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4. Data Report: Anisotropy of Magnetic Susceptibility Study of Quaternary Sediments from the Blake and Blake-Bahama Outer Ridges, Western North Atlantic[1]

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ABSTRACT

Sediments from Sites 1057 and 1061 of Ocean Drilling Program Leg 172 on the Blake Outer Ridge exhibit nearly isotropic magnetic susceptibility. Resolving the degree of anisotropy of magnetic susceptibility proved difficult in many samples because of the generally weak magnetic susceptibility of the sediments relative to the noise level of the susceptibility meters used. Lineation varies from 1.0 to 1.013 and foliation varies from 1.0 to 1.08 in the samples that pass rejection criteria. In general the foliation is better resolved than the lineation, particularly at Site 1061, where the foliation exhibits long-term trends that mimic the mean susceptibility. The changes in the foliation at this site are likely the result of changes in the magnetic mineralogy of the sediment. The poorly developed or absent magnetic fabric in the sediments overall can be attributed to high carbonate concentrations and to a circulation regime that was diffuse or with currents too weak to effectively align magnetic particles.

INTRODUCTION

One of the major objectives of Ocean Drilling Program (ODP) Leg 172 was obtaining high-resolution records of North Atlantic late Neogene paleoceanographic and climate variability made possible by the

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high sedimentation rates on the Blake Outer Ridge (BOR) and Bermuda Rise sediment drifts. Anisotropy of magnetic susceptibility (AMS) has been used as a parameter to determine the degree of alignment of sediment particles in deep-ocean sediments by currents, and the current direction (e.g., Ledbetter and Ellwood, 1980; Bulfinch et al., 1982; Joseph et al., 1998). The effect of deep-water currents on sediment characteristics such as particle size has been demonstrated on the BOR (Haskell and Johnson, 1993) and other settings (Ledbetter, 1984) and used to produce paleocirculation records (e.g., Johnson et al., 1988; Haskell et al., 1991). One objective of this study is to place magnetic fabric into a current-influenced depositional context by comparing AMS data with visibly distinct depositional events in cores. Most cores collected during Leg 172 exhibited no visible current-related structures, but there are some decimeter-scale events displaying laminae, limited bioturbation suggesting rapid deposition, abrupt color changes, and sometimes scoured bases (for examples see the "Lithostratigraphy" sections in chapters of Keigwin, Rio, Acton, et al., 1998a). Eight depositional events were sampled from various sites on the Blake and Blake-Bahama Outer Ridges.

A second objective of this study is to assess, using magnetic fabric analysis, changes in circulation at Sites 1057 and 1061 on the BOR spanning marine isotopic Stages (MISs) 10–12. This interval encompasses some climatic and oceanographic extremes for the last 750,000 yr (Crowley, 1985; Sarnthein and Tiedemann, 1990; Pirazzoli et al., 1993; Bassinot et al., 1994). During Termination V at the MIS 11/12 boundary, North Atlantic Deep Water (NADW) production went from a last-750,000-yr minimum during Stage 12 (Raymo et al., 1990) to the highest flux in the Southern Ocean of any interglacial stage in the past 750,000 yr (Oppo et al., 1990). NADW comprises a notable component of the Western Boundary Undercurrent (WBUC) that plays a key role in sedimentation on the BOR (Markl et al., 1970), and sediment cores should reflect changes in NADW characteristics.

METHODS

The AMS of standard paleomagnetic cube samples was measured at the Institute for Rock Magnetism at the University of Minnesota. Samples taken to study depositional event characteristics, and some samples taken to study downcore trends at Site 1061, were analyzed on the "Roly-Poly." This is a susceptibility bridge designed and built in-house, with an automated sample handling and data acquisition system. Samples from both Sites 1061 and 1057 were analyzed on a Geofyzika KLY-2 Kappabridge.

The susceptibility (K) data are represented by a symmetrical ellipsoid with three orthogonal axes, where $K_1 \geq K_2 \geq K_3$. The lineation parameter (L) describes the elongation of the ellipsoid along its principal axis. The foliation (F) parameter describes the degree of flattening of the ellipsoid along its minor axis. These parameters can be calculated from the susceptibility components $L = K_1/K_2$ (Balsley and Buddington, 1960), $F = K_2/K_3$ (Stacey et al., 1960), and $K_{mean} = (K_1 + K_2 + K_3)/3$ (Nagata, 1961). SI units are used throughout.

Declination values were corrected using data provided by the tensor tool (Keigwin, Rio, Acton, et al., 1998b). Declination values for Cores 172-1061A-9H and 172-1061C-11H, for which no tensor tool data were available, were provided by G.D. Acton (pers. comm., 1997) All declination values include a correction to compensate for an error in the magnetometer software (G.D. Acton, pers. comm., 1997). For K_1, bipolar declinations are also presented normalized to a west (–90°) to north (0°) to east (+90°) 180° radius.

AMS data collected on the Roly-Poly were filtered for reliability by dividing the ratio of the root-mean-square (RMS) values of the residual and best-fit susceptibility expressed as a percentage ($RMS_{r/k}$ = RMS residual · 100/RMS best fit) by the percent anisotropy ($[K_1 – K_3] \cdot 100/K_{mean}$), and rejecting any data sets with ratios <0.1. The ratio of the RMS values is an indicator of the degree of scatter of the individual susceptibility measurements from the calculated susceptibility ellipsoid, and this is compared to the magnitude of anisotropy being described by the data. Kappabridge data were filtered using variance F values calculated for the main and intermediate axes (F_{12}), and the intermediate and minor axes (F_{23}) by the software package. Acceptance of lineation data is based upon the F_{12} value. Acceptance of foliation data is based upon the F_{23} value, and other parameters are accepted based upon both F_{12} and F_{23} values. Data are accepted if they have a F value of 2 or greater. This is based upon observations that data sets with F values <2 generally have inclination or declination values for the K_1 or K_3 axes that suggest the sample may have been disturbed, or have other parameters (e.g., 95% confidence angles) suggesting that the data might be unreliable.

Sediment carbonate content was determined by coulometry at Wesleyan University (Tables T1, T2).

T1. Carbonate content of sediments, Site 1057, p. 9.

T2. Carbonate content of sediments, Site 1061, p. 11.

RESULTS AND DISCUSSION

Event Study Samples

The AMS data for the event studies are presented in Table T3. Only one of the 61 samples passes the filter, and there are insufficient acceptable data to characterize the events on the basis of magnetic fabric. The event study samples were analyzed on the Roly-Poly, which has a lower sensitivity than the Kappabridge, but many of the samples also come from shallower sites with high carbonate content and therefore poor susceptibility.

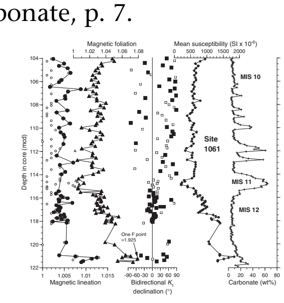
T3. Anisotropy of magnetic susceptibility for depositional events from cores, p. 14.

Site 1061

Filtered *L* data show no trend between 104.5 and 121.5 meters composite depth (mcd) (Table T4; Fig. F1). Low K_1 inclination values show that the lineation is nearly horizontal. Filtered *F* values decrease from 104 to 115 mcd, and then increase noticeably to the base of the interval at 121.5 mcd. Foliation behaves independently of *L* but similar to that of K_{mean}. Major inflections in K_{mean} (e.g., at 115 mcd) are probably largely a factor of increased dilution of terrigenous material by carbonate. Foliation is less likely to be influenced by carbonate content unless carbonate is affecting the compaction properties of the sediment. The similarity between K_{mean} and *F* may instead be a function of changes in source material as sediment provenance changed slightly with sea level through the glacial and interglacial intervals.

T4. Anisotropy of magnetic susceptibility, Site 1061, p. 16.

F1. Site 1061 anisotropy of magnetic susceptibility and sediment carbonate, p. 7.



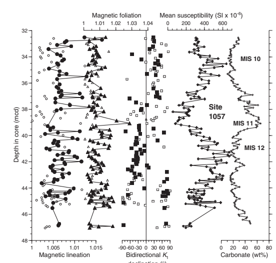
Normalized (see "Methods," p. 2) declination values generally do not show a preferred orientation, except for the cluster in the –30° to 0° direction at 115–118 mcd suggesting alignment of most particles in a north-south to north-northwest–south-southeast direction. This differs slightly from the northwest-southeast alignment of the main axis of the BOR that corresponds to the southeastward WBUC flow on the northeastern flank of the ridge. However, Site 1061 was cored on the crest of the BOR where the WBUC crosses to eventually flow northwestward on the southwestern flank. The core may be located where the current is flowing southward as it turns direction, or flow direction may be modified slightly by local topography.

Site 1057

The lineation parameter at Site 1057 exhibits a fair degree of short-term variability, with values generally between 1.003 and 1.013, but there are no general trends in *L* with depth in the hole (Table T5; Fig. F2). K_1 inclination values indicate that the lineation is nearly horizontal, as is expected in sedimentary environments. Sedimentation rates at Site 1057 are slower than at Site 1061 (Keigwin, Rio, Acton, et al., 1998a), and it is possible that the depositional fabric may have been disrupted by bioturbation.

T5. Anisotropy of magnetic susceptibility, Site 1057, p. 19.

F2. Site 1057 anisotropy of magnetic susceptibility and sediment carbonate, p. 8.



Unlike at Site 1061, filtered *F* values at Site 1057 do not indicate any correspondence between *F* and K_{mean}. *F* at Site 1057 generally varies between 1.005 and 1.015, compared with the trend from 1.01 to 11.1 at Site 1061. The smaller *F* values could in part be due to the shallower sediment depth and lesser degree of compaction of the Site 1057 sample interval (32.5–47 mcd) compared with the interval from Site 1061 deeper in the sediment column (114.5–121.5 mcd). They could also result from a different source of minerals supplied to Site 1057 on the upper part of the rise compared to Site 1061 deeper on the rise.

Normalized declination values appear to follow trends downhole. From 32 to 37 mcd K_1 is aligned northeast-southwest. The alignment disappears from 37 to 39 mcd, but from 39 to 40 mcd there is a trend that starts in a north-northwest–south-southeast direction at 39 mcd and rotates counterclockwise to end in a east-west direction at 47 mcd. The present-day contour lines run northeast-southwest at this site, which is in agreement with contour current parallel alignment at the top of the interval but not at the bottom. Downslope transportation might be expected to align particles at right angles to the contours, but there is no evidence for a large event in this interval.

General

The weak lineation of the sediments may be in part a result of the depositional environment on the crest of the ridge. Although the WBUC is strong enough to winnow sediments on the flanks of the ridge, it may cross the ridge in a more diffuse form rather than as a discrete jet (Haskell and Johnson, 1993). The fact that sediment is being deposited on the ridge crest rather than eroded as observed on the flanks suggests that circulation is not as intense on the crest where the cores were taken, and flow may not be sufficiently intense to align particles.

Sediment composition may also play a role in producing poorly defined lineation records. The work of Johnson et al. (1988) and Haskell et al. (1991) indicates that circulation is most intense during interglacial periods, but sediments deposited during those times have the highest carbonate content, which yields the poorest susceptibility signals. Intervals with better circulation potential for particle alignment may therefore be mineralogically unsuitable for recording particle alignment by magnetic means.

Kappabridge measurement errors are generally within $\pm 6.0 \times 10^{-6}$ SI units. Although the filtering procedure used in this study is not a rigorous statistical test, data points that pass the filter are probably significant. However, the measurement error combined with the relatively small differences between K_1 and K_2 suggests most of the lineation variability probably lies within the error limits. This is also the case for some of the variation in foliation, especially where foliation is weak, but larger variations such as those observed at Site 1061 are probably significant.

SUMMARY

Sediments from Leg 172 sites on the BOR exhibit nearly isotropic magnetic susceptibility with poor magnetic lineation and only slightly better developed magnetic foliation. Although ~50% of the lineation measurements and 75% of the foliation measurements from Sites 1057 and 1061 are probably statistically significant, error limitations make it difficult to confidently resolve downcore magnitude variations except for major foliation changes. The lineation axes are usually horizontal and zones of common polarity suggest some particle alignment may be occurring, but the intensity of the alignment does not follow glacial/interglacial patterns. The stronger foliation trends at Site 1061 show some variability that follows mean magnetic susceptibility and may indicate changes in sediment mineralogy. A weak circulation regime on the crest of the BOR may be partly responsible for the poor magnetic lineation, thus making it difficult to document circulation related sedimentary processes with magnetic fabrics at this location.

ACKNOWLEDGMENTS

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Figure F1. Anisotropy of magnetic susceptibility parameters and sediment carbonate (as calcium carbonate) content for Site 1061. Open symbols are data points that did not pass the filtering tests. MIS = marine isotope stage.

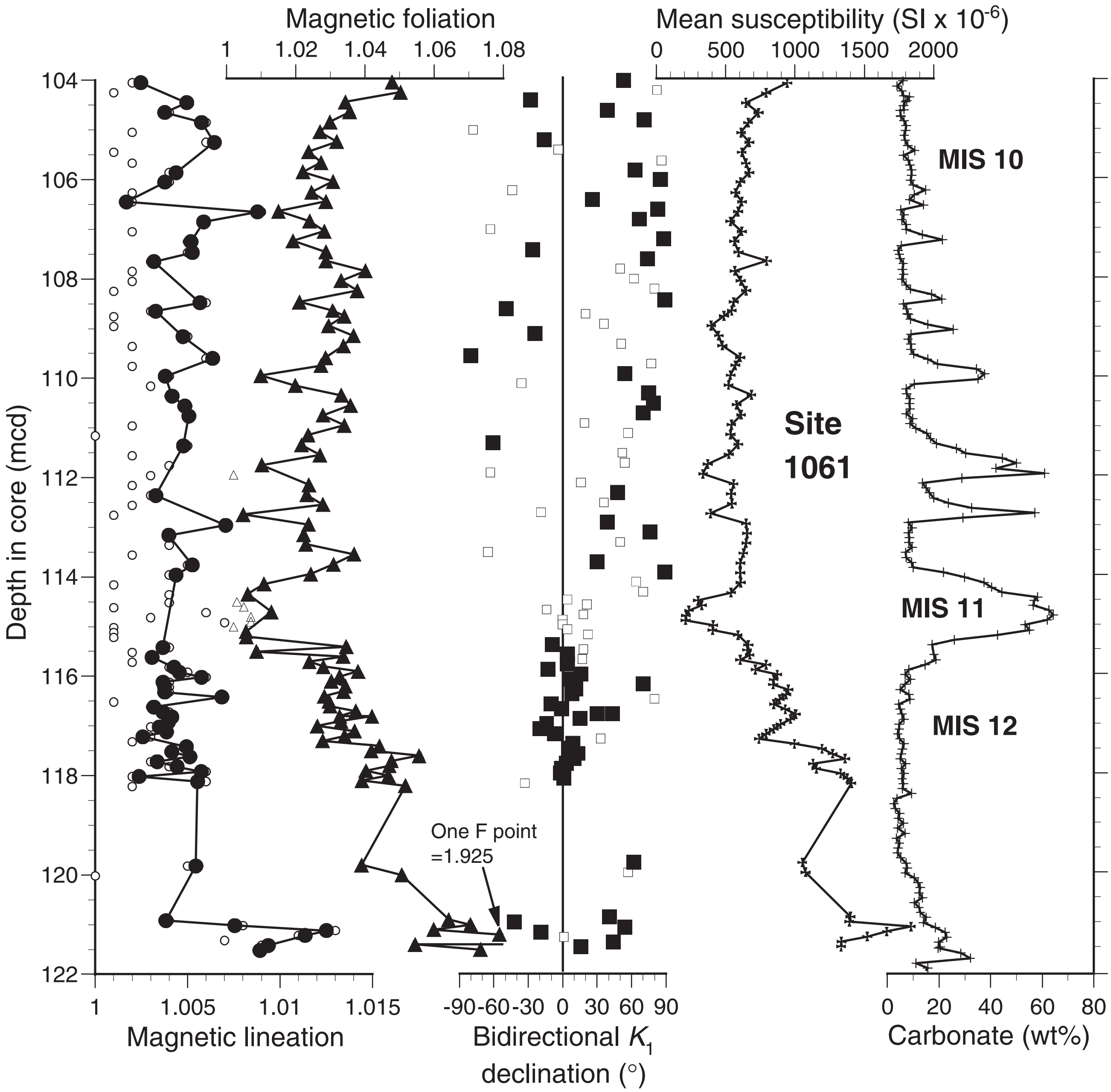

Figure F2. Anisotropy of magnetic susceptibility parameters and sediment carbonate (as calcium carbonate) content for Site 1057. Open symbols are data points that did not pass the filtering tests. MIS = marine isotope stage.

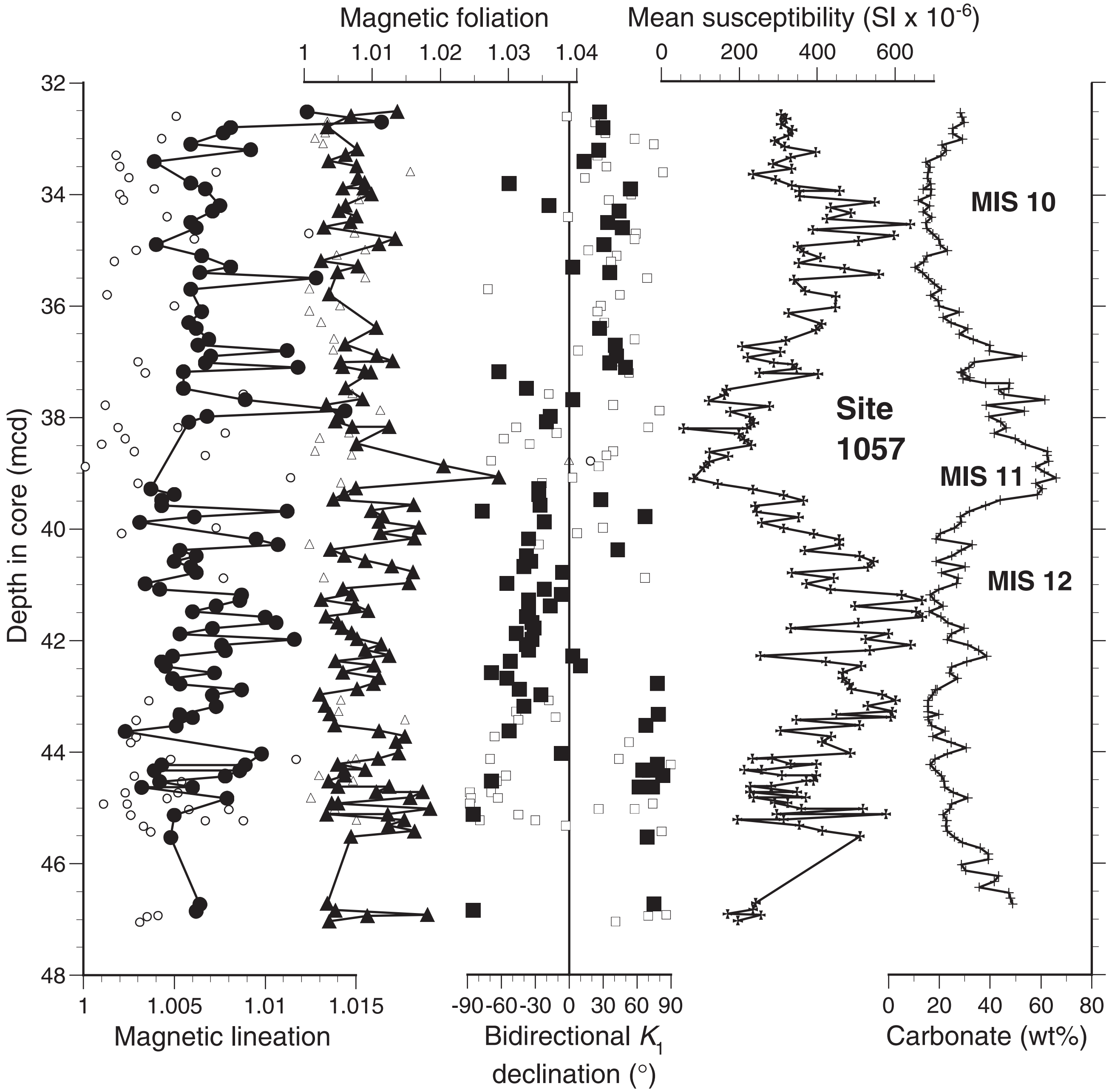

Table T1. Carbonate content of sediments at Site 1057. (See table note. Continued on next page.)

Core, section, interval (cm)	Depth (mbsf)	Depth (mcd)	$CaCO_3$ (wt%)
172-1057B-			
4H-6, 38	30.56	32.52	28.3
4H-6, 46	30.64	32.60	28.9
4H-6, 56	30.74	32.70	29.8
4H-6, 66	30.84	32.80	25.3
4H-6, 76	30.94	32.90	25.2
4H-6, 86	31.04	33.00	29.1
4H-6, 96	31.14	33.10	21.0
4H-6, 106	31.24	33.20	22.7
4H-6, 116	31.34	33.30	20.7
4H-6, 127	31.45	33.41	14.8
4H-6, 136	31.54	33.50	16.4
4H-6, 146	31.64	33.60	15.5
4H-7, 6	31.74	33.70	15.2
4H-7, 16	31.84	33.80	16.6
4H-7, 26	31.94	33.90	13.6
5H-2, 74	34.42	37.18	28.4
5H-2, 84	34.52	37.28	32.1
5H-2, 94	34.62	37.38	38.3
5H-2, 104	34.72	37.48	47.3
5H-2, 114	34.82	37.58	45.5
5H-2, 124	34.92	37.68	61.6
5H-2, 134	35.02	37.78	38.5
5H-2, 144	35.12	37.88	53.6
5H-3, 4	35.22	37.98	39.6
5H-3, 14	35.32	38.08	44.2
5H-3, 24	35.42	38.18	46.4
5H-3, 34	35.52	38.28	41.5
5H-3, 44	35.62	38.38	49.8
5H-3, 54	35.72	38.48	53.8
5H-3, 67	35.85	38.61	62.5
5H-3, 74	35.92	38.68	62.4
5H-3, 84	36.02	38.78	63.0
5H-3, 94	36.12	38.88	58.0
5H-3, 104	36.22	38.98	61.4
5H-3, 114	36.32	39.08	65.9
5H-3, 124	36.42	39.18	57.9
5H-3, 134	36.52	39.28	60.5
5H-3, 144	36.62	39.38	58.6
5H-4, 4	36.72	39.48	43.9
5H-4, 14	36.82	39.58	38.1
5H-4, 24	36.92	39.68	31.9
5H-4, 34	37.02	39.78	28.3
5H-4, 44	37.12	39.88	28.7
5H-4, 54	37.22	39.98	26.0
5H-4, 64	37.32	40.08	20.4
5H-4, 74	37.42	40.18	18.6
5H-4, 84	37.52	40.28	32.9
5H-4, 94	37.62	40.38	28.7
5H-4, 104	37.72	40.48	24.9
5H-4, 114	37.82	40.58	18.6
5H-4, 124	37.92	40.68	30.1
5H-4, 134	38.02	40.78	20.9
5H-4, 144	38.12	40.88	27.4
5H-5, 4	38.22	40.98	26.8
5H-5, 14	38.32	41.08	19.7
5H-5, 24	38.42	41.18	16.4
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5H-5, 84	39.02	41.78	29.7
5H-5, 94	39.12	41.88	24.8
5H-5, 104	39.22	41.98	23.1
5H-5, 114	39.32	42.08	31.1
5H-5, 124	39.42	42.18	35.5
5H-5, 134	39.52	42.28	38.6
5H-5, 144	39.62	42.38	30.9
5H-6, 4	39.72	42.48	24.9
5H-6, 14	39.82	42.58	24.1
5H-6, 24	39.92	42.68	27.1
5H-6, 44	40.12	42.88	19.0
5H-6, 44	40.12	42.88	18.5
5H-6, 54	40.22	42.98	17.3
5H-6, 64	40.32	43.08	15.5
5H-6, 74	40.42	43.18	15.5
5H-6, 84	40.52	43.28	15.5
5H-6, 94	40.62	43.38	15.5
172-1057C-			
4H-5, 4	32.02	33.90	16.7
4H-5, 14	32.12	34.00	16.6
4H-5, 24	32.22	34.10	11.7
4H-5, 34	32.32	34.20	16.2
4H-5, 44	32.42	34.30	13.6
4H-5, 54	32.52	34.40	16.9
4H-5, 64	32.62	34.50	14.7
4H-5, 74	32.72	34.60	15.1
4H-5, 84	32.82	34.70	17.5
4H-5, 94	32.92	34.80	19.8
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4H-5, 134	33.32	35.20	13.8
4H-5, 144	33.42	35.30	10.4
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4H-6, 14	33.62	35.50	15.8
4H-6, 24	33.72	35.60	18.1
4H-6, 34	33.82	35.70	20.9
4H-6, 44	33.92	35.80	16.5
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5H-4, 114	41.12	43.73	17.4
5H-4, 124	41.22	43.83	24.6
5H-4, 134	41.32	43.93	30.6
5H-4, 144	41.42	44.03	23.2
5H-5, 4	41.52	44.13	18.3
5H-5, 14	41.62	44.23	16.4
5H-5, 24	41.72	44.33	18.4
5H-5, 34	41.82	44.43	20.7
5H-5, 44	41.92	44.53	21.9
5H-5, 54	42.02	44.63	22.1
5H-5, 64	42.12	44.73	25.5
5H-5, 74	42.22	44.83	31.2
5H-5, 84	42.32	44.93	24.8
5H-5, 94	42.42	45.03	24.0
5H-5, 104	42.52	45.13	21.5

Table T1 (continued).

Core, section, interval (cm)	Depth (mbsf)	Depth (mcd)	$CaCO_3$ (wt%)
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5H-5, 124	42.72	45.33	22.4
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5H-5, 144	42.92	45.53	25.8
5H-6, 4	43.02	45.63	29.0
5H-6, 14	43.12	45.73	36.1
5H-6, 24	43.22	45.83	39.2
5H-6, 34	43.32	45.93	39.3
5H-6, 44	43.42	46.03	28.8
5H-6, 54	43.52	46.13	30.3
5H-6, 64	43.62	46.23	43.2
5H-6, 74	43.72	46.33	41.7
5H-6, 84	43.82	46.43	35.7
5H-6, 94	43.92	46.53	47.3
5H-6, 104	44.02	46.63	47.9
5H-6, 114	44.12	46.73	48.9

Note: mbsf = meters below seafloor; mcd = meters composite depth.

Table T2. Carbonate content of sediments at Site 1061. (Continued on next two pages.)

Core, section, interval (cm)	Depth (mbsf)	Depth (mcd)	$CaCO_3$ (wt%)
172-1061A-			
9H-1, 10-12	76.10	101.15	10.9
9H-1, 10-12	76.10	101.15	11.2
9H-1, 20-22	76.20	101.25	11.3
9H-1, 30-32	76.30	101.35	10.2
9H-1, 40-42	76.40	101.45	8.9
9H-1, 50-52	76.50	101.55	10.4
9H-1, 60-62	76.60	101.65	9.2
9H-1, 70-72	76.70	101.75	8.5
9H-1, 80-82	76.80	101.85	9.2
9H-1, 90-92	76.90	101.95	10.4
9H-1, 100-102	77.00	102.05	10.0
9H-1, 110-112	77.10	102.15	8.3
9H-1, 110-112	77.10	102.15	8.5
9H-1, 120-122	77.20	102.25	8.3
9H-1, 120-122	77.20	102.25	10.6
9H-1, 130-132	77.30	102.35	10.0
9H-1, 140-142	77.40	102.45	8.4
9H-2, 0-2	77.50	102.55	7.6
9H-2, 10-12	77.60	102.65	7.5
9H-2, 20-22	77.70	102.75	8.8
9H-2, 40-42	77.90	102.95	6.5
9H-2, 50-52	78.00	103.05	6.7
9H-2, 60-62	78.10	103.15	7.9
9H-2, 70-72	78.20	103.25	6.1
9H-2, 80-82	78.30	103.35	5.9
9H-2, 90-92	78.40	103.45	5.9
9H-2, 100-102	78.50	103.55	3.3
9H-2, 110-112	78.60	103.65	5.8
9H-2, 120-122	78.70	103.75	2.8
9H-2, 130-132	78.80	103.85	4.9
9H-2, 140-142	78.90	103.95	6.0
9H-3, 0-2	79.00	104.05	6.0
9H-3, 10-12	79.10	104.15	3.7
9H-3, 20-22	79.20	104.25	5.6
9H-3, 30-32	79.30	104.35	6.3
9H-3, 32-34	79.32	104.37	8.6
9H-3, 40-42	79.40	104.45	7.5
9H-3, 42-44	79.42	104.47	6.9
9H-3, 50-52	79.50	104.55	6.3
9H-3, 58-60	79.58	104.63	6.4
9H-3, 60-62	79.60	104.65	5.0
9H-3, 70-72	79.70	104.75	5.2
9H-3, 72-74	79.72	104.77	5.2
9H-3, 80-82	79.80	104.85	6.4
9H-3, 90-92	79.90	104.95	7.3
9H-3, 100-102	80.00	105.05	7.0
9H-3, 110-112	80.10	105.15	6.5
9H-3, 120-122	80.20	105.25	6.9
9H-3, 130-132	80.30	105.35	7.9
9H-3, 140-142	80.40	105.45	10.5
9H-4, 0-2	80.50	105.55	6.2
9H-4, 10-12	80.60	105.65	8.2
9H-4, 20-22	80.70	105.75	8.7
9H-4, 30-32	80.80	105.85	9.3
9H-4, 40-42	80.90	105.95	9.4
9H-4, 50-52	81.00	106.05	8.9
9H-4, 60-62	81.10	106.15	10.0
9H-4, 70-72	81.20	106.25	14.8
9H-4, 80-82	81.30	106.35	10.4
9H-4, 90-92	81.40	106.45	8.6
9H-4, 100-102	81.50	106.55	14.0
9H-4, 110-112	81.60	106.65	5.2
9H-4, 120-122	81.70	106.75	6.5
9H-4, 130-132	81.80	106.85	5.5
9H-4, 140-142	81.90	106.95	7.3
9H-5, 0-2	82.00	107.05	7.2
9H-5, 10-12	82.10	107.15	13.6
9H-5, 20-22	82.20	107.25	21.3
9H-5, 32-34	82.32	107.37	5.3
9H-5, 42-44	82.42	107.47	4.1
9H-5, 50-52	82.50	107.55	4.6
9H-5, 58-60	82.58	107.63	4.9
9H-5, 68-70	82.68	107.73	6.1
9H-5, 80-82	82.80	107.85	5.8
9H-5, 90-92	82.90	107.95	6.3
9H-5, 100-102	83.00	108.05	5.6
9H-5, 112-114	83.12	108.17	7.3
9H-5, 120-122	83.20	108.25	8.9
9H-5, 130-132	83.30	108.35	17.0
9H-5, 140-142	83.40	108.45	21.0
9H-6, 0-2	83.50	108.55	6.2
9H-6, 10-12	83.60	108.65	7.6
9H-6, 20-22	83.70	108.75	7.7
172-1061C-			
9H-4, 5-7	76.85	88.60	23.9
9H-4, 15-17	76.95	88.70	8.9
9H-4, 25-27	77.05	88.80	10.5
9H-4, 35-37	77.15	88.90	9.0
9H-4, 45-47	77.25	89.00	12.4
9H-4, 55-57	77.35	89.10	14.0
9H-4, 65-67	77.45	89.20	16.4
9H-4, 75-77	77.55	89.30	25.2
9H-4, 85-87	77.65	89.40	4.6
9H-4, 95-97	77.75	89.50	8.9
9H-4, 105-107	77.85	89.60	7.8
9H-4, 115-117	77.95	89.70	7.0
9H-4, 125-127	78.05	89.80	6.1
9H-4, 135-137	78.15	89.90	8.2
9H-4, 145-147	78.25	90.00	7.5
9H-5, 5-7	78.35	90.10	9.1
9H-5, 15-17	78.45	90.20	11.2
9H-5, 25-27	78.55	90.30	12.4
9H-5, 35-37	78.65	90.40	14.8
9H-5, 45-47	78.75	90.50	16.2
9H-5, 55-57	78.85	90.60	18.8
9H-5, 65-67	78.95	90.70	28.8
9H-5, 75-77	79.05	90.80	34.9
9H-5, 85-87	79.15	90.90	28.5
9H-5, 95-97	79.25	91.00	15.6
9H-5, 105-107	79.35	91.10	15.8
9H-5, 115-117	79.45	91.20	22.0
9H-5, 125-127	79.55	91.30	25.2
9H-5, 135-137	79.65	91.40	29.3
9H-5, 145-147	79.75	91.50	29.0
9H-6, 5-7	79.85	91.60	47.4
9H-6, 15-17	79.95	91.70	56.8
9H-6, 25-27	80.05	91.80	19.4
9H-6, 35-37	80.15	91.90	9.6
9H-6, 45-47	80.25	92.00	8.8
9H-6, 55-57	80.35	92.10	9.9
9H-6, 65-67	80.45	92.20	13.2
9H-6, 75-77	80.55	92.30	18.4
9H-6, 85-87	80.65	92.40	27.0
9H-6, 95-97	80.75	92.50	34.5
9H-6, 105-107	80.85	92.60	35.9
9H-6, 115-117	80.95	92.70	43.0
9H-6, 125-127	81.05	92.80	36.1
9H-6, 135-137	81.15	92.90	23.9
9H-6, 145-147	81.25	93.00	26.0
9H-7, 5-7	81.35	93.10	18.0
9H-7, 15-17	81.45	93.20	23.9
11H-2, 55-57	93.35	108.76	8.1
11H-2, 65-67	93.45	108.86	8.9
11H-2, 75-77	93.55	108.96	15.7
11H-2, 85-87	93.65	109.06	25.5

Table T2 (continued).

Core, section, interval (cm)	Depth (mbsf)	Depth (mcd)	$CaCO_3$ (wt%)
11H-2, 95-97	93.75	109.16	9.2
11H-2, 105-107	93.85	109.26	8.0
11H-2, 115-117	93.95	109.36	9.2
11H-2, 125-127	94.05	109.46	9.2
11H-2, 135-137	94.15	109.56	10.2
11H-2, 145-147	94.25	109.66	15.6
11H-3, 5-7	94.35	109.76	19.4
11H-3, 15-17	94.45	109.86	34.5
11H-3, 25-27	94.55	109.96	37.6
11H-3, 35-37	94.65	110.06	35.2
11H-3, 45-47	94.75	110.16	10.3
11H-3, 55-57	94.85	110.26	7.2
11H-3, 65-67	94.95	110.36	7.5
11H-3, 75-77	95.05	110.46	8.7
11H-3, 85-87	95.15	110.56	8.5
11H-3, 95-97	95.25	110.66	8.8
11H-3, 105-107	95.35	110.76	7.2
11H-3, 115-117	95.45	110.86	9.7
11H-3, 125-127	95.55	110.96	8.8
11H-3, 135-137	95.65	111.06	11.1
11H-3, 145-147	95.75	111.16	15.3
11H-4, 5-7	95.85	111.26	16.6
11H-4, 15-17	95.95	111.36	18.9
11H-4, 25-27	96.05	111.46	26.7
11H-4, 35-37	96.15	111.56	30.3
11H-4, 45-47	96.25	111.66	44.6
11H-4, 55-57	96.35	111.76	50.0
11H-4, 65-67	96.45	111.86	42.0
11H-4, 75-77	96.55	111.96	60.9
11H-4, 85-87	96.65	112.06	28.8
11H-4, 95-97	96.75	112.16	13.6
11H-4, 105-107	96.85	112.26	14.9
11H-4, 115-117	96.95	112.36	16.2
11H-4, 125-127	97.05	112.46	18.0
11H-4, 135-137	97.15	112.56	23.5
11H-4, 145-147	97.25	112.66	32.6
11H-5, 5-7	97.35	112.76	57.1
11H-5, 15-17	97.45	112.86	29.2
11H-5, 25-27	97.55	112.96	8.1
11H-5, 35-37	97.65	113.06	9.6
11H-5, 45-47	97.75	113.16	8.1
11H-5, 55-57	97.85	113.26	8.5
11H-5, 65-67	97.95	113.36	8.3
11H-5, 75-77	98.05	113.46	9.5
11H-5, 85-87	98.15	113.56	7.0
11H-5, 95-97	98.25	113.66	7.3
11H-5, 105-107	98.35	113.76	9.3
11H-5, 115-117	98.45	113.86	10.0
11H-5, 125-127	98.55	113.96	21.8
11H-5, 135-137	98.65	114.06	29.8
11H-5, 145-147	98.75	114.16	37.5
11H-6, 5-7	98.85	114.26	40.3
11H-6, 15-17	98.95	114.36	44.4
11H-6, 25-27	99.05	114.46	58.2
12H-3, 115-117	104.95	121.54	19.7
12H-3, 125-127	105.05	121.64	28.4
12H-3, 135-137	105.15	121.74	32.1
12H-3, 145-147	105.25	121.84	11.1
12H-4, 5-7	105.35	121.94	15.6
12H-4, 15-17	105.45	122.04	14.3
12H-4, 25-27	105.55	122.14	11.1
12H-4, 35-37	105.65	122.24	10.4
12H-4, 45-47	105.75	122.34	10.5
12H-4, 55-57	105.85	122.44	13.3
12H-4, 65-67	105.95	122.54	10.1
12H-4, 75-77	106.05	122.64	9.6
12H-4, 85-87	106.15	122.74	11.5
12H-4, 95-97	106.25	122.84	14.6
12H-4, 105-107	106.35	122.94	8.2
12H-4, 115-117	106.45	123.04	8.3
12H-4, 125-127	106.55	123.14	8.8
12H-4, 135-137	106.65	123.24	9.2
12H-4, 145-147	106.75	123.34	6.6
12H-5, 5-7	106.85	123.44	5.5
12H-5, 15-17	106.95	123.54	4.2
12H-5, 25-27	107.05	123.64	6.7
12H-5, 35-37	107.15	123.74	3.5
12H-5, 45-47	107.25	123.84	2.6
12H-5, 55-57	107.35	123.94	4.1
12H-5, 65-67	107.45	124.04	5.3
12H-5, 75-77	107.55	124.14	5.1
172-1061D-			
10H-1, 125-127	78.45	93.22	40.4
10H-1, 135-137	78.55	93.32	9.4
10H-1, 145-147	78.65	93.42	8.2
10H-2, 5-7	78.75	93.52	18.9
10H-2, 15-17	78.85	93.62	16.1
10H-2, 25-27	78.95	93.72	15.2
10H-2, 35-37	79.05	93.82	12.9
10H-2, 45-47	79.15	93.92	15.7
10H-2, 55-57	79.25	94.02	13.9
10H-2, 65-67	79.35	94.12	11.7
10H-2, 75-77	79.45	94.22	11.5
10H-2, 85-87	79.55	94.32	13.8
10H-2, 95-97	79.65	94.42	13.2
10H-2, 105-107	79.75	94.52	15.0
10H-2, 115-117	79.85	94.62	16.2
10H-2, 125-127	79.95	94.72	31.2
10H-2, 135-137	80.05	94.82	51.0
10H-2, 145-147	80.15	94.92	57.5
10H-3, 5-7	80.25	95.02	56.6
10H-3, 15-17	80.35	95.12	59.7
10H-3, 25-27	80.45	95.22	53.3
10H-3, 35-37	80.55	95.32	46.1
10H-3, 45-47	80.65	95.42	53.2
10H-3, 55-57	80.75	95.52	27.2
10H-3, 65-67	80.85	95.62	19.7
10H-3, 75-77	80.95	95.72	18.6
10H-3, 85-87	81.05	95.82	15.6
10H-3, 95-97	81.15	95.92	11.3
10H-3, 105-107	81.25	96.02	11.4
10H-3, 115-117	81.35	96.12	9.6
10H-3, 125-127	81.45	96.22	9.6
10H-3, 135-137	81.55	96.32	9.4
10H-3, 145-147	81.65	96.42	9.0
10H-4, 5-7	81.75	96.52	9.3
10H-4, 15-17	81.85	96.62	6.9
10H-4, 25-27	81.95	96.72	5.5
10H-4, 35-37	82.05	96.82	5.0
10H-4, 45-47	82.15	96.92	5.6
10H-4, 55-57	82.25	97.02	4.8
10H-4, 65-67	82.35	97.12	3.9
10H-4, 75-77	82.45	97.22	4.8
10H-4, 85-87	82.55	97.32	4.3
10H-4, 95-97	82.65	97.42	5.7
10H-4, 105-107	82.75	97.52	9.4
10H-4, 115-117	82.85	97.62	9.2
10H-4, 125-127	82.95	97.72	11.0
10H-4, 135-137	83.05	97.82	11.8
10H-4, 145-147	83.15	97.92	11.0
10H-5, 5-7	83.25	98.02	13.0
10H-5, 15-17	83.35	98.12	15.0
10H-5, 25-27	83.45	98.22	13.9

Table T2 (continued).

Core, section, interval (cm)	Depth (mbsf)	Depth (mcd)	$CaCO_3$ (wt%)
10H-5, 35-37	83.55	98.32	19.5
10H-5, 45-47	83.65	98.42	20.3
10H-5, 55-57	83.75	98.52	18.0
10H-5, 65-67	83.85	98.62	23.0
10H-5, 75-77	83.95	98.72	11.1
10H-5, 85-87	84.05	98.82	14.7
10H-5, 95-97	84.15	98.92	18.7
10H-5, 105-107	84.25	99.02	29.4
10H-5, 115-117	84.35	99.12	11.7
10H-5, 125-127	84.45	99.22	16.1
10H-5, 135-137	84.55	99.32	10.2
10H-5, 145-147	84.65	99.42	12.5
10H-6, 5-7	84.75	99.52	12.8
10H-6, 15-17	84.85	99.62	11.8
10H-6, 25-27	84.95	99.72	11.7
10H-6, 35-37	85.05	99.82	10.5
10H-6, 45-47	85.15	99.92	12.0
10H-6, 55-57	85.25	100.02	12.1
10H-6, 65-67	85.35	100.12	11.3
10H-6, 75-77	85.45	100.22	11.5
10H-6, 85-87	85.55	100.32	11.4
10H-6, 95-97	85.65	100.42	9.6
10H-6, 105-107	85.75	100.52	10.8
10H-6, 115-117	85.85	100.62	10.3
10H-6, 125-127	85.95	100.72	10.3
10H-6, 135-137	86.05	100.82	8.1
10H-6, 145-147	86.15	100.92	9.5
10H-7, 5-7	86.25	101.02	9.4
10H-7, 15-17	86.35	101.12	10.1
12H-1, 115-119	97.35	114.52	56.9
12H-1, 125-129	97.45	114.62	56.4
12H-1, 135-139	97.55	114.72	62.6
12H-1, 145-149	97.65	114.82	64.2
12H-2, 5-9	97.75	114.92	61.9
12H-2, 15-19	97.85	115.02	53.4
12H-2, 25-29	97.95	115.12	55.0
12H-2, 35-39	98.05	115.22	42.7
12H-2, 45-49	98.15	115.32	26.0
12H-2, 55-59	98.25	115.42	17.3
12H-2, 75-79	98.45	115.62	18.0
12H-2, 85-89	98.55	115.72	18.8
12H-2, 95-99	98.65	115.82	14.6
12H-2, 105-109	98.75	115.92	8.2
12H-2, 115-119	98.85	116.02	6.8
12H-2, 125-129	98.95	116.12	8.9
12H-2, 135-139	99.05	116.22	6.8
12H-2, 145-149	99.15	116.32	4.9
12H-3, 5-9	99.25	116.42	8.4
12H-3, 15-19	99.35	116.52	8.8
12H-3, 25-29	99.45	116.62	4.4
12H-3, 35-39	99.55	116.72	5.0
12H-3, 45-49	99.65	116.82	5.6
12H-3, 55-59	99.75	116.92	6.5
12H-3, 65-69	99.85	117.02	4.5
12H-3, 75-79	99.95	117.12	4.6
12H-3, 85-89	100.05	117.22	4.0
12H-3, 95-99	100.15	117.32	4.8
12H-3, 105-109	100.25	117.42	6.5
12H-3, 115-119	100.35	117.52	5.8
12H-3, 125-129	100.45	117.62	5.3
12H-3, 135-139	100.55	117.72	4.9
12H-3, 145-149	100.65	117.82	7.1
12H-4, 5-9	100.75	117.92	5.4
12H-4, 15-19	100.85	118.02	6.4
12H-4, 25-29	100.95	118.12	5.7
12H-4, 35-39	101.05	118.22	6.2
12H-4, 45-49	101.15	118.32	5.8
12H-4, 55-59	101.25	118.42	9.4
12H-4, 65-69	101.35	118.52	3.8
12H-4, 75-79	101.45	118.62	2.5
12H-4, 85-89	101.55	118.72	3.1
12H-4, 95-99	101.65	118.82	4.8
12H-4, 105-109	101.75	118.92	4.2
12H-4, 115-119	101.85	119.02	6.2
12H-4, 125-129	101.95	119.12	4.0
12H-4, 135-139	102.05	119.22	6.9
12H-4, 145-149	102.15	119.32	3.5
12H-5, 5-9	102.25	119.42	4.7
12H-5, 15-19	102.35	119.52	4.1
12H-5, 25-29	102.45	119.62	3.8
12H-5, 35-39	102.55	119.72	5.2
12H-5, 45-49	102.65	119.82	7.2
12H-5, 55-59	102.75	119.92	7.7
12H-5, 65-69	102.85	120.02	6.9
12H-5, 75-79	102.95	120.12	10.5
12H-5, 85-89	103.05	120.22	11.9
12H-5, 95-99	103.15	120.32	12.7
12H-5, 105-109	103.25	120.42	12.2
12H-5, 115-119	103.35	120.52	13.6
12H-5, 125-129	103.45	120.62	10.4
12H-5, 135-139	103.55	120.72	12.2
12H-5, 145-149	103.65	120.82	12.8
12H-6, 5-9	103.75	120.92	15.0
12H-6, 15-19	103.85	121.02	14.0
12H-6, 25-29	103.95	121.12	18.6
12H-6, 35-39	104.05	121.22	22.4
12H-6, 45-49	104.15	121.32	22.9
12H-6, 55-59	104.25	121.42	19.8
12H-6, 65-69	104.35	121.52	20.4

Table T3. Anisotropy of magnetic susceptibility parameters for various depositional events from Leg 172 cores. (See table notes. Continued on next page.)

Core, section, interval (cm)	Depth (mbsf)	Depth (mcd)	K_1 SI ($\times 10^{-6}$)	K_2 SI ($\times 10^{-6}$)	K_3 SI ($\times 10^{-6}$)	K_{mean} SI ($\times 10^{-6}$)	K_1D (°)	K_1I (°)	K_3D (°)	K_3I (°)	$RMS_{r/k}$	Anisotropy (%)	L	F
172-1055C-														
4H-2, 78-81	29.78	33.60	38.2	37.7	37.4	37.8	46	73	157	6	1.245	2.152	1.0133	1.0080
4H-2, 87-89	29.87	33.69	34.2	33.6	32.9	33.6	237	59	146	1	1.405	3.853	1.0179	1.0213
4H-2, 92-94	29.92	33.74	32.4	31.5	30.8	31.6	251	64	351	5	1.937	5.246	1.0286	1.0227
4H-2, 100-103	30.00	33.82	26.1	25.8	24.3	25.4	256	13	162	16	3.410	7.239	1.0116	1.0617
4H-2, 107-109	30.07	33.89	26.1	25.4	24.6	25.4	256	69	164	1	2.039	5.958	1.0276	1.0325
4H-2, 113-115	30.13	33.95	24.0	22.3	21.8	22.7	39	66	214	24	2.615	9.516	1.0762	1.0229
4H-2, 113-115	30.13	33.95	19.3	18.6	18.1	18.7	355	61	226	19	2.734	6.464	1.0376	1.0276
4H-2, 113-115	30.13	33.95	19.3	18.8	17.9	18.7	48	58	164	15	4.493	7.214	1.0266	1.0503
4H-2, 113-115	30.13	33.95	19.4	18.4	17.9	18.6	350	73	180	16	4.490	8.133	1.0543	1.0279
4H-2, 119-121	30.19	34.01	35.3	35.0	34.7	35.0	144	57	36	12	3.106	1.983	1.0086	1.0086
4H-2, 126-128	30.26	34.08	36.2	35.7	35.3	35.7	178	82	36	7	2.057	2.644	1.0140	1.0113
172-1055C-														
4H-5, 57-59	34.07	37.89	35.7	34.9	33.9	34.8	280	77	164	6	1.104	4.950	1.0229	1.0295
4H-5, 63.5-65.5	34.13	37.96	41.0	40.2	39.5	40.3	313	88	167	2	1.148	3.751	1.0199	1.0177
4H-5, 66-68	34.16	37.98	46.0	45.8	45.3	45.7	341	46	220	26	1.066	1.548	1.0044	1.0110
4H-5, 68-70	34.18	38.00	39.9	39.3	376.0	37.8	261	82	133	5	1.113	5.802	1.0153	0.1045
172-1055C-														
5H-5, 62-64	45.12	50.84	28.7	28.6	27.8	28.4	4	32	272	3	1.640	3.260	1.0035	1.0288
5H-5, 66-68	45.16	50.88	32.5	32.5	31.5	32.2	57	37	317	13	1.532	3.226	1.0000	1.0317
5H-5, 73-75	45.23	50.95	37.0	36.0	35.8	36.3	322	76	231	0	1.305	3.370	1.0278	1.0056
5H-5, 77-79	45.27	50.99	40.5	39.5	38.5	39.5	30	82	283	2	1.345	5.111	1.0253	1.0260
5H-5, 81-83	45.31	51.03	47.7	47.2	46.4	47.1	216	30	316	16	1.000	2.920	1.0106	1.0172
5H-5, 84.5-86.5	45.35	51.06	47.8	47.0	44.9	46.6	253	72	125	11	0.895	6.369	1.0170	1.0468
5H-5, 88-90	45.38	51.10	47.5	46.3	45.5	46.4	206	66	113	1	0.908	4.367	1.0259	1.0176
5H-5, 93.5-95.5	45.44	51.15	35.5	35.3	34.9	35.3	50	50	165	20	1.293	1.578	1.0057	1.0115
5H-5, 93.5-95.5	45.44	51.15	25.3	24.1	23.2	24.2	243	78	139	3	1.943	9.059	1.0498	1.0388
5H-5, 95.5-97.5	45.46	51.17	25.3	24.0	23.1	24.1	241	76	130	5	1.812	9.018	1.0542	1.0390
5H-5, 98.5-100.5	45.49	51.21	25.5	24.8	24.4	24.9	213	70	123	0	1.523	4.524	1.0282	1.0164
5H-5, 102.5-104.5	45.53	51.24	14.1	13.7	13.4	13.7	240	66	90	21	2.577	4.761	1.0292	1.0224
5H-5, 106-108	45.56	51.28	26.8	26.1	25.2	26.0	194	79	297	3	1.504	6.130	1.0268	1.0357
5H-5, 112-114	45.62	51.34	27.5	27.0	26.3	27.0	0	85	131	3	1.368	4.472	1.0185	1.0266
5H-5, 118-120	45.68	51.40	25.0	24.2	23.1	24.1	258	77	137	7	1.803	7.666	1.0331	1.0476
5H-5, 123-125	45.73	51.45	33.2	33.0	28.5	31.5	65	3	229	87	8.136	14.885	1.0061	1.1579
5H-5, 123-125	45.73	51.45	29.5	29.0	28.3	28.9	179	85	297	2	1.505	4.398	1.0172	1.0247
172-1055D-														
12H-5, 26-28	106.86	124.87	44.7	44.4	43.6	44.2	312	15	200	54	1.137	2.487	1.0068	1.0183
12H-5, 31-33	106.91	124.92	47.4	46.9	46.5	46.9	99	59	219	17	0.973	1.995	1.0107	1.0086
12H-5, 36-38	106.96	124.97	45.4	44.9	43.4	44.6	306	20	211	14	1.249	4.619	1.0111	1.0346
12H-5, 40-42	107.00	125.01	47.3	46.7	45.0	46.3	71	60	181	11	1.625	4.891	1.0128	1.0378
12H-5, 43-45	107.03	125.04	45.9	45.6	43.7	45.1	289	49	186	11	0.990	4.842	1.0066	1.0435
12H-5, 47-49	107.07	125.08	32.9	32.7	32.3	32.6	335	36	185	26	1.514	1.832	1.0061	1.0124
12H-5, 50-52	107.10	125.11	29.9	29.2	28.9	29.3	44	53	237	37	1.355	3.320	1.0240	1.0104
172-1055D-														
12H-3, 63-65	107.03	119.12	66.1	65.4	65.1	65.5	198	41	274	14	0.837	1.512	1.0107	1.0046
12H-3, 68-70	107.08	119.17	57.1	56.7	54.6	56.1	312	53	205	13	1.010	4.324	1.0071	1.0385

Table T3 (continued).

Core, section, interval (cm)	Depth (mbsf)	Depth (mcd)	K_1 SI ($\times 10^{-6}$)	K_2 SI ($\times 10^{-6}$)	K_3 SI ($\times 10^{-6}$)	K_{mean} SI ($\times 10^{-6}$)	K_1D (°)	K_1I (°)	K_3D (°)	K_3I (°)	$RMS_{r/k}$	Anisotropy (%)	L	F
12H-3, 74-76	107.14	119.23	69.4	69.0	68.5	69.0	92	70	247	18	0.714	1.302	1.0058	1.0073
12H-3, 77-79	107.17	119.26	84.3	83.7	82.9	83.7	76	37	205	40	1.194	1.625	1.0072	1.0097
12H-3, 83-85	107.23	119.32	72.2	71.8	70.1	71.4	13	45	268	15	1.214	2.876	1.0056	1.0243
12H-3, 87-89	107.27	119.36	69.2	68.7	68.0	68.6	248	1	158	36	1.037	1.840	1.0073	1.0103
172-1058A-														
14H-6, 78-80	130.68	144.67	72.8	71.7	706.0	71.7	265	70	113	18	0.911	3.131	1.0153	0.1016
14H-6, 84-86	130.74	144.73	69.6	69.2	67.6	68.8	163	43	44	28	0.808	2.993	1.0058	1.0237
14H-6, 90-92	130.80	144.79	55.2	54.5	53.0	54.2	212	64	116	3	1.082	4.038	1.0128	1.0283
14H-6, 93-95	130.83	144.82	78.5	78.2	77.6	78.1	145	9	48	40	0.802	1.146	1.0038	1.0077
14H-6, 96-98	130.86	144.85	78.9	78.8	78.0	78.5	162	33	40	39	0.775	1.178	1.0013	1.0103
14H-6, 102-104	130.92	144.91	71.1	70.4	69.7	70.4	331	51	240	1	0.832	2.022	1.0099	1.0100
172-1062A-														
15H-4, 6-8	130.26	138.72	245.5	243.0	232.8	240.4	338	9	195	79	0.571	5.279	1.0103	1.0438
15H-4, 12-13	130.32	138.78	115.0	113.4	111.0	113.1	302	47	205	6	0.671	3.548	1.0141	1.0216
15H-4, 14-16	130.34	138.80	125.2	119.6	117.9	120.9	322	13	231	5	0.723	5.993	1.0468	1.0144
15H-4, 18-20	130.38	138.84	187.2	186.1	175.4	182.9	345	7	225	77	0.516	6.467	1.0059	1.0610
172-1062A-														
15H-5, 22-24	130.42	138.88	186.6	185.7	180.6	184.3	342	10	195	79	0.541	3.273	1.0048	1.0282
15H-5, 23-25	131.93	140.39	310.4	308.9	297.3	305.5	298	8	167	78	0.567	4.274	1.0049	1.0390
15H-5, 33-35	132.03	140.49	132.7	132.0	131.3	132.0	336	37	201	44	0.625	1.046	1.0053	1.0053
15H-5, 42-44	132.12	140.58	99.5	98.8	93.0	97.1	331	34	212	36	0.792	6.656	1.0071	1.0624
15H-5, 42-44	132.12	140.58	99.5	98.7	92.7	97.0	28	4	297	23	0.750	7.092	1.0081	1.0647
15H-5, 46-48	132.16	140.62	147.2	144.4	141.2	144.2	319	6	200	78	0.669	4.145	1.0194	1.0227

Notes: mbsf = meters below seafloor, mcd = meters composite depth. K_1, K_2, and K_3 = intensity of maximum, intermediate, and minimum susceptibility axes. K_{mean} = mean susceptibility. K_1D = declination of maximum susceptibility axis. K_1I = inclination of maximum susceptibility axis. K_3D = declination of minimum susceptibility axis. K_3I = inclination of minimum susceptibility axis. $RMS_{r/k}$ = ratio of the residual and best-fit susceptibility expressed as a percentage. L = magnetic lineation (K_1/K_2), F = magnetic foliation (K_2/K_3).

Table T4. Anisotropy of magnetic susceptibility parameters for Site 1061. (See table notes. Continued on next two pages.)

Core, section, interval (cm)	Depth (mbsf)	Depth (mcd)	K_1 SI ($\times 10^{-6}$)	K_2 SI ($\times 10^{-6}$)	K_3 SI ($\times 10^{-6}$)	K_{mean} SI ($\times 10^{-6}$)	K_1D (°)	K_1I (°)	K_3D (°)	K_3I (°)	F_{12}	F_{23}	L	F
172-1061A-														
9H-3, 0-2	79	104.05	959.2	956.9	913.2	943.1	233	60	124	11	2.1	761.4	1.0025	1.0478
9H-3, 20-22	79.2	104.25	805.2	804.4	765.9	791.8	82	2	333	83	0.7	1646.6	1.0010	1.0502
9H-3, 40-42	79.4	104.45	654.3	651.0	629.4	644.9	152	1	55	81	3.9	173.2	1.0050	1.0343
9H-3, 60-62	79.6	104.65	747.2	744.4	718.8	736.8	321	10	186	76	3.9	323.4	1.0038	1.0356
9H-3, 80-82	79.8	104.85	670.6	666.8	647.4	661.6	251	7	13	77	9.5	241.4	1.0058	1.0298
9H-3, 100-102	80	105.05	615.8	614.4	598.3	609.5	102	3	328	85	1.9	271.9	1.0022	1.0270
9H-3, 120-122	80.2	105.25	680.1	675.7	654.9	670.2	164	6	27	81	6.7	156.6	1.0064	1.0318
9H-3, 140-142	80.4	105.45	620.1	619.3	605.0	614.8	176	15	7	75	1.6	486.2	1.0014	1.0237
9H-4, 12-14	80.62	105.67	652.3	651.1	633.8	645.7	274	2	15	77	1.4	320.3	1.0019	1.0273
9H-4, 31-33	80.81	105.86	676.9	674.0	659.4	670.1	243	9	16	77	3.1	75.3	1.0044	1.0221
9H-4, 50-52	81	106.05	613.5	611.2	593.0	605.9	85	2	302	88	2.1	132.9	1.0038	1.0308
9H-4, 72-74	81.22	106.27	574.0	573.0	559.3	568.8	136	18	355	68	0.7	124.9	1.0018	1.0245
9H-4, 90-92	81.4	106.45	623.9	622.8	605.5	617.4	206	3	349	86	2.9	750.4	1.0017	1.0287
9H-4, 110-112	81.6	106.65	594.6	589.4	580.7	588.2	83	1	348	82	4.3	11.9	1.0088	1.0150
9H-4, 130-132	81.8	106.85	539.1	535.9	523.4	532.8	247	5	40	84	3.6	56.9	1.0059	1.0240
9H-5, 0-2	82	107.05	622.3	620.9	603.9	615.7	117	6	339	82	1.9	309.2	1.0022	1.0282
9H-5, 20-22	82.2	107.25	566.1	563.2	552.6	560.6	268	4	113	85	3.8	50.3	1.0052	1.0192
9H-5, 42-44	82.42	107.47	600.5	597.4	580.7	592.9	154	4	34	83	2.3	64.4	1.0053	1.0287
9H-5, 60-62	82.6	107.65	805.9	803.3	780.9	796.7	74	1	177	86	3.0	239.2	1.0032	1.0287
9H-5, 80-82	82.8	107.85	573.0	571.8	549.8	564.9	310	1	118	89	1.1	424.0	1.0021	1.0401
9H-5, 100-102	83	108.05	615.3	614.0	594.3	607.9	298	1	36	85	1.1	237.8	1.0022	1.0330
9H-5, 120-122	83.2	108.25	655.4	654.7	630.9	647.0	80	3	322	84	0.3	283.9	1.0011	1.0377
9H-5, 138-140	83.38	108.48	562.8	559.6	548.1	556.8	269	2	6	75	4.9	62.3	1.0057	1.0210
9H-6, 10-12	83.6	108.65	549.8	548.0	531.7	543.2	131	5	22	74	3.1	265.8	1.0033	1.0306
172-1061C-														
11H-2, 55-57	93.35	108.76	492.9	492.3	476.1	487.1	200	4	53	86	0.4	261.1	1.0013	1.0340
11H-2, 75-77	93.55	108.96	398.7	398.2	386.8	394.6	36	6	248	82	0.3	143.6	1.0013	1.0295
11H-2, 95-97	93.75	109.16	456.1	453.9	437.9	449.3	156	3	8	86	2.3	124.4	1.0048	1.0366
11H-2, 115-117	93.95	109.36	481.3	480.3	464.6	475.4	51	2	190	88	0.7	177.8	1.0021	1.0338
11H-2, 135-137	94.15	109.56	611.6	607.7	590.8	603.4	100	2	325	88	3.5	68.3	1.0064	1.0286
11H-3, 5-7	94.35	109.76	574.4	573.2	557.9	568.5	283	4	63	85	0.8	127.7	1.0022	1.0273
11H-3, 25-27	94.55	109.96	537.9	535.9	530.6	534.8	234	6	355	79	2.7	17.7	1.0038	1.0099
11H-3, 45-47	94.75	110.16	524.3	522.8	512.6	519.9	144	5	6	83	1.4	71.4	1.0028	1.0199
11H-3, 65-67	94.95	110.36	693.9	691.0	668.9	684.6	255	0	347	85	2.8	162.3	1.0042	1.0332
11H-3, 85-87	95.15	110.56	586.4	583.6	563.4	577.8	259	2	100	88	3.2	165.7	1.0049	1.0358
11H-3, 105-107	95.35	110.76	618.0	614.9	598.3	610.4	290	1	28	86	2.5	72.1	1.0051	1.0279
11H-3, 125-127	95.55	110.96	547.0	545.9	528.0	540.3	199	3	352	87	0.4	98.1	1.0020	1.0340
11H-3, 145-147	95.75	111.16	538.4	538.3	525.9	534.2	237	4	57	86	0.0	159.6	1.0001	1.0236
11H-4, 15-17	95.95	111.36	596.7	593.8	581.3	590.6	119	2	19	80	2.8	56.1	1.0048	1.0216
11H-4, 35-37	96.15	111.56	527.6	526.7	512.9	522.4	308	1	128	89	0.7	193.4	1.0016	1.0270
11H-4, 55-57	96.35	111.76	371.6	370.2	366.4	369.4	54	1	152	80	1.6	11.0	1.0038	1.0102
11H-4, 75-77	96.55	111.96	337.0	336.1	335.3	336.1	117	37	345	42	0.9	0.7	1.0027	1.0024
11H-4, 95-97	96.75	112.16	561.5	560.4	547.3	556.4	16	1	265	88	1.6	195.7	1.0021	1.0238
11H-4, 115-117	96.95	112.36	543.3	541.5	529.2	538.0	228	0	319	86	5.7	275.2	1.0033	1.0232
11H-4, 135-137	97.15	112.56	550.2	549.2	534.4	544.6	216	4	332	80	0.6	140.4	1.0018	1.0278
11H-5, 5-7	97.35	112.76	390.2	389.6	387.8	389.2	161	21	14	66	0.3	3.3	1.0015	1.0048
11H-5, 25-27	97.55	112.96	653.9	649.3	634.2	645.8	219	3	339	84	2.3	25.1	1.0071	1.0237
11H-5, 45-47	97.75	113.16	660.3	657.7	643.4	653.8	256	4	13	82	6.4	192.4	1.0040	1.0223

Table T4 (continued).

Core, section, interval (cm)	Depth (mbsf)	Depth (mcd)	K_1 SI ($\times 10^{-6}$)	K_2 SI ($\times 10^{-6}$)	K_3 SI ($\times 10^{-6}$)	K_{mean} SI ($\times 10^{-6}$)	K_1D (°)	K_1I (°)	K_3D (°)	K_3I (°)	F_{12}	F_{23}	L	F
11H-5, 65-67	97.95	113.36	654.7	652.2	637.6	648.2	310	1	79	88	1.1	36.9	1.0039	1.0229
11H-5, 85-87	98.15	113.56	634.4	633.2	610.7	626.1	115	2	7	83	0.5	177.9	1.0020	1.0368
11H-5, 105-107	98.35	113.76	613.5	610.3	592.0	605.3	210	3	9	86	2.4	81.6	1.0053	1.0309
11H-5, 125-127	98.55	113.96	610.6	607.9	593.5	604.0	271	3	34	84	2.0	61.2	1.0044	1.0243
11H-5, 145-147	98.75	114.16	610.5	609.7	603.2	607.8	296	1	193	84	0.3	14.2	1.0014	1.0108
11H-6, 15-17	98.95	114.36	540.9	538.8	535.5	538.4	250	8	38	81	1.2	2.7	1.0040	1.0061
172-1061D-														
12H-1, 115-117	97.35	114.52	301.1	300.0	299.0	300.0	356	4	88	27	1.6	1.3	1.0037	1.0034
12H-1, 125-127	97.45	114.62	328.7	328.4	326.7	327.9	201	75	73	9	0.0	1.8	1.0007	1.0054
12H-1, 135-137	97.55	114.72	236.4	235.1	232.1	234.5	166	1	76	10	1.2	6.2	1.0056	1.0129
12H-1, 145-147	97.65	114.82	213.3	212.6	211.0	212.3	198	17	289	3	0.3	1.6	1.0031	1.0073
12H-2, 5-7	97.75	114.92	210.6	209.1	207.6	209.1	180	2	88	49	1.2	1.0	1.0074	1.0068
12H-2, 15-17	97.85	115.02	410.9	410.3	409.3	410.2	180	37	82	11	0.4	0.9	1.0015	1.0024
12H-2, 25-27	97.95	115.12	404.6	404.2	402.0	403.6	4	3	96	28	0.1	3.8	1.0008	1.0056
12H-2, 35-37	98.05	115.22	588.6	587.9	584.5	587.0	202	7	99	60	0.6	12.0	1.0012	1.0057
12H-2, 55-57	98.25	115.42	672.2	669.7	647.4	663.1	171	2	71	79	2.4	196.4	1.0037	1.0345
12H-2, 65-67	98.35	115.52	655.8	654.5	648.9	653.1	18	1	116	86	0.9	14.8	1.0020	1.0087
12H-2, 75-77	98.45	115.62	681.6	679.6	657.4	672.9	356	4	122	83	2.5	289.8	1.0031	1.0337
12H-2, 85-87	98.55	115.72	608.8	607.5	593.3	603.2	17	5	142	82	1.6	180.9	1.0022	1.0239
12H-2, 95-97	98.65	115.82	800.8	797.4	775.7	791.3	356	2	150	88	15.1	619.8	1.0043	1.0280
12H-2, 105-107	98.75	115.92	725.2	721.9	695.5	714.2	167	3	37	85	10.5	682.8	1.0046	1.0380
12H-2, 115-117	98.85	116.02	884.1	879.1	851.3	871.5	344	2	102	86	34.8	1052.5	1.0057	1.0327
12H-2, 125-127	98.95	116.12	855.4	852.3	827.3	845.0	353	2	106	84	5.1	334.5	1.0037	1.0302
12H-2, 135-137	99.05	116.22	854.2	851.0	822.8	842.7	290	2	159	86	3.9	308.5	1.0038	1.0343
12H-2, 145-147	99.15	116.32	964.3	960.7	929.3	951.5	349	7	131	82	14.5	1103.1	1.0038	1.0338
12H-3, 5-7	99.25	116.42	948.4	942.0	916.1	935.5	352	6	139	83	51.6	808.5	1.0069	1.0282
12H-3, 15-17	99.35	116.52	897.9	897.2	871.4	888.8	80	2	213	87	0.2	330.2	1.0008	1.0296
12H-3, 25-27	99.45	116.62	856.9	854.2	829.4	846.8	170	2	18	88	3.3	282.8	1.0032	1.0299
12H-3, 35-37	99.55	116.72	943.3	939.8	906.0	929.7	179	4	65	80	6.9	685.7	1.0037	1.0374
12H-3, 45-47	99.65	116.82	1014.3	1010.3	978.4	1001.0	330	4	88	82	8.4	550.6	1.0040	1.0326
12H-3, 45-47	99.65	116.82	1023.5	1019.3	978.2	1007.0	317	1	177	89	2.3	212.3	1.0041	1.0420
12H-3, 55-57	99.75	116.92	978.9	975.1	943.9	966.0	345	1	126	89	4.5	293.2	1.0040	1.0331
12H-3, 65-67	99.85	117.02	904.6	901.4	878.4	894.8	166	0	74	79	5.9	305.3	1.0035	1.0262
12H-3, 75-77	99.95	117.12	858.3	855.0	824.5	845.9	160	0	70	85	5.8	510.7	1.0039	1.0369
12H-3, 85-87	100.05	117.22	800.0	798.0	771.7	789.9	173	2	307	87	4.2	710.0	1.0026	1.0341
12H-3, 95-97	100.15	117.32	746.2	745.0	724.9	738.7	213	4	79	85	0.9	218.3	1.0017	1.0277
12H-3, 105-107	100.25	117.42	1013.4	1008.4	965.8	995.9	189	2	47	88	12.7	952.0	1.0049	1.0441
12H-3, 115-117	100.35	117.52	1214.5	1209.5	1160.9	1195.0	355	2	119	86	8.7	816.2	1.0041	1.0418
12H-3, 125-127	100.45	117.62	1298.1	1291.5	1223.5	1271.0	347	3	171	87	4.3	439.8	1.0051	1.0556
12H-3, 135-137	100.55	117.72	1385.0	1380.3	1317.6	1361.0	190	1	76	87	6.4	1181.0	1.0034	1.0476
12H-3, 145-147	100.65	117.82	1149.5	1144.5	1093.1	1129.0	183	0	91	88	10.7	1101.1	1.0044	1.0470
12H-4, 5-7	100.75	117.92	1172.5	1165.8	1120.7	1153.0	179	1	315	88	12.5	582.1	1.0057	1.0402
12H-4, 15-17	100.85	118.02	1350.2	1347.0	1286.8	1328.0	178	4	39	85	3.8	1418.8	1.0024	1.0467
12H-4, 25-27	100.95	118.12	1400.6	1392.9	1340.5	1378.0	359	1	257	84	24.8	1141.8	1.0055	1.0391
12H-4, 35-37	101.05	118.22	1432.2	1429.5	1359.3	1407.0	147	3	327	87	1.4	911.2	1.0019	1.0517
12H-5, 45-47	102.65	119.82	1069.1	1063.4	1023.5	1052.0	298	6	129	84	30.5	1419.5	1.0054	1.0390
12H-5, 65-67	102.85	120.02	1093.9	1093.4	1040.7	1076.0	57	3	271	86	0.0	747.6	1.0004	1.0507

Table T4 (continued).

Core, section, interval (cm)	Depth (mbsf)	Depth (mcd)	K_1 SI ($\times 10^{-6}$)	K_2 SI ($\times 10^{-6}$)	K_3 SI ($\times 10^{-6}$)	K_{mean} SI ($\times 10^{-6}$)	K_1D (°)	K_1I (°)	K_3D (°)	K_3I (°)	F_{12}	F_{23}	L	F
12H-6, 5-7	103.75	120.92	1432.3	1426.9	1340.9	1400.0	319	2	73	86	5.5	1346.6	1.0038	1.0641
12H-6, 15-17	103.85	121.02	1429.3	1418.5	1325.2	1391.0	138	4	319	86	8.5	644.0	1.0076	1.0704
12H-6, 25-27	103.95	121.12	1886.7	1863.4	1758.2	1836.0	306	5	93	84	23.4	477.6	1.0125	1.0598
12H-6, 35-37	104.05	121.22	1717.2	1697.9	1573.9	1663.0	161	2	38	86	57.4	2349.8	1.0114	1.0788
12H-6, 45-47	104.15	121.32	1818.5	1806.2	938.3	1521.0	359	1	131	89	0.0	2.3	1.0068	1.9249
12H-6, 55-57	104.25	121.42	1366.8	1354.1	1284.1	1335.0	316	3	174	86	18.6	571.1	1.0094	1.0545
12H-6, 65-67	104.35	121.52	1371.0	1358.9	1266.1	1332.0	344	2	175	88	34.4	1985.0	1.0089	1.0733

Notes: mbsf = meters below seafloor, mcd = meters composite depth. K_1, K_2, and K_3 = intensity of maximum, intermediate, and minimum susceptibility axes. K_{mean} = mean susceptibility; K_1D = declination of maximum susceptibility axis. K_1I = inclination of maximum susceptibility axis. K_3D = declination of minimum susceptibility axis. K_3I = inclination of minimum susceptibility axis. F_{12} and F_{23} = statistical parameters comparing the variance of K_1 and K_2, and K_2 and K_3 respectively. L = magnetic lineation (K_1/K_2), F = magnetic foliation (K_2/K_3).

Table T5. Anisotropy of magnetic susceptibility parameters for Site 1057. (**See table notes.** Continued on next three pages.)

Core, section, interval (cm)	Depth (mbsf)	Depth (mcd)	K_1 SI (× 10^{-6})	K_2 SI (× 10^{-6})	K_3 SI (× 10^{-6})	K_{mean} SI (× 10^{-6})	K_1D (°)	K_1I (°)	K_3D (°)	K_3I (°)	F_{12}	F_{23}	L	F
172-1057B-														
4H-6, 36-38	30.56	32.52	310.8	307.0	302.9	306.9	27	43	247	39	49.8	59.0	1.0123	1.0137
4H-6, 44-46	30.64	32.60	322.7	321.1	318.9	320.9	358	38	154	49	1.2	2.1	1.0051	1.0069
4H-6, 54-56	30.74	32.70	310.4	305.4	304.3	306.7	23	23	179	66	6.7	0.3	1.0164	1.0034
4H-6, 64-66	30.84	32.80	338.0	335.3	334.1	335.8	30	29	261	48	77.3	13.8	1.0081	1.0034
4H-6, 74-76	30.94	32.90	327.7	325.2	324.2	325.7	32	41	186	45	8.7	1.4	1.0077	1.0031
4H-6, 84-86	31.04	33.00	291.6	290.3	289.9	290.6	58	10	323	24	1.3	0.2	1.0043	1.0016
4H-6, 94-96	31.14	33.10	318.7	316.8	315.9	317.1	75	17	335	32	6.0	1.4	1.0059	1.0028
4H-6, 104-106	31.24	33.20	399.6	396.0	393.0	396.2	26	27	182	61	8.0	5.4	1.0092	1.0078
4H-6, 114-116	31.34	33.30	333.0	332.4	330.3	331.9	25	7	145	77	0.5	5.2	1.0018	1.0061
4H-6, 125-127	31.45	33.41	287.3	286.2	285.1	286.2	193	35	353	53	5.7	4.6	1.0039	1.0036
4H-6, 134-136	31.54	33.50	335.6	334.9	332.4	334.3	33	22	165	58	1.0	15.6	1.0020	1.0077
4H-6, 144-146	31.64	33.60	237.6	235.8	232.2	235.2	263	37	29	38	0.3	1.2	1.0073	1.0156
4H-7, 4-6	31.74	33.70	294.5	293.7	291.4	293.2	14	0	104	0	0.5	5.3	1.0025	1.0079
4H-7, 14-16	31.84	33.80	337.4	335.4	332.5	335.1	127	17	339	70	18.6	41.1	1.0059	1.0089
172-1057C-														
4H-5, 2-4	32.02	33.90	460.5	457.5	454.9	457.6	234	17	343	47	13.8	9.8	1.0067	1.0057
172-1057B-														
4H-7, 24-26	31.94	33.90	356.0	354.7	351.6	354.1	55	9	153	43	1.8	8.9	1.0039	1.0088
172-1057C-														
4H-5, 12-14	32.12	34.00	357.0	356.3	352.8	355.4	235	24	55	66	1.2	29.4	1.0020	1.0099
4H-5, 22-24	32.22	34.10	550.5	549.3	544.9	548.2	215	17	318	37	0.1	1.6	1.0022	1.0081
4H-5, 32-34	32.32	34.20	437.1	433.9	431.2	434.1	162	28	316	59	4.4	2.9	1.0075	1.0061
4H-5, 42-44	32.42	34.30	489.5	486.1	483.6	486.4	224	48	122	11	69.4	35.8	1.0071	1.0051
4H-5, 52-54	32.52	34.40	426.6	424.6	421.4	424.2	179	36	354	53	1.0	2.6	1.0046	1.0077
4H-5, 62-64	32.62	34.50	643.5	639.7	635.3	639.5	34	27	131	13	5.9	8.1	1.0059	1.0068
4H-5, 72-74	32.72	34.60	390.7	388.3	387.1	388.7	227	24	36	65	45.6	9.6	1.0062	1.0029
4H-5, 82-84	32.82	34.70	603.8	596.4	592.0	597.4	239	3	332	47	1.6	0.5	1.0124	1.0074
4H-5, 92-94	32.92	34.80	509.9	506.8	500.1	505.6	238	11	349	63	1.0	5.0	1.0061	1.0134
4H-5, 102-104	33.02	34.90	351.3	349.9	346.1	349.1	211	20	91	54	13.4	99.6	1.0040	1.0110
4H-5, 112-114	33.12	35.00	367.3	366.2	363.0	365.5	197	35	356	53	0.0	0.0	1.0029	1.0090
4H-5, 122-124	33.22	35.10	410.9	408.3	406.3	408.5	222	32	342	28	3.6	1.9	1.0065	1.0048
4H-5, 132-134	33.32	35.20	353.4	352.8	351.9	352.7	217	43	52	46	1.4	3.4	1.0017	1.0025
4H-5, 142-144	33.42	35.30	473.9	470.1	466.4	470.1	183	57	8	33	3.8	3.6	1.0081	1.0079
4H-6, 2-4	33.52	35.40	562.4	558.8	556.1	559.1	216	14	308	11	5.6	3.3	1.0064	1.0049
4H-6, 12-14	33.62	35.50	344.0	339.7	336.6	340.1	249	10	31	78	4.1	1.9	1.0128	1.0090
4H-6, 32-34	33.82	35.70	370.4	368.3	368.0	368.9	108	53	1	12	2.1	0.0	1.0059	1.0008
4H-6, 42-44	33.92	35.80	448.5	448.0	446.3	447.6	45	21	137	7	0.3	2.4	1.0013	1.0037
4H-6, 62-64	34.12	36.00	449.4	447.1	444.8	447.1	208	0	118	87	1.1	1.3	1.0050	1.0053
4H-6, 72-74	34.22	36.10	327.3	325.2	324.9	325.8	205	46	57	39	2.3	0.0	1.0065	1.0008
4H-6, 92-94	34.42	36.30	413.6	411.2	410.2	411.7	31	3	298	38	3.3	0.7	1.0058	1.0025
4H-6, 102-104	34.52	36.40	399.3	396.9	392.7	396.3	27	12	234	77	3.2	9.0	1.0062	1.0106
4H-6, 122-124	34.72	36.60	320.7	318.5	317.1	318.8	58	20	305	48	2.8	1.1	1.0069	1.0044
4H-6, 132-134	34.82	36.70	207.9	206.6	205.3	206.6	221	22	105	47	10.5	9.4	1.0063	1.0060
4H-6, 142-144	34.92	36.80	308.0	304.6	303.3	305.3	188	17	317	65	3.9	0.6	1.0112	1.0043
4H-7, 2-4	35.02	36.90	222.9	221.4	219.0	221.1	222	4	312	4	14.7	34.0	1.0070	1.0107
4H-7, 12-14	35.12	37.00	290.0	289.2	285.4	288.2	222	8	312	0	1.7	31.2	1.0030	1.0130
4H-7, 14-16	35.14	37.02	338.1	335.9	334.1	336.0	36	22	260	60	11.0	7.2	1.0067	1.0054

Table T5 (continued).

Core, section, interval (cm)	Depth (mbsf)	Depth (mcd)	K_1 SI (× 10^{-6})	K_2 SI (× 10^{-6})	K_3 SI (× 10^{-6})	K_{mean} SI (× 10^{-6})	K_1D (°)	K_1I (°)	K_3D (°)	K_3I (°)	F_{12}	F_{23}	L	F
4H-7, 22-24	35.22	37.10	351.0	346.9	344.9	347.6	230	13	129	41	19.8	4.6	1.0118	1.0057
172-1057B-														
5H-2, 72-74	34.42	37.18	252.9	251.5	249.3	251.2	118	7	339	81	11.3	28.9	1.0055	1.0089
172-1057C-														
4H-7, 32-34	35.32	37.20	404.4	403.0	399.1	402.2	233	15	329	23	0.4	2.9	1.0034	1.0098
172-1057B-														
5H-2, 102-104	34.72	37.48	167.9	166.9	165.9	166.9	142	2	47	63	5.1	6.1	1.0055	1.0061
5H-2, 112-114	34.82	37.58	162.4	161.0	159.9	161.1	162	32	283	39	1.9	1.2	1.0088	1.0071
5H-2, 122-124	34.92	37.68	122.6	121.5	120.5	121.5	183	22	280	18	2.7	2.5	1.0089	1.0086
5H-2, 132-134	35.02	37.78	277.8	277.5	276.6	277.3	219	1	321	84	0.4	2.4	1.0012	1.0033
5H-2, 142-144	35.12	37.88	178.5	176.0	174.1	176.2	80	24	344	14	2.8	1.7	1.0144	1.0112
5H-3, 2-4	35.22	37.98	227.6	226.1	224.9	226.2	163	7	269	66	3.5	2.0	1.0068	1.0050
5H-3, 12-14	35.32	38.08	239.1	237.7	236.6	237.8	160	19	57	33	17.5	11.3	1.0058	1.0046
5H-3, 22-24	35.42	38.18	220.2	219.8	218.2	219.4	70	10	185	68	0.6	9.0	1.0019	1.0071
5H-3, 22-24	35.42	38.18	56.9	56.6	55.9	56.5	133	12	32	42	0.9	5.1	1.0052	1.0125
5H-3, 32-34	35.52	38.28	200.7	199.1	197.8	199.2	169	11	260	5	0.4	0.3	1.0078	1.0066
5H-3, 42-44	35.62	38.38	213.3	212.8	212.3	212.8	302	5	43	65	0.5	0.5	1.0023	1.0023
5H-3, 52-54	35.72	38.48	231.4	231.2	229.4	230.7	145	36	271	39	0.2	12.1	1.0010	1.0077
5H-3, 65-67	35.85	38.61	123.8	123.5	123.3	123.5	39	24	261	59	0.4	0.1	1.0028	1.0016
5H-3, 72-74	35.92	38.68	173.1	171.9	170.7	171.9	33	28	294	17	0.6	0.6	1.0067	1.0070
5H-3, 82-84	36.02	38.78	127.0	123.6	119.0	123.2	111	11	19	6	0.4	0.8	1.0279	1.0389
5H-3, 92-94	36.12	38.88	110.4	110.4	108.2	109.7	206	37	15	52	0.0	34.2	1.0001	1.0205
5H-3, 112-114	36.32	39.08	83.8	82.9	80.6	82.4	3	59	252	12	0.6	3.3	1.0114	1.0286
5H-3, 122-124	36.42	39.18	144.9	144.5	143.7	144.4	156	56	250	3	0.1	0.5	1.0030	1.0054
5H-3, 132-134	36.52	39.28	236.2	235.3	233.5	235.0	153	44	50	14	3.0	13.2	1.0037	1.0076
5H-3, 142-144	36.62	39.38	315.2	313.6	311.7	313.5	153	42	245	3	5.7	8.2	1.0050	1.0059
5H-4, 2-4	36.72	39.48	366.1	364.5	362.9	364.5	208	9	111	41	25.7	25.0	1.0043	1.0043
5H-4, 12-14	36.82	39.58	242.1	241.0	237.2	240.1	154	21	355	68	6.1	83.1	1.0043	1.0161
5H-4, 22-24	36.92	39.68	247.6	244.9	242.5	245.0	103	25	284	65	10.9	8.4	1.0112	1.0099
5H-4, 32-34	37.02	39.78	355.3	353.1	349.1	352.5	67	2	322	81	2.8	10.1	1.0061	1.0116
5H-4, 42-44	37.12	39.88	259.1	258.3	255.5	257.6	158	18	3	70	3.1	36.9	1.0031	1.0110
5H-4, 52-54	37.22	39.98	317.5	315.2	309.9	314.2	210	19	341	63	0.4	2.0	1.0073	1.0169
5H-4, 62-64	37.32	40.08	392.8	392.0	387.6	390.8	187	19	325	65	0.6	15.1	1.0021	1.0112
5H-4, 72-74	37.42	40.18	461.6	457.3	450.0	456.3	144	13	3	73	45.9	129.2	1.0095	1.0162
5H-4, 82-84	37.52	40.28	460.6	455.7	455.3	457.2	153	15	323	67	73.1	0.4	1.0107	1.0008
5H-4, 92-94	37.62	40.38	369.2	367.2	365.8	367.4	43	5	146	68	8.2	4.4	1.0053	1.0039
5H-4, 102-104	37.72	40.48	512.2	509.0	506.0	509.1	142	13	47	21	25.1	22.8	1.0062	1.0059
5H-4, 112-114	37.82	40.58	548.9	546.2	541.4	545.5	146	16	303	73	9.8	31.4	1.0050	1.0090
5H-4, 122-124	37.92	40.68	534.6	531.5	524.7	530.3	140	27	291	60	13.3	63.3	1.0059	1.0129
5H-4, 132-134	38.02	40.78	337.2	335.2	329.9	334.1	174	43	7	46	22.6	151.7	1.0062	1.0160
5H-4, 142-144	38.12	40.88	445.8	442.4	441.1	443.1	247	20	126	54	0.1	0.0	1.0077	1.0029
5H-5, 2-4	38.22	40.98	374.4	373.1	367.5	371.7	125	19	297	70	2.0	40.9	1.0034	1.0154
5H-5, 12-14	38.32	41.08	436.5	434.7	432.2	434.5	158	18	355	72	49.9	92.0	1.0042	1.0057
5H-5, 22-24	38.42	41.18	621.6	616.2	612.0	616.6	173	7	276	62	7.5	4.6	1.0087	1.0070
5H-5, 32-34	38.52	41.28	673.3	667.6	665.9	668.9	144	3	244	71	24.8	2.1	1.0086	1.0025
5H-5, 42-44	38.62	41.38	500.3	496.7	493.0	496.7	163	31	52	31	38.4	39.7	1.0073	1.0075

Table T5 (continued).

Core, section, interval (cm)	Depth (mbsf)	Depth (mcd)	K_1 SI ($\times 10^{-6}$)	K_2 SI ($\times 10^{-6}$)	K_3 SI ($\times 10^{-6}$)	K_{mean} SI ($\times 10^{-6}$)	K_1D (°)	K_1I (°)	K_3D (°)	K_3I (°)	F_{12}	F_{23}	L	F
5H-5, 52-54	38.72	41.48	658.9	655.0	648.9	654.3	144	16	259	56	24.3	57.0	1.0060	1.0094
5H-5, 62-64	38.82	41.58	675.4	668.7	666.5	670.2	142	26	257	41	66.4	6.6	1.0100	1.0032
5H-5, 72-74	38.92	41.68	509.9	504.5	502.1	505.5	147	24	47	23	109.5	24.4	1.0106	1.0049
5H-5, 82-84	39.02	41.78	334.2	331.8	330.0	332.0	149	11	262	63	5.5	3.3	1.0071	1.0056
5H-5, 92-94	39.12	41.88	586.5	583.4	579.4	583.1	133	40	248	27	35.0	60.6	1.0053	1.0070
5H-5, 102-104	39.22	41.98	529.1	523.0	519.0	523.7	147	37	35	26	272.7	119.8	1.0116	1.0078
5H-5, 112-114	39.32	42.08	646.3	641.5	634.3	640.7	142	24	248	33	9.0	19.0	1.0076	1.0113
5H-5, 122-124	39.42	42.18	539.4	535.2	530.5	535.0	144	34	256	29	11.8	15.3	1.0078	1.0090
5H-5, 132-134	39.52	42.28	255.6	254.3	251.2	253.7	183	33	344	55	7.9	50.0	1.0049	1.0125
5H-5, 142-144	39.62	42.38	424.2	422.3	420.4	422.3	128	39	273	45	5.0	5.4	1.0043	1.0046
5H-6, 0-2	39.70	42.46	516.8	514.5	509.2	513.5	190	13	94	26	16.8	87.0	1.0045	1.0103
5H-6 12-14	39.82	42.58	469.1	465.8	463.1	466.0	291	50	80	36	58.9	36.1	1.0072	1.0057
5H-6 22-24	39.92	42.68	467.9	465.6	460.6	464.7	125	50	294	39	4.7	24.2	1.0049	1.0110
5H-6 32-34	40.02	42.78	485.3	482.8	477.9	482.0	78	42	300	40	9.1	33.2	1.0053	1.0102
5H-6 42-44	40.12	42.88	492.1	487.9	484.1	488.0	316	55	70	16	80.9	63.2	1.0087	1.0078
5H-6 52-54	40.22	42.98	570.0	566.0	564.7	566.9	335	33	239	10	28.3	2.8	1.0071	1.0023
5H-6 62-64	40.32	43.08	604.0	601.9	598.6	601.5	342	32	82	16	0.5	1.1	1.0036	1.0054
5H-6 72-74	40.42	43.18	532.9	529.1	527.4	529.8	320	40	66	18	50.9	9.5	1.0073	1.0031
5H-6 82-84	40.52	43.28	595.9	592.8	589.8	592.8	313	8	196	74	0.6	0.6	1.0052	1.0051
172-1057C-														
5H-4, 72-74	40.72	43.33	451.0	448.6	446.9	448.8	79	4	172	39	14.4	7.1	1.0053	1.0038
172-1057B-														
5H-6, 92-94	40.62	43.38	592.3	588.7	586.6	589.2	348	25	242	30	2.5	0.9	1.0060	1.0036
172-1057C-														
5H-4, 82-84	40.82	43.43	439.1	437.8	431.4	346.2	135	13	246	56	0.7	1.1	1.0029	1.0148
5H-4, 92-94	40.92	43.53	511.0	508.4	506.1	508.5	68	7	316	72	5.2	4.2	1.0051	1.0045
5H-4, 102-104	41.02	43.63	306.9	306.2	302.9	305.3	127	22	276	65	3.0	69.4	1.0023	1.0110
5H-4, 112-114	41.12	43.73	439.1	437.8	431.4	436.1	114	16	338	68	0.4	10.5	1.0029	1.0148
5H-4, 122-124	41.22	43.83	414.8	413.7	408.2	412.2	233	2	331	74	1.2	33.6	1.0026	1.0135
5H-4, 142-144	41.42	44.03	491.0	486.2	479.6	485.6	353	13	191	46	74.7	144.0	1.0098	1.0139
5H-5, 2-4	41.52	44.13	236.0	233.3	231.5	233.6	290	6	27	50	1.6	0.7	1.0117	1.0076
5H-5, 2-4	41.52	44.13	286.0	284.7	281.6	284.1	44	2	306	72	0.6	3.0	1.0048	1.0109
5H-5, 12-14	41.62	44.23	334.1	331.1	329.0	331.4	90	26	296	62	2.7	1.4	1.0089	1.0065
5H-5, 12-14	41.62	44.23	400.1	398.4	396.4	398.3	78	15	335	40	2.9	3.5	1.0043	1.0049
5H-5, 22-24	41.72	44.33	258.8	257.8	255.5	257.4	65	35	226	53	4.5	24.0	1.0039	1.0090
5H-5, 22-24	41.72	44.33	213.7	211.9	210.7	212.1	71	20	220	67	32.1	15.2	1.0086	1.0059
5H-5, 32-34	41.82	44.43	309.8	308.9	308.3	309.0	124	17	25	27	0.1	0.1	1.0028	1.0022
5H-5, 32-34	41.82	44.43	400.4	397.3	394.9	397.5	83	22	295	64	8.7	5.1	1.0078	1.0060
5H-5, 42-44	41.92	44.53	392.8	390.7	387.9	390.5	116	15	230	56	0.0	0.1	1.0054	1.0072
5H-5, 42-44	41.92	44.53	373.6	372.0	370.7	372.1	111	10	225	66	2.6	2.0	1.0042	1.0036
5H-5, 52-54	42.02	44.63	283.5	281.8	280.4	281.9	74	1	166	62	18.8	13.2	1.0060	1.0050
5H-5, 52-54	42.02	44.63	229.5	228.8	226.0	228.1	62	15	233	75	2.5	34.5	1.0032	1.0125
5H-5, 62-64	42.12	44.73	350.0	349.2	345.6	348.3	92	27	281	62	0.2	3.7	1.0023	1.0106
5H-5, 62-64	42.12	44.73	229.1	227.9	224.0	227.0	111	27	283	63	0.5	5.7	1.0052	1.0174
5H-5, 72-74	42.22	44.83	374.2	372.5	366.8	371.2	93	6	346	69	1.9	20.7	1.0046	1.0156
5H-5, 72-74	42.22	44.83	237.1	235.3	235.0	235.8	117	24	236	47	3.8	0.1	1.0079	1.0010
5H-5, 82-84	42.32	44.93	325.0	324.6	323.0	324.2	272	4	178	42	0.7	14.7	1.0011	1.0050

Table T5 (continued).

Core, section, interval (cm)	Depth (mbsf)	Depth (mcd)	K_1 SI ($\times 10^{-6}$)	K_2 SI ($\times 10^{-6}$)	K_3 SI ($\times 10^{-6}$)	K_{mean} SI ($\times 10^{-6}$)	K_1D (°)	K_1I (°)	K_3D (°)	K_3I (°)	F_{12}	F_{23}	L	F
5H-5, 82-84	42.32	44.93	291.8	291.1	289.9	290.9	74	53	189	18	1.2	3.4	1.0024	1.0041
5H-5, 92-94	42.42	45.03	363.1	360.2	353.7	359.0	206	3	306	72	0.5	2.7	1.0080	1.0185
5H-5, 92-94	42.42	45.03	520.6	517.6	515.3	517.8	58	3	323	55	1.0	0.6	1.0058	1.0045
5H-5, 102-104	42.52	45.13	297.2	296.4	292.8	295.5	135	34	337	54	0.6	13.3	1.0026	1.0123
5H-5, 102-104	42.52	45.13	579.5	576.7	574.7	577.0	95	20	353	30	5.1	2.3	1.0050	1.0033
5H-5, 112-114	42.62	45.23	317.1	314.3	309.7	313.7	101	9	301	81	1.8	4.8	1.0088	1.0147
5H-5, 112-114	42.62	45.23	196.1	194.8	193.3	194.7	330	13	61	2	0.2	0.3	1.0067	1.0077
5H-5, 122-124	42.72	45.33	356.6	355.5	351.1	354.4	177	5	279	67	0.6	9.4	1.0033	1.0124
5H-5, 132-134	42.82	45.43	416.0	414.5	407.9	412.8	82	7	338	63	0.4	7.8	1.0037	1.0162
5H-5, 142-144	42.92	45.53	512.6	510.2	506.6	509.8	69	40	236	49	4.9	10.1	1.0048	1.0069
172-1057B-														
6H-1, 72-74	42.42	46.73	243.7	242.2	241.3	242.4	255	0	165	17	31.5	9.1	1.0064	1.0034
6H-1, 84-86	42.54	46.85	236.6	235.2	234.1	235.3	275	17	5	1	7.6	4.1	1.0062	1.0046
172-1057C-														
5H-6, 132-134	44.32	46.93	170.9	170.2	167.1	169.4	86	6	191	69	1.1	20.5	1.0041	1.0181
172-1057B-														
6H-1, 94-96	42.64	46.95	256.7	255.8	253.4	255.3	250	15	347	25	1.5	10.1	1.0035	1.0093
6H-1, 104-106	42.74	47.05	196.7	196.1	195.4	196.1	221	31	7	54	1.4	2.1	1.0031	1.0037

Notes: mbsf = meters below seafloor, mcd = meters composite depth. K_1, K_2, and K_3 = intensity of maximum, intermediate, and minimum susceptibility axes. K_{mean} = mean susceptibility; K_1D = declination of maximum susceptibility axis. K_1I = inclination of maximum susceptibility axis. K_3D = declination of minimum susceptibility axis. K_3I = inclination of minimum susceptibility axis. F_{12} and F_{23} = statistical parameters comparing the variance of K_1 and K_2, and K_2 and K_3 respectively. L = magnetic lineation (K_1/K_2), F = magnetic foliation (K_2/K_3).