Bandol-1

Micropalaeontology - new data
Scale: 1:2000
Weston *et al.* 2023 Atlantic Geoscience

Interval: 1000m - 4100m

Text Keys
1 quantitative abundance (200 = 10mm, scale tick = 100 counts)
2 Per 10.0g

Boundary Types
Possible
Probable
Unconformable

Sampling
Cutting
Core
Sidewall Core

Taxon Categories
AM - Miliolids
CH - Chanophytes
FA - Fusulinina
FOAG - Foraminifera agglutinating
FOBC - Foraminifera calcareous
FOP - Foraminifera planktonic
MM - Miscellaneous microfossils
MO - Molluscs
OS - Ostracods
RA - Radiolaria
SP - Spores and pollen

Bandol-1

Scale | Measured depth (m) | Period/Epoch | Age | Gamma-Ray (API) 0–150 | Sonic (uS) 150–100 | Casing | Samples (m) | FOP | FA | FOBC | Samples (m) | FOBA | MO | MM | DI | Samples (m) | Biostrat Comments | Micro.

Casing: 13 3/8 in @ 1,010.00m MD

Micropalaeontology

FOP
Acarinina primitiva
Acarinina triloculinoides
Acarinina wilcoxensis
Globanomalina ehrenbergi
Globanomalina kolchidica
Globanomalina pseudomenardii
Globigerina bulloides
Globigerina praebulloides
Globigerinelloides algeriana
Globigerinelloides prairiehillensis
Globotruncana arca
Globotruncana bulloides
Globotruncana linneiana
Globotruncana stuarti
Globotruncanella havanensis
Globotruncanita angulata
Globotruncanita pettersi
Globotruncanita stuartiformis
Globotruncanita subspinosa
Hedbergella delrioensis
Hedbergella holmdelensis
Hedbergella planispira
Hedbergella sigali
Hedbergella simplex
Hedbergella trocoidea
Heterohelix globulosa
Heterohelix moremani
Laeviheterohelix glabrans
Laeviheterohelix pseudotappanae
Muricohedbergella delrioensis
Muricohedbergella planispira
Muricohedbergella portsdownensis
Muricohedbergella praehelvetica
Muricohedbergella simplex
Parathalmanninella appenninica
Parathalmanninella balernaensis
Parathalmanninella deeckei
Parathalmanninella eobulloides
Parathalmanninella gandolfii
Parathalmanninella weinzierli
Praeglobotruncana delrioensis
Praeglobotruncana stephani
Rugoglobigerina rugosa
Rugoglobigerina spp.

FA
Cibicidoides spp.

FOBC
(quantitative abundance (200 = 10mm, scale tick = 100 counts))
Sub-Groups: Coarse, Medium,
Per 10.0g
Abditodentrix rotundidorsata
Abditodentrix pseudothalmanni
Ammobaculites spp.
Anomalinoides welleri
Arenobulimina advena
Arenobulimina chapmani
Arenobulimina macfadyeni
Arenobulimina preslii
Bolivinopsis spectabilis
Caudammina gigantea
Caudammina horrida
Caudammina ovula
Caudammina spp.
Clavulinoides amorpha
Clavulinoides cylindrica
Clavulinoides gaultina
Conorboides hofkeri
Conorboides lamplugi
Dorothia bulletta
Dorothia conulus
Dorothia filiformis
Dorothia gradata
Dorothia oxycona
Dorothia pupa
Dorothia spp.
Dorothia sp. 1
Dorothia sp. 2
Eggerellina brevis
Eggerellina intermedia
Epistomina caracolla
Epistomina elongata
Epistomina parastelligera
Epistomina spinulifera
Epistomina stellicostata
Epistomina spp.
Gaudryina arenata
Gaudryina compressa
Gaudryina cretacea
Gaudryina filiformis
Gaudryina laevigata
Gaudryina pyramidata
Gaudryina rugosa
Gaudryina spp.
Glomospira charoides
Glomospira corona
Glomospira diffundens
Glomospira gordialis
Glomospira irregularis
Glomospira spp.
Haplophragmoides spp.
Hormosina excelsa
Hormosina globulifera
Hormosina ovicula
Hormosina spp.
Kutsevella spinosa
Lituotuba lituiformis
Marssonella oxycona
Marssonella spp.
Nodosaria spinicostata
Nodosaria spp.
Paratrochamminoides deflexiformis
Paratrochamminoides gorayskii
Paratrochamminoides heteromorphus
Paratrochamminoides irregularis
Paratrochamminoides olszewskii
Paratrochamminoides spp.
Placopsilina bathybia
Placopsilina cenomana
Placopsilina spp.
Plectina mariae
Pseudobolivina antiqua
Pseudobolivina spp.
Pseudonodosinella nodulosa
Pseudonodosinella spp.
Pseudonodosinella variata
Pseudonodosinella sp. 1
Pseudonodosinella sp. 2
Pseudonodosinella sp. 3
Pseudonodosinella sp. 4
Pseudonodosinella sp. 5
Pseudonodosinella sp. 6
Pseudonodosinella sp. 7
Pseudonodosinella sp. 8
Pseudonodosinella sp. 9
Pseudonodosinella sp. 10
Pseudonodosinella sp. 11
Pseudonodosinella sp. 12
Pseudonodosinella sp. 13
Pseudonodosinella sp.

Bandol-1

Nannofossils - new data
Scale: 1:2000
Weston *et al.* 2023 Atlantic Geoscience

Interval: 1000m - 4100m

Text Keys
*1 (Rw, Cv excluded)
*2 quantitative abundance (5000 = 40mm, scale tick = 1000 counts)

Boundary Types
Possible
Probable
Unconformable

Sampling
Cutting
Core
Sidewall Core

Taxon Categories
MM - Miscellaneous microfossils
NA - Nannofossils
SI - Silicoflagellates

Bandol-1

Scale
Measured depth (m)
Chronostratigraphy
Period/Epoch
Age
Gamma-Ray
Gamma Log (API) 0 150
Sonic
Sonic Log (uS) 500 150
Casing
13 3/8 1210.00m
Density & Diversity
Samples (m)
Barren
SI
NA
MM
*1 *2
(Rw, Cv excluded) species richness
Nannopalaeontology
quantitative abundance (100 = 20mm, scale tick = 10 counts)
Biostrat Comments
Nanno.

Miocene
Tortonian
Serravallian
Thanetian
Selandian
Palaeocene
Danian
Campanian
Late Cretaceous
early Campanian - Coniacian
middle Turonian - ?early Turonian
Late Cretaceous - Early Cretaceous
middle Cenomanian - intra-late Albian
?middle Albian - early Albian
Aptian
Early Cretaceous
Hauterivian - ?Valanginian
Callovian
Middle Jurassic

Silicoflagellate debris
Chiasmolithus consuetus
Fasciculithus alanii
Fasciculithus clinatus
Fasciculithus tympaniformis
Neochiastozygus perfectus
Neochiastozygus junctus
Neococcolithes protensus
Zygrhablithus bijugatus
Ericsonia robusta
Bomolithus elegans
Chiasmolithus bidens
Fasciculithus tympaniformis
Toweius cf. pertusus
Toweius eminens
Toweius pertusus
Toweius spp.
Ericsonia robusta
Prinsius dimorphosus
Prinsius martinii
Sphenolithus primus
Toweius rotundus
Ellipsolithus macellus
Cruciplacolithus tenuis
Heliolithus kleinpellii
Transversopontis spp.
Pterocorys zancleus
Coccolithus pelagicus
Cruciplacolithus spp.
Chiasmolithus spp.
Thoracosphaera deflandrei
Thoracosphaera albatrosiana
Pterocorys (*Rudhosma*) *nannoformis*
nannoformis grandis
Gartnerago segmentatum
Reinhardtites levis
Broinsonia parca
Reinhardtites anthophorus
Reinhardtites perplexus
Lucianorhabdus cayeuxii
Micula staurophora
Prediscosphaera ponticulae
Arkhangelskiella cymbiformis
Micrantholithus obtusus
Nephrolithus frequens
Tegumentum spp.
Kamptnerius magnificus
Lucianorhabdus maleformis
Cyclagelosphaera margerelii
Eiffellithus eximius
Kamptnerius magnificus
Lucianorhabdus cayeuxii
Prediscosphaera grandis
Quadrum gartneri
Chiastozygus litterarius
Zeugrhabdotus xenotheca
Zeugrhabdotus bicrescenticus
Eiffellithus turriseiffelii
Reinhardtites anthophorus
Prediscosphaera cretacea
Retecapsa angustiforata
Watznaueria barnesiae
Staurolithites cruciformis
Zeugrhabdotus diplogrammus
Chiastozygus litterarius
Arkhangelskiella cymbiformis
Cribrosphaerella ehrenbergii
Calculites obscurus
Lithastrinus grilli
Chiastozygus spp.
Staurolithites exilicrucis
Chiastozygus cymoriiperforatus
Eiffellithus primus
Calculites obscurus
Lithastrinus grilli
Eiffellithus gorkae
Chiastozygus platyrhethus
Staurolithites flexus
Cruciellipsis cuvillieri
Corollithion signum
Rucinolithus irregularis
Gorkaea obtriquetrolaxa
Manivitella pemmatoidea
Axopodorhabdus dictyostylus
Axopodorhabdus decorosus
Lithastrinus floralis
Prediscosphaera columnata
Rhagodiscus asper
Zeugrhabdotus scutula
Zeugrhabdotus diplogrammus
Corollithion achylosum
Zeugrhabdotus howei
Perivinalis spp.
Rhagodiscus asper
Broinsonia signata
Broinsonia convexa
Cretarhabdus striatus
Staurolithites cf. *longus*
Staurolithites cf. *laffittei*
Nannoconus spp.
Cyclagelosphaera margerelii
Eiffellithus eximius
Broinsonia parca expansa
Broinsonia parca parca
Eiffellithus gorkae
Axopodorhabdus albianus
Rucinolithus irregularis
Corollithion signum
Reinhardtites levis
Gorkaea obtriquetrolaxa
Manivitella pemmatoidea
Tranolithus orionatus
Watznaueria barnesiae
Staurolithites exilicrucis
Chiastozygus litterarius
Staurolithites flexus
Cruciellipsis cuvillieri
Corollithion signum
Rucinolithus irregularis
Tranolithus orionatus
Staurolithites crux
Staurolithites latebrosus
Staurolithites flexus
Staurolithites exilicrucis
Staurolithites latebrosus
Staurolithites cf. *longus*
Staurolithites laffittei
Nannoconus spp.
Cyclagelosphaera margerelii
Eiffellithus eximius
Cyclagelosphaera deflandrei
Calculites obscurus
Lithastrinus grilli
Chiastozygus litterarius
Arkhangelskiella cymbiformis
Zeugrhabdotus diplogrammus
Zeugrhabdotus embergeri
Chiastozygus litterarius
Axopodorhabdus albianus
Rhagodiscus asper
Broinsonia convexa
Broinsonia signata
Gartnerago obliquum
Gartnerago theta
Gartnerago nanum
Gartnerago segmentatum
Manivitella pemmatoidea
Tranolithus orionatus
Watznaueria barnesiae
Staurolithites imbricatus
Chiastozygus cymoriiperforatus
Staurolithites exilicrucis
Calculites obscurus
Lithastrinus grilli
Chiastozygus spp.
Staurolithites exilicrucis
Staurolithites flexus
Broinsonia enorma
Staurolithites latebrosus
Gartnerago obliquum
Gartnerago segmentatum
Pterocorys cf. *fasiformis*
Zeugrhabdotus diplogrammus
Zeugrhabdotus embergeri
Broinsonia parca expansa
Broinsonia parca parca
Eiffellithus gorkae
Axopodorhabdus albianus
Cruciellipsis cuvillieri
Corollithion signum
Rucinolithus irregularis
Gorkaea obtriquetrolaxa
Manivitella pemmatoidea
Axopodorhabdus decorosus
Lithastrinus floralis
Prediscosphaera columnata
Rhagodiscus asper
Zeugrhabdotus scutula
Zeugrhabdotus diplogrammus
Corollithion achylosum
Zeugrhabdotus howei
Perivinalis spp.
Rhagodiscus asper
Broinsonia convexa
Broinsonia signata
*Gartnerago obliquum

Bandol-1

Well Name: Bandol-1
Drilling Operator: Total E&P Australia (50%)
Drilled: 2008
Status: D&A (Well Bore Released)

Symbols
- Location (Surface) (GDA - 94) - Zone 49 - Primary
- Location (Surface) (GDA - 94) - Zone 49 - Secondary
- Location (Surface) (GDA - 94) - Zone 49 - Tertiary
- Drilled
- Deviated
- Plugged and Abandoned

Drilling
- Drilling Hiatus

Logging
- Logging Hiatus

Lithology
- Limestone
- Sandstone
- Siltstone
- Claystone
- Coal
- Conglomerate
- Marl
- Dolomite
- Chert
- Tuff
- Volcanic Breccia
- Basalt
- Igneous Intrusive
- Metamorphic
- Evaporite
- Unconformity
- Fault
- Interpreted Hydrocarbons
- Core Analysis

Bandol-1

Biostrat

Lithology

Gamma and Rates

Bandol-1

Scale: 1:2000
Weston et al. 2023 Atlantic Geoscience

Interval: 1000m - 4100m

Text Keys
*1: (Rw, Tc excluded)
*2: quantitative abundance (2000 > 40mm, scale tick > 100 counts)
*3: (Rw, Cx excluded)
*4: quantitative abundance (5000 > 40mm, scale tick > 1000 counts)
*5: species richness
*6: quantitative abundance (500 > 40mm, scale tick > 100 counts)

Base Lithology
shale
siltstone
claystone
conglomerate
limestone
marl
sandstone

Boundary Types
Possible
Probable
Confident
Unconformable

Sampling
Cutting
Core
Sidewall Core

Taxon Categories
AC - Acritarchs
AL - Algae
ALBO - Botryococcus and pediastrum
ALPR - Prasinophytes
DC - Dinoflagellate cysts
DT - Dinocysts
FOBA - Foraminifera agglutinating
FOBC - Foraminifera calcareous
FOP - Foraminifera planktonic
FT - Foram test linings
FU - Fungi
MM - Miscellaneous microfossils
MO - Mollusca
NP - Nannofossils/nannofossil palynomorphs
NA - Nannofossils
OS - Ostracods
PA - Radiolaria
SI - Silicoflagellates
SP - Spores and pollen

Bandol-1

Scale
Scale (m)
Measured depth (ft)
Measured depth (m)
Chronostratigraphy
Period/Epoch
Age
Lithostratigraphy
Formation
Member
Biostrat Comments
Casing
Surfaces
Weston et al 2012
Picks
Gamma-Ray
Gamma Log (API)
Interpreted Lithology
Sonic
Sonic Log (us/ft)
Neutron-Density
Bulk Density (g/cc)
Neutron Porosity (v/v)
Resistivity
20" Resistivity (OHMM)
Micro-palaeontol...
Samples (m)
Nannopalaeontology
Density
Diversity
Palynology
(Rw, Cx excluded)
%

Miocene
Tortonian
Serravallian
Thanetian
Selandian
Palaeocene
Danian
Late Cretaceous
Campanian
early Campanian - Coniacian
middle Turonian - ?early Turonian
Late Cretaceous - Early Cretaceous
middle Cenomanian - intra-late Albian
?middle Albian - early Albian
Early Cretaceous
Aptian
Hauterivian - ?Valanginian
Callovian
Middle Jurassic

Banquereau
Wyandot
Dawson Canyon
Logan Canyon
Missisauga
Mic Mac

Petrel
Naskapi
O-Marker

1060 CU FDO P. laticoncha laticonchum (Tortonian or older)
1080 CU FDO P. laticoncha granulatum (Miocene or older)
Palaeocystodinium spp. (Tortonian or older)
1100 CU FDO persistent C. encysta (Miocene or older)
1277.5 LOG Interpreted position of the Tor1 SB of Hardenbol et al (1998) - ?Tortonian/Serravallian boundary
1290 CU Change in palynoflora: FDO S. pseudofurcatus (Serravallian or older)
1340 CU Sole A. andalusiensis (?no older than late Serravallian)
1390 CU Sparse typical Neogene microplaeontological assemblage, with B. aff. glans (Thanetian or older)
1380 - 1390 CU FDO C. bolens, Fasciculithus spp., P. sigmoides, E. distichus (Thanetian to Selandian, NP9a-NP5)
1410 CU FDO F. alanii, F. clinatus (Thanetian, NP9a)
1420 CU FDO P. pyrophorum (Selandian or older)
1420 CU Major change in microplaeontological recovery; top persistent abundant to common calcisphere Cretarhabdus spp.); FDO S. trifoculinoides (Selandian to Danian, Pa4-P1b)
1470 CU FDO T.trihyrodinium spp. (Selandian or older)
1489.0 LOG Interpreted position of the Sel1 SB of Hardenbol et al (1998) - Selandian/Danian boundary
1500 CU FDO T. evitii (Danian or older)
1500 CU Base persistent abundant Toweius spp. & relatively common F. tympaniformis (no older than Selandian, NP5)
1580 CU FDO T. xanthosyoides (intra-Danian or older)
1640 CU Major change in nannofossil recovery; FDO H. gardetae, E. eximius (Campanian)
1640 CU Sharp change in microplaeontological recoveries
1650 CU FDO B. enormis, L. grilli (early Campanian to late Coniacian)
1650 CU FDO M. marginata (early Campanian or older)
1660 CU FDO D. parillea (intra-Santonian to Coniacian)
1670 CU FDO M. pseudobreviana (Santonian or older); sole S. granulata (?early Campanian or older)
1675 CU Sole M. schreegensis (early Santonian, or older)
1700 CU Peak abundance D. parillea (Coniacian)
1715 CU FDO S. granulata (?Coniacian); LDO S. exsculpta (no older than Coniacian)
1780 CU LDO L. grilli, persistent M. staurophora (early Campanian to late Coniacian)
1785 CU LDO S. granulata (?Coniacian)
1790 CU LDO persistent D. parillea (?no older than Coniacian)
1810 CU FDO R. achlyostaurion (middle Turonian or older)
1815 CU Sole M. sinuosa (early Campanian to late-middle Turonian)
1840 CU FDO Q. intermedium, C. achylosum (middle to early Turonian)
1870 CU LDO Q. intermedium (middle to early Turonian); LDO E. eximius (no older than middle Turonian)
1875 CU LDO persistent Isabdolinium spp. (no older than middle Turonian)
1900 CU FDO M. chiastius, R. leper (Cenomanian or older)
1905 CU FDO P. delirioensis (middle Cenomanian to intra-late Albian)
1930 CU influx Epelidosphaeridia spp. (early Cenomanian)
1930 CU FDO C. kennedyi, O. nanum, S. anigmos (early Cenomanian)
1935 CU LDO P. delirioensis (middle Cenomanian to intra-late Albian)
1960 CU Sole B. africana, N. fragila (Albian); FDO S. cantrus (?middle/early Albian or older)
1965 CU Major acanthar increase in mioxpores and decrease in dinocysts
2025 CU E. hechti (Barremian or older, reworked)
2035 CU FDO K. amplicicapinum (earliest Albian or older)
2050 CU Sole ?Z. striatiaa (?no older than Albian)
2055 CU E. carecitia, G. barremiana, L. heterosticta (Early Aptian/Barremian, reworked)
2080 CU influx of nannofossils including FDO R. irregularis (intra-late Albian to latest Barremian)
2115 CU Peak in dinocysts; FDO C. tabulata (Aptian or older); FDO A. cf. polymorpha (?Aptian)
2146.5 SC FDO M. simplex (Hauterivian or older, reworked)
2220 CU Sole A. polymorpha (Aptian)
2260 CU LDO A. cf. polymorpha (Aptian); FDO P. pellifera (earliest Albian or older, typical of Aptian or older)
2260 CU LDO E. floralis (no older than intra-early Aptian)
2290 CU Peak in nannofossils
2310 CU Peak in dinocysts
2320 CU FDO N. borrelli (early Aptian to Valanginian); LDO & base persistent R. angustus (no older than latest Barremian)
2365 CU Change in palynofloral composition with FDO D. cariviciium (Aptian or older)
2379.9 SC LDO H.stu & top persistent M. simplex (Hauterivian to latest Barremian)
2490 CU Peak Subtilisphaera spp. (?intra-Hauterivian MFS)
2530 CU influx of nannofossils including sole N. steinmannii (earliest Aptian to Barremian); Sole M. hotschulzii (intra-late Aptian to Barremian)
2535 CU Sole in situ L. heermannii (early Aptian to late Hauterivian)
2650 CU LDO persistent M. perforata, in situ Subtilisphaera spp. (no older than Valanginian); FDO D. sellwoodii, C. continuum, K. pachytheca (Valanginian or older); FDO Cribroperidinium spp.
2675 CU Peak in dinocyst abundance and diversity (?MFS)
2680 CU Small influx typical Jurassic nannofossils; sole C. tubulata (?Tithonian to late Bajocian)
2695 CU influx typical Jurassic foraminifera; sole O. strumosum (Oxfordian to Bathonian, ?Callovian)
2745 CU Sole E. cf. nuda Coleman (?Callovian to Bajocian)
2770 CU Sole ?S. biggiti biggiti (?no older than Callovian)
2775 CU Sole P. fellei (?Callovian to Bathonian)
2790 CU FDO D. fragosum (Callovian to middle Aalenian)
2796.9 SC LDO persistent C. ornatum in SC (no older than Callovian)
2800 CU Peak in dinocyst abundance and diversity
2965 CU Base persistent and influx C. ornatum (no older than Callovian)
2992 CU Palynofloras comprise almost exclusively miospores
4022.9 SC LDO C. ornatum, D. sellwoodii, E. pocockii (no older than Late Callovian); Sole Valanginella? spp.
4038 CU LDO W. barnesae, W. britannica (?no older than Bajocian)
4040.9 SC LDO persistent common Calliialasporites spp. (no older than Middle Jurassic)

Intra-Oligocene Unc-3Ri
RTU-3Ri
Intra-Campanian Unc-3Ri
Campanian MFS
Tur./Cen. Unc-3Ri
Late Albian Unc-3Ri
?Early Albian Unc-3Ri
?Mid/Aptian boundary MFS
Intra-Aptian MFS
Apt/Barr. Unc-3Ri
Intra-Haut MFS
NBOU-3Ri
Top-Callovian MFS
Base-Callovian MFS