

**TABLE A1**

Profile Horizon	Depth (cm)	Dry Color <sup>a</sup>	Moist Color <sup>a</sup>	Clay film Color <sup>a</sup>	Texture <sup>b</sup>	Structure <sup>c</sup>	Consistence <sup>d</sup> Dry Wet	Clay Films <sup>e</sup>	Remarks
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Depositional unit Qof1; Surface B2

Pedon MC01

B1	0-10	7.5YR4/6	7.5YR4/4			2m sbk	mh; ss,p		
B2	10-33	5YR4.5/6	5YR4/4	5YR4/4-3/4	CL	2-3m sbk	vh; s,p	3 k pf	
B3	33-48	7.5YR4/6	7.5YR4/4	5YR4/4	CL	3msbk	mh-sh; ss,sp	1-2 mk pf	
B/C	48-72	7.5YR4/6	7.5YR4/6	5YR4/4	CL	3m sbk	sh; ms, p	1n pf	
B/C2	70 (72) -115	7.5YR4/6	7.5YR4/6		SiL	2 m abk	sh; so, po	v1 vn pf; stains	
Cox	115-205	7.5YR5/6	7.5YR5/4		L	2 f - m abk	fr; so,po	stains	

Depositional unit Qvoa; Geomorphic Surface A2

Pedon MC02

Bt1	0- 31	2.5YR4/6d	5YR5/6m	2.5YR 4/4, 4/6	SCL	3m sbk	sh; ss,sp	3n gr; 2k pf	Dry consistence is a result of high sand content; >60% gravel, mainly cobbles
Bt2	31 - 56	5YR4/6	5YR4/6	5YR4/6	SCL	3msbk; interstitial	mh; ss, vsp	1-2mk pf; 3vn	>60% small cobbles - boulder
Bt3	56 - 78	7.5YR5/6	7.5YR4/6	2.5YR4/6	L	3 f-m abk; interstitial	mh; so,po	1mkpo, pf; 1vn pf	
Cox	78 - 108	7.5YR5/6	7.5YR4/6		L - SL	1fsbk, interstitial	mh; so,po		
Duripan, not described or sampled	108 -								~2 meter thick silica cemented sandy gravel; >80% pebble to cobble size.

Depositional unit Qof1; Surface B3

Pedon LDM

43

A	0 - 3	10YR6/4	10YR3/3		SiL	sg	lo vss, po		
B21t	3 - 35	2.5YR4/8	2.5YR4/6		SC g	m,2msbk	h s, p	3-4 mk gr, 2 br	
B22t	35 - 65	5YR4/6	2.5YR5/8		SL g	m, 2msbk	h s, p	3 n - mk gr, br; 4k pf	carbonate present as thin filaments
B23t	65 - 86	5YR5/8	5YR4/6		SL g	m, 1msbk	so-sh ss sp		
B31ca	86 - 136	7.5YR5/6	7.5YR4/6		g SL	m	so ss sp		carbonate occurs as discontinuous coatings on large clasts or as veins
B32ca	136 - 171	7.5YR5/6	7.5YR4/6		vg LS	m	lo vss po		carbonate occurs as very thin discontinuous coatings on tops of large clasts
C1ox	171 - 201	10YR6/4-6	10YR4/6		vg LS	m	lo vss po		carbonate occurs as very thin discontinuous coatings on tops of large clasts
C2ox	201 -	10YR7/4	10YR6/4		vg S	m	lo so po		noncalcareous

Profile Horizon	Depth (cm)	Dry Color <sup>a</sup>	Moist Color <sup>a</sup>	Clay film Color <sup>a</sup>	Texture <sup>b</sup>	Structure <sup>c</sup>	Consistence <sup>d</sup>		Clay Films <sup>e</sup>	Remarks
							Dry	Wet		
Depositional unit Qof2; Geomorphc surface C1 Pedon MC03										
B1	0-11	not described								
B2	11- 44	7.5YR5/4	7.5YR4/4	7.5YR5/6	SL	2m sbk	vss	po	1n pf	
B3	44- 76	7.5YR4/6		5YR6/6	L	3m sbk - abk	ss	vsp	1mk-k pf, po	
B4	76- 96	10YR6/5*	10YR4/4	7.5YR5/6	SL	3 m abk	so	po	v1 - 1 n-mk pf	
C	96- 152	10YR6/4			SL	3 m abk	so	po	none	

Depositional unit Qof2; Geomorphc Surface C1  
Pedon LDM

38A										
A	0 - 22	10YR7/3	10YR4/3		LS	1 m sbk	so;	vss, po		
B21t	22 - 34	7.5YR6/4	7.5YR4/4		gr SCL					
B22t	34-80	5YR6/6	5YR5/6		gr SCL	m	h, s, p		2 mk gr, br	
B23t	80- 109	5 - 7.5YR6/6	5- 7.5YR5/6		SCL	m	h, s, p		2 k gr	
B24t	109 - 142	7.5YR 6/4	7.5YR4/4		gr SCL	m	h, s, p		1 mk gr	
B25t	142 - 176	10YR 7/4	10YR5/4		gr SL	m	h, ss, sp		1 vn gr	
B3ca	176 - 253	10YR7/3	10YR5/3		gr LS	m	h, so, po			Few incipient clay or silt films coating some grains; occasional filaments, 1/2 to 1 cm thick.
C1caox	253 - 279	10YR7/3	10YR5/4		gr LS	m	vh, ss, po			Few incipient clay or silt films on some grains; violently effervescent; carbonate occurs dominantly segregated as filaments; matrix cemented, probably dominantly by clay.
C2caox	279 - 349	10YR 7/2	10YR5/2		gr LS	m	h, so, po			slightly effervescent
C3ox	349 -	10YR7/3	10YR4/3		gr S	m	so-sh, so, po			noneffervescent

Depositional unit Qof3; Geomorphc Surface D  
Pedon LDM

39A										
A	0- 3	10YR7/3	10YR4/3		gLS	1 m pl	so	ss	sp	
B2t	3 - 62	7.5 - 5YR6/4	7.5-5YR5/4		g SCL	m	h	s,p		2mkgr
B3ca	62 - 76	10 - 7.5YR6/4	10 - 7.5YR4/4		g SL	m	h	ss	sp	carbonate occurs as 1-5 mm thick veins and coatings on bases and sides of large clasts.
C1caox	76 - 206	10YR7/4	10YR4/4		g LS	m	so	vss	po	1 n gr carbonate occurs as filaments in matrix or as thin coatings on larger clasts
C2ox	206 -	10YR7/3	10YR4/3		vg LS	m	lo	so	po	Mostly noncalcareous; carbonate occurs as very thin discontinuous coatings on larger clasts.

Profile Horizon	Depth (cm)	Dry Color <sup>a</sup>	Moist Color <sup>a</sup>	Clay film Color <sup>a</sup>	Texture <sup>b</sup>	Structure <sup>c</sup>	Consistence <sup>d</sup>		Clay Films <sup>e</sup>	Remarks
							Dry	Wet		

Depositional unit Qof1; Surface B3

Pedon LDM

43

A	0 - 3	10YR6/4	10YR3/3		SiL	sg	lo	vss, po		
B21t	3 - 35	2.5YR4/8	2.5YR4/6		SC g	m,2msbk	h	s, p	3-4 mk gr, 2 br	
B22t	35 - 65	5YR4/6	2.5YR5/8		SL g	m, 2msbk	h	s, p	3n - mk gr, br; 4k pf	carbonate present as thin filaments
B23t	65 - 86	5YR5/8	5YR4/6		SL g	m, 1msbk	so-sh	ss sp		
B31ca	86 - 136	7.5YR5/6	7.5YR4/6		g SL	m	so	ss sp		carbonate occurs as discontinuous coatings on large clasts or as veins
B32ca	136 - 171	7.5YR5/6	7.5YR4/6		vg LS	m	lo	vss po		carbonate occurs as very thin discontinuous coatings on tops of large clasts
C1ox	171 - 201	10YR6/4-6	10YR4/6		vg LS	m	lo	vss po		carbonate occurs as very thin discontinuous coatings on tops of large clasts
C2ox	201 -	10YR7/4	10YR6/4		vg S	m	lo	so po		noncalcareous

<sup>a</sup> Munsell Soil Color Chart

<sup>b</sup> S, sand; LS, loamy sand; SL, sandy loam; SiL, Silty loam; L, loam; SCL, sandy clay loam; SC, sandy clay; CL, clay loam; g, gravelly; vg, very gravelly

<sup>c</sup> GRADE: 1, weak; 2, moderate; 3, strong; SIZE: f, fine; m, medium; co, coarse; TYPE: m, massive; sg, single grain; sbk, subangular blocky; abk, angular blocky; pl, platy

<sup>d</sup> L, loose; S, soft; SH, slightly hard; MH, moderately hard; H, hard; VH, very hard; EH, extremely hard; SO, not sticky; VSS, very slightly sticky; SS, slightly sticky; S, sticky; VS, very sticky; PO, not plastic; VSP, very slightly plastic; SP, slightly plastic; P, moderately plastic; VP, very plastic.

<sup>e</sup> FREQUENCY: v1, very few; 1, few; 2, common; 3, many; 4, very many; THICKNESS: vn, very thin; n, thin; mk, moderately thick; k, thick; LOCATION: pf, ped face; po, pores; br, bridges between grains; gr, grains.