

APPENDIX I. CARBON AND CARBONATE ANALYSES¹

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Leg 73 sediments were analyzed for total carbon and acid-insoluble (organic) carbon, using the LECO WR-12 analyzer, according to the standard technique outlined below.

The 3 cm³ sediment samples were first dried and ground into a homogeneous powder. The ground sediment was redried at 105 to 110°C, and two samples, a 0.1 g and a 0.5 g sample, were weighed into LECO clay crucibles. The 0.5 g sample was acidified with 10% hydrochloric acid and washed with distilled water. The sample was then dried and analyzed for acid-insoluble carbon. The 0.1 g sample was analyzed for total carbon without further treatment. If the sample contained less than 10% CaCO₃, an additional 0.5 g sample was analyzed for greater accuracy. The calcium carbonate percentages were calculated as follows: (% total C - % organic C) × 8.33 = % CaCO₃. Although other carbonates may be present, all acid-soluble carbon was calculated as calcium carbonate. All results are given in wt. % (Table 1).

Detailed descriptions of the technique and theory may be found in Bader, Gerard, et al. (1970) and Boyce and Bode (1972).

REFERENCES

- Bader, R. G., Gerard, R. D., et al., 1970. *Init. Repts. DSDP, 4*: Washington (U.S. Govt. Printing Office).
 Boyce, R. E., and Bode, G., W., 1972. Carbon and carbonate analyses, Leg 9, Deep Sea Drilling Project. *In* Hays, J. D., et al., *Init. Repts. DSDP, 9*: Washington (U.S. Govt. Printing Office), 747.

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Table 1. Leg 73, Holes 519 to 524, carbon and carbonate analysis.

Sample (level in cm)	Sub-bottom depth (m)	Total carbon (%)	Organic carbon (%)	CaCO ₃ (%)
Hole 519				
1-2, 28	1.78	10.4	0.0	86
2-2, 22	4.62	10.7	0.0	89
3-2, 25	9.05	10.0	0.0	83
4-2, 25	13.05	10.1	0.0	84
5-2, 35	17.15	11.1	0.0	92
6-2, 30	21.10	11.1	0.0	93
7-2, 64	25.44	10.0	0.0	83
8-2, 30	29.10	11.0	0.0	92
9-2, 25	33.05	11.1	0.0	92

Table 1. (Continued).

Sample (level in cm)	Sub-bottom depth (m)	Total carbon (%)	Organic carbon (%)	CaCO ₃ (%)
Hole 519 (Cont.)				
10-2, 25	37.05	10.9	0.0	91
11-3, 15	43.25	11.2	0.0	93
12-2, 12	46.12	11.0	0.0	91
13-2, 8	50.48	10.6	0.0	88
14-2, 31	55.11	10.3	0.0	86
15-2, 54	59.74	11.0	0.0	91
16-2, 14	63.14	11.0	0.0	91
17-2, 23	67.83	11.0	0.0	91
18-2, 7	72.07	11.2	0.1	93
19-2, 13	76.53	11.0	0.0	92
20-2, 17	80.97	10.9	0.0	91
21-2, 0	85.20	11.3	0.0	94
22-1, 0	88.10	10.4	0.0	87
23-2, 0	94.00	10.8	0.0	89
24-2, 0	98.40	11.2	0.1	93
25-1, 0	101.30	10.9	0.0	90
26-2, 0	107.20	10.0	0.0	83
27-2, 0	111.60	9.6	0.1	80
28-2, 0	116.00	9.8	0.0	81
29-2, 0	120.40	10.3	0.0	85
29-2, 0	120.40	8.3	0.1	69
30-2, 16	124.56	10.6	0.0	88
31-2, 17	128.57	10.9	0.0	91
32-2, 17	132.97	10.9	0.0	90
33-2, 8	137.28	10.5	0.0	88
34-2, 23	141.83	10.5	0.0	87
35-2, 18	145.78	10.4	0.0	86
36-2, 18	150.18	9.6	0.0	79
Hole 520				
9-2, 7	257.57	9.5	0.0	79
9-4, 7	260.57	9.5	0.1	79
11-4, 57	280.07	7.6	0.0	63
12-2, 15	286.15	4.9	0.1	40
12-2, 21	286.21	4.0	0.1	33
14-2, 22	312.22	6.4	0.1	52
15-1, 24	303.74	3.2	0.1	26
18-1, 7	332.07	8.8	0.1	73
19-1, 15	336.65	4.8	0.2	39
20-2, 12	343.12	8.9	0.1	74
24-1, 120	361.70	3.6	0.1	29
26-1, 32	389.32	4.0	0.1	32
26-1, 32	389.32	5.7	0.2	46
Hole 521				
1-2, 71	2.21	10.0	0.0	83
2-1, 54	3.54	9.9	0.0	82
3-2, 66	9.66	11.0	0.0	92
4-2, 22	13.72	10.7	0.0	89
5-2, 63	18.63	10.9	0.0	90
6-2, 5	22.55	11.2	0.1	93
7-2, 4	27.04	11.1	0.0	92
8-2, 15	31.65	11.2	0.0	93

¹ Hsü, K. J., LaBrecque, J. L., et al., *Init. Repts. DSDP, 73*: Washington (U.S. Govt. Printing Office).

Table 1. (Continued).

Sample (level in cm)	Sub-bottom depth (m)	Total carbon (%)	Organic carbon (%)	CaCO ₃ (%)
Hole 521 (Cont.)				
9-2, 2	36.02	10.9	0.1	90
12-1, 28	46.78	3.4	0.0	28
12-3, 104	50.54	9.8	0.0	81
13-3, 129	55.29	10.4	0.0	87
14-2, 2	57.02	7.1	0.0	59
17-1, 87	66.87	10.7	0.0	89
20-1, 108	80.38	10.0	0.0	83
Hole 522				
1-2, 124	2.74	3.2	0.1	26
2-3, 24	6.14	10.1	0.1	84
3-2, 28	9.08	11.2	0.1	92
9-2, 75	35.05	3.3	0.1	27
18-2, 140	71.20	10.4	0.0	87
26-CC, 0	99.92	10.7	0.1	89
27-CC, 0	104.30	9.7	0.0	80
32-1, 102	122.82	11.0	0.1	91
32-1, 105	122.85	10.5	0.1	87
35-1, 120	134.90	11.2	0.0	93
36-1, 104	137.24	10.8	0.1	90
36-2, 140	139.10	10.5	0.0	87
37-1, 101	140.71	10.7	0.1	88
37-CC, 4	143.58	10.5	0.0	87
38-3, 18	146.88	10.8	0.1	89
Hole 523				
2-2, 7	5.57	0.8	0.0	6
3-2, 48	10.38	8.4	0.1	69
4-2, 144	15.74	10.5	0.1	87
6-3, 20	24.80	3.7	0.1	30
7-3, 71	29.71	11.6	0.0	96
8-2, 60	32.50	5.9	0.1	48
10-2, 38	35.88	0.1	0.1	0
11-2, 45	40.35	2.4	0.1	20
12-2, 29	43.69	9.9	0.0	82
14-2, 17	51.07	8.3	0.0	68
16-1, 8	57.48	10.1	0.0	84
17-2, 8	60.98	10.8	0.0	90
19-3, 9	68.49	10.1	0.0	83
20-2, 55	71.45	7.7	0.1	63
21-3, 10	76.00	10.0	0.0	83

Table 1. (Continued).

Sample (level in cm)	Sub-bottom depth (m)	Total carbon (%)	Organic carbon (%)	CaCO ₃ (%)
Hole 523 (Cont.)				
22-2, 5	78.85	10.1	0.0	84
23-3, 6	83.86	10.3	0.0	85
24-1, 70	85.50	10.4	0.0	87
25-1, 77	89.57	10.6	0.0	88
26-1, 65	93.45	11.3	0.0	94
28-2, 77	101.07	6.6	0.0	54
30-1, 64	107.44	10.2	0.0	85
31-1, 105	111.85	9.9	0.0	82
32-1, 98	115.78	10.5	0.0	87
33-1, 136	119.16	10.3	0.0	86
34-1, 5	121.85	10.0	0.0	83
35-3, 7	127.87	9.2	0.0	76
36-CC, 16	129.72	8.8	0.0	73
37-CC, 4	135.23	8.3	0.0	69
38-2, 147	138.17	8.6	0.0	71
39-1, 51	139.71	9.9	0.0	82
40-2, 105	145.75	10.4	0.0	86
41-2, 37	148.57	10.1	0.0	84
42-1, 50	151.70	10.9	0.0	90
43-1, 55	155.75	10.6	0.0	88
44-3, 3	162.73	9.5	0.0	79
45-1, 64	162.84	10.5	0.0	87
48-2, 24	182.34	10.5	0.0	87
49-3, 12	185.22	10.8	0.0	90
50-2, 34	188.34	10.9	0.0	90
Hole 524				
3-2, 30	30.30	10.3	0.0	86
4-4, 22	52.22	10.2	0.0	84
5-3, 13	60.13	9.6	0.0	80
6-2, 14	68.14	9.5	0.0	79
8-2, 86	87.86	7.8	0.0	65
8-4, 86	90.86	9.1	0.0	76
9-6, 4	102.54	8.2	0.0	68
10-2, 73	106.73	6.3	0.0	52
13-5, 83	139.83	4.4	0.1	36
15-2, 48	153.98	4.1	0.1	33
19-3, 36	193.36	0.8	0.0	6
23-1, 52	228.52	2.7	0.1	22
25-2, 12	248.62	1.6	0.0	13
26-1, 82	257.32	5.2	0.0	43
27-2, 122	268.72	0.1	0.0	1