

Soil Survey of Val Verde County, Texas

TABLE 11.--ENGINEERING INDEX PROPERTIES

[The symbol < means less than; > means more than. Absence of an entry indicates that data were not estimated]

Soil name and map symbol	Depth <u>In</u>	USDA texture	Classification		Frag- ments > 3 inches <u>Fct</u>	Percentage passing sieve number--				Liquid limit <u>Fct</u>	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
AcB----- Acuna	0-72	Silty clay-----	CL	A-6, A-7-6	0	85-100	75-100	75-100	70-95	30-47	15-28
AmD----- Amistad	0-6	Flaggy clay loam	GC, SC, GP-GC, SP-SC	A-2-6	30-60	25-65	20-50	15-50	12-35	30-40	11-20
	6-17	Cemented-----	---	---	---	---	---	---	---	---	---
	17-80	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
AsE, ATE*----- Amistad	0-6	Very flaggy loam	GC, SC, GP-GC, SP-SC	A-2-6	30-60	25-65	20-50	15-50	12-35	30-40	11-20
	6-17	Cemented-----	---	---	---	---	---	---	---	---	---
	17-80	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
CoB----- Coahuila	0-9	Clay loam-----	CL	A-6	0	100	98-100	95-100	80-95	25-40	11-20
	9-62	Silty clay loam, silty clay, clay.	CL	A-6, A-7-6	0	98-100	90-100	90-100	85-95	30-45	15-25
De*----- Dev	0-60	Very gravelly clay loam.	GC, GP-GC, SC, SP-SC	A-2-4, A-2-6, A-7, A-6	0-10	10-78	5-65	5-50	5-42	28-47	9-24
ERP*, ERG*: Ector-----	0-8	Stony loam-----	GC, SC, CL	A-2, A-4, A-6, A-7	5-50	45-80	40-75	35-70	20-60	25-49	8-25
	8-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											
FzG*: Felipe-----	0-5	Very gravelly clay.	GC, CH, CL, SC	A-2-6, A-7-6, A-6	5-20	25-75	20-70	15-65	15-60	35-52	15-28
	5-18	Clay loam, silty clay, clay.	CL, CH	A-7-6	0-3	95-100	85-100	80-100	75-95	44-62	22-36
	18-72	Shaly clay-----	CL, CH	A-7-6	0-3	90-100	85-100	80-96	70-95	45-62	25-36
Zorra-----	0-8	Stony loam-----	GC, GP-GC, SC, CL	A-2-4, A-2-6, A-4, A-6	8-45	12-65	10-60	10-60	8-55	25-35	8-15
	8-13	Cemented-----	---	---	---	---	---	---	---	---	---
	13-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
HdB----- Hodgins	0-8	Silt loam-----	CL	A-6, A-7-6	0	95-100	95-100	90-100	70-95	28-45	11-28
	8-62	Clay loam, silty clay loam, silty clay.	CL	A-6, A-7-6	0	95-100	85-100	75-100	65-95	34-50	15-30
Ho----- Hodgins	0-7	Silty clay loam	CL	A-6, A-7-6	0	95-100	95-100	90-100	70-95	28-45	11-28
	7-60	Clay loam, silty clay loam, silty clay.	CL	A-6, A-7-6	0	95-100	85-100	75-100	65-95	34-50	15-30
JmD*: Jimenez-----	0-10	Very gravelly loam.	GC, GM-GC	A-1, A-2-4, A-2-6	5-20	30-58	15-40	15-35	15-30	22-35	5-15
	10-17	Cemented-----	---	---	---	---	---	---	---	---	---
	17-60	Variable-----	---	---	---	---	---	---	---	---	---

See footnote at end of table.

Soil Survey of Val Verde County, Texas

TABLE 12.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay <2mm		Permeability	Available water capacity		Soil reaction	Salinity	Shrink-swell potential	Erosion factors		Organic matter
		In	Pct		In/hr	In/in				pH	K	
LRG*: Langtry-----	0-12 12-60	18-34 ---	---	0.6-2.0 ---	0.03-0.09 ---	7.9-8.4 ---	<2 ---	Low-----	0.10	1	1-3	
Rock outcrop.												
Ls----- Laredo	0-13 13-60	26-38 26-45	---	0.6-2.0 ---	0.15-0.22 0.13-0.20	7.9-8.4 7.9-8.4	<2 <4	Moderate----- Moderate-----	0.37 0.43	5	1-3	
Lv----- Laredo Variant	0-12 12-60	28-35 35-45	---	0.6-2.0 ---	0.14-0.20 0.14-0.20	7.9-8.4 7.9-8.4	<2 <4	Moderate----- Moderate-----	0.37 0.37	5	1-3	
LZD*: Lozier-----	0-8 8-60	20-35 ---	---	0.6-2.0 ---	0.05-0.10 ---	7.9-8.4 ---	<2 ---	Very low-----	0.10	1	0.5-2	
Shumla-----	0-12 12-60	13-34 ---	---	0.6-2.0 ---	0.10-0.18 ---	7.9-8.4 ---	<2 ---	Low-----	0.28	1	1-2	
MaD----- Mariscal	0-7 7-60	10-35 ---	---	0.6-2.0 ---	0.05-0.10 ---	7.9-8.4 ---	<2 ---	Low-----	0.10	1	1-2	
MLG*: Mariscal-----	0-7 7-60	10-35 ---	---	0.6-2.0 ---	0.05-0.10 ---	7.9-8.4 ---	<2 ---	Low-----	0.10	1	1-2	
Lozier-----	0-6 6-60	20-35 ---	---	0.6-2.0 ---	0.05-0.10 ---	7.9-8.4 ---	<2 ---	Very low-----	0.10	1	0.5-2	
OmD----- Olmos	0-8 18-60	18-34 ---	---	0.6-2.0 ---	0.05-0.10 ---	7.9-8.4 ---	<2 ---	Low-----	0.10	1	1-3	
Pn----- Pintas	0-23 23-60	37-55 35-55	---	0.6-2.0 ---	0.15-0.22 0.15-0.20	7.9-8.4 7.9-8.4	<2 <2	High----- Moderate-----	0.32 0.32	3	1-3	
Pt*. Pits												
Ra----- Reynosa	0-16 16-64	20-40 20-45	---	0.6-2.0 ---	0.18-0.24 0.15-0.24	7.9-8.4 7.9-8.4	<2 <4	Moderate----- Moderate-----	0.37 0.43	5	0.5-2	
Rd----- Rio Diablo	0-60	40-55	---	0.2-0.6	0.13-0.20	7.9-8.4	<2	Moderate-----	0.32	5	1-3	
Rg, Ro*----- Rio Grande	0-8 8-64	4-18 4-20	---	2.0-6.0 2.0-6.0	0.13-0.24 0.13-0.24	7.9-8.4 7.9-8.4	<4 <4	Low----- Low-----	0.49 0.49	5	0.5-1	
Rv*. Riverwash												
SaC*: Sanderson-----	0-8 8-60	18-35 18-35	---	0.6-2.0 ---	0.05-0.14 0.05-0.14	7.9-8.4 7.9-8.4	<4 <4	Low----- Low-----	0.10 0.10	5	1-2	
Shumla-----	0-14 14-60	13-34 ---	---	0.6-2.0 ---	0.10-0.18 ---	7.9-8.4 ---	<2 ---	Low-----	0.28	1	1-2	
SuC----- Shumla	0-11 11-60	13-34 ---	---	0.6-2.0 ---	0.10-0.18 ---	7.9-8.4 ---	<2 ---	Low-----	0.28	1	1-2	
TAD*----- Tarrant	0-14 14-60	40-60 ---	---	0.2-0.6	0.10-0.17	7.9-8.4	<2	Moderate-----	0.20	1	2-5	

See footnote at end of table.

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TABLE 12.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay <2mm	Permeability	Available water capacity	Soil reaction	Salinity	Shrink-swell potential	Erosion factors		Organic matter
								K	T	
	In	Pct	In/hr	In/in	pH	mmhos/cm			Pct	
ToA-----	0-51	35-60	<0.06	0.12-0.18	7.4-8.4	<2	Very high---	0.32	5	1-3
Tobosa	51-62	35-60	<0.06	0.10-0.18	7.9-8.4	<2	High-----	0.32		
VaB-----	0-48	22-40	0.6-2.0	0.15-0.20	7.9-8.4	<2	Moderate---	0.43	4	0.5-2
Valverde	48-68	---	---	---	---	---	---	---	---	---
ZaC*:										
Zapata-----	0-8	18-34	0.6-2.0	0.10-0.15	7.9-8.4	<2	Low-----	0.17	1	1-2
	8-60	---	---	---	---	---	---	---	---	---
Vinegarroon----	0-17	20-40	0.6-2.0	0.12-0.18	7.9-8.4	<2	Low-----	0.28	1	0.5-2
	17-24	---	---	---	---	---	---	---	---	---
	24-60	---	---	---	---	---	---	---	---	---
ZoD*:										
Zorra-----	0-8	19-34	0.6-2.0	0.05-0.13	7.9-8.4	<2	Very low----	0.10	1	1-3
	8-12	---	---	---	---	---	---	---	---	---
	12-60	---	---	---	---	---	---	---	---	---
Rock outcrop.										
ZoE*:										
Zorra-----	0-10	19-34	0.6-2.0	0.03-0.11	7.9-8.4	<2	Very low----	0.10	1	1-3
	10-12	---	---	---	---	---	---	---	---	---
	12-60	---	---	---	---	---	---	---	---	---
Rock outcrop.										
ZRE*:										
Zorra-----	0-5	19-34	0.6-2.0	0.05-0.13	7.9-8.4	<2	Very low----	0.10	1	1-3
	5-12	---	---	---	---	---	---	---	---	---
	12-60	---	---	---	---	---	---	---	---	---
Rock outcrop.										

* See description of the map unit for composition and behavior characteristics of the map unit.