Supplementary material

Baseline biogeochemical data from Australia’s continental margin links seabed sediments to water column characteristics


ANational Earth and Marine Observations Group, Geoscience Australia, GPO Box 378, Canberra, ACT 2601, Australia

BCSIRO Marine and Atmospheric Research, Hobart, Tasmania 7001, Australia

CAlfred-Wegener-Institute, Helmholtz-Centre for Polar and Marine Research Am Handelshafen 12, 27570 Bremerhaven, Germany.

DCorresponding author. Email: lynda.radke@ga.gov.au

Lord Howe Rise


Western Australian Margin

Radke, L. C., Pappas, W., and Webber, E. (2014). Frontier basins of the west Australia continental margin: major and trace elements of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B861B21E84C
Radke, L. C., and Chen, J. (2014). Frontier basins of the west Australia continental margin: total organic carbon (TOC) and total nitrogen concentrations and isotopes in seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B8613EEFC64

Radke, L. C., and Watson, T. (2014). Frontier basins of the west Australia continental margin: specific surface areas of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.)
http://dx.doi.org/10.4225/25/54B861897C74E

Radke, L. C., and Trafford, J. (2014). Frontier basins of the west Australia continental margin: total chlorin concentrations and chlorin indices of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.)
http://dx.doi.org/10.4225/25/54B861108989E

Radke, L. C., and Watson, T. (2014). Frontier basins of the west Australia continental margin: carbonate concentrations in seabed sediment. (Geoscience Australia, Canberra, ACT, Australia.)
http://dx.doi.org/10.4225/25/54B8612A4AF90

Radke, L. C., and Trafford, J. (2014). Frontier basins of the west Australia continental margin: extractable element concentrations in seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.)
http://dx.doi.org/10.4225/25/54B861533ADD5

Radke, L. C. (2014). Frontier basins of the west Australia continental margin: mineralogy of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.)
http://dx.doi.org/10.4225/25/54B8616F8FF3B

Radke, L. C. (2014). Frontier basins of the west Australia continental margin: total metabolism of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.)
http://dx.doi.org/10.4225/25/54B8619CB529C

Eastern Timor Sea
Radke, L. C., Pappas, W., and Webber, E. (2014). Seafloor environments of the eastern Timor Sea, northern Australia: inorganic chemistry of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.)
http://dx.doi.org/10.4225/25/54B8657D7C8B8

Radke, L. C., and Watson, T. (2014). Seafloor environments of the eastern Timor Sea, northern Australia: mineral specific surface areas of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.)
http://dx.doi.org/10.4225/25/54B864E32DABE

Radke, L. C., and Webber, E. (2014). Seafloor environments of the eastern Timor Sea, northern Australia: mineralogy of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.)
http://dx.doi.org/10.4225/25/54B865683BCE6

Radke, L. C., and Trafford, J. (2014). Seafloor environments of the eastern Timor Sea, northern Australia: extractable elements in seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.)
http://dx.doi.org/10.4225/25/54B865AD75C31
Radke, L. C., and Trafford, J. (2014). Seafloor environments of the eastern Timor Sea, northern Australia: chlorophyll $a$, $b$, $c$ and phaeophytin $a$ concentrations in seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B864FA32080

Radke, L. C. (2014). Seafloor environments of the eastern Timor Sea, northern Australia: sediment oxygen demand of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B8653BBBC80E

Radke, L. C., and Trafford, J. (2014). Seafloor environments of the eastern Timor Sea, northern Australia: total metabolism of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B86511C6343


Radke, L. C. (2014). Seafloor environments of the eastern Timor Sea, northern Australia: total organic carbon (TOC), total nitrogen (TN) and organic carbon and nitrogen isotopes of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B865356D04


**North Perth Basin**


concentrations and isotopes of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.)
http://dx.doi.org/10.4225/25/54B863D50FCAA

http://dx.doi.org/10.4225/25/54B863E6B70F1

Radke, L. C., and Webber, E. (2014). Seafloor environments of the northern Lord Howe Rise, eastern Australia: Inorganic elements in seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.)
http://dx.doi.org/10.4225/25/54B865E30E589

http://dx.doi.org/10.4225/25/54B8640867A1C

http://dx.doi.org/10.4225/25/54B86417B58A0

http://dx.doi.org/10.4225/25/54B86429EF340

Rottnest Shelf

Radke, L. C., Pappas, W., and Webber, E. (2013). Seabed environments and shallow geology of the Vlaming sub-basin, Western Australia: inorganic elements of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B8609B51939

Radke, L. C. (2013). Seabed environments and shallow geology of the Vlaming sub-basin, Western Australia: sediment oxygen demand of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B860C35424A

Radke, L. C., and Watson, T. (2013). Seabed environments and shallow geology of the Vlaming sub-basin, Western Australia: %carbonate and specific surface area of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B860FCB82D6

Radke, L. C., and Trafford, J. (2013). Seabed environments and shallow geology of the Vlaming sub-basin, Western Australia: chlorin analyses of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B8587583DE2
Radke, L. C., and Trafford, J. (2013). Seabed environments and shallow geology of the Vlaming sub-basin, Western Australia: chlorophyll $a$, $b$ and $c$ of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B860E789371

Radke, L. C. (2013). Seabed environments and shallow geology of the Vlaming sub-basin, Western Australia: bulk organic carbon and nitrogen isotopes and concentrations in seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B860AE31D79

Joseph Bonaparte Gulf

Radke, L., Carey, M., and Trafford, J. (2012). Petrel Sub-basin Marine Survey (GA-0335 / SOL5463) (NLECI Program) – seabed geochemistry / chlorophyll $a$, $b$, $c$ and pheoapthytin. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B86E4193E3A


Western Timor Sea


Radke, L. C. (2014). Oceanic Shoals Commonwealth Marine Reserve – chlorophyll $a$, $b$ and $c$ and phaeophytin $a$ concentrations in seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B8624CF2B6B


Radke, L. C., and Trafford, J. (2014). Oceanic Shoals Commonwealth Marine Reserve – total sediment metabolism (dissolved inorganic carbon production) and TCO$_2$ pools of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B862BBDA7DC

**Leveque Shelf**

Radke, L. C., Pappas, W., and Webber, E. (2014). Seabed environments and shallow geology of the Leveque Shelf, Browse Basin, Western Australia – major and trace elements in seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B86322B4726

Radke, L. C., and Watson, T. (2014). Seabed environments and shallow geology of the Leveque Shelf, Browse Basin, Western Australia – %carbonate and specific surface area of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B86346DE857

Radke, L. C. (2014). Seabed environments and shallow geology of the Leveque Shelf, Browse Basin, Western Australia – sediment oxygen demand of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B863668FA0

Radke, L. C., and Trafford, J. (2014). Seabed environments and shallow geology of the Leveque Shelf, Browse Basin, Western Australia – total sediment metabolism and porewater pH and salinity of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B86336D279A

Radke, L. C. (2014). Seabed environments and shallow geology of the Leveque Shelf, Browse Basin, Western Australia: total organic carbon (TOC) and total nitrogen concentrations and isotopes of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B8638C818D2

Radke, L. C., and Trafford, J. (2014). Seabed environments and shallow geology of the Leveque Shelf, Browse Basin, Western Australia – total chlorin concentrations and chlorin indices from seafloor sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B862EAC9EE2

Radke, L. C., and Trafford, J. (2014). Seabed environments and shallow geology of the Leveque Shelf, Browse Basin, Western Australia – chlorophyll a, b, and c and phaeophytin a of seabed sediments. (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/54B862FF00703


Caswell Sub-basin


Radke, L., and Trafford, J. (2016). Chlorophyll $a$, $b$, $c$ and pheophytin $a$ concentrations in seabed sediments – Caswell Sub-basin, Browse Basin Marine Survey (GA0345/GA0346/TAN1411). (Geoscience Australia, Canberra, ACT, Australia.) http://dx.doi.org/10.4225/25/575F8D297FF03
Fig. S1. Plot showing total organic carbon (%TOC) v. (a) Moderate Resolution Imaging Spectroradiometer (MODIS) particulate organic matter (POC) and (b) chlorophyll-α.