36. *DATA REPORT:* CORRECTED THERMAL CONDUCTIVITY DATA, LEG 131[1]

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INTRODUCTION

Measurements of thermal conductivity made during Ocean Drilling Program (ODP) Leg 131 were corrected during the cruise using the following set of standards: fresh water, fused silica, Macor ceramic, and basalt. The true thermal conductivity of the basalt standard was not known during Leg 131. In this report, we use a corrected conductivity value for the basalt standard to calibrate measurements made during the leg.

METHODS AND RESULTS

A discussion of the theory behind thermal conductivity measurements and calibration of the ODP system was provided in the "Explanatory Notes" chapter of Taira, Hill, Firth, et al. (1991) and is briefly summarized here. The needle-probe method is described in detail by Von Herzen and Maxwell (1959) and Vacquier (1985). A thin needle containing a heating wire provides a heat source; a thermistor in the same needle monitors the thermal response with time. In the "full-space" configuration used for soft sediments, the core is allowed to equilibrate for several hours at room temperature. The needle is inserted in a direction perpendicular to the long axis of the core, through a small hole drilled in the liner. A current is run through the heating wire, inducing a temperature rise in the surrounding sediments. The rate of temperature rise is monitored with the thermistor and is directly proportional to the thermal conductivity of the sediments.

When rocks are too hard for penetration of the needle, the "half-space" method is employed. A needle probe is mounted in a block of low-conductivity epoxy. The surface of the epoxy is sanded down until the length of the needle is exposed. A rock sample at least as long as the needle probe is selected after the core has been split, and allowed to equilibrate in a water bath. The smooth side of the sample is sanded and placed flush against the needle in the epoxy block, with the sample, block and needle submerged in water to maintain saturation and temperature stability. The experiment is conducted as in the full-space mode, except that a correction must be applied to account for the presence of the epoxy block. In practice, corrections are determined by comparing measured and known conductivities of a series of standard materials. Ideally, the range of conductivity standards extends just past the range of measured samples, so that the corrections need not be extrapolated.

The half-space correction equation (specific for each block-needle pair) is of the form $k_c = A + Bk_h$, where k_h is the uncorrected conductivity, using a full-space analysis on data collected with a half-space apparatus, A is small and negative (roughly reflecting the conductivity of the epoxy base), and B is some value close to 2 (reflecting mainly the geometry of the experiment) (Lee, 1989). In practice, the experiment is highly imperfect and these constants also reflect shortcomings in the experimental method, including poor contacts between the samples and needles, nonsymmetry of the samples and standards, and positioning of the heater and thermistor slightly below the surface of the epoxy block.

Freshwater (0.61 W/m·°C), fused silica (1.38 W/m·°C), and Macor ceramic (1.61 W/m·°C) were used during Leg 131 as standards for needle probe measurements. Many of the materials cored during this leg had conductivities higher than that of the Macor, however, making it necessary to calibrate the ODP instrument over a wider range. During the cruise we also used a piece of massive basalt, recovered from a junk basket after Hole 504B cleaning operations on Leg 111, as an additional standard. A subsample of this basalt was sent to the U.S. Geological Survey (USGS) laboratory in Menlo Park for testing prior to Leg 131, but their divided-bar system was not operational at that time. We were able to obtain an estimated conductivity of 1.93 W/m·°C for this sample from the USGS needle probe system (which had been separately calibrated against their divided bar system), run in half-space mode; we used this value for calibrating the ODP instrument during Leg 131. After the cruise was completed, the conductivity of the basalt standard was determined with greater accuracy to be 2.05 W/m·°C using a divided-bar apparatus (C. Williams, pers. comm., 1990).

Half-space calibration constants were determined for each of three needle probes used during Leg 131 (labeled 1, 4 and 9) by regressing the measured against the known conductivities. New calibration curves for half-space measurements are presented in Figure 1, and recalculated final values for measurements of Site 808 sediments and rocks are listed in Table 1 and plotted in Figure 2. The conductivities in this report reflect a reduction of 1%–2% at conductivities below 1.60 W/m·°C and an increase of up to 6% at conductivities greater than 2.30 W/m·°C in comparison to results published in Taira, Hill, Firth, et al. (1991). These changes affect only half-space measurements, as materials soft enough to test using full-space geometry had low enough conductivities that the basalt standard was not needed. These changes do not significantly affect inferences or interpretations presented in Taira, Hill, Firth, et al. (1991).

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Table 1. Corrected thermal conductivity data, Leg 131.

Hole-core-sec.	Int top[a] (cm)	Depth (mbsf)	k_f[b] (W/m·°C)	k_h[c] (W/m·°C)	k_c[d] (W/m·°C)
808A-1H-1	55	0.55	1.05		1.07
808A-1H-1	105	1.05	1.04		1.06
808A-1H-2	55	2.05	1.07		1.09
808A-1H-2	105	2.55	1.06		1.08
808A-1H-3	50	3.50	1.19		1.21
808A-1H-3	100	4.00	0.98		1.00
808A-1H-4	50	5.00	1.24		1.27
808A-1H-4	100	5.50	0.96		0.98
808A-2H-1	122	7.52	0.89		0.91
808A-2H-3	107	10.37	0.81		0.83
808A-2H-5	21	12.51	1.01		1.03
808A-2H-6	86	14.66	0.91		0.93
808A-2H-7	44	15.74	0.86		0.87
808A-3H-1	50	16.30	0.90		0.92
808A-3H-1	100	16.80	0.87		0.88
808A-3H-2	50	17.70	0.81		0.82
808A-3H-3	50	19.20	0.94		0.96
808A-3H-3	100	19.70	0.75		0.77
808A-3H-4	15	20.35	0.85		0.86
808A-3H-5	90	22.60	0.85		0.87
808A-3H-6	50	23.70	0.95		0.97
808A-4H-1	25	25.55	0.94		0.95
808A-4H-1	95	26.25	0.87		0.88
808A-4H-2	30	27.10	0.93		0.95
808A-4H-2	90	27.70	0.92		0.94
808A-4H-3	50	28.33	0.85		0.86
808A-5H-6	100	40.72	1.00		1.02
808A-6H-1	24	44.54	1.12		1.14
808A-6H-1	90	45.20	0.88		0.90
808A-7H-1	50	54.30	1.22		1.24
808A-7H-1	90	54.70	1.06		1.08
808A-7H-2	25	55.55	0.86		0.88
808A-7H-3	113	57.88	1.03		1.05
808A-7H-4	10	58.35	0.83		0.85
808A-7H-4	90	59.15	0.73		0.74
808A-7H-5	18	59.93	0.75		0.77
808A-7H-6	20	61.28	1.19		1.22
808A-9H-2	110	70.90	1.05		1.07
808A-9H-3	109	72.39	1.13		1.15
808A-9H-4	35	73.15	0.98		1.00
808A-13H-1	12	106.52	0.93		0.95
808A-13H-2	65	107.89	0.89		0.91
808B-2X-1	25	120.85	0.97		0.99
808B-2X-1	65	121.25	0.92		0.94
808B-4X-1	20	140.10	1.06		1.08
808B-4X-1	70	140.60	1.29		1.32
808B-5X-1	23	149.73	1.09		1.12
808B-5X-2	25	150.78	1.06		1.09
808B-7X-1	90	169.70	1.10		1.13
808B-7X-2	105	171.35	1.15		1.19
808B-7X-3	30	172.10	1.06		1.09
808B-7X-4	15	173.35	1.31		1.34
808B-7X-4	60	173.80	1.09		1.12
808B-9X-2	15	189.85	1.11		1.14
808B-9X-2	65	190.35	1.13		1.16
808B-9X-4	40	193.10	1.24		1.28
808B-10X-1	35	197.75	1.14		1.17
808B-10X-1	95	198.35	1.09		1.12
808B-10X-2	10	199.00	1.38		1.43
808B-10X-2	130	200.20	1.07		1.10
808B-10X-3	25	200.65	1.07		1.10
808B-10X-3	125	201.65	1.05		1.08
808B-10X-4	35	202.25	1.19		1.22
808B-10X-4	105	202.95	1.22		1.25
808B-11X-1	48	207.28	1.08		1.12
808B-11X-42	42	208.72	1.11		1.14
808B-11X-2	86	209.16	1.05		1.08
808B-11X-3	16	209.96	0.96		0.99
808B-13X-1	48	226.28	1.23		1.27
808B-13X-1	91	226.71	1.20		1.23
808B-13X-2	40	227.70	1.40		1.44
808B-13X-2	82	228.12	1.10		1.13
808B-16X-1	45	254.85	1.37		1.41
808B-17X-1	73	264.10		1.45	1.50
808B-17X-2	89	265.76		1.28	1.31
808B-17X-2	109	265.96		1.31	1.35
808B-17X-3	13	266.50		1.34	1.39

Table 1 (continued).

Hole-core-sec.	Int top[a] (cm)	Depth (mbsf)	k_f[b] (W/m·°C)	k_h[c] (W/m·°C)	k_c[d] (W/m·°C)
808B-17X-3	55	266.92		1.33	1.37
808B-17X-4	7	267.94		1.38	1.43
808B-17X-4	55	268.45		1.45	1.49
808B-19X-1	105	283.55	1.26		1.30
808B-19X-1	130	283.77		1.50	1.55
808B-19X-2	56	284.56	1.18		1.22
808B-19X-2	101	285.01	1.18		1.22
808B-19X-2	127	285.24		1.43	1.48
808B-19X-3	27	285.77	1.18		1.22
808B-20X-1	25	288.11		1.49	1.54
808B-20X-1	126	289.13		1.60	1.65
808B-20X-CC	33	290.00		1.49	1.54
808C-1R-1	79	299.26		1.49	1.54
808C-1R-1	103	299.50		1.55	1.60
808C-1R-2	40	300.40		1.67	1.73
808B-22X-1	136	308.46		1.51	1.56
808C-3R-1	75	318.35		1.6	1.65
808B-24X-1	24	326.62		1.48	1.54
808C-4R-1	45	327.65		1.63	1.68
808C-4R-1	65	327.85		1.66	1.72
808B-24X-2	45	328.35	1.32		1.36
808B-24X-2	105	328.95	1.25		1.30
808B-24X-3	75	330.15	1.12		1.16
808B-24X-3	87	330.25		1.37	1.41
808C-5R-1	16	337.06		1.56	1.62
808B-25X-4	50	341.00	1.39		1.45
808B-25X-4	95	341.45	1.37		1.42
808C-6R-1	23	346.83		1.63	1.70
808C-6R-2	115	349.25		1.41	1.47
808C-6R-3	72	350.32		1.50	1.55
808B-28X-CC	11	355.31	1.31		1.36
808B-28X-CC	20	355.40	1.33		1.38
808C-7R-1	44	356.61		1.63	1.70
808C-8R-2	14	367.51		1.51	1.57
808C-9R-1	104	376.61		1.28	1.33
808C-10R-1	17	385.34		1.49	1.55
808C-10R-2	110	387.77		1.59	1.65
808C-11R-1	95	395.75		1.54	1.60
808C-11R-2	15	396.45		1.52	1.59
808C-12R-1	120	405.80		1.42	1.47
808C-12R-2	150	407.60		1.56	1.62
808C-12R-3	93	408.53		1.50	1.56
808C-12R-4	35	409.45		1.54	1.60
808C-13R-1	145	415.75		1.47	1.53
808C-13R-2	122	417.02		1.52	1.58
808C-13R-3	105	418.35		1.68	1.75
808C-13R-CC	4	419.34		1.64	1.70
808C-14R-1	113	425.13		1.55	1.62
808C-14R-2	5	425.55		1.38	1.43
808C-14R-3	36	427.36		1.56	1.63
808C-14R-4	23	428.73		1.56	1.63
808C-15R-1	10	433.80		1.51	1.57
808C-15R-2	3	435.23		1.67	1.74
808C-15R-2	107	436.27		1.71	1.79
808C-15R-3	123	437.93		1.69	1.76
808C-15R-4	54	438.74		1.53	1.60
808C-15R-5	13	439.83		1.59	1.66
808C-16R-1	91	443.91		1.49	1.55
808C-16R-2	35	444.85		1.65	1.72
808C-16R-3	18	446.15		1.57	1.63
808C-16R-4	6	447.53		1.62	1.69
808C-16R-5	51	449.48		1.39	1.45
808C-17R-1	22	452.89		1.69	1.76
808C-17R-2	31	454.48		1.63	1.70
808C-17R-3	47	456.14		1.54	1.61
808C-17R-4	67	457.80		1.69	1.77
808C-17R-5	12	458.75		1.61	1.68
808C-18R-1	47	462.84		1.64	1.71
808C-18R-2	124	465.11		1.64	1.71
808C-18R-3	97	466.34		1.67	1.74
808C-18R-4	98	467.85		1.46	1.53
808C-18R-5	93	469.30		1.54	1.61
808C-19R-1	13	472.10		1.34	1.40
808C-19R-2	8	473.55		1.58	1.65
808C-19R-3	88	475.85		1.61	1.68
808C-19R-4	62	477.09		1.61	1.68
808C-19R-5	10	478.07		1.42	1.49

Table 1 (continued).

Hole-core-sec.	Int top[a] (cm)	Depth (mbsf)	k_f[b] (W/m·°C)	k_h[c] (W/m·°C)	k_c[d] (W/m·°C)
808C-20R-1	39	482.06		1.66	1.73
808C-20R-2	22	483.39		1.59	1.66
808C-20R-3	49	485.16		1.59	1.66
808C-20R-4	121	487.38		1.57	1.64
808C-20R-5	93	488.60		1.74	1.82
808C-21R-1	86	492.13		1.54	1.62
808C-21R-2	23	493.00		1.76	1.84
808C-21R-4	72	496.52		1.50	1.57
808C-21R-5	52	497.82		1.36	1.42
808C-22R-1	10	501.10		1.44	1.51
808C-22R-2	12	502.62		1.25	1.31
808C-22R-2	12	502.62		1.40	1.46
808C-22R-3	37	504.37		1.40	1.47
808C-22R-4	110	506.60		1.44	1.51
808C-22R-5	28	507.28		1.56	1.63
808C-23R-1	102	511.72		1.53	1.60
808C-23R-2	86	513.06		1.60	1.68
808C-23R-3	50	514.20		1.55	1.63
808C-23R-4	12	515.32		1.75	1.84
808C-23R-5	16	516.86		1.57	1.65
808C-24R-1	73	521.03		1.59	1.67
808C-24R-2	40	522.20		1.63	1.71
808C-24R-3	40	523.70		1.52	1.60
808C-24R-4	45	525.25		1.53	1.60
808C-25R-1	118	531.18		1.54	1.62
808C-25R-2	90	532.40		1.65	1.73
808C-25R-3	78	533.75		1.55	1.63
808C-26R-1	13	539.80		1.49	1.56
808C-26R-2	17	541.33		1.52	1.60
808C-26R-3	90	543.56		1.62	1.69
808C-26R-4	28	544.45		1.53	1.60
808C-26R-5	26	545.93		1.57	1.64
808C-27R-1	29	549.56		1.52	1.59
808C-27R-2	22	550.99		1.63	1.71
808C-27R-3	32	552.59		1.66	1.75
808C-27R-4	12	553.89		1.59	1.67
808C-27R-5	11	555.38		1.57	1.65
808C-27R-6	95	557.72		1.69	1.78
808C-28R-1	49	559.36		1.60	1.69
808C-28R-2	16	560.53		1.74	1.83
808C-28R-3	27	562.14		1.75	1.84
808C-28R-4	103	564.40		1.58	1.66
808C-28R-5	19	565.06		1.64	1.72
808C-29R-2	58	570.10		1.66	1.75
808C-29R-3	31	571.33		1.57	1.65
808C-29R-4	45	572.97		1.80	1.89
808C-29R-5	43	573.53		1.58	1.66
808C-29R-6	120	575.79		1.62	1.70
808C-29R-7	8	576.17		1.69	1.77
808C-30R-1	113	579.40		1.50	1.58
808C-30R-2	8	579.85		1.54	1.62
808C-30R-3	30	581.57		1.72	1.80
808C-30R-4	51	583.28		1.64	1.73
808C-30R-5	95	585.22		1.90	1.99
808C-31R-1	30	587.90		1.68	1.77
808C-31R-2	26	589.36		1.73	1.82
808C-32R-1	116	598.46		1.74	1.83
808C-32R-2	12	598.92		1.35	1.42
808C-32R-3	5	600.35		1.51	1.59
808C-32R-4	112	602.92		1.42	1.49
808C-32R-5	28	603.58		1.67	1.76
808C-32R-6	50	605.30		1.75	1.84
808C-33R-1	16	607.06		1.64	1.73
808C-33R-2	1	608.41		1.76	1.85
808C-33R-3	106	610.96		1.64	1.73
808C-33R-4	26	611.66		1.12	1.18
808C-34R-1	144	617.94		1.63	1.72
808C-34R-2	1	618.01		1.58	1.66
808C-34R-4	126	622.26		1.16	1.22
808C-34R-5	70	623.20		1.81	1.90
808C-35R-1	63	626.83		1.44	1.52
808C-35R-2	118	628.88		1.65	1.74
808C-35R-3	1	629.21		1.56	1.64
808C-35R-5	86	633.06		1.38	1.45
808C-36R-3	5	638.95		1.51	1.59
808C-36R-5	1	641.91		1.65	1.74
808C-37R-1	124	646.74		1.48	1.56
808C-37R-2	75	647.75		1.72	1.82
808C-38R-1	18	655.05		1.71	1.80
808C-38R-2	19	656.56		1.40	1.47
808C-38R-3	119	659.06		1.65	1.74
808C-38R-4	19	659.56		1.70	1.79
808C-38R-5	7	660.94		1.49	1.58
808C-38R-6	55	662.92		1.14	1.20
808C-39R-1	41	664.88		1.56	1.65
808C-39R-2	6	666.03		1.51	1.59
808C-39R-3	123	668.70		1.63	1.72
808C-39R-4	47	669.44		1.82	1.92
808C-39R-5	37	670.84		1.47	1.55
808C-40R-1	106	675.23		1.70	1.80
808C-40R-2	9	675.76		1.59	1.68
808C-41R-1	26	684.03		1.60	1.69
808C-41R-2	4	685.31		1.50	1.59
808C-42R-1	23	693.70		1.65	1.74
808C-42R-2	20	695.17		1.46	1.55
808C-42R-3	109	697.56		1.57	1.66
808C-42R-4	29	698.26		1.40	1.49
808C-42R-5	4	699.51		1.49	1.58
808C-42R-6	7	701.04		1.40	1.48
808C-43R-1	93	704.10		1.59	1.68
808C-43R-2	70	705.37		1.90	2.01
808C-43R-3	101	707.18		1.59	1.68
808C-43R-4	125	708.92		1.66	1.76
808C-43R-5	131	710.48		1.61	1.70
808C-43R-6	86	711.53		1.71	1.81
808C-44R-1	12	712.49		1.50	1.59
808C-44R-2	30	714.17		1.68	1.77
808C-44R-4	112	718.02		1.52	1.62
808C-44R-6	23	720.13		1.51	1.60
808C-45R-1	140	723.40		1.60	1.70
808C-45R-2	137	724.87		1.51	1.60
808C-45R-4	18	726.68		1.54	1.63
808C-45R-5	76	728.76		1.70	1.80
808C-46R-2	117	734.37		1.60	1.69
808C-46R-4	123	737.43		1.64	1.74
808C-46R-5	129	738.99		1.18	1.25
808C-47R-1	33	741.73		1.37	1.46
808C-47R-2	32	743.00		1.44	1.53
808C-47R-3	100	745.18		1.47	1.56
808C-47R-5	75	747.93		1.60	1.69
808C-47R-6	20	748.88		1.50	1.59
808C-47R-7	48	749.86		1.66	1.76
808C-48R-1	41	751.51		1.41	1.50
808C-48R-2	1	752.61		1.50	1.59
808C-48R-3	61	754.71		1.59	1.69
808C-48R-4	44	756.04		1.55	1.64
808C-48R-5	72	757.82		1.47	1.57
808C-49R-1	97	761.67		1.52	1.62
808C-49R-2	115	763.35		1.59	1.68
808C-49R-3	141	765.11		1.66	1.76
808C-49R-5	59	767.29		1.65	1.75
808C-50R-1	6	770.43		1.67	1.78
808C-50R-2	4	771.13		1.67	1.78
808C-50R-3	125	773.84		1.44	1.54
808C-50R-4	4	774.13		1.55	1.64
808C-50R-5	102	776.61		1.43	1.52
808C-50R-7	84	779.43		1.65	1.75
808C-51R-1	43	780.50		1.48	1.58
808C-51R-2	117	782.74		1.62	1.72
808C-51R-3	53	783.60		1.36	1.45
808C-51R-4	90	785.47		1.51	1.60
808C-51R-5	52	786.59		1.52	1.62
808C-51R-6	8	787.65		1.49	1.59
808C-52R-1	55	790.32		1.38	1.47
808C-52R-2	4	791.31		1.47	1.56
808C-52R-3	25	793.02		1.52	1.62
808C-52R-4	32	794.59		1.53	1.62
808C-52R-5	117	796.94		1.50	1.60
808C-52R-6	28	797.55		1.70	1.81
808C-53R-1	113	800.50		1.67	1.77
808C-53R-2	30	801.17		1.54	1.64
808C-53R-3	21	802.58		1.24	1.32
808C-53R-4	16	804.03		1.47	1.56
808C-53R-5	28	805.65		1.55	1.65

Table 1 (continued).

Hole-core-sec.	Int top[a] (cm)	Depth (mbsf)	k_f[b] (W/m·°C)	k_h[c] (W/m·°C)	k_c[d] (W/m·°C)
808C-54R-1	143	810.50		1.48	1.58
808C-54R-2	30	810.87		1.60	1.70
808C-54R-3	6	812.13		1.22	1.30
808C-54R-4	4	813.61		1.39	1.48
808C-54R-5	35	815.42		1.56	1.66
808C-54R-6	139	817.96		1.71	1.82
808C-55R-1	35	819.05		1.64	1.75
808C-55R-4	6	823.26		1.70	1.81
808C-56R-1	9	828.49		1.74	1.85
808C-56R-2	60	830.50		1.67	1.78
808C-56R-3	6	831.46		1.63	1.73
808C-56R-4	42	833.32		1.61	1.72
808C-56R-5	3	834.43		1.89	2.01
808C-57R-1	23	838.33		1.72	1.83
808C-57R-2	27	839.87		1.76	1.87
808C-57R-4	97	843.57		1.51	1.62
808C-57R-5	17	844.27		1.79	1.90
808C-58R-1	122	848.62		1.72	1.83
808C-58R-3	49	850.89		1.74	1.85
808C-59R-1	76	857.86		1.68	1.80
808C-59R-2	47	859.07		1.73	1.84
808C-59R-3	8	860.18		1.74	1.86
808C-59R-4	18	861.78		1.71	1.83
808C-60R-1	37	867.17		1.63	1.74
808C-60R-2	130	869.60		1.73	1.85
808C-60R-3	10	869.90		1.56	1.66
808C-60R-5	5	872.85		1.67	1.78
808C-61R-1	12	876.59		1.60	1.71
808C-61R-2	22	878.19		1.74	1.86
808C-61R-4	18	881.07		1.68	1.80
808C-61R-5	109	883.48		2.00	2.14
808C-62R-1	133	887.40		1.69	1.80
808C-62R-2	130	888.87		1.68	1.80
808C-62R-3	50	889.57		1.76	1.89
808C-62R-4	105	891.62		1.77	1.89
808C-62R-5	31	892.38		1.76	1.88
808C-63R-1	102	896.79		1.69	1.81
808C-63R-2	87	898.14		1.71	1.83
808C-63R-3	45	899.22		1.89	2.03
808C-64R-1	8	905.56		1.66	1.77
808C-64R-2	92	907.89		1.77	1.89
808C-64R-3	84	909.31		1.64	1.76
808C-64R-4	112	911.09		1.64	1.76
808C-65R-1	11	915.18		1.70	1.82
808C-65R-1	135	916.42		1.83	1.96
808C-66R-1	133	926.10		1.76	1.89
808C-66R-2	13	926.40		1.85	1.98
808C-66R-3	96	928.73		1.75	1.88
808C-66R-4	67	929.93		1.88	2.01
808C-68R-1	24	944.44		1.67	1.79
808C-70R-1	143	964.83		1.72	1.85
808C-70R-2	60	965.50		1.66	1.79
808C-70R-4	46	968.36		1.60	1.72
808C-70R-5	1	969.41		1.82	1.95
808C-71R-1	141	974.51		1.68	1.81
808C-71R-3	12	976.22		1.76	1.89
808C-72R-1	33	983.13		1.64	1.76
808C-72R-2	1	984.31		1.76	1.90
808C-72R-3	139	987.19		1.90	2.05
808C-72R-CC	1	989.08		1.83	1.96
808C-73R-1	93	993.00		1.71	1.84
808C-73R-2	46	994.03		1.78	1.91
808C-73R-3	28	995.35		1.66	1.79
808C-73R-4	80	997.37		1.89	2.03
808C-73R-5	10	998.17		1.79	1.93
808C-73R-6	4	999.61		1.78	1.91
808C-74R-1	142	1003.19		1.74	1.87
808C-74R-2	139	1004.66		1.76	1.90
808C-75R-1	12	1011.39		1.68	1.81
808C-75R-2	38	1013.10		1.77	1.91
808C-76R-1	137	1021.84		1.64	1.77
808C-76R-2	13	1022.10		1.81	1.95
808C-76R-3	19	1023.66		1.82	1.96
808C-76R-4	16	1025.13		1.92	2.07
808C-76R-5	28	1026.75		1.77	1.91
808C-76R-6	4	1028.01		1.85	1.99
808C-77R-1	136	1031.23		1.78	1.92
808C-77R-2	39	1031.76		1.81	1.95
808C-77R-3	34	1033.21		1.57	1.70
808C-77R-4	67	1035.04		1.88	2.02
808C-77R-5	7	1035.94		1.73	1.87
808C-78R-1	43	1039.50		1.80	1.94
808C-78R-2	32	1040.89		1.86	2.01
808C-78R-3	5	1042.12		1.74	1.87
808C-78R-4	88	1044.45		1.86	2.01
808C-78R-5	138	1046.45		1.75	1.88
808C-79R-1	14	1048.44		1.75	1.89
808C-79R-2	51	1050.31		1.80	1.94
808C-79R-3	25	1051.55		1.77	1.91
808C-79R-4	60	1053.40		1.75	1.89
808C-80R-1	37	1058.17		1.80	1.94
808C-80R-2	89	1060.19		1.93	2.08
808C-80R-3	5	1060.85		1.78	1.92
808C-81R-1	39	1067.49		1.68	1.81
808C-81R-2	90	1069.50		1.73	1.86
808C-82R-1	33	1076.83		1.76	1.91
808C-82R-1	40	1076.90		1.76	1.90
808C-83R-1	19	1085.96		1.72	1.87
808C-83R-3	34	1089.11		1.84	1.98
808C-84R-1	1	1092.01		1.81	1.96
808C-84R-2	132	1094.82		1.90	2.06
808C-85R-1	4	1098.34		1.66	1.80
808C-85R-1	66	1098.96		1.77	1.91
808C-86R-1	5	1108.05		1.57	1.70
808C-86R-1	5	1108.05		1.58	1.71
808C-86R-CC	1	1111.39		1.86	2.02
808C-89R-1	46	1137.03		1.66	1.80
808C-89R-2	77	1138.84		2.00	2.16
808C-90R-1	56	1146.83		1.95	2.11
808C-91R-1	93	1156.80		1.81	1.97
808C-91R-1	142	1157.29		1.87	2.03
808C-92R-1	12	1165.69		1.91	2.08
808C-92R-CC	1	1167.41		1.90	2.06
808C-93R-1	107	1176.34		1.73	1.88
808C-94R-1	41	1185.31		1.85	2.02
808C-94R-2	18	1186.58		1.85	2.01
808C-95R-1	58	1195.18		1.76	1.92
808C-95R-1	135	1195.95		1.86	2.03
808C-100R-1	88	1243.85		1.86	2.03
808C-100R-2	26	1244.73		2.02	2.20
808C-101R-1	104	1253.21		1.67	1.83
808C-101R-2	101	1254.68		1.77	1.93
808C-101R-3	18	1255.36		1.37	1.50
808C-101R-4	59	1257.26		1.96	2.14
808C-101R-5	4	1258.21		1.79	1.95
808C-102R-1	128	1262.78		2.03	2.22
808C-102R-2	1	1263.01		2.16	2.36
808C-102R-3	34	1264.84		1.50	1.64
808C-102R-3	50	1265.00		1.52	1.66
808C-103R-1	72	1271.62		1.83	2.00
808C-103R-2	48	1272.88		2.12	2.31
808C-103R-3	92	1274.82		1.49	1.63
808C-103R-CC	1	1275.58		2.09	2.28
808C-104R-1	1	1280.41		1.95	2.14
808C-104R-2	129	1283.19		2.13	2.33
808C-105R-1	116	1291.03		1.67	1.83
808C-105R-1	124	1291.11		1.80	1.97
808C-106R-1	71	1299.78		1.64	1.79
808C-106R-1	111	1300.18		1.90	2.08
808C-106R-2	4	1300.49		1.69	1.85
808C-106R-2	86	1301.31		1.74	1.90
808C-107R-1	36	1308.63		1.76	1.93
808C-107R-1	36	1308.63		1.71	1.87
808C-107R-1	59	1308.86		1.61	1.77
808C-107R-	189	1309.16		1.77	1.93

[a]Distance, in centimeters, from the top of the section to the measurement position (for full-space measurements) or to the top of the measurement interval (for half-space measurements).

[b]Full-space thermal conductivity, uncorrected for in-situ conditions (unchanged from Taira, Hill, Firth et al., 1991).

[c]Half-space thermal conductivity, uncorrected for in-situ conditions (corrected from Taira, Hill, Firth et al., 1991, using new basalt standard).

[d]Thermal conductivity (either full-space or half-space) corrected to in-situ conditions (Ratcliffe, 1960; Clark, 1966), as described in Taira, Hill, Firth, et al. (1991).

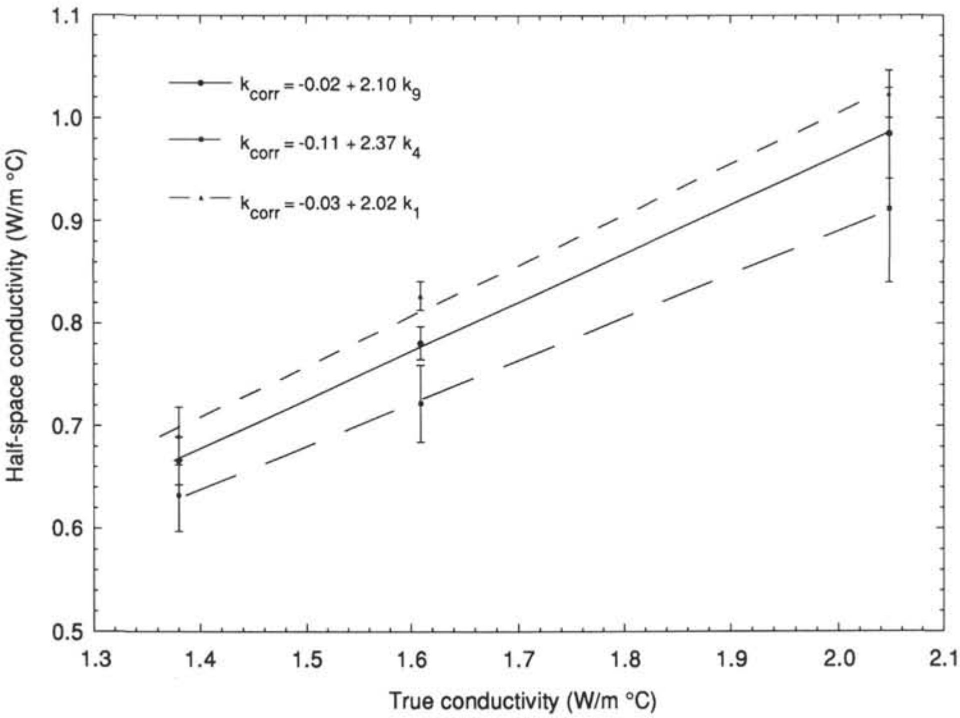

Figure 1. Measured and known thermal conductivities of half-space standards used during Leg 131. There are data and curves for each of the three half-space needle probes used during the leg. Measured values are means of at least 10 individual measurements with each standard, with error bars indicating one standard deviation. The lines are least-squares best fits, defined by the equations shown, which were used in this report to correct all half-space measurements.

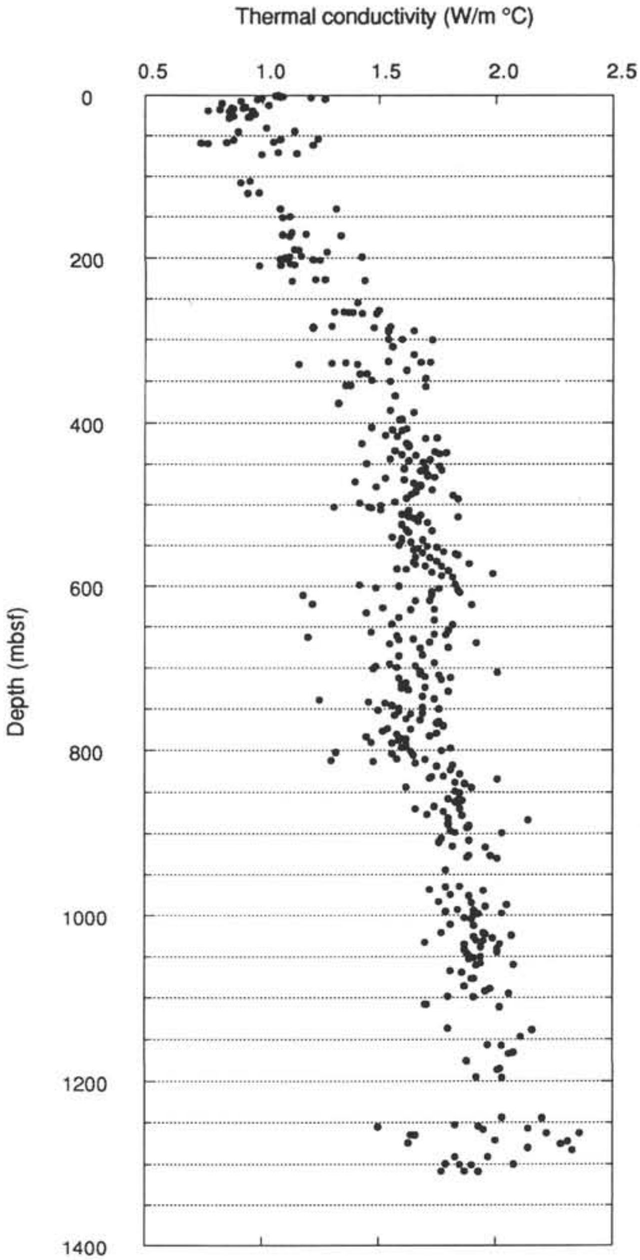

Figure 2. Corrected thermal conductivities for all measurements made at Site 808 during Leg 131.