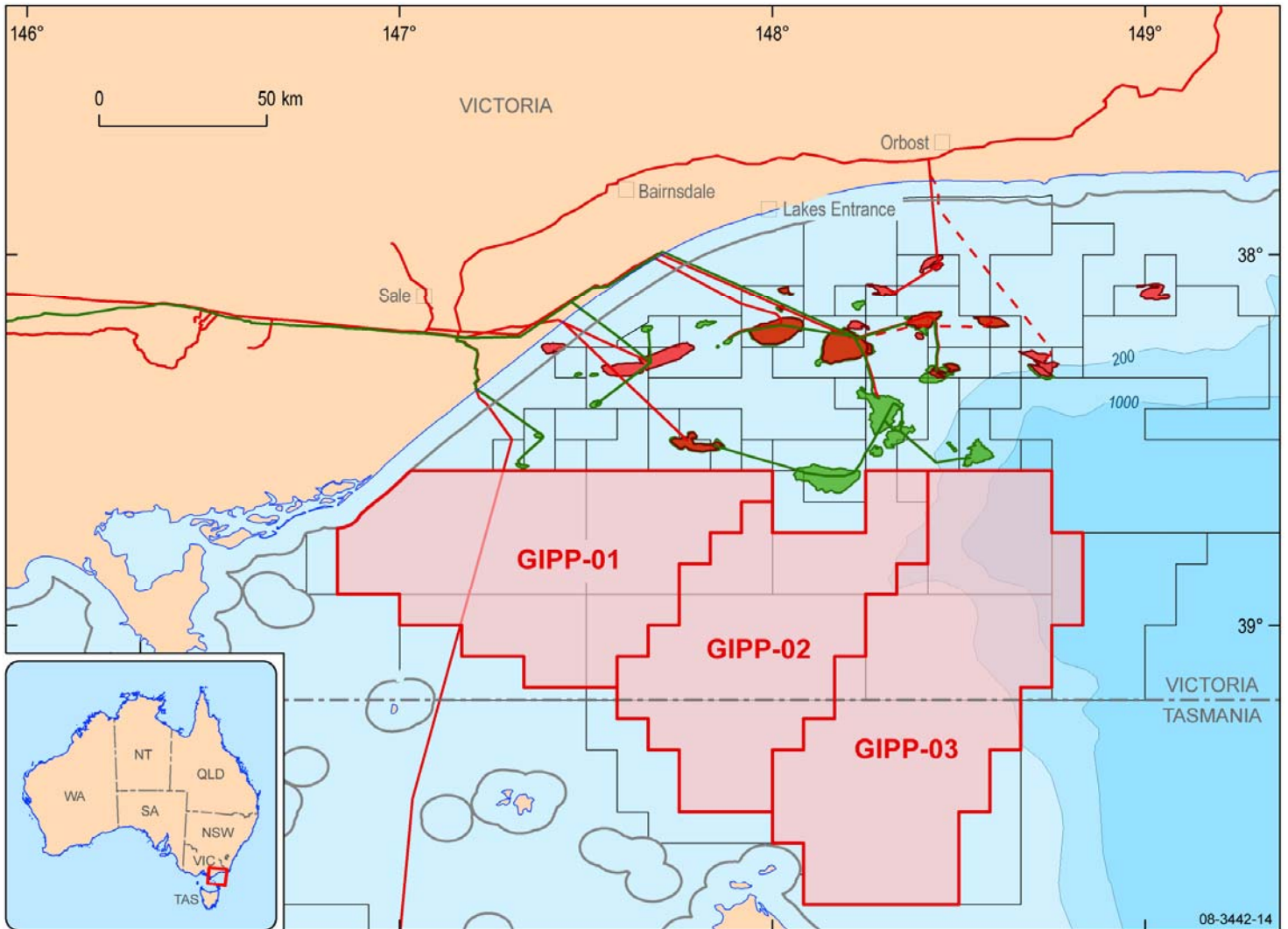
GIPP-01, GIPP-02 AND GIPP-03, Southern Platform, Gippsland Basin

GIPP-01, GIPP-02 and GIPP-03 are located along the southern Gippsland Basin margin and cover much of the Southern Platform in offshore Victoria and Tasmania (Figure 1).

Release area GIPP-01 (Figure 2) covers an area of approximately 4385 square kilometres and 67 graticular blocks or parts thereof. Release area GIPP-02 (Figure 2) covers an area of approximately 3805 square kilometres and 57 graticular blocks, or parts thereof. Release area GIPP-03 (Figure 2) covers an area of approximately 5460 square kilometres and 82 graticular blocks or parts thereof.

Overlapping Petroleum Exploration Titles

Release Areas	Overlapping Petroleum Titles	Petroleum Title Holders
GIPP-01	VIC/P42	Apache Energy (Operator); INPEX; Bass Strait Oil Company
	VIC/P58	Apache Energy
	VIC/P63	Drillsearch Energy Ltd
	VIC/P64	Drillsearch Energy Ltd
GIPP-02	VIC/P42	Apache Energy (Operator); INPEX; Bass Strait Oil Company
	VIC/P45	Exoil Ltd (Operator); Moby Oil & Gas Ltd; Australian-Canadian Oil Royalties Ltd
	VIC/P64	Drillsearch Energy Ltd
	T/46P	Drillsearch Energy Ltd
GIPP-03	VIC/P59	Apache Energy (Operator); Kuwait Energy Petroleum Exploration Company
	VIC/P60	Hollman Energy (Operator); Australian-Canadian Oil Royalties Ltd; Fly Sakha
	T/46	Drillsearch Energy Ltd



Field outlines supplied by Encom Petroleum Information Pty Ltd. Field outlines in GPinfo are sourced from the operators of the fields only. Outlines are updated at irregular intervals but with at least one major update per year. The Coastal Waters shown on this map are indicative only. A precise determination of the Coastal Waters will be determined at the time of issue and included in the permit boundary as a Metes and Bounds determination.


- | | | | |
|---|--------------------------|--|---------------------------------------|
|  | 2009 GHG release area |  | Gas pipeline |
|  | Existing petroleum title |  | Oil pipeline |
|  | Gas field |  | Proposed gas pipeline |
|  | Oil field |  | Coastal waters limit |
| | |  | Scheduled area boundary (OPGGSA 2006) |
| | |  | -200- Bathymetry contour (metres) |

Figure 1. Location map of offshore Greenhouse Gas Storage release areas for Assessment GIPP-01, GIPP-02 and GIPP-03, Gippsland Basin.

GRATICULAR BLOCK LISTING

Area GIPP-01, Southern Platform, Gippsland Basin

Map Sheet SJ 55 (Melbourne)

2268 PART	2269 PART	2270	2271	2272	2273	2274	2275	2276	2277
2278	2279	2280	2339 PART	2340 PART	2341	2342	2343	2344	2345
2346	2347	2348	2349	2350	2351	2411	2412	2413	2414
2415	2416	2417	2418	2419	2420	2421	2422	2483	2484
2485	2486	2487	2488	2489	2490	2491	2492	2493	2557
2558	2559	2560	2561	2562	2563	2564	2565	2631	2632
2633	2634	2635	2636	2705	2706	2707			

Area GIPP-02, Southern Platform, Gippsland Basin

Map Sheet SJ 55 (Melbourne)

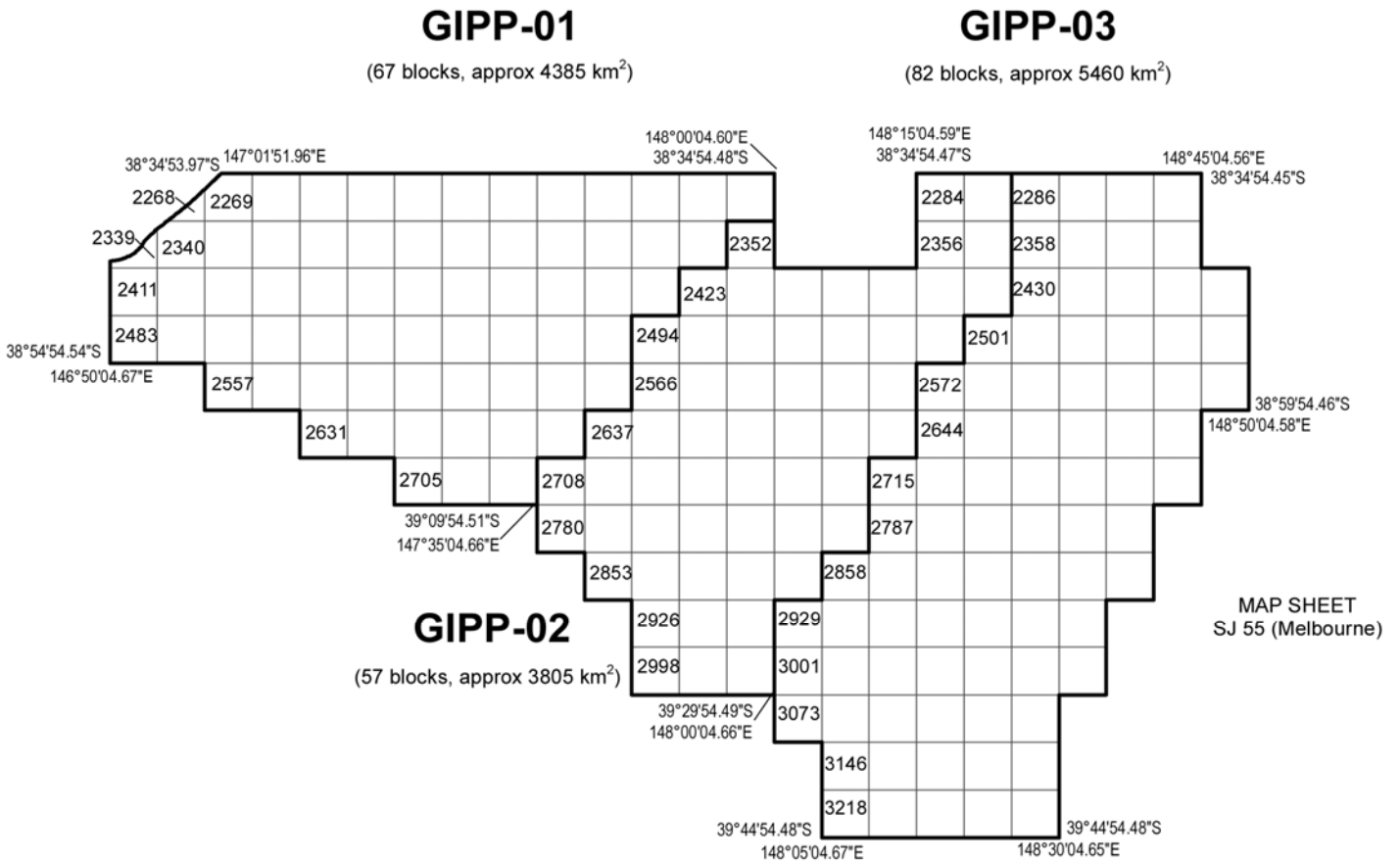
2284	2285	2352	2356	2357	2423	2424	2425	2426	2427
2428	2429	2494	2495	2496	2497	2498	2499	2500	2566
2567	2568	2569	2570	2571	2637	2638	2639	2640	2641
2642	2643	2708	2709	2710	2711	2712	2713	2714	2780
2781	2782	2783	2784	2785	2786	2853	2854	2855	2856
2857	2926	2927	2928	2998	2999	3000			

Area GIPP-03, Southern Platform, Gippsland Basin

Map Sheet SJ 55 (Melbourne)

2286	2287	2288	2289	2358	2359	2360	2361	2430	2431
2432	2433	2434	2501	2502	2503	2504	2505	2506	2572
2573	2574	2575	2576	2577	2578	2644	2645	2646	2647
2648	2649	2715	2716	2717	2718	2719	2720	2721	2787
2788	2789	2790	2791	2792	2858	2859	2860	2861	2862
2863	2864	2929	2930	2931	2932	2933	2934	2935	3001
3002	3003	3004	3005	3006	3007	3073	3074	3075	3076
3077	3078	3146	3147	3148	3149	3150	3218	3219	3220
3221	3222								

2009 Release Areas Gippsland Basin, Victoria and Tasmania



Geographical coordinates on this map are presented with reference to the Geocentric Datum of Australia (GDA94). Permit areas are based on the same grid, Australian Geodetic Datum (AGD66), that has defined areas since the Petroleum (Submerged Lands) Act was proclaimed in 1967. However, with the adoption of GDA94, the graticules are no longer referred to in whole multiples of 5 minutes as they were under AGD66. Parts of the outer limit of Release Area GIPP-01 are defined by the outer limit of the Coastal Waters. The Coastal Waters shown on this map are indicative only. A precise determination of the Coastal Waters will be determined at the time of issue and included in the permit boundary as a Metes and Bounds determination.

IDEAS 9016-1

Figure 2. Graticular block map of offshore Greenhouse Gas Storage release areas for Assessment GIPP-01, GIPP-02 and GIPP-03, Gippsland Basin.

WELL DATA

Well Completion reports – GIPP-01, GIPP-02 and GIPP-03, Gippsland Basin

Well	Operator	Date	Total Depth (m)
Albacore 1	Esso Explor and Prod Aust Ltd	1970	3257
Amberjack 1	BHP Petroleum	1990	1750
Anemone 1	Petrofina Explor	1989	4609
Angler 1	Petrofina Explor	1989	4330
Archer 1	Petrofina Explor	1990	4050
Athene 1	Phillips Aust Oil Co	1983	3385
Ayu 1	Petrofina Explor	1990	2750
Billfish 1	Esso Aust Resources Ltd	1997	3250
Blackback 1	Esso Explor and Prod Aust Ltd	1989	3400
Blenny 1	Esso Aust Resources Ltd	1992	1423
Bluebone 1	Esso Explor and Prod Aust Ltd	1969	605
Bonita 1	Esso Explor and Prod Aust Ltd	1969	1263
Bonita 1A	Esso Explor and Prod Aust Ltd	1969	3179
Bream 1	Esso Explor and Prod Aust Ltd	1969	241
Bream 2	Esso Explor and Prod Aust Ltd	1969	3248
Bream 3	Esso Explor and Prod Aust Ltd	1970	3357
Bream 5	Esso Explor and Prod Aust Ltd	1982	3322
Bream A 9	Esso Explor and Prod Aust Ltd	1989	1166
Broadbill 1	Amity Oil NL	1998	1345
Bullseye 1	Esso Explor and Prod Aust Ltd	1973	2368
Devilfish 1	Shell Dev (Aust) P/L	1990	2058
Dolphin 1	Esso Explor and Prod Aust Ltd	1967	2884
Edina 1	Aust Aquitaine Petroleum	1982	2594
Groper 1	Esso Explor and Prod Aust Ltd	1969	1035
Groper 2	Esso Explor and Prod Aust Ltd	1969	875
Gudgeon 1	Esso Explor and Prod Aust Ltd	1995	3837
Gurnard 1	Esso Explor and Prod Aust Ltd	1969	2964
Hapuku 1	Esso Explor and Prod Aust Ltd	1975	3650
Helios 1	Phillips Aust Oil Co	1982	3500
Hermes 1	Phillips Aust Oil Co	1983	4565
Kingfish 1	Esso Explor and Prod Aust Ltd	1967	2576
Kyarra 1	Aust Aquitaine Petroleum	1983	220
Kyarra 1A	Aust Aquitaine Petroleum	1983	1280
Luderick 1	Esso Explor and Prod Aust Ltd	1983	3021
Melville 1	Bass Strait Oil Co Pty Ltd	2001	3345
Moray 1	Esso Explor and Prod Aust Ltd	1972	2670
Mudskipper 1	Petrofina Explor	1990	1631
Mullet 1	Esso Explor and Prod Aust Ltd	1969	751
Nannygai 1	Esso Explor and Prod Aust Ltd	1972	3019
Omeo 1	Aust Aquitaine Petroleum	1983	3379
Omeo 2	Aust Aquitaine Petroleum	1985	293
Opah 1	Esso Explor and Prod Aust Ltd	1977	2502
Orange Roughy 1	Esso Aust Resources Ltd	1995	2604
Palmer 1	Esso Explor and Prod Aust Ltd	1981	1723
Perch 1	Esso Explor and Prod Aust Ltd	1968	2867
Pike 1	Esso Explor and Prod Aust Ltd	1973	2134

Pisces 1	Union Texas Petroleum Corp	1982	2580
Roundhead 1	Esso Explor and Prod Aust Ltd	1988	3021
Sailfish 1	NSW Oil and Gas Co	1971	1422
Selene 1	Phillips Aust Oil Co	1983	3539
Speke 1	Aust Aquitaine Petroleum	1984	2772
Tarra 1	Aust Aquitaine Petroleum	1983	2905
Tarwhine 1	Esso Explor and Prod Aust Ltd	1981	2955
Terakihi 1	Esso Aust Resources Ltd	1990	3040
Threadfin 1	Esso Explor and Prod Aust Ltd	1979	2735
Tommyruff 1	BHP Petroleum	1990	1550
Torsk 1	Esso Explor and Prod Aust Ltd	1988	2421
Wyrallah 1	Aust Aquitaine Petroleum	1984	1160
Yellowtail 1	Esso Explor and Prod Aust Ltd	1981	2571

Analysis reports – GIPP-01, GIPP-02 and GIPP-03, Gippsland Basin

Well	State	Year	Test	Title
Bluebone 1	TAS	1982	Geochronology	Age dating mineralogy and major element abundance on samples from 2 well
Athene 1	VIC	1987	Lithology	Sample and core descriptions of five wells in Vic/P20 and Hapuku 1 well.
Athene 1	VIC	1987	Depositional environment	Sample and core descriptions of five wells in Vic/P20 and Hapuku 1 well.
Hapuku 1	VIC	1986	Petrography	Petrography and diagenesis of core samples from Gippsland basin Victoria
Hapuku 1	VIC	1986	Diagenesis	Petrography and diagenesis of core samples from Gippsland basin Victoria
Hapuku 1	VIC	1987	Lithology	Sample and core descriptions of five wells in Vic/P20 and Hapuku 1 well.
Helios 1	VIC	1987	Lithology	Sample and core descriptions of five wells in Vic/P20 and Hapuku 1 well.
Hermes 1 (Phillips)	VIC	1987	Lithology	Sample and core descriptions of five wells in Vic/P20 and Hapuku 1 well.
Moray 1	VIC	1987	Lithology	Sample and core descriptions of five wells in Vic/P20 and Hapuku 1 well.
Selene 1 (Phillips)	VIC	1987	Lithology	Sample and core descriptions of five wells in Vic/P20 and Hapuku 1 well.

Geoscience Australia's geological databases provide detailed biostratigraphic (STRATDAT), geochemical (ORGCHEM) and interpreted depositional environment information (RESFACS) from open file exploration wells. <http://dbforms.ga.gov.au/www/npm.well.search>

Contact Geoscience Australia's Repository for more information or to arrange access to open file exploration wells, phone 61 (0)2 6249 9222, e-mail ausgeodata@ga.gov.au.

PHYSICAL DATA

Cores and Cuttings – GIPP-01, GIPP-02 and GIPP-03 Gippsland Basin

Well	Type	Top (m)	Bottom (m)	Remark
Albacore 1	Cuttings	303.28	3257.09	
Amberjack 1	Core	1271.4	1288.96	Continuous core
Amberjack 1	Cuttings	200	1750	Washed and dried samples: Average weight 72.9 gm
Anemone 1	Cuttings	560	4775	Washed samples: Average weight 89.7 gm 1A KO @ 3850 m
Angler 1	Core	3833	3841.9	
Angler 1	Cuttings	620	4330	Washed and dried samples: Average weight 102.0 gm
Athene 1	Cuttings	545	3380	
Ayu 1	Cuttings	430	2750	Washed and dried samples: Average weight 139.5 gm.
Billfish 1	Cuttings	1330	3250	
Blackback 1	Core	2908.6	2924.5	ST - 1
Blackback 1	Core	2903	2924.5	
Blackback 1	Cuttings	1470	4400	
Blenny 1	Cuttings	820	1423	AGSO Donation
Bluebone 1	Core	510.54	604.72	Continuous core
Bluebone 1	Cuttings	381	599.24	Original depths in feet
Bonita 1A	Cuttings	228.6	3179.06	Samples from Bonita 1 and 1A.
Bream 2	Core	1851.96	2727.96	Continuous core
Bream 2	Core	1868	2752	Core pieces not continuous
Bream 2	Cuttings	231.65	3240.02	
Bream 3	Core	1940	3308	Core pieces not continuous C1-C4
Bream 3	Core	1930.91	3309.21	Continuous core
Bream 3	Cuttings	205.44	3356.46	
Bream 3	Cuttings	2581.66	2663.95	Duplicate samples.
Bream 4A	Core	1920	1960.1	Continuous core
Bream 4A	Cuttings	205	2421	
Bream 5	Core	1939	2776.8	Continuous core
Bream 5	Cuttings	225	3322	
Broadbill 1	Cuttings	120	1345	
Bullseye 1	Cuttings	198.12	2365.25	
Devilfish 1	Cuttings	405	2058	Washed and dried samples: Average weight 122.7 gm
Edina 1	Core	2312.6	2319.39	Continuous core
Edina 1	Cuttings	220	2594	
Groper 1	Core	853.44	1007.97	Continuous core
Groper 1	Cuttings	484.63	1029.92	Unwashed samples.
Groper 2	Core	735.06	875	Continuous core.
Groper 2	Cuttings	472.56	859.75	
Gudgeon 1	Core	3063	3085	
Gudgeon 1	Cuttings	1130	3837	
Gurnard 1	Cuttings	182.88	2962.66	
Hapuku 1	Core	2817.88	2850.18	Continuous core
Hapuku 1	Cuttings	530.35	3649.68	
Helios 1	Cuttings	360	3500	

Hermes 1	Cuttings	370	4565	
Kingfish 1	Core	2270.46	2306.73	Continuous core.
Kingfish 1	Cuttings	243.82	2557.1	
Kingfish 1	Cuttings	243.84	2557.27	Unwashed samples.
Kyarra 1A	Cuttings	220	1273	
Luderick 1	Core	1837.9	1861.42	Continuous core
Luderick 1	Cuttings	240	3020	
Melville 1	Cuttings	1438	3345	
Moray 1	Core	1647.44	1701.53	Continuous core
Moray 1	Cuttings	853.44	1687.07	
Moray 1	Cuttings	225.55	2670.05	
Mudskipper 1	Cuttings	380	1630	Washed and dried samples: Average weight 101.8 gm
Mullet 1	Core	716.28	743.79	Continuous core.
Mullet 1	Cuttings	408.43	749.81	Original depths in feet.
Nannygai 1	Core	2225.04	2235.1	Continuous core
Nannygai 1	Cuttings	234.7	3019.04	
Omeo 1	Core	2348	3034.09	Continuous core
Omeo 1	Cuttings	220	3378	
Omeo 2	Cuttings	270	3402	Omeo 2 and 2A samples combined
Opah 1	Cuttings	256.03	2499.36	
Orange Roughy 1	Core	2313.5	2331.95	
Orange Roughy 1	Cuttings	750	2603.5	
Palmer 1	Cuttings	200	1723	
Perch 1	Core	1146	1161	
Perch 1	Cuttings	970	1332	Washed and dried samples.
Pike 1	Core	1834.29	1838.86	Continuous core
Pike 1	Cuttings	256.03	2133.6	
Pisces 1	Cuttings	200	2580	
Roundhead 1	Cuttings	260	3021	Washed and dried cuttings: Average weight 51.2 gm
Sailfish 1	Cuttings	259.75	1422.25	
Selene 1	Core	3141	3162.5	Continuous core
Selene 1	Cuttings	600	3539	
Speke 1	Cuttings	230	2772	
Tarra 1	Core	2797	2903.67	Continuous core
Tarra 1	Cuttings	230	2901	
Tarwhine 1	Core	1392	2669	Continuous core
Tarwhine 1	Cuttings	210	2950	
Terakihi 1	Core	2844	2872.48	
Threadfin 1	Cuttings	242	2735	
Tommyruff 1	Cuttings	180	1549	Washed and dried samples: Average weight 75.0 gm
Torsk 1	Core	1370.5	1372.06	Continuous core
Torsk 1	Cuttings	820	2421	Washed and dried samples: under weight by 17.0 gm
Wyrallah 1	Cuttings	220	1160	
Wyrallah 1	Cuttings	220	1160	Paleo samples.
Yellowtail 1	Core	2413.6	2434.4	Continuous core
Yellowtail 1	Cuttings	235	2571	

Contact Geoscience Australia's Repository for more information or to arrange access to core and cuttings, phone 61 (0)2 6249 9222, e-mail ausgeodata@ga.gov.au.

GEOPHYSICAL DATA

Seismic Surveys – GIPP-01, GIPP-02 and GIPP-03 Gippsland Basin

Survey Name	UNO	Year	Type	Processed	Field	Navigation
2001 Midas 2D	S3200107	2001	2D	YES	YES	YES
AGSO 104 SE Australia	S0890001	1989	2D	NO	YES	YES
AGSO 126 Bass Geoch-Malabar	not known	not known	2D	NO	NO	YES
AGSO 14 Central Coral Sea	S0710002	1971	2D	NO	YES	YES
AGSO 15 Eastern Coast	S0720007	1972	2D	NO	YES	YES
AGSO 150 Sydney-Fremantle Transit	Z0940003	1994	2D	NO	NO	YES
AGSO 40,Bass Strait	S7820001	1982	2D	YES	YES	YES
AGSO 501 SOJNO7MV	not known	not known	2D	NO	NO	YES
AGSO 58 Sonne 36 B	not known	not known	2D	NO	NO	YES
AGSO 68R,North East Gippsland	S3870008	1987	2D	YES	YES	YES
AGSO 82R	not known	2001	2D	YES	YES	YES
AGSO 90R,Gipps\Bass 2	S0890002	1989	2D	YES	YES	YES
BMR	G0720008	1972	2D	NO	NO	YES
BMR Bass	not known	not known	2D	NO	NO	YES
BMR87	S9810003	1981	2D	NO	NO	YES
Billfish	S3950002	1995	2D	NO	NO	YES
Flinders	S6690057	1969	2D	YES	YES	YES
G63	not known	1963	2D	NO	NO	YES
G64A	not known	1964	2D	NO	NO	YES
G66B	not known	1996	2D	NO	NO	YES
G67B	not known	1967	2D	NO	NO	YES
G68A	not known	1968	2D	NO	NO	YES
G69A	S3690053	1969	2D	YES	YES	YES
G69B	S0690004	1969	2D	YES	YES	YES
G71A	S0710001	1971	2D	NO	NO	YES
G71B	S3710001	1971	2D	NO	YES	YES
G72A	S3720001	1972	2D	NO	YES	YES
G73A	S3730001	1973	2D	NO	YES	YES
G73B	S3730003	1973	2D	NO	YES	YES
G74A	S3740001	1974	2D	YES	YES	YES
G76A	S3760001	1976	2D	NO	YES	YES
G77A	S3770001	1977	2D	YES	YES	YES
G80A	S3800004	1980	2D	YES	YES	YES
G81A	S3810006	1981	2D	YES	YES	YES
G82B	S3820002	1982	2D	NO	YES	YES
G85A	S3850004	1985	2D	YES	YES	YES
G89A	S3900008	1990	2D	NO	YES	YES
G89AB Black Back 3D	S3890009	1989	3D	YES	YES	YES
G91A	S3910012	1991	2D	YES	YES	YES
G91AK	not known	1991	3D	NO	NO	YES
G92	S3920005	1992	2D	NO	YES	YES
G92A	S3920011	1992	2D	YES	YES	YES

G92AM	not known	1992	3D	YES	NO	YES
G92C	S3920004	1992	2D	NO	YES	YES
G92M	not known	1992	3D	NO	NO	YES
G94A Perch	S3940001	1994	2D	NO	YES	YES
GA81A	S3810018	1981	2D	NO	NO	YES
GA82B Victoria 82	S3820006	1982	2D	YES	YES	YES
GA83A	S3830005	1983	2D	YES	YES	YES
GA84	S3840001	1984	2D	YES	YES	YES
GBA02B	S3200208	2002	3D	NO	YES	YES
GC80	S3800003	1980	2D	YES	YES	YES
GC82	S3810010	1981	2D	NO	NO	YES
GC89A Barra	S3890007	1989	2D	YES	YES	YES
GEO70A	not known	not known	2D	NO	NO	YES
GF88A Angler 3D	S3880020	1988	3D	YES	YES	YES
GF88B	S3880021	1988	3D	YES	YES	YES
GF88B Archer 3D	S3880021	1988	3D	YES	YES	YES
GF88C	S3880019	1988	2D	YES	YES	YES
GF91A	S3910013	1991	2D	YES	YES	YES
GGSI85B	S3850001	1985	2D	NO	YES	YES
GH88A	S3880004	1988	3D	YES	YES	YES
GP81A	S3810008	1981	2D	YES	YES	YES
GS82B	not known	1982	2D	YES	YES	YES
GS88A	S3880005	1988	2D	YES	YES	YES
GSE89A	S3890008	1989	2D	NO	YES	YES
GUT83A	S3830003	1983	2D	YES	YES	YES
Gippsland Basin Deep Water 2D	S3990004	1999	2D	NO	YES	YES
Petrel Roving 1971 (Deepwater)	not known	1971	2D	NO	NO	YES
South Marlin 2D	S3930009	1993	2D	NO	NO	YES
Various Bass Strait Surveys	not known	not known	2D	NO	NO	YES
Various Surveys [Tasmania]	not known	not known	2D	NO	NO	YES

Contact Geoscience Australia's Repository for more information or to arrange access to the seismic data, phone 61 (0)2 6249 9222, e-mail ausgeodata@ga.gov.au.

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