

Core no. SU 81-18 N 37° 46.0' W 10° 11.0': 3135 m b.s.l.

Age control: Date: 1994

- *C. wuellerstorfi* and various other benthic and planktic ¹⁸O record (J.-C. Duplessy/L.D. Labeyrie, Gif-sur-Yvette, personal communication, 5.02.1990).
- AMS ¹⁴C dating on *G. bulloides* from Bard et al. (1989). Additional ages from J.-C. Duplessy, Gif-sur-Yvette, personal communication, 5.02.1990).

Core fit :

- None

Surface sediment age :

- Zero, supported by young AMS ¹⁴C ages on near surface sediments.

Age/depth correlation :

| Orig. depth | ¹⁴ C age (lab. no.) | Error ± | Calendar years | | Sed.rate | Original interval/material/ | Remarks |
|-------------|--------------------------------|---------|----------------|----|----------|-------------------------------|---------------------------|
| [cm] | [ky BP] | | [ka] | | [cm/ky] | ^{δ18} O stratigraphy | |
| 0 | | | 0 | | | | |
| 12.5 | 1.04 | 190 | 1.00 | a) | - . - | AMS ¹⁴ C dating | ignored, mixed layer |
| 29.75 | 1.41 | 80 | 1.36 | a) | 21.9 | AMS ¹⁴ C dating | |
| 49.75 | 3.05 | 100 | 3.28 | a) | 10.4 | AMS ¹⁴ C dating | |
| 69.5 | 4.54 | 240 | 5.22 | b) | 10.2 | AMS ¹⁴ C dating | |
| 89.75 | 5.24 | 140 | 6.04 | b) | 24.7 | AMS ¹⁴ C dating | |
| 111 | 6.79 | 140 | 7.64 | c) | 13.3 | AMS ¹⁴ C dating | |
| 129.5 | 7.59 | 120 | 8.37 | c) | 25.3 | AMS ¹⁴ C dating | |
| 141 | 8.76 | 130 | 9.60 | c) | 9.3 | AMS ¹⁴ C dating | |
| 149.5 | 9.36 | 130 | 10.06 | d) | 18.5 | AMS ¹⁴ C dating | |
| 169.5 | 10.39 | 130 | 12.39 | d) | - . - | AMS ¹⁴ C dating | ignored, outlier |
| 180 | 10.28 | 140 | 12.28 | d) | 13.7 | AMS ¹⁴ C dating | |
| 189.5 | 10.68 | 140 | 12.68 | d) | 23.7 | AMS ¹⁴ C dating | |
| 200 | 11.01 | 170 | 13.01 | d) | 31.8 | AMS ¹⁴ C dating | |
| 208.5 | 11.76 | 200 | 13.76 | d) | 11.3 | AMS ¹⁴ C dating | |
| 229.5 | 12.26 | 170 | 14.26 | d) | 42 | AMS ¹⁴ C dating | |
| 249.5 | 12.46 | 150 | 14.46 | d) | 100 | AMS ¹⁴ C dating | |
| 260 | 12.70 | 170 | 14.70 | d) | 43.7 | AMS ¹⁴ C dating | |
| 280 | 13.58 | 190 | 17.08 | d) | 8.4 | AMS ¹⁴ C dating | |
| 299 | 13.95 | 180 | 17.45 | d) | 51.4 | AMS ¹⁴ C dating | |
| 310 | 14.49 | 230 | 17.99 | d) | - . - | AMS ¹⁴ C dating | ignored e) |
| 320 | 13.94 | 170 | 17.44 | d) | - . - | AMS ¹⁴ C dating | ignored, age reversal, e) |
| 329.5 | 14.59 | 190 | 18.09 | d) | 47.7 | AMS ¹⁴ C dating | |
| 360 | 15.23 | | 18.73 | d) | 47.7 | AMS ¹⁴ C dating | |
| 400 | 17.11 | | 20.61 | d) | - . - | AMS ¹⁴ C dating | ignored, age reversal |
| 441 | 16.19 | | 19.69 | d) | 84.4 | AMS ¹⁴ C dating | |
| 521 | 20.85 | | 24.35 | d) | - . - | AMS ¹⁴ C dating | ignored, age reversal |
| 551 | 19.33 | | 22.87 | d) | 34.6 | AMS ¹⁴ C dating | |
| 631 | 22.85 | | 26.35 | d) | - . - | AMS ¹⁴ C dating | ignored, e) |
| 691 | 21.88 | | 25.38 | d) | 55.3 | AMS ¹⁴ C dating | |

- a) corrected after Stuiver & Becker (1986).
b) corrected after Pearson et al. (1986).
c) corrected after Kromer et al. (1986).
d) corrected after Bard et al. (1990).
e) Higher ¹⁴C ages ignored as biased by advection of fossil grains.

Remarks:

-

Original references:

- Sarnthein, M., Winn, K., Jung, S.J.A., Duplessy, J.-C., 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.
- Bard, E., Fairbanks, R., Arnold, M., Maurice, P., Duprat, J., Moyes, J. & Duplessy, J.-C. (1989): Sea level estimates during the last deglaciation based on ¹⁸O and accelerator mass spectrometry ¹⁴C ages measured on *Globigerina bulloides*.- *Quat. Res.*, 31, 309-317.

LGM time slice:

- GLAMAP: 340-503 cm orig. depth
- EPILOG: 379-538 cm orig. depth

LGM foraminifera counts: Duprat (JD)

- GLAMAP: 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 470, 480, 490, 500 cm orig. depth
- EPILOG: 380, 390, 400, 410, 420, 430, 440, 450, 470, 480, 490, 500, 510, 520, 530 cm orig. depth

References for faunal analysis:

- Cortijo, E. (1995): La variabilité climatique rapide dans l'Atlantique Nord depuis 128 000 ans: relations entre les calottes de glace et l'océan de surface. - Ph.D. thesis, Univ. de Paris-Sud, UFR Scientifique d'Orsay, Paris, 235 pp.
- Duplessy, J.-C., Labeyrie, L., Arnold, M., Paterne, M., Duprat, J., van Weering, T.C.E. (1992): Changes of surface salinity of the North Atlantic ocean during the last deglaciation.- Nature, 358, 485-488.

SU 81-18

