

40. MAGNETOSTRATIGRAPHY OF NEogene AND QUATERNARY SEDIMENT SERIES FROM THE NORWEGIAN SEA: OCEAN DRILLING PROGRAM, LEG 104¹

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ABSTRACT

Results of a detailed paleomagnetic study on largely undisturbed sedimentary sequences recovered in the Voring Plateau region of the Norwegian Sea during Ocean Drilling Program Leg 104 are presented. At each drill site an essentially continuous downhole magnetic reversal pattern could be defined to depths between 200 and 300 m below seafloor allowing correlations with a calibrated geomagnetic time scale and establishing almost complete magnetostratigraphic records for the core material analyzed. A composite section of the drill holes represents the first high-quality chronostratigraphic framework from the lower Miocene through Holocene obtained in the Norwegian Sea. It should provide a basis for first-order correlations with calcareous and siliceous microfossil events and contribute to a further elaboration of the regional paleoceanographic history. A series of major hiatuses in the upper and middle Miocene accounts for about 4 million yr of missing stratigraphic record.

INTRODUCTION

A prime objective of Leg 104 of the Ocean Drilling Program (ODP) was to study the paleoceanographic evolution of the Norwegian Sea, in particular to document the temporal variability of the Norwegian Current which provides northwestern Europe with temperate climates. To this aim a series of seven holes at three sites were drilled into the Cenozoic sedimentary deposits on a transect from near the foot of the Voring Plateau, over the outer Voring Plateau to the Voring Basin (Fig. 1, Table 1). This strategy was designed to recover sediment formations from environments ranging from deep ocean basin to the central continental slope with the goal of defining vertical and horizontal gradients associated with the current system.

Systematic paleomagnetic analyses of the core materials were carried out to establish a detailed chronological framework which could be integrated with biostratigraphic, paleoclimatic, tectonic, and other studies. Magnetostratigraphic results presented in this paper are exclusively based on measurements of discrete samples (some of these data have already been reported in the respective site reports; Eldholm, Thiede, Taylor, et al., 1987). Measurements of natural remanent magnetization (NRM) properties of core sections using the new shipboard pass-through cryogenic magnetometer to a large extent were found unsuitable for magnetostratigraphic interpretations and therefore will not be discussed in detail.

The coring operations were accomplished with the advanced hydraulic piston corer (APC) and below APC refusal in the deeper, more consolidated formations, pursued with the extended core barrel (XCB) drilling technique. The core material recovered from the upper 200 to 300 m of the sediment column in general proved well-suited to magnetostratigraphic work. Below this depth the recovery deteriorated drastically in quality and quantity. Unlike in previous DSDP operations, the collection of duplicate HPC cores was only of limited value in achieving continuous records of the sediment accumulation in composite sections.

The polarity time scale of Berggren et al. (1987) is used throughout this study. The nomenclature for Cenozoic geomagnetic time units follows the new chron scheme proposed by La-Brecque et al. (1983), which links the geomagnetic chrons directly to the numbered and lettered sequence of positive marine magnetic anomalies. By their definition each "C" chron is composed of a younger predominantly normal interval corresponding to the magnetic anomaly as well as the preceding predominantly reversed interval. The details of this terminology are shown in Figure 2. For Pleistocene and Pliocene times the widely adopted Brunhes, Matuyama, Gauss, and Gilbert geomagnetic chron scheme is also used in the text together with the traditional names of their various short polarity events.

METHODS AND MATERIALS

Sampling intervals varied between 30 and 50 cm (3 to 5 specimens per core section) in the first APC/XCB hole of each site and between 50 and 70 cm (2 or 3 specimens) in the second hole. Depending on the apparent sedimentation rates encountered, the sample spacing represents time intervals ranging from 10^4 yr or less to, in certain intervals, almost 10^5 yr. The individual cubic specimen of about 2 cm on edge therefore comprises a paleomagnetic record of several hundred to several thousand years. The results show that the sampling scheme was generally adequate to identify most of the reversal history of the Earth's magnetic field in the remanent magnetization logs of the sediment series penetrated and only few of the most fine-scale structures could not be resolved where the biostratigraphies indicated a continuous accumulation.

During ODP Leg 104 the new pass-through cryogenic magnetometer was available for shipboard paleomagnetic measurements. On virtually all sediment core sections the natural remanent magnetization properties were determined with this ingenious instrumentation. Although its performance was excellent in most every respect during the entire cruise, the results obtained were altogether disappointing. The almost continuous NRM inclination logs show a core to core variability, and over extended intervals of all holes, a pervasive degree of overprinting by normal secondary magnetization components that masks the primary remanent polarity pattern. A comparison of shipboard NRM inclination measurements on the *archive* split-halves of core sections with shore-based NRM data of discrete samples taken at about the core axis of the *working* split-halves (Figs. 3, 4) indicates that this effect is apparently strongest in the outer parts of the core. Outer parts make up a comparatively large portion of the core volume. This implies that the secondary spurious magnetization of normal polarity has been acquired during the coring process or the subsequent core handling and is not of *in-situ* viscous origin. As an alternating field demagnetization device for whole

¹ Eldholm, O., Thiede, J., Taylor, E., et al., 1989. *Proc. ODP, Sci. Results*, 104: College Station, TX (Ocean Drilling Program).

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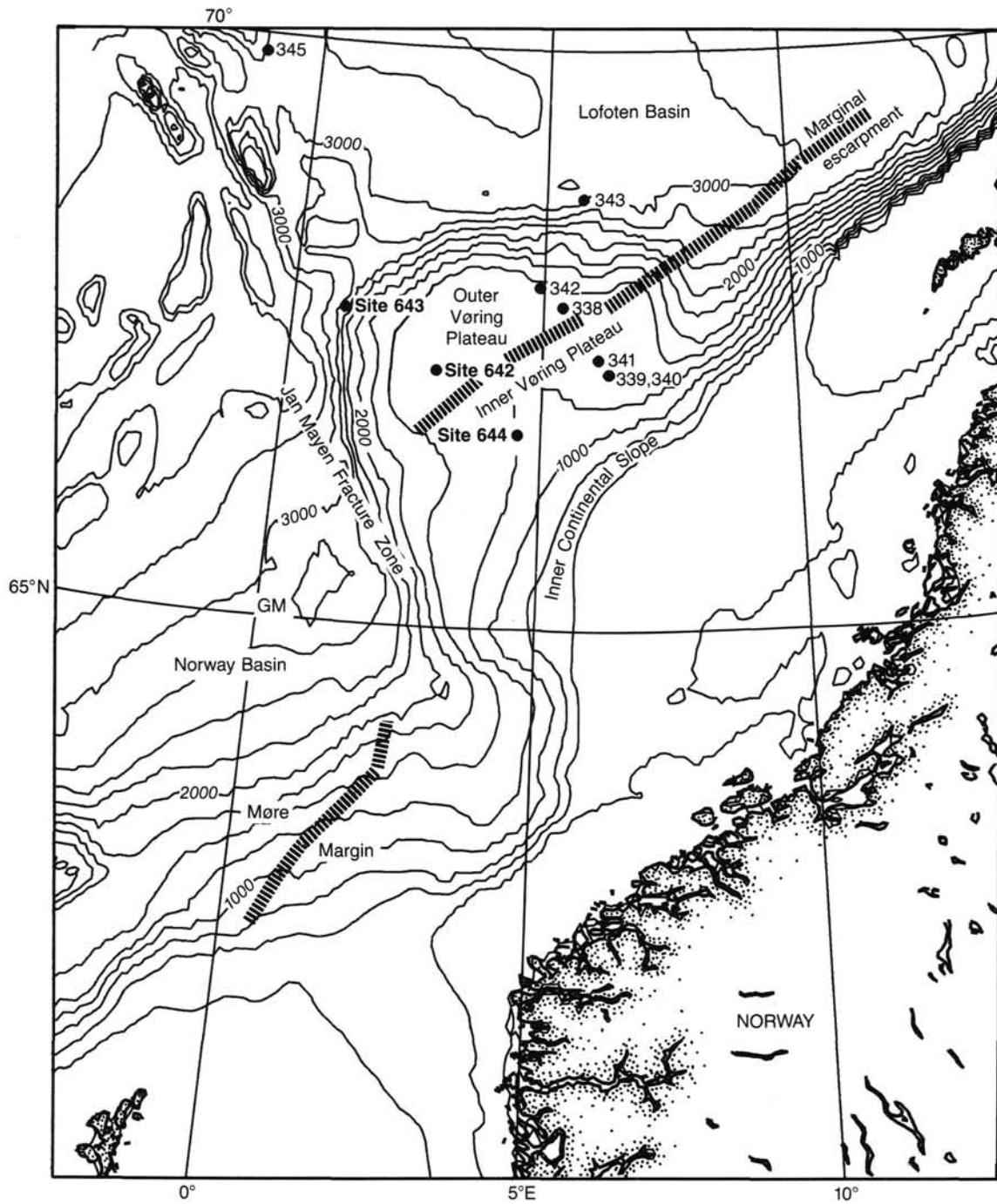


Figure 1. Locations of ODP Leg 104 drill sites (642–644) in the Voring Plateau region of the Norwegian Sea. Contour interval, 250 m.

core sections was not yet operational during ODP Leg 104, no attempt could be made to isolate the stable magnetization components on board.

On these grounds it was only possible to decipher fairly plausible magnetostratigraphies from the shipboard NRM inclination data in the upper parts of each hole where the NRM intensities were typically of the order of some 10^{-2} A/m. Even there, a tentative interpretation of the paleomagnetic records had to rely largely on the general age framework of paleontological zonations. Figures 3 and 4 illustrate the rather dramatic variability in shipboard NRM data quality in two consecutive cores retrieved from the same lithologic unit. While in Core 104-644A-11H the shipboard inclination log suggests the possible recording of an interval with frequent reversals, the NRM data from discrete samples yield predominantly reversed polarities. After a detailed AF demagnet-

ization treatment all characteristic stable inclinations are clearly negative. In contrast, in the following Core 104-644A-12H the normal polarity Jaramillo Subchron in the late part of the reversed Matuyama Chron is almost as precisely defined in the shipboard NRM data as from complete shore-based paleomagnetic analyses of discrete samples. This is a rare exception, though.

A total of more than 2,500 samples have been analyzed for their paleomagnetic properties. See Appendix tables. Measurements of magnetization intensity and direction were made on a 3-axis cryogenic magnetometer (Cryogenic Consultants, Model GM 400). A Schonstedt GSD-1 single-axis demagnetizer was used for the alternating field demagnetization.

In addition to measurements of the NRM, systematic step-wise demagnetization treatments were carried out on each sample. For the bulk

Table 1. Location of sites drilled on ODP Leg 104

Hole	Latitude (N)	Longitude (E)	Water depth (m)
642A,B	67°13.5'	02°55.7'	1286
642C	67°13.2'	02°55.8'	1277
642D	67°13.2'	02°55.8'	1272
643A	67°42.9'	01°02.0'	2753
644A,B	66°40.7'	04°34.6'	1227

of the material, the demagnetization was taken to the 50-mT level, which generally exceeds the median destructive field. Steps of 2.5 and 5 mT were typically applied up to 10 mT, followed by 5-mT steps up to 20 or 30 mT and 10-mT steps beyond that stage. Characteristic stable magnetization directions were evaluated from different graphic representations of the demagnetization data. This method has been successfully applied during previous paleomagnetic work on DSDP sedimentary series and a detailed description was given in the respective DSDP Initial Reports (e.g. Bleil, 1985).

With regard to their responses to progressive AF demagnetization, three general types of magnetization structures and stabilities were encountered in the sediments of the Voring Plateau region:

A. Single-component Remanence

This is an essentially single-component remanence with a (very) minor overprint of a normal polarity which is likely to represent an *in-situ* viscous magnetization and is entirely removed after demagnetization to 10 mT or less (Fig. 5). These features characterize a large number of samples from the upper sediment column of all holes with NRM intensities of the order of 10^{-2} A/m and median destructive fields typically higher than about 15 mT. In the deeper parts of the holes this type is still relatively common in biosiliceous sediments.

B. Two-component Remanence

This is a two-component remanence with a strong spurious steep inclination normal polarity component that was probably acquired during coring (Fig. 6). Frequently, alternating field demagnetization to several tens of mT was necessary to isolate the primary stable component. Samples showing this behavior were found at almost all stratigraphic levels regardless of the respective lithology.

C. Multicomponent Remanence

This is a multicomponent remanence yielding usable polarity information after a systematic demagnetization treatment (Fig. 7). Despite an often poor directional stability the demagnetization data are considered sufficiently clear to define an unequivocal polarity. In particular, in the lower parts of all holes, a large number of specimens fell into this class where the NRM intensities are of the order of 10^{-4} A/m.

Type B and C remanences are present in more than 50% of all samples analyzed. Note therefore that in the present study the widely used *pilot-sample* demagnetization method would not have been adequate to define acceptable magnetostratigraphic records because a single-step demagnetization at 10 or 20 mT frequently yields a different polarity than a detailed demagnetization procedure (i.e., Fig. 3).

Absolute azimuthal or even relative azimuthal orientation between cores is not available for any of the Leg 104 drill holes. Previous poor experience was repeated again as the Eastman multishot system data were once more found to be basically useless for this purpose. However, the steep geomagnetic field inclinations of the present latitudes and predicted for the paleolatitudes of all sites allow an unambiguous determination of polarities, despite the lack of declination control.

RESULTS

Site 642

At Site 642 on the outer Voring Plateau a total of four holes were drilled into predominantly pelagic and hemipelagic upper Cenozoic sediments overlying a thick volcanic sequence of Paleogene seaward-dipping seismic reflectors. Hole 642A was an APC test hole from which only a single core was retrieved; it ap-

parently did not contain the uppermost sediments. In the two adjacent Holes 642B and 642C, Neogene and Quaternary sedimentary series were recovered in stratigraphic duplication using the APC system to refusal at around 200 meters below sea floor (mbsf). From this depth the extended core barrel (XCB) drilling technique was applied in Hole 642D to penetrate the sediment column down to the basalt contact at about 330 mbsf.

Hole 642A

Paleomagnetic analyses of samples from the single core obtained in Hole 642A yielded almost exclusively normal polarities. These glacial marine deposits apparently accumulated during the present Brunhes geomagnetic Chron, and the base of the core should have an age of less than 0.73 Ma.

Holes 642B and 642C

In the two adjacent Holes 642B and 642C, the upper Pliocene through Holocene sediments of lithologic Unit I are composed of interbedded, dark, carbonate-poor, glacial muds and light, carbonate-rich, interglacial marine sandy muds. Lithologic Unit II extends from about 60 to 157 mbsf and was divided into four subunits composed of nannofossil oozes with minor diatom-nannofossil oozes and muds (60–83 mbsf), siliceous muds and oozes (83–108 mbsf), interbedded nannofossil oozes, siliceous nannofossil oozes, and siliceous muds and oozes (108–146 mbsf), and mixed siliceous-calcareous oozes with minor siliceous muds and nannofossil oozes (146–157 mbsf). Lithologic Unit III consists of siliceous muds and oozes. The Pliocene/Miocene boundary was identified at about 97 mbsf, the upper/middle Miocene boundary at about 200 mbsf. Both holes had to be abandoned due to refusal of the advanced piston corer in middle Miocene sediments.

Throughout Hole 642B the paleomagnetic sampling scheme was as detailed as possible with, on average, one sample taken every 30 cm. In Hole 642C, which was drilled with the principal objective to fill the stratigraphic gaps in the sequence recovered in Hole 642B, only two samples per core section were analyzed. The downhole variations in natural remanent intensity and stable inclination together with the derived polarity logs are shown in Figures 8 and 9, respectively. Details of the magnetostratigraphic interpretation are given in Tables 2 and 3 and summarized as sedimentation rate curves in Figure 14.

From the top to about 64.7 mbsf, paleomagnetic measurements of Hole 642B sediments revealed a recording of the complete and apparently continuous reversal sequence of the geomagnetic Brunhes and Matuyama Chrons including all major polarity events. An identical magnetostratigraphic section was obtained in Hole 642C for this interval. However, a comparison of the depth positions of individual reversal boundaries shows variable degrees of mutual offsets amounting up to 6 m down-hole. Although this could effectively be the result of real fluctuations in paleotopography, it is perhaps best explained by the standard ODP procedure to exclusively account for any material loss at the base of each cored interval.

Down to the Matuyama/Gauss boundary the sedimentation rate in Hole 642B amounts to 26.2 m/m.y.. Within the Brunhes Chron four individual samples gave clearly negative stable inclinations. In addition, in one short interval the stable inclinations were unusually shallow (Fig. 8). Interpreted as true features (events or excursions) of the Earth's field, their ages are interpolated to about 30,000, 50,000, 150,000, 240,000, and 360,000 yr, respectively. None of these potential geomagnetic events could be identified in the Hole 642C record, possibly because of the less-detailed sampling scheme. Instead, two negative inclinations were encountered here at greater depths with interpolated ages of 520,000 and 560,000 yr, respectively. As an accidental misorientation of individual samples cannot totally be

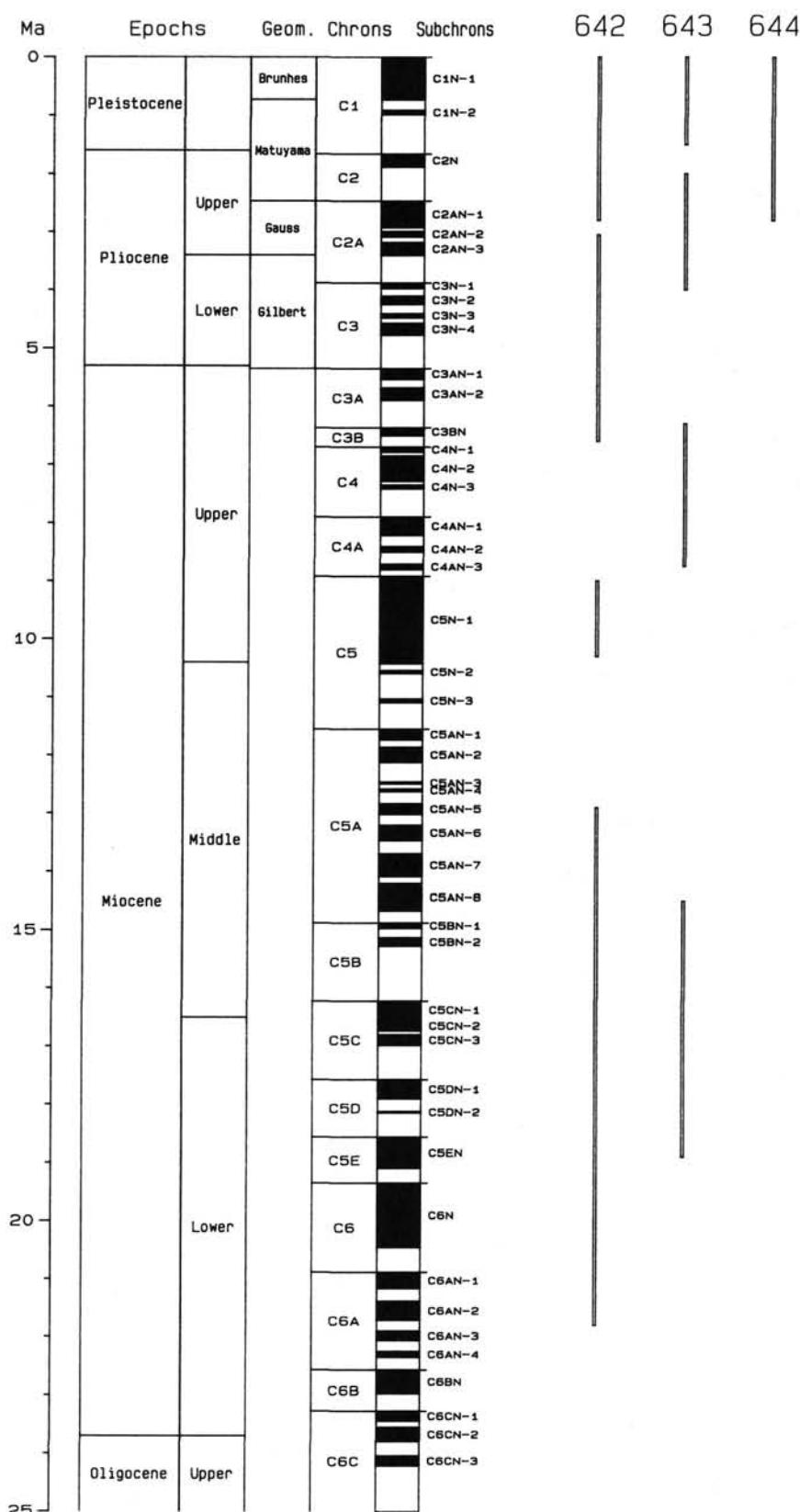


Figure 2. Magnetochronologic scheme used in this study. The geomagnetic polarity time scale (black denoting a normal, white a reversed polarity) based on marine magnetic anomaly lineations is that of Berggren et al. (1987), the magnetic chron nomenclature is that of LaBrecque et al. (1983). Columns on the right indicate the stratigraphic extent of reversal sequences identified in the sediment series recovered at the individual drill sites of ODP Leg 104.

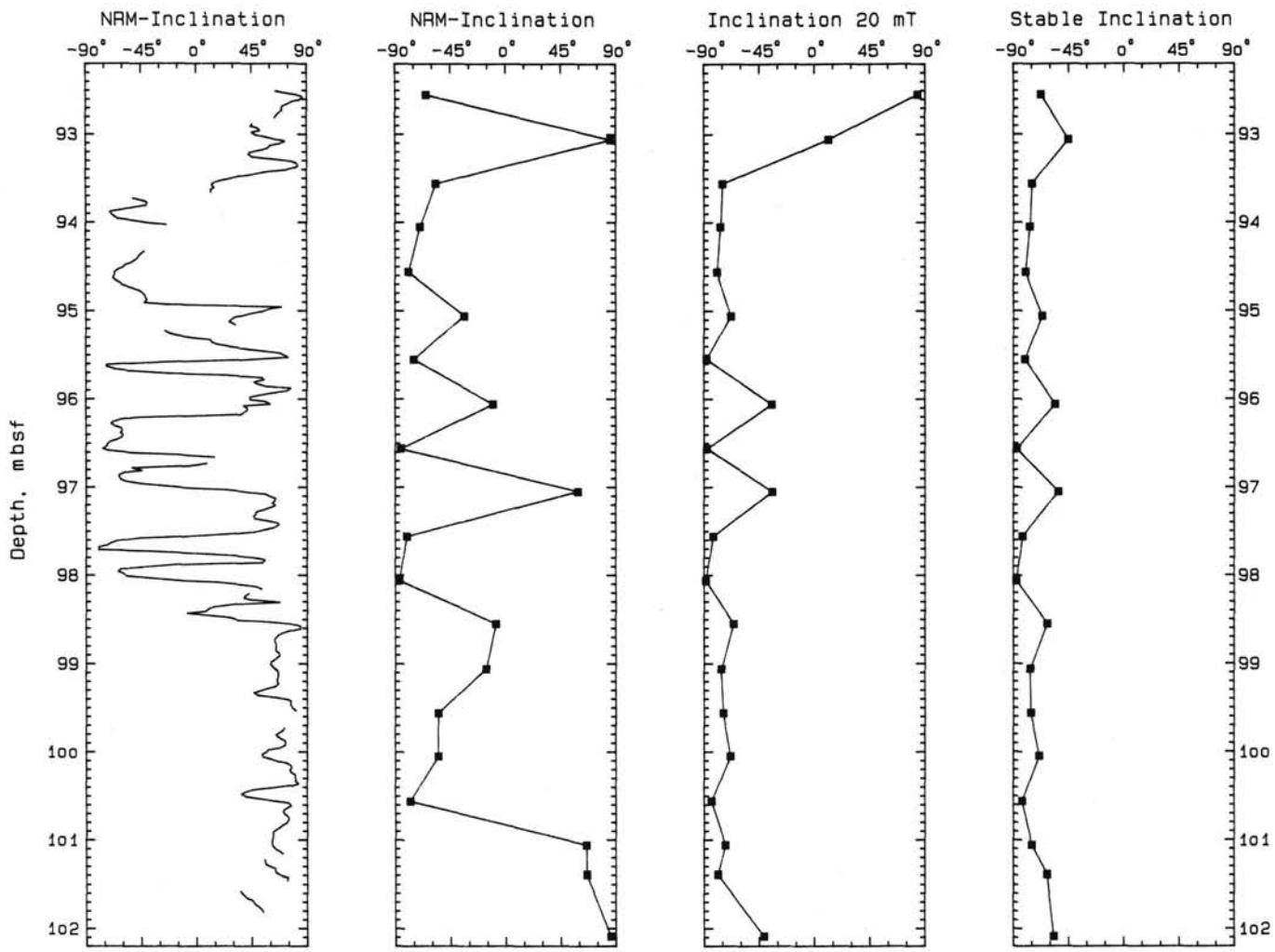


Figure 3. Core 104-644A-11H. Comparison of the natural remanent magnetization (NRM) inclination record obtained from the shipboard pass-through cryogenic magnetometer on split-halves of core sections, with results of shore-based measurements of discrete samples which also include inclinations after 20 mT AF demagnetization and stable inclinations. Minor gaps in the shipboard data occur at section boundaries and in intervals of discontinuous recovery. Note that the sediments of Core 104-644A-11H accumulated during the late part of the reversed Matuyama Chron between the Jaramillo Subchron and the Brunhes/Matuyama boundary (see Fig. 12).

excluded, and also because of the uncertainties in depth positions mentioned above, at present these results may only be acceptable as general indications for the existence of field reversals or major excursions during the Brunhes Epoch and crude estimates of their timing (see Site 644 results).

Note that in the early part of the Matuyama Epoch the Réunion Event is seen in the paleomagnetic record of Hole 642B.

Because a hiatus of estimated 0.5-m.y. duration was identified near the Cores 104-642B-8H/9H boundary (Spiegler and Jansen, this volume) parts of the Gauss Chron are missing. On the other hand, all four normal polarity events in the reversed Gilbert Chron were identified (Fig. 8). The Gauss/Gilbert boundary (C2AN-3/C2AR-3 transition at 3.40 Ma) is observed at about 70.0 mbsf. As correlated by Berggren et al. (1987), it approximates the lower/upper Pliocene boundary. The base of the Gilbert Epoch (C3R-4/C3AN-1 transition at 5.35 Ma) is recognized at about 97.3 mbsf and almost coincides with the Pliocene/Miocene boundary. From the Matuyama/Gauss boundary to this depth the sediments accumulated at an average apparent rate of 11.3 m/m.y. without accounting for the minor hiatus in the Gauss Chron. With the broad sampling scheme in Hole 642C, the paleomagnetic record is more fragmentary in this in-

terval and an interpretation further hampered by an extremely limited recovery in Core 104-642C-10H (Fig. 9).

The upper Miocene paleomagnetic record ends at an unconformity seen in the radiolarian data just below 120 mbsf (Goll and Björklund, this volume). The reversal pattern to this level in Hole 642B is incomplete because the recovery in Core 104-642B-14H is inadequate for paleomagnetic analyses. Despite the fact that a similar situation occurs in Core 104-642C-13H, the sedimentary sequence retrieved here contains all polarity transitions between the top of Chron C3A and the middle of Chron C3B (6.50 Ma, 120.01 mbsf). On average, sedimentation between the Pliocene/Miocene boundary and the youngest prominent hiatus at Site 642 took place at an apparent rate of 22.4 m/m.y.

For the lower part of the upper Miocene and also parts of the middle Miocene the polarity patterns of Holes 642B/C unfortunately do not offer any resolution at all. This is likely to be caused by a combination of different effects. However, the available evidence is insufficient to quantify the various factors. Thus the sediments of Cores 104-642B-15H through 104-642B-20H (Cores 104-642C-16H through 104-642C-21H, respectively) which accumulated during this period carry an almost continuous uniform normal polarity. At least in the ~40-m interval

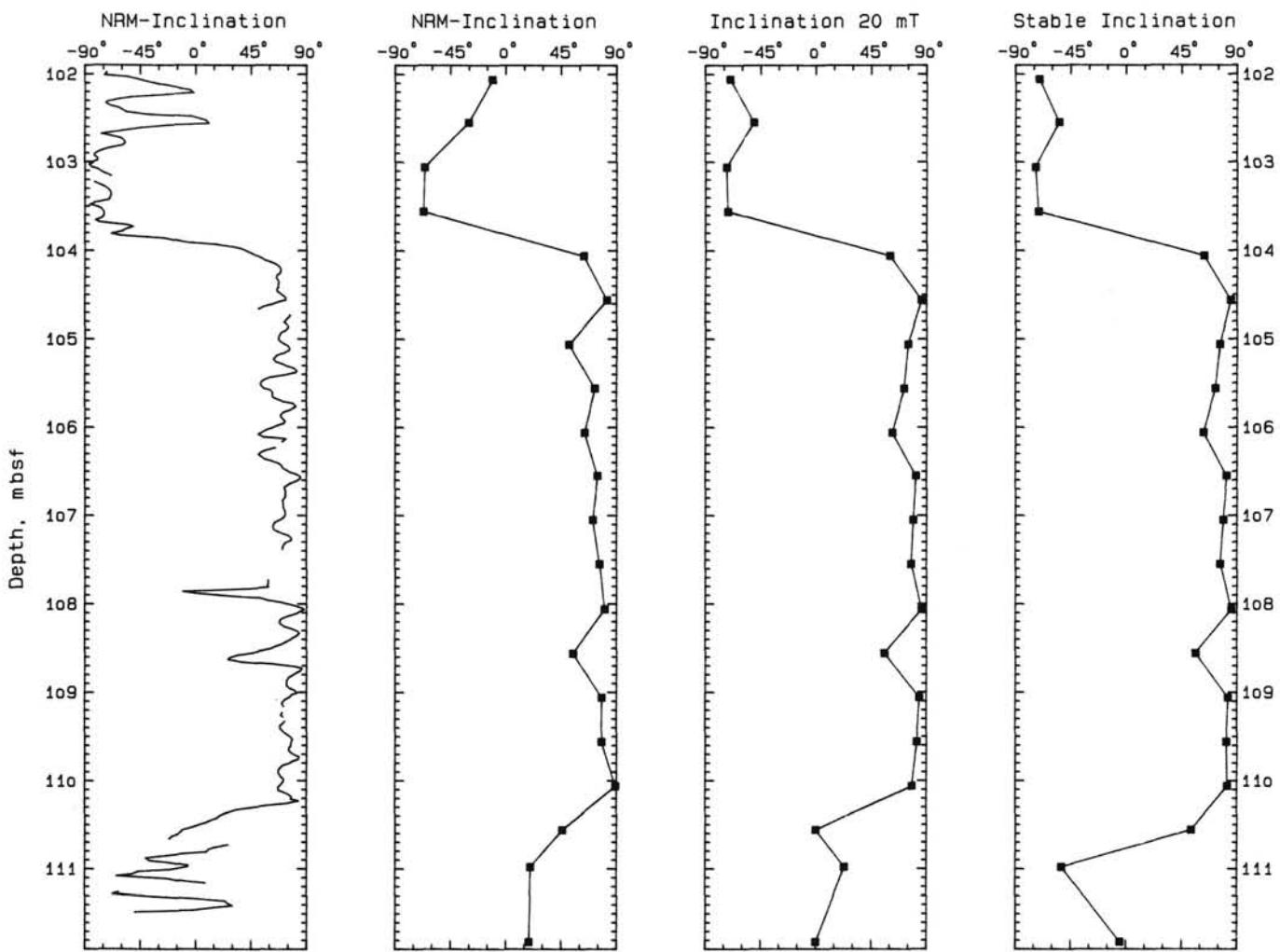


Figure 4. Core 104-644A-12H. Comparison of the natural remanent magnetization (NRM) inclination record obtained from the shipboard pass-through cryogenic magnetometer on split-halves of core sections with results of shorebased measurements of discrete samples which also include inclinations after 20 mT AF demagnetization and stable inclinations. Minor gaps in the shipboard data occur at section boundaries and in intervals of discontinuous recovery. The polarity transition from reversed to normal at around 111 mbsf marks the onset of the Jaramillo Subchron some 0.98 m.y. ago. To document the fine structure of its termination (0.92 Ma) recorded at about 104 mbsf, additional closely spaced shore-based sampling was done.

bound between the unconformity at around 120 mbsf mentioned above and the second major hiatus documented at about 160 mbsf by different biostratigraphic methods, a normal magnetization overprint which could not be removed with AF demagnetization techniques appears to obscure the paleomagnetic record. This presumption is based on the fact that none of the numerous reversed C4 and C4A subchrons could be identified. For the lower ~20 m of this interval the *Bolboforma* stratigraphy (Qvale and Spiegler, this volume) indicates sediment ages corresponding to the long normal period of Subchron C5N-1 (marine magnetic anomaly 5; 8.92 to 10.42 Ma). It is interesting to note, therefore, that several features in the respective magnetostratigraphic records (Figs. 8, 9) could be interpreted as short reversed polarity events within the C5N-1 Subchron. Similar observations have repeatedly been reported in the literature (e.g., McDougall et al., 1976; LaBrecque et al., 1977).

The transition between Subchrons C5AN-5/C5AR-5 (13.01 Ma) is tentatively placed at about 177.4 mbsf in Hole 642C. A total of 6.5 m.y. would then be contained between this horizon and the last identified reversal boundary above the first major unconformity. Of course no plausible sedimentation rate can be

calculated from the paleomagnetic data for this upper-middle Miocene period nor is it possible to estimate the amount of time spanned by any of the two hiatuses.

According to the radiolarian biostratigraphy (Goll and Björklund, this volume), the lower Miocene part of the sedimentary record at Site 642 is disrupted by an additional hiatus at around 213 mbsf (Fig. 14). In the paleomagnetic data there is little supporting evidence for this. The unconformity falls into an interval of low sedimentation rate, in particular, if compared to the situation at Site 643 (see below). This level could therefore be equally well interpreted as representing a condensed zone. In any case, this hiatus appears to span only a short period of time. Although all the details of the early middle Miocene and late lower Miocene Earth's magnetic field reversal history could be resolved in both holes, their combined polarity pattern is complete enough to allow an unequivocal correlation with a calibrated time scale (Tables 2, 3; Fig. 14). At the base in Hole 642C at about 200 mbsf, the sediments have an age of about 16.5 Ma and the coring was terminated at around the middle/lower Miocene boundary. The lowermost deposits recovered from around 221 mbsf, Hole 642B, are about 18.0 Ma old. The mid-

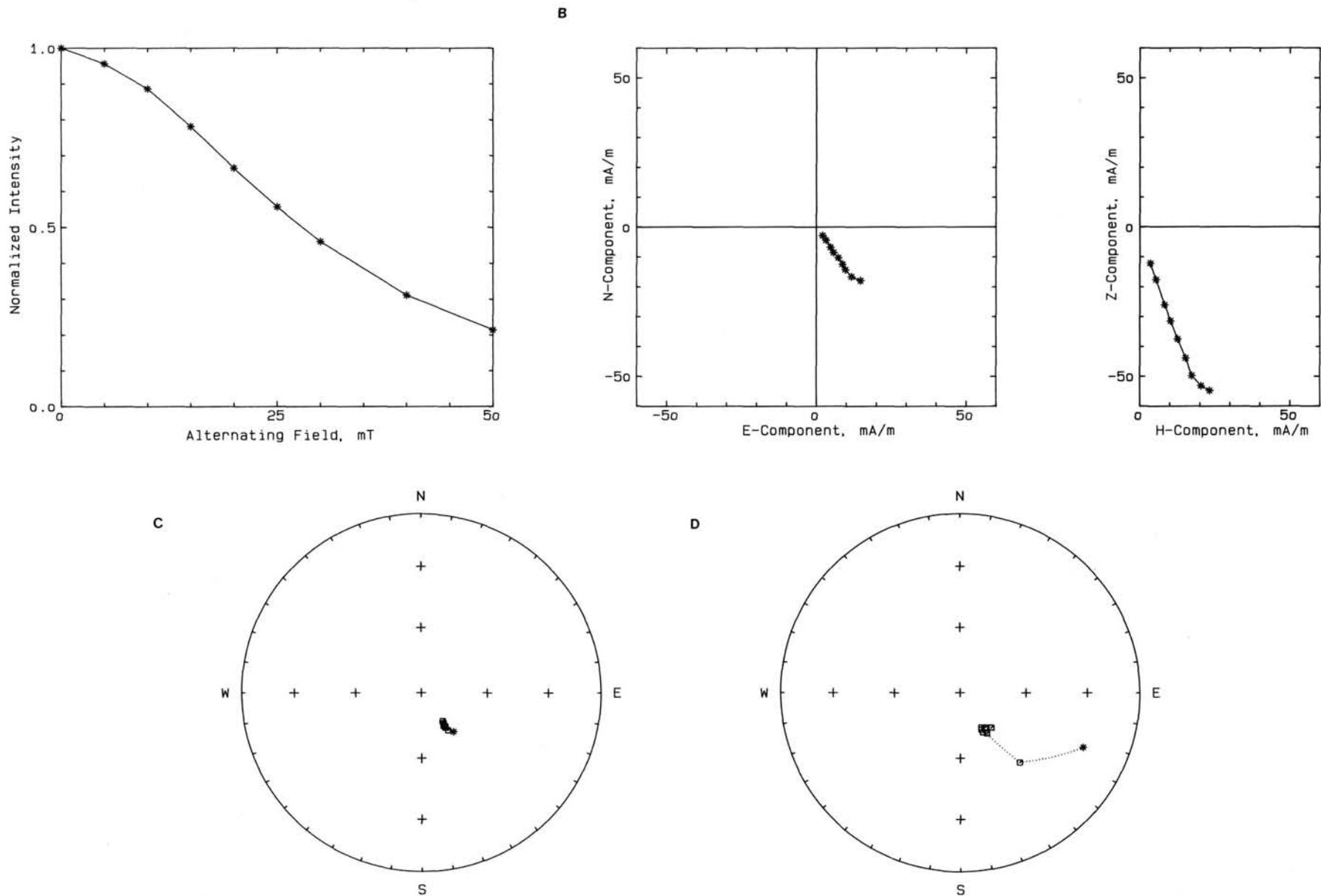


Figure 5. Demagnetization characteristics of single-component remanent magnetization (Type A). (Sample 104-642C-5H-3, 100-102 cm.) A: Demagnetization curve: Variation of the NRM-normalized remanent magnetization intensity as a function of the maximum alternating field amplitude. B: Vector diagrams: Variation of the remanent magnetization components in the horizontal plane (declination) and vertical plane (inclination). The demagnetization sequence is the same as in A. C: Stereographic projection of the resultant vectors of remanent magnetization. The asterisk indicates the NRM direction. D: Stereographic projection of the difference vectors of remanent magnetization. The asterisk indicates the first demagnetization interval. On the stereographic projections closed symbols represent positive, open symbols negative, inclinations. Subsequent demagnetization steps are connected by great-circles. The demagnetization sequence is the same as in A.

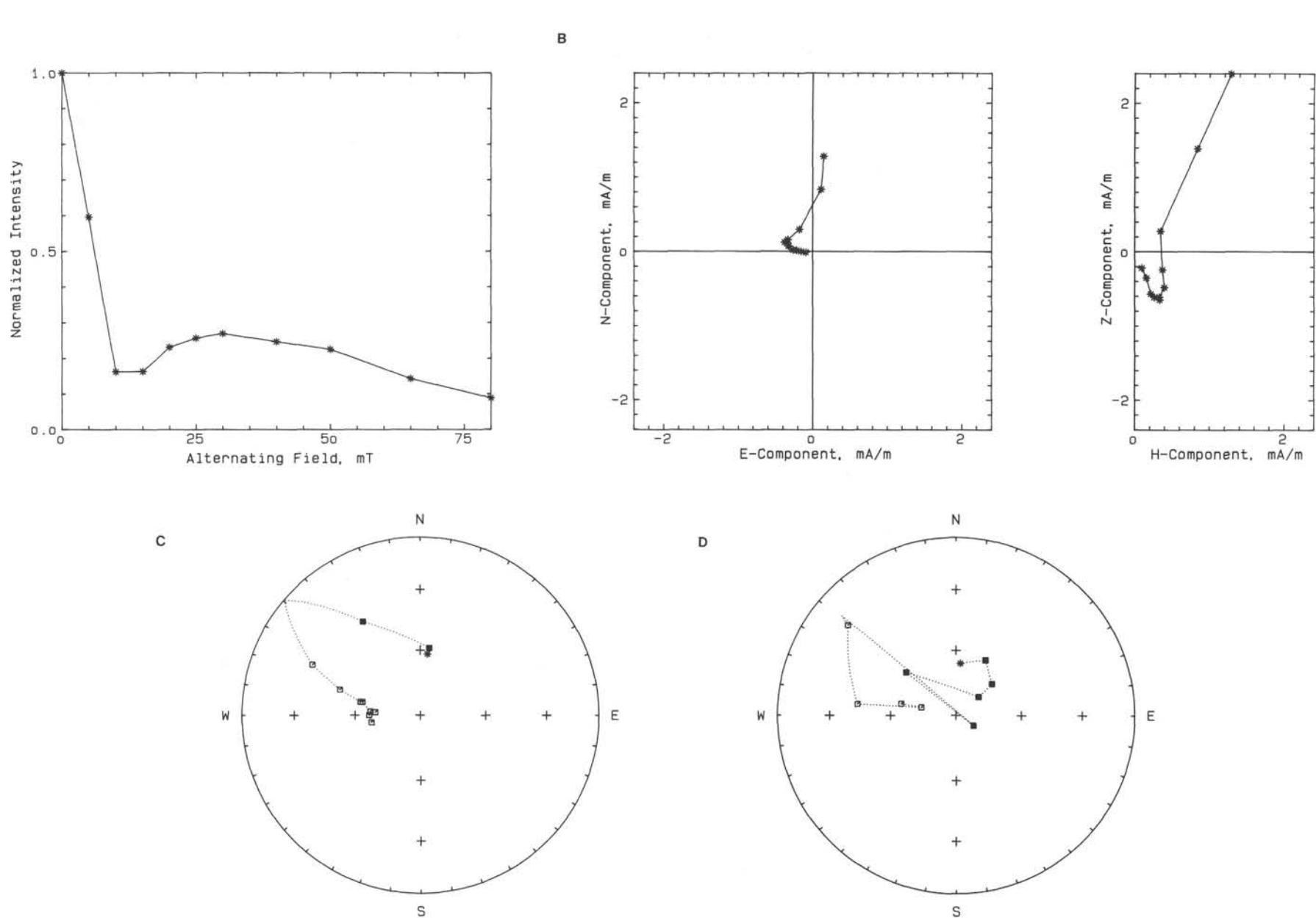


Figure 6. Demagnetization characteristics of two-component remanent magnetization (Type B). (Sample 104-643A-16H-5, 25-27 cm.) See Figure 5 caption for further explanation.

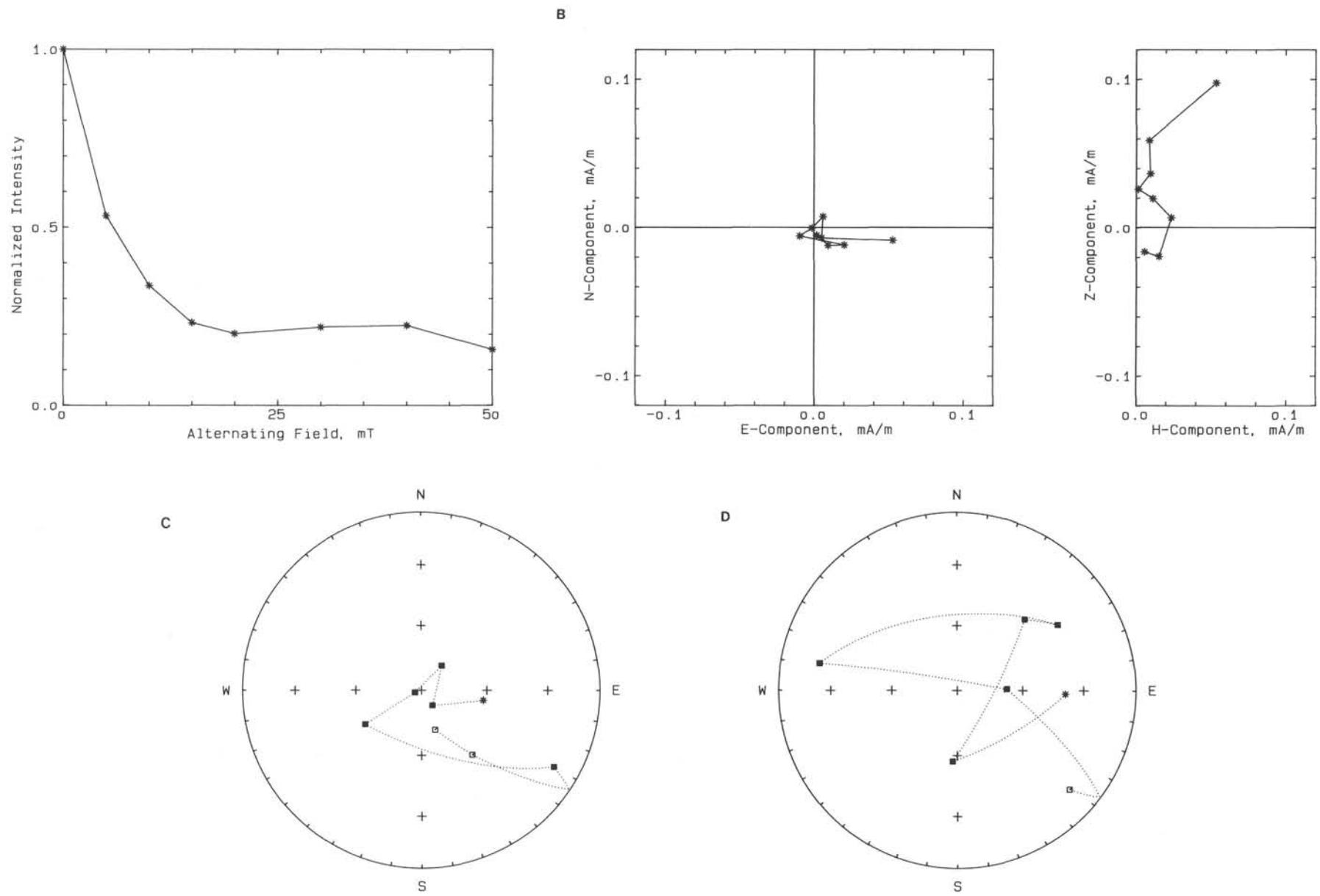


Figure 7. Demagnetization characteristics of multi-component remanent magnetization (Type C). (Sample 104-642B-10H-1, 100-102 cm.) See Figure 5 caption for further explanation.

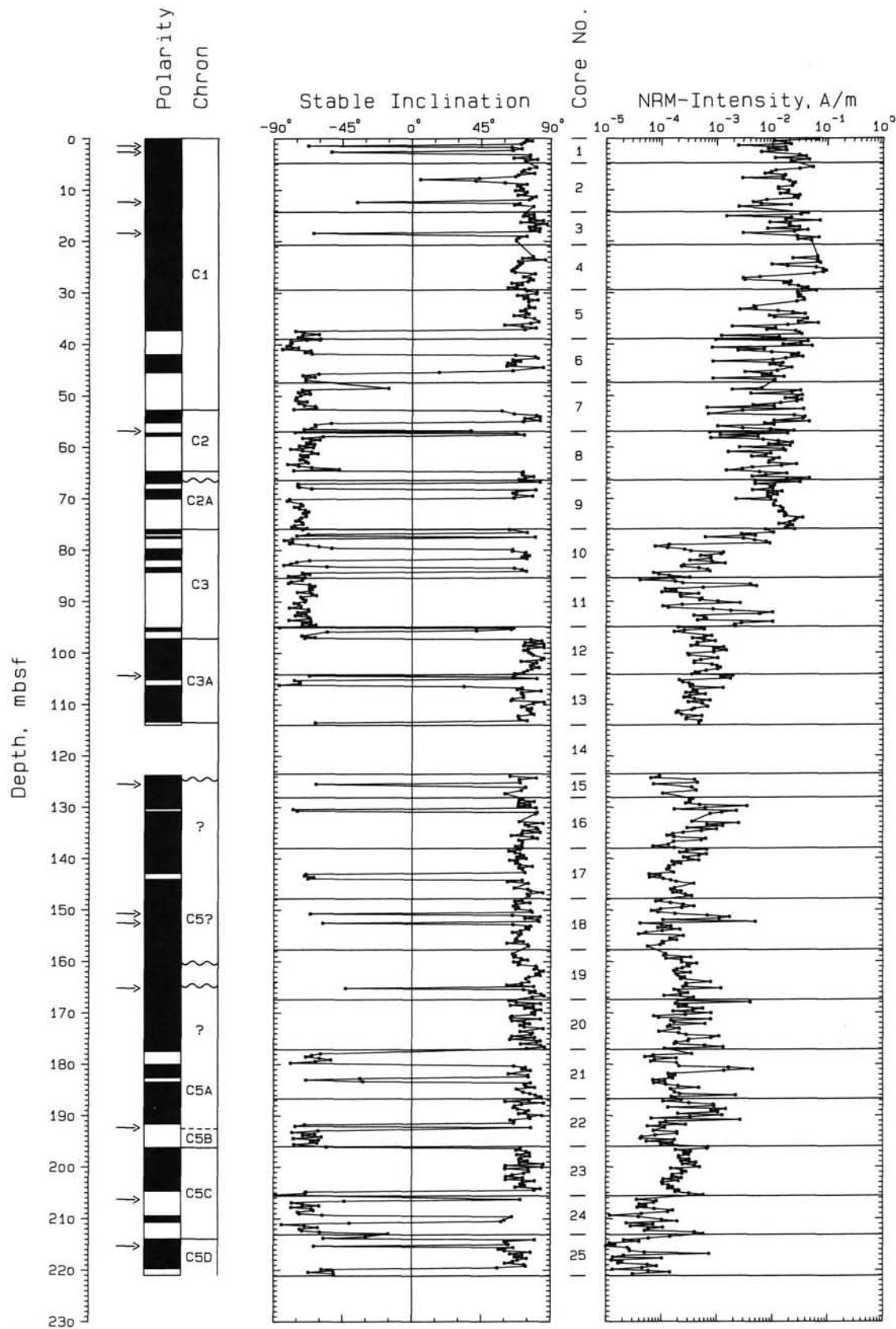


Figure 8. Paleomagnetic results for Hole 642B sedimentary series. The downhole variation in NRM intensity and stable inclination is shown together with the derived polarity log (black being normal, white reversed polarity) and the respective magnetostratigraphic interpretation in terms of the paleomagnetic chron nomenclature (cf. Fig. 2). Arrows denote apparent short polarity events documented by a single sample only. Core boundaries are marked by horizontal lines, the figures in the central column give the core numbers.

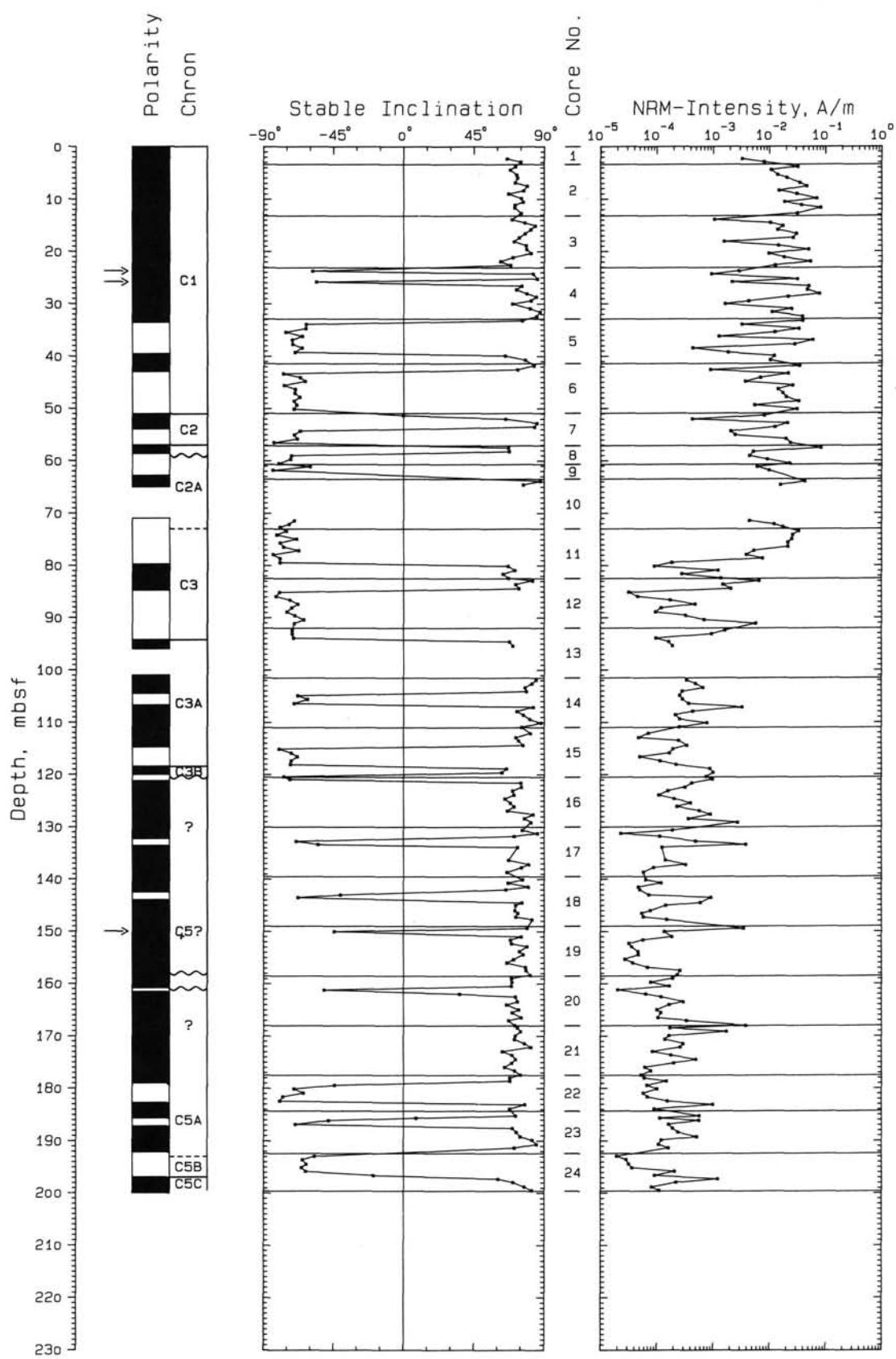


Figure 9. Paleomagnetic results for Hole 642C sedimentary series. See Figure 5 caption for further explanation.

Table 2. Magnetic reversal boundaries identified in Hole 642B.

Chron	Subchron	Age (Ma)	Boundary (Core, Section level in cm)	Depth (mbsf)
C1	C1N-1	0.73	5-6, 21	37.11
	C1R-1		5-6, 50	37.40
	C1R-1	0.91	6-2, 141	41.81
	C1N-2	0.91	6-3, 21	42.11
	C1N-2	0.98	6-5, 21	45.11
	C1R-2	0.98	6-5, 81	45.71
	C1R-2		7-4, 69	52.59
	C2N	1.66	7-4, 100	52.90
	C2N	1.88	7-6, 9	54.99
	C2R		7-6, 40	55.30
C2A	C2R		8-6, 10	64.50
	C2AN-1	2.47	8-6, 40	64.80
2.92 Ma = C2AN-1/C2AR-1 > hiatus > C2AR-1/				
C2AN-2 = 2.99 Ma				
C3	C2AN-2	3.08	9-1, 41	66.81
	C2AR-2		9-1, 71	67.11
	C2AR-2	3.18	9-2, 11	68.01
	C2AN-3		9-2, 41	68.31
	C2AN-3	3.40	9-3, 47	69.87
	C2AR-3		9-3, 71	70.11
	C2AR-3		9-7, 56	75.96
	C3N-1	3.88	10-1, 9	75.99
	C3N-1	3.97	10-1, 70	76.60
	C3R-1		10-1, 101	76.91
	C3R-1	4.10	10-1, 130	77.20
	C3N-2		10-2, 11	77.51
	C3N-2	4.24	10-2, 11	77.51
	C3R-2		10-2, 41	77.81
	C3R-2	4.40	10-3, 71	79.61
	C3N-3		10-3, 100	79.90
	C3N-3	4.47	10-4, 126	81.66
	C3R-3		10-5, 11	82.01
C3A	C3R-3	4.57	10-5, 130	83.20
	C3N-4		10-6, 10	83.50
	C3N-4	4.77	10-6, 71	84.11
	C3R-4		10-6, 100	84.40
	C3R-4		12-2, 71	97.11
	C3AN-1	5.35	12-2, 101	97.41
	C3AN-1	5.53	13-1, 81	105.01
	C3AR-1		13-1, 111	105.31
C3B	C3AR-1	5.68	13-2, 51	106.21
	C3AN-2		13-2, 81	106.51
	C3AN-2	5.89	13-6, 141	113.11
	C3AR-2		13-7, 32	113.52
6.37 Ma = C3AR-2/C3BN > 2 hiatuses; small badly disturbed recovery in Core 14; unresolved very predominantly normal polarity sequence in Cores 15 through 20 > C5AR-4/C5AN-5 = 12.83 Ma				
C5A	C5AN-5	13.01	20-7, 53	176.93
	C5AR-5		21-1, 81	177.91
	C5AR-5		21-2, 111	179.71
	C5AN-6	13.20	21-3, 21	180.31
	C5AN-6	13.46	21-4, 81	182.41
	C5AR-6		21-4, 111	182.71
	C5AR-6		21-5, 21	183.31
	C5AN-7	13.69	21-5, 51	183.61
	C5AN-8		22-4, 21	191.41
	C5AR-8	14.66	22-4, 51	191.71
C5B	C5BR-2		23-1, 12	196.12
	C5CN-1	16.22	23-1, 41	196.41
	C5CN-3		23-6, 102	204.52
	C5CR-3	16.98	23-6, 133	204.83
C5D	C5CR-3		25-1, 71	213.81
	C5DN-1	17.57	25-1, 101	214.11
	C5DN-1	17.90	25-5, 41	219.51
	C5DR-1		25-5, 71	219.81

dle/lower Miocene boundary correlates to the C5CR-1 Subchron (Fig. 2). Its position in Hole 642B was interpolated at 199.8 mbsf as the respective short reversed polarity interval could not be identified in the paleomagnetic data (Table 2). The sediments then accumulated with an average apparent rate of 6.3 m/m.y.

Table 3. Magnetic reversal boundaries identified in Hole 642C.

Chron	Subchron	Age (Ma)	Boundary (Core, Section level in cm)	Depth (mbsf)
C1	C1N-1	0.73	5-1, 32	33.22
	C1R-1		5-1, 101	33.91
	C1R-1	0.91	5-5, 33	39.23
	C1N-2		5-5, 101	39.91
	C1N-2	0.98	6-1, 119	42.59
	C1R-2		6-2, 45	43.35
	C1R-2		6-6, 119	50.09
	C2N	1.66	7-1, 110	52.00
	C2N	1.88	7-2, 113	53.53
	C2R		7-3, 41	54.31
C2A	C2R		7-4, 113	56.53
	C2AN-1	2.47	8-1, 41	57.51
2.92 Ma = C2AN-1/C2AR-1 > hiatus > C2AN-2/				
C2AR-2 = 3.08 Ma				
C3	C2AR-2	3.18	9-1, 111	61.81
	C2AN-3		10-1, 41	63.91
	C2AN-3	3.40	10-1, 111	64.61
	C2AR-3		10-6, 43	71.43
	C3R-2	4.40	11-5, 41	79.41
	C3N-3		11-5, 111	80.11
	C3N-4	4.77	12-2, 41	84.41
	C3R-4		12-2, 111	85.11
	C3R-4	5.35	13-2, 41	93.91
	C3AN-1		13-2, 111	94.61
C3A	C3AN-1	5.53	14-2, 111	104.11
	C3AR-1		14-3, 41	104.91
	C3AR-1	5.68	14-4, 41	106.41
	C3AN-2		14-4, 111	107.11
	C3AN-2	5.89	15-3, 40	114.40
	C3AR-2		15-3, 111	115.11
	C3AR-2	6.37	15-5, 109	118.09
	C3BN		16-6, 36	118.86
C3B	C3BN		15-6, 111	119.61
	C3BR	6.50	15-7, 41	120.41
6.70 Ma = C3BR/C4N-1 > 2 hiatuses and unresolved very predominantly normal polarity sequences in Cores 16 through 21 > C5AR-4/C5AN-5 = 12.83 Ma				
C5A	C5AN-5	13.01	22-1, 110	178.61
	C5AR-5		22-2, 41	179.41
	C5AR-5	13.20	22-4, 41	182.41
	C5AN-6		22-4, 111	183.11
	C5AN-6	13.46	23-1, 96	185.23
	C5AR-6		23-2, 29	186.09
	C5AR-6	13.69	23-2, 104	186.84
	C5AN-7		23-3, 29	187.59
	C5AN-8	14.66	23-5, 104	191.34
	C5AR-8		24-1, 52	192.92
C5B	C5BR-2		24-3, 118	196.58
	C5CN-1	16.22	24-4, 38	197.28

during the early middle Miocene at Site 642. Without accounting for the potential hiatus, the sedimentation rate was more than twice as high (14.6 m/m.y.) in the short uppermost lower Miocene interval analyzed. It should be emphasized that for the magnetostratigraphic interpretation of the Holes 642B and 642C paleomagnetic records not only the biostratigraphic framework (as far as it was available for this report) was taken into account but also Sr isotope and Rb-Sr glauconite ages of around 17 Ma determined at 194.9 and 196.7 mbsf in Hole 642B (Smalley et al., this volume).

Hole 642D

With Hole 642D the previous HPC holes were continued deeper using the extended core barrel (XCB) coring technique. Sediment drilling ended at the basalt contact encountered at 329.7 mbsf. From the top of Core 104-642D-2X at 189.9 mbsf (Core 104-642D-1W was a washed core) to about 277 mbsf, sediments of lithologic Unit III were penetrated. This depth range

consisted of Miocene siliceous muds and oozes. The deepest lithologic unit, Unit IV, overlying the basaltic basement, contains volcanoclastic and altered volcanoclastic muds, sandy muds, and sands of early (?) Eocene age. Paleomagnetic sampling in Hole 642D was limited to two samples per core section and to the interval from Core 104-642D-2X through 104-642D-15X. Below this level the recovery was too fragmentary or the sediments were too badly disturbed to be useful for paleomagnetic work. Some constraints were also imposed on the resolution of the magnetostratigraphic record in the core series analyzed by frequently incomplete or disturbed recoveries.

The magnetostratigraphies of Holes 642B and 642D are in reasonable agreement over the depth interval of overlap, although there is some mutual offset in the depth positions of identical reversal boundaries (Fig. 14). The radiolarian stratigraphy (Goll and Bjørklund, this volume) indicates three unconformities in the lower Miocene section of Hole 642D (Fig. 14). As in Hole 642B (see above), the presently preferred magnetostratigraphic interpretation assumes an interval of reduced accumulation instead of the first hiatus at 219 mbsf. The two hiatuses identified at 230 and 251 mbsf are confined to the normal subchrons C5EN and C6N (Fig. 10, Table 4), respectively, suggesting that they comprise less than about 0.5 and 1 m.y.

In the upper ~90 m of sediments in Hole 642D for which a paleomagnetic record could be established, almost all major reversal boundaries of the geomagnetic Chrons C5B through mid C6A are recognized (Figs. 10, 14; Table 4). In this interval the apparent sedimentation rate shows only limited variability with a mean value of 14.8 m/m.y. if the potential hiatuses mentioned above are not taken into account. The deepest polarity transition that could be identified in Hole 642D (C6AN-2/C6AR-2 boundary at 277.7 mbsf) has an age of 21.71 Ma and is therefore only about 2 m.y. younger than the Miocene/Oligocene boundary (Fig. 2).

The four APC/XCB holes drilled at Site 642 document almost completely the sedimentation history of the Vøring Plateau region since the early opening of the Norwegian Sea some 57 m.y. ago. For the upper ~280 m of the sedimentary column penetrated, paleomagnetic analyses yield a magnetostratigraphic record that spans the last ~22 m.y. and, with the exception of parts of the upper and middle Miocene, provides a high-quality stratigraphic control and resolution throughout. Unfortunately, the lowermost ~50 m of the sediment column were found to be essentially useless for the purpose of a magnetostratigraphic study because the recovery was very low and/or showed an extensive degree of drilling disturbance.

For Pleistocene times the apparent sedimentation rate at Site 642 on average amounts to 31.8 m/m.y., decreasing from 51.0 m/m.y. during the Brunhes to 16.7 m/m.y. in the upper Matuyama Chron. During the Pliocene the average accumulation was 12.1 m/m.y., increasing downhole from 9.9 m/m.y. in the lower Matuyama and in the Gauss Chron to 14.0 m/m.y. during the Gilbert Chron. Note that the minor hiatus within the Gauss Chron has not been accounted for in these calculations.

Biostratigraphic analyses of the Miocene sedimentary sequences at Site 642 reveal the presence of a series of hiatuses in this epoch (Fig. 14). As discussed above, the downhole paleomagnetic polarity pattern was too fragmentary in the critical interval to quantify in detail the two potentially major unconformities in the upper and middle Miocene. According to the magnetostratigraphic record, all other hiatuses in the middle and lower Miocene span only minor periods of time and may alternatively be interpreted as periods of reduced sediment accumulation. From the Pliocene/Miocene boundary to 6.5 Ma the average apparent sedimentation rate was 22.4 m/m.y. with a tendency to decrease with depth within this interval. For the lower part of the middle Miocene and into the lower Miocene an

almost continuous magnetostratigraphic record shows that the sedimentation was rather variable. The average apparent accumulation rates for the respective periods analyzed amount to 6.3 m/m.y. in the middle Miocene—the lowest average Neogene sedimentation rate encountered in the Vøring Plateau region—and 15.0 m/m.y. in the lower Miocene if the different smaller hiatuses are not accounted for.

The most remarkable feature in the natural remanent magnetization intensity logs at Site 642 is the sharp drop from some 10^{-2} to some 10^{-4} A/m occurring at about 78 mbsf (Figs. 8, 9). This latter value is typical of that of many unconsolidated marine sediments and persists throughout lithologic Unit III. Only in the lowermost lithologic Unit IV does the NRM intensity increase again, reflecting the large volcanogenic components of these deposits. From its chronostratigraphic position in the mid Gilbert Chron, an age of about 4.3 Ma is inferred for the Pliocene change in NRM intensity. This abrupt increase by about two orders of magnitude is believed to result from an intensified influx of terrigenous materials most likely from the adjacent Scandinavian landmass. Such a significant environmental turnover is apparently not reflected in the general lithostratigraphy, however. In particular, clear features indicative of the earliest stage of late Neogene glaciations in the Norwegian Sea (lithologic Units I/II boundary) only occur at a chronostratigraphic level of around 2.5 Ma at Site 642.

Site 643

The most seaward site drilled during ODP Leg 104, Site 643, is located near the foot of the outer Vøring Plateau (Fig. 1). In a single hole, 643A, a total of 565 m of sediments were penetrated. The upper 50 m of Pliocene to Holocene glacial-interglacial sediments (lithologic Unit I) consist of alternations of dark, carbonate poor and light, carbonate-rich layers of muds and sandy muds. The underlying lithologic Unit II comprises an upper Miocene to lower Pliocene sequence of siliceous nannofossil oozes, terrigenous siliceous muds and diatomaceous nannofossil oozes. This unit is affected by slumping. Unit III, primarily diatomaceous oozes of early to middle Miocene age, extends from about 100 to 274 mbsf. Oligocene to lower Miocene dark, extremely fossil-poor terrigenous mudstones and Eocene compacted and laminated greenish to reddish zeolitic mudstones make up lithologic Units IV and V (401–565 mbsf), respectively.

Wherever possible, a paleomagnetic sampling scheme of, on average, four samples per core section was applied in Cores 104-643A-1H through 104-643A-20X. Beneath, down to Core 104-643A-42X, three samples were taken per section but due to a deterioration in quality and, in part, in quantity of recovery, no useful magnetostratigraphy could be established beyond about 273 mbsf (base of Core 104-643A-29X). Even down to this depth the record is of limited resolution in a number of intervals due to badly disturbed sediments or reduced recovery. Additional problems result from a series of hiatuses, some of which are rather poorly defined, both in position and extent, by the biostratigraphic data.

From the sea floor to the lower part of Core 104-643-4H the sediments contain an apparently complete standard reversal history of the last ~1 m.y. (Fig. 11). During the Brunhes Chron the average sedimentation rate was 36.4 m/m.y. Possibly because of this comparatively low rate, only one short polarity event could be resolved within the Brunhes Chron. It has an interpolated age of about 400,000 yr and according to Jansen et al. (1988) falls within oxygen isotope stage 11. Another short polarity event was found in the younger part of the Matuyama Chron. Its position suggests that it might be the same as the one seen in the Hole 644A record (see below).

The older part of the Matuyama Chron is most likely incomplete in Hole 643A. Although no hiatus is indicated in the bio-

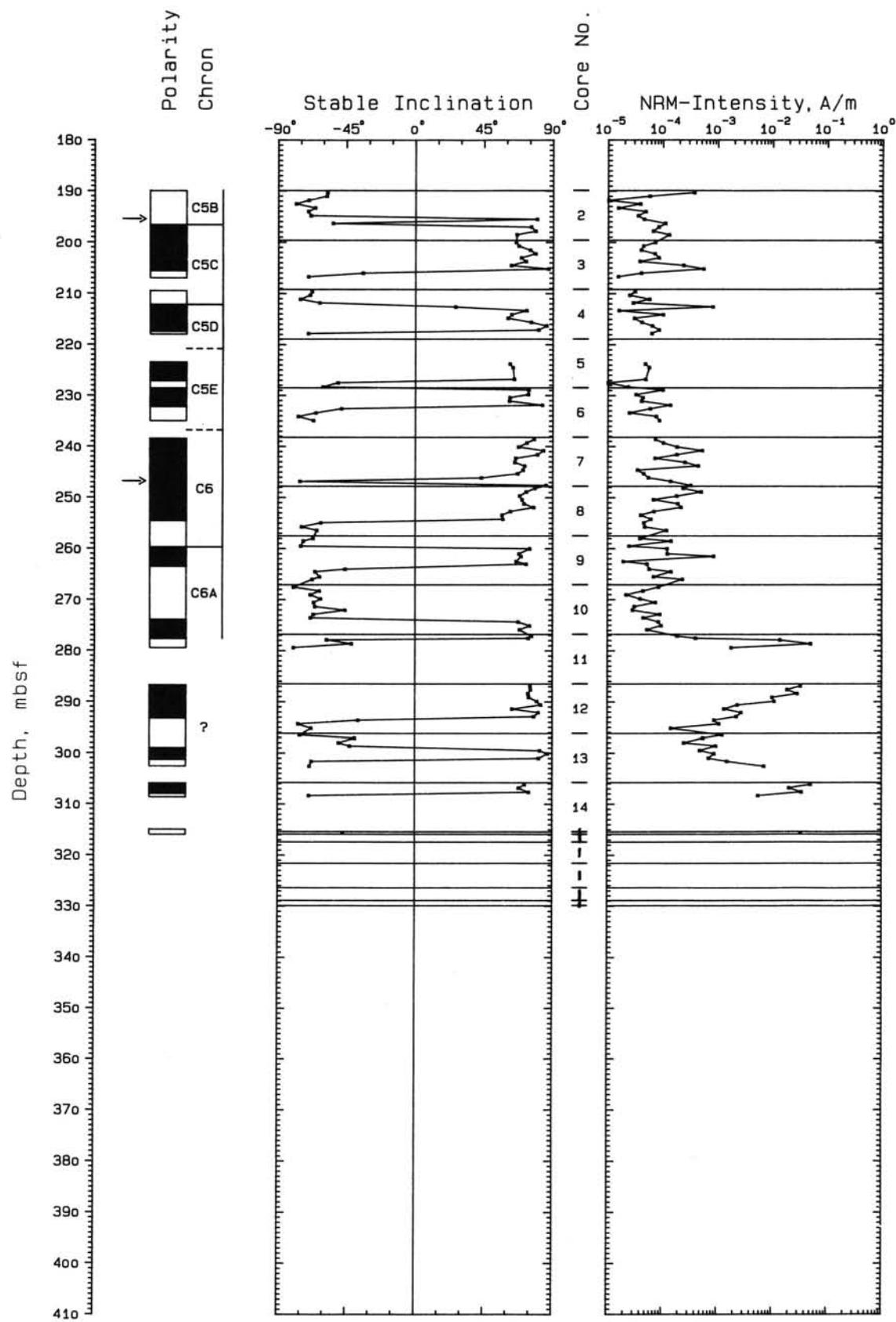


Figure 10. Paleomagnetic results for Hole 642D sedimentary series. See Figure 5 caption for further explanation.

Table 4. Magnetic reversal boundaries identified in Hole 642D.

Chron	Subchron	Age (Ma)	Boundary (Core, Section level in cm)	Depth (mbsf)
C5B	C5BR-2	16.22	2-5, 41	196.31
C5C	C5CN-1		2-5, 111	197.01
	C5CN-3	16.98	3-4, 111	205.21
	C5CR-3		3-5, 41	206.01
	C5CR-3		4-2, 111	211.81
C5D	C5DN-1	17.57	4-3, 41	212.61
	C5DN-1		4-6, 41	217.11
	C5DR-1	17.90	4-6, 111	217.81
C5E	C5EN	19.09	6-3, 41	231.91
	C5ER		6-3, 111	232.61
	C5ER		6-5, 41	234.91
C6	C6N	19.35	7-1, 41	238.61
	C6N		8-5, 41	254.21
	C6R	20.45	8-5, 111	254.91
	C6R		9-2, 51	259.51
C6A	C6AN-1	20.88	9-2, 102	260.02
	C6AN-1		9-4, 102	263.02
	C6AR-1	21.16	9-5, 51	264.01
	C6AR-1		10-5, 43	273.53
	C6AN-2	21.38	10-5, 124	274.34
	C6AN-2		11-1, 76	277.56
	C6AR-2	21.71	11-1, 109	277.89

stratigraphic data at this level, the Olduvai Subchron could not be identified, possibly because of small slumps. The normal polarity interval between 49.7 and 54.3 mbsf, the obvious candidate to be interpreted as representing the Olduvai Subchron, would imply an age of about 1.9 Ma for the onset of glacial-interglacial cycles in the Norwegian Sea (Henrich, this volume). On the other hand, at Site 644 the respective level was found slightly older than the Matuyama/Gauss boundary in good agreement with data from the North Atlantic (Shackleton et al., 1984). To account for this discrepancy the polarity transition at 49.7 mbsf was identified as the Matuyama/Gauss boundary.

From this level to the base of Core 104-643A-7H the polarity log comprises the period between geomagnetic Chrons C2A and the middle part of C3 (Gauss and Gilbert Chrons). The average sedimentation rate in this interval is only 6.6 m/m.y. (Fig. 14). Among other factors, in particular an unconformity within the Gauss Chron (potentially the same as seen at Site 642), this may account for some of the fine structure of the Earth's magnetic field history remaining unresolved (for details see Fig. 11 and Table 5). At the Cores 104-643A-7H/8H boundary (62.3 mbsf) biostratigraphic analyses identified a first major hiatus at Site 643. According to the magnetostratigraphic interpretation it should span about 2 m.y. and include the Pliocene/Miocene boundary.

At the Cores 104-643A-11H/12H boundary (100.3 mbsf), in mid Core 104-643A-12H (around 103.6 mbsf), and again in mid Core 104-643A-13H (114.2 mbsf), the radiolarian data suggest the presence of a series of three hiatuses (Goll and Bjørklund, this volume). The downhole polarity pattern in the upper Miocene interval between the first unconformity and the base of Core 104-643A-11H is correlated to sections of the Chron C3A to C4A reversal sequence and yields an apparent sedimentation rate of 14.7 m/m.y., the oldest reversal boundary recognized in Core 104-643A-11H being the C4AR-2/C4AN-3 transition (8.71 Ma at about 97.7 mbsf). As a predominantly normal polarity persists in Cores 104-643A-11H through 104-643A-13H, at first sight the situation encountered seems to be more or less the same as at Site 642. Indeed, a total of up to 6 m.y. is represented by these unconformities around the upper/middle Miocene boundary as the magnetostratigraphic record is resumed only with the C5AN-8/CSAR-8 transition (14.66 Ma) at about 116.2 mbsf.

On the other hand, the available biostratigraphic data suggest that at least the extended normal polarities of Cores 104-643A-12H and -13H correlate to normal subchrons in the lower part of Chron C5A and not to Subchron CSN-1 (marine magnetic anomaly 5) as at Site 642.

Between 116.2 and about 274 mbsf where the paleomagnetic log ends, most all of the major reversal boundaries from the base of Chron C5A to the top of Chron C5E are recognized. The sediments in this entire interval accumulated at an average apparent rate of 35.8 m/m.y., which is almost the same as during Quaternary at Site 643. Downcore, the magnetostratigraphic analyses were somewhat complicated by inadequate or no recoveries in Cores 104-643A-17X, -18X, and -21X (Fig. 11). The interpretation given in Table 5 for this part of the hole may be tentative in places. The middle/lower Miocene boundary as correlated to the Subchrons C5CN-1/C5CR-1 transition is identified at 211.2 mbsf. The average sedimentation rates in the early middle Miocene and late early Miocene sections analyzed amount to 51.1 and 21.8 m/m.y., respectively. The deepest polarity reversal identified is the C5DR-2/C5EN boundary with an assigned early Miocene age of 18.56 Ma. Note that for the deeper part of the lower Miocene the sediments should have accumulated at an average rate of about 25 m/m.y. as the Miocene/Oligocene boundary is recognized at around 400 mbsf in the biostratigraphic record.

In summary, the upper 62 m of sediments recovered in Hole 643A yield an essentially continuous magnetostratigraphic sequence extending from the lower Pliocene to the Holocene. Beneath, the sedimentary record is partly fragmentary. A series of unconformities originally defined from biostratigraphic analyses span a period of some 2 m.y. around the Pliocene/Miocene boundary and another 6 m.y. in late/middle Miocene times thus causing major gaps in information. The apparent sedimentation rate averages 33.2 m/m.y. during Pleistocene and decreases to about 6.6 m/m.y. in the Pliocene, the lowest mean value encountered in the entire Neogene at Site 643. In the late Miocene on average 14.7 m/m.y. of sediments accumulated. The highest sedimentation rate, 51.1 m/m.y., occurred in the middle Miocene whereas for the early Miocene a more typical value of 21.8 m/m.y. is observed.

The remanent magnetization intensity log at Site 643 revealed a similar pattern as found earlier at Site 642, namely, a drastic decrease by, on average, almost two orders of magnitude downhole (Fig. 11). However, in contrast to the previous record, at Site 643 the final shift toward low NRM intensities only occurs at a magnetostratigraphic level of around 8.0 Ma (85 mbsf, Fig. 11) which is distinctly older than the respective mid Gilbert Chron horizon as at Site 642. At present there is no plausible explanation for this discrepancy. However, the fact that the change in NRM intensity is observed at about identical depth positions at both sites is a conspicuous feature and possibly the key to solve this problem.

Site 644

Of the three sites drilled during ODP Leg 104, 644 is located at the most landward position close to the inner continental slope in the Vøring Basin (Fig. 1). It has the highest sedimentation rate and the chronostratigraphic analyses were less hampered by intervals barren in useful biostratigraphic information than the other two sites. As at Site 642, a double HPC-coring strategy was employed. Some cores retrieved from deeper parts of both holes were disturbed by the high pressure of natural gas. Thus their recovery is somewhat more scattered than the average.

The upper 228.5 m of upper Pliocene through Holocene sediments (lithologic Unit I) are predominantly interbedded dark, carbonate-poor glacial sandy muds and light, interglacial cal-

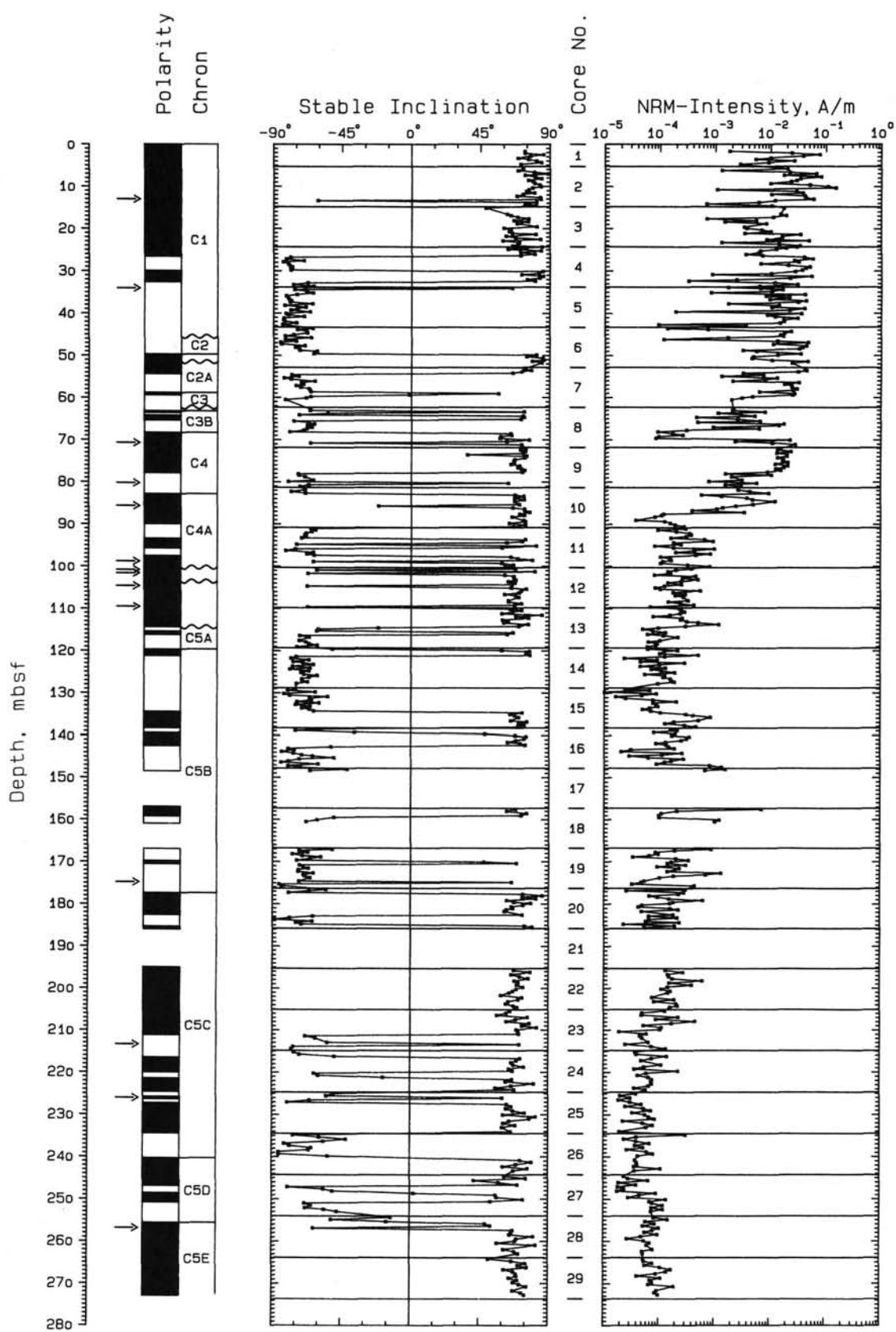


Figure 11. Paleomagnetic results for Hole 643A sedimentary series. See Figure 5 caption for further explanation.

Table 5. Magnetic reversal boundaries identified in Hole 643A.

Chron	Subchron	Age (Ma)	Boundary (Core, Section level in cm)	Depth (cm)
C1	C1N-1	0.73	4-2, 56	26.36
	C1R-1		4-2, 96	26.76
	C1R-1	0.91	4-4, 96	29.76
	C1N-2		4-4, 132	30.12
	C1N-2	0.98	4-6, 56	32.36
	C1R-2		4-6, 96	32.76
1.66 Ma = C1R-2/C2N > hiatus > C2N/C2R = 1.88 Ma				
C2	C2R	2.47	6-5, 26	49.56
	C2AN-1		6-5, 56	49.86
	C2AN-3	3.40	7-1, 134	54.14
	C2AR-3		7-2, 24	54.54
	C2AR-3		7-4, 129	58.59
	C3N-1	3.88	7-5, 25	59.05
C3	C3N-1		7-5, 57	59.37
	C3R-1	3.97	7-5, 95	59.75
	4.10 Ma = C3R-1/C3N-2 > hiatus > C3AN-2/C3AR-2 = 5.89 Ma			
C3A	C3AR-2	6.37	8-1, 72	63.02
	C3BN		8-1, 107	63.37
	C3BN		8-2, 131	65.11
	C3BR	6.50	8-3, 25	65.55
	C3BR		8-4, 132	68.12
	C4N-1	6.70	8-5, 25	68.55
C4	C4N-1		8-6, 57	70.38
	C4R-1	6.78	8-6, 93	70.73
	C4R-1		8-6, 93	70.73
	C4N-2	6.85	8-6, 133	71.13
	C4N-3		9-4, 136	77.66
	C4R-3	7.41	9-5, 26	78.06
C4A	C4R-3		10-1, 136	82.66
	C4AN-1	7.90	10-2, 26	83.06
	C4AN-1		10-7, 26	90.56
	C4AR-1	8.21	11-1, 26	91.06
	C4AR-1		11-2, 96	93.26
	C4AN-2	8.41	11-2, 136	93.66
C4B	C4AN-2		11-4, 26	95.56
	C4AR-2	8.50	11-4, 56	95.86
	C4AR-2		11-5, 56	97.36
	C4AN-3	8.71	11-5, 96	97.76
	8.80 Ma = C4AN-3/C4AR-3 > 3 hiatuses > C5AR-7/C5AN-8 = 14.20 Ma			
	C5AN-8	14.66	13-5, 26	116.06
C5B	C5AR-8		13-5, 56	116.36
	C5AR-8		14-1, 26	119.56
	C5BN-1	14.87	14-1, 58	119.88
	C5BN-1		14-2, 26	121.06
	C5BR-1	14.96	14-2, 56	121.36
	C5BR-1		15-4, 96	134.26
C5C	C5BN-2	15.13	15-4, 136	134.66
	C5BN-2		16-3, 96	142.26
	C5BR-2	15.27	16-3, 136	142.66
	C5BR-2		20-1, 96	177.26
	C5CN-1	16.22	20-1, 136	177.66
	C5CN-1		23-4, 136	210.96
C5D	C5CR-1	16.52	23-5, 36	211.46
	C5CR-1		24-1, 136	216.26
	C5CN-2	16.56	24-2, 36	216.76
	C5CN-2		24-7, 23	224.13
	C5CR-2	16.73	25-1, 36	225.06
	C5CR-2		25-2, 86	227.06
C5E	C5CN-3	16.80	25-2, 136	227.56
	C5CN-3		25-7, 36	234.06
	C5CR-3	16.98	26-1, 36	234.86
	C5CR-3		26-4, 86	239.86
	C5DN-1	17.57	26-5, 36	240.86
	C5DN-1		27-2, 86	246.66
C5F	C5DN-1	17.90	27-2, 136	247.16
	C5DR-1		27-3, 86	248.16
	C5DN-2	18.12	27-4, 30	249.10
	C5DN-2		27-5, 36	250.66
	C5DR-2	18.14	27-5, 73	251.03
	C5DR-2		28-1, 136	255.46
C5G	CSEN	18.56	28-2, 36	255.96

careous and siliceous muds. Lithologic Unit II is composed of interbedded siliceous and mixed siliceous nannofossil oozes. In Hole 644A the total length of cored section was 252.8 m. Hole 644B penetrated 127.7 m of sediments.

On average, one paleomagnetic sample was taken every 50 cm in the sediments recovered from Holes 644A and 644B. In addition, the interval containing the Brunhes/Matuyama boundary, which had successfully been identified in the shipboard long-core cryogenic magnetometer record, was sampled in greater detail in Hole 644A (Schoenharting et al., this volume). During a later resampling, a number of horizons suspected to have recorded short reversal events within the Brunhes Chron and the reversal boundary at the base of the Jaramillo Subchron were also sampled at more closely spaced intervals in this hole.

The depth variations in stable inclination and NRM intensity together with the polarity pattern identified in the two holes are shown in Figures 12 and 13 respectively. The approximately 253 m of sediments penetrated in Hole 644A contain an apparently continuous and complete reversal sequence from upper Pliocene to Holocene (Table 6). In Hole 644B, which is only about 128 m deep, the same sequence is essentially repeated to shortly below the Jaramillo Subchron (Table 7). Down to the Brunhes/Matuyama boundary the depths of reversal boundaries in both holes appear to be identical within the limits of resolution. Below this level, with the onset of the high natural gas concentrations in the sediments, mutual offsets of several meters occur.

At the base of Hole 644A the C2AN-1/C2AR-1 boundary (top of the Kaena Subchron within the Gauss Chron) had not yet been reached and consequently the sediments there are less than 2.92 Ma. The apparent average sedimentation rate to the Matuyama/Gauss reversal boundary, observed at 225.2 mbsf, amounts to 91.2 m/m.y. It decreases from 114.3 m/m.y. in the Brunhes Chron (Brunhes/Matuyama boundary at 83.12 mbsf (Schoenharting et al., this volume) to 81.5 m/m.y. in the Matuyama Chron. At the base of Hole 644B the sediments have an extrapolated age of about 1.16 Ma.

Within the Brunhes Chron of Hole 644A a series of five short intervals was encountered for which, compared to the overall pattern, several consecutive samples gave unusually shallow or in most cases clearly negative inclinations (Fig. 12). As all these horizons were carefully checked not to exhibit particular physical disturbances, the observed magnetization directions should represent the recordings of true paleoconfigurations of the Earth's magnetic field. These short periods of field crises, whether termed reversals or excursions, typically extend over depth intervals of 0.3 to 0.5 m and therefore appear to have lasted no longer than about 5,000 yr at the most. With the constant sedimentation rate for the Brunhes Chron on which this assumption is based, interpolation results in absolute ages of about 90,000, 130,000, 200,000, 240,000, and 320,000 yr, respectively. Only the two dates at 130,000 (Blake Subchron?) and 200,000 (Biwa I Subchron?) reasonably coincide with published data (see comprehensive review by Jacobs, 1984). With respect to the various problems involved in the ODP drilling procedure and the lack of knowledge of these details of the reversal history of the Earth's field, this is perhaps not an entirely surprising result. It should be possible, however, to define more accurate ages when a complete oxygen isotope stratigraphy becomes available. In Hole 644B a similar sequence of short polarity events is apparently observed in the sediments of Brunhes age (Fig. 13) but at present they are documented only by single samples for which an accidental misorientation cannot be excluded.

The same restriction applies to the single positive inclination found at about 124 mbsf in both holes between the Jaramillo and Olduvai Subchrons of the geomagnetic Matuyama Chron. Interpolation yields an approximate age of 1.14 Ma, almost an identical value to that reported for NW Pacific sediments (Bleil,

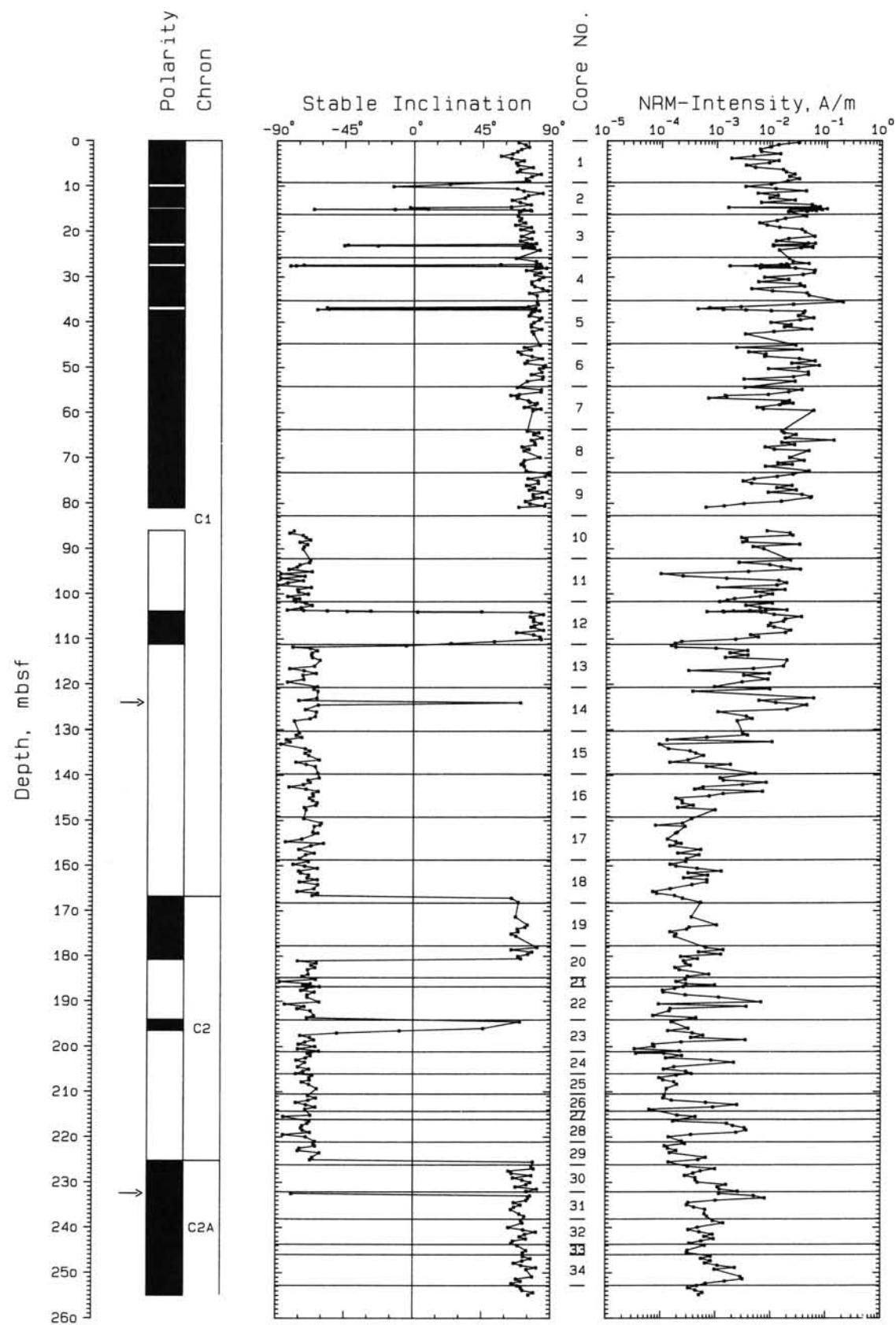


Figure 12. Paleomagnetic results for Hole 644A sedimentary series. See Figure 5 caption for further explanation.

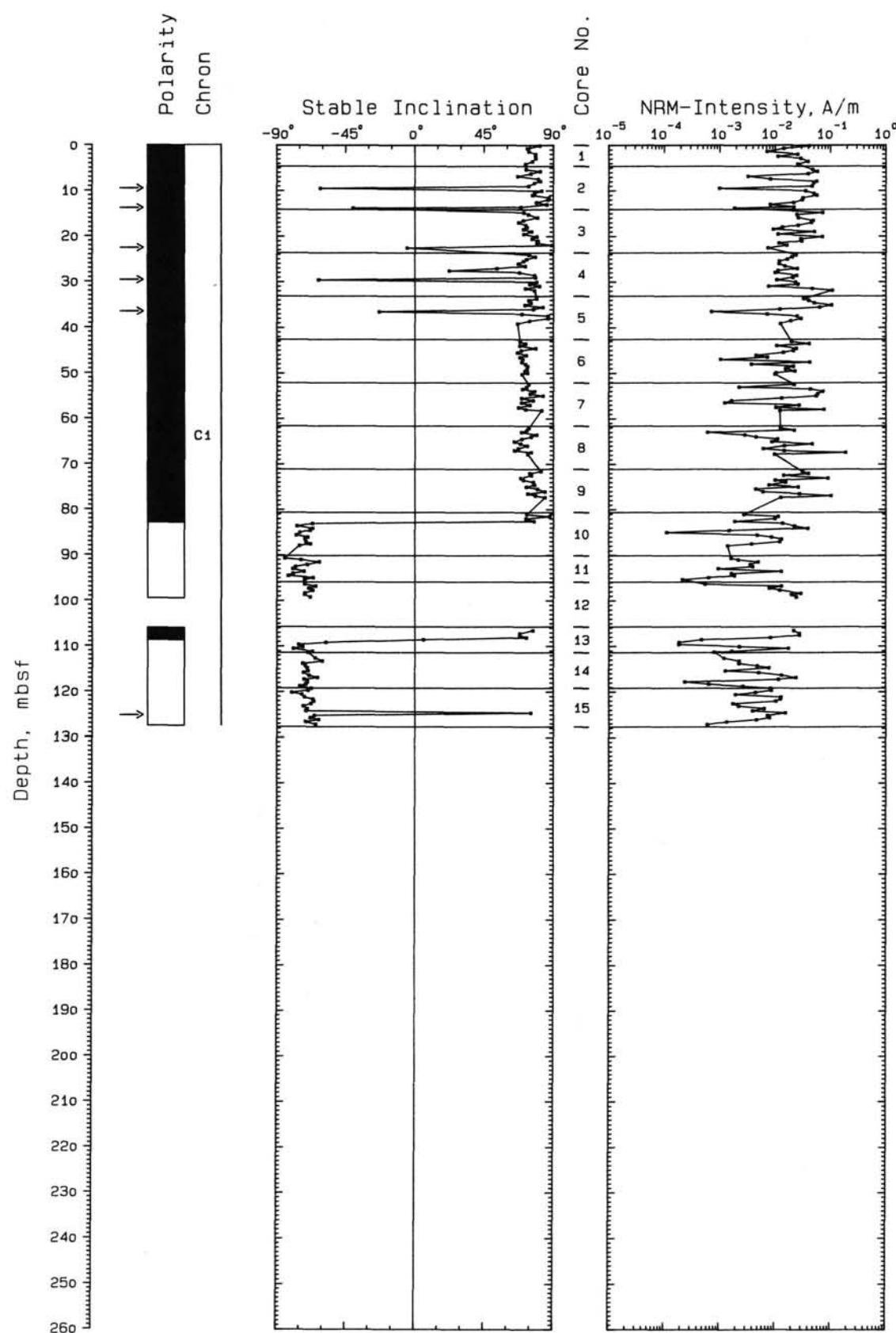


Figure 13. Paleomagnetic results for Hole 644B sedimentary series. See Figure 5 caption for further explanation.

Table 6. Magnetic reversal boundaries identified in Hole 644A.

Chron	Subchron	Age (Ma)	Boundary (Core, Section level in cm)	Depth (mbsf)
C1	C1N-1	0.73	9.6, 14	80.84
	C1R-1		10.3, 36	86.06
	C1R-1	0.91	12.2, 52	103.72
	C1N-2		12.2, 86	104.06
	C1N-2	0.98	12.6, 136	110.56
	C1R-2		13.1, 59	111.79
	C1R-2	1.66	18.6, 36	166.56
	C2N		18.6, 94	167.14
C2	C2N	1.88	20.2, 136	180.56
	C2R		20.3, 36	181.06
	C2R	2.47	29.3, 86	224.96
	C2AN-1		29.3, 136	225.46

Table 7. Magnetic reversal boundaries identified in Hole 644B.

Chron	Subchron	Age (Ma)	Boundary (Core, Section level in cm)	Depth (mbsf)
C1	C1N-1	0.73	10.2, 46	82.56
	C1R-1		10.2, 91	83.01
	C1R-1	0.91	12.3, 30	99.20
	C1N-2		13.1, 83	106.53
	C1N-2	0.98	13.2, 91	108.11
	C1R-2		13.3, 46	109.16

1985). Among others Clement and Robinson (1987) have identified this event several times in DSDP Leg 94 sediments from the North Atlantic. The authors also summarize the relevant literature and point out that the most probable correlation is to the Cobb Mountain Subchron (Mankinen et al., 1978), for which a radiometric age of 1.12 Ma has been determined. In the older part of the Matuyama Chron from the Matuyama/Gauss boundary to the Olduvai Subchron a single reversal event is clearly recognized which has a mean age of around 2.07 Ma and a duration of about 30,000 yr. This result disagrees with published polarity time scales based on radiometrically calibrated age data which note a split Réunion Subchron (McDougall, 1977) preceded by the 'X' Subchron (Mankinen & Dalrymple, 1979). As in the NW Pacific (Bleil, 1985), the present data are more likely to indicate that only a single Réunion Subchron exists.

Finally, the result of a single sample at about 226.5 mbsf in Hole 644A possibly also represents a short polarity event in the uppermost Gauss Chron that apparently has not yet been reported in the literature.

SUMMARY AND CONCLUSIONS

During ODP Leg 104 a total of seven sediment holes were drilled at three sites in the Vöring Plateau region of the Norwegian Sea. Using the hydraulic piston corer in the upper unconsolidated, and the extended core barrel technique in the deeper sedimentary sequences, a nearly continuous high-quality recovery was retrieved. The upper ~300 m penetrated consist of a top layer of glacial marine deposits underlain predominantly by clays and siliceous oozes and limited intervals of calcareous oozes. To this maximum depth an extensive paleomagnetic sampling program was performed for each hole. Based on detailed alternating field demagnetization analyses, characteristic stable magnetization directions were determined for some 2500 individual samples. The magnetic reversal record thus derived for every hole could be correlated with a calibrated geomagnetic polarity time scale deduced from marine magnetic anomaly line-

tions. In particular all the Miocene sediment series analyzed contain a number of hiatuses and the magnetostratigraphies for this period could only be established in the framework of biostratigraphic data. At present, however, it is not feasible to resolve in detail all inconsistencies between the interpretation of the paleomagnetic records and the different biostratigraphic zonation schemes.

During the Pleistocene the average apparent sedimentation rate at the landward Site 644 in the Vöring Basin, 100.5 m/m.y., was about three times higher than at the outer Vöring Plateau Site 642 (31.8 m/m.y.). At the seaward Site 643 near the foot of the Vöring Plateau, the Pleistocene/Pliocene boundary defined by the top of the geomagnetic Olduvai Subchron obviously falls into a small hiatus.

Only the uppermost part of the Pliocene was recovered in the deepest hole at Site 644. In the interval from the Pleistocene/Pliocene boundary to the geomagnetic Matuyama-Gauss transition the sediments accumulated at an average rate of 72.0 m/m.y. as compared to 14.7 m/m.y. at Site 642. For the remaining part of the Pliocene the sedimentation rates amount to 11.3 and 6.6 m/m.y. at Sites 642 and 643, respectively.

During the late late Miocene the apparent sedimentation rate was 22.4 m/m.y. at Site 642. This sequence ends at a major hiatus. The following ~40 m of sediments did not yield any useful paleomagnetic record. For the older upper Miocene and also the younger middle Miocene sedimentary series, therefore, there is no magnetostratigraphic age control available at this site. At Site 643, only the middle part of the upper Miocene is documented by sediments which accumulated at an apparent rate of 14.7 m/m.y. Both the Pliocene/Miocene and the upper/middle Miocene boundaries fall within unconformities. The younger spans about 2 m.y.; the older, which is composed of a series of three hiatuses, spans a total of 6 m.y. It is underlain by early middle Miocene deposits.

In the early middle Miocene the sediments at Site 642 accumulated at the remarkably low average rate of 6.3 m/m.y. whereas during the same period the by far highest Miocene sedimentation rate in the Vöring Plateau region is observed at Site 643 (51.1 m/m.y.).

At Site 642 a lower Miocene magnetostratigraphy could be established to about 2 m.y. above the Miocene/Oligocene boundary. The lower Miocene sediments accumulated at a comparatively constant average rate of 14.6 m/m.y. if a potentially small hiatus is not taken into account. At Site 643 the magnetostratigraphic record ends at a level with an assigned lower Miocene sediment age of about 18.6 Ma. To this horizon the average apparent sedimentation rate amounts to 21.8 m/m.y.

Despite former DSDP drilling operations in the area, the combined results of the three ODP Leg 104 drill sites represent the first relatively continuous high-quality magnetostratigraphic framework from near the Miocene/Oligocene boundary to the Holocene ever obtained in the Norwegian Sea. It therefore should be extremely useful in further developing understanding of the paleoceanographic evolution of this region, in particular since the onset of the late Cenozoic glaciation cycles. Furthermore, the present set of magnetostratigraphic data constitutes a detailed basis to elaborate the yet fragmentary biochronologies in northern high latitudes, together with recent chronostratigraphic results of DSDP Legs 81 (Backman et al., 1985) and 94 (Baldauf et al., 1987) from the North Atlantic.

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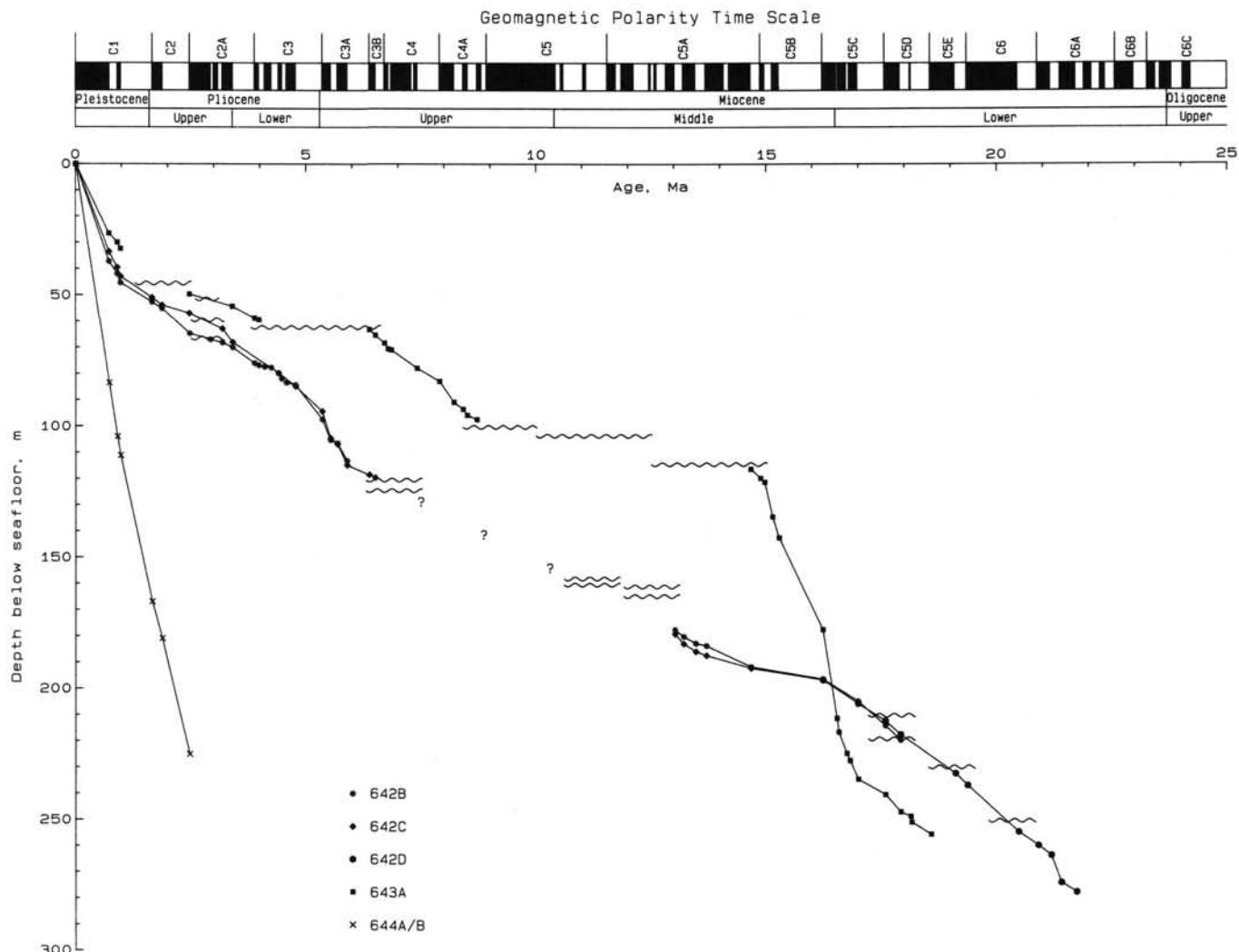


Figure 14. Sedimentation rate summary based on paleomagnetic data. The downhole pattern in remanent magnetization polarity at each site is correlated with the polarity time scale of Berggren et al. (1987). Depth positions of the hiatuses indicated are exclusively defined by biostratigraphic results.

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APPENDIX
TABLES OF PALEOMAGNETIC DATA

Table A1. Paleomagnetic properties of samples from Hole 642B.

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
1,1, 19- 21	.20	64.25	+74.5	145.5	+73.7	151.2	N	32.3
1,1, 49- 51	.50	10.49	+70.9	68.4	+77.9	135.4	N	17.0
1,1, 79- 81	.80	16.82	+78.7	148.0	+72.5	148.7	N	23.3
1,1,109-111	1.10	21.40	+77.7	104.1	+70.7	132.8	N	17.1
1,1,139-141	1.40	2.38	-24.6	327.6	-67.7	319.3		59.5
1,2, 19- 21	1.70	17.08	+50.7	125.1	+64.7	128.4	N	18.1
1,2, 49- 51	2.00	8.25	+62.5	115.5	+71.3	139.9	N	11.6
1,2, 79- 81	2.30	17.82	+61.4	154.7	+65.4	148.0	N	19.9
1,2,109-111	2.60	6.18	+2.1	120.0	-52.5	156.7		27.7
1,3, 19- 21	3.20	30.32	+74.3	146.7	+76.7	134.8	N	26.6
1,3, 49- 51	3.50	40.50	+74.2	157.4	+76.4	138.3	N	22.5
1,3, 79- 81	3.80	11.01	+70.1	84.5	+65.8	142.0	N	10.6
1,3,109-111	4.10	46.29	+81.2	141.0	+81.3	150.4	N	25.5
1,3,141-143	4.42	21.30	+70.9	131.2	+73.4	144.4	N	15.5
2,1, 80- 82	5.61	54.17	+83.3	135.3	+80.6	120.4	N	28.1
2,1,109-111	5.90	30.91	+74.1	76.1	+75.9	114.6	N	18.0
2,1,139-141	6.20	11.31	+82.5	192.9	+72.3	120.2	N	4.2
2,2, 20- 22	6.51	9.34	+87.8	225.5	+71.0	105.6	N	9.7
2,2, 50- 52	6.81	7.15	+87.3	308.0	+79.4	133.6	N	4.8
2,2, 80- 82	7.11	16.90	+63.1	117.4	+68.8	114.8	N	22.0
2,2,110-112	7.41	15.59	+51.1	107.1	+66.9	103.9	N	13.2
2,2,140-142	7.71	2.81	+34.2	155.3	+43.3	187.4		16.1
2,3, 10- 12	7.91	15.07	+18.1	302.5	+5.0	263.9		9.7
2,3, 44- 46	8.25	20.03	+47.1	290.7	+41.1	276.1		17.7
2,3, 79- 81	8.60	25.51	+59.6	339.5	+60.2	44.3	N	22.0
2,3,110-112	8.91	22.94	+63.0	14.9	+74.4	46.6	N	12.1
2,3,140-142	9.21	22.30	+69.2	52.8	+68.1	48.1	N	16.5
2,4, 19- 21	9.50	12.38	+70.2	45.8	+70.3	36.2	N	19.2
2,4, 50- 52	9.81	12.52	+72.7	132.1	+71.9	136.2	N	22.2
2,4, 80- 82	10.11	19.19	+70.2	124.5	+66.7	136.4	N	18.4
2,4,110-112	10.41	18.70	+79.4	138.2	+74.4	127.6	N	4.1
2,4,140-142	10.71	13.36	+71.6	140.7	+73.2	122.8	N	9.8
2,5, 20- 22	11.01	30.81	+64.1	127.0	+68.4	135.4	N	18.1
2,5, 50- 52	11.31	24.31	+83.1	121.2	+80.3	128.9	N	19.2
2,5, 79- 81	11.60	28.55	+75.2	145.0	+77.4	128.0	N	20.6
2,5,110-112	11.91	7.68	+76.3	212.8	+75.8	136.0	N	10.4
2,6, 4- 6	12.35	4.35	-7.1	233.1	-36.0	244.7		41.7
2,6, 31- 33	12.62	6.10	+65.4	72.5	+69.8	109.6	N	12.8
2,6, 60- 62	12.91	21.24	+63.4	86.0	+66.1	109.7	N	18.8
2,6, 92- 94	13.23	2.41	+85.3	250.2	+78.7	124.1	N	33.3
2,C, 8- 10	13.59	8.57	-22.5	86.5	-29.3	325.5		4.4
3,1, 20- 22	14.51	44.27	+58.4	105.8	+73.1	179.4	N	21.4
3,1, 50- 52	14.81	32.63	+82.0	163.1	+79.0	175.4	N	21.4
3,1, 80- 82	15.11	1.47	+65.3	245.2	+72.0	239.8	N	21.3
3,1,110-112	15.41	21.85	+81.6	275.1	+79.2	261.9	N	26.2
3,1,140-142	15.71	17.11	+78.6	245.4	+76.2	237.5	N	19.4
3,2, 20- 22	16.01	72.82	+86.1	308.9	+85.1	278.2	N	45.0

Table A1 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
3,2, 50- 52	16.31	8.81	+80.9	158.9	+70.3	252.9	N	13.6
3,2, 79- 81	16.60	20.48	+88.5	54.9	+87.4	38.5	N	22.4
3,2,110-112	16.91	19.82	+83.7	262.0	+79.9	256.4	N	22.7
3,2,140-142	17.21	30.60	+77.6	213.1	+75.8	231.1	N	26.2
3,3, 20- 22	17.51	8.00	+79.9	328.2	+82.8	269.6	N	23.5
3,3, 50- 52	17.81	43.36	+78.0	266.9	+76.5	264.2	N	28.1
3,3, 79- 81	18.10	24.45	+85.8	349.7	+82.5	251.9	N	27.1
3,3,109-111	18.40	2.88	+31.9	288.0	-64.3	298.5		42.5
3,4, 19- 21	19.00	27.40	+72.5	48.5	+74.4	42.0	N	15.0
3,4, 49- 51	19.30	68.89	+67.4	66.3	+69.0	62.0	N	23.4
3,4, 80- 82	19.61	28.31	+58.2	101.4	+67.5	95.5	N	19.9
3,4,109-111	19.90	50.70	+67.1	83.6	+67.5	84.0	N	22.6
4,2, 80- 82	23.01	65.19	+80.4	18.7	+78.5	13.2	N	31.6
4,2,110-112	23.31	22.82	+72.7	350.9	+71.3	351.5	N	28.8
4,2,140-142	23.61	65.32	+84.0	62.7	+86.3	59.4	N	28.0
4,3, 20- 22	23.91	64.34	+68.0	346.9	+68.7	347.5	N	30.5
4,3, 49- 51	24.20	72.92	+52.3	.7	+71.2	12.3	N	26.9
4,3, 79- 81	24.50	9.52	+65.9	319.2	+69.6	317.9	N	27.5
4,3,110-112	24.81	18.44	+70.1	350.1	+68.3	348.1	N	22.3
4,3,140-142	25.11	60.81	+38.9	344.6	+67.2	337.6	N	29.6
4,4, 19- 21	25.40	81.11	+53.1	32.3	+65.5	49.4	N	31.3
4,4, 49- 51	25.70	92.96	+48.8	3.3	+64.2	32.8	N	29.2
4,4, 79- 81	26.00	81.39	+57.8	3.7	+66.5	16.4	N	31.9
4,4,110-112	26.31	55.39	+56.0	351.4	+79.7	344.7	N	31.0
4,5, 19- 21	26.90	5.80	+72.7	38.8	+72.0	40.0	N	23.7
4,5, 47- 49	27.18	2.88	+65.0	18.6	+76.4	56.5	N	11.5
4,5, 79- 81	27.50	3.13	+54.8	358.7	+78.6	353.2	N	15.3
4,5,110-112	27.81	21.50	+75.2	19.0	+75.2	9.5	N	25.6
4,5,140-142	28.11	15.97	+51.7	27.1	+64.5	42.5	N	26.4
4,6, 19- 21	28.40	19.98	+68.9	322.3	+71.4	337.9	N	27.6
4,6, 50- 52	28.71	29.37	+77.2	325.5	+67.9	328.7	N	4.4
4,6, 78- 80	28.99	43.62	+46.5	355.4	+62.2	339.5	N	32.1
4,6,110-112	29.31	33.73	+84.4	313.8	+73.2	323.5	N	7.4
5,1, 20- 22	29.61	62.36	+74.0	145.7	+74.4	148.3	N	28.9
5,1, 50- 52	29.91	27.76	+81.9	128.3	+81.0	140.9	N	27.6
5,1, 80- 82	30.21	28.65	+81.0	162.4	+80.5	160.2	N	28.9
5,1,110-112	30.51	32.02	+67.8	124.6	+68.1	132.6	N	25.5
5,1,140-142	30.81	28.87	+75.5	158.5	+74.9	158.8	N	29.3
5,2, 20- 22	31.11	36.56	+72.3	141.0	+72.4	152.0	N	26.1
5,2, 50- 52	31.41	37.69	+78.3	113.0	+81.6	136.1	N	31.1
5,2, 80- 82	31.71	27.19	+74.5	113.7	+75.5	130.0	N	29.4
5,3, 19- 21	32.60	4.53	+80.7	186.5	+75.5	162.9	N	22.0
5,3, 50- 52	32.91	4.90	+76.8	129.9	+79.5	152.8	N	31.0
5,3, 82- 84	33.23	2.54	+68.9	107.2	+73.3	127.4	N	22.2
5,3,110-112	33.51	12.43	+61.5	110.1	+70.1	126.0	N	10.8
5,3,139-141	33.80	23.09	+73.3	117.2	+73.9	132.0	N	23.8
5,4, 20- 22	34.11	38.99	+78.2	129.2	+75.6	136.2	N	21.6
5,4, 50- 52	34.41	8.61	+75.3	172.7	+65.8	150.2	N	11.5

Table A1 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
5,4, 80- 82	34.71	10.70	+67.9	144.0	+73.2	143.4	N	9.0
5,4,110-112	35.01	42.24	+81.6	204.2	+79.3	159.4	N	24.1
5,5, 20- 22	35.61	28.85	+80.4	160.1	+82.0	153.2	N	11.6
5,5, 50- 52	35.91	66.82	+81.3	132.0	+76.9	141.7	N	21.2
5,5, 80- 82	36.21	18.53	+50.3	115.6	+59.7	127.9	N	15.1
5,5,110-112	36.51	1.82	+8.3	107.3	+71.3	129.4	N	5.0
5,5,140-142	36.81	11.16	+74.0	296.7	+80.3	165.7	N	34.8
5,6, 20- 22	37.11	7.73	+81.0	23.1	+73.0	137.4	N	25.2
5,6, 49- 51	37.40	25.83	-79.2	358.0	-76.3	330.8	R	30.8
5,6, 80- 82	37.71	30.23	-67.4	322.0	-71.0	313.0	R	39.0
5,6,110-112	38.01	33.58	-57.7	289.3	-60.8	290.8	R	32.1
5,6,140-142	38.31	1.16	+28.5	45.6	-71.9	303.4	R	49.9
5,7, 19- 21	38.60	13.10	-59.6	96.8	-74.8	317.7	R	4.6
5,7, 49- 51	38.90	6.50	-16.7	284.1	-59.9	308.9	R	19.7
5,7, 68- 70	39.09	16.24	-41.5	295.0	-60.4	314.5	R	9.9
6,1, 20- 22	39.11	.92	+26.2	243.9	-69.0	219.8	R	46.8
6,1, 50- 52	39.41	43.60	-84.3	197.8	-79.4	208.0	R	20.4
6,1, 80- 82	39.71	32.25	-81.1	188.7	-78.7	191.1	R	26.3
6,1,110-112	40.01	15.24	-75.9	256.7	-79.8	225.0	R	16.4
6,1,140-142	40.31	51.62	-82.1	61.4	-82.1	233.6	R	31.5
6,2, 20- 22	40.61	.80	-73.7	168.3	-74.2	210.9	R	
6,2, 50- 52	40.91	7.07	-82.7	192.1	-84.6	227.2	R	40.6
6,2, 80- 82	41.21	2.37	-33.2	258.8	-66.0	236.7	R	
6,2,110-112	41.51	9.63	+41.2	258.6	-69.9	221.6	R	4.8
6,2,140-142	41.81	29.54	-60.5	221.9	-65.2	206.2	R	35.6
6,3, 20- 22	42.11	22.11	+66.6	97.3	+67.1	95.7	N	24.3
6,3, 50- 52	42.41	35.40	+83.7	110.3	+79.8	93.1	N	20.5
6,3, 80- 82	42.71	17.26	-73.8	223.0	+81.7	96.4	N	47.4
6,3,110-112	43.01	10.10	-74.2	105.0	+65.3	107.8	N	3.7
6,3,140-142	43.31	.83	+20.7	109.4	+70.3	113.4	N	
6,4, 20- 22	43.61	15.33	+73.0	81.0	+61.8	94.6	N	9.7
6,4, 50- 52	43.91	8.92	+78.0	70.5	+66.8	76.8	N	8.1
6,4, 80- 82	44.21	13.78	-1.7	86.3	+61.2	72.9	N	24.7
6,4,110-112	44.51	22.21	+81.8	58.8	+85.1	66.5	N	39.1
6,5, 20- 22	45.11	12.10	+69.0	48.6	+65.3	50.6	N	26.5
6,5, 50- 52	45.41	3.14	+57.0	96.2	+17.2	109.0		4.4
6,5, 80- 82	45.71	9.44	-25.8	251.2	-61.1	249.6	R	
6,5,110-112	46.01	6.49	+31.5	257.7	-71.5	257.6	R	24.2
6,5,140-142	46.31	16.00	-51.8	297.1	-63.5	264.7	R	35.4
6,6, 20- 22	46.61	.82	-4.5	76.6	-69.5	258.7	R	36.3
6,6, 50- 52	46.91	10.95	+57.6	70.4	-69.6	230.7	R	3.5
7,1,109-111	48.50	6.34	+27.0	303.9	-15.3	276.0	R	29.8
7,1,139-141	48.80	1.84	-38.7	250.7	-71.9	254.9	R	15.7
7,2, 8- 10	48.99	32.13	-63.3	254.8	-67.3	254.7	R	32.0
7,2, 38- 40	49.29	22.27	-70.1	280.3	-74.6	276.5	R	29.4
7,2, 68- 70	49.59	3.72	+9.2	158.5	-66.6	223.6	R	53.7
7,2, 99-101	49.90	34.55	-74.9	230.8	-73.0	237.7	R	32.0
7,2,139-141	50.30	27.03	-78.8	298.6	-75.6	273.9	R	33.5

Table A1 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
7,3, 8- 10	50.49	16.71	-71.0	273.7	-75.8	269.9	R	33.4
7,3, 38- 40	50.79	33.83	-68.9	269.9	-76.3	264.5	R	32.6
7,3, 68- 70	51.09	27.19	-63.3	268.0	-68.8	249.7	R	9.4
7,3, 99-101	51.40	13.79	-60.5	206.1	-74.3	221.7	R	38.3
7,3,139-141	51.80	4.39	-10.8	266.2	-70.5	246.7	R	
7,4, 8- 10	51.99	10.55	-52.3	278.1	-63.3	255.9	R	47.1
7,4, 38- 40	52.29	.64	+45.7	200.3	-62.7	230.0	R	38.3
7,4, 68- 70	52.59	36.02	-76.7	223.4	-77.5	236.4	R	32.2
7,4, 99-101	52.90	2.81	-30.6	128.0	+58.1	52.0	N	19.8
7,5, 8- 10	53.49	.68	+39.6	109.6	+66.0	91.2	N	4.9
7,5, 39- 41	53.80	24.38	+82.1	91.2	+80.6	92.6	N	24.2
7,5, 68- 70	54.09	38.45	+82.3	44.5	+83.0	85.0	N	30.9
7,5, 99-101	54.40	35.63	+73.6	55.6	+73.1	60.9	N	30.2
7,5,139-141	54.80	10.56	+83.0	73.3	+83.1	70.8	N	14.9
7,6, 8- 10	54.99	46.73	+73.0	43.5	+72.2	30.9	N	21.5
7,6, 39- 41	55.30	7.16	-8.2	252.9	-52.8	217.6	R	30.5
7,6, 68- 70	55.59	10.62	-45.0	263.9	-63.5	257.1	R	34.1
7,6, 99-101	55.90	1.01	-5.8	233.2	-63.0	228.9	R	
7,6,139-141	56.30	2.87	-29.8	296.6	-65.6	254.2	R	
7,7, 8- 10	56.49	9.20	-70.3	190.6	-70.6	204.0	R	47.2
7,7, 39- 41	56.80	24.60	+31.9	100.9	+38.2	99.7		18.2
7,7, 68- 70	57.09	.77	-32.8	65.0	-76.3	316.9	R	30.2
8,1, 39- 41	57.30	18.75	+69.5	50.1	+67.4	45.9	N	17.0
8,1, 69- 71	57.60	1.08	+74.7	119.0	+72.8	309.6	N	3.9
8,1, 99-101	57.90	5.46	+4.7	219.9	-58.2	215.1	R	
8,1,129-131	58.20	.75	-59.0	351.4	-71.6	298.2	R	
8,2, 9- 11	58.50	6.72	-36.4	282.1	-60.1	278.6	R	48.6
8,2, 39- 41	58.80	12.65	-40.1	291.4	-66.4	293.6	R	49.3
8,2, 69- 71	59.10	22.80	-48.8	282.3	-69.1	286.6	R	
8,2, 99-101	59.40	8.49	-37.2	283.0	-63.7	280.8	R	48.6
8,2,129-131	59.70	20.83	-74.0	290.4	-73.7	291.9	R	38.1
8,3, 9- 11	60.00	2.50	-76.0	344.4	-64.5	297.4	R	4.9
8,3, 43- 45	60.34	15.62	-79.1	313.9	-79.4	307.0	R	39.5
8,3, 73- 75	60.64	17.04	-62.2	271.6	-71.5	275.1	R	35.9
8,3, 99-101	60.90	1.57	-32.7	274.6	-65.5	272.9	R	
8,3,129-131	61.20	9.24	-54.3	287.0	-61.5	294.9	R	38.4
8,4, 9- 11	61.50	7.44	+34.6	284.7	-73.1	307.5	R	47.2
8,4, 39- 41	61.80	4.15	-42.2	342.5	-68.2	303.3	R	
8,4, 69- 71	62.10	13.09	-25.0	106.5	-71.5	308.6	R	8.6
8,4, 99-101	62.40	10.10	+67.5	249.6	-73.4	305.8	R	3.5
8,4,129-131	62.70	8.64	-78.5	281.7	-69.3	285.7	R	33.3
8,5, 9- 11	63.00	8.41	-55.9	.0	-67.9	309.9	R	39.3
8,5, 39- 41	63.30	27.07	-85.0	25.7	-81.3	301.9	R	29.0
8,5, 69- 71	63.60	14.33	-67.2	73.6	-74.2	282.1	R	32.6
8,5, 99-101	63.90	4.27	-37.2	24.3	-65.7	312.9	R	48.1
8,5,131-133	64.22	2.81	+69.5	271.8	-47.4	289.5	R	7.7
8,6, 9- 11	64.50	1.44	-77.3	324.5	-77.5	318.7	R	70.9
8,6, 39- 41	64.80	5.75	+66.1	126.4	+72.0	140.2	N	6.7
8,6, 69- 71	65.10	18.05	+61.5	126.5	+71.1	100.1	N	13.5

Table A1 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
8,6, 99-101	65.40	7.41	+74.8	110.3	+71.5	112.2	N	14.5
8,6,129-131	65.70	4.23	+73.4	96.3	+78.8	99.4	N	12.9
8,7, 9- 11	66.00	46.62	+35.3	171.1	+73.2	115.9	N	7.5
8,7, 39- 41	66.30	18.02	+73.5	89.9	+69.2	87.8	N	14.2
9,1, 10- 12	66.51	4.76	+75.9	104.5	+69.7	38.7	N	4.7
9,1, 40- 42	66.81	31.44	+82.7	43.3	+83.0	61.2	N	27.5
9,1, 70- 72	67.11	4.76	-76.6	145.6	-74.7	202.3	R	
9,1,100-102	67.41	10.75	-65.8	202.3	-74.7	203.6	R	
9,1,130-132	67.71	9.07	-30.7	236.5	-73.6	196.9	R	43.0
9,2, 10- 12	68.01	10.23	-72.4	135.0	-65.4	191.1	R	45.7
9,2, 40- 42	68.31	4.34	+76.5	101.5	+80.4	96.6	N	
9,2, 70- 72	68.61	14.97	+72.8	14.0	+67.8	15.0	N	25.4
9,2,100-102	68.91	8.18	+67.7	56.5	+65.3	34.9	N	13.3
9,2,130-132	69.21	12.26	+72.8	30.8	+67.4	37.1	N	17.2
9,3, 10- 12	69.51	8.14	+73.2	99.8	+78.4	65.4	N	27.2
9,3, 46- 48	69.87	9.27	+67.9	50.8	+66.0	47.0	N	7.4
9,3, 70- 72	70.11	2.18	-3.6	260.2	-79.9	264.1	R	
9,3,100-102	70.41	11.38	-59.8	160.3	-81.5	194.4	R	
9,4, 11- 13	71.02	10.45	-58.3	145.4	-72.3	177.4	R	
9,4, 40- 42	71.31	10.56	-54.9	162.3	-71.3	184.2	R	
9,4, 70- 72	71.61	13.97	-74.8	123.8	-76.9	182.4	R	44.7
9,4,102-104	71.93	15.41	-65.3	202.0	-73.4	199.6	R	48.3
9,4,131-133	72.22	15.37	-55.1	161.1	-69.6	173.1	R	48.4
9,5, 11- 13	72.52	13.01	-47.9	175.9	-67.4	187.0	R	48.3
9,5, 41- 43	72.82	16.76	-61.0	177.0	-71.1	183.5	R	46.2
9,5, 71- 73	73.12	17.65	-56.8	160.6	-69.0	167.3	R	42.2
9,5,100-102	73.41	16.35	-62.2	154.1	-69.1	175.7	R	44.0
9,5,131-133	73.72	35.52	-68.1	176.5	-72.3	177.5	R	31.4
9,6, 10- 12	74.01	26.65	-69.2	194.8	-73.6	191.9	R	34.4
9,6, 39- 41	74.30	24.62	-72.3	205.3	-76.0	199.8	R	40.5
9,6, 70- 72	74.61	20.44	-65.9	172.8	-71.6	187.0	R	39.6
9,6, 99-101	74.90	12.93	-57.1	160.3	-71.2	164.4	R	43.8
9,6,130-132	75.21	23.06	-77.1	141.0	-76.8	161.0	R	38.4
9,7, 9- 11	75.50	18.58	-79.5	141.2	-78.6	165.1	R	42.8
9,7, 31- 33	75.72	17.11	-62.2	206.4	-68.6	197.4	R	40.9
9,7, 55- 57	75.96	25.23	-68.3	179.7	-71.4	187.1	R	37.8
10,1, 8- 10	75.99	7.40	+44.1	74.4	+63.1	83.2	N	25.1
10,1, 69- 71	76.60	10.38	+74.3	72.5	+74.7	90.0	N	10.5
10,1,100-102	76.91	2.72	+61.7	6.6	-67.9	268.3	R	6.1
10,1,129-131	77.20	4.86	-74.7	243.3	-75.4	261.9	R	35.5
10,2, 10- 12	77.51	.60	+64.8	130.9	+79.9	102.6	N	4.1
10,2, 40- 42	77.81	2.99	-79.7	216.9	-78.3	244.6	R	
10,2, 68- 70	78.09	4.71	-76.0	55.9	-83.5	205.2	R	
10,2,100-102	78.41	7.68	-77.6	212.3	-78.1	204.9	R	55.1
10,2,130-132	78.71	8.95	-78.8	203.2	-80.0	232.6	R	53.4
10,3, 10- 12	79.01	.13	+52.9	124.2	-68.2	210.0	R	3.8
10,3, 40- 42	79.31	.07	+61.0	214.7	-60.9	222.5	R	4.7
10,3, 70- 72	79.61	.13	+72.2	19.5	-52.4	165.3	R	3.1

Table A1 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
10,3, 99-101	79.90	.26	+64.4	100.9	+65.2	90.4	N	7.3
10,3,130-132	80.21	.33	+70.7	71.4	+64.9	69.8	N	9.0
10,4, 10- 12	80.51	1.30	+20.4	293.6	+73.8	36.8	N	3.0
10,4, 40- 42	80.81	1.19	+36.6	272.1	+73.0	33.7	N	3.4
10,4, 70- 72	81.11	.50	+78.8	56.9	+76.2	23.6	N	4.6
10,4, 99-101	81.40	.78	+76.6	57.3	+71.4	55.9	N	8.3
10,4,125-127	81.66	.78	+72.2	2.5	+74.6	83.1	N	3.7
10,5, 10- 12	82.01	.32	+77.2	135.0	-66.9	34.8	R	3.0
10,5, 40- 42	82.31	.82	-54.8	169.3	-75.2	205.1	R	62.4
10,5, 69- 71	82.60	1.42	-66.8	266.0	-79.1	223.0	R	17.3
10,5, 98-100	82.89	.25	+40.1	209.7	-83.7	225.3	R	3.1
10,5,129-131	83.20	.23	+16.7	318.3	-55.4	241.4	R	17.6
10,6, 9- 11	83.50	.47	+27.9	56.6	+66.4	79.8	N	15.2
10,6, 40- 42	83.81	.68	+76.7	355.5	+71.4	21.3	N	7.4
10,6, 70- 72	84.11	.75	+78.1	79.4	+74.3	57.7	N	4.6
10,6, 99-101	84.40				-71.6	227.7	R	99.9
10,6,129-131	84.70	.09	+49.7	134.8	-66.7	225.2	R	48.7
10,7, 10- 12	85.01	.14	+72.4	18.3	-80.7	254.5	R	6.3
10,7, 40- 42	85.31	.32	+49.4	300.2	-69.9	209.7	R	3.3
11,1, 10- 12	85.51	.16	-7.8	42.7	-71.5	130.8	R	7.9
11,1, 40- 42	85.81	.04	-38.6	165.8	-71.7	161.3	R	
11,1, 74- 76	86.15	.18	+57.8	190.2	-78.9	277.6	R	
11,1,100-102	86.41	.24	+39.3	192.4	-80.7	159.9	R	
11,1,130-132	86.71	4.06	-70.4	227.3	-66.8	169.9	R	49.2
11,2, 10- 12	87.01	5.18	-55.5	134.6	-63.4	148.0	R	
11,2, 40- 42	87.31	.56	-64.9	116.2	-67.0	157.6	R	
11,2, 70- 72	87.61	.11	+29.3	176.4	-65.1	143.5	R	
11,2,100-102	87.91	.18	-8.9	150.5	-66.7	159.6	R	
11,2,130-132	88.21	.10	-66.2	6.2	-75.0	142.8	R	
11,3, 10- 12	88.51	.47	+59.9	111.1	-65.2	148.0	R	
11,3, 40- 42	88.81	.21	+64.8	80.2	-62.3	157.4	R	
11,3, 70- 72	89.11	.22	-71.1	77.0	-72.8	158.3	R	
11,3,100-102	89.41	.40	-57.0	76.2	-71.5	158.4	R	
11,3,130-132	89.71	.48	+4.0	80.4	-69.4	257.0	R	19.0
11,4, 10- 12	90.01	1.04	-33.0	117.2	-70.1	173.5	R	43.1
11,4, 40- 42	90.31	2.62	-58.8	90.8	-77.1	149.4	R	
11,4, 70- 72	90.61	.23	-32.0	140.9	-73.9	160.8	R	
11,4,100-102	90.91	.10	-63.8	172.2	-72.6	141.8	R	
11,4,130-132	91.21	.13	-14.3	169.0	-80.3	132.7	R	
11,5, 10- 12	91.51	.84	-3.8	30.9	-67.7	123.9	R	11.2
11,5, 40- 42	91.81	1.76	+45.7	112.8	-67.4	131.0	R	3.1
11,5, 70- 72	92.11	10.09	-73.6	158.6	-74.8	165.8	R	42.0
11,5,100-102	92.41	5.82	+16.3	67.2	-69.3	123.1	R	3.6
11,5,130-132	92.71	.38	+.9	329.1	-76.4	126.8	R	4.7
11,6, 10- 12	93.01	.59	-35.1	287.3	-67.7	133.6	R	30.9
11,6, 40- 42	93.31	.64	-60.2	231.8	-66.5	121.9	R	10.4
11,6, 70- 72	93.61	.44	-28.0	100.6	-80.6	134.6	R	
11,6,100-102	93.91	10.10	-18.3	117.6	-66.2	154.4	R	6.2
11,6,130-132	94.21	2.74	+2.1	90.7	-71.5	118.3	R	5.6

Table A1 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
11,7, 10- 12	94.51	2.05	+38.6	51.9	-62.7	117.4	R	4.2
11,7, 40- 42	94.81	2.14	+79.2	343.5	-71.4	142.1	R	2.7
11,7, 63- 65	95.04	.20	-80.3	88.8	-86.4	125.3	R	
12,1, 25- 27	95.16	.57	+25.0	257.8	+66.2	214.1	N	3.1
12,1, 48- 50	95.39	.59	+36.6	240.7	+64.4	217.3	N	2.9
12,1, 70- 72	95.61	.26	+69.2	37.8	+41.7	115.0	N	4.5
12,1,100-102	95.91	.17	+14.6	53.2	-55.4	34.7	R	
12,2, 25- 27	96.66	.81	-20.7	88.2	-71.9	79.0	R	
12,2, 56- 58	96.97	.59	+52.9	91.5	-63.2	85.9	R	4.4
12,2, 70- 72	97.11	.36	+59.5	20.8	-70.1	65.0	R	5.0
12,2,100-102	97.41	.57	+78.5	83.9	+77.3	140.8	N	4.6
12,2,130-132	97.71	.94	+80.4	228.0	+84.4	178.4	N	9.9
12,3, 10- 12	98.01	.44	+78.5	142.2	+73.4	174.8	N	4.8
12,3, 36- 38	98.27	.44	+79.0	159.3	+85.6	181.2	N	7.1
12,3, 70- 72	98.61	.34	+82.1	179.6	+72.4	190.2	N	3.7
12,3,100-102	98.91	1.35	+82.1	93.8	+85.7	200.6	N	4.3
12,3,130-132	99.21	.87	+79.8	128.5	+75.2	183.7	N	7.7
12,4, 10- 12	99.51	1.48	+78.6	107.6	+72.4	181.0	N	24.2
12,4, 43- 45	99.84	.87	+79.0	141.7	+75.6	169.5	N	24.0
12,4, 72- 74	100.13	.29	+69.2	267.9	+77.2	207.3	N	4.1
12,4,102-104	100.43	.31	+83.4	132.9	+78.7	236.0	N	4.0
12,5, 10- 12	101.01	1.03	+82.3	334.6	+85.6	191.6	N	25.8
12,5, 43- 45	101.34	.51	+86.9	129.3	+83.8	216.4	N	17.7
12,5, 72- 74	101.63	.38	+79.6	58.4	+70.7	184.1	N	16.0
12,5,102-104	101.93	.38	+86.9	41.3	+80.9	227.9	N	5.0
12,5,134-136	102.25	.81	+84.6	136.3	+78.4	196.8	N	6.3
12,6, 10- 12	102.51	1.00	+82.0	161.0	+76.8	176.7	N	8.6
12,6, 43- 45	102.84	1.15	+86.4	196.6	+82.4	202.5	N	15.8
12,6, 72- 74	103.13	1.07	+86.4	229.2	+77.4	210.9	N	15.2
12,6,102-104	103.43	.63	+85.4	344.4	+74.8	194.1	N	16.4
12,6,134-136	103.75	.40	+61.1	57.1	+72.4	225.7	N	6.2
12,7, 10- 12	104.01	.47	+72.1	124.2	+66.5	199.7	N	4.5
12,7, 24- 26	104.15	.35	+78.5	3.3	+67.2	223.8	N	4.4
13,1, 20- 22	104.41	1.92	-67.4	92.3	-67.1	96.2		
13,1, 50- 52	104.71	1.16	+35.4	16.1	+65.7	43.1	N	7.7
13,1, 80- 82	105.01	1.74	+48.9	175.4	+81.0	44.4	N	3.3
13,1,110-112	105.31	.20	+62.9	40.5	-76.9	166.8	R	3.2
13,1,144-146	105.65	.24	-73.4	345.5	-73.1	177.3	R	3.4
13,2, 20- 22	105.91	.31	-19.4	193.6	-73.4	203.5	R	
13,2, 50- 52	106.21	.36	+69.1	41.7	-86.9	180.4	R	3.8
13,2, 80- 82	106.51	.32	+66.2	65.2	+33.5	75.4	N	4.1
13,2,110-112	106.81	1.28	+48.8	356.5	+71.5	9.2	N	6.1
13,2,140-142	107.11	.36	+68.9	35.5	+68.1	22.5	N	9.6
13,3, 20- 22	107.41	.43	+75.3	352.8	+83.6	31.5	N	9.7
13,3, 50- 52	107.71	.27	+51.8	315.0	+70.9	37.5	N	9.3
13,3, 80- 82	108.01	.62	+76.3	49.6	+71.6	47.8	N	7.9
13,3,110-112	108.31	.32	-51.8	221.6	+72.3	30.0	N	3.7
13,3,140-142	108.61	.25	+59.3	56.6	+72.4	22.3	N	21.4

Table A1 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
13,4, 20- 22	108.91	.39	+62.5	24.3	+65.4	19.3	N	7.6
13,4, 50- 52	109.21	.75	+82.5	103.7	+64.2	24.2	N	28.2
13,4, 80- 82	109.51	.30	+80.7	41.0	+85.8	25.8	N	18.4
13,4,110-112	109.81	.54	+51.6	314.7	+78.7	47.9	N	5.2
13,5, 20- 22	110.41	.68	+46.7	279.3	+71.0	33.2	N	9.6
13,5, 55- 57	110.76	.39	+56.5	248.9	+77.7	45.3	N	4.6
13,5, 80- 82	111.01	.35	+74.8	45.0	+74.8	35.2	N	4.8
13,5,110-112	111.31	.19	+36.2	172.4	+76.6	18.1	N	24.5
13,5,140-142	111.61	.18	+60.6	133.5	+77.3	36.8	N	30.7
13,6, 18- 20	111.89	.23	+27.9	329.5	+79.2	46.6	N	37.1
13,6, 50- 52	112.21	.53	+47.1	328.6	+68.8	33.5	N	4.8
13,6, 80- 82	112.51	.28	+75.2	64.4	+69.1	54.0	N	15.4
13,6,110-112	112.81	.27	+77.5	69.6	+69.6	51.0	N	9.2
13,6,140-142	113.11	.51	+54.4	60.0	+74.8	31.3	N	4.8
13,7, 31- 33	113.52	.47	-81.7	120.6	-63.2	201.9	R	3.7
15,1, 42- 44	123.93	.09	+82.3	33.6	+63.7	55.0	N	3.3
15,1, 80- 82	124.31	.06	+52.6	97.3	+80.8	60.0	N	
15,1,110-112	124.61	.40	+49.9	58.0	+69.7	39.1	N	16.5
15,2, 18- 20	125.19	.45	+68.4	191.1	+70.3	23.3	N	3.9
15,2, 48- 50	125.49	.07	+43.6	114.2	-62.6	96.3		11.7
15,2,109-111	126.10	.35	+35.6	100.8	+73.9	36.9	N	4.2
15,3, 18- 20	126.69	.43	+14.9	88.1	+71.0	13.7	N	4.3
15,3, 80- 82	127.31	.10	+50.4	16.3	+60.3	324.7	N	9.2
16,1, 20- 22	128.31	.37	+53.7	5.1	+71.9	12.3	N	15.6
16,1, 50- 52	128.61	.32	+71.5	11.5	+69.5	358.5	N	14.6
16,1, 80- 82	128.91	.33	+82.0	346.5	+79.3	33.2	N	3.7
16,1,110-112	129.21	.27	+54.8	5.0	+69.2	4.5	N	10.9
16,1,140-142	129.51	.48	+68.6	13.7	+76.6	8.3	N	16.2
16,2, 20- 22	129.81	3.50	+63.4	24.9	+68.9	27.3	N	26.9
16,2, 50- 52	130.11	.61	+70.7	356.3	+80.6	355.5	N	27.9
16,2, 80- 82	130.41	.17	-82.5	297.3	-77.7	215.2	R	20.3
16,2,112-114	130.73	2.26	-78.8	225.0	-74.9	233.6	R	39.7
16,2,140-142	131.01	1.21	+75.5	356.3	+81.2	345.5	N	35.1
16,3, 18- 20	131.29	.74	+76.4	45.3	+80.1	50.7	N	
16,4, 20- 22	132.81	.35	+52.8	314.7	+69.5	327.0	N	15.9
16,4, 50- 52	133.11	2.45	+84.7	15.0	+85.0	328.4	N	33.1
16,4, 80- 82	133.41	.65	+42.0	324.2	+73.2	317.2	N	18.7
16,4,108-110	133.69	1.27	+84.3	302.7	+75.5	298.3	N	8.0
16,4,142-144	134.03	.28	+83.3	340.9	+80.7	306.7	N	13.4
16,5, 19- 21	134.30	.97	+84.3	89.5	+81.5	297.9	N	29.8
16,5, 50- 52	134.61	.55	+94.1	85.3	+71.8	303.0	N	14.6
16,5, 80- 82	134.91	.25	+72.2	87.5	+83.3	282.7	N	16.2
16,5,110-112	135.21	.16	+79.5	120.6	+71.2	259.9	N	9.9
16,5,141-143	135.52	.12	+62.4	278.4	+64.4	276.6	N	5.8
16,6, 20- 22	135.81	.17	+89.2	355.4	+78.3	282.4	N	15.2
16,6, 49- 51	136.10	.63	+75.9	118.6	+81.5	260.7	N	24.1
16,6, 81- 83	136.42	.52	+76.9	261.4	+69.3	267.1	N	12.9
16,6,111-113	136.72	.16	+67.7	80.8	+71.7	36.1	N	9.5

Table A1 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
16,7, 19- 21	137.30	.13	+73.8	74.3	+71.4	26.4	N	4.9
16,7, 50- 52	137.61	.07	+77.5	271.6	+67.2	29.4	N	
16,7, 80- 82	137.91	.17	+67.4	43.0	+71.5	27.7	N	4.0
16,7,110-112	138.21	.66	+82.7	33.0	+70.1	38.8	N	4.5
17,1, 50- 52	138.51	.29	+72.1	65.8	+62.9	38.9	N	4.6
17,1, 80- 82	138.81	.21	+73.8	74.5	+66.9	51.3	N	5.0
17,1,110-112	139.11	.65	+65.9	67.6	+70.2	50.4	N	23.4
17,1,140-142	139.41	.47	+51.3	59.8	+72.5	52.4	N	5.0
17,2, 20- 22	139.71	.25	+61.8	60.4	+68.0	49.0	N	5.1
17,2, 50- 52	140.01	.31	+82.1	40.2	+74.2	55.3	N	3.8
17,2, 80- 82	140.31	.47	+81.2	26.1	+63.3	57.6	N	4.4
17,2,110-112	140.61	.15	+76.7	98.5	+68.4	72.1	N	3.5
17,2,140-142	140.91	.22	+82.2	54.4	+67.1	58.5	N	3.9
17,3, 20- 22	141.21	.17	+82.4	98.7	+69.9	64.9	N	3.4
17,3, 50- 52	141.51	.13	+77.2	76.4	+78.2	89.3	N	3.2
17,3, 80- 82	141.81	.14	+75.6	343.2	+69.3	55.8	N	4.9
17,3,110-112	142.11	.12	+75.6	38.1	+71.8	35.7	N	3.4
17,4, 20- 22	142.71	.16	+84.2	95.2	+73.3	40.1	N	4.4
17,4, 50- 52	143.01	.06	+63.3	313.3	-69.2	273.7	R	4.1
17,4, 80- 82	143.31	.09	-69.9	157.7	-70.2	189.0	R	6.0
17,4,110-112	143.61	.06	-60.3	191.6	-64.1	189.5	R	13.8
17,4,140-142	143.91	.11	+75.6	357.1	-68.0	226.7	R	3.9
17,5, 20- 22	144.21	.14	+71.0	85.9	+71.5	63.4	N	3.6
17,5, 48- 50	144.49	.18	+68.3	73.4	+61.9	80.6	N	4.4
17,5, 48- 50	144.49	.18	+68.3	73.4	+67.1	87.4	N	4.4
17,5, 80- 82	144.81	.38	+72.7	82.3	+75.5	114.0	N	4.4
17,6, 20- 22	145.71	.17	+75.3	99.9	+66.3	97.1	N	4.0
17,6, 50- 52	146.01	.14	+72.6	140.2	+75.3	90.9	N	4.2
17,6, 80- 82	146.31	.23	+85.3	.3	+76.9	95.0	N	4.3
17,6,110-112	146.61	.16	+77.0	67.0	+84.8	73.3	N	4.0
17,6,140-142	146.91	.27	+82.0	72.6	+74.7	74.8	N	4.3
17,7, 20- 22	147.21	.35	+75.9	61.8	+75.9	70.2	N	4.4
18,1, 20- 22	148.01	.09	+57.2	169.0	+71.4	135.9	N	11.8
18,1, 50- 52	148.31	.08	+78.2	114.1	+66.8	105.9	N	9.1
18,1, 80- 82	148.61	.14	+76.8	50.7	+76.8	101.8	N	6.0
18,1,110-112	148.91	.25	+47.7	117.9	+67.6	109.0	N	5.6
18,1,140-142	149.21	.39	+54.5	90.6	+65.7	114.0	N	3.7
18,2, 20- 22	149.51	.23	+54.6	76.6	+69.2	97.8	N	6.9
18,2, 50- 52	149.81	.10	+75.0	127.6	+67.2	112.6	N	
18,2, 80- 82	150.11	.07	+78.5	22.8	+77.0	110.2	N	3.6
18,2,110-112	150.41	.09	+50.5	99.5	+78.0	115.9	N	
18,2,140-142	150.71	.18	+12.9	132.6	-66.3	246.3		3.2
18,3, 20- 22	151.01	.67	+8.7	115.1	+65.3	87.6	N	4.2
18,3, 50- 52	151.31	1.70	+82.3	101.5	+83.3	95.5	N	6.1
18,3, 80- 82	151.61	1.10	+76.7	81.1	+73.3	87.4	N	10.2
18,3,110-112	151.91	.10	+65.3	81.2	+81.7	79.8	N	10.4
18,3,140-142	152.21	4.92	+80.4	33.3	+82.5	77.5	N	26.1
18,4, 20- 22	152.51	.04	+20.6	159.8	-58.2	341.5		

Table A1 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
18,4, 50- 52	152.81	.10	+59.7	102.6	+65.6	106.1	N	6.8
18,4, 80- 82	153.11	.15	+75.6	72.0	+77.2	108.9	N	23.5
18,4,110-112	153.41	.09	+73.2	93.7	+74.0	104.5	N	12.9
18,4,140-142	153.71	.22	+67.7	108.5	+75.9	118.6	N	11.8
18,5, 20- 22	154.01	.10	-64.7	280.4	+70.5	89.6	N	3.1
18,5, 50- 52	154.31	.05	+65.3	32.5	+65.3	102.8	N	6.8
18,5, 80- 82	154.61	.04	+79.6	145.9	+70.8	113.5	N	5.3
18,5,110-112	154.91	.25	+60.9	131.4	+69.3	119.6	N	14.6
18,6, 20- 22	155.51	.14	+64.6	86.1	+67.9	111.5	N	6.2
18,6, 50- 52	155.81	.19	+77.9	29.8	+67.0	101.7	N	3.7
18,6, 80- 82	156.11	.10	+69.4	125.2	+72.3	115.8	N	7.5
18,6,110-112	156.41	.11	+74.7	120.0	+61.5	102.4	N	4.2
18,6,140-142	156.71	.09	+76.2	97.9	+75.2	108.3	N	9.3
18,7, 20- 22	157.01	.06	+68.5	83.6	+75.7	86.5	N	5.9
19,1, 80- 82	158.51	.12	+84.1	281.1	+65.2	349.5	N	5.0
19,1,110-112	158.81	.11	+83.6	109.6	+67.1	10.0	N	3.4
19,1,140-142	159.11	.34	+76.2	49.4	+66.0	35.1	N	4.4
19,2, 20- 22	159.41	.12	+80.0	35.8	+70.7	28.7	N	3.8
19,2, 50- 52	159.71	.23	+81.7	45.8	+75.1	50.6	N	8.8
19,2, 86- 88	160.07	.23	+75.3	150.4	+65.9	52.1	N	4.8
19,2,110-112	160.31	.43	+75.5	46.3	+69.7	39.6	N	9.4
19,2,140-142	160.61	.29	+73.9	98.9	+68.8	59.0	N	4.6
19,3, 20- 22	160.91	.31	+78.4	66.6	+80.4	39.4	N	4.6
19,3, 50- 52	161.21	.23	+81.5	19.3	+81.0	27.6	N	6.0
19,3, 80- 82	161.51	.19	+87.8	90.2	+79.3	31.4	N	4.5
19,3,110-112	161.81	.17	+85.7	51.2	+85.5	14.1	N	4.0
19,3,140-142	162.11	.34	+85.4	51.3	+82.8	15.2	N	8.7
19,4, 20- 22	162.41	.18	+85.0	77.5	+80.6	33.0	N	5.2
19,4, 50- 52	162.71	.20	+84.8	63.8	+83.4	29.9	N	4.6
19,4, 80- 82	163.01	.26	+81.1	48.1	+76.0	31.0	N	4.9
19,4,110-112	163.31	.22	+87.2	358.6	+74.0	24.8	N	13.0
19,5, 20- 22	163.91	.77	+80.4	11.2	+76.0	15.0	N	3.8
19,5, 50- 52	164.21	.28	+80.1	181.8	+71.3	31.4	N	5.4
19,5, 80- 82	164.51	.28	+26.4	346.7	+61.6	20.2	N	2.9
19,5,110-112	164.81	.25	+73.9	29.8	+79.2	27.0	N	3.7
19,5,140-142	165.11	1.19	-18.8	272.8	-43.2	247.0		5.0
19,6, 20- 22	165.41	.17	+77.1	26.1	+72.6	18.5	N	3.5
19,6, 50- 52	165.71	.18	+85.9	28.8	+80.1	37.4	N	3.5
19,6, 80- 82	166.01	.30	+78.0	34.4	+76.5	50.1	N	3.9
19,6,110-112	166.31	.22	+28.5	340.5	+84.1	52.6	N	4.4
19,6,140-142	166.61	.11	+64.5	146.7	+85.9	46.2	N	7.0
19,7, 20- 22	166.91	.38	-39.2	32.1	+78.1	52.2	N	3.7
20,1, 20- 22	167.61	.19	+71.9	190.0	+63.0	181.4	N	4.0
20,1, 50- 52	167.91	4.00	+16.3	227.3	+67.8	217.1	N	4.9
20,1, 80- 82	168.21	.18	+65.2	84.2	+83.7	205.0	N	9.4
20,1,110-112	168.51	.28	+75.0	184.3	+63.8	202.0	N	3.9
20,1,140-142	168.81	.20	+19.5	299.4	+78.9	226.4	N	4.3
20,2, 20- 22	169.11	.55	+75.9	148.1	+73.3	198.0	N	6.2

Table A1 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
20,2, 50- 52	169.41	.37	+88.4	106.1	+83.9	215.7	N	3.7
20,2, 80- 82	169.71	.16	+83.2	200.1	+79.7	203.7	N	4.9
20,2,110-112	170.01	.78	+80.6	229.9	+77.8	227.4	N	35.0
20,2,140-142	170.31	.27	+67.7	16.8	+79.7	232.1	N	16.9
20,3, 20- 22	170.61	.07	+82.5	220.5	+64.8	202.7	N	9.8
20,3, 50- 52	170.91	.09	+57.9	120.6	+63.9	191.5	N	19.3
20,3, 80- 82	171.21	.77	+61.0	204.5	+83.5	207.8	N	46.0
20,3,110-112	171.51	.15	+75.0	163.4	+64.8	225.1	N	44.0
20,3,140-142	171.81	.17	+66.2	124.9	+72.8	233.5	N	8.2
20,4, 20- 22	172.11	.61	+33.0	198.4	+76.4	213.4	N	6.6
20,4, 50- 52	172.41	.14	+63.0	92.2	+70.1	195.5	N	3.9
20,4, 80- 82	172.71	.13	+66.5	181.3	+72.8	217.2	N	21.3
20,4,110-112	173.01	.21	-66.1	151.6	+85.2	203.2	N	2.0
20,5, 20- 22	173.61	.09	+68.2	92.4	+70.1	217.3	N	
20,5, 50- 52	173.91	.20	+70.9	229.9	+78.3	213.2	N	11.3
20,5, 80- 82	174.21	.28	+85.7	286.4	+77.1	225.8	N	9.4
20,5,110-112	174.51	1.09	+64.8	242.9	+64.6	221.3	N	3.2
20,5,140-142	174.81	.78	+58.4	267.2	+79.7	221.9	N	3.5
20,6, 20- 22	175.11	.31	+45.8	240.0	+63.6	191.4	N	3.1
20,6, 50- 52	175.41	.30	+83.1	126.8	+83.6	186.7	N	8.8
20,6, 80- 82	175.71	.18	+81.7	355.7	+81.3	213.3	N	12.3
20,6,110-112	176.01	.17	+80.5	150.5	+70.7	187.8	N	6.4
20,6,140-142	176.31	.61	+12.2	135.0	+83.9	183.3	N	4.0
20,7, 20- 22	176.61	1.32	+87.1	4.9	+86.3	202.0	N	35.0
20,7, 52- 54	176.93	.11	+79.3	134.5	+74.7	186.6	N	21.7
21,1, 80- 82	177.91	.36	+74.3	352.7	-59.5	162.6	R	12.1
21,1,110-112	178.21	.07	+57.9	214.5	-65.3	209.5	R	4.7
21,1,140-142	178.51	.05	+51.1	197.0	-69.1	206.1	R	13.8
21,2, 20- 22	178.81	.19	+78.2	191.1	-60.2	195.9	R	5.0
21,2, 50- 52	179.11	.07	+60.5	167.0	-52.6	171.0	R	34.2
21,2, 80- 82	179.41	.06	+74.2	150.5	-62.8	186.9	R	
21,2,110-112	179.71	.19	+71.8	90.7	-79.0	152.2	R	4.1
21,3, 20- 22	180.31	.21	+66.7	108.4	+66.3	114.0	N	9.5
21,3, 50- 52	180.61	1.64	+77.5	28.3	+73.9	52.1	N	15.5
21,3, 80- 82	180.91	4.47	+71.1	100.3	+71.5	68.4	N	4.4
21,3,110-112	181.21	1.34	+80.3	57.7	+77.1	59.9	N	4.0
21,4, 20- 22	181.81	.13	+68.3	42.9	+62.7	58.7	N	5.3
21,4, 50- 52	182.11	.17	-10.2	31.2	+75.6	51.8	N	24.6
21,4, 80- 82	182.41	.14	+60.7	77.2	+75.6	35.8	N	6.1
21,4,110-112	182.71	.16	+55.4	139.6	-33.8	126.2	R	9.0
21,4,140-142	183.01	.07	+63.8	170.8	-69.1	172.2	R	
21,5, 20- 22	183.31	.11	+62.0	128.5	-31.9	160.4	R	4.7
21,5, 50- 52	183.61	.07	+76.6	63.2	+77.1	64.9	N	10.7
21,5, 80- 82	183.91	.12	+74.7	111.9	+73.0	68.1	N	4.5
21,5,110-112	184.21	.20	+81.7	50.0	+73.9	63.5	N	4.7
21,5,140-142	184.51	.47	+85.0	88.3	+79.8	60.9	N	7.9
21,6, 20- 22	184.81	.14	+75.4	214.0	+67.9	74.3	N	3.8
21,6, 80- 82	185.41	.17	+72.3	76.9	+72.3	71.0	N	12.1
21,6,110-112	185.71	.21	+75.2	136.0	+76.7	53.3	N	14.7

Table A1 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
21,6,140-142	186.01	2.19	+80.9	48.1	+80.3	60.5	N	35.0
21,7, 20- 22	186.31	.15	+84.3	30.2	+84.1	64.5	N	5.4
22,1, 20- 22	186.91	.23	+72.0	143.7	+76.2	141.6	N	9.9
22,1, 50- 52	187.21	.11	+64.4	129.2	+60.4	133.2	N	12.1
22,1, 80- 82	187.51	.31	+85.6	109.7	+85.6	132.3	N	14.5
22,1,110-112	187.81	.87	+78.1	122.9	+71.1	130.4	N	13.3
22,1,140-142	188.11	.89	+72.4	163.8	+66.7	140.8	N	8.4
22,2, 20- 22	188.41	.13	+73.0	126.1	+65.9	122.1	N	12.2
22,2, 50- 52	188.71	1.46	+74.6	153.1	+68.8	142.6	N	16.5
22,2, 80- 82	189.01	.80	+77.1	195.1	+76.0	148.6	N	21.7
22,2,110-112	189.31	1.05	+71.3	153.7	+74.0	151.4	N	22.5
22,2,140-142	189.61	.20	+69.5	143.8	+69.5	147.2	N	19.1
22,3, 20- 22	189.91	1.27	+87.5	46.8	+84.6	132.9	N	23.0
22,3, 50- 52	190.21	.33	+65.5	155.2	+75.9	151.6	N	12.8
22,3, 80- 82	190.51	.07	+75.5	143.9	+77.0	140.9	N	12.0
22,3,110-112	190.81	2.67	+39.4	174.9	+63.9	138.3	N	19.0
22,3,140-142	191.11	.12	-5.6	33.4	+66.6	150.5	N	2.3
22,4, 20- 22	191.41	.10	+48.9	166.2	+66.1	139.8	N	5.0
22,4, 50- 52	191.71	.28	-20.8	210.9	-69.8	287.9	R	4.6
22,4, 80- 82	192.01	.06	+63.6	29.6	-76.0	296.2	R	4.7
22,4,110-112	192.31	.12	+77.4	253.4	+77.4	358.1		3.9
22,5, 20- 22	192.91	.07	+28.8	285.7	-61.0	207.3	R	2.1
22,5, 50- 52	193.21	.19	-76.5	203.8	-78.1	179.5	R	4.5
22,5, 80- 82	193.51	.19	-14.6	199.1	-63.1	208.1	R	2.9
22,5,110-112	193.81	.08	+73.7	213.3	-71.1	179.8	R	29.1
22,5,140-142	194.11	.04	+77.4	128.1	-58.7	186.8	R	1.9
22,6, 20- 22	194.41	.04	+60.1	2.0	-77.2	190.3	R	4.1
22,6, 50- 52	194.71	.17	+77.2	164.3	-60.6	178.8	R	1.8
22,6, 80- 82	195.01	.05	+67.7	146.7	-65.8	170.3	R	2.5
22,6,110-112	195.31	.16	+67.6	166.5	-61.7	192.5	R	4.0
22,6,140-142	195.61	.10	+56.7	172.3	-76.8	216.3	R	
23,1, 11- 13	196.12	.70	-52.7	104.2	-55.6	96.6	R	4.2
23,1, 40- 42	196.41	.67	+68.5	162.6	+70.7	170.9	N	27.6
23,1, 70- 72	196.71	.18	+74.2	27.4	+67.7	130.8	N	4.8
23,1,100-102	197.01	.34	+82.9	110.7	+74.3	111.9	N	6.9
23,1,130-132	197.31	.26	+82.6	129.5	+76.4	113.3	N	12.0
23,2, 10- 12	197.61	.31	+70.8	93.1	+68.2	96.5	N	39.4
23,2, 40- 42	197.91	.21	+80.7	137.6	+76.7	113.4	N	8.9
23,2, 70- 72	198.21	.20	+53.0	264.5	+70.8	125.9	N	3.6
23,2,100-102	198.51	.32	+57.0	164.0	+69.7	131.3	N	4.5
23,2,130-132	198.81	.22	+71.3	151.0	+75.1	130.1	N	13.8
23,3, 10- 12	199.11	.43	+41.4	135.0	+69.9	131.8	N	3.8
23,3, 40- 42	199.41	.24	+64.3	91.9	+85.3	127.8	N	3.9
23,3, 70- 72	199.71	.39	+35.8	23.0	+60.7	125.9	N	3.6
23,3,100-102	200.01	.49	-8.4	265.4	+84.5	157.2	N	3.8
23,3,130-132	200.31	.15	+87.2	219.3	+60.3	129.1	N	13.3
23,4, 9- 11	200.60	.23	+87.0	31.3	+75.6	132.6	N	12.3
23,4, 39- 41	200.90	.28	+77.1	132.2	+75.9	137.4	N	16.4

Table A1 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
23,4, 69- 71	201.20	.24	+72.9	111.7	+72.7	137.2	N	17.1
23,4,101-103	201.52	.16	+20.3	96.9	+65.3	127.8	N	3.5
23,4,130-132	201.81	.15	+49.6	281.1	+61.0	127.3	N	4.9
23,5, 9- 11	202.10	.23	+73.3	157.2	+72.2	130.2	N	9.9
23,5, 39- 41	202.40	.11	+67.7	90.5	+60.9	114.8	N	5.0
23,5, 69- 71	202.70	.20	+87.8	135.9	+79.9	115.4	N	9.4
23,5,101-103	203.02	.10	+82.6	110.4	+72.1	125.3	N	5.6
23,5,130-132	203.31	.11	+78.8	115.9	+70.6	111.1	N	4.3
23,6, 9- 11	203.60	.14	+80.9	109.6	+73.5	109.4	N	4.2
23,6, 39- 41	203.90	.16	+83.1	68.1	+67.2	111.5	N	12.4
23,6, 69- 71	204.20	.13	+79.8	236.6	+83.7	131.0	N	4.9
23,6,101-103	204.52	.21	+87.5	160.8	+79.5	110.9	N	10.7
23,6,132-134	204.83	.18	+67.8	103.5	-68.9	150.4	R	6.4
23,7, 9- 11	205.10	.32	+77.1	102.1	-69.7	254.1	R	7.3
23,7, 39- 41	205.40	.57	+78.2	65.1	-88.6	228.7	R	11.4
24,1, 70- 72	206.31	.04	+81.3	126.6	+70.5	115.8		5.4
24,1, 99-101	206.60	.08	+82.2	49.4	-44.0	280.4	R	3.3
24,1,130-132	206.91	.07	+46.5	101.9	-78.3	262.6	R	
24,2, 10- 12	207.21	.04	+82.3	12.5	-71.1	275.3	R	3.9
24,2, 40- 42	207.51	.05	+71.5	137.2	-60.4	310.4	R	3.3
24,2, 70- 72	207.81	.04	+75.7	28.6	-78.7	331.8	R	3.4
24,2, 99-101	208.10	.07	-44.1	108.7	-65.3	286.7	R	5.3
24,2,130-132	208.41	.16	-50.8	269.1	-64.1	279.2	R	4.1
24,3, 10- 12	208.71	.13	-29.7	163.3	-74.4	261.3	R	11.8
24,3, 40- 42	209.01	.04	+59.6	74.3	-73.3	245.9	R	10.0
24,3, 70- 72	209.31	.01	-71.3	201.8	-58.3	219.6	R	
24,3, 99-101	209.60	.04	+47.0	143.3	+65.1	150.2	N	2.1
24,4, 10- 12	210.21	.10	+29.2	106.9	+60.1	50.6	N	2.7
24,4, 40- 42	210.51	.20	+35.1	102.2	+58.0	18.2	N	3.4
24,4, 70- 72	210.81	.02	+71.7	181.9	-40.7	261.7	R	2.1
24,4, 99-101	211.10	.07	-25.7	82.0	-84.9	305.0	R	4.2
24,4,130-132	211.41	.03	-64.1	91.4	-70.1	292.2	R	3.1
24,5, 10- 12	211.71	.11	-58.6	277.9	-61.3	283.8	R	
24,5, 40- 42	212.01	.06	+8.4	160.4	-73.2	267.1	R	3.1
24,5, 70- 72	212.31	.05	+86.2	167.0	-71.7	274.5	R	2.9
24,5, 99-101	212.60	.40	-7.5	251.5	-60.1	262.3	R	3.2
24,5,130-132	212.91	.57	-14.6	89.4	-15.4	278.2	R	3.1
25,1, 40- 42	213.51	.14	-31.7	208.2	-29.9	206.0	R	2.8
25,1, 70- 72	213.81	.06	-38.2	246.2	-57.8	209.8	R	27.8
25,1,100-102	214.11	.02	+21.2	36.9	+79.7	45.6	N	
25,1,130-132	214.41	.04	+7.8	118.0	+60.1	18.3	N	6.3
25,2, 10- 12	214.71	.01	+48.0	33.5	+61.2	349.0	N	
25,2, 40- 42	215.01	.01	-12.2	295.9	+62.7	3.7	N	
25,2, 70- 72	215.31	.01	+56.7	258.9	-63.9	223.4		
25,2,100-102	215.61	.02	+23.1	333.5	+66.1	326.5	N	
25,2,130-132	215.91	.03	-54.1	347.7	+56.4	353.2	N	
25,3, 10- 12	216.21	.03	+13.9	313.7	+60.4	337.2	N	
25,3, 40- 42	216.51	.05	+65.1	317.9	+77.3	347.2	N	8.9

Table A1 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
25,3, 70- 72	216.81	.73	+67.8	5.4	+63.7	355.3	N	13.8
25,3,100-102	217.11	.02	+73.9	276.7	+71.8	.8	N	9.1
25,3,130-132	217.41	.01	+27.3	49.9	+66.9	356.1	N	12.1
25,4, 10- 12	217.71	.10	+65.2	48.2	+74.7	24.9	N	20.4
25,4, 40- 42	218.01	.01	+29.1	345.6	+68.8	339.9	N	
25,4, 70- 72	218.31	.02	+56.0	64.7	+65.6	21.9	N	9.1
25,4,100-102	218.61	.02	+76.3	12.9	+60.4	7.9	N	
25,4,130-132	218.91	.06	+88.6	61.2	+73.0	13.6	N	4.0
25,5, 10- 12	219.21	.08	+72.3	114.5	+74.0	6.1	N	8.7
25,5, 40- 42	219.51	.05	+66.3	100.3	+55.4	303.1	N	5.5
25,5, 70- 72	219.81	.01	+37.4	156.9	-59.0	162.1	R	
25,5,100-102	220.11	.06	-41.1	244.5	-51.3	226.2	R	2.1
25,5,130-132	220.41	.14	+53.0	177.0	-67.5	230.0	R	
25,6, 10- 12	220.71	.03	+3.1	186.4	-50.7	216.0	R	
25,6, 40- 42	221.01	.04	+76.2	300.0	+74.9	31.1	N	12.2

J_{NRM}, Decl._{NRM}, Incl._{NRM} — intensity, inclination, declination of the natural remanent magnetization; Incl._{stable}, Decl._{stable} — inclination, declination of the stable remanence after AF demagnetization; Pol., N, R — polarity, normal, reversed; MDF — median destructive field.

Table A2. Paleomagnetic properties of samples from Hole 642C.

Core, Section, Interval (cm)	Depth (mbfs)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
1,2, 79- 81	2.30	3.24	+59.6	234.2	+66.1	247.3	N	13.6
1,2,141-143	2.92	8.08	+81.0	197.3	+75.2	261.2	N	21.7
2,1, 41- 43	3.82	32.17	+69.6	129.4	+71.5	133.4	N	25.7
2,1,103-105	4.44	10.74	+60.0	68.8	+68.3	144.6	N	10.9
2,2, 48- 50	5.39	14.01	+74.6	97.7	+72.4	114.6	N	15.4
2,2,106-108	5.97	20.41	+72.9	97.1	+72.9	113.7	N	18.9
2,3, 48- 50	6.89	34.81	+66.3	129.2	+71.4	137.9	N	23.6
2,3,114-116	7.55	46.16	+75.7	142.3	+79.1	150.7	N	25.8
2,4, 48- 50	8.39	14.62	+74.3	101.2	+76.8	113.5	N	21.0
2,4,107-109	8.98	30.73	+66.7	107.0	+67.0	108.7	N	18.6
2,5, 44- 46	9.85	69.30	+73.5	150.0	+75.3	151.7	N	24.1
2,5,114-116	10.55	18.41	+72.5	133.9	+76.4	153.6	N	21.1
2,6, 20- 22	11.11	36.86	+68.4	120.3	+71.1	122.2	N	29.9
2,6, 72- 74	11.63	80.77	+64.7	129.0	+70.9	142.3	N	27.0
2,7, 28- 30	12.69	31.59	+69.9	110.6	+75.3	117.0	N	14.9
3,1, 70- 72	13.91	1.04	+62.3	220.5	+69.4	228.5	N	23.4
3,1,133-135	14.54	10.44	+82.1	186.8	+77.7	220.6	N	31.0
3,2, 40- 42	15.11	17.39	+87.3	177.5	+84.3	235.1	N	29.9
3,2,117-119	15.88	13.96	+82.4	235.6	+81.4	247.7	N	55.5
3,3, 40- 42	16.61	30.39	+79.6	226.7	+77.7	252.0	N	30.0
3,3,117-119	17.38	26.51	+74.5	188.8	+73.9	231.5	N	23.4
3,4, 40- 42	18.11	1.54	+67.7	225.9	+70.6	219.0	N	35.4
3,4,117-119	18.88	14.42	+78.7	149.3	+78.4	214.9	N	24.4
3,5, 40- 42	19.61	49.90	+78.6	218.2	+78.7	237.8	N	30.0
3,5,117-119	20.38	9.69	+85.7	231.7	+81.5	242.6	N	32.4
3,6, 40- 42	21.11	18.08	+17.7	194.7	+69.8	229.6	N	4.5
3,6,117-119	21.88	53.36	-5.3	103.0	+61.8	230.2	N	4.6
3,7, 40- 42	22.61	12.71	+70.5	188.3	+68.6	220.5	N	22.2
4,1, 63- 65	23.74	2.87	+78.7	76.8	-58.6	196.7		5.0
4,1,121-123	24.32	.92	+4.6	301.5	+83.1	344.2	N	30.5
4,2, 64- 66	25.25	31.75	+79.1	124.2	+85.7	69.9	N	27.6
4,2,121-123	25.82	2.16	+65.2	37.6	-56.2	205.1		5.7
4,3, 49- 51	26.60	50.42	+77.4	29.9	+75.8	20.7	N	29.2
4,3,117-119	27.28	47.10	+72.6	4.2	+72.2	357.0	N	28.1
4,4, 45- 47	28.06	77.42	+78.2	39.1	+78.8	39.6	N	25.9
4,4,104-106	28.65	21.33	+79.5	62.1	+84.8	55.9	N	28.1
4,5, 33- 35	29.44	4.23	+86.2	92.5	+81.5	38.6	N	16.7
4,5, 89- 91	30.00	1.61	+73.1	81.4	+69.5	38.8	N	18.8
4,6, 34- 36	30.95	24.69	+62.7	121.5	+80.8	37.3	N	14.1
4,6, 96- 98	31.57	11.04	+80.7	259.7	+87.2	49.2	N	12.5
4,7, 31- 33	32.42	39.07	+84.3	87.6	+85.1	55.1	N	21.3
5,1, 31- 33	33.22	39.42	+74.8	188.5	+76.0	190.5	N	31.3
5,1,100-102	33.91	3.24	-41.4	172.4	-62.7	186.0	R	25.9
5,2, 33- 35	34.74	33.61	-58.1	167.0	-62.9	171.5	R	27.8
5,2,102-104	35.43	12.52	-70.6	165.9	-75.8	175.1	R	29.4

Table A2 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
5,3, 31- 33	36.22	1.26	-25.3	80.6	-65.1	124.2	R	5.4
5,3,100-102	36.91	59.55	-67.0	140.6	-71.7	144.9	R	27.9
5,4, 32- 34	37.73	28.09	-68.8	155.0	-71.5	161.1	R	24.1
5,4,100-102	38.41	.43	-44.8	151.5	-65.4	140.8	R	4.8
5,5, 32- 34	39.23	1.84	-55.3	89.4	-70.0	159.9	R	20.0
5,5,100-102	39.91	12.19	+55.4	11.1	+65.0	351.2	N	38.1
5,6, 32- 34	40.73	10.29	+68.5	35.6	+77.8	22.9	N	26.0
6,1, 42- 44	41.83	34.50	+83.0	134.1	+83.5	169.2	N	26.4
6,1,118-120	42.59	.89	+67.5	104.5	+73.0	200.9	N	13.9
6,2, 44- 46	43.35	21.86	-71.5	59.1	-77.3	21.3	R	37.4
6,2,119-121	44.10	6.93	-55.9	19.7	-66.4	1.6	R	37.8
6,3, 42- 44	44.83	3.74	+80.5	109.4	-63.3	43.3	R	3.3
6,3,118-120	45.59	26.05	-75.9	341.3	-76.9	342.6	R	27.8
6,4, 42- 44	46.33	14.24	-66.8	350.1	-69.8	354.6	R	35.5
6,4,118-120	47.09	17.39	-64.7	19.4	-70.0	358.9	R	28.7
6,5, 43- 45	47.84	19.99	-61.9	26.8	-66.9	7.6	R	35.2
6,5,118-120	48.59	33.27	-71.3	8.7	-70.6	356.1	R	31.4
6,6, 41- 43	49.32	5.41	-9.1	328.7	-68.9	341.8	R	59.6
6,6,118-120	50.09	31.02	-70.1	353.5	-70.7	351.9	R	29.7
7,1, 40- 42	51.31	8.04	-27.0	140.6	-.3	136.6		24.4
7,1,109-111	52.00	.42	+38.4	101.9	+65.4	132.7	N	9.3
7,2, 40- 42	52.81	21.18	+87.9	41.6	+85.4	209.0	N	22.9
7,2,112-114	53.53	12.61	+83.1	190.4	+83.8	186.6	N	19.3
7,3, 40- 42	54.31	2.06	-53.2	35.2	-66.6	21.9	R	42.2
7,3,112-114	55.03	2.46	-12.8	98.6	-70.4	35.9	R	7.9
7,4, 40- 42	55.81	19.92	-73.8	65.3	-68.5	50.4	R	22.1
7,4,112-114	56.53	23.67	-82.5	75.5	-83.5	49.0	R	28.3
8,1, 40- 42	57.51	82.84	+68.6	51.4	+67.1	52.8	N	30.1
8,1,110-112	58.21	5.14	+54.7	128.8	+67.6	31.6	N	28.6
8,2, 40- 42	59.01	4.40	-70.9	188.7	-72.4	190.9	R	60.6
8,2,110-112	59.71	9.14	-66.8	170.2	-72.9	174.1	R	33.1
8,3, 40- 42	60.51	23.12	-84.2	163.6	-80.5	167.5	R	20.3
9,1, 40- 42	61.11	6.00	-65.5	132.7	-60.3	165.6	R	51.1
9,1,110-112	61.81	9.97	-85.9	144.7	-84.1	150.3	R	23.6
10,1, 40- 42	63.91	43.02	+85.3	104.7	+87.4	179.7	N	31.1
10,1,110-112	64.61	15.72	+77.8	167.0	+76.5	181.4	N	27.4
10,6, 42- 44	71.43	4.39	-54.8	228.9	-70.4	271.2	R	67.1
10,6,110-112	72.11	12.25	-68.5	259.0	-73.6	253.4	R	51.5
10,7, 15- 17	72.66	17.53	-82.1	236.1	-79.5	261.2	R	48.5
11,1, 40- 42	73.41	33.45	-74.6	75.0	-75.4	71.1	R	31.6
11,1,110-112	74.11	26.11	-74.7	92.5	-81.7	77.9	R	35.3
11,2, 40- 42	74.91	25.16	-58.0	68.4	-68.8	65.0	R	39.0
11,2,110-112	75.61	21.33	-75.3	93.3	-79.5	75.3	R	38.5
11,3, 40- 42	76.41	21.44	-79.3	32.7	-77.3	52.2	R	35.4

Table A2 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
11,3,110-112	77.11	5.27	+43.6	100.0	-67.5	65.5	R	5.0
11,4, 40- 42	77.91	3.85	-78.9	104.9	-84.0	45.7	R	22.6
11,4,110-112	78.61	7.55	-79.8	78.9	-79.6	41.5	R	52.5
11,5, 40- 42	79.41	.18	-22.3	164.5	-79.7	39.3	R	
11,5,110-112	80.11	.09	+75.6	210.8	+66.9	182.6	N	30.9
11,6, 40- 42	80.91	1.23	+67.3	151.8	+71.2	166.6	N	47.7
11,6,110-112	81.61	.28	-17.4	28.0	+63.8	171.4	N	4.6
11,7, 40- 42	82.41	1.39	+1.7	180.6	+67.1	156.9	N	3.3
12,1, 40- 42	82.91	6.64	+57.9	168.8	+82.6	23.4	N	52.8
12,1,110-112	83.61	1.49	+19.6	286.0	+71.7	8.9	N	3.1
12,2, 40- 42	84.41	2.08	+73.1	177.9	+73.8	4.9	N	3.4
12,2,110-112	85.11	.03	+41.5	174.5	-79.9	197.3	R	
12,3, 40- 42	85.91	.05	-4.2	97.8	-82.2	182.2	R	
12,3,110-112	86.61	.17	+81.2	221.9	-73.1	187.1	R	3.3
12,4, 40- 42	87.41	.48	-65.9	148.0	-68.1	169.4	R	
12,4,110-112	88.11	.12	-2.1	165.3	-72.1	168.8	R	
12,5, 40- 42	88.91	.09	-26.6	149.4	-75.2	174.0	R	
12,5,110-112	89.61	.32	-26.8	147.6	-70.2	186.9	R	
12,6, 40- 42	90.41	.68	-25.0	35.8	-64.4	147.7	R	
12,6,110-112	91.11	5.74	-66.7	174.5	-70.4	169.8	R	
13,1, 40- 42	92.41	1.63	+22.8	138.8	-71.6	216.4	R	28.9
13,1,110-112	93.11	.93	+71.9	155.8	-71.6	217.2	R	14.7
13,2, 40- 42	93.91	.10	+64.5	78.1	-70.8	164.4	R	23.5
13,2,110-112	94.61	.16	+53.7	153.0	+67.9	121.5	N	43.3
13,3, 40- 42	95.41	.19	+47.7	13.5	+70.0	24.7	N	33.4
14,1, 40- 42	101.91	.34	+88.2	88.1	+84.9	16.4	N	28.4
14,1,110-112	102.61	.49	+86.7	60.0	+82.2	8.1	N	8.9
14,2, 40- 42	103.41	.66	+76.5	16.6	+77.8	357.1	N	21.9
14,2,110-112	104.11	.28	+79.9	353.1	+78.7	311.0	N	4.7
14,3, 40- 42	104.91	.25	-18.7	33.9	-68.2	124.3	R	
14,3,110-112	105.61	.28	+26.6	137.4	-61.8	171.6	R	47.9
14,4, 40- 42	106.41	.37	-86.3	167.7	-70.6	155.1	R	49.2
14,4,110-112	107.11	3.28	+77.5	41.7	+82.9	346.8	N	27.4
14,5, 40- 42	107.91	.43	+69.4	44.7	+72.4	329.3	N	19.0
14,5,110-112	108.61	.21	+87.8	144.2	+76.6	336.4	N	18.9
14,6, 40- 42	109.41	.25	+80.1	93.5	+80.7	9.1	N	22.3
14,6,110-112	110.11	.77	+80.7	96.0	+87.9	32.2	N	33.4
14,7, 40- 42	110.91	.25	+77.6	33.1	+75.5	10.4	N	9.7
15,1,110-112	112.11	.07	+81.9	279.6	+81.2	300.4	N	
15,2, 39- 41	112.90	.05	+35.2	272.5	+71.8	286.9	N	
15,2,100-102	113.51	.25	+80.5	359.1	+73.6	291.0	N	
15,3, 39- 41	114.40	.34	+72.5	343.2	+76.5	336.6	N	42.5
15,3,110-112	115.11	.19	+.6	349.1	-80.1	77.8	R	20.9
15,4, 36- 38	115.87	.17	-76.0	104.5	-72.3	101.8	R	32.7
15,4,106-108	116.57	.05	-17.3	39.0	-68.4	47.4	R	28.9
15,5, 36- 38	117.37	.11	-14.8	40.7	-72.5	42.3	R	4.0

Table A2 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
15,5,108-110	118.09	.22	-40.2	19.4	-72.9	30.0	R	11.1
15,6, 35- 37	118.86	.88	+50.2	201.9	+65.9	156.1	N	5.5
15,6,110-112	119.61	1.00	-15.4	29.8	+62.9	178.1	N	3.1
15,7, 40- 42	120.41	.75	-22.3	25.1	-77.2	29.1	R	3.3
16,1, 40- 42	120.91	.99	-41.0	359.2	-73.1	194.4	R	3.1
16,1,110-112	121.61	.42	+77.8	342.7	+75.3	19.1	N	5.2
16,2, 40- 42	122.41	.32	+58.6	346.1	+75.6	17.3	N	3.1
16,2,110-112	123.11	.16	+58.0	41.3	+69.9	34.9	N	5.1
16,3, 40- 42	123.91	.11	+86.1	135.6	+70.7	19.8	N	33.3
16,3,110-112	124.61	.20	+69.2	40.9	+64.8	29.2	N	3.0
16,4, 40- 42	125.41	.40	+73.8	14.0	+68.4	10.3	N	7.9
16,4,110-112	126.11	.23	+65.2	64.8	+70.7	41.1	N	6.6
16,5, 40- 42	126.91	.57	+42.8	334.6	+66.4	38.3	N	4.6
16,5,110-112	127.61	.90	+77.0	.4	+82.9	10.4	N	27.7
16,6, 40- 42	128.41	.36	+78.7	17.9	+77.3	40.6	N	11.9
16,6,110-112	129.11	2.74	+81.1	318.0	+81.5	48.3	N	55.7
17,1, 62- 64	130.63	.19	+68.2	127.9	+76.0	91.4	N	11.9
17,1,122-124	131.23	.02	-17.0	112.9	+85.8	71.2	N	
17,2, 27- 29	131.78	.11	+27.2	39.5	+70.9	128.4	N	2.3
17,2,125-127	132.76	.49	+69.6	360.0	-69.1	276.6	R	17.8
17,3, 36- 38	133.37	3.87	-8.4	195.6	-55.0	267.0	R	3.8
17,3, 90- 92	133.91	.12	+16.8	133.0	+73.1	79.0	N	3.2
17,5, 33- 35	136.34	.14	+60.0	319.4	+67.2	76.8	N	16.3
17,5,118-120	137.19	.32	+4.4	207.4	+80.1	91.9	N	3.9
17,6, 26- 28	137.77	.09	+64.9	37.9	+75.4	89.8	N	10.6
17,6,115-117	138.66	.06	+27.2	25.6	+66.1	82.3	N	16.0
18,1, 60- 62	140.11	.06	+57.2	23.1	+76.1	55.1	N	12.8
18,1,121-123	140.72	.12	+67.1	23.5	+66.9	28.4	N	6.5
18,2, 50- 52	141.51	.05	+79.5	320.9	+80.0	47.2	N	2.1
18,2,100-102	142.01	.05	+60.6	344.1	+65.6	305.4	N	4.2
18,3, 50- 52	143.01	.07	+28.7	24.2	-40.6	182.5	R	11.5
18,3,100-102	143.51	.92	+40.8	160.3	-68.0	154.6	R	19.0
18,4, 50- 52	144.51	.59	+76.6	23.8	+75.9	34.7	N	23.7
18,4,100-102	145.01	.14	+69.2	21.9	+71.7	8.4	N	13.2
18,5, 50- 52	146.01	.08	+65.5	51.1	+71.2	49.0	N	9.2
18,5,100-102	146.51	.05	+85.1	340.0	+73.1	47.6	N	5.8
18,6, 20- 22	147.21	.06	+77.9	315.5	+71.7	39.1	N	11.6
18,6, 71- 73	147.72	.15	+74.6	347.5	+82.2	39.6	N	7.8
19,1, 40- 42	149.41	3.47	+75.4	13.3	+79.0	8.9	N	24.8
19,1,100-102	150.01	.13	-20.2	56.8	-44.7	284.5		
19,2, 50- 52	151.01	.19	+78.6	20.1	+75.5	18.0	N	12.3
19,2,110-112	151.61	.06	+81.1	167.8	+68.5	4.2	N	4.7
19,3, 32- 34	152.33	.03	+74.8	84.5	+69.2	11.3	N	4.9
19,3, 92- 94	152.93	.04	+52.0	145.2	+79.2	15.6	N	2.1
19,4, 33- 35	153.84	.05	+51.9	23.5	+74.2	9.2	N	13.3
19,4, 92- 94	154.43	.05	+74.7	34.0	+76.7	36.3	N	11.6

Table A2 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
19,5, 33- 35	155.34	.03	+60.3	341.3	+70.4	48.0	N	14.6
19,5, 95- 97	155.96	.04	+47.8	2.6	+66.0	23.4	N	16.4
19,6, 33- 35	156.84	.07	+57.3	68.9	+78.1	53.2	N	17.2
19,6, 95- 97	157.46	.26	+71.8	354.1	+78.4	15.9	N	30.8
19,7, 31- 33	158.32	.23	+79.3	315.5	+81.0	26.4	N	4.5
20,1, 45- 47	158.96	.19	+23.4	73.8	+68.9	65.9	N	59.5
20,1, 117-119	159.68	.08	+62.2	353.5	+69.2	5.7	N	42.7
20,2, 45- 47	160.46	.17	+62.6	6.5	+69.2	11.5	N	17.9
20,2, 117-119	161.18	.02	-4.2	52.6	-51.2	167.9	R	
20,3, 47- 49	161.98	.06	+33.9	19.4	+35.9	22.8	N	6.9
20,3, 101-103	162.52	.12	+46.1	53.7	+71.8	27.9	N	8.3
20,4, 45- 47	163.46	.30	+46.5	35.6	+73.0	12.7	N	13.9
20,4, 101-103	164.02	.17	+50.2	46.8	+65.9	33.3	N	14.9
20,5, 47- 49	164.98	.10	+58.3	78.2	+73.7	40.8	N	17.1
20,5, 101-103	165.52	.12	+40.7	27.2	+69.5	18.4	N	20.5
20,6, 47- 49	166.48	.10	+67.2	39.3	+75.3	36.8	N	22.5
20,6, 101-103	167.02	.34	+3.7	290.8	+67.2	19.5	N	33.5
20,7, 47- 49	167.98	3.82	+64.3	54.5	+71.2	47.2	N	33.3
21,1, 42- 44	168.43	.17	+78.9	50.8	+72.9	73.3	N	17.2
21,1, 111-113	169.12	1.72	+74.8	60.2	+74.9	60.3	N	30.2
21,2, 42- 44	169.93	.16	+63.8	38.5	+71.6	59.9	N	17.5
21,2, 111-113	170.62	.14	+68.2	62.5	+71.0	88.6	N	10.9
21,3, 42- 44	171.43	.29	+75.0	76.6	+77.4	59.6	N	21.9
21,3, 111-113	172.12	.26	+85.8	121.3	+81.7	70.3	N	15.9
21,4, 42- 44	172.93	.08	+40.6	54.6	+63.3	57.2	N	4.0
21,4, 112-114	173.63	.18	+71.2	43.1	+69.5	52.2	N	18.5
21,5, 43- 45	174.44	.50	+65.4	106.6	+71.7	85.1	N	39.7
21,5, 113-115	175.14	.20	+70.8	78.7	+69.2	77.9	N	22.4
21,6, 43- 45	175.94	.06	+42.8	70.0	+64.6	59.7	N	8.2
21,6, 113-115	176.64	.08	+69.0	37.1	+71.0	68.0	N	8.6
21,7, 43- 45	177.44	.04	+46.6	328.8	+74.7	47.3	N	14.0
22,1, 50- 52	178.01	.06	+44.6	343.1	+67.9	78.3	N	9.3
22,1, 110-112	178.61	.15	+31.6	56.8	+68.0	86.1	N	12.7
22,2, 40- 42	179.41	.07	+61.6	338.0	-44.5	246.3	R	23.2
22,2, 110-112	180.11	.10	+22.8	197.8	-70.4	250.0	R	6.0
22,3, 40- 42	180.91	.06	+27.5	295.4	-64.3	285.7	R	5.4
22,3, 110-112	181.61	.07	+54.5	21.7	-77.6	286.5	R	19.5
22,4, 40- 42	182.41	.15	+31.4	339.9	-79.6	51.8	R	
22,4, 110-112	183.11	.99	+70.7	65.9	+77.8	58.3	N	46.4
22,5, 40- 42	183.91	.09	+63.9	28.5	+67.9	53.2	N	36.9
23,1, 92- 94	185.23	.57	+65.0	333.8	+71.7	14.0	N	16.7
23,1, 133-135	185.64	.11	+31.6	10.7	+7.7	46.6		4.9
23,2, 28- 30	186.09	.56	+24.3	232.0	-48.4	200.9	R	32.0
23,2, 103-105	186.84	.16	+28.4	71.9	-69.7	219.7	R	3.2
23,3, 28- 30	187.59	.19	+72.1	42.5	+69.7	49.0	N	18.0
23,3, 103-105	188.34	.23	+70.9	.2	+72.1	36.1	N	18.6

Table A2 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
23,4, 41- 43	189.22	.51	+31.0	125.7	+74.5	105.0	N	7.5
23,4,103-105	189.84	.12	+87.2	163.8	+82.5	94.9	N	8.3
23,5, 36- 38	190.67	.11	+72.1	328.7	+85.2	63.4	N	8.1
23,5,103-105	191.34	.16	+75.3	338.6	+71.0	69.3	N	14.1
24,1, 51- 53	192.92	.02	+4.4	52.3	-57.4	135.3	R	18.9
24,1,117-119	193.58	.03	+58.7	36.2	-65.2	201.6	R	3.2
24,2, 51- 53	194.42	.03	-52.5	125.9	-62.7	174.7	R	5.7
24,2,117-119	195.08	.04	+48.4	24.1	-65.8	225.8	R	
24,3, 39- 41	195.80	.21	+72.4	105.3	-63.1	177.0	R	17.4
24,3,117-119	196.58	.09	+48.2	119.8	-19.5	158.9	R	14.5
24,4, 37- 39	197.28	1.20	+47.5	42.5	+60.4	18.0	N	28.3
24,4,100-102	197.91	.22	+67.4	61.4	+70.0	43.2	N	35.2
24,5, 39- 41	198.80	.08	+74.6	47.5	+77.1	37.3	N	36.3
24,5,104-106	199.45	.11	+82.9	82.1	+82.1	14.4	N	14.1

J_{NRM}, Decl._{NRM}, Incl._{NRM} — intensity, inclination, declination of the natural remanent magnetization; Incl._{stable}, Decl._{stable} — inclination, declination of the stable remanence after AF demagnetization; Pol., N, R — polarity, normal, reversed; MDF — median destructive field.

Table A3. Paleomagnetic properties of samples from Hole 642D.

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
2,1, 40- 42	190.31	.37	-40.5	314.7	-57.8	321.6	R	25.2
2,1,110-112	191.01	.06	+52.1	248.3	-58.2	313.8	R	14.2
2,2, 40- 42	191.81	.01	+49.2	209.2	-70.1	294.9	R	
2,2,110-112	192.51	.04	+46.6	224.4	-78.5	341.9	R	8.6
2,3, 40- 42	193.31	.02	+56.5	231.9	-65.8	326.1	R	3.6
2,3,110-112	194.01	.05	+75.7	217.4	-70.4	289.6	R	3.3
2,4, 40- 42	194.81	.04	+79.1	266.5	-68.8	351.8	R	14.7
2,4,110-112	195.51	.04	+85.2	103.7	+79.5	75.1		8.7
2,5, 40- 42	196.31	.11	+68.5	207.4	-54.2	315.6	R	23.5
2,5,110-112	197.01	.08	+79.1	307.5	+75.7	127.3	N	23.5
2,6, 40- 42	197.81	.07	+72.8	144.3	+78.5	133.6	N	24.7
2,6,110-112	198.51	.13	+52.6	123.7	+66.2	122.3	N	18.5
3,1, 40- 42	200.01	.07	+53.8	95.8	+65.7	111.5	N	18.6
3,1,110-112	200.71	.04	+82.9	293.2	+67.5	128.1	N	14.1
3,2, 40- 42	201.51	.04	+73.6	153.8	+75.0	139.0	N	14.4
3,2,110-112	202.21	.07	+66.4	79.3	+78.5	126.7	N	5.8
3,3, 40- 42	203.01	.08	+52.8	140.0	+69.1	139.7	N	17.2
3,3,110-112	203.71	.04	+51.5	128.2	+72.2	124.2	N	
3,4, 40- 42	204.51	.24	+59.9	136.1	+62.5	130.4	N	16.8
3,4,110-112	205.21	.55	+80.2	224.6	+86.9	130.2	N	47.2
3,5, 40- 42	206.01	.04	+4.1	14.1	-34.6	318.5	R	3.7
3,5,110-112	206.71	.02	-14.9	102.9	-70.4	275.9	R	
4,1, 40- 42	209.61	.03	+37.3	340.7	-67.9	51.1	R	24.0
4,1,110-112	210.31	.02	-57.3	51.1	-69.2	56.5	R	
4,2, 40- 42	211.11	.06	-31.5	82.6	-75.7	51.6	R	8.4
4,2,110-112	211.81	.03	+34.8	355.3	-62.9	11.6	R	7.0
4,3, 40- 42	212.61	.81	+21.5	142.7	+26.2	143.9	N	17.0
4,3,110-112	213.31	.02	-17.8	140.4	+72.7	244.6	N	
4,4, 40- 42	214.11	.10	+33.5	268.6	+62.9	231.8	N	21.3
4,4,110-112	214.81	.03	+53.6	148.2	+60.5	247.8	N	3.5
4,5, 40- 42	215.61	.04	+59.6	195.6	+75.8	250.5	N	
4,5,110-112	216.31	.06	+59.3	220.7	+85.8	243.1	N	15.2
4,6, 40- 42	217.11	.09	+78.1	54.0	+80.5	305.3	N	2.8
4,6,110-112	217.81	.06	-60.0	336.9	-70.4	332.4	R	4.9
5,4, 39- 41	223.80	.05	+38.3	97.3	+61.9	76.9	N	8.9
5,4,109-111	224.50	.06	+63.5	59.4	+63.9	54.2	N	
5,6, 39- 41	226.80	.05	+3.7	176.9	+64.8	58.8	N	3.5
5,6,109-111	227.50	.01	-7.4	74.0	-50.8	198.4	R	
5,7, 39- 41	228.30	.02	+73.6	80.1	-60.7	228.2	R	6.0
6,1, 40- 42	228.91	.10	+77.1	159.6	+74.2	119.0	N	26.4
6,1,130-132	229.81	.03	+70.3	73.0	+73.9	100.7	N	6.7
6,2, 40- 42	230.41	.04	+82.4	76.0	+61.8	105.1	N	8.4
6,2,110-112	231.11	.04	+79.1	184.2	+61.6	102.0	N	4.1
6,3, 40- 42	231.91	.14	+79.1	61.1	+83.1	119.5	N	31.1
6,3,110-112	232.61	.06	+70.8	80.8	-48.4	181.9	R	3.1

Table A3 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
6,4, 40- 42	233.41	.02	-27.3	212.0	-65.3	195.5	R	7.1
6,4,110-112	234.11	.08	-47.0	306.1	-76.9	239.2	R	
6,5, 40- 42	234.91	.09	-10.4	81.8	-66.8	252.8	R	3.8
7,1, 40- 42	238.61	.07	+76.2	154.8	+77.8	195.7	N	
7,1,110-112	239.31	.10	+82.4	100.1	+73.0	222.3	N	29.9
7,2, 40- 42	240.11	.18	+15.4	151.1	+67.5	173.9	N	3.8
7,2,110-112	240.81	.53	+84.0	261.3	+83.9	216.2	N	37.4
7,3, 40- 42	241.61	.18	+78.5	236.4	+80.0	205.7	N	18.6
7,3,110-112	242.31	.07	+43.2	192.8	+65.6	206.5	N	4.2
7,4, 40- 42	243.11	.25	+35.7	217.2	+65.0	215.4	N	6.4
7,4,110-112	243.81	.44	+61.1	57.0	+71.6	176.2	N	8.0
7,5, 40- 42	244.61	.03	+70.5	238.4	+70.5	238.4	N	
7,5,110-112	245.31	.05	+60.1	273.2	+66.9	321.9	N	
7,6, 40- 42	246.11	.05	-20.4	38.4	+43.1	37.1	N	
7,6,110-112	246.81	.14	-23.1	119.7	-75.8	166.6		3.4
7,7, 40- 42	247.61	.33	+15.2	120.8	+85.7	273.7	N	2.9
8,1, 40- 42	248.21	.24	+27.6	81.7	+78.2	26.4	N	2.9
8,1,110-112	248.91	.50	+34.7	65.3	+72.6	14.2	N	4.2
8,2, 40- 42	249.71	.18	+85.6	118.7	+68.3	354.3	N	37.6
8,2,110-112	250.41	.07	+65.6	281.2	+69.9	22.7	N	
8,3, 40- 42	251.21	.19	+6.4	359.2	+71.2	45.9	N	
8,3,110-112	251.91	.22	+71.3	350.8	+77.5	356.7	N	22.1
8,4, 40- 42	252.71	.07	+71.1	24.9	+62.2	12.9	N	7.6
8,4,110-112	253.41	.04	+59.5	48.4	+56.8	37.0	N	3.0
8,5, 40- 42	254.21	.06	+57.8	330.7	+57.2	14.0	N	10.6
8,5,110-112	254.91	.05	-54.7	69.2	-62.0	48.7	R	4.2
8,6, 40- 42	255.71	.05	-79.3	237.3	-74.6	245.2	R	13.0
8,6,110-112	256.41	.12	+61.9	291.8	-64.5	261.7	R	9.2
9,1, 50- 52	258.01	.04	+78.6	1.7	-67.1	56.9	R	4.3
9,1,101-103	258.52	.14	-57.4	16.2	-73.5	34.4	R	20.4
9,2, 50- 52	259.51	.02	+69.3	314.6	-75.1	42.2	R	
9,2,101-103	260.02	.12	+82.2	350.3	+75.0	146.1	N	20.3
9,3, 50- 52	261.01	.12	+69.0	109.9	+67.9	197.2	N	16.5
9,3,101-103	261.52	.85	+71.1	218.4	+69.2	218.5	N	15.4
9,4, 50- 52	262.51	.02	+77.2	184.4	+66.2	216.6	N	
9,4,101-103	263.02	.05	+78.2	159.9	+72.8	221.1	N	6.5
9,5, 50- 52	264.01	.06	+78.4	266.2	-46.0	247.1	R	6.6
9,5,101-103	264.52	.14	+27.9	327.7	-65.7	43.9	R	3.7
9,6, 50- 52	265.51	.07	-65.4	346.1	-62.6	8.7	R	
9,6,101-103	266.02	.23	-56.9	79.2	-67.6	85.7	R	3.9
10,1, 43- 45	267.54	.08	+75.7	8.1	-79.8	278.9	R	3.6
10,1,119-121	268.30	.04	+47.2	32.0	-62.6	286.4	R	13.3
10,2, 45- 47	269.06	.02	+5.4	80.4	-68.8	330.9	R	
10,2,123-125	269.84	.04	-8.0	106.3	-61.9	299.4	R	4.6
10,3, 45- 47	270.56	.07	+15.3	111.7	-66.6	334.2	R	34.2
10,3,125-127	271.36	.03	+33.9	317.8	-65.8	344.7	R	

Table A3 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
10,4, 42- 44	272.03	.03	+19.4	287.9	-45.8	301.7	R	
10,4,125-127	272.86	.09	-69.4	308.8	-66.8	306.5	R	11.5
10,5, 42- 44	273.53	.04	-68.8	270.3	-68.7	303.4	R	
10,5,123-125	274.34	.08	+82.4	291.1	+67.6	104.3	N	26.0
10,6, 48- 50	275.09	.09	+29.5	63.0	+75.1	72.0	N	15.7
10,6,127-129	275.88	.05	-5.1	54.3	+68.4	42.9	N	22.5
11,1, 33- 35	277.14	.19	+66.9	260.1	+76.3	332.8	N	11.1
11,1, 75- 77	277.56	.40	+81.8	4.4	+74.2	339.4	N	29.3
11,1,108-110	277.89	14.02	+68.0	167.6	-57.9	155.3	R	22.2
11,2, 33- 35	278.64	51.24	+84.9	188.0	-41.6	221.5	R	8.0
11,2,109-111	279.40	1.76	+40.0	138.7	-79.8	213.6	R	
12,1, 39- 41	286.90	33.49	+78.1	99.4	+75.4	16.8	N	9.5
12,1,110-112	287.61	18.80	+75.0	86.6	+75.7	48.6	N	12.4
12,2, 39- 41	288.40	29.25	+77.0	46.0	+74.1	37.0	N	13.0
12,2,110-112	289.11	9.95	+76.5	52.6	+74.6	29.4	N	11.1
12,3, 39- 41	289.90	10.81	+73.7	89.9	+79.8	59.2	N	7.3
12,3,110-112	290.61	2.28	+84.9	244.9	+82.3	258.1	N	28.6
12,4, 39- 41	291.40	1.32	+81.2	197.5	+63.5	238.2	N	10.4
12,4,110-112	292.11	2.70	+82.3	89.4	+80.8	289.6	N	8.0
12,5, 39- 41	292.90	2.21	+83.9	110.8	+77.8	219.3	N	7.9
12,5,110-112	293.61	.87	+61.8	226.1	-37.3	338.8	R	15.5
12,6, 32- 34	294.33	1.07	+83.5	75.2	-76.7	297.5	R	14.5
12,6,118-120	295.19	.14	-51.3	277.8	-68.1	295.6	R	
13,1, 30- 32	296.51	1.23	+75.9	93.3	-75.7	16.4	R	15.8
13,1, 90- 92	297.11	.55	+77.0	101.9	-39.4	274.0	R	8.5
13,2, 30- 32	298.01	.24	+56.6	96.2	-50.0	291.7	R	7.4
13,2, 90- 92	298.61	.95	+58.3	69.3	-42.7	126.7	R	4.8
13,3, 30- 32	299.51	.48	+75.9	45.5	+81.8	162.3	N	10.2
13,3, 90- 92	300.11	.88	+70.5	52.2	+86.8	142.5	N	6.2
13,4, 30- 32	301.01	.69	+81.6	138.9	+81.1	154.2	N	5.0
13,4, 90- 92	301.61	1.51	+60.8	76.4	-68.0	271.3	R	4.8
13,5, 35- 37	302.56	7.13	-40.5	165.6	-69.3	281.4	R	60.8
14,1, 35- 37	306.16	50.86	+72.5	43.7	+71.9	29.3	N	14.4
14,1,103-105	306.84	20.71	+68.9	66.4	+68.0	45.3	N	25.5
14,2, 33- 35	307.64	34.99	+68.9	124.1	+74.6	108.8	N	28.1
14,2,103-105	308.34	5.54	-15.2	198.9	-69.6	275.5	R	
15,1, 19- 21	315.60	33.64	+52.6	111.1	-47.1	142.6	R	4.1

J_{NRM}, Decl._{NRM}, Incl._{NRM} — intensity, inclination, declination of the natural remanent magnetization; Incl._{stable}, Decl._{stable} — inclination, declination of the stable remanence after AF demagnetization; Pol., N, R — polarity, normal, reversed; MDF — median destructive field.

Table A4. Paleomagnetic properties of samples from Hole 643A.

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
1,2, 16- 18	1.67	1.77	+69.2	134.4	+73.5	136.9	N	28.3
1,2, 60- 62	2.11	23.94	+69.4	77.1	+73.7	79.2	N	22.7
1,2, 96- 98	2.47	76.53	+85.6	113.1	+85.8	93.2	N	25.0
1,2,130-132	2.81	38.65	+76.9	77.2	+77.1	72.1	N	29.9
1,3, 25- 27	3.26	9.86	+63.1	179.4	+69.0	72.9	N	17.7
1,3, 60- 62	3.61	5.24	+77.7	129.7	+75.9	79.2	N	27.4
1,3, 96- 98	3.97	26.80	+77.4	104.1	+81.2	94.1	N	27.7
1,3,135-137	4.36	9.02	+88.2	61.6	+84.3	96.0	N	27.9
1,4, 25- 27	4.76	2.77	+86.8	118.2	+70.8	86.8	N	14.1
2,1, 55- 57	5.86	19.99	+74.9	231.4	+72.4	240.2	N	23.9
2,1, 95- 97	6.26	1.27	+57.3	265.3	+68.8	263.9	N	15.6
2,1,135-137	6.66	21.86	+83.9	335.5	+79.5	280.2	N	14.5
2,2, 24- 26	7.05	66.12	+89.2	233.5	+88.6	228.1	N	24.8
2,2, 55- 57	7.36	16.98	+79.6	292.7	+73.4	271.2	N	14.8
2,2, 95- 97	7.76	80.69	+80.6	236.0	+80.3	247.3	N	27.8
2,2,135-137	8.16	34.03	+86.4	251.4	+84.4	265.9	N	29.0
2,3, 24- 26	8.55	29.19	+77.5	311.1	+75.6	259.4	N	15.8
2,3, 55- 57	8.86	23.14	+85.6	145.1	+78.9	249.1	N	20.2
2,3, 95- 97	9.26	9.68	+61.2	252.7	+79.9	265.5	N	28.5
2,3,135-137	9.66	50.43	+86.6	16.8	+83.2	248.0	N	21.8
2,4, 24- 26	10.05	107.81	+84.8	294.8	+84.0	272.7	N	27.6
2,4, 55- 57	10.36	149.42	+77.5	294.7	+78.5	294.6	N	27.4
2,4, 95- 97	10.76	1.04	+63.6	200.0	+76.0	287.4	N	27.6
2,4,135-137	11.16	29.16	+75.6	287.2	+74.4	291.2	N	28.4
2,5, 24- 26	11.55	37.97	+82.1	278.6	+79.8	285.9	N	26.7
2,5, 55- 57	11.86	10.07	+75.1	179.5	+72.3	287.1	N	16.4
2,5, 95- 97	12.26	41.14	+70.8	284.7	+68.1	280.2	N	21.7
2,5,135-137	12.66	42.38	+81.8	296.8	+83.6	291.7	N	21.3
2,6, 24- 26	13.05	59.01	+86.5	255.7	+84.0	270.8	N	26.6
2,6, 55- 57	13.36	11.76	+62.2	169.0	-61.1	172.1		9.2
2,6, 95- 97	13.76	5.95	+81.0	203.8	+81.2	267.6	N	17.6
2,6,135-137	14.16	.68	+84.8	351.8	+73.6	275.2	N	9.7
2,7, 24- 26	14.55	10.33	+81.9	258.3	+80.8	271.8	N	23.8
3,1, 29- 31	15.10	17.17	+47.3	189.5	+48.1	203.7	N	23.9
3,2, 25- 27	16.56	14.89	+60.6	165.2	+62.1	162.7	N	21.5
3,2, 55- 57	16.86	19.12	+78.1	139.3	+64.6	158.4	N	23.9
3,2, 95- 97	17.26	10.97	+79.6	66.6	+68.9	151.9	N	20.0
3,2,135-137	17.66	.68	+55.5	179.2	+76.1	152.1	N	38.8
3,3, 25- 27	18.06	5.40	+67.0	97.3	+66.5	163.1	N	32.8
3,3, 55- 57	18.36	1.45	+69.4	203.6	+75.7	157.8	N	49.3
3,3, 95- 97	18.76	8.23	+50.0	124.5	+68.4	153.2	N	23.0
3,4, 25- 27	19.56	3.26	-3.2	194.9	+81.5	143.6	N	3.0
3,4, 55- 57	19.86	3.65	+31.5	186.7	+59.9	141.4	N	26.2
3,4, 95- 97	20.26	6.79	+38.4	30.4	+64.5	142.0	N	3.6
3,4,135-137	20.66	10.01	+70.7	136.8	+63.4	147.1	N	7.1
3,5, 25- 27	21.06	3.67	+50.0	118.9	+65.5	144.7	N	35.3
3,5, 55- 57	21.36	34.66	+82.3	116.4	+80.8	135.0	N	5.1

Table A4 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
3,5, 95- 97	21.76	16.20	+60.4	146.0	+61.3	146.2	N	23.7
3,5,135-137	22.16	15.90	+50.8	164.3	+67.6	137.8	N	19.0
3,6, 25- 27	22.56	8.37	+69.1	143.6	+83.8	134.0	N	4.9
3,6, 55- 57	22.86	49.08	+63.3	82.7	+59.3	135.7	N	4.4
3,6, 95- 97	23.26	1.28	+2.1	168.3	+70.1	141.5	N	32.9
3,6,135-137	23.66	14.18	+86.8	153.7	+69.3	132.1	N	3.0
3,7, 25- 27	24.06	33.87	+66.6	107.1	+65.6	135.7	N	14.2
3,7, 54- 56	24.35	29.85	+27.5	152.7	+84.9	145.4	N	38.9
4,1, 25- 27	24.56	19.08	+72.3	199.4	+74.6	206.1	N	28.9
4,1, 55- 57	24.86	12.48	+49.2	189.6	+62.7	187.4	N	5.7
4,1, 95- 97	25.26	6.44	+75.0	194.5	+84.3	184.5	N	33.1
4,1,135-137	25.66	6.06	+80.9	47.9	+70.7	206.0	N	32.1
4,2, 25- 27	26.06	3.46	+36.5	193.3	+80.0	182.5	N	44.6
4,2, 55- 57	26.36	6.95	+52.7	126.5	+70.8	139.3	N	39.9
4,2, 95- 97	26.76	39.91	-79.9	353.8	-79.2	355.4	R	30.7
4,2,135-137	27.16	57.08	-83.3	351.9	-81.9	351.1	R	30.5
4,3, 25- 27	27.56	26.49	-68.5	30.1	-70.2	22.5	R	30.2
4,3, 55- 57	27.86	31.89	-82.6	39.5	-83.9	18.9	R	27.5
4,3, 95- 97	28.26	6.46	-75.5	267.3	-80.5	1.8	R	39.5
4,3,135-137	28.66	20.73	-81.6	41.3	-79.7	9.0	R	28.8
4,4, 25- 27	29.06	50.60	-78.6	20.4	-77.8	.6	R	28.9
4,4, 55- 57	29.36	42.55	-61.9	308.7	-78.9	355.7	R	26.2
4,4, 95- 97	29.76	36.70	-75.0	59.9	-78.8	47.4	R	30.6
4,4,131-133	30.12	27.48	+84.0	211.8	+85.3	186.1	N	28.1
4,5, 25- 27	30.56	10.15	+71.0	7.4	+82.8	196.1	N	18.4
4,5, 55- 57	30.86	.85	+76.0	218.8	+71.4	206.7	N	10.1
4,5, 95- 97	31.26	55.14	+87.8	183.4	+85.6	189.7	N	23.4
4,5,135-137	31.66	22.39	+78.7	190.9	+83.2	185.2	N	33.6
4,6, 25- 27	32.06	2.38	-53.3	228.6	+75.1	185.9	N	16.0
4,6, 55- 57	32.36	.32	+64.0	144.9	+80.3	144.5	N	13.2
4,6, 95- 97	32.76	11.77	-58.3	129.6	-67.8	112.1	R	24.8
4,6,135-137	33.16	30.67	-70.2	57.4	-77.2	32.8	R	35.3
4,7, 25- 27	33.56	6.17	+70.5	102.9	-63.6	21.3	R	8.8
4,7, 55- 57	33.86	1.68	+65.2	254.3	-69.5	357.8	R	4.1
5,1, 25- 27	34.06	6.43	+56.5	95.2	+65.6	320.3		12.7
5,1, 55- 57	34.36	16.52	-66.3	140.2	-76.3	153.6	R	36.4
5,1, 95- 97	34.76	10.44	-58.6	137.1	-68.4	140.3	R	23.0
5,1,135-137	35.16	.82	-45.5	102.3	-64.0	116.9	R	
5,2, 25- 27	35.56	41.90	-71.7	116.4	-74.8	118.5	R	28.5
5,2, 55- 57	35.86	8.14	-80.7	116.7	-81.8	121.0	R	30.3
5,2, 95- 97	36.26	21.97	-79.4	98.2	-80.6	114.5	R	28.5
5,2,135-137	36.66	9.57	-76.6	100.8	-79.8	103.6	R	30.9
5,3, 25- 27	37.06	43.88	-72.6	94.9	-78.2	102.2	R	33.0
5,3, 55- 57	37.36	31.49	-76.4	99.1	-79.2	114.4	R	31.0
5,3, 95- 97	37.76	1.68	-55.0	109.9	-64.4	121.6	R	28.1
5,3,135-137	38.16	14.20	-87.5	205.6	-82.7	109.2	R	22.9
5,4, 25- 27	38.56	10.45	-57.4	110.6	-68.8	106.6	R	18.0
5,4, 55- 57	38.86	41.39	-72.0	103.7	-74.2	106.7	R	31.3

Table A4 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
5,4, 95- 97	39.26	22.20	-78.7	99.0	-78.8	103.1	R	30.4
5,4,135-137	39.66	.19	-36.8	84.8	-66.0	108.1	R	
5,5, 24- 26	40.05	36.30	-78.8	112.2	-81.9	113.6	R	26.0
5,5, 54- 56	40.35	8.65	-80.4	91.3	-80.4	110.1	R	32.7
5,5, 94- 96	40.75	12.22	-78.6	224.6	-69.9	115.7	R	22.5
5,5,134-136	41.15	31.01	-84.4	119.5	-83.2	124.2	R	28.5
5,6, 25- 27	41.56	17.24	-85.9	127.6	-83.5	125.7	R	25.8
5,6, 55- 57	41.86	17.63	-86.0	159.0	-82.7	118.4	R	32.4
5,6, 95- 97	42.26	14.81	-82.7	156.4	-74.9	114.7	R	29.6
5,6,135-137	42.66	.09	-86.3	54.8	-84.0	111.8	R	23.5
5,7, 7- 9	42.88	3.57	-84.6	190.6	-80.7	108.3	R	34.5
6,1, 25- 27	43.56	.14	+25.5	124.4	-64.0	72.6	R	
6,1, 54- 56	43.85	.73	-30.0	133.6	-74.4	77.2	R	
6,1, 94- 96	44.25	23.90	-63.8	106.3	-68.1	81.1	R	37.7
6,1,134-136	44.65	17.91	-56.3	94.6	-67.7	97.7	R	36.7
6,2, 25- 27	45.06	15.13	-74.4	37.7	-76.8	70.0	R	31.9
6,2, 55- 57	45.36	17.10	-89.2	305.3	-82.4	70.6	R	35.1
6,2, 95- 97	45.76	1.66	-20.6	13.7	-65.2	99.4	R	
6,2,135-137	46.16	.11	-24.9	94.8	-82.5	93.5	R	
6,3, 25- 27	46.56	13.39	-68.6	99.1	-75.3	99.9	R	32.3
6,3, 55- 57	46.86	48.05	-83.2	118.3	-85.5	94.5	R	28.6
6,3, 95- 97	47.26	11.04	-80.3	19.2	-84.9	105.0	R	29.1
6,3,135-137	47.66	44.50	-60.0	113.6	-69.5	104.2	R	29.5
6,4, 25- 27	48.06	37.85	-63.4	114.6	-75.8	109.6	R	24.3
6,4, 55- 57	48.36	33.22	-53.8	89.4	-73.3	85.6	R	36.1
6,4, 95- 97	48.76	3.11	-61.8	89.5	-72.9	87.4	R	14.7
6,4,113-115	48.94	5.50	-44.2	89.4	-61.4	75.4	R	16.3
6,5, 25- 27	49.56	36.38	-58.5	79.3	-63.8	80.1	R	24.5
6,5, 55- 57	49.86	13.37	+58.8	110.8	+81.3	211.3	N	39.7
6,5, 95- 97	50.26	4.79	-9.7	126.1	+74.8	209.6	N	47.1
6,5,135-137	50.66	4.53	+17.8	85.6	+85.5	211.2	N	33.9
6,6, 25- 27	51.06	10.56	+40.8	147.1	+86.1	214.2	N	48.3
6,6, 55- 57	51.36	47.71	+81.3	120.8	+78.5	201.6	N	23.2
6,6, 95- 97	51.76	24.67	+87.5	129.4	+84.8	229.3	N	35.8
7,1, 30- 32	53.11	41.98	+77.1	62.0	+73.1	79.8	N	22.7
7,1, 72- 74	53.53	45.39	+78.3	95.7	+78.0	91.0	N	30.5
7,1,101-103	53.82	31.65	+71.7	78.2	+71.8	76.5	N	24.8
7,1,133-135	54.14	3.15	+44.1	97.8	+65.9	78.3	N	46.2
7,2, 23- 25	54.54	7.39	-87.7	281.4	-78.1	245.2	R	25.9
7,2, 59- 61	54.90	1.29	-56.1	176.7	-73.4	221.4	R	
7,2,100-102	55.31	13.20	-87.3	161.5	-83.1	239.5	R	34.1
7,2,132-134	55.63	7.96	-69.5	128.5	-78.4	178.1	R	9.9
7,3, 25- 27	56.06	2.06	-17.6	133.3	-62.7	249.5	R	
7,3, 57- 59	56.38	32.95	-74.1	249.1	-71.8	267.6	R	33.2
7,3, 99-101	56.80	17.96	-73.7	257.5	-70.3	289.3	R	46.4
7,3,132-134	57.13	24.36	-80.4	334.4	-75.2	299.1	R	35.8
7,4, 23- 25	57.54	24.81	-63.0	307.6	-72.1	328.7	R	40.4
7,4, 58- 60	57.89	30.39	-71.7	344.9	-66.6	341.5	R	34.5

Table A4 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
7,4, 94- 96	58.25	26.13	-61.8	22.8	-65.9	15.9	R	26.7
7,4,128-130	58.59	6.24	+13.8	159.5	-65.5	220.7	R	23.6
7,5, 24- 26	59.05	27.43	+53.5	108.2	+56.8	117.0	N	27.0
7,5, 56- 58	59.37	25.35	+.3	163.5	-1.3	169.4		36.9
7,5, 94- 96	59.75	4.65	-55.4	191.1	-65.6	224.0	R	
7,5,126-128	60.07	3.01	-36.1	94.4	-68.4	275.5	R	
7,6, 19- 21	60.50	1.94	+3.4	88.4	-82.2	279.4	R	38.5
8,1, 40- 42	62.71	2.11	-6.2	61.6	-65.6	352.7	R	
8,1, 71- 73	63.02	2.04	-44.3	105.3	-65.9	120.0	R	21.7
8,1,106-108	63.37	7.99	+71.0	159.6	+73.6	165.0	N	22.6
8,1,137-139	63.68	1.11	+71.5	193.7	-54.2	215.1	R	17.1
8,2, 24- 26	64.05	2.88	+61.1	250.4	-73.1	269.1	R	8.8
8,2, 55- 57	64.36	5.18	+68.2	193.4	+72.7	193.7	N	33.7
8,2, 89- 91	64.70	.45	+65.3	310.9	+73.6	214.3	N	
8,2,130-132	65.11	2.55	+70.7	44.5	+71.5	352.4	N	16.7
8,3, 24- 26	65.55	6.46	-72.7	75.8	-76.7	67.3	R	24.6
8,3, 57- 59	65.88	.47	-31.0	77.7	-67.3	42.2	R	60.9
8,3, 94- 96	66.25	17.45	-44.7	61.9	-63.1	48.0	R	28.5
8,3,131-133	66.62	14.02	-63.0	52.6	-68.0	35.2	R	24.3
8,4, 24- 26	67.05	.90	-48.9	78.5	-64.8	45.8	R	66.8
8,4, 57- 59	67.38	6.17	-26.8	83.0	-68.3	55.9	R	12.1
8,4, 93- 95	67.74	.30	-58.4	95.9	-70.3	50.4	R	
8,4,131-133	68.12	.09	-47.2	93.9	-79.4	38.0	R	14.2
8,5, 24- 26	68.55	.17	+65.6	70.2	+64.6	62.6	N	47.8
8,5, 58- 60	68.89	.26	+70.4	115.2	+65.3	181.8	N	12.8
8,5, 93- 95	69.24	.09	-1.9	111.7	+58.2	175.2	N	32.8
8,5,131-133	69.62	.08	+32.4	120.2	+57.6	189.1	N	25.4
8,6, 24- 26	70.05	22.56	+76.0	197.6	+76.8	205.1	N	38.6
8,6, 57- 59	70.38	2.26	+7.4	118.4	+62.1	155.2	N	36.4
8,6, 92- 94	70.73	10.65	-63.9	111.9	-65.9	108.8		34.9
8,6,132-134	71.13	28.03	+73.7	215.8	+71.7	220.0	N	30.7
9,1, 25- 27	72.06	15.00	+77.0	119.3	+74.6	104.7	N	29.0
9,1, 55- 57	72.36	13.23	+66.1	108.7	+71.0	99.2	N	40.7
9,1, 95- 97	72.76	23.50	+82.3	99.4	+74.3	98.2	N	36.6
9,1,135-137	73.16	12.88	+73.3	82.8	+73.0	83.7	N	36.0
9,2, 20- 22	73.51	20.02	+36.7	85.7	+36.4	85.3	N	39.1
9,2, 55- 57	73.86	19.95	+75.9	133.0	+75.2	96.8	N	34.3
9,2, 95- 97	74.26	13.27	+73.4	110.9	+73.9	110.1	N	36.6
9,2,135-137	74.66	17.03	+70.4	115.2	+67.4	114.2	N	44.8
9,3, 25- 27	75.06	16.46	+70.5	60.0	+66.6	69.0	N	34.5
9,3, 55- 57	75.36	20.75	+65.7	72.5	+67.0	67.8	N	27.7
9,3, 95- 97	75.76	12.11	+58.2	72.7	+64.9	70.9	N	35.0
9,3,135-137	76.16	20.59	+70.9	61.2	+70.6	62.6	N	30.3
9,4, 25- 27	76.56	17.30	+71.0	86.4	+69.5	86.0	N	33.0
9,4, 55- 57	76.86	12.26	+74.2	10.8	+71.7	67.3	N	28.3
9,4, 95- 97	77.26	15.26	+76.5	58.5	+74.0	63.8	N	31.6
9,4,135-137	77.66	8.80	+74.1	84.8	+72.5	69.5	N	30.1
9,5, 25- 27	78.06	1.52	+33.4	25.3	-73.8	229.0	R	3.4

Table A4 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
9,5, 55- 57	78.36	10.39	-75.4	252.4	-73.3	249.6	R	36.0
9,5, 95- 97	78.76	1.96	-73.6	168.5	-69.3	247.5	R	
9,6, 25- 27	79.56	3.03	+62.8	100.1	-63.6	222.7	R	8.8
9,6, 57- 59	79.88	.76	-14.3	109.3	-80.2	147.0	R	4.4
9,6, 95- 97	80.26	5.61	+56.9	5.4	+63.4	26.3		31.2
9,6,135-137	80.66	1.52	+37.2	97.6	-66.9	110.7	R	5.3
9,7, 25- 27	81.06	2.92	+62.4	162.5	-72.6	143.2	R	7.3
10,1, 55- 57	81.86	2.59	-56.6	188.2	-69.2	201.4	R	47.2
10,1, 95- 97	82.26	4.22	-73.7	166.8	-78.3	192.1	R	38.3
10,1,135-137	82.66	9.33	-64.8	202.0	-68.9	198.0	R	36.5
10,2, 25- 27	83.06	.56	+73.9	74.5	+67.8	22.6	N	7.5
10,2, 55- 57	83.36	1.30	+87.6	15.8	+73.4	26.2	N	9.7
10,2, 95- 97	83.76	3.77	+70.1	49.0	+67.4	22.4	N	25.2
10,2,135-137	84.16	4.75	+75.4	86.0	+73.6	27.9	N	22.2
10,3, 25- 27	84.56	12.19	+67.6	12.9	+67.4	10.1	N	32.5
10,3, 95- 97	85.26	4.79	+77.9	52.3	+70.6	35.8	N	28.5
10,3,135-137	85.66	2.35	+7.5	228.5	-21.4	231.9		34.3
10,4, 25- 27	86.06	1.35	+70.3	333.7	+66.2	.4	N	8.2
10,4, 55- 57	86.36	1.06	+67.6	330.2	+73.7	328.5	N	47.5
10,4, 95- 97	86.76	.38	+69.8	335.7	+74.0	344.3	N	8.6
10,4,135-137	87.16	3.34	+22.9	345.8	+77.1	358.9	N	38.9
10,5, 25- 27	87.56	.12	+42.8	109.8	+70.6	29.4	N	11.3
10,5, 55- 57	87.86	.11	+70.3	30.6	+73.7	11.0	N	8.1
10,5, 95- 97	88.26	.08	+65.7	29.2	+65.7	34.0	N	
10,6, 25- 27	89.06	.04	+63.4	36.1	+73.0	25.0	N	
10,6, 55- 57	89.36	.12	+75.8	6.8	+74.3	20.9	N	5.8
10,6, 95- 97	89.76	.15	+65.3	13.0	+63.8	20.7	N	25.3
10,6,135-137	90.16	.19	+69.9	83.6	+74.4	10.1	N	27.4
10,7, 25- 27	90.56	.27	+74.6	73.1	+66.5	22.9	N	32.4
11,1, 25- 27	91.06	.29	+60.6	97.0	-65.6	204.8	R	4.8
11,1, 55- 57	91.36	.09	+68.1	175.4	-62.2	190.5	R	8.2
11,1, 95- 97	91.76	.20	-66.7	203.9	-64.8	206.2	R	13.1
11,1,135-137	92.16	.35	-63.9	222.6	-68.5	208.2	R	30.4
11,2, 25- 27	92.56	.37	+60.9	334.2	-69.4	268.7	R	3.9
11,2, 55- 57	92.86	.30	-76.0	304.9	-68.6	275.6	R	6.4
11,2, 95- 97	93.26	.16	-14.3	14.3	-71.5	338.4	R	4.6
11,2,135-137	93.66	.64	+80.6	280.5	+74.5	221.0	N	14.0
11,3, 25- 27	94.06	.93	+36.9	245.1	+72.5	223.0	N	15.0
11,3, 55- 57	94.36	.18	+57.5	228.5	+62.3	231.7	N	8.0
11,3, 95- 97	94.76	.24	-39.9	151.7	-74.7	122.5	N	29.8
11,3,135-137	95.16	.08	+67.7	318.8	+81.6	231.1	N	9.8
11,4, 25- 27	95.56	.18	+71.4	252.4	+59.2	250.0	N	23.5
11,4, 55- 57	95.86	.97	-46.6	113.3	-75.4	21.1	R	
11,4, 95- 97	96.26	.42	-41.1	104.9	-81.8	42.5	R	13.9
11,4,135-137	96.66	.19	+36.9	26.9	-63.5	34.4	R	
11,5, 25- 27	97.06	.83	-51.7	36.2	-68.0	55.9	R	7.7
11,5, 55- 57	97.36	.45	-25.9	79.5	-63.1	30.6	R	14.2
11,5, 95- 97	97.76	.10	+66.8	166.8	+65.1	193.2	N	14.6

Table A4 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
11,5,135-137	98.16	.15	+61.0	99.1	+69.6	191.1	N	24.7
11,6, 25- 27	98.56	.16	+84.6	80.8	+79.2	174.1	N	4.6
11,6, 55- 57	98.86	.11	-38.3	233.8	-63.7	148.7	N	7.7
11,6, 95- 97	99.26	.10	+56.4	127.2	+59.3	116.8	N	12.0
11,6,135-137	99.66	.32	+54.5	129.3	+66.8	98.5	N	12.2
11,7, 25- 27	100.06	.81	+27.6	98.2	+61.4	83.0	N	36.1
12,1, 25- 27	100.56	.38	+60.8	71.7	+68.1	151.3	N	9.2
12,1, 55- 57	100.86	.20	-57.7	46.2	-61.4	348.9		
12,1, 95- 97	101.26	.14	+72.2	91.8	+80.8	126.9	N	
12,1,135-137	101.66	.16	-37.2	63.2	-67.2	45.2		19.7
12,2, 25- 27	102.06	.18	+62.5	87.7	+61.2	86.7	N	
12,2, 55- 57	102.36	.45	+67.7	58.1	+67.1	54.1	N	29.8
12,2, 95- 97	102.76	.26	+48.4	75.8	+67.1	49.4	N	22.6
12,2,135-137	103.16	.50	+68.1	80.7	+68.4	58.9	N	19.1
12,3, 25- 27	103.56	.25	+67.8	71.7	+63.4	68.7	N	
12,3, 55- 57	103.86	.14	+53.3	49.6	+67.9	62.0	N	38.2
12,3, 95- 97	104.26	.25	+70.5	56.9	+65.9	66.8	N	
12,3,135-137	104.66	.12	-65.8	102.6	-67.7	176.8		
12,4, 25- 27	105.06	.28	+63.6	47.1	+65.4	46.7	N	
12,4, 55- 57	105.36	.10	+83.4	97.4	+75.2	63.1	N	6.9
12,4, 95- 97	105.76	.54	+68.3	100.9	+71.5	63.0	N	14.6
12,4,135-137	106.16	.17	+64.5	65.7	+70.4	55.8	N	34.9
12,5, 25- 27	106.56	.29	+61.6	73.0	+60.8	58.0	N	40.8
12,5, 55- 57	106.86	.19	+66.1	64.4	+67.9	54.3	N	61.2
12,5, 95- 97	107.26	.27	+72.9	64.1	+70.1	62.6	N	30.1
12,6, 25- 27	108.06	.32	+64.7	70.0	+63.2	65.6	N	37.4
12,6, 55- 57	108.36	.14	+54.1	63.2	+63.4	50.9	N	30.7
12,6, 95- 97	108.76	.24	+71.3	99.0	+71.9	59.1	N	28.8
12,6,135-137	109.16	.41	+70.9	37.3	+67.4	53.8	N	8.5
12,7, 26- 28	109.57	.07	-39.4	82.9	-67.6	103.7		23.8
13,1, 25- 27	110.06	.23	+26.5	44.0	+64.5	20.3	N	32.8
13,1, 55- 57	110.36	.25	+81.0	74.2	+72.0	46.0	N	65.6
13,1, 95- 97	110.76	.28	+54.6	60.4	+66.1	43.6	N	17.8
13,1,135-137	111.16	.23	+48.8	37.0	+59.1	25.4	N	8.3
13,2, 25- 27	111.56	.15	+36.9	109.8	+85.3	39.6	N	
13,2, 54- 56	111.85	.08	+46.6	58.0	+68.2	44.1	N	31.2
13,2, 95- 97	112.26	.26	+57.8	129.5	+76.6	64.6	N	3.9
13,2,135-137	112.66	.24	-24.0	353.8	+59.4	50.8	N	20.2
13,3, 25- 27	113.06	.31	+43.9	83.1	+63.2	55.9	N	3.8
13,3, 55- 57	113.36	.49	+46.7	71.8	+60.3	49.9	N	4.1
13,3, 95- 97	113.76	1.18	+59.9	1.7	+76.4	26.3	N	22.0
13,3,135-137	114.16	.29	+77.1	46.0	+70.1	33.7	N	21.2
13,4, 25- 27	114.56	.09	+8.2	59.7	-21.4	344.6	R	11.9
13,4, 55- 57	114.86	.05	-70.3	183.4	-60.4	170.9	R	3.0
13,4, 95- 97	115.26	.07	-61.9	233.8	-61.5	224.0	R	
13,4,135-137	115.66	.13	+61.7	164.3	+66.6	38.0	N	28.1
13,5, 25- 27	116.06	.06	-1.6	118.2	+62.7	24.0	N	
13,5, 55- 57	116.36	.12	-84.1	113.4	-72.6	192.4	R	

Table A4 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
13,5, 95- 97	116.76	.22	+23.3	101.4	-66.5	195.6	R	19.1
13,6, 25- 27	117.56	.10	+36.2	93.6	-73.0	210.8	R	9.9
13,6, 55- 57	117.86	.06	-49.5	174.2	-68.6	187.2	R	7.8
13,6, 95- 97	118.26	.09	-73.8	230.2	-66.7	186.4	R	
13,6,135-137	118.66	.08	+13.1	89.4	-61.0	158.3	R	
13,7, 25- 27	119.06	.06	-74.3	223.6	-74.4	200.1	R	
14,1, 25- 27	119.56	.06	-7.2	55.0	-51.2	66.3	R	9.7
14,1, 57- 59	119.88	.21	+30.6	42.7	+59.3	53.0	N	41.7
14,1, 83- 85	120.14	.12	+9.0	84.6	+77.4	93.2	N	
14,1,135-137	120.66	.10	+42.5	67.8	+75.1	74.1	N	9.9
14,2, 25- 27	121.06	.51	+75.2	32.6	+77.7	127.1	N	8.5
14,2, 55- 57	121.36	.12	-74.1	346.4	-74.8	349.9	R	
14,2, 95- 97	121.76	.02	-25.0	66.2	-78.3	333.1	R	
14,2,135-137	122.16	.09	-14.1	332.1	-66.4	342.0	R	
14,3, 25- 27	122.56	.05	-61.4	303.7	-76.8	334.4	R	
14,3, 55- 57	122.86	.29	-71.3	306.2	-70.3	304.2	R	69.4
14,3, 95- 97	123.26	.10	-30.0	283.6	-63.4	316.7	R	
14,3,135-137	123.66	.04	-25.9	350.8	-77.1	315.0	R	
14,4, 25- 27	124.06	.13	+73.3	67.7	-65.6	20.8	R	5.8
14,4, 55- 57	124.36	.07	-52.6	98.9	-79.0	27.9	R	
14,4, 95- 97	124.76	.11	-46.9	70.1	-66.5	53.6	R	
14,4,135-137	125.16	.19	-73.1	31.3	-71.6	21.3	R	46.4
14,5, 25- 27	125.56	.05	-7.5	60.5	-70.0	12.7	R	
14,5, 55- 57	125.86	.12	-50.3	59.4	-61.2	44.4	R	45.0
14,5, 95- 97	126.26	.11	+1.1	32.6	-66.7	7.3	R	
14,5,135-137	126.66	.16	-61.9	96.6	-71.4	16.4	R	17.9
14,6, 25- 27	127.06	.16	+42.3	98.2	-71.2	13.5	R	12.8
14,6, 55- 57	127.36	.18	-69.0	327.8	-67.5	4.9	R	48.8
14,6, 95- 97	127.76	.09	+12.0	101.8	-74.9	39.3	R	14.7
15,1, 25- 27	129.06	.02	-28.9	176.8	-75.4	263.2	R	
15,1, 55- 57	129.36	.07	-78.8	251.8	-80.6	261.8	R	
15,1, 95- 97	129.76	.01	+15.4	177.2	-62.3	254.8	R	
15,1,135-137	130.16	.09	-21.5	120.4	-83.1	259.6	R	
15,2, 25- 27	130.56	.05	+53.4	225.1	-79.1	239.5	R	9.7
15,2, 55- 57	130.86	.02	+23.5	98.5	-54.2	250.1	R	
15,2, 95- 97	131.26	.02	-60.9	252.5	-66.1	251.1	R	
15,2,135-137	131.66	.08	-62.1	218.7	-64.9	236.8	R	3.3
15,3, 25- 27	132.06	.20	-77.3	227.7	-74.4	216.1	R	9.4
15,3, 55- 57	132.36	.08	-31.4	209.5	-59.9	218.1	R	18.0
15,3, 95- 97	132.76	.09	+26.8	123.0	-75.4	234.7	R	33.0
15,3,135-137	133.16	.09	+13.9	231.5	-65.8	223.2	R	4.7
15,4, 25- 27	133.56	.07	-37.6	206.8	-71.2	218.7	R	38.3
15,4, 55- 57	133.86	.05	+56.2	244.1	-66.2	227.5	R	9.0
15,4, 95- 97	134.26	.07	-8.5	181.6	-63.4	184.4	R	
15,4,135-137	134.66	.10	+80.7	123.3	+72.5	121.3	N	13.8
15,5, 25- 27	135.06	.30	+20.3	136.6	+64.7	126.9	N	32.6
15,5, 55- 57	135.36	.40	+52.7	107.7	+67.6	106.8	N	
15,5, 95- 97	135.76	.84	+86.8	272.0	+70.3	129.5	N	38.7

Table A4 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
15,6, 25- 27	136.56	.50	+63.7	114.6	+65.0	114.4	N	25.3
15,6, 55- 57	136.86	.18	+79.4	245.5	+75.6	119.0	N	14.4
15,6, 95- 97	137.26	.12	+61.9	321.2	+70.2	125.7	N	
15,6,135-137	137.66	.28	+79.2	113.0	+73.9	107.5	N	31.7
15,7, 25- 27	138.06	.46	+44.9	315.4	+69.8	322.8	N	36.0
16,1, 25- 27	138.56	.16	+40.9	169.3	-59.0	168.3	R	
16,1, 55- 57	138.86	.21	+81.0	192.8	-75.5	121.9	R	12.7
16,1, 95- 97	139.26	.08	+34.1	174.6	-36.6	131.2	R	
16,1,135-137	139.66	.19	+47.2	356.9	+48.5	40.9	N	5.2
16,2, 25- 27	140.06	.17	+69.4	317.6	+68.2	28.6	N	4.7
16,2, 51- 53	140.32	.35	+73.2	322.5	+75.3	20.4	N	34.2
16,2, 95- 97	140.76	.31	+76.3	55.1	+73.9	24.7	N	24.0
16,2,135-137	141.16	.25	+74.4	324.1	+68.6	5.2	N	19.4
16,3, 25- 27	141.56	.13	+53.2	95.0	+63.1	37.3	N	19.9
16,3, 51- 53	141.82	.09	+71.6	64.8	+71.4	27.6	N	12.1
16,3, 95- 97	142.26	.13	+67.9	83.0	+74.7	41.9	N	22.0
16,3,135-137	142.66	.15	-15.8	73.1	-51.9	66.2	R	15.4
16,4, 25- 27	143.06	.19	-43.5	97.9	-79.9	198.6	R	14.5
16,4, 51- 53	143.32	.03	-38.0	113.5	-75.9	213.3	R	
16,4, 95- 97	143.76	.02	+17.3	73.6	-84.2	210.2	R	
16,4,135-137	144.16	.26	-50.4	89.2	-76.5	141.0	R	13.1
16,5, 25- 27	144.56	.11	+61.3	99.4	-71.0	160.8	R	5.8
16,5, 51- 53	144.82	.03	+42.8	13.5	-63.9	164.3	R	24.0
16,5, 95- 97	145.26	.06	+44.9	94.0	-50.0	189.7	R	5.5
16,5,125-127	145.56	.27	-36.7	257.3	-72.8	197.5	R	18.7
16,6, 25- 27	146.06	.16	-51.2	256.1	-80.1	216.4	R	
16,6, 51- 53	146.32	.12	-76.0	98.6	-84.8	228.3	R	
16,6, 95- 97	146.76	.09	+17.5	281.6	-60.3	226.1	R	6.6
16,6,135-137	147.16	.81	-55.1	252.9	-80.1	239.8	R	20.1
16,7, 25- 27	147.56	1.33	-47.3	264.1	-72.1	259.9	R	17.6
17,1, 25- 27	148.06	1.55	+35.0	98.7	-41.4	98.0	R	25.8
17,1, 55- 57	148.36	.66	-32.2	116.2	-65.7	97.7	R	14.7
18,1, 20- 22	157.51	7.10	+69.8	246.0	+68.4	302.0	N	14.7
18,1, 67- 69	157.98	.21	+20.5	297.4	+62.7	273.1	N	13.7
18,1,125-127	158.56	.11	+82.7	336.1	+75.7	308.9	N	29.4
18,2, 20- 22	159.01	.10	+79.5	287.8	+72.0	312.2	N	
18,2, 67- 69	159.48	.10	-20.9	132.8	-50.0	90.0	R	9.5
18,2,125-127	160.06	1.22	-43.7	113.2	-60.8	105.9	R	12.1
18,3, 20- 22	160.51	1.01	-61.6	92.8	-68.2	89.7	R	10.7
19,1, 25- 27	167.06	.86	-36.9	231.9	-51.1	36.4	R	11.1
19,1, 55- 57	167.36	.19	-34.3	78.0	-72.7	57.8	R	22.8
19,1, 97- 99	167.78	.08	-63.2	19.0	-67.1	51.1	R	19.7
19,1,135-137	168.16	.09	-42.2	72.0	-77.2	56.9	R	
19,2, 25- 27	168.56	.07	-37.0	90.9	-70.7	51.8	R	6.4
19,2, 55- 57	168.86	.03	-1.5	46.7	-58.4	357.0	R	
19,2, 97- 99	169.28	.20	-79.2	357.9	-65.7	8.8	R	9.8

Table A4 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
19,2,135-137	169.66	.34	-81.7	69.7	-74.4	75.1	R	9.4
19,3, 25- 27	170.06	.16	+34.5	304.6	+47.9	184.3	N	22.6
19,3, 55- 57	170.36	.14	+34.4	333.3	+69.0	171.8	N	32.8
19,3, 97- 99	170.78	.30	-84.6	336.4	-72.6	57.8	R	1.3
19,3,135-137	171.16	.09	+63.5	128.7	-70.1	83.7	R	7.4
19,4, 25- 27	171.56	.23	+77.0	120.1	-66.8	89.4	R	22.5
19,4, 55- 57	171.86	.19	-21.0	18.1	-73.2	85.7	R	3.3
19,4, 97- 99	172.28	.14	-26.3	45.5	-73.5	82.9	R	11.6
19,4,135-137	172.66	1.30	-31.7	273.4	-63.4	75.5	R	2.7
19,5, 25- 27	173.06	.68	+41.3	274.7	-70.0	76.0	R	2.9
19,5, 55- 57	173.36	.18	-56.2	13.8	-69.0	14.5	R	4.2
19,5, 97- 99	173.78	.10	-56.5	351.3	-65.5	8.3	R	
19,6, 25- 27	174.56	.05	+52.5	32.9	-72.9	3.8	R	49.1
19,6, 55- 57	174.86	.05	+63.2	287.8	+65.9	180.4	R	9.6
19,6, 97- 99	175.28	.03	-51.2	305.8	-85.8	342.4	R	
19,6,135-137	175.66	.43	-83.1	188.6	-84.0	349.9	R	12.7
20,1, 25- 27	176.56	.30	+66.9	325.5	-54.9	341.8	R	12.5
20,1, 55- 57	176.86	.03	+10.3	323.4	-66.1	341.6	R	
20,1, 95- 97	177.26	.28	-86.5	207.1	-79.5	345.8	R	25.1
20,1,135-137	177.66	.22	+72.7	70.2	+73.3	64.0	N	23.0
20,2, 25- 27	178.06	.07	+14.4	293.5	+85.9	129.0	N	41.4
20,2, 55- 57	178.36	.09	+79.7	166.2	+72.9	141.1	N	8.7
20,2, 95- 97	178.76	.15	+76.6	358.4	+81.7	105.4	N	8.6
20,2,135-137	179.16	.62	+70.7	126.0	+62.7	124.5	N	9.3
20,3, 25- 27	179.56	.18	+69.5	313.6	+67.5	158.6	N	20.8
20,3, 55- 57	179.86	.16	+75.6	142.1	+78.5	125.8	N	15.5
20,3, 95- 97	180.26	.05	+77.8	70.5	+73.3	144.6	N	17.5
20,3,135-137	180.66	.04	+69.9	174.0	+65.7	132.5	N	21.0
20,4, 25- 27	181.06	.16	+72.4	101.4	+66.7	153.8	N	3.9
20,4, 55- 57	181.36	.22	+58.6	116.0	+62.5	142.1	N	14.7
20,4, 95- 97	181.76	.05	+75.5	117.4	+61.2	133.3	N	12.5
20,5, 25- 27	182.56	.18	+80.5	40.4	+72.9	151.5	N	12.9
20,5, 55- 57	182.86	.07	-8.9	13.5	-63.8	347.6	R	
20,5, 95- 97	183.26	.21	-82.2	61.9	-78.8	306.5	R	19.7
20,5,135-137	183.66	.07	+46.5	12.0	-88.6	270.0	R	
20,6, 25- 27	184.06	.06	+65.2	206.9	-64.0	294.3	R	3.6
20,6, 55- 57	184.36	.24	-73.7	245.2	-74.7	314.8	R	9.3
20,6, 95- 97	184.76	.02	+31.2	90.2	-71.2	303.0	R	
20,6,135-137	185.16	.19	+63.5	316.0	+74.4	220.9	N	49.8
20,7, 25- 27	185.56	.05	+68.2	8.7	+79.1	72.9	N	35.7
22,1, 43- 45	195.74	.13	+72.2	358.0	+67.1	338.4	N	31.7
22,1, 93- 95	196.24	.27	+79.1	68.4	+78.0	318.2	N	30.0
22,1,144-146	196.75	.14	+41.9	317.5	+65.6	329.8	N	37.0
22,2, 43- 45	197.24	.15	+71.2	32.4	+71.2	323.5	N	19.8
22,2, 93- 95	197.74	.17	+74.5	220.1	+76.7	335.0	N	24.5
22,2,144-146	198.25	.60	-21.9	331.0	+67.7	318.7	N	3.2
22,3, 43- 45	198.74	.15	+50.1	311.0	+70.2	312.0	N	29.8
22,3, 93- 95	199.24	.39	+74.6	326.7	+69.3	315.6	N	

Table A4 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
22,3,144-146	199.75	.14	+78.7	227.0	+73.4	324.3	N	32.4
22,4, 43- 45	200.24	.11	+74.3	299.3	+68.9	318.7	N	39.3
22,4, 93- 95	200.74	.16	+78.9	70.0	+66.7	326.2	N	4.2
22,4,131-133	201.12	.14	+63.2	97.1	+64.4	332.8	N	3.1
22,5, 43- 45	201.74				+58.9	282.2	N	99.9
22,5, 93- 95	202.24	.07	+83.6	347.0	+72.8	341.8	N	8.9
22,5,144-146	202.75	.19	+62.3	291.9	+70.3	324.2	N	4.0
22,6, 43- 45	203.24	.08	+86.2	164.1	+63.8	340.3	N	7.4
22,6, 93- 95	203.74	.21	+52.7	79.1	+62.1	328.6	N	3.8
22,6,144-146	204.25	.22	+45.0	38.1	+67.2	327.0	N	3.3
22,7, 24- 26	204.55	.16	+67.6	321.4	+69.6	322.1	N	7.0
23,1, 35- 37	205.46	.13	+50.8	271.3	+64.7	266.4	N	2.9
23,1, 85- 87	205.96	.05	+21.2	223.8	+62.3	257.1	N	6.9
23,1,135-137	206.46	.05	+49.5	245.0	+56.2	260.8	N	15.0
23,2, 35- 37	206.96	.22	+47.7	173.2	+76.3	283.0	N	3.1
23,2, 85- 87	207.46	.09	+65.4	269.5	+68.3	287.0	N	9.6
23,2,135-137	207.96	.45	+30.0	251.8	+62.4	284.0	N	3.4
23,3, 35- 37	208.46	.17	+16.4	86.0	+77.5	330.3	N	3.1
23,3, 85- 87	208.96	.05	+59.4	230.4	+72.5	258.6	N	8.9
23,3,135-137	209.46	.11	+73.7	184.8	+82.3	286.6	N	13.1
23,4, 35- 37	209.96	.04	+7.6	295.9	+68.9	280.6	N	12.3
23,4, 85- 87	210.46	.02	+60.0	26.7	+70.1	283.8	N	
23,4,135-137	210.96	.06	+61.3	318.3	+70.6	292.8	N	9.7
23,5, 35- 37	211.46	.04	+56.2	329.6	-68.7	120.5	R	
23,5, 85- 87	211.96	.05	+51.0	38.6	-61.9	115.6	R	
23,6, 35- 37	212.96	.06	-56.4	149.9	-54.1	146.9	R	2.5
23,6, 85- 87	213.46	.02	+46.7	321.4	+71.1	286.8		4.1
23,6,135-137	213.96	.07	-57.2	251.5	-76.5	124.2	R	13.3
23,7, 35- 37	214.46	.13	-62.1	92.5	-77.6	113.4	R	12.0
24,1, 35- 37	215.26	.04	+84.7	204.2	-75.9	299.0	R	4.2
24,1, 85- 87	215.76	.04	+65.6	277.2	-72.3	303.7	R	9.0
24,1,135-137	216.26	.14	+37.0	125.5	-49.3	319.4	R	3.0
24,2, 35- 37	216.76	.07	+65.8	169.5	+71.6	167.0	N	4.5
24,2, 85- 87	217.26	.05	+76.5	356.8	+69.2	113.8	N	8.9
24,2,135-137	217.76				+65.8	124.3	N	5.6
24,3, 35- 37	218.26	.11	+68.7	128.0	+67.1	117.4	N	13.6
24,3, 85- 87	218.76	.05	+87.9	121.7	+74.2	111.4	N	12.7
24,3,135-137	219.26	.04	+60.6	131.1	+64.4	123.7	N	5.3
24,4, 35- 37	219.76	.22	+83.8	161.3	+66.8	121.5	N	5.4
24,4, 85- 87	220.26	.06	+33.8	319.5	-62.8	334.0	R	25.9
24,4,135-137	220.76	.04	-58.6	320.9	-60.0	323.9	R	
24,5, 35- 37	221.26	.07	+30.9	229.9	-17.6	323.0	R	11.0
24,5, 85- 87	221.76	.07	+70.6	85.3	+66.5	78.7	N	
24,5,135-137	222.26	.07	+57.2	2.8	+62.3	138.5	N	9.4
24,6, 35- 37	222.76	.07	+61.7	237.8	+80.7	146.2	N	6.6
24,6, 85- 87	223.26	.07	+76.3	196.3	+66.0	132.6	N	8.0
24,6,135-137	223.76	.04	+17.1	73.6	+55.6	104.6	N	14.6
24,7, 22- 24	224.13	.06	+63.0	94.2	+67.8	121.0	N	2.0

Table A4 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
25,1, 35- 37	225.06	.04	+16.6	22.9	-49.9	126.2	R	
25,1, 85- 87	225.56	.02	-1.4	144.8	-54.7	177.4	R	12.2
25,1,135-137	226.06	.03	+67.5	316.3	+60.0	324.6		7.2
25,2, 35- 37	226.56	.02	+36.2	325.4	-65.6	72.7	R	12.9
25,2, 85- 87	227.06	.03	-5.9	303.5	-80.3	113.4	R	8.8
25,2,135-137	227.56	.05	+70.1	325.5	+63.0	332.1	N	
25,3, 35- 37	228.06	.02	-67.6	309.1	+65.8	357.9	N	2.8
25,3, 85- 87	228.56	.05	+70.1	330.0	+62.4	341.9	N	13.6
25,3,135-137	229.06	.07	+69.9	32.9	+66.9	6.4	N	14.2
25,4, 35- 37	229.56	.03	+77.1	325.7	+74.6	342.0	N	
25,4, 85- 87	230.06	.06	+63.6	343.4	+60.5	355.3	N	7.9
25,4,135-137	230.56	.07	+2.4	290.8	+81.7	337.5	N	4.1
25,5, 35- 37	231.06	.08	+3.1	284.5	+77.5	338.1	N	4.8
25,5, 85- 87	231.56	.02	+64.6	336.7	+64.6	328.1	N	
25,5,135-137	232.06	.05	+64.4	319.6	+60.6	326.8	N	13.3
25,6, 35- 37	232.56	.08	+67.5	344.1	+68.6	344.9	N	5.9
25,6, 85- 87	233.06	.06	+76.0	302.5	+59.8	333.7	N	4.4
25,7, 35- 37	234.06	.02	+74.2	328.2	+65.7	343.3	N	8.6
26,1, 35- 37	234.86	.30	-10.9	270.6	-76.4	218.2	R	3.3
26,1, 85- 87	235.36	.04	+49.3	34.6	-59.2	151.5	R	
26,1,135-137	235.86	.02	+44.6	71.8	-41.6	152.0	R	18.2
26,2, 35- 37	236.36	.04	+67.4	25.9	-56.5	201.5	R	14.4
26,2, 85- 87	236.86	.07	+77.7	22.4	-82.1	141.3	R	3.6
26,2,135-137	237.36	.04	+36.0	312.3	-78.5	203.1	R	7.6
26,3, 35- 37	237.86	.05	+37.0	290.7	-64.3	243.2	R	3.4
26,3, 85- 87	238.36	.03	-68.6	208.8	-66.0	236.6	R	4.4
26,3,135-137	238.86	.06	+63.9	188.7	-85.6	209.9	R	3.1
26,4, 35- 37	239.36	.08	-77.4	193.6	-85.6	208.5	R	19.3
26,4, 85- 87	239.86	.04	+39.6	110.8	-53.4	52.3	R	
26,5, 35- 37	240.86	.04	+82.3	349.8	+71.8	326.2	N	9.0
26,5, 85- 87	241.36	.04	+77.3	343.6	+79.3	353.0	N	4.3
26,5,135-137	241.86	.04	+75.7	357.7	+69.1	12.0	N	
26,6, 35- 37	242.36	.04	+85.8	76.5	+60.4	345.9	N	14.4
26,6, 85- 87	242.86	.11	+77.3	43.6	+76.7	354.5	N	3.3
26,6,135-137	243.36	.04	+51.1	303.1	+67.4	34.0	N	4.9
27,1, 35- 37	244.66	.02	+84.8	35.4	+61.5	68.5	N	
27,1, 85- 87	245.16	.03	+30.7	130.4	+75.5	54.7	N	29.7
27,1,135-137	245.66	.06	-33.9	190.5	+41.4	75.4	N	18.3
27,2, 35- 37	246.16	.02	+73.2	324.3	+57.6	331.6	N	
27,2, 85- 87	246.66	.04	+39.5	157.2	+70.0	58.4	N	10.3
27,2,135-137	247.16	.02	+4.9	298.6	-80.0	329.7	R	
27,3, 35- 37	247.66	.02	+9.0	269.9	-56.4	128.2	R	
27,3, 85- 87	248.16	.02	-48.5	140.9	-50.5	87.4	R	3.4
27,3,135-137	248.66	.09	+16.5	180.0	+2.3	184.6		3.1
27,4, 29- 31	249.10	.04	+75.7	34.0	+55.8	217.1	N	9.7
27,4, 85- 87	249.66	.03	+76.7	110.0	+56.4	161.7	N	
27,4,135-137	250.16	.14	+72.3	51.4	+73.6	154.2	N	8.2

Table A4 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
27,5, 35- 37	250.66	.07	+34.6	120.1	+52.4	167.1	N	4.1
27,5, 72- 74	251.03	.08	-61.9	77.9	-68.9	64.3	R	14.4
27,5,125-127	251.56	.12	-56.3	73.2	-64.6	64.3	R	18.7
27,6, 34- 36	252.15	.07	+45.2	123.3	-68.4	64.4	R	4.7
27,6, 73- 75	252.54	.12	-50.7	79.2	-55.9	89.2	R	4.6
27,6,125-127	253.06	.07	+75.8	134.8	-47.6	63.1	R	14.6
28,1, 35- 37	254.46	.08	+29.4	351.6	-12.5	336.8	R	4.6
28,1, 85- 87	254.96	.15	-14.6	349.5	-51.4	46.9	R	47.5
28,1,135-137	255.46	.06	+43.6	32.2	-15.2	54.6	R	
28,2, 35- 37	255.96	.08	+50.0	31.5	+49.0	28.5	N	27.9
28,2, 85- 87	256.46	.05	+14.8	95.2	+52.5	96.8	N	
28,2,135-137	256.96	.10	+77.8	100.0	-63.2	127.0		7.7
28,3, 35- 37	257.46	.08	+62.6	84.1	+67.0	352.3	N	13.5
28,3, 85- 87	257.96	.06	+50.0	283.4	+66.1	276.1	N	7.5
28,3,135-137	258.46	.10	+81.9	352.0	+64.9	310.1	N	20.8
28,4, 35- 37	258.96	.05	+76.1	18.1	+80.5	299.8	N	7.0
28,4, 85- 87	259.46	.03	+73.0	313.9	+69.5	306.6	N	9.1
28,4,135-137	259.96	.05	+62.2	110.0	+68.6	320.6	N	8.8
28,5, 35- 37	260.46	.07	+49.0	39.1	+56.7	331.5	N	26.1
28,5, 85- 87	260.96	.06	+79.6	66.5	+82.1	329.7	N	26.4
28,6, 35- 37	261.96	.08	+40.5	292.0	+61.0	336.1	N	14.4
28,6, 85- 87	262.46	.05	+57.7	300.9	+68.1	306.5	N	14.9
28,6,135-137	262.96	.05	+70.7	278.8	+70.7	315.5	N	13.7
29,1, 35- 37	264.26	.05	+49.3	97.0	+51.2	82.5	N	
29,1, 85- 87	264.76	.05	+60.6	62.7	+66.3	66.2	N	
29,1,135-137	265.26	.08	+76.0	328.2	+75.5	70.9	N	4.5
29,2, 35- 37	265.76	.06	+58.8	53.4	+70.3	52.6	N	19.5
29,2, 85- 87	266.26	.11	+67.8	24.9	+76.1	58.3	N	8.7
29,2,135-137	266.76	.17	+39.8	65.9	+61.0	69.6	N	4.0
29,3, 35- 37	267.26	.14	+47.6	52.2	+67.3	47.7	N	14.9
29,3, 85- 87	267.76	.09	+82.0	196.2	+69.0	79.8	N	19.8
29,3,135-137	268.26	.04	+63.5	15.4	+69.5	46.4	N	
29,4, 35- 37	268.76	.11	+22.9	329.4	+64.5	40.2	N	21.6
29,4, 85- 87	269.26	.07	+58.9	22.0	+70.0	45.0	N	11.5
29,4,135-137	269.76	.08	+17.5	294.8	+67.2	66.8	N	19.6
29,5, 35- 37	270.26	.04	+53.0	239.7	+71.2	68.4	N	
29,5, 85- 87	270.76	.19	+80.8	63.0	+75.9	69.7	N	11.0
29,6, 35- 37	271.76	.09	+70.0	51.0	+67.0	49.1	N	3.6
29,6, 85- 87	272.26	.08	+55.9	35.1	+72.5	48.4	N	4.0
29,6,135-137	272.76	.10	+71.9	36.4	+74.6	57.3	N	13.2
31,1, 85- 87	284.36	.48	-26.2	121.3	+85.5	130.6	N	3.2
31,1,135-137	284.86	.37	+80.7	141.4	+75.1	127.0	N	4.5
31,2, 35- 37	285.36	.25	+76.8	76.8	+86.4	100.7	N	6.8
31,2, 85- 87	285.86	.22	+74.8	310.4	+75.9	126.9	N	7.9
31,2,135-137	286.36	.27	+86.3	327.9	+77.3	135.1	N	9.2
31,3, 35- 37	286.86	.17	+88.1	125.1	+71.0	137.1	N	5.6
31,3, 85- 87	287.36	.17	+71.3	148.3	+71.7	133.3	N	10.9

Table A4 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
31,3,135-137	287.86	.39	+75.5	343.0	+68.3	131.5	N	12.9
31,4, 35- 37	288.36	.31	+45.5	63.4	+67.5	127.4	N	5.5
31,4, 85- 87	288.86	.24	+82.8	131.7	+76.9	118.9	N	20.0
31,4,135-137	289.36	.22	+75.1	141.6	+76.3	138.5	N	13.6
31,5, 28- 30	289.79	.39	+26.3	124.5	+60.1	141.0	N	3.0
31,5,130-132	290.81	.13	+74.6	122.8	+74.7	136.2	N	14.3
31,6, 35- 37	291.36	.12	+62.3	105.4	+65.8	139.4	N	9.5
31,6,135-137	292.36	.13	+73.1	97.6	+64.9	118.3	N	9.4
32,1, 35- 37	293.66	.24	+81.0	358.5	+75.5	133.0	N	3.5
32,1, 85- 87	294.16	.15	+76.2	71.9	+82.0	131.5	N	4.6
32,1,135-137	294.66	.23	+84.1	167.0	+68.3	122.4	N	4.1
32,2, 35- 37	295.16	.11	+75.7	305.2	+61.1	127.2	N	7.4
32,2, 85- 87	295.66	.20	+85.5	84.7	+85.1	118.9	N	4.4
32,3, 38- 40	296.69	.31	-84.7	334.1	-85.7	302.8	R	3.2
33,1, 85- 87	303.96	.10	+76.0	306.5	+72.2	352.2	N	9.8
33,1,135-137	304.46	.03	+10.7	223.6	-76.2	221.5	R	
33,2, 35- 37	304.96	.06	+74.1	101.4	+74.4	82.1	N	12.1
34,1, 44- 46	313.35	.11	+68.4	53.2	+70.7	38.1	N	8.2
34,1,120-122	314.11	.05	+70.0	358.3	+69.5	33.8	N	5.8
34,2, 44- 46	314.85	.10	+67.4	66.3	+67.5	45.9	N	9.5
34,2,120-122	315.61	.06	+61.1	351.6	+59.5	15.9	N	15.4
34,3, 44- 46	316.35	.03	+72.5	109.8	+69.1	28.4	N	
35,1, 54- 56	323.25	.05	+82.8	213.9	+76.0	95.7	N	
41,1, 28- 30	381.39	.33	+60.7	97.7	+81.9	351.9	N	7.3
41,1, 78- 80	381.89	.21	+66.7	46.0	+71.7	3.2	N	16.1
41,1,129-131	382.40	.26	+74.6	46.3	+67.5	22.2	N	3.8
42,3, 28- 30	393.99	.04	+50.5	109.4	-63.3	121.0	R	
42,3, 78- 80	394.49	.20	-25.9	183.2	-68.8	143.2	R	
42,3,129-131	395.00	.46	+17.6	99.1	-64.1	134.8	R	3.0

J_{NRM}, Decl.-NRM, Incl.-NRM — intensity, inclination, declination of the natural remanent magnetization; Incl._{stable}, Decl._{stable} — inclination, declination of the stable remanence after AF demagnetization; Pol., N, R — polarity, normal, reversed; MDF — median destructive field.

Table A5. Paleomagnetic properties of samples from Hole 644A.

Core, Section, Interval (cm)	Depth (mbfsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
1,1, 35- 37	.36	30.83	+65.7	155.2	+68.1	151.7	N	27.3
1,1, 85- 87	.86	12.87	+75.8	116.8	+72.6	117.9	N	20.1
1,1,135-137	1.36	9.09	+75.9	149.2	+75.0	149.5	N	24.3
1,2, 35- 37	1.86	5.95	+53.4	158.4	+69.8	158.5	N	31.1
1,2, 85- 87	2.36	6.25	+44.0	128.9	+67.2	124.4	N	28.8
1,2,135-137	2.86	14.10	+43.0	156.6	+64.0	135.2	N	27.3
1,3, 35- 37	3.36	4.52	+6.1	189.5	+56.5	176.7	N	24.4
1,3, 85- 87	3.86	1.80	+32.3	182.2	+63.4	149.5	N	35.2
1,3,135-137	4.36	13.23	+59.3	147.1	+71.6	136.1	N	
1,4, 35- 37	4.86	8.79	+64.9	130.5	+66.4	140.4	N	25.6
1,4, 85- 87	5.36	3.32	-26.1	172.4	+67.6	156.8	N	29.6
1,4,135-137	5.86	4.87	-38.6	23.2	+77.5	147.3	N	34.9
1,5, 35- 37	6.36	15.91	+69.0	155.7	+69.0	153.3	N	25.1
1,5, 85- 87	6.86	17.90	+67.4	135.1	+66.9	132.9	N	20.4
1,5,135-137	7.36	25.97	+80.4	159.2	+82.8	159.4	N	38.9
1,6, 35- 37	7.86	20.59	+75.3	117.3	+76.6	112.5	N	25.6
1,6, 85- 87	8.36	31.45	+60.5	88.7	+72.8	109.8	N	16.0
1,6,135-137	8.86	19.19	+72.3	132.2	+75.1	128.3	N	31.0
2,1, 35- 37	9.56	9.56	+47.2	247.4	+23.2	344.5		24.5
2,1, 85- 87	10.06	3.26	+27.8	87.8	-13.8	37.8	R	38.6
2,1,135-137	10.56	11.63	+55.7	205.5	+67.2	219.3	N	27.9
2,2, 35- 37	11.06	42.01	+70.7	225.3	+71.4	222.0	N	32.3
2,2, 85- 87	11.56	5.45	+69.5	167.4	+84.0	223.1	N	33.9
2,2,135-137	12.06	12.83	+74.3	200.1	+74.4	225.0	N	29.5
2,3, 35- 37	12.56	8.93	+72.7	152.1	+72.3	174.8	N	9.9
2,3, 85- 87	13.06	26.39	+65.6	171.9	+63.7	172.6	N	25.7
2,3,135-137	13.56	6.29	+51.6	233.2	+69.0	191.3	N	23.2
2,4, 35- 37	14.06	53.45	+73.0	166.1	+76.2	163.9	N	34.7
2,4, 85- 87	14.56	75.32	+50.8	237.8	+63.3	174.5	N	15.8
2,4, 93- 95	14.64	1.59	+73.8	109.2	-3.0	310.2	R	16.4
2,4,114-116	14.85	67.84	+68.9	130.5	+6.3	237.5		29.5
2,4,128-130	14.99	101.15	+73.8	140.8	+8.7	232.4		30.0
2,4,135-137	15.06	33.28	+68.9	157.7	-65.7	334.7	R	31.6
2,4,137-139	15.08	21.41	+69.7	134.7	-12.7	249.0	R	28.2
2,4,146-148	15.17	82.12	+70.1	129.7	+71.6	146.6	N	28.6
2,5, 5- 7	15.26	52.67	+74.8	148.1	+75.8	161.8	N	29.1
2,5, 15- 17	15.36	63.78	+76.4	143.7	+76.6	159.1	N	30.1
2,5, 29- 31	15.50	43.23	+67.9	124.7	+69.4	136.1	N	29.9
2,5, 35- 37	15.56	19.68	+68.0	126.4	+68.5	132.5	N	29.7
3,1, 35- 37	16.56	42.27	+64.6	141.0	+67.8	143.0	N	30.5
3,1, 85- 87	17.06	17.29	+68.2	117.3	+70.0	112.6	N	25.8
3,1,135-137	17.56	12.23	+71.3	110.1	+68.7	124.0	N	21.9
3,2, 35- 37	18.06	5.83	+72.6	102.9	+72.7	126.9	N	25.1
3,2, 85- 87	18.56	8.03	+54.0	169.5	+65.9	136.4	N	18.4
3,2,135-137	19.06	13.53	+74.3	192.5	+76.4	127.4	N	17.1
3,3, 33- 35	19.54	35.15	+67.2	132.9	+69.3	130.6	N	29.8
3,3, 85- 87	20.06	39.90	+73.6	155.2	+77.8	145.1	N	28.1

Table A5 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
3,4, 35- 37	21.06	60.29	+65.2	168.1	+69.7	167.3	N	30.0
3,4, 85- 87	21.56	19.92	+75.8	162.1	+76.8	171.8	N	26.8
3,4,135-137	22.06	11.78	+71.7	169.0	+69.1	167.9	N	19.1
3,5, 35- 37	22.56	45.51	+72.9	165.8	+73.5	172.2	N	26.4
3,5, 38- 40	22.59	61.43	+77.3	150.4	+79.8	171.1	N	25.9
3,5, 54- 56	22.75	37.93	+76.9	138.7	+76.4	162.5	N	26.8
3,5, 71- 73	22.92	10.33	+35.3	132.9	-43.5	82.8	R	12.2
3,5, 85- 87	23.06	10.32	+14.2	203.5	-45.8	148.8	R	4.6
3,5, 89- 91	23.10	10.55	+49.6	117.4	-23.8	142.2	R	15.9
3,5, 97- 99	23.18	40.18	+76.4	148.1	+77.4	163.5	N	26.3
3,5,109-111	23.30	54.77	+69.8	146.0	+71.4	158.4	N	28.9
3,5,117-119	23.38	55.35	+74.4	153.6	+75.9	163.5	N	27.1
3,5,127-129	23.48	55.13	+77.8	152.9	+78.3	172.0	N	27.1
3,5,135-137	23.56	33.75	+70.9	156.4	+70.7	152.0	N	25.9
3,6, 35- 37	24.06	13.39	+77.4	177.9	+82.2	186.4	N	24.4
4,1, 18- 20	25.89	20.49	+64.0	122.5	+66.5	108.8	N	23.8
4,1, 85- 87	26.56	23.97	+84.7	25.0	+79.8	356.6	N	25.0
4,1,135-137	27.06	47.29	+80.9	33.7	+80.0	34.1	N	24.3
4,1,148-150	27.19	18.27	+77.8	67.7	+82.4	47.0	N	26.4
4,2, 5- 7	27.26	14.52	+79.0	71.7	+56.5	102.5	N	7.2
4,2, 16- 18	27.37	6.26	+65.1	97.3	-72.4	121.2	R	9.2
4,2, 30- 32	27.51	4.98	+65.0	32.2	-77.6	100.4	R	6.7
4,2, 35- 37	27.56	1.69	-67.3	111.9	-81.1	118.4	R	
4,2, 48- 50	27.69	16.56	+77.4	32.1	+79.6	27.2	N	20.3
4,2, 55- 57	27.76	19.85	+83.3	77.9	+83.3	9.8	N	20.6
4,2, 64- 66	27.85	20.24	+57.8	27.7	+79.2	348.9	N	13.6
4,2, 79- 81	28.00	6.02	+46.9	13.5	+81.0	338.7	N	
4,2, 85- 87	28.06	26.79	+85.0	57.0	+86.4	3.3	N	21.0
4,2,135-137	28.56	61.31	+75.0	325.9	+73.1	326.4	N	28.5
4,3, 35- 37	29.06	58.89	+86.3	340.4	+82.7	344.9	N	22.4
4,3, 80- 82	29.51	36.75	+82.4	357.4	+78.7	347.7	N	26.8
4,3,135-137	30.06	7.23	+84.5	51.9	+84.4	5.2	N	13.7
4,4, 35- 37	30.56	20.08	+83.9	21.0	+81.7	16.5	N	27.7
4,4, 85- 87	31.06	5.63	+79.6	3.5	+76.6	353.8	N	31.2
4,4,135-137	31.56	32.53	+76.8	308.1	+76.8	302.0	N	34.3
4,5, 35- 37	32.06	39.42	+73.9	311.4	+78.6	291.7	N	35.6
4,5, 85- 87	32.56	4.20	+69.2	305.7	+83.8	329.8	N	15.2
4,5,135-137	33.06	10.09	+87.2	219.4	+87.4	320.1	N	24.7
4,6, 35- 37	33.56	43.55	+78.5	335.8	+75.1	332.6	N	25.1
4,6, 85- 87	34.06	46.99	+80.6	20.8	+80.3	6.5	N	26.7
5,1, 34- 36	35.55	198.38	+78.5	68.6	+80.3	355.3	N	39.9
5,1, 84- 86	36.05	24.60	+84.7	311.6	+80.9	336.0	N	22.5
5,1,134-136	36.55	2.71	+74.2	274.7	+74.6	293.5	N	13.7
5,2, 4- 6	36.75	.73	+80.7	345.7	-57.0	153.3	R	9.8
5,2, 14- 16	36.85	.72	+64.2	39.5	+79.4	331.8	N	18.0
5,2, 30- 32	37.01	.44	+76.2	316.4	+14.0	292.1		13.4
5,2, 35- 37	37.06	1.27	+78.5	288.2	-55.8	231.9	R	4.6
5,2, 46- 48	37.17	1.30	+62.7	85.5	-63.5	163.6	R	5.0

Table A5 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
5,2, 55- 57	37.26	3.36	+80.5	70.6	+77.1	329.6	N	20.9
5,2, 73- 75	37.44	9.71	+83.7	294.8	+82.0	295.2	N	27.5
5,2, 85- 87	37.56	39.97	+79.5	290.3	+78.5	297.4	N	41.2
5,2,128-130	37.99	37.55	+76.2	330.8	+76.3	328.5	N	31.7
5,3, 35- 37	38.56	30.35	+75.0	305.0	+75.0	312.5	N	40.2
5,3, 85- 87	39.06	57.82	+84.0	345.7	+83.4	344.8	N	45.4
5,3,128-130	39.49	32.82	+83.0	341.7	+81.8	329.6	N	34.9
5,4, 35- 37	40.06	9.48	+81.4	276.8	+78.2	300.9	N	41.8
5,4, 85- 87	40.56	22.39	+78.2	18.7	+76.4	12.1	N	26.8
5,4,129-131	41.00	16.75	+77.6	25.5	+76.4	14.4	N	32.1
5,5, 35- 37	41.56	53.06	+84.8	311.2	+83.3	307.3	N	39.2
5,5, 85- 87	42.06	10.83	+82.8	333.9	+76.9	315.4	N	40.5
5,5,135-137	42.56	3.25	+67.3	122.6	+78.1	312.8	N	5.3
6,1, 35- 37	45.06	27.45	+80.6	163.3	+82.4	34.8	N	32.9
6,1, 85- 87	45.56	2.27	+40.9	119.6	+71.9	59.3	N	20.5
6,1,135-137	46.06	35.35	+76.0	98.4	+76.4	93.3	N	48.7
6,2, 35- 37	46.56	3.74	+57.3	112.8	+67.7	101.6	N	12.5
6,2, 85- 87	47.06	7.78	+71.5	106.5	+70.0	107.6	N	22.6
6,2,135-137	47.56	7.35	+73.9	111.7	+77.0	99.2	N	25.8
6,3, 35- 37	48.06	31.73	+83.2	103.6	+83.8	98.6	N	25.1
6,3, 85- 87	48.56	61.58	+74.3	90.0	+73.9	89.5	N	25.0
6,3,135-137	49.06	22.83	+69.2	113.0	+72.3	99.4	N	22.0
6,4, 35- 37	49.56	73.18	+85.2	99.2	+85.8	92.8	N	26.2
6,4, 85- 87	50.06	30.51	+83.2	101.2	+84.4	103.2	N	31.4
6,4,105-107	50.26	8.61	+83.1	130.1	+81.9	90.3	N	20.7
6,5, 35- 37	51.06	46.36	+87.8	153.8	+83.5	106.0	N	23.0
6,5, 85- 87	51.56	46.55	+77.7	86.3	+76.5	86.2	N	23.0
6,5,135-137	52.06	24.84	+82.2	123.8	+84.3	106.0	N	20.8
6,6, 35- 37	52.56	3.07	+85.3	73.9	+83.9	104.4	N	16.5
6,6, 85- 87	53.06	26.68	+69.8	104.0	+73.8	100.5	N	13.6
7,1, 18- 20	53.09	3.20	+71.5	149.3	+67.3	165.6	N	21.7
7,1, 71- 73	53.62	35.73	+82.5	235.4	+83.2	206.0	N	24.3
7,1,120-122	54.11	20.30	+76.6	234.1	+82.9	220.7	N	21.8
7,2, 27- 29	54.68	8.62	+69.3	222.4	+68.7	224.5	N	24.9
7,2, 49- 51	54.90	1.41	+85.8	314.6	+63.1	189.6	N	7.6
7,2, 70- 72	55.11	1.50	+60.5	131.3	+68.0	184.1	N	7.1
7,2,107-109	55.48	.70	+83.2	49.6	+67.4	193.6	N	14.0
7,3, 13- 15	56.04	21.17	+68.8	240.1	+74.6	227.0	N	37.4
7,3, 47- 49	56.38	15.70	+75.1	217.6	+75.7	226.5	N	30.9
7,3, 72- 74	56.63	24.59	+77.7	203.4	+80.5	219.1	N	45.2
7,3,105-107	56.96	13.97	+79.7	189.0	+79.3	199.9	N	36.3
7,4, 12- 14	57.53	5.37	+70.7	222.1	+71.9	216.1	N	29.8
7,4, 47- 49	57.88	6.97	+80.4	174.3	+83.0	191.3	N	32.5
7,4, 82- 84	58.23	58.82	+74.1	265.7	+77.6	216.1	N	41.6
8,1, 33- 35	64.04	15.16	+44.2	80.6	+73.9	107.9	N	33.6
8,1, 69- 71	64.40	16.68	+81.3	123.0	+81.6	168.4	N	21.9
8,1,109-111	64.80	28.20	+80.3	233.8	+78.2	232.5	N	23.4

Table A5 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
8,2, 34- 36	65.55	17.69	+84.5	45.7	+83.8	30.2	N	15.8
8,2, 85- 87	66.06	137.14	+85.1	58.7	+76.6	44.3	N	7.6
8,2,134-136	66.55	15.11	+58.7	77.6	+78.9	71.1	N	30.9
8,3, 34- 36	67.05	5.87	+79.5	80.0	+79.3	94.7	N	27.0
8,3, 84- 86	67.55	7.48	+79.1	127.8	+70.5	106.3	N	32.9
8,3,135-137	68.06	11.08	+72.9	111.9	+75.2	114.2	N	27.9
8,4, 19- 21	68.40	47.90	+36.8	88.6	+71.8	76.5	N	7.4
8,5, 19- 21	69.90	21.16	+85.3	21.3	+82.5	190.2	N	26.3
8,5, 83- 85	70.54	39.38	+72.6	213.8	+72.1	216.0	N	35.8
8,5,134-136	71.05	12.83	+70.1	235.1	+71.3	216.5	N	29.1
8,6, 19- 21	71.40	23.89	+72.8	155.5	+69.9	155.1	N	8.6
8,C, 13- 15	71.64	21.51	+80.2	216.8	+80.8	241.8	N	20.4
8,6, 60- 62	71.81	7.60	+73.5	10.1	+72.0	11.1	N	17.6
8,7, 13- 15	72.84	48.63	+71.8	98.3	+73.3	98.6	N	23.7
9,1, 35- 37	73.56	24.77	+85.1	169.2	+88.4	278.1	N	22.7
9,1, 85- 87	74.06	12.52	+89.1	130.4	+85.8	290.0	N	12.7
9,1,135-137	74.56	4.76	+84.0	291.1	+74.5	305.7	N	14.7
9,2, 35- 37	75.06	2.98	+84.2	248.2	+81.1	306.2	N	9.9
9,2, 85- 87	75.56	4.28	+62.9	100.8	+81.4	268.4	N	15.9
9,2,135-137	76.06	23.66	+73.8	246.1	+73.5	259.8	N	19.7
9,3, 35- 37	76.56	12.34	+84.2	290.0	+78.9	297.4	N	18.4
9,3, 85- 87	77.06	28.44	+76.5	253.4	+75.3	255.8	N	18.5
9,3,135-137	77.56	8.61	+88.2	167.7	+87.0	282.1	N	20.1
9,4, 35- 37	78.06	35.99	+79.0	244.2	+77.8	250.5	N	24.7
9,4, 85- 87	78.56	53.90	+81.4	252.7	+77.9	257.8	N	25.6
9,4,103-105	78.74	51.55	+85.9	254.3	+84.0	273.5	N	24.3
9,5, 35- 37	79.56	15.04	+74.1	133.1	+72.7	243.5	N	18.7
9,5, 85- 87	80.06	3.11	+87.7	153.8	+75.8	240.2	N	41.5
9,5,135-137	80.56	1.36	+75.6	202.0	+85.6	228.3	N	18.8
9,6, 13- 15	80.84	.64	+69.1	105.6	+68.5	89.7	N	17.6
10,3, 35- 37	86.06	8.34	-78.2	53.0	-78.5	24.8	R	27.0
10,3, 85- 87	86.56	22.04	-74.8	93.0	-81.5	47.1	R	26.8
10,3,135-137	87.06	24.82	-73.5	62.4	-72.6	38.1	R	26.0
10,4, 35- 37	87.56	2.83	-59.9	91.9	-70.6	47.0	R	40.8
10,4, 85- 87	88.06	3.56	-73.1	14.3	-67.6	16.9	R	21.5
10,4,135-137	88.56	2.95	-62.1	22.9	-74.8	28.8	R	23.4
10,5, 35- 37	89.06	33.05	-70.5	10.0	-69.7	13.7	R	55.2
10,5, 85- 87	89.56	4.60	-70.4	64.0	-71.9	2.6	R	51.2
10,5,135-137	90.06	7.25	-62.7	63.9	-72.7	43.3	R	57.9
11,1, 34- 36	92.55	22.56	-64.9	204.8	-67.7	206.9	R	3.0
11,1, 85- 87	93.06	2.55	+87.8	148.5	-68.3	134.2	R	3.2
11,1,135-137	93.56	9.36	-56.8	78.6	-74.8	90.1	R	32.4
11,2, 34- 36	94.05	15.29	-69.6	155.9	-76.5	162.2	R	29.8
11,2, 85- 87	94.56	34.19	-79.8	173.2	-82.0	167.0	R	28.0
11,2,135-137	95.06	3.79	-33.8	167.6	-66.6	181.3	R	24.6
11,3, 34- 36	95.55	.10	-74.8	241.4	-87.2	215.7	R	
11,3, 85- 87	96.06	.25	-19.7	338.1	-71.3	210.7	R	

Table A5 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
11,3,135-137	96.56	1.54	-85.4	209.3	-87.2	206.6	R	57.0
11,4, 34- 36	97.05	13.73	+83.1	263.9	-72.3	216.9	R	4.2
11,4, 85- 87	97.56	19.13	-80.6	181.1	-82.6	210.3	R	50.0
11,4,135-137	98.06	12.72	-86.6	106.7	-89.2	203.3	R	43.9
11,5, 34- 36	98.55	1.04	-8.0	239.3	-67.1	242.7	R	
11,5, 85- 87	99.06	17.92	-16.1	92.7	-76.2	228.4	R	20.0
11,5,135-137	99.56	5.11	-54.9	180.3	-75.6	222.3	R	45.3
11,6, 34- 36	100.05	10.52	-54.9	189.3	-69.1	182.0	R	28.5
11,6, 85- 87	100.56	6.31	-77.8	156.2	-82.7	201.9	R	29.9
11,6,135-137	101.06	2.12	+66.1	169.1	-74.8	232.0	R	2.8
11,7, 18- 20	101.39	1.58	+66.4	292.8	-78.6	228.2	R	3.5
11,7, 50- 52	101.71	1.13	+85.9	309.4	-77.4	122.8	R	3.2
12,1, 35- 37	102.06	10.47	-10.9	111.7	-70.6	35.1	R	21.5
12,1, 84- 86	102.55	3.42	-56.6	38.1	-66.5	19.9	R	33.0
12,1,135-137	103.06	6.21	-66.2	83.0	-73.8	59.8	R	23.6
12,2, 35- 37	103.56	19.31	-81.8	60.1	-83.1	63.1	R	27.8
12,2, 43- 45	103.64	7.92	-60.0	55.5	-72.2	29.1	R	24.7
12,2, 51- 53	103.72	4.11	-29.0	112.8	-56.5	102.1	R	17.9
12,2, 57- 59	103.78	2.04	+17.8	104.7	-27.9	118.9		14.2
12,2, 64- 66	103.85	1.30	+34.1	37.2	-43.6	7.1		39.0
12,2, 72- 74	103.93	.67	+54.1	120.1	+44.6	102.6		6.1
12,2, 77- 79	103.98	1.36	+7.7	103.3	+2.4	109.8		6.9
12,2, 85- 87	104.06	6.56	+63.2	141.8	+76.9	139.5	N	12.8
12,2,135-137	104.56	11.30	+82.2	134.5	+84.9	139.3	N	20.0
12,3, 35- 37	105.06	35.82	+51.4	203.0	+76.1	176.3	N	13.0
12,3, 85- 87	105.56	18.03	+76.1	165.4	+78.6	157.8	N	20.2
12,3,135-137	106.06	16.70	+76.4	164.5	+78.3	159.8	N	19.6
12,4, 34- 36	106.55	9.65	+74.7	170.4	+83.5	174.8	N	16.6
12,4, 84- 86	107.05	8.78	+70.8	142.8	+78.9	135.5	N	17.1
12,4,114-116	107.35	11.27	+76.4	164.4	+76.7	146.6	N	15.2
12,5, 35- 37	108.06	22.77	+80.4	154.6	+85.0	146.1	N	19.8
12,5, 85- 87	108.56	18.20	+67.4	142.9	+67.2	135.8	N	20.1
12,5,135-137	109.06	4.15	+78.0	159.2	+78.4	155.5	N	22.0
12,6, 35- 37	109.56	5.86	+77.7	185.4	+82.7	145.7	N	19.9
12,6, 85- 87	110.06	2.24	+89.1	89.6	+83.4	141.3	N	19.5
12,6,135-137	110.56	.23	+46.0	130.4	+52.7	131.4	N	13.2
12,7, 27- 29	110.98	.18	+20.1	124.4	+24.3	135.3		14.0
12,7, 75- 77	111.46	.15	+18.9	134.5	-5.0	154.5		10.5
13,1, 58- 60	111.79	.18	-14.8	114.0	-79.3	161.1	R	
13,1, 85- 87	112.06	.99	+32.8	83.1	-67.6	82.2	R	18.2
13,1,135-137	112.56	3.74	+24.6	132.7	-63.1	117.4	R	28.5
13,2, 36- 38	113.07	1.77	+66.4	130.6	-66.6	117.2	R	6.0
13,2, 85- 87	113.56	3.78	-70.3	.7	-67.0	17.2	R	33.8
13,2,135-137	114.06	1.46	-50.4	89.8	-66.4	43.7	R	41.9
13,3, 45- 47	114.66	19.41	-58.3	79.8	-61.1	84.8	R	26.8
13,4, 25- 27	115.96	16.07	-67.6	124.2	-65.0	119.7	R	23.0
13,4, 79- 81	116.50	4.73	-79.2	138.4	-81.4	127.5	R	22.7
13,4,125-127	116.96	.31	-46.8	132.5	-71.9	266.6	R	9.8

Table A5 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
13,5, 37- 39	117.58	9.31	+40.3	142.7	-63.8	159.6	R	4.0
13,5, 77- 79	117.98	3.14	+76.8	127.8	-72.6	359.1	R	16.0
13,6, 18- 20	118.89	8.73	-64.3	118.7	-72.0	161.8	R	4.9
13,6, 77- 79	119.48	2.94	+38.9	281.2	-82.8	346.4	R	3.2
13,7, 33- 35	120.54	.92	+74.7	30.7	-62.9	35.9	R	7.5
13,7, 84- 86	121.05	9.46	-62.3	132.4	-65.4	123.2	R	3.9
13,7,133-135	121.54	.37	-62.8	69.0	-62.6	76.6	R	5.0
14,2, 85- 87	123.06	60.02	-4.7	124.4	-63.3	112.1	R	4.9
14,2,135-137	123.56	5.93	-83.8	158.4	-75.3	262.7	R	39.9
14,3, 35- 37	124.06	12.10	+76.4	138.1	+70.1	104.6		10.8
14,3, 85- 87	124.56	44.78	-58.5	77.9	-62.5	74.2	R	27.0
14,4, 35- 37	125.56	19.46	-60.6	103.7	-71.0	85.8	R	25.1
14,4, 85- 87	126.06	1.06	-56.9	317.2	-63.7	20.3	R	3.8
14,5, 35- 37	127.06	3.52	-61.7	79.4	-64.4	77.9	R	45.7
14,5, 85- 87	127.56	4.50	-46.0	23.2	-67.8	33.6	R	23.7
14,5,135-137	128.06	2.39	+9.7	104.8	-78.2	68.3	R	34.6
15,1, 35- 37	130.56	3.00	-61.1	132.5	-74.9	190.6	R	3.5
15,1, 85- 87	131.06	3.69	+43.6	297.9	-77.1	259.0	R	3.0
15,1,135-137	131.56	.67	+68.1	244.3	-73.3	249.2	R	44.2
15,2, 35- 37	132.06	.13	-12.1	161.8	-83.5	230.6	R	
15,2, 85- 87	132.56	10.37	+66.0	111.3	-81.0	241.0	R	3.7
15,2,135-137	133.06	.09	-23.6	35.0	-87.2	258.5	R	
15,3, 85- 87	134.06	.13	+67.6	.3	-70.9	243.2	R	8.0
15,3,135-137	134.56	.33	+49.8	346.8	-67.9	242.2	R	35.4
15,4, 35- 37	135.06	.43	-60.6	308.5	-71.2	291.9	R	3.2
15,4, 85- 87	135.56	.59	-43.2	57.2	-68.8	19.1	R	65.4
15,5, 35- 37	136.56	.39	+2.0	119.4	-61.6	141.5	R	2.3
15,5, 85- 87	137.06	.14	-13.5	81.5	-77.2	137.3	R	
15,5,135-137	137.56	1.82	+46.1	106.7	-70.4	146.9	R	2.6
15,6, 35- 37	138.06	.66	-63.0	72.1	-64.3	56.8	R	6.1
15,7, 35- 37	139.56	5.20	+33.6	132.6	-62.6	56.3	R	2.6
16,1, 85- 87	140.56	1.17	+84.9	95.6	-61.6	92.5	R	2.1
16,1,135-137	141.06	1.34	+76.8	128.2	-69.2	64.0	R	2.7
16,2, 35- 37	141.56	8.18	+85.4	117.7	-67.6	40.5	R	4.4
16,2, 85- 87	142.06	3.00	+81.9	344.3	-72.1	63.9	R	2.3
16,2,135-137	142.56	.57	+41.6	85.1	-81.7	31.3	R	69.7
16,3, 35- 37	143.06	.40	+24.8	73.9	-70.4	55.7	R	49.4
16,3, 85- 87	143.56	6.99	+83.3	357.5	-62.3	34.6	R	2.9
16,3,135-137	144.06	1.33	+29.0	27.8	-66.0	18.8	R	2.7
16,4, 35- 37	144.56	.74	+80.1	105.9	-65.6	41.2	R	2.5
16,4, 85- 87	145.06	.18	+82.3	266.5	-68.2	68.4	R	1.8
16,4,135-137	145.56	.24	+43.6	88.1	-66.1	21.0	R	35.5
16,5, 35- 37	146.06	.24	-1.5	244.8	-63.0	10.7	R	
16,5, 85- 87	146.56	.38	+76.1	84.3	-63.9	53.9	R	3.1
16,5,135-137	147.06	.20	+61.3	11.7	-71.6	55.1	R	4.5
16,6, 35- 37	147.56	.96	+77.2	216.6	-70.4	4.3	R	3.1

Table A5 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
17,1, 35- 37	149.56	.36	+50.7	11.2	-72.0	61.2	R	
17,1,135-137	150.56	.24	-23.9	120.2	-60.1	104.2	R	26.6
17,2, 31- 33	151.02	.08	+2.3	72.2	-61.2	62.8	R	13.1
17,2, 56- 58	151.27	.27	-60.5	82.7	-65.0	50.4	R	3.8
17,3, 35- 37	152.56	.20	-27.5	95.8	-65.9	74.0	R	
17,3, 56- 58	152.77	.18	-32.6	79.1	-62.4	54.1	R	29.8
17,4, 37- 39	154.08	.13	+45.2	148.2	-73.2	34.9	R	3.8
17,4, 95- 97	154.66	.19	-33.3	121.4	-83.9	85.3	R	5.3
17,4,133-135	155.04	.23	-19.5	115.1	-58.7	90.1	R	10.4
17,5, 35- 37	155.56	.14	-17.3	57.0	-67.2	78.5	R	
17,5,117-119	156.38	.53	-68.3	90.4	-75.1	96.5	R	5.9
17,6, 49- 51	157.20	.20	+15.7	157.2	-64.8	89.2	R	66.0
17,6, 85- 87	157.56	.49	+60.6	202.4	-70.6	115.2	R	60.6
17,7, 23- 25	158.44	.29	-33.1	87.0	-74.8	54.0	R	97.4
18,1, 35- 37	159.06	.28	-61.7	101.1	-68.8	124.2	R	35.1
18,1, 95- 97	159.66	.14	-50.5	108.4	-79.0	149.7	R	
18,1,135-137	160.06	.19	+27.9	125.3	-71.2	114.8	R	4.8
18,2, 35- 37	160.56	.45	-16.3	109.9	-62.7	134.2	R	54.0
18,2, 95- 97	161.16	1.25	+5.9	143.4	-75.3	135.2	R	35.1
18,2,135-137	161.56	.31	+8.7	136.4	-74.0	123.1	R	42.9
18,3, 35- 37	162.06	.71	-12.4	173.7	-68.6	131.4	R	20.5
18,3, 95- 97	162.66	.26	-58.1	107.3	-69.6	105.0	R	
18,3,135-137	163.06	.69	+58.2	198.1	-62.8	107.7	R	10.3
18,4, 35- 37	163.56	.68	+33.1	134.2	-74.8	113.7	R	25.5
18,4, 95- 97	164.16	.37	+50.5	147.9	-62.6	136.5	R	43.0
18,5, 35- 37	165.06	.15	-35.0	92.6	-65.0	125.7	R	
18,5, 95- 97	165.66	.07	-64.3	71.7	-76.2	152.7	R	
18,5,135-137	166.06	.08	+53.7	60.4	-62.7	142.7	R	4.1
18,6, 35- 37	166.56	.18	+65.6	28.9	-66.3	205.0	R	7.9
18,6, 93- 95	167.14	.28	+64.4	345.4	+64.4	345.4	N	20.0
18,7, 35- 37	168.06	.53	+75.9	155.4	+68.8	314.6	N	4.3
19,3, 9- 11	171.30	.36	+56.8	118.2	+66.9	110.6	N	
19,4, 35- 37	173.06	1.03	+66.5	156.0	+74.7	160.1	N	34.6
19,4, 85- 87	173.56	.33	+49.6	151.1	+73.2	140.3	N	30.3
19,4,130-132	174.01	.29	+42.0	142.5	+68.0	164.9	N	25.8
19,5, 35- 37	174.56	.14	+51.7	150.2	+68.6	171.6	N	38.4
19,5, 85- 87	175.06	.19	+43.4	116.3	+64.0	130.6	N	44.3
19,5,135-137	175.56	.17	+63.5	135.0	+67.3	144.9	N	23.0
20,1, 35- 37	178.06	.65	+84.1	333.7	+81.0	152.1	N	23.8
20,1, 85- 87	178.56	1.36	+81.5	68.5	+64.1	156.0	N	6.4
20,1,135-137	179.06	.48	+75.9	148.9	+77.7	198.3	N	29.7
20,2, 35- 37	179.56	1.23	+80.1	202.5	+74.9	208.5	N	27.7
20,2, 85- 87	180.06	.23	+68.5	83.3	+68.4	173.6	N	15.1
20,2,135-137	180.56	.47	+72.2	121.0	+70.3	205.0	N	11.0
20,3, 35- 37	181.06	.26	-14.4	88.8	-76.0	89.4	R	
20,3, 85- 87	181.56	.28	+35.0	83.7	-63.4	78.6	R	44.2
20,3,135-137	182.06	.35	-57.7	9.0	-67.0	22.1	R	66.9

Table A5 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
20,4, 35- 37	182.56	.19	+52.6	13.3	-64.3	17.5	R	7.8
20,4, 85- 87	183.06	.22	+38.9	68.8	-69.3	51.0	R	
20,5, 34- 36	184.05	.75	-55.6	49.9	-68.8	31.5	R	
20,5, 84- 86	184.55	.30	-38.2	72.6	-72.9	53.6	R	
21,1, 35- 37	185.16	.28	+70.8	17.2	-64.0	332.9	R	8.7
21,1, 85- 87	185.66	.19	+83.8	129.1	-87.8	304.0	R	3.9
21,1,135-137	186.16	.29	-56.5	301.0	-67.4	326.4	R	8.5
21,2, 8- 10	186.39	.96	-50.4	334.5	-72.2	314.8	R	4.2
21,2, 47- 49	186.78	.26	-5.7	100.4	-61.2	76.5	R	
22,1, 35- 37	187.16	.18	-26.2	71.6	-70.0	130.2	R	69.2
22,1, 81- 83	187.62	.11	+21.9	32.9	-73.6	124.8	R	
22,1,117-119	187.98	.11	-36.4	121.4	-64.6	134.0	R	13.5
22,2, 32- 34	188.63	.28	+6.0	56.0	-69.5	32.4	R	38.9
22,2, 82- 84	189.13	1.13	-63.1	36.7	-69.5	4.1	R	
22,3, 35- 37	190.16	6.68	-36.2	93.1	-61.5	18.3	R	50.7
22,3, 82- 84	190.63	.09	+23.1	53.9	-84.4	1.2	R	
22,3,135-137	191.16	3.59	+83.2	67.7	-71.4	3.5	R	5.9
22,4, 35- 37	191.66	.15	-50.3	155.5	-76.1	39.1	R	
22,4, 82- 84	192.13	.14	+11.4	82.8	-67.2	40.4	R	18.5
22,5, 35- 37	193.16	.07	-37.2	63.3	-65.0	19.3	R	
22,5, 82- 84	193.63	.44	-56.0	55.2	-69.8	43.5	R	49.8
23,1, 41- 43	194.52	.15	+66.7	90.9	+69.8	167.7	N	9.3
23,2, 35- 37	195.96	.32	+51.5	61.0	+45.7	44.5	N	42.7
23,2, 85- 87	196.46	.13	+26.7	51.6	-9.1	54.2		8.4
23,2,135-137	196.96	.38	-31.8	112.5	-50.0	108.3	R	
23,3, 35- 37	197.46	.59	-72.0	21.0	-74.3	.5	R	
23,3, 85- 87	197.96	.35	-60.7	14.0	-67.6	341.5	R	
23,3,135-137	198.46	3.48	-64.0	12.2	-65.0	359.9	R	
23,4, 35- 37	198.96	.23	+11.2	136.2	-70.8	354.7	R	
23,4, 83- 85	199.44	.07	-44.5	88.7	-75.3	332.1	R	
23,4,132-134	199.93	.08	-29.0	53.4	-64.1	.4	R	
23,5, 35- 37	200.46	.03	-58.5	.3	-75.7	343.7	R	
23,5, 85- 87	200.96	.22	-23.3	68.2	-61.7	342.9	R	3.3
23,5,133-135	201.44	.04	-47.4	16.8	-69.3	346.6	R	
24,1, 35- 37	201.46	.11	-58.8	95.0	-67.2	82.6	R	
24,1, 85- 87	201.96	.24	+70.0	68.6	-67.1	43.9	R	4.4
24,1,135-137	202.46	.12	+48.3	22.4	-70.4	51.2	R	36.7
24,2, 35- 37	202.96	.82	-70.2	122.9	-76.7	55.1	R	
24,2, 85- 87	203.46	2.14	-69.4	41.8	-70.9	36.0	R	
24,3, 35- 37	204.46	.17	+48.6	45.4	-75.7	51.1	R	4.9
24,3, 85- 87	204.96	.11	+1.6	73.1	-68.1	62.5	R	
24,3,135-137	205.46	.29	+69.5	22.8	-72.1	51.2	R	3.9
24,4, 35- 37	205.96	.36	+28.5	56.3	-76.9	54.0	R	
25,1, 30- 32	206.31	.19	+31.7	37.9	-66.1	34.1	R	
25,1, 85- 87	206.86	.09	-3.3	51.3	-68.1	58.6	R	

Table A5 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
25,1,135-137	207.36	.11	-41.6	37.3	-67.8	24.7	R	
25,2, 30- 32	207.81	.17	+15.9	68.1	-73.1	34.1	R	
25,2, 85- 87	208.36	.20	-6.4	48.4	-68.2	64.5	R	48.2
25,3, 30- 32	209.31	.18	-17.9	53.2	-63.1	44.8	R	
26,1, 35- 37	210.86	.12	+20.9	52.9	-68.9	125.2	R	
26,1, 85- 87	211.36	.15	+25.5	65.5	-63.6	127.4	R	
26,1,135-137	211.86	.16	-14.6	123.8	-68.6	131.6	R	
26,2, 35- 37	212.36	.66	-68.9	126.1	-77.0	125.5	R	
26,2, 85- 87	212.86	2.46	-53.7	110.6	-70.3	126.8	R	
26,2,135-137	213.36	.89	-49.0	111.4	-63.9	112.8	R	48.0
26,3, 35- 37	213.86	.06	+11.4	62.9	-70.7	118.5	R	
27,1, 85- 87	215.16	.20	-56.1	64.8	-67.3	18.0	R	40.9
27,1,115-117	215.46	.43	-84.0	60.8	-85.2	6.1	R	54.8
28,1, 35- 37	216.46	.17	-40.1	68.7	-67.8	18.4	R	38.1
28,1, 85- 87	216.96	1.60	-64.5	46.8	-69.3	35.2	R	48.7
28,1,135-137	217.46	2.06	-64.3	100.5	-72.7	33.5	R	27.0
28,2, 35- 37	217.96	3.36	-69.6	48.6	-73.5	38.4	R	54.8
28,2, 85- 87	218.46	3.63	-68.8	34.6	-72.3	24.4	R	
28,2,135-137	218.96	2.35	-71.3	54.6	-67.4	25.5	R	49.5
28,3, 35- 37	219.46	.35	-76.9	72.1	-85.3	37.3	R	4.1
28,3, 85- 87	219.96	.14	+36.9	52.3	-70.2	27.2	R	7.9
28,4, 35- 37	220.96	.24	+37.7	79.9	-64.0	63.5	R	6.8
29,1, 35- 37	221.46	.28	+27.4	96.4	-65.2	110.6	R	9.5
29,1, 85- 87	221.96	.12	+36.5	81.7	-64.2	82.2	R	4.1
29,1,135-137	222.46	.13	-74.0	165.2	-74.4	114.4	R	3.3
29,2, 35- 37	222.96	.19	-31.2	106.2	-75.6	136.0	R	13.6
29,2, 85- 87	223.46	.14	-51.0	37.7	-61.1	106.6	R	12.5
29,3, 35- 37	224.46	.66	-6.5	117.0	-66.0	109.6	R	44.4
29,3, 85- 87	224.96	.48	-33.4	112.0	-67.4	95.4	R	33.2
29,3,135-137	225.46	.14	+70.1	56.2	+78.5	274.7	N	17.5
30,1, 35- 37	226.46	.31	+75.5	89.1	+77.6	102.9	N	6.6
30,1, 85- 87	226.96	.98	+72.8	201.8	+79.0	116.5	N	45.9
30,1,135-137	227.46	.53	+68.0	99.6	+62.4	115.5	N	26.2
30,2, 35- 37	227.96	.39	+55.8	99.8	+64.5	127.3	N	13.2
30,2, 85- 87	228.46	.27	+80.0	40.1	+77.6	105.2	N	6.3
30,2,135-137	228.96	.43	+68.6	116.6	+65.4	106.9	N	9.3
30,3, 35- 37	229.46	.43	+66.0	49.8	+71.6	88.0	N	11.8
30,3, 85- 87	229.96	.47	+78.7	146.0	+76.9	117.9	N	8.4
30,3,135-137	230.46	1.56	+73.8	212.6	+74.3	113.1	N	44.2
30,4, 35- 37	230.96	1.08	+75.9	151.5	+67.1	123.8	N	42.3
30,4, 85- 87	231.46	1.18	+80.9	140.0	+81.3	139.9	N	37.0
30,4,135-137	231.96	2.55	+87.5	193.4	+74.3	109.3	N	44.6
31,1, 35- 37	232.46	1.16	-74.9	6.4	-79.6	318.0		
31,1, 85- 87	232.96	4.98	+75.5	136.9	+76.8	137.2	N	47.2

Table A5 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
31,1,135-137	233.46	7.89	+75.5	158.0	+75.4	159.1	N	45.9
31,2, 35- 37	233.96	.99	+63.6	43.0	+74.3	129.7	N	43.1
31,2, 85- 87	234.46	.32	+68.8	118.5	+66.0	125.5	N	6.4
31,2,135-137	234.96	.30	+71.3	123.4	+70.5	113.2	N	9.7
31,3, 35- 37	235.46	.41	+58.5	89.5	+66.1	140.2	N	12.6
31,3, 85- 87	235.96	.65	+66.4	99.5	+64.2	129.9	N	13.2
31,4, 35- 37	236.96	.63	+77.7	100.5	+69.8	131.0	N	18.2
31,4, 85- 87	237.46	.70	+72.5	122.9	+73.0	129.5	N	13.4
32,1, 35- 37	238.46	.89	+64.8	93.5	+70.8	111.9	N	14.5
32,1, 85- 87	238.96	1.39	+64.8	126.9	+71.8	114.5	N	16.1
32,2, 35- 37	239.96	.47	+61.5	123.6	+62.5	121.8	N	12.7
32,2, 85- 87	240.46	.32	+60.2	85.4	+72.3	98.5	N	12.7
32,2,135-137	240.96	.51	+81.1	122.2	+80.5	108.4	N	13.7
32,3, 35- 37	241.46	.89	+57.0	112.8	+73.4	104.1	N	10.6
32,3, 85- 87	241.96	.62	+81.7	203.0	+70.0	123.0	N	11.8
32,3,135-137	242.46	.93	+72.5	107.0	+74.1	107.4	N	15.0
32,4, 35- 37	242.96	.55	+65.7	122.4	+65.5	120.3	N	12.7
32,4, 85- 87	243.46	.33	+60.7	132.0	+64.5	113.6	N	17.6
32,4,135-137	243.96	.64	+70.3	100.4	+68.5	105.9	N	16.3
33,1,135-137	245.06	.31	+71.4	82.6	+74.3	45.7	N	18.5
33,2, 35- 37	245.56	.30	+72.3	53.9	+72.1	48.9	N	15.6
34,1, 35- 37	246.36	.82	+69.8	77.6	+72.1	70.6	N	19.1
34,1, 85- 87	246.86	.54	+55.5	63.9	+77.2	75.7	N	8.4
34,1,135-137	247.36	.82	+70.2	93.9	+71.7	85.9	N	15.2
34,2, 35- 37	247.86	.64	+52.8	104.5	+66.0	88.6	N	13.7
34,2, 85- 87	248.36	1.09	+62.0	62.7	+71.0	69.5	N	28.9
34,2,135-137	248.86	2.27	+67.8	126.2	+80.9	94.1	N	18.3
34,3, 23- 25	249.24	.96	+61.5	47.0	+74.4	54.5	N	19.8
34,4, 35- 37	250.86	2.88	+77.4	19.3	+78.2	18.5	N	46.9
34,4, 85- 87	251.36	3.14	+67.1	49.0	+67.6	46.6	N	47.9
34,4,135-137	251.86	1.48	+72.7	51.9	+70.7	49.9	N	35.3
34,5, 35- 37	252.36	.66	+62.8	40.0	+64.6	39.1	N	19.5
34,5, 85- 87	252.86	.46	+70.1	40.4	+68.6	32.8	N	23.4
34,5,135-137	253.36	.32	+59.0	78.6	+70.8	55.2	N	14.8
34,6, 35- 37	253.86	.43	+65.3	72.6	+71.8	22.7	N	17.6
34,6, 85- 87	254.36	.58	+64.2	48.4	+79.1	17.8	N	15.6
34,6,135-137	254.86	.50	+77.9	61.9	+75.7	21.1	N	13.3

J_{NRM}, Decl._{NRM}, Incl._{NRM} — intensity, inclination, declination of the natural remanent magnetization; Incl._{stable}, Decl._{stable} — inclination, declination of the stable remanence after AF demagnetization; Pol., N, R — polarity, normal, reversed; MDF — median destructive field.

Table A6. Paleomagnetic properties of samples from Hole 644B.

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
1,1, 11- 13	.12	40.43	+80.9	322.2	+81.2	312.9	N	35.4
1,1, 72- 74	.73	14.12	+74.9	356.1	+73.0	352.2	N	22.5
1,1,137-139	1.38	7.03	+77.6	328.4	+74.0	314.1	N	28.2
1,2, 45- 47	1.96	25.27	+78.4	326.3	+78.4	321.7	N	27.0
1,2, 96- 98	2.47	11.07	+77.9	32.5	+78.3	16.9	N	28.4
1,2,136-138	2.87	28.74	+78.5	67.3	+78.6	59.0	N	28.0
1,3, 53- 55	3.54	39.01	+56.3	57.7	+76.3	16.1	N	23.9
1,3,112-114	4.13	25.18	+71.0	45.5	+71.8	43.4	N	29.6
2,1, 71- 73	5.32	47.00	+71.0	39.3	+72.2	28.1	N	30.5
2,1,115-117	5.76	57.45	+81.3	358.2	+81.4	339.9	N	31.3
2,2, 14- 16	6.25	38.97	+76.8	315.8	+75.3	314.9	N	31.5
2,2, 71- 73	6.82	3.17	+72.5	40.1	+66.6	75.5	N	21.8
2,2,133-135	7.44	8.07	+75.1	46.6	+80.1	26.3	N	22.4
2,3, 31- 33	7.92	55.54	+81.8	337.5	+81.5	328.1	N	29.6
2,3, 72- 74	8.33	48.77	+81.5	358.5	+77.5	358.9	N	29.8
2,3,138-140	8.99	46.64	+80.3	346.1	+74.0	340.0	N	28.5
2,4, 36- 38	9.47	.98	+78.9	83.3	-61.7	156.6		8.9
2,4, 92- 94	10.03	35.67	+84.7	60.3	+82.5	23.8	N	22.9
2,4,146-148	10.57	50.41	+77.4	303.3	+77.8	309.8	N	27.1
2,5, 37- 39	10.98	56.78	+80.2	8.6	+76.5	2.5	N	25.8
2,5, 93- 95	11.54	31.56	+86.6	10.8	+87.1	51.0	N	22.4
2,5,136-138	11.97	30.89	+87.6	243.9	+86.6	312.7	N	23.9
2,6, 46- 48	12.57	21.62	+79.0	1.2	+79.0	359.1	N	26.3
2,6, 92- 94	13.03	8.06	+86.3	280.0	+85.8	344.5	N	25.9
2,6,146-148	13.57	21.74	+70.6	4.7	+68.7	359.2	N	23.8
2,7, 17- 19	13.78	1.83	+37.9	33.8	-40.4	238.0		38.4
3,1, 67- 69	14.78	71.98	+73.0	50.2	+70.8	48.6	N	28.1
3,1,111-113	15.22	24.60	+71.8	81.9	+73.9	70.3	N	26.3
3,2, 30- 32	15.91	26.05	+82.9	39.3	+79.8	23.7	N	29.8
3,2, 91- 93	16.52	48.33	+72.1	70.8	+70.5	68.3	N	28.1
3,2,135-137	16.96	44.79	+66.1	128.5	+67.4	133.4	N	28.2
3,3, 45- 47	17.56	25.64	+70.2	116.6	+72.1	126.5	N	17.4
3,3, 90- 92	18.01	13.37	+71.5	140.6	+72.9	142.9	N	17.6
3,3,134-136	18.45	9.10	+73.6	152.9	+70.4	148.2	N	12.1
3,4, 34- 36	18.95	50.71	+76.1	160.2	+75.8	162.8	N	34.7
3,4, 91- 93	19.52	11.10	+68.4	165.9	+70.6	166.2	N	18.7
3,4,147-149	20.08	70.69	+77.3	197.1	+79.2	189.1	N	28.2
3,5, 44- 46	20.55	28.78	+74.9	181.6	+76.0	190.7	N	23.0
3,5, 90- 92	21.01	29.83	+77.3	150.4	+80.0	162.8	N	30.7
3,5,135-137	21.46	11.53	+73.6	148.8	+79.3	178.3	N	27.2
3,6, 35- 37	21.96	16.03	+85.8	74.0	+89.0	169.3	N	19.3
3,6, 92- 94	22.53	7.28	+74.5	131.4	-5.4	154.5		28.3
4,1, 45- 47	24.06	23.89	+77.4	280.3	+74.2	307.6	N	29.4
4,1, 90- 92	24.51	20.05	+78.3	298.1	+78.4	308.2	N	25.0
4,1,145-147	25.06	16.50	+74.1	292.0	+72.6	312.2	N	29.9
4,2, 34- 36	25.45	11.86	+73.5	276.2	+70.6	281.9	N	27.7

Table A6 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
4,2, 90- 92	26.01	11.73	+73.2	28.7	+67.2	6.6	N	20.5
4,2,145-147	26.56	14.96	+74.4	32.8	+71.8	24.5	N	20.9
4,3, 45- 47	27.06	25.08	+52.4	319.1	+53.2	327.2	N	27.4
4,3, 91- 93	27.52	11.21	+55.4	323.4	+22.1	187.4	N	22.3
4,3,135-137	27.96	9.92	+68.0	29.4	+68.1	17.0	N	12.8
4,4, 45- 47	28.56	24.45	+44.6	342.6	+77.9	4.6	N	25.2
4,4, 93- 95	29.04	20.66	+47.5	333.6	+78.4	25.6	N	17.8
4,4,146-148	29.57	10.60	+36.6	359.8	-63.0	113.0		25.1
4,5, 44- 46	30.05	23.26	+81.6	9.6	+79.3	4.0	N	23.9
4,5, 89- 91	30.50	25.65	+73.7	19.0	+74.7	18.5	N	26.4
4,5,133-135	30.94	7.53	+83.7	24.0	+81.0	20.1	N	27.6
4,6, 33- 35	31.44	46.21	+68.1	355.1	+71.8	358.8	N	28.2
4,6, 75- 77	31.86	107.03	+74.4	166.8	+77.7	192.0	N	19.1
5,1, 54- 56	33.65	32.14	+81.4	150.1	+79.1	161.9	N	19.1
5,1, 92- 94	34.03	39.71	+73.1	151.4	+74.0	166.5	N	23.0
5,1,146-148	34.57	50.22	+75.0	140.9	+75.4	152.0	N	30.6
5,2, 46- 48	35.07	103.36	+58.5	136.0	+71.4	145.5	N	39.6
5,2, 92- 94	35.53	63.03	+83.2	186.6	+83.2	155.5	N	27.7
5,2,135-137	35.96	11.96	+77.6	218.5	+76.9	185.8	N	19.4
5,3, 36- 38	36.47	.70	+57.1	106.4	-23.5	180.0		13.5
5,3, 91- 93	37.02	7.08	+68.9	158.2	+69.5	157.9	N	24.3
5,3,135-137	37.46	24.64	+82.7	186.6	+86.5	171.6	N	27.6
5,4, 37- 39	37.98	28.88	+86.7	164.7	+86.4	180.8	N	27.0
5,4, 93- 95	38.54	18.84	+74.9	199.3	+74.4	188.4	N	28.2
5,5, 3- 5	39.14	12.43	+60.6	218.6	+66.8	228.0	N	35.5
6,1, 46- 48	43.07	19.56	+66.5	101.0	+68.3	110.9	N	29.0
6,1, 90- 92	43.51	40.88	+42.8	93.2	+72.0	101.1	N	43.7
6,1,136-138	43.97	10.58	+74.8	139.9	+68.1	132.6	N	20.7
6,2, 45- 47	44.56	23.97	+78.9	99.5	+78.6	102.0	N	
6,2, 90- 92	45.01	21.20	+63.7	81.4	+69.1	90.8	N	63.7
6,2,136-138	45.47	13.89	+66.5	93.9	+66.5	94.3	N	24.0
6,3, 46- 48	46.07	4.47	+64.5	109.3	+72.3	104.5	N	10.7
6,3, 89- 91	46.50	7.19	+64.3	97.0	+68.1	91.8	N	23.1
6,3,136-138	46.97	1.01	+62.5	105.6	+70.1	108.0	N	4.3
6,4, 46- 48	47.57	41.69	+66.7	71.6	+69.4	78.8	N	24.7
6,4, 90- 92	48.01	3.63	+61.0	112.6	+71.8	108.0	N	36.5
6,4,137-139	48.48	21.23	+74.4	92.4	+73.2	89.1	N	23.4
6,5, 45- 47	49.06	15.29	+55.6	71.4	+72.8	79.1	N	23.7
6,5, 89- 91	49.50	22.53	+69.7	96.8	+71.4	98.9	N	25.7
6,5,133-135	49.94	10.24	+71.6	99.7	+73.1	82.0	N	19.3
6,6, 12- 14	50.23	9.79	+71.4	314.4	+69.5	310.1	N	20.4
7,1, 36- 38	52.47	21.83	+76.7	128.8	+73.9	128.4	N	22.3
7,1, 91- 93	53.02	2.20	+40.9	79.7	+72.5	118.6	N	26.3
7,1,136-138	53.47	42.56	+65.6	156.1	+69.8	128.9	N	18.2
7,2, 37- 39	53.98	72.29	+76.3	92.3	+77.8	91.7	N	25.8
7,2, 90- 92	54.51	58.49	+77.9	94.5	+75.0	102.7	N	13.9
7,2,136-138	54.97	55.34	-12.8	198.7	+83.4	137.2	N	29.2

Table A6 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
7,3, 37- 39	55.48	13.03	+65.8	129.7	+69.3	121.0	N	20.8
7,3, 89- 91	56.00	1.63	+72.2	118.5	+77.0	93.6	N	4.6
7,3,135-137	56.46	1.22	+75.6	149.7	+69.3	120.9	N	4.1
7,4, 37- 39	56.98	27.04	+72.4	104.9	+74.8	107.6	N	38.0
7,4, 90- 92	57.51	10.33	+66.0	110.1	+67.4	124.9	N	27.4
7,4,134-136	57.95	75.91	+70.6	108.3	+72.0	113.7	N	
7,5, 8- 10	58.19	12.08	+77.2	72.0	+82.5	93.1	N	33.5
8,1, 46- 48	62.07	12.42	+78.8	247.5	+74.1	265.1	N	43.1
8,1, 89- 91	62.50	22.06	+72.0	248.2	+72.8	251.8	N	29.2
8,1,136-138	62.97	.59	+71.7	209.4	+69.2	224.0	N	54.0
8,2, 45- 47	63.56	2.82	+31.7	147.7	+79.2	218.6	N	
8,2, 89- 91	64.00	4.48	+74.8	180.8	+75.5	182.9	N	27.6
8,2,135-137	64.46	11.01	+50.3	204.9	+69.4	219.4	N	34.9
8,3, 45- 47	65.06	8.66	+59.0	196.3	+64.4	209.0	N	34.6
8,3, 89- 91	65.50	46.38	+64.7	190.4	+68.6	197.4	N	34.1
8,3,134-136	65.95	14.46	+72.4	203.1	+72.9	201.5	N	30.9
8,4, 45- 47	66.56	6.02	+65.6	200.7	+67.0	203.0	N	29.0
8,4, 91- 93	67.02	14.44	+53.7	171.3	+64.5	185.3	N	23.2
8,4,129-131	67.40	186.44	+72.6	153.4	+75.6	197.1	N	6.0
8,5, 20- 22	67.81	9.58	+70.0	.1	+73.2	39.5	N	27.7
9,1, 46- 48	71.57	30.93	+18.3	149.4	+82.1	37.1	N	4.7
9,1, 91- 93	72.02	39.70	+74.1	19.6	+74.6	17.5	N	19.9
9,1,136-138	72.47	14.13	+77.8	98.0	+75.8	67.5	N	13.1
9,2, 46- 48	73.07	90.05	+65.9	54.6	+68.7	53.9	N	25.1
9,2, 91- 93	73.52	9.90	+79.4	59.8	+70.6	85.5	N	12.5
9,2,136-138	73.97	15.39	+84.9	110.5	+77.0	85.4	N	14.7
9,3, 46- 48	74.57	7.64	+81.0	99.5	+77.7	83.2	N	18.3
9,3, 90- 92	75.01	26.04	+73.1	189.0	+72.4	67.2	N	3.1
9,3,136-138	75.47	4.39	+67.9	21.5	+79.7	51.4	N	19.2
9,4, 46- 48	76.07	5.97	+22.2	260.6	+84.6	71.4	N	13.7
9,4, 90- 92	76.51	27.41	+72.0	60.6	+73.3	57.0	N	16.7
9,4,135-137	76.96	102.08	+79.8	90.2	+78.3	65.2	N	25.9
9,5, 24- 26	77.35	12.52	+84.9	144.0	+84.5	38.4	N	17.5
10,1, 46- 48	81.07	2.69	+66.8	120.8	+72.6	146.7	N	7.8
10,1, 91- 93	81.52	11.24	+82.2	297.0	+87.5	224.7	N	35.0
10,1,137-139	81.98	9.80	+50.0	185.2	+72.0	212.2	N	51.9
10,2, 45- 47	82.56	1.83	+45.6	120.9	+77.3	144.9	N	6.4
10,2, 90- 92	83.01	13.53	-70.7	69.6	-67.1	57.5	R	30.8
10,2,145-147	83.56	22.15	-76.6	93.4	-77.2	71.0	R	27.4
10,3, 46- 48	84.07	38.83	-55.4	83.0	-66.8	78.8	R	28.4
10,3, 90- 92	84.51	1.47	-19.1	123.8	-68.4	34.4	R	22.4
10,3,136-138	84.97	.11	-58.1	222.9	-75.1	62.9	R	
10,4, 46- 48	85.57	4.78	-69.0	16.5	-77.5	39.5	R	28.9
10,4, 90- 92	86.01	8.65	-50.7	74.2	-69.8	76.9	R	28.8
10,4,136-138	86.47	13.07	-64.5	52.9	-71.6	40.3	R	28.1
10,5, 45- 47	87.06	12.20	-56.6	64.2	-71.0	50.5	R	29.8
10,5, 90- 92	87.51	3.76	-43.7	121.0	-68.1	97.8	R	35.0

Table A6 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
10,5,129-131	87.90	1.38	-25.8	27.1	-75.3	39.7	R	
11,1, 56- 58	90.67	1.60	+54.3	108.1	-84.9	6.0	R	47.2
11,1, 92- 94	91.03	2.15	+75.8	57.4	-74.3	306.0	R	3.5
11,1,137-139	91.48	4.96	+83.6	77.0	-62.3	35.0	R	4.1
11,2, 45- 47	92.06	3.55	+86.7	56.2	-70.2	331.1	R	3.7
11,2, 91- 93	92.52	3.93	+79.4	7.7	-77.9	297.7	R	3.4
11,2,136-138	92.97	.93	+14.3	69.1	-79.8	330.4	R	58.1
11,3, 47- 49	93.58	12.92	-69.7	313.0	-72.4	295.5	R	29.3
11,3, 91- 93	94.02	1.61	-70.8	41.3	-79.6	311.2	R	34.8
11,3,137-139	94.48	1.83	-80.1	144.9	-82.7	303.6	R	
11,4, 32- 34	94.93	.62	+60.4	64.5	-66.4	300.4	R	34.5
11,4, 74- 76	95.35	.21	+19.6	171.1	-72.0	325.7	R	
12,1, 46- 48	95.97	.54	-45.7	77.5	-72.0	52.9	R	37.8
12,1, 90- 92	96.41	13.01	-56.7	56.2	-64.8	53.0	R	61.2
12,1,136-138	96.87	7.84	-36.1	90.9	-69.3	55.8	R	24.1
12,2, 30- 32	97.31	12.05	-64.6	29.3	-66.7	17.1	R	24.8
12,2, 97- 99	97.98	28.99	-68.9	73.5	-71.8	75.7	R	25.1
12,2,127-129	98.28	19.50	-71.4	74.4	-72.1	66.9	R	18.3
12,3, 29- 31	98.80	24.07	-58.7	51.9	-68.3	49.4	R	20.0
13,1, 82- 84	106.53	21.60	+76.0	96.2	+76.7	87.3	N	17.5
13,1,147-149	107.18	27.26	+67.8	67.9	+68.1	63.6	N	16.7
13,2, 35- 37	107.56	27.45	+71.4	20.6	+68.0	27.9	N	21.3
13,2, 90- 92	108.11	8.16	+75.0	28.0	+72.5	21.2	N	11.8
13,2,135-137	108.56	.46	+68.1	112.9	+5.3	60.1		4.3
13,3, 45- 47	109.16	.18	+49.5	3.7	-58.1	149.2	R	57.5
13,3, 90- 92	109.61	.18	-29.4	111.6	-75.9	160.6	R	
13,3,137-139	110.08	2.26	-34.0	133.4	-73.2	185.5	R	39.5
13,4, 29- 31	110.50	17.32	-69.3	119.9	-79.4	144.0	R	33.3
13,4, 89- 91	111.10	1.63	+56.7	100.9	-66.9	147.6	R	3.8
13,4,109-111	111.30	.78	-1.5	97.2	-69.8	56.8	R	17.7
14,1,116-118	112.57	1.17	+28.6	111.1	-65.1	10.0	R	8.6
14,2, 34- 36	113.25	2.22	+30.0	131.7	-60.5	22.6	R	4.0
14,2, 85- 87	113.76	2.19	+28.7	156.2	-73.4	37.3	R	4.2
14,2,136-138	114.27	4.71	+16.3	113.2	-71.6	25.5	R	4.4
14,3, 30- 32	114.71	7.73	-60.8	33.8	-70.3	31.3	R	5.9
14,3, 93- 95	115.34	1.26	+76.9	110.4	-69.6	12.1	R	4.8
14,3,136-138	115.77	5.09	-14.4	48.4	-72.6	9.6	R	32.1
14,4, 46- 48	116.37	12.98	-59.3	30.1	-69.0	26.7	R	33.6
14,4, 94- 96	116.85	23.91	-62.9	9.5	-63.5	12.3	R	28.0
14,4,136-138	117.27	11.44	-70.6	17.0	-72.3	4.1	R	21.2
14,5, 37- 39	117.78	.23	+7.7	102.9	-70.0	34.5	R	
14,5, 88- 90	118.29	.63	-72.9	62.3	-71.1	64.3	R	14.6
14,5,135-137	118.76	2.62	+22.3	131.1	-75.1	40.1	R	7.7
14,6, 28- 30	119.19	8.29	-83.9	323.0	-67.5	294.0	R	34.1
15,1, 46- 48	119.67	8.53	+76.2	128.6	-69.6	8.5	R	7.0

Table A6 (continued).

Core, Section, Interval (cm)	Depth (mbsf)	J NRM (mA/m)	Incl. NRM (deg)	Decl. NRM (deg)	Incl stable (deg)	Decl. stable (deg)	Pol.	MDF (mT)
15,1, 91- 93	120.12	4.39	-59.2	77.2	-80.3	19.4	R	49.2
15,1,136-138	120.57	1.91	+44.9	99.2	-73.7	56.9	R	43.7
15,2, 46- 48	121.17	12.76	-78.2	35.1	-72.1	47.8	R	11.5
15,2, 90- 92	121.61	12.40	-24.0	31.9	-66.6	60.1	R	31.6
15,2,136-138	122.07	10.24	-30.0	48.9	-66.0	27.0	R	34.7
15,3, 36- 38	122.57	1.72	-6.6	54.5	-67.7	28.4	R	46.6
15,3, 91- 93	123.12	2.17	+8.4	60.6	-72.9	58.2	R	42.9
15,3,146-148	123.67	6.35	-17.9	15.7	-70.3	20.0	R	34.9
15,4, 46- 48	124.17	3.88	+65.6	107.7	-71.2	54.7	R	4.5
15,4, 91- 93	124.62	15.30	+79.8	198.7	+75.4	217.7		18.4
15,4,147-149	125.18	7.23	+86.1	164.7	-65.7	10.2	R	4.0
15,5, 45- 47	125.66	7.87	-53.3	41.2	-68.4	38.2	R	37.8
15,5, 91- 93	126.12	4.55	-37.4	24.9	-62.9	19.4	R	35.1
15,5,136-138	126.57	1.32	+55.9	71.9	-71.4	29.3	R	4.0
15,6, 46- 48	127.17	.59	+34.4	58.0	-64.9	24.1	R	48.8

J_{NRM}, Decl._{NRM}, Incl._{NRM} — intensity, inclination, declination of the natural remanent magnetization; Incl._{stable}, Decl._{stable} — inclination, declination of the stable remanence after AF demagnetization; Pol., N, R — polarity, normal, reversed; MDF — median destructive field.