

Core no. 16457-1 B.C. N 5° 23.5' W 21° 43.2': 3291 m b.s.l.
 16457-2 G.C. N 5° 23.1' W 21° 45.1': 3303 m b.s.l.

Age control:

Date: 31/10/1990

- *C. wuellerstorfi* and *G. ruber* ¹⁸O records (Sarnthein et al., 1988 and Winn et al., 1991), *G. sacculifer* ¹⁸O record (Kassens & Sarnthein, 1989).
- ¹⁴C ages of coarse carbonate fraction (Kassens & Sarnthein, 1989).
- AMS ¹⁴C analogue stratigraphy.

Core fit :

- 0 cm in core -2 = 5 cm in core -1.

Surface sediment age :

- Zero, inferred from undisturbed surface sediment in B.C.

Age/depth correlation :

Orig. depth	¹⁴ C age	Error ±	Calendar years		Sed.rate	Original interval/ material/ δ ¹⁸ O stratigraphy	Core no.	Remarks
[cm]	[ky BP]		[ka]		[cm/ky]			
0			0		- . -			
3.5	4.05	70	4.53	a)	- . -	3- 4 cm carbonate >125µm	- 1	ignored, mixed layer
7.5	4.07	55	4.55	a)	- . -	7- 8 cm carbonate >125µm	- 1	ignored, b)
14	9.1		9.8	c)	1.43	AMS ¹⁴ C analogue		
15.5	7.61	90	8.43	a)	- . -	15- 16 cm carbonate >125µm	- 1	ignored, b)
15			?		- . -			? top, bioturbated section
22.5			?		- . -			? base, bioturbated section
23.7	13.6		17.1	c)	- . -	AMS ¹⁴ C analogue	- 1	
24.5	14.62	190	18.12	c)	- . -	24- 25 cm carbonate >125µm	- 1	ignored, b)
28.5	14.8		18.3	c)	1.71d)	AMS ¹⁴ C analogue		
34.5	24.62	610	28.12		- . -	34- 35 cm carbonate >125µm	- 1	ignored, b)

a) See Winn et al. (1991).

b) ¹⁴C ages are probably biased due to local winnowing and lateral advection.

c) corrected after Bard et al. (1990).

d) assuming no break in sedimentation between 9.8 ka and 18.3 ka.

Remarks :

- C_{org}, sediment physical properties (Kassens and Sarnthein, 1989).
- All age estimates may be biased due to low sedimentation rates and bioturbation.

Original references:

- Sarnthein, M., Winn, K., Jung, S.J.A., Duplessy, J.-A., Labeyrie, L., Erlenkeuser, H. & Ganssen, G. (1994): Changes in east Atlantic deepwater circulation over the last 30,000 years: Eight time slice reconstructions.- *Paleoceanography*, 9, 209-267.
- Winn, K., Sarnthein, M. & Erlenkeuser, H. (1991): ¹⁸O stratigraphy and chronology of Kiel sediment cores from the East Atlantic.- *Ber.-Rep. Geol. Paläont. Inst. Univ. Kiel*, 45, 99 pp.
- Kassens, H. & Sarnthein, M. (1989): A link between paleoceanography, early diagenetic cementation, and sheer strength maxima in Late Quaternary deep-sea sediments? - *Paleoceanography*, 4, 253-269.
- Sarnthein, M., Winn, K., Duplessy, J.-C. & Fontugne, M. (1988): Global variations of surface ocean productivity in low and mid latitudes: Influence on CO₂ reservoirs of the deep ocean and atmosphere during the last 21,000 years.- *Paleoceanography*, 3, 361-399.

LGM time slice:

- GLAMAP: 28-35 cm comp. depth = 23-30 cm orig. depth in core (-2)
- EPILOG: 29.5-37 cm comp. depth = 24.5-32 cm orig. depth in core (-2)

LGM foraminifera counts: Pflaumann (UP)

- GLAMAP: (in core -2) 30 cm orig. depth.
- EPILOG: (in core -2) 30 cm orig. depth.

References for faunal analysis:

- Pflaumann et al., Paleocyanography, in prep.

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