

**APPENDIX 2. Textures (volume percent) from point counting petrographic thin sections and calcareousness from reaction with dilute acid of paleosols in the Clarno area.**

Paleosol	Horizon/ Field No	JODA Number	Calcar- eous- ness	Percent Clay	Percent Silt	Percent Sand	Percent Gravel
Pasct brown variant	A NL14	4072	1	68.2	23.2	8.6	0
	A NL15	4073	1	70.2	17.2	12.6	0
	Bt NL16	4074	1	74.4	17.8	7.8	0
	Bt NL17	4075	1	75.6	17.2	7.2	0
	Bt NL18	4076	1	68.4	23.6	8.0	0
	C NL19	4077	2	64.4	24.4	11.2	0
ash Sayayk	- NL13	4071	2	47.6	15.2	33.1	3.4
type Luquem	A HC22	5098	1	38.4	59.8	1.8	0
	C HC21	5099	1	44.6	18.4	37.0	0
	A HC18	5095	1	34.4	56.6	9.0	0
ash Sayayk type Patat	C HC19	5096	1	35.6	61.8	2.6	0
	C HC20	5097	1	19.0	76.6	4.4	0
	- HC17	5094	1	28.6	69.2	2.2	0
Sayayk	A HC16	5093	2	60.2	18.2	18.8	2.8
	A HC8	5085	1	63.0	12.6	12.2	12.2
	A HC9	5086	1	55.4	33.2	11.2	0.2
	Bw HC10	5087	1	57.6	22.0	18.4	2.0
	Bw HC11	5088	1	40.0	19.0	41.0	0
	C HC13	5090	2	29.4	13.0	40.2	17.4
	C HC14	5091	2	45.0	11.4	40.8	2.8
	C HC15	5092	2	41.0	15.0	33.6	10.4
	A HC4	5081	1	51.2	14.6	28.8	5.4
	A HC5	5082	1	45.2	8.4	31.0	15.4
conglomerate conglomerate type Pswa	C HC6	5083	2	36.8	8.0	43.0	12.2
	C HC7	5084	2	41.4	16.2	31.0	11.4
breccia type Cmurk	- HC3	5080	2	38.2	7.0	36.2	18.6
	- HC2	5079	2	37.6	8.0	33.0	21.4
	A PS-0	5060	1	90.3	3.6	6.1	0
	A PS-15	5059	1	87.8	6.7	5.5	0
	Bt PS-30	5058	1	97.5	2.5	0	0
	Bt AB4	5057	1	54.2	31.0	4.8	0
	Bg AB3	5056	1	79.2	6.7	14.1	0
	C AB2	5054	1	74.2	18.8	5.6	1.4
	C AB1	5053	1	42.0	32.2	24.0	1.8
	PS+15	5061	1	49.0	31.8	18.6	0.6
Sayayk	O AB21	5073	1	87.8	10.8	1.4	0
	A AB19	5071	1	84.9	13.9	1.2	0
	Bg AB18	5070	1	87.3	6.5	6.1	0
	C AB17	5069	1	91.5	7.0	1.5	0
	C AB16	5068	1	87.7	7.3	4.0	0
	A NB17	4140	2	65.4	31.4	3.2	0
Sayayk	C NB18	4141	2	53.6	41.6	4.8	0
	A NB15	4138	2	35.6	55.2	9.2	0

## APPENDIX 2. continued

Paleosol	Horizon/ Field No	JODA Number	Calcar- eous- ness	Percent Clay	Percent Silt	Percent Sand	Percent Gravel
type Sayayk	C NB16	4139	2	27.6	5.2	67.2	0
	A NB11	4134	2	37.2	49.2	13.6	0
	A NB12	4135	2	38.6	44.4	17.0	0
Sayayk	C NB13	4136	2	42.0	43.8	14.2	0
	C NB14	4137	2	46.4	43.6	10.0	0
	A NB9	4132	2	56.0	42.8	1.2	0
Sayayk	C NB10	4133	2	40.2	57.2	2.6	0
	A NB7	4130	2	58.2	40.2	1.6	0
Sayayk	C NB8	4131	2	42.4	56.6	1.0	0
	A NB5	4128	2	51.6	44.2	4.2	0
Luquem	C NB6	4129	2	30.2	64.6	5.2	0
	A NB2	4125	2	47.2	46.8	6.0	0
	C NB3	4126	2	45.2	51.0	3.8	0
sandstone type Scat	C NB4	4127	2	41.6	50.0	8.4	0
	- NB1	4124	1	9.4	19.8	70.8	0
type Lakayx	A CH10	4168	1	92.2	1.4	6.4	0
	A CH11	4169	2	86.0	4.4	9.0	0.6
	C CH12	4170	2	76.2	3.0	18.2	2.6
	C CH13	4171	2	57.8	4.2	34.4	3.6
	A CH2	4160	1	95.8	0.4	3.6	0.2
Lakayx Lakayx	Bt CH5	4162	1	94.4	0.2	5.0	0.4
	Bt CH4	4163	1	97.6	0.6	1.8	0
	Bt CH6	4164	2	98.0	0.6	1.4	0
	Bt CH7	4165	2	98.0	1.0	0.8	0.2
	BC CH8	4166	2	93.6	1.8	4.6	0
	C CH9	4167	2	95.4	2.4	2.2	0
	C CH1	4159	2	94.8	1.8	3.0	0.4
	A CH28	4184	1	93.6	4.0	2.4	0
	A CH29	4185	1	91.4	4.4	4.2	0
	Bt CH30	4186	1	95.2	2.0	2.8	0
Luca concretionary variant	Bt CH31	4187	1	96.6	1.0	2.4	0
	Bt CH32	4188	1	98.4	0.6	1.0	0
	C CH33	4189	1	97.8	0.8	1.4	0
	C CH34	4190	2	92.9	5.2	2.0	0
	A CH41T	4193	1	92.4	3.6	5.2	0
	A CH41	4194	1	84.8	3.6	11.6	0
	Bt CH40	4195	1	87.2	0.8	11.6	0.4
	Bt CH40B	4196	1	93.6	1.4	5.0	0
	BC CH39T	4197	1	80.0	0.2	17.6	1.6
	C CH39	4198	2	61.3	0	18.3	20.3
type Sitaxs	A CH50	4199	1	67.4	11.4	21.0	0.2
	A CH49	5000	3	88.0	1.4	9.8	0.8
	Bw CH48	5001	2	82.8	2.8	13.4	1.0

## APPENDIX 2. continued

Paleosol	Horizon/ Field No	JODA Number	Calcar- eous- ness	Percent Clay	Percent Silt	Percent Sand	Texture
	C CH47	5002	2	75.4	3.8	19.6	1.2
	C CH46	5003	2	76.0	1.2	21.6	1.2
Acas	A AK9	5108	1	77.2	16.4	5.8	0.6
type Acas	A AK2	5101	1	70.6	26.8	2.4	0.2
	A AK3	5102	1	52.0	37.4	9.8	0.8
	A AK4	5103	1	63.0	27.2	4.2	5.6
	Bt AK5	5104	1	57.8	37.4	2.6	2.2
	Bt AK6	5105	1	63.4	31.2	5.2	0
	Bt AK7	5106	1	67.4	26.2	6.4	0
	C AK8	5107	1	48.4	45.0	6.6	0
claystone	- AK1	5100	1	38.6	27.6	26.6	7.6
Micay	A MQ15	5118	1	76.6	17.4	6.0	0
Lakim septarian variant	A MQ21	5112	1	83.6	14.6	1.8	0
	A MQ20	5113	1	84.4	13.8	1.8	0
	Bw MQ19	5114	1	85.2	11.8	3.0	0
	Bw MQ18	5115	1	80.8	17.6	1.6	0
	C MQ17	5116	1	78.2	16.8	5.0	0
type Micay	A MQ23	5110	1	80.6	14.4	5.0	0
	C MQ22	5111	1	79.4	18.2	2.4	0
	C MQ16	5117	1	76.8	17.4	5.8	0
siltstone	- MQ24	5109	1	75.6	16.8	7.6	0
type Pasct	A R40	5045	1	72.2	21.8	6.0	0
	A R41	5046	1	68.6	24.4	7.0	0
	A R42	5047	1	68.6	19.8	11.6	0
	Bt R43	5048	1	78.6	20.0	1.4	0
	Bt R44	5049	1	74.6	24.0	1.4	0
	C R45	5050	1	67.8	28.8	3.4	0
ash-flow tuff	- R39	5044	2	61.4	10.6	10.4	17.6
type Luca	A JD1	5119	1	89.4	6.0	4.6	0
	Bt JD3	5121	1	95.4	2.8	1.8	0
	C JD5	5123	1	81.0	11.8	7.2	0

*Note:* Relative scale of calcareousness (1-5) by reaction with 1.2M (10% of standard solution) HCl is from Retallack (1988, 1990). Standard error ( $\pm 1\sigma$ ) of these 500-point counts is about 2 volume % (Van der Plas & Tobi 1965; Murphy 1983). Counts were made with a Swift automatic point counter by G.S. Smith (1988: type Scat, all Lakayx, Luca and type Sitaxs), J. Pratt (1988: Micay, Lakim), A. Getahun (for Getahun and Retallack, 1991, type Luca), E.A. Bestland (all Cruk and Pswa) and G.J. Retallack (others). Textures of peaty samples (all those with more than 10% organic carbon) reflect size distribution of coal macerals as well as mineral grains.