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41. *DATA REPORT:* MAJOR- AND MINOR-ELEMENT ANALYSIS OF SEDIMENTS FROM SITES 767, 768, AND 769[1]

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INTRODUCTION

This data report tabulates results of X-ray fluorescence analysis of sediments from three sites drilled during Ocean Drilling Program Leg 124. Two of these sites were drilled in the abyssal plain of the Celebes (767) and Sulu (768) seas, in water depths of 4905 and 4385 m, respectively. The seismic records at these sites reveal a sedimentary section that appears complete enough to obtain a good stratigraphic history of the basins, one of the main drilling objectives at these sites.

Site 769 is located on the southeast flank of the Cagayan Ridge in 3644 m of water. The Cagayan Ridge is 120 km wide and it is covered locally by reef carbonates and Quaternary volcanic rocks. Drilling at this site was designed to establish the Neogene evolution of the restricted paleoenvironment of the Sulu Sea in a position that has been protected from terrigenous turbidite input.

These sediments record major changes in depositional processes and provenance of sediment that reflect the tectonic and paleoceanographic history of these western Pacific basins.

METHODS AND RESULTS

Major Elements

Major-element analysis of the sediments was carried out on board the *JOIDES Resolution*. The samples were dried at 110 °C for at least 2 hr and then ground. Then 5 g of the resulting powder were mixed with 30 drops of polyvinyl alcohol binder and pressed with 7 tons pressure into an aluminum cap. These pellets were analyzed and saved for post-cruise minor-element analysis.

The fully automated ARL 8420 wavelength-dispersive X-ray fluorescence system was calibrated using between seven and ten standards for each element. Calibration of the method was obtained by a series of international geochemical reference standards obtained from Geostandards (France), the Geological Survey of Japan, and the United States Geological Survey. An element standard and a drift standard were included with every six samples analyzed. Results are reported as the weight percentage of SiO_2, TiO_2, Al_2O_3, Fe_2O_3, MnO, MgO, CaO, Na_2O, K_2O, P_2O_5, and the sum of these oxide concentrations. The oxide sums are significantly less than 100% where $CaCO_3$ is present, because we have not determined the carbonate-carbon contents. In addition, the sum of abundances may not equal 100% due to the presence of other potentially important anions such as chloride, sulfide, and hydroxyl, which were not analyzed for.

Minor Elements

The same pellets used for the major-element determination were used for the post-cruise analysis of minor elements at the University of British Columbia. The methods of analysis follow those described in more detail by Calvert (1990). All discs were analyzed using a Phillips 1400 fully-automated X-ray spectrometer under computer control. Calibration was obtained by reference to a series of international standards (Abbey, 1983). A representative standard was run with every five samples and the results have been drift-corrected.

The precision of major-element abundances is estimated to be within 2% (1 sigma) of the value reported, with a lower limit of ± 0.2 wt%. Coefficients of variation of minor elements were within 5% (1 sigma). The results of the major- and minor-element analysis are listed for individual sites in Tables 1 through 6.

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Table 1. Major-element data (percent) for Site 767.

Core, section, interval(cm)	Depth (mbsf)	SiO_2	TiO_2	Al_2O_3	Fe_2O_3	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	Total
124-767B-												
1H-1, 46–52	0.46	61.8	0.6	15.5	6.2	0.4	3.6	2.9	4.7	2.0	0.2	97.9
3H-1, 51–57	19.01	58.1	0.8	15.7	7.8	0.1	4.2	3.0	5.1	2.2	0.2	97.1
4H-1, 53–59	28.53	56.3	0.6	13.4	6.5	0.6	3.9	5.3	4.8	2.2	0.2	93.8
5H-1, 55–61	38.05	61.9	0.6	15.1	5.8	0.1	3.2	3.4	5.1	2.4	0.2	97.7
6H-1, 50–56	47.50	58.3	0.7	15.4	7.8	0.2	4.1	2.2	4.8	2.1	0.1	95.7
7H-1, 47–53	56.97	56.2	0.8	15.8	8.8	0.1	5.2	2.3	4.8	2.0	0.2	96.1
8H-1, 107–110	67.07	56.9	0.8	17.6	8.2	0.2	4.6	3.0	4.2	2.3	0.2	97.9
9H-1, 48–54	71.98	60.0	0.7	17.3	6.8	0.1	4.4	2.6	4.6	2.1	0.2	98.7
10H-1, 47–53	81.47	58.0	0.8	17.7	8.0	0.1	5.1	2.5	3.7	2.1	0.2	98.2
13X-1, 35–41	109.95	54.7	0.7	14.9	7.7	0.2	4.8	5.6	4.3	1.8	0.2	95.0
14X-1, 3–8	119.13	55.9	0.8	16.1	8.3	0.2	4.7	4.5	4.5	2.0	0.2	97.1
15X-1, 54–60	129.44	57.0	0.7	16.5	7.7	0.5	4.6	3.5	4.8	2.4	0.2	97.9
17X-1, 70–76	149.00	54.1	0.8	17.3	8.2	0.1	4.6	5.6	4.1	1.7	0.2	96.7
18X-1, 34–40	158.34	58.3	0.7	15.4	7.2	0.3	5.8	5.6	4.3	2.2	0.3	100.0
19X-1, 36–42	167.96	55.7	0.8	15.5	9.9	0.1	5.5	3.0	4.3	1.8	0.2	96.9
20X-1, 54–60	177.84	54.9	0.8	17.2	8.6	0.1	4.9	5.4	4.2	2.0	0.2	98.2
21X-1, 54–60	184.34	55.5	0.8	16.5	8.6	0.1	5.0	4.7	4.3	1.9	0.2	97.5
22x-1, 40–46	193.90	54.1	0.8	17.9	8.6	0.1	5.2	6.5	3.9	1.4	0.2	98.7
23X-1, 24–30	203.54	56.7	0.8	17.2	8.1	0.1	5.2	3.9	3.8	1.7	0.2	97.6
24X-1, 35–41	213.45	56.1	0.9	17.9	8.8	0.1	5.5	3.4	3.5	1.7	0.1	98.1
25X-1, 49–55	223.39	56.9	0.9	15.8	9.7	0.1	5.6	1.9	2.8	2.1	0.1	96.0
27X-1, 47–53	242.67	56.5	0.9	18.5	8.8	0.1	4.9	3.0	3.8	2.2	0.1	98.8
28X-1, 43–49	252.33	57.2	0.9	17.3	9.5	0.1	5.7	2.2	3.1	2.1	0.2	98.5
29X-1, 49–55	261.89	55.6	0.9	17.8	9.8	0.1	5.3	2.7	3.1	2.3	0.1	97.7
30X-1, 44–50	271.44	58.4	0.8	17.1	10.3	0.2	5.4	1.7	2.7	2.2	0.1	98.9
31X-1, 40–46	282.60	57.2	1.0	18.2	10.2	0.1	5.5	1.9	2.8	2.2	0.2	99.1
32X-1, 44–50	290.84	52.4	0.8	16.7	8.8	0.4	4.8	6.2	2.6	2.1	0.1	95.0
33X-1, 50–56	300.60	57.8	0.9	16.6	11.1	0.2	5.3	1.7	2.6	2.3	0.1	98.5
34X-1, 52–58	310.32	55.7	0.9	17.6	9.6	0.2	5.0	3.4	2.9	2.0	0.1	97.3
35X-1, 57–63	319.97	59.1	0.7	18.6	6.8	0.1	3.1	1.5	6.0	3.1	0.1	99.0
36X-1, 45–51	329.55	56.5	0.9	18.5	9.1	0.1	4.4	2.6	3.8	2.5	0.1	98.7
37X-1, 46–52	339.26	57.7	0.9	16.9	9.9	0.1	4.9	1.5	2.9	2.2	0.1	97.0
38X-1, 88–92	349.38	58.6	1.0	19.1	9.7	0.1	4.7	1.4	2.2	1.9	0.1	98.9
39X-1, 32–38	358.42	57.6	1.0	19.1	8.4	0.4	4.3	5.4	2.1	1.7	0.1	100.0
40X-2, 12–18	369.42	56.3	0.9	16.9	8.1	0.1	4.0	4.6	2.4	1.5	0.1	95.0
42X-1, 126–130	388.36	60.8	1.0	19.0	8.4	0.1	4.3	1.9	2.7	1.4	0.1	99.6
43X-1, 12–15	401.42	60.7	0.8	19.2	8.8	0.1	4.3	1.5	2.6	1.6	0.1	99.7
44X-1, 142–147	407.92	60.3	0.9	19.1	8.0	0.2	4.4	2.1	2.8	1.2	0.1	98.9
47X-3, 130–136	439.70	62.5	1.0	21.1	7.9	0.1	3.4	0.9	1.3	3.2	0.1	101.5
48X-1, 44–50	445.54	55.6	0.8	18.4	7.1	1.1	3.4	8.4	1.9	1.7	1.7	100.0
50X-1, 31–36	464.41	58.8	0.9	19.2	8.2	0.1	3.3	2.8	2.2	2.3	0.1	98.0
51X-3, 92–98	478.72	63.0	0.9	20.4	7.9	0.1	3.0	0.9	1.2	3.2	0.1	100.7
52X-3, 80–86	488.20	63.2	0.9	20.4	7.7	0.1	3.1	0.7	1.3	3.4	0.1	100.9
53X-4, 108–114	498.58	61.5	0.9	20.7	8.4	0.1	3.0	0.9	1.1	3.3	0.1	100.1
54X-1, 46–52	502.96	62.7	0.6	14.2	6.5	0.1	2.2	3.6	1.9	1.8	0.1	93.7
55X-5, 106–112	519.26	61.6	0.9	20.1	8.6	0.2	3.0	0.9	1.2	3.3	0.1	99.8
56X-1, 44–46	521.50	63.9	0.9	20.8	7.5	0.1	3.1	0.8	1.2	3.3	0.1	101.6
57X-1, 8–15	530.88	62.6	1.0	20.9	8.1	0.1	3.0	0.8	1.2	3.3	0.1	101.1
58X-6, 44–51	548.44	54.7	1.0	19.2	8.4	0.1	2.7	6.0	2.2	1.9	0.1	96.1
59X-4, 140–146	556.10	62.9	0.9	19.6	8.4	0.1	3.2	0.8	1.3	3.2	0.1	100.5
60X-1, 16–10	559.90	63.0	1.0	20.7	8.0	0.1	3.0	0.8	1.1	3.4	0.1	101.1
63X-3, 100–106	592.80	62.9	0.9	20.6	7.6	0.2	3.1	0.8	1.2	3.3	0.1	100.6
64X-6, 42–47	606.42	62.8	1.0	21.2	7.6	0.2	3.1	0.8	1.1	3.4	0.1	101.3
66X-4, 6–12	621.93	62.0	0.9	18.3	10.0	0.1	3.0	1.0	1.3	3.3	0.2	100.0
67X-1, 130–136	628.70	61.1	0.9	20.0	9.2	0.1	3.5	1.1	1.6	2.6	0.1	100.4
68X-CC, 21–27	646.68	59.9	0.9	19.3	10.1	0.2	3.5	1.3	1.7	2.2	0.1	99.2
69X-4, 10–16	650.90	61.1	0.9	19.5	9.9	0.2	3.6	1.3	1.7	2.2	0.1	100.5
70X-1, 55–61	656.55	60.9	0.9	20.4	9.1	0.1	3.7	1.1	1.6	2.9	0.1	100.8
71X-6, 29–34	673.39	59.8	1.0	18.5	8.8	0.2	5.6	1.5	2.0	2.4	0.1	99.9
72X-2, 70–76	677.50	60.2	0.9	17.9	9.3	0.2	5.2	1.3	1.7	2.9	0.1	99.7
73X-2, 89–95	687.29	59.4	0.8	16.8	8.8	0.3	6.9	1.5	1.9	2.5	0.1	99.0
74X-7, 31–38	703.91	60.2	0.9	21.6	9.1	0.4	3.2	1.3	1.3	2.9	0.2	101.0
75X-1, 4–10	704.24	59.1	1.0	22.8	9.6	0.3	2.8	1.1	1.1	3.1	0.1	100.9
76X-CC, 5–11	722.95	61.6	0.8	16.9	8.8	1.0	2.6	2.1	1.7	2.5	0.2	98.2
77X-1, 57–63	723.77	61.7	0.8	19.0	8.9	1.0	2.7	1.5	1.4	2.9	0.2	100.0
78X-CC, 0–6	733.87	62.0	0.8	18.5	8.7	1.3	2.7	1.5	1.3	2.9	0.2	99.9
124-767C-												
1R-1, 40–45	680.40	60.5	0.9	18.1	9.2	0.2	5.2	1.4	1.8	2.5	0.1	99.7
2R-1, 29–35	689.79	58.7	0.8	17.3	8.2	0.2	5.5	2.3	2.4	3.3	0.2	98.8
3R-2, 22–26	700.22	61.2	0.9	20.5	8.6	0.2	3.6	1.2	1.3	2.9	0.1	100.5
4R-1, 37–44	707.87	60.4	0.9	21.8	9.7	0.2	3.0	1.1	1.1	3.2	0.1	101.5
5R-1, 80–86	717.30	60.4	0.9	22.0	9.3	0.3	2.9	1.1	1.2	3.1	0.1	101.4
6R-1, 72–79	726.92	60.1	0.8	17.7	10.7	1.6	2.7	1.6	1.4	2.7	0.2	99.4
7R-1, 44–49	736.24	60.0	0.9	21.2	9.5	0.5	2.9	1.3	1.2	2.9	0.2	100.5
8R-2, 74–80	745.54	61.9	0.8	18.5	8.9	0.8	2.7	1.6	1.3	2.9	0.2	99.6
9R-1, 82–87	753.82	63.2	0.8	19.3	8.5	0.2	2.4	1.3	1.1	3.4	0.2	100.4
11R-1, 60–66	773.00	63.7	0.8	19.4	8.6	0.2	2.7	1.3	1.2	3.2	0.1	101.1

Table 2. Minor-element data (ppm) for Site 767.

Core, section interval (cm)	Depth (mbsf)	Nb	Zr	Y	Sr	Rb	Pb	Zn	Cu	Ni	Co	Mn	V	Cr	Ba	Mo
124-767B-																
1H-1, 46–52	0.46	3	109	13	301	45	10	110	67	78	63	3062	129	116	285	3
3H-1, 51–57	19.01	4	98	16	269	48	7	118	95	104	122	1139	215	97	261	1
4H-1, 53–59	28.53	4	85	17	326	49	11	112	86	101	54	5057	168	72	298	1
5H-1, 55–61	38.05	4	102	14	336	49	10	86	121	57	43	968	199	65	415	2
5H-5, 10–12	40.00	3	154	21	128	58	18	62	2	7	5	835	7	9	500	2
6H-1, 50–56	47.50	5	101	17	209	54	5	105	68	91	94	1235	155	96	236	1
7H-1, 47–53	56.97	4	81	13	200	41	8	99	97	99	24	923	236	107	184	1
8H-1, 107–110	67.07	3	100	16	346	50	8	102	101	83	43	1377	169	79	183	1
9H-1, 48–54	71.98	4	98	14	281	42	7	92	90	72	30	842	171	86	186	1
10H-1, 47–53	81.47	3	102	17	255	48	10	93	94	87	28	816	182	102	197	1
10H-6, 86–87	89.76	2	94	17	79	60	7	151	-5	8	3	538	2	6	481	4
13X-1, 35–41	109.95	4	88	17	379	38	2	138	78	68	37	1622	165	96	220	2
14X-1, 3–8	119.13	4	92	18	391	43	78	502	124	95	54	1446	201	115	299	7
15X-1, 54–60	129.44	3	101	18	407	46	4	115	125	83	36	3439	169	93	320	1
17X-1, 70–76	149.00	2	80	15	420	36	8	93	114	89	59	796	231	120	346	4
18X-1, 34–40	158.34	3	71	17	1150	31	4	86	94	63	26	1821	126	87	309	2
19X-1, 36–42	167.96	4	85	15	391	41	8	93	127	91	75	1028	193	110	245	1
20X-1, 54–60	177.84	4	83	16	532	39	7	93	130	71	49	1049	221	84	252	3
21X-1, 54–60	184.34	3	89	14	429	39	6	99	126	78	51	1102	195	100	291	2
22X-1, 40–46	193.90	3	77	16	413	27	7	105	170	84	58	907	265	113	220	0
23X-1, 24–30	203.54	4	96	14	361	36	8	96	108	87	49	778	190	124	324	0
24X-1, 35–41	213.45	3	97	15	404	37	10	123	146	111	35	550	265	145	528	2
25X-1, 49–55	223.39	4	100	15	307	49	9	116	108	112	49	1068	205	138	410	2
27X-1, 47–53	242.67	4	103	13	331	43	11	114	123	78	36	718	200	89	258	1
28X-1, 43–49	252.33	5	100	21	344	47	7	139	95	94	26	1043	190	137	144	1
29X-1, 49–55	261.89	3	95	17	332	51	10	129	174	129	43	980	285	136	211	2
30X-1, 44–50	271.44	4	109	17	210	55	6	125	129	170	40	1597	169	132	185	1
31X-1, 40–46	282.60	4	109	22	246	56	14	131	132	123	35	1011	212	145	166	2
32X-1, 44–50	290.84	4	101	24	322	47	10	111	85	110	31	3092	181	156	162	2
33X-1, 50–56	300.60	4	97	18	205	61	12	128	120	146	45	1783	206	130	142	1
34X-1, 52–58	310.32	6	96	24	247	49	16	116	110	94	31	1251	221	147	140	1
35X-1, 57–63	319.97	6	178	21	125	45	8	75	60	57	35	773	135	34	417	4
36X-1, 45–51	329.55	3	94	17	216	46	11	102	97	60	31	1088	245	90	299	1
37X-1, 46–52	339.26	6	108	22	233	57	11	121	102	75	127	1004	229	134	178	0
38X-1, 88–92	349.38	5	111	16	134	53	16	103	84	71	31	806	231	151	125	1
39X-1, 32–38	358.42	7	103	22	248	44	13	111	75	72	23	3196	203	136	149	2
40X-2, 12–18	369.42	7	113	22	243	42	8	83	71	65	29	923	225	131	453	3
42X-1, 126–130	388.36	5	110	22	186	42	12	128	90	68	20	609	173	88	208	2
43X-1, 12–15	401.42	6	113	19	154	40	9	107	83	43	25	477	168	64	182	0
44X-1, 142–147	407.92	6	214	28	159	22	10	84	59	30	27	1278	132	44	166	1
47X-3, 130–136	739.70	11	149	27	104	140	22	112	50	72	27	986	189	129	249	1
48X-1, 44–50	445.54	5	92	62	1187	30	5	73	70	61	18	7154	114	74	240	1
50X-1, 31–36	464.41	6	127	20	234	72	30	114	66	66	27	746	162	88	575	1
51X-3, 92–98	478.72	10	158	27	107	140	21	113	36	54	19	1006	178	113	298	1
52X-3, 80–86	488.20	9	151	28	105	156	16	109	38	56	18	855	198	117	289	1
53X-4, 108–114	498.58	10	153	27	107	147	21	108	35	58	17	911	183	116	270	1
54X-1, 46–52	502.96	6	131	23	253	57	13	76	36	41	27	660	115	86	200	3
55X-5, 106–112	519.26	11	147	28	103	144	20	111	38	59	25	1149	180	114	262	1
56X-1, 40–46	521.50	8	145	27	105	144	15	104	28	56	26	755	182	117	268	1
57X-1, 8–15	530.88	11	155	29	101	148	19	176	34	66	26	904	191	121	269	1
58X-6, 44–51	548.44	4	126	21	409	43	9	94	83	29	35	882	236	59	786	1
59X-4, 140–146	556.10	10	146	27	101	144	18	114	45	65	24	1036	192	124	262	1
60X-1, 10–16	559.90	11	155	27	96	145	18	97	34	55	26	1005	170	109	275	1
63X-3, 100–106	592.80	10	152	28	103	148	20	122	45	59	24	1290	190	117	277	1
64X-6, 42–47	606.42	11	151	27	104	153	19	110	40	71	25	1334	201	126	269	1
66X-4, 6–12	621.93	9	128	29	112	138	14	80	40	47	21	569	153	92	218	1
67X-1, 130–136	628.70	8	119	27	115	99	26	110	222	66	26	789	206	88	200	1
68X-CC, 21–27	646.68	5	111	20	113	75	10	96	94	67	23	1285	174	93	171	1
69X-4, 10–16	650.90	6	124	24	126	85	17	124	123	72	26	1238	183	89	191	1
70X-1, 55–61	656.55	8	126	27	108	114	9	115	47	92	25	864	243	148	194	1
71X-6, 29–34	673.39	4	109	24	113	72	16	102	54	144	30	1524	182	210	193	1
72X-2, 70–76	677.50	6	111	23	99	90	7	94	31	97	27	1567	159	131	174	1
73X-2, 89–95	687.29	5	101	20	112	73	6	114	49	195	34	2034	174	258	144	1
74X-7, 31–37	703.91	7	135	27	103	123	22	130	170	65	22	3128	149	91	202	1
75X-1, 4–10	704.24	8	135	26	100	131	19	124	147	68	27	2718	185	99	249	2
76X-CC, 5–11	722.95	7	121	44	196	120	37	113	213	70	27	7373	101	58	297	2
77X-1, 57–62	723.77	6	134	41	127	145	27	283	276	89	24	7347	161	65	311	0
78X-CC, 0–6	733.87	9	126	31	106	151	32	126	133	81	24	10394	157	83	206	3
124-767C-																
1R-1, 40–45	680.40	6	113	22	103	83	22	117	66	120	53	1244	260	192	153	1
2R-1, 29–35	689.79	6	129	21	214	49	10	79	87	124	42	1912	155	127	478	2
3R-2, 22–26	700.22	8	124	24	110	122	16	135	62	64	30	1673	220	91	535	2
4R-1, 37–44	707.87	10	136	26	100	140	16	123	80	68	34	1639	143	91	270	3
5R-1, 80–86	717.30	9	137	24	103	136	21	126	116	75	36	2408	193	96	280	8
6R-1, 72–79	726.92	7	121	41	117	125	41	136	230	91	33	11663	190	60	213	8
7R-1, 44–49	736.24	7	134	27	107	127	24	133	259	121	33	4042	217	81	222	8
8R-2, 74–80	745.54	8	119	38	106	140	31	124	133	80	25	6473	161	84	185	8
9R-1, 82–87	753.82	10	136	32	97	173	39	127	77	55	29	1215	125	87	311	6
11R-1, 60–66	773.00	10	133	26	98	152	29	125	53	67	34	1199	189	94	303	6

Table 3. Major-element data (percent) for Site 768.

Core, section, interval (cm)	Depth (mbsf)	SiO_2	TiO_2	Al_2O_3	Fe_2O_3	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	Total
124-768B-												
1H-2, 65–71	2.15	27.3	0.3	7.9	2.8	0.1	2.5	30.6	3.2	1.7	0.2	76.5
2H-1, 13–19	4.13	35.0	0.4	10.6	3.6	0.2	2.9	23.9	2.8	1.9	0.1	81.3
3H-1, 127–133	14.77	34.4	0.3	9.5	3.3	0.3	2.9	23.4	3.1	2.0	0.2	79.3
4H-1, 60–66	23.60	28.5	0.2	7.7	2.3	0.2	2.2	30.2	3.1	1.6	0.2	76.1
5H-2, 70–76	34.70	18.7	0.2	4.8	1.9	0.2	1.7	40.3	2.5	1.4	0.2	71.8
6H-1, 120–126	43.20	28.7	0.3	7.1	3.0	0.3	2.5	29.8	2.1	1.8	0.2	75.7
7H-1, 59–65	52.09	47.2	0.6	13.0	6.2	0.1	4.6	11.8	2.9	2.1	0.2	88.7
8H-1, 59–65	61.59	44.2	0.4	12.4	4.7	0.2	3.5	15.0	3.1	2.1	0.2	85.7
9H-1, 49–55	70.99	38.1	0.4	10.3	3.4	0.2	2.1	22.0	2.9	1.7	0.2	81.2
10H-1, 50–56	80.50	30.7	0.3	8.7	3.0	0.1	1.9	28.4	2.5	1.6	0.1	77.3
11H-1, 12–18	89.62	45.3	0.4	11.2	3.5	0.2	2.2	16.8	3.3	2.0	0.2	84.9
12H-5, 48–54	105.48	24.5	0.2	7.9	2.6	0.2	1.8	35.3	1.4	1.7	0.2	75.8
13H-1, 50–56	109.00	27.5	0.3	8.6	2.9	0.2	2.0	31.9	1.9	1.8	0.2	77.2
14H-2, 57–63	120.07	58.5	0.8	18.6	8.3	0.1	4.9	1.7	2.9	2.5	0.2	98.4
15H-1, 80–86	128.30	59.0	0.8	18.4	8.3	0.1	5.0	1.6	2.8	2.6	0.1	98.6
16H-1, 27–33	137.27	60.2	0.8	19.7	8.1	0.2	4.5	1.0	2.2	3.0	0.1	99.8
17H-1, 50–56	147.00	59.3	0.9	20.6	8.7	0.1	4.5	1.0	2.0	2.8	0.1	100.0
18H-1, 50–56	156.50	59.6	0.8	20.6	7.7	0.1	4.2	1.6	2.4	2.7	0.1	99.8
19H-1, 47–53	165.97	59.6	0.9	21.4	8.7	0.1	4.4	0.9	1.8	3.1	0.1	100.9
20H-1, 45–51	174.25	59.9	1.0	21.5	8.9	0.1	4.4	0.7	1.6	3.2	0.1	101.4
21H-1, 50–56	183.80	60.0	0.9	21.0	8.6	0.1	4.2	0.7	1.6	3.2	0.1	100.5
25X-CC, 17–23	209.77	62.6	0.9	19.5	7.5	0.1	3.9	0.7	1.7	3.2	0.1	100.3
26X-1, 59–65	219.89	62.1	0.9	19.7	8.1	0.1	4.0	0.6	1.5	3.4	0.1	100.3
27X-1,105–111	229.95	63.8	0.9	20.5	6.9	0.1	3.4	0.6	1.3	3.9	0.1	101.4
28X-1, 52–58	239.12	62.9	0.9	20.4	7.6	0.1	3.8	0.6	1.5	3.7	0.1	101.6
29X-1, 52–58	248.72	63.1	0.9	20.1	8.1	0.1	4.0	0.6	1.6	3.3	0.1	101.9
30X-1, 110–116	258.90	63.0	0.8	21.3	7.2	0.1	3.4	0.7	1.5	4.1	0.1	102.1
31X-1, 110–116	268.60	63.0	0.9	20.2	7.9	0.1	4.0	0.5	1.4	3.6	0.1	101.7
32X-1, 82–88	278.02	64.2	0.8	20.4	6.8	0.1	3.4	0.5	1.5	3.9	0.1	101.7
33X-2, 7–13	288.37	62.3	0.8	19.9	6.5	0.1	3.0	1.7	1.6	4.1	0.1	100.2
34X-1, 48–54	296.88	62.5	0.9	22.0	7.3	0.1	3.5	0.5	1.4	4.0	0.1	102.2
35X-1, 71–77	306.81	64.3	0.9	19.7	7.2	0.1	3.5	0.6	1.5	3.3	0.1	101.2
36X-1, 73–79		63.7	0.9	19.7	7.7	0.1	3.8	0.5	1.4	3.4	0.1	101.2
37X-1, 58–64	326.08	64.5	0.9	19.5	7.3	0.1	3.8	0.5	1.4	3.3	0.1	101.3
38X-1, 34–40	335.44	62.7	0.9	19.8	8.4	0.1	4.1	0.5	1.4	3.5	0.1	101.4
39X-1, 60–66	345.40	65.1	0.9	18.8	7.1	0.1	4.3	0.5	1.4	3.1	0.1	101.4
124-768C-												
1R-3, 80–86	357.00	63.6	0.9	19.7	7.8	0.1	4.1	0.5	1.3	3.5	0.1	101.6
2R-1, 49–55	363.39	61.3	1.0	20.1	9.1	0.1	4.2	0.6	1.5	3.5	0.1	101.4
3R-1, 31–37	372.71	64.4	0.9	19.7	7.4	0.1	4.1	0.5	1.3	3.4	0.1	102.0
4R-1, 82–88	382.92	64.8	0.9	19.4	7.6	0.0	3.8	0.5	1.3	3.3	0.1	101.6
5R-1, 44–50	392.24	64.2	0.9	19.5	7.4	0.1	4.1	0.6	1.3	3.3	0.1	101.6
6R-2, 88–95	403.78	64.7	0.9	18.9	7.7	0.0	4.1	0.5	1.4	3.3	0.1	101.7
7R-1, 103–109	412.13	63.2	0.9	18.8	8.3	0.2	4.3	0.8	1.3	3.3	0.1	101.1
8R-1, 60–68	421.30	63.8	0.9	19.3	8.1	0.1	4.2	0.5	1.4	3.6	0.1	101.9
9R-1, 46–51	430.66	65.3	0.9	19.4	7.0	0.2	3.5	0.5	1.4	3.3	0.1	101.5
10R-1, 45–51	440.35	63.4	1.0	20.3	8.0	0.1	3.6	0.5	1.4	3.5	0.1	101.9
11R-5, 47–53	456.07	64.7	0.9	18.9	7.5	0.1	3.7	0.7	1.4	3.3	0.2	101.3
12R-1, 134–140	460.54	64.9	0.9	20.1	7.4	0.1	3.3	0.5	1.4	3.6	0.1	102.3
13R-2, 69–75	471.09	63.0	0.9	19.2	8.5	0.2	3.9	1.0	1.3	3.2	0.2	101.4
14R-1, 78–85	479.29	64.0	1.0	20.2	7.9	0.1	4.0	0.6	1.4	3.4	0.1	102.6
15R-1, 66–72	488.86	63.8	1.0	19.7	8.0	0.1	3.7	0.6	1.4	3.5	0.1	101.8
16R-1, 44–50	498.34	64.1	0.9	18.4	7.5	0.1	3.3	1.1	1.3	3.2	0.2	100.1
17R-2, 71–77	509.71	63.5	0.9	18.4	8.2	0.1	3.6	0.9	1.7	3.2	0.1	100.4
18R-3, 138–144	521.58	62.8	0.9	19.3	8.4	0.2	3.4	1.0	1.2	3.5	0.2	100.7
19R-1, 37–43	527.27	63.2	0.9	19.3	8.0	0.1	3.9	0.7	1.3	3.5	0.1	101.0
20R-1, 122–128	537.82	64.0	0.9	18.1	7.9	0.2	3.7	0.9	1.3	3.0	0.2	100.2
21R-1, 58–63	546.88	74.4	0.5	10.1	4.3	0.0	3.9	0.9	2.1	1.5	0.1	97.9
22R-1, 44–51	556.24	62.6	1.0	19.5	8.2	0.1	3.9	0.8	1.2	3.5	0.2	100.9
23R-2, 73–79	567.73	63.3	0.9	18.7	7.9	0.2	3.8	0.8	1.3	3.2	0.1	100.1
24R-2, 30–36	577.00	63.2	0.9	18.9	8.0	0.2	4.2	0.8	1.3	3.3	0.1	101.1
26R-1, 110–116	595.70	63.9	0.9	19.4	7.7	0.1	3.8	0.7	1.2	3.3	0.1	101.2
27R-1, 45–51	604.75	62.5	1.0	20.3	8.4	0.3	3.8	0.8	1.2	3.6	0.2	101.9
28R-1, 50–56	614.40	63.3	1.0	19.6	8.1	0.1	3.9	0.7	1.3	3.5	0.1	101.5
29R-1, 100–106	624.50	63.2	1.0	19.6	8.0	0.1	3.7	0.7	1.2	3.4	0.1	101.0
30R-1, 60–66	633.70	61.8	1.0	20.7	8.4	0.2	3.6	0.9	1.2	3.7	0.1	101.5
31R-1, 44–50	643.24	64.1	0.9	19.2	7.7	0.2	3.8	0.7	1.2	3.7	0.1	101.7
32R-5, 94–100	659.34	65.5	0.9	18.1	7.1	0.1	3.5	0.8	1.3	3.1	0.1	100.6
33R-2, 22–28	663.82	62.9	0.9	20.2	8.2	0.1	3.7	0.7	1.2	3.7	0.1	101.7
34R-1, 52–58	672.32	62.6	1.0	20.4	8.3	0.1	3.8	0.7	1.3	3.7	0.1	101.8
35R-2, 50–56	683.40	63.3	0.9	20.1	7.9	0.2	3.7	0.8	1.2	3.6	0.1	101.9
36R-2, 132–137	693.92	69.2	0.6	15.6	5.5	0.1	3.1	1.9	1.4	2.8	0.1	100.2
37R-2, 22–28	702.52	65.6	0.9	18.8	7.0	0.1	3.5	0.8	1.3	3.2	0.1	101.4
37R-2, 131–137	703.61	61.7	0.9	20.3	8.6	1.0	3.5	0.9	1.2	3.9	0.1	102.0

Table 3 (continued).

Core, section, interval (cm)	Depth (mbsf)	SiO_2	TiO_2	Al_2O_3	Fe_2O_3	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	Total
38R-3, 22–28	713.72	62.5	1.0	20.2	8.5	0.2	3.7	1.0	1.2	3.8	0.1	101.9
39R-3, 50–56	723.70	65.1	0.6	16.7	6.5	0.1	3.7	2.2	2.0	1.9	0.1	98.9
40R-3, 10–16	733.00	64.1	0.8	19.1	8.2	0.1	3.4	0.9	1.2	3.8	0.1	101.7
41R-1, 34–40	739.94	64.0	0.8	19.6	8.0	0.1	3.4	0.8	1.2	3.9	0.1	101.8
42R-1, 45–51	749.75	62.8	0.9	20.6	8.2	0.1	3.3	0.9	1.2	3.9	0.1	101.7
43R-1, 82–88	759.32	62.2	0.9	21.4	8.2	0.1	3.1	0.8	1.1	4.0	0.1	102.0
44R-1, 93–99	759.32	62.8	0.8	19.3	9.1	0.1	3.1	1.0	1.2	3.9	0.1	101.4
45R-1, 59–65	778.29	62.6	0.8	19.2	8.7	0.1	3.3	1.1	1.3	3.9	0.1	101.2
46R-1, 76–82	788.16	63.6	0.7	16.8	8.2	0.3	3.4	2.3	2.1	2.0	0.1	99.4
47R-1, 50–56	797.40	64.7	0.6	14.7	8.7	0.5	3.1	2.4	2.1	1.9	0.2	98.9
48R-3, 76–82	810.36	63.4	0.7	14.4	9.2	0.3	3.4	2.8	2.1	2.7	0.2	99.2
50R-1, 40–46	828.60	60.3	0.8	14.5	7.6	0.2	3.3	5.5	2.5	2.5	0.2	97.4
51R-1, 76–81	838.66	73.4	0.5	11.0	3.4	0.1	1.1	2.9	3.7	0.8	0.1	96.9
52R-1, 90–96	845.50	63.4	0.6	12.6	8.4	0.2	4.1	2.8	1.3	5.3	0.2	98.9
53R-3, 50–55	857.80	65.4	0.6	13.1	6.5	0.1	3.5	3.3	2.0	3.6	0.2	98.3
54R-2, 50–55	865.77	60.4	0.8	14.7	7.3	0.1	4.8	1.5	2.7	6.7	0.2	99.3
55R-1, 0–5	873.70	69.8	0.5	11.0	7.1	0.2	4.0	1.8	1.1	4.8	0.2	100.4
56R-2, 17–22	885.07	66.8	0.6	13.1	5.1	0.1	3.1	3.8	3.0	0.7	0.1	96.4
58R-2, 0–5	903.90	74.6	0.5	11.0	3.7	0.1	3.0	2.5	2.2	1.0	0.1	98.6
59R-6, 10–23	919.69	75.6	0.4	10.8	4.0	0.1	2.7	2.2	1.9	0.9	0.1	98.7
60R-2, 66–72	923.86	70.8	0.6	11.8	4.3	0.1	2.5	3.0	2.4	1.6	0.1	97.1
61R-2, 144–149	934.34	68.7	0.7	13.0	4.6	0.1	2.6	3.3	2.7	1.3	0.2	97.1
62R-3, 22–26	944.22	62.6	0.9	15.1	6.6	0.1	4.2	4.6	2.5	1.2	0.2	98.0
63R-2, 20–24	952.00	71.6	0.5	12.6	3.4	0.1	2.1	2.9	2.8	0.9	0.1	96.9
64R-2, 15–20	961.65	81.7	0.4	8.5	3.4	0.1	2.0	1.6	1.2	1.7	0.1	100.6
65R-2, 40–45	971.60	67.3	0.7	10.9	8.0	0.2	3.7	2.1	1.1	3.1	0.1	97.0
66R-2, 3–8	980.93	70.8	0.5	11.3	3.3	0.1	1.4	3.1	2.9	1.6	0.1	95.2
67R-2, 13–18	990.63	72.1	0.5	11.0	3.5	0.1	1.6	2.9	2.7	2.3	0.1	96.8
68R-3, 12–16	1001.82	71.3	0.5	10.7	3.5	0.2	1.5	3.1	3.1	1.1	0.1	95.0
69R-2, 17–21	1009.97	75.4	0.5	10.5	5.7	0.1	2.9	2.1	1.0	2.2	0.1	100.5
69R-4, 72–78	1013.52	81.0	0.4	7.9	5.6	0.1	2.1	1.4	0.7	2.3	0.2	101.6
70R-2, 8–13	1019.18	64.2	0.8	12.0	7.2	0.3	3.8	2.8	3.3	1.2	0.2	95.8
71R-2, 7–12	1028.77	62.0	1.0	14.8	7.5	0.3	4.7	3.4	3.0	0.5	0.2	97.3
72R-1, 82–88	1037.72	67.2	0.7	12.6	9.2	0.3	3.5	2.2	1.8	2.1	0.2	99.6

Table 4. Minor-element data (ppm) for Site 768.

Core, section, interval (cm)	Depth (mbsf)	Nb	Zr	Y	Sr	Rb	Pb	Zn	Cu	Ni	Co	Mn	V	Cr	Ba	Mo
124-768B-																
1H-2, 65–71	2.15	4	55	14	812	47	9	104	109	72	60	1641	82	57	83	1
2H-1, 13–19	4.13	5	63	14	677	51	8	85	67	71	30	2577	99	72	139	1
3H-1, 127–133	14.77	4	66	15	750	57	13	84	65	67	31	3384	83	64	118	1
4H-1, 60–66	23.60	2	52	12	859	36	11	73	104	57	33	2636	70	54	118	1
5H-2, 70–76	34.70	3	44	10	1130	33	7	61	54	47	92	2620	60	42	144	1
6H-1, 120–126	43.20	4	61	14	933	48	12	79	88	86	29	3222	72	52	105	1
7H-1, 59–65	52.09	4	77	12	497	51	8	99	72	93	47	1164	177	99	181	1
8H-1, 59–65	61.59	5	76	14	554	54	13	97	71	73	129	2217	113	75	172	1
9H-1, 49–55	70.99	4	80	12	721	43	11	76	65	51	49	2368	91	48	195	1
10H-1, 50–56	80.50	4	65	12	843	38	13	74	114	51	32	1698	134	42	153	1
11H-1, 12–18	89.62	4	87	13	618	41	11	78	60	44	31	1832	91	47	212	1
12H-5, 48–54	105.48	3	51	13	873	44	17	78	102	55	28	2200	59	52	104	1
13H-1, 50–56	109.00	4	62	14	789	44	13	70	55	50	25	2111	74	70	86	1
14H-2, 57–63	120.07	8	102	20	189	81	18	126	75	97	25	966	137	112	181	1
15H-1, 80–86	128.30	7	109	24	166	92	18	135	87	99	32	961	190	142	288	1
16H-1, 27–33	137.27	8	120	26	127	111	33	127	111	104	28	1101	178	124	452	1
17H-1, 50–56	147.00	10	125	26	123	105	28	134	104	97	26	579	218	147	606	1
18H-1, 50–56	156.50	7	122	19	199	86	17	114	52	76	27	721	222	116	372	0
19H-1, 47–53	165.97	9	128	24	100	117	28	118	94	101	29	576	190	121	296	1
20H-1, 45–51	174.25	10	128	23	88	122	23	138	57	104	25	528	222	146	233	1
21X-1, 50–56	183.80	8	137	21	89	129	24	122	47	97	24	591	245	148	237	1
25X-CC, 17–23	209.77	9	152	21	91	135	20	116	49	93	25	651	206	160	237	1
26X-1, 59–65	219.89	9	161	23	89	143	19	122	48	97	24	602	222	154	257	2
27X-1, 105–111	229.95	12	165	25	82	162	19	97	25	79	14	411	167	125	349	1
28X-1, 52–58	239.12	10	133	25	97	165	21	124	37	75	18	496	213	138	278	1
29X-1, 52–58	248.72	10	165	25	95	137	25	135	57	91	29	574	201	153	231	2
30X-1, 110–116	258.90	12	151	26	83	171	26	113	38	77	21	496	158	114	421	1
31X-1, 110–116	268.60	10	146	24	86	154	17	108	33	86	18	447	225	172	260	1
32X-1, 82–88	278.02	13	168	28	73	165	24	109	34	87	23	521	154	139	432	1
33X-2, 7–13	288.37	14	171	32	139	183	28	114	38	99	29	1133	142	128	524	0
34X-1, 48–54	296.88	13	152	29	73	169	31	116	40	77	22	457	180	132	439	2
35X-1, 71–77	306.81	10	181	23	87	139	15	123	35	95	26	445	187	170	254	0
36X-1,73–79	316.60	10	147	25	81	141	18	104	32	90	19	392	178	161	238	1
37X-1, 58–64	326.08	11	153	25	79	132	19	103	31	83	20	342	171	159	235	1
38X-1, 34–40	335.44	10	150	26	84	149	19	109	40	86	19	409	201	165	262	1
39X-1, 60–66	345.40	10	181	24	80	129	17	102	29	116	26	423	171	206	230	0
124-768C-																
1R-3, 80–86	357.00	11	157	24	81	147	20	103	40	90	20	442	176	166	247	2
2R-1, 49–55	363.39	9	131	25	84	137	17	114	62	98	23	467	198	138	270	1
3R-1, 31–37	372.71	11	161	26	89	147	21	111	37	106	22	361	179	162	253	2
4R-1, 82–88	382.92	11	160	27	85	145	20	106	34	78	19	295	174	135	253	1
5R-1, 44–50	392.24	11	160	27	85	139	22	104	34	109	24	599	180	172	218	1
6R-2, 88–95	403.78	12	157	26	87	146	15	102	37	76	22	308	191	154	226	2
7R-1, 103–109	412.13	10	161	29	91	142	14	124	31	105	20	1683	166	168	221	2
8R-1, 60–68	421.30	11	153	28	84	152	20	123	37	85	20	362	175	157	223	1
9R-1, 46–51	430.66	11	167	26	87	141	25	105	40	103	22	1373	159	156	227	2
10R-1, 45–51	440.35	11	151	24	89	154	22	115	48	82	19	1020	171	150	239	1
11R-5, 47–53	456.07	12	163	27	95	144	23	108	44	94	18	607	152	153	206	2
12R-1, 134–140	460.54	12	159	27	89	166	23	112	40	77	19	331	189	138	254	1
13R-2, 69–75	471.09	12	167	31	95	143	16	112	39	98	20	1675	157	151	221	1
14R-1, 78–85	479.29	11	157	28	88	151	20	114	43	88	18	412	165	156	221	1
15R-1, 66–72	488.86	11	157	28	84	143	20	94	26	87	20	716	157	157	230	2
16R-1, 44–50	498.34	11	180	31	102	137	19	100	30	92	22	1147	153	135	243	2
17R-2, 71–77	509.71	8	139	22	98	136	14	94	40	59	21	598	174	119	228	1
18R-3, 138–144	521.58	12	160	28	98	160	23	109	36	92	22	1224	168	139	250	2
19R-1, 37–43	527.27	10	158	30	91	163	16	122	40	95	24	1106	177	160	263	1
20R-1, 122–128	537.82	11	172	30	95	129	12	98	30	85	24	1750	153	141	233	2
21R-1, 58–63	546.88	6	191	13	74	48	2	43	4	79	35	256	58	169	161	2
22R-1, 44–51	556.24	11	152	29	94	150	21	100	24	72	22	1078	181	143	245	2
23R-2, 73–79	567.73	10	164	28	90	135	17	93	29	96	20	1231	159	155	236	3
24R-2, 30–36	577.00	11	153	29	85	140	19	96	25	112	24	1536	167	173	232	3
26R-1, 110–116	595.70	11	172	30	90	141	18	132	30	103	22	912	171	163	249	2
27R-1, 45–51	604.75	9	150	26	84	151	17	106	39	72	20	2216	178	147	245	2
28R-1, 50–56	614.40	10	160	27	85	154	19	111	38	97	21	1172	180	157	243	2
29R-1, 100–106	624.50	11	160	30	84	138	12	96	26	95	24	1102	170	158	227	4
30R-1, 60–66	633.70	10	143	28	88	154	24	103	29	80	23	1267	180	135	240	3
31R-1, 44–50	634.24	11	149	29	80	158	24	102	36	91	44	1202	167	139	232	3
32R-5, 94–100	659.34	10	176	26	79	125	15	88	21	100	33	1090	154	149	219	3
33R-2, 22–28	663.82	11	154	27	76	155	21	106	30	91	31	809	175	151	240	3
34R-1, 52–58	672.32	11	143	27	79	153	20	96	32	77	22	624	182	151	230	2
35R-2, 50–56	683.40	11	156	28	83	155	20	118	39	95	24	1181	169	140	236	2
36R-2, 132–137	693.92	7	105	19	127	124	15	81	31	45	20	533	114	76	333	3
37R-2, 22–28	702.52	10	188	24	81	122	16	97	30	90	31	1153	143	150	224	3
37R-2, 131–137	703.61	11	135	27	80	171	28	140	68	101	24	7698	180	120	244	3

Table 4 (continued).

Core, section, interval (cm)	Depth (mbsf)	Nb	Zr	Y	Sr	Rb	Pb	Zn	Cu	Ni	Co	Mn	V	Cr	Ba	Mo
38R-3, 22–28	713.72	11	150	30	86	166	23	120	35	89	24	1343	171	146	244	2
39R-3,50–56	723.70	7	155	38	146	77	24	85	26	28	18	655	67	49	526	1
40R-3, 10–16	733.00	8	126	25	78	165	18	152	52	70	22	811	179	108	250	1
41R-1, 34–40	739.94	9	132	27	78	170	13	117	62	80	29	739	191	110	244	1
42R-1, 45–51	749.75	11	130	26	78	162	20	116	91	61	23	724	200	110	243	3
43R-1, 82–88	759.32	8	137	26	77	156	12	108	27	67	20	968	175	101	249	1
44R-1, 93–99	769.00	10	122	25	77	165	17	98	50	57	22	990	157	97	248	1
45R-1, 59–65	778.29	8	129	26	82	151	25	111	66	74	25	1082	207	104	463	2
46R-1, 76–82	788.16	6	105	18	141	79	23	111	38	69	23	2105	161	80	174	0
47R-1, 50–56	797.40	5	91	26	155	71	21	103	88	102	38	3653	96	81	189	3
48R-3, 76–82	810.36	4	98	25	153	77	9	90	47	56	24	2486	128	66	432	2
50R-1, 40–46	828.60	2	73	22	382	52	7	90	101	31	28	1645	243	50	233	1
51R-1, 76–81	838.66	2	118	26	257	15	2	62	17	11	17	1036	66	15	229	1
52R-1, 90–96	845.50	3	74	24	166	115	11	85	93	48	26	1346	178	52	109	1
53R-3, 50–55	857.80	3	98	24	266	63	10	73	55	25	20	1142	115	27	288	1
54R-2, 50–55	865.77	4	85	29	33	96	4	72	71	36	21	1222	286	79	244	1
55R-1, 0–5	873.70	3	74	21	93	94	22	69	112	27	11	1285	118	49	128	1
56R-2, 17–22	885.07	3	145	32	173	10	7	51	9	12	34	971	76	15	251	2
58R-2, 0–5	903.90	1	153	35	159	17	3	44	3	16	14	982	14	11	229	11
59R-6, 19–23	919.69	1	122	28	124	14	2	40	0	9	22	1108	20	9	198	0
60R-2, 66–72	923.86	2	114	22	218	29	2	81	3	11	20	1041	49	10	345	1
61R-2, 144–149	934.34	3	122	37	209	23	5	56	2	11	25	1016	36	11	252	1
62R-3, 22–26	944.22	1	104	29	253	14	4	70	7	12	26	1254	101	20	213	4
63R-2, 20–24	952.00	3	175	34	176	13	2	41	2	13	19	861	19	9	255	0
64R-2, 15–20	961.65	2	101	19	117	28	6	46	0	13	15	674	28	10	157	1
65R-2, 40–45	971.60	3	164	28	92	63	2	50	17	6	6	1262	70	22	94	0
66R-2, 3–8	980.93	3	145	59	280	18	6	74	3	22	16	1015	17	7	279	1
67R-2, 13–18	990.63	1	111	38	243	19	1	80	7	10	21	1359	24	11	236	1
68R-3, 12–16	1001.82	2	129	37	227	13	5	59	3	15	20	1287	30	9	273	1
69R-2, 17–21	1009.97	2	92	29	153	43	1	90	36	36	15	1000	61	36	162	1
69R-4, 72–78	1013.52	4	71	23	59	52	1	65	48	43	19	735	143	46	275	1
70R-2, 8–13	1019.18	2	107	38	225	22	4	111	12	23	24	2322	97	31	160	0
71R-2, 7–12	1028.77	2	116	40	329	8	4	109	1	17	25	2260	64	17	234	1
72R-1, 82–88	1037.72	5	93	30	89	53	21	107	47	75	27	2484	125	70	407	1

Table 5. Major-element data (percent) for Site 769.

Core, section, interval (cm)	Depth (mbsf)	SiO_2	TiO_2	Al_2O_3	Fe_2O_3	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	Total
124-769B-												
1H-3, 100–106	4.00	36.3	0.4	11.4	4.2	0.2	3.6	23.0	2.0	2.0	0.2	83.3
2H-1, 50–56	5.90	33.4	0.4	10.4	4.2	0.3	3.1	24.8	2.0	1.8	0.2	80.5
3H-1, 46–52	15.36	38.5	0.4	10.7	4.0	0.1	2.9	20.5	2.6	1.9	0.2	81.8
4H-1, 60–66	25.00	28.7	0.3	8.2	3.3	0.2	2.5	29.6	2.0	1.7	0.2	76.8
5H-1, 50–56	34.40	26.8	0.3	8.0	2.6	0.2	2.5	32.6	2.4	1.7	0.2	77.1
6H-1, 60–66	44.00	40.1	0.4	10.8	3.9	0.2	2.8	19.6	3.3	1.7	0.2	83.0
7H-1, 50–56	53.40	35.6	0.3	9.1	3.3	0.2	2.7	24.4	2.3	1.9	0.1	80.0
8H-1, 50–56	62.90	38.3	0.3	9.4	3.7	0.3	2.7	21.2	2.9	1.8	0.2	80.8
9H-1, 54–60	72.44	32.7	0.3	8.2	3.2	0.2	2.5	26.8	2.6	1.6	0.1	78.1
10H-5, 30–36	87.70	29.2	0.2	8.4	2.8	0.2	2.1	30.3	2.3	1.6	0.2	77.2
11H-1, 79–85	91.69	30.4	0.3	9.2	2.9	0.2	2.3	28.9	2.2	1.7	0.2	78.1
12H-1, 50–56	100.90	44.6	0.4	12.1	4.5	0.1	3.3	14.8	2.8	2.0	0.2	84.8
13H-1, 50–56	110.40	56.6	0.8	18.6	7.6	0.1	4.4	3.0	3.1	2.3	0.1	96.7
14H-1, 120–126	120.60	41.9	0.5	13.0	5.1	0.2	2.9	17.5	1.6	2.1	0.2	84.9
15H-1, 50–56	129.40	58.2	0.9	21.4	8.6	0.1	4.5	1.4	2.0	2.6	0.1	99.9
16H-1, 50–56	138.90	57.3	0.9	20.2	9.3	1.0	4.6	1.8	1.8	2.7	0.4	99.9
17H-1, 95–101	148.85	58.9	0.9	20.3	8.8	0.5	4.5	1.3	1.8	2.9	0.1	100.0
18H-1, 55–61	157.95	60.2	0.9	20.6	8.9	0.2	4.2	0.9	1.6	3.3	0.1	100.9
19H-1, 50–56	167.40	60.0	0.9	20.2	8.6	0.1	4.1	1.1	1.8	3.2	0.1	100.0
20H-1, 80–86	174.10	58.2	0.8	19.2	8.2	3.0	4.4	1.7	1.7	2.9	0.2	100.3
21H-2, 100–106	185.30	60.2	0.8	19.6	8.6	0.2	4.3	1.0	1.9	3.0	0.1	99.7
22H-1, 50–56	192.80	57.8	0.8	18.0	7.8	0.2	3.9	3.9	1.7	3.0	0.1	97.1
23H-1, 50–56	202.30	60.3	0.8	19.8	8.6	1.5	4.0	1.1	1.8	3.0	0.1	101.0
24H-1, 54–60	211.84	60.1	0.8	18.2	8.5	2.1	3.9	1.3	1.8	3.0	0.1	99.8
25X-2, 50–56	222.80	62.3	0.8	19.5	8.2	0.1	4.0	0.8	1.8	3.3	0.1	100.9
26X-1, 50–56	230.90	62.5	0.9	20.5	7.8	0.1	3.7	0.7	1.6	3.6	0.1	101.5
27X-1, 50–56	240.60	62.4	0.9	21.4	7.8	0.1	3.6	0.7	1.5	3.6	0.1	102.0
28X-1, 50–56	250.20	62.3	0.8	21.0	8.0	0.1	3.6	0.7	1.6	3.5	0.1	101.7
29X-1, 50–56	259.90	60.7	0.9	19.6	9.3	0.1	4.0	0.8	1.8	3.2	0.1	100.5
30X-2, 64–70	271.14	58.6	0.8	16.2	9.0	0.6	5.4	1.7	3.0	2.9	0.2	98.3
124-769C-												
1R-1, 116–122	262.26	60.5	0.9	19.6	9.2	0.2	4.1	0.9	1.9	3.1	0.2	100.7
2R-1, 60–66	271.40	58.4	0.8	16.5	8.6	1.3	5.4	1.8	2.8	2.9	0.2	98.6

Table 6. Minor-element data (ppm) for Site 769.

Core, section, interval (cm)	Depth (mbsf)	Nb	Zr	Y	Sr	Rb	Pb	Zn	Cu	Ni	Co	Mn	V	Cr	Ba	Mo
124-769B-																
1H-3, 100–106	4.00	4	63	13	624	52	17	79	54	71	17	2246	100	76	143	0
2H-1, 50–56	5.90	2	63	12	656	43	11	82	62	80	21	3235	112	72	131	1
3H-1, 46–52	15.36	2	74	12	738	45	15	75	61	63	29	1376	93	60	170	0
4H-1, 60–66	25.00	2	54	9	869	41	2	68	68	64	19	2308	110	62	125	1
5H-1, 50–56	34.40	4	56	13	823	44	11	79	81	64	27	1996	85	52	119	1
6H-1, 60–66	44.00	4	76	14	706	42	10	83	97	63	44	2158	111	63	196	1
7H-1, 50–56	53.40	3	67	14	779	48	15	97	84	84	21	1889	102	59	216	1
8H-1, 50–56	62.90	5	73	14	675	46	12	75	65	75	27	3542	81	58	140	2
9H-1, 54–60	72.44	2	63	12	774	40	13	88	70	77	20	1901	89	55	159	1
10H-5, 30–36	87.70	4	65	13	839	38	12	71	66	51	18	2027	69	44	117	1
11H-1, 79–85	91.69	3	65	15	791	46	14	69	60	51	14	2209	87	56	129	1
12H-1, 50–56	100.90	4	85	15	555	60	23	98	68	71	18	1041	137	80	319	1
13H-1, 50–56	110.40	6	118	20	225	84	21	109	76	99	21	697	221	126	552	1
14H-1, 120–126	120.60	6	81	20	555	56	18	107	74	97	18	1583	135	100	367	2
15H-1, 50–56	129.40	7	133	22	147	92	21	133	100	91	22	769	237	133	522	1
16H-1, 50–56	138.90	8	121	33	121	88	27	127	57	86	20	7019	152	115	327	0
17H-1, 95–101	148.85	10	127	22	108	108	30	128	74	106	55	3721	197	136	450	0
18H-1, 55–61	157.95	9	126	26	89	126	42	131	79	92	95	1539	148	120	373	1
19H-1, 50–56	167.40	10	117	25	102	114	24	123	89	89	32	785	199	138	521	2
20H-1, 80–86	174.10	8	114	30	112	107	15	116	61	92	28	18909	152	99	348	1
21H-2, 100–106	185.30	8	120	25	102	116	39	111	56	104	32	1429	173	124	621	0
22H-1, 50–56	192.80	7	109	25	169	110	24	124	67	97	26	1353	167	124	721	1
23H-1, 50–56	202.30	8	123	30	94	117	22	125	58	102	34	11821	212	108	750	1
24H-1, 54–60	211.84	8	117	29	95	121	8	97	129	78	23	15906	137	103	933	1
25X-2, 50–56	222.80	10	122	29	88	137	16	129	68	100	25	1003	174	108	664	0
26X-1, 50–56	230.90	11	130	25	81	156	22	128	87	60	27	799	252	119	560	0
27X-1, 50–56	240.60	9	133	27	83	154	38	129	117	77	26	942	247	139	545	1
28X-1, 50–56	250.20	9	134	29	86	154	10	108	123	68	26	620	252	111	653	0
29X-1, 50–56	259.90	8	109	24	85	110	28	113	74	88	35	941	170	92	539	2
30X-2, 64–70	271.14	5	90	21	92	48	11	107	120	53	42	5124	127	51	649	2
124-769C-																
1R-1, 116–122	262.26	7	123	28	95	110	22	128	95	100	31	1914	180	101	638	1
2R-1, 60–66	271.40	4	99	25	93	52	16	104	126	61	34	9237	135	44	591	4