

Appendix A. Clay-free sand and silt sub-fractions, and Ti and Zr concentrations.

Pedon/ horizon	Depth (cm)	----- Clay-free sand (%) -----						-- Clay-free silt (%) --			----(ppm)---	
		very coarse	coarse	medium	fine	very fine	total	fine	coarse	total	Ti	Zr
BOBILLO												
A	0-47	0.1	2.4	24.9	62.2	8.1	97.8	0.6	1.6	2.2	804	240
E1	47-80	0.1	2.2	23.1	63.5	8.9	97.9	0.9	1.2	2.1	873	211
E2	80-124	0.1	2.3	21.4	64.4	9.4	97.6	0.9	1.5	2.4	608	213
Btg	124-135	0.1	2.7	26.4	60.5	6.3	96.1	2.2	1.8	3.9	525	180
Bt1	135-177	0.1	2.8	26.7	60.1	6.0	95.7	2.3	2.0	4.3	498	201
Bt2	177-198	0.1	1.6	17.4	62.4	12.8	94.3	2.9	2.9	5.7	684	207
CBt	198-241	0.1	1.1	13.7	59.1	16.2	90.2	4.7	5.1	9.8	784	198
R	241-270	0.1	0.4	3.7	52.4	26.5	83.2	5.6	11.2	16.8	1430	211
HITILO												
Ap	0-27	0.0	0.1	2.6	77.0	18.7	98.4	0.6	1.0	1.6	1075	280
E1	27-61	0.0	0.1	1.3	69.1	24.4	94.9	2.1	3.0	5.1	962	190
E2	61-102	0.0	0.0	1.2	67.7	26.2	95.1	2.1	2.8	4.9	941	196
Btg	102-111	0.1	0.1	1.2	63.3	27.8	92.6	3.6	3.8	7.4	960	215
Bt1	111-134	0.2	0.2	1.2	60.5	29.0	91.0	2.9	6.2	9.0	967	218
Bt2	134-169	0.0	0.0	0.9	53.1	32.9	86.8	6.1	7.0	13.2	1070	209
Bt3	169-185	0.0	0.0	0.3	49.1	40.7	90.0	4.8	5.1	10.0	1315	267
Bt4	185-208	0.0	0.0	0.3	48.9	40.8	90.0	5.0	5.0	10.0	1335	294
Cr	208-247	0.0	0.0	0.4	62.8	28.6	91.8	4.3	3.9	8.2	1205	263
PATILO												
A	0-24	1.6	15.7	39.6	28.6	5.9	91.5	4.4	4.1	8.5	430	120
E1	24-104	2.0	15.1	37.8	30.0	6.2	91.2	4.6	4.2	8.8	471	124
E2	104-138	1.9	14.8	35.0	32.8	6.5	91.1	5.0	3.9	8.9	513	151
Bt1	138-154	1.2	12.8	34.0	32.0	6.4	86.5	8.9	4.5	13.5	461	138
Bt2	154-173	3.5	18.4	34.0	27.7	7.4	90.9	4.4	4.7	9.1	462	137
BtC	173-197	3.4	16.9	34.7	28.9	7.6	91.6	3.7	4.7	8.4	561	185
CBt1	197-240	4.8	26.6	36.8	23.2	2.1	93.4	3.9	2.7	6.6	399	88
CBt2	240-270	4.5	25.7	36.4	24.3	2.1	92.9	3.9	3.2	7.1	422	94
Cr	270-288	0.8	26.0	56.7	11.5	1.3	96.3	2.4	1.3	3.7	329	68
PADINA												
Ap	0-22	0.0	0.1	17.1	63.7	11.2	92.2	3.5	4.4	7.8	1010	206
E1	22-56	0.0	0.1	12.5	66.4	13.6	92.6	3.0	4.4	7.4	1035	199
E2	56-101	0.0	0.1	18.6	62.2	11.8	92.8	3.4	3.9	7.2	998	180
E3	101-138	0.0	0.1	15.1	68.9	9.0	93.1	3.6	3.3	6.9	1070	218
Bt1	138-155	0.0	0.1	18.5	63.2	11.3	93.2	3.3	3.5	6.8	1815	240
Bt2	155-177	0.0	0.1	17.0	66.9	9.8	93.9	2.5	3.6	6.1	1740	248
Bt3	177-213	0.0	0.1	16.6	60.6	12.2	89.5	3.5	7.0	10.5	1610	283
CBt	213-294	0.0	0.1	10.3	61.2	11.5	83.0	6.2	10.8	17.0		
Cr	294-305	0.0	0.2	7.0	60.2	14.7	82.1	8.5	9.3	17.9	1850	287
PICKTON												
A	0-25	0.0	0.1	11.3	73.3	6.2	90.9	5.2	3.9	9.1	1015	220
E1	25-69	0.0	0.2	12.0	71.8	5.8	89.9	6.4	3.7	10.1	954	218
E2	69-101	0.0	0.1	9.3	74.3	6.6	90.3	6.3	3.4	9.7	936	209
Bt1	101-120	0.0	0.1	8.9	76.0	7.6	92.6	5.2	2.3	7.4	934	204
Bt2	120-161	0.0	0.0	9.2	78.7	7.2	95.1	2.9	2.0	4.9	750	159
Bt/E	161-191	0.0	0.1	10.3	80.5	5.4	96.3	2.3	1.3	3.7	743	154
BtC	191-210	0.0	0.1	9.2	73.5	11.6	94.5	2.8	2.8	5.5	953	207
CBt	210-290	0.0	0.1	5.1	73.4	10.7	89.4	4.6	6.0	10.6	1050	267
Cr	290-310	0.0	0.0	3.5	66.4	12.5	82.4	9.2	8.4	17.6	2460	263

Appendix B. Particle-size distribution with kurtosis and skewness parameters.

Pedon/ Horizon	mm phi (ϕ)	-----Sand-----					-----Silt-----		-----Clay-----		Kurtosis	Skewness
		very coarse	coarse	medium	fine	very fine	coarse	fine	coarse	fine		
		2-1 -1.0-0	1-.5 0-1.0	.5-.25 1.0-2.0	.25-.10 2.0-3.3	.10-.05 3.3-4.3	.05-.02 4.3-5.6	.02-.002 5.6-9.0	.002-.0002 9.0-12.3	<.0002 <12.3		
BOBILLO												
	Depth (cm)											
A	0-47	0.1	2.4	24.5	61.2	8	1.6	0.6	1.3	0.3	5.43	2.33
E1	47-80	0.1	2.2	22.8	62.7	8.8	1.2	0.9	1	0.3	5.98	2.40
E2	80-124	0.1	2.3	21	63.3	9.2	1.5	0.9	1.3	0.4	6.33	2.48
Btg	124-135	0.1	2	19.6	44.9	4.7	1.3	1.6	6.5	19.3	3.15	1.79
Bt1	135-177	0.1	2.1	20	45	4.5	1.5	1.7	6.7	18.4	3.29	1.82
Bt2	177-198	0.1	1.2	12.8	45.9	9.4	2.1	2.1	6.8	19.6	4.49	2.04
CBt	198-241	0.1	0.8	10	43	11.8	3.7	3.4	7.8	19.4	4.28	1.97
R	241-270	0.1	0.4	3.6	50.5	25.5	10.8	5.4	3.4	0.3	3.81	2.00
HITILO												
Ap	0-27	0	0.1	2.6	76.5	18.6	1	0.6	0.3	0.3	7.56	2.72
E1	27-61	0	0.1	1.3	67.8	23.9	2.9	2.1	1.5	0.4	6.2	2.48
E2	61-102	0	0	1.2	66.3	25.7	2.7	2.1	1.3	0.7	5.7	2.39
Btg	102-111	0.1	0.1	0.9	46.2	20.3	2.8	2.6	6.3	20.7	2.79	1.72
Bt1	111-134	0.1	0.1	0.8	40.1	19.2	4.1	1.9	5.2	28.5	0.34	1.27
Bt2	134-169	0	0	0.6	36.3	22.5	4.8	4.2	5.8	25.8	-0.4	1.05
Bt3	169-185	0	0	0.2	35.5	29.4	3.7	3.5	6.7	21	-0.69	1.01
Bt4	185-208	0	0	0.2	37.1	30.9	3.8	3.8	5.6	18.6	-0.27	1.15
Cr	208-247	0	0	0.3	48.2	22	3	3.3	5.6	17.6	3.37	1.85
PATILO												
A	0-24	1.6	15.6	39.4	28.5	5.9	4.1	4.4	0.3	0.2	0.8	1.39
E1	24-104	2	15.1	37.7	29.9	6.2	4.2	4.6	0.1	0.2	0.41	1.32
E2	104-138	1.9	14.7	34.9	32.7	6.5	3.9	5	0.2	0.2	-0.04	1.25
Bt1	138-154	1.1	11.3	30.1	28.3	5.7	4	7.9	9.3	2.3	0.15	1.25
Bt2	154-173	2.8	14.7	27.2	22.2	5.9	3.8	3.5	12	7.9	-0.28	0.96
BtC	173-197	2.5	12.3	25.2	21	5.5	3.4	2.7	14.8	12.6	-0.93	0.55
CBt1	197-240	3.7	20.6	28.5	18	1.6	2.1	3	9.2	13.3	-0.7	0.71
CBt2	240-270	3.7	21.1	29.9	20	1.7	2.6	3.2	11.4	6.4	-0.58	0.89
Cr	270-288	0.7	21.9	47.7	9.7	1.1	1.1	2	6.9	8.9		
PADINA												
Ap	0-22	0	0.1	16.8	62.5	11	4.3	3.4	1.7	0.2	6.97	2.58
E1	22-56	0	0.1	12.2	64.8	13.3	4.3	2.9	2.1	0.3	7.51	2.68
E2	56-101	0	0.1	18.2	61	11.6	3.8	3.3	1.8	0.2	6.56	2.5
E3	101-138	0	0.1	14.7	67.2	8.8	3.2	3.5	2	0.5	7.73	2.73
Bt1	138-155	0	0.1	14.4	49.1	8.8	2.7	2.6	9	13.3	5.99	2.32
Bt2	155-177	0	0.1	13.4	52.6	7.7	2.8	2	7.8	13.6	6.55	2.45
Bt3	177-213	0	0.1	13.3	48.6	9.8	5.6	2.8	5.6	14.2	6.12	2.35
CBt	213-294	0	0.1	9	53.4	10	9.4	5.4	4.4	8.3	7.67	2.68
Cr	294-305	0	0.2	6	51.5	12.6	8	7.3	6.8	7.6	7.48	2.64
PICKTON												
A	0-25	0	0.1	11.1	72.1	6.1	3.8	5.1	1.4	0.3	8.37	2.86
E1	25-69	0	0.2	11.8	70.4	5.7	3.6	6.3	1.8	0.2	8.26	2.84
E2	69-101	0	0.1	9	72.1	6.4	3.3	6.1	2.8	0.2	8.52	2.89
Bt1	101-120	0	0.1	6.7	57.2	5.7	1.7	3.9	9.3	15.4	7.16	2.6
Bt2	120-161	0	0	7	59.8	5.5	1.5	2.2	7.6	16.4	7.16	2.61
Bt/E	161-191	0	0.1	8.4	65.6	4.4	1.1	1.9	6.7	11.8	8.04	2.79
BtC	191-210	0	0.1	7.7	61.2	9.7	2.3	2.3	6.6	10.1	7.96	2.77
CBt	210-290	0	0.1	4.2	60.8	8.9	5	3.8	7.2	10	8.16	2.81
Cr	290-310	0	0	2.3	44	8.3	5.6	6.1	9	24.7	3.17	1.85