

Table A1. Major and trace element concentrations for the ACEX composite core

Sample 302-2A-	depth (mcd)	SiO2 %	Al2O3 %	Fe2O3 %	MnO %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	Total %
302-2a-1X-1W-2-3cm	1.25	51.41	15.18	6.83	0.55	2.48	2.87	2.95	2.90	0.73	0.20	86.09
1X 1W 12-13 cm	1.35	58.71	14.55	6.23	0.41	2.22	1.99	2.66	2.82	0.71	0.19	90.48
11X 2W 75-76 cm	50.69	60.49	16.05	7.28	0.07	1.70	0.57	2.69	3.04	0.78	0.27	92.93
23X 2W 22-23 cm	101.55	57.93	16.21	8.55	0.08	1.67	0.47	2.37	2.84	0.77	0.32	91.18
34X 2W 22-23 cm	150.72	62.42	16.75	5.36	0.12	1.54	0.43	2.53	3.00	0.79	0.15	93.08
35X 2W 18-19cm	154.45	56.68	16.65	6.52	0.33	1.55	0.39	2.20	2.89	0.77	0.22	88.20
37X- 2W 27-28cm	164.28	55.24	16.00	8.39	0.11	1.37	0.34	1.99	2.47	0.71	0.33	86.94
38X 2W 27-28cm	167.16	56.48	16.26	8.04	0.19	1.42	0.48	2.24	2.53	0.70	0.30	88.65
40X 2W 27-28cm	174.85	54.99	17.21	8.08	1.10	1.54	0.40	2.18	2.89	0.77	0.26	89.42
42X 2W 27-28cm	184.26	55.13	16.90	7.66	1.29	1.55	0.45	2.43	3.04	0.75	0.25	89.44
43X 2W 22-23 cm	189.20	56.91	16.87	7.67	1.28	1.47	0.45	2.42	3.00	0.73	0.30	91.10
44X 3W 60-61 cm	189.58	58.80	15.74	5.22	0.04	1.72	0.30	1.79	2.88	0.64	0.08	87.20
44X 1W 76-77 cm	192.75	52.45	16.43	10.99	1.03	1.40	0.49	2.10	2.81	0.73	0.55	88.98
44X 2W 95-96 cm	194.44	59.16	18.16	5.32	0.04	1.30	0.33	1.88	2.94	0.66	0.12	89.91
44X 1W 106-107 cm	194.44	54.26	16.58	5.34		1.48	0.78	1.98	2.99	0.74	0.24	84.40
45X 1W 3-4 cm	195.96	60.70	14.91	5.37	0.05	1.55	0.31	1.69	2.77	0.63	0.08	88.07
45X 1W 57-58 cm dup. b	196.5	48.82	12.66	4.42	0.04	1.35	0.41	1.78	2.26	0.52	0.09	72.35
45X 1W 57-58 cm dup. b	196.5	56.06	14.63	4.10	0.04	1.45	0.43	1.78	2.61	0.59	0.09	81.80
45X 1W 110-111 cm	197.03	60.72	14.42	4.37	0.04	1.58	0.41	1.89	2.79	0.62	0.09	86.93
46X 2W 131-132 cm dup.	199.81	41.33	10.66	18.15	0.03	0.90	0.30	1.51	2.22	0.46	0.06	75.61
46X 2W 132-133 cm	199.82	36.23	8.75	21.69	0.03	0.80	0.29	1.42	1.80	0.39	0.06	71.45
48X 2W 21-22 cm	208.41	36.73	9.89	19.44	0.05	1.34	0.27	1.39	1.46	0.44	0.08	71.08
51X 2W 6-7 cm	220.00	55.88	7.02	5.43	0.10	0.95	0.34	2.64	1.13	0.34	0.08	73.91
54X 1W 22-23 cm	230.22	57.07	5.35	4.26	0.10	0.82	0.29	2.57	0.71	0.24	0.10	71.52
56X 2W 95-96 cm	241.18	60.34	6.63	5.36	0.09	0.84	0.60	2.12	1.00	0.31	0.37	77.66
58X 2W 60-61 cm	252.00	57.02	4.57	5.07	0.09	0.68	0.31	2.22	0.62	0.19	0.13	70.91