

	SOIL DESCRIPTION AND TOPOGRAPHY	CLASSIFICATION
	A-SOILS ON ALLUVIAL DEPOSITS	
A1	Deep to very deep, poorly to imperfectly drained, dark grayish brown to very dark gray clay. Flat to almost flat.	Pellic Vertisol partly sodic
A2	Deep to very deep, imperfectly drained, dark grayish brown to reddish brown clayloam to clay.  Flat to slightly undulating.	Chromic Vertisol
АЗ	Deep to very deep, imperfectly drained, dark grayish brown sandy clayloam to clay.  Flat to slightly undulating.	Vertic Cambisol
A4	Mod. deep to very deep, imperfectly to mod. well drained, dark grayish brown to brown sandy loam to sandy clay. Flat to slightly undulating.	Calcaric Cambisol
A4a	Deep to very deep, imperfectly drained, massive, gray to grayish brown strongly calcareous sandy clayloam to clay (with calcic hor., but no cambic hor.).  Flat to almost flat.	Calcic Cambisol
A4b	Mod. deep to very deep, imperfectly to mod. well drained, dark grayish brown to brown clayloam to clay.  Flat to slightly undulating.	Calcic Cambisol
A4c	Mod. deep to very deep, mod. well drained, grayish brown to brown sandy loam to sandy clayloam.  Flat to undulating.	Calcic Cambisol
A4d	As 4a, b, c, but with petrocalcic horizon.	Calcic Cambisol petrocalcic
A5	Deep to very deep, imperfectly to poorly drained, dark grayish brown to very dark gray sandy clayloam to clay.	Gleyic Solonetz
A5b	Deep to very deep, imperfectly to mod. well drained, dark grayish brown to brown sandy clayloam to clay.  Flat to slightly undulating.	Orthic Solonetz
A6	Deep to very deep, poorly to imperfectly drained, pale brown to light gray loamy sand to sandy loam topsoils abruptly overlying dark yellowish brown to dark (grayish) brown sandy clay to clay subsoils.	Solodic Planosol
A7	Plat to almost flat.  Deep to very deep, poorly to imperfectly drained, dark gray to grayish brown sandy clayloam to clay.	Gleyic Luvisol
A7	Flat.	partly sodic Gleyic Luvisol
A7a	As A7, but sandy loam.  Deep to very deep, imperfectly to mod. well drained, dark grayish brown to reddish brown sandy clayloam to clay.	partly sodic
A8	Flat to slightly undulating.	Vertic Luvisol
A9	Deep to very deep, imperfectly to mod. well drained, dark brown sandy clayloam to clay.  Flat to slightly undulating.	Calcic Luvisol
A9a	Mod. deep to deep, imperfectly to mod. well drained, very dark grayish brown to black loamy sands over sandy loams to sandy clayloams.  Flat.	Arenic Calcic Luvisol
A9b	As A9, but massive and with petrocalcic horizon.	Calcic Luvisol petrocalcic
A10	Deep to very deep, mod. well drained, strong brown to yellowish red sandy loams to sandy clayloams.  Flat to undulating.	Chromic Calcic Luvisol partly petrocalcic
A11	Mod. deep to very deep, mod. well to well drained, red to strong brown sandy loam to sandy clay.  Almost flat to undulating.	Ferric Luvisol
A11a	Mod. deep to deep, mod. well drained, red to brown sandy loam to sandy clayloam.	Ferric Luvisol petric petroferric
A12	Mod. deep to very deep, well drained, brown to yellowish red loamy sands to sandy loams.  Almost flat to undulating.	Arenic Ferric Luvisol
A13	Mod. deep to deep, mod. well to well drained, dark red to strong brown sandy loam to sandy clayloam.	Chromic Luvisol
A13a	Amost flat to undulating.  Mod. deep to deep, mod. well drained, dark red to strong brown massive sandy clayloam to sandy clay.	Chromic Luvisol
A13b	Flat to slightly undulating.  Mod. deep to deep, well drained, strong brown to red sandy loam to sandy clayloam.	Chromic Luvisol
	Flat to undulating.  Mod. deep to very deep, mod. well to well drained, dark brown to yellowish brown sandy loam to sandy clay.	Orthic Luvisol
A14	Flat to undulating.  Mod. deep to very deep, well drained, pale brown to yellowish brown loamy sand.	Arenic Orthic Luvisol
A15	Flat to undulating.  Very deep, mod. well to well drained, dark red to strong brown sandy loam to sandy clayloam.	
A16a	Almost flat to undulating.  Very Deep, imperfectly to mod, well drained, dark red to dark brown sandy clayloam to clay, strongly calcareous and often with very dark grayish brown toplayer.	Calcic Eutric Nitosol
	Flat to almost flat.  Very deep, well drained, red to reddish yellow loamy sands to sandy loams and siltloams.	
A16b	Gently sloping terraces.  Very deep, well drained, red to reddish yellow loamy sands to sandy loams.	Arenic Eutric Nitosol
A17	Almost flat to undulating.	Arenic Dystric Nitosol
A18	Mod. deep to deep, mod. well to well drained, red to strong brown sandy loam to sandy clayloam.  Undulating.  Deep to very deep, well to somewhat excessively drained, dark red to brown sands to loamy sands.	Ferric Acrisol
A19	Almost flat to slightly undulating.	Ferralic Arenosol
A20	Mod. deep to very deep, mod. well to well drained, brown to yellowish brown loamy sands.  Flat to undulating.	Calcaric Arenosol
A21	As A20, but with calcic horizon.  Deep to very deep, well to somewhat excessively drained, yellowish brown to dark brown loamy sands.	Calcic Arenosol  Eutric Arenosol
A22 A22a	Flat to slightly undulating (natural levees).  As A22.	Cambic Arenosol
A23	Deep to very deep, poorly to imperfectly drained, dark gray to dark grayish brown loams to clays. Flat.	Calcaric Fluvisol partly sodic
A23a	As A23, but loamy sands.	Arenic Calcaric Fluvisol partly sodic
A24	Very deep, poorly to imperfectly drained, dark grayish brown to black sandy loams to silty clayloam, often overlying (loamy) sands.  Flat.	Eutric Fluvisol partly saline
A24a	Very deep, poorly drained, pale brown to brown sands to loamy sands. Flat (channels).	Arenic Eutric Fluvisol
A25		Dystric Fluvisol
A25a	As A25, but sands to loamy sands.  Very deep, very poorly drained, dark gray to black sandy loams to silty clayloams, usually having a histic hor, within 50 cm	Arenic Dystric Fluvisol
A25b	and overlying sandy subsoil (swamps).	Dystric Historol
A26 A27	Very deep, very poorly drained, stratified humose to peaty black sandy (clay) loam to siltloam, over sandy subsoil.  As A26, but high base saturation (swamps)	Dystric Histosol  Eutric Histosol
A28	Very deep, poorly to imperfectly drained, grayish brown loams to silty clayloams. Flat to almost flat.	Orthic Solonchak
A29	Very deep, poorly to imperfectly drained, (light) grayish brown fine sands to loams. Flat to almost flat.	Gleyic Solonchak
A30	Deep to very deep, imperfectly to poorly drained, (very) dark gray sandy clay to clay. Flat.	Calcaric Gleysol sodic
A31	Deep to very deep, poorly to imperfectly drained, (very) dark gray sandy clay to clay. Flat.	Eutric Gleysol sodic
A32	Very deep, imperfectly drained, very dark graish to brown sandy loam to siltloam to sandy clays often overlying (loamy) fine sand.  Flat.	Gleyic Cambisol
A33	Very deep, well dark brown to brown (fine) sandy loam. Almost flat to slightly undulating (natural levees).	Eutric Cambisol
	Deep to very deep, imperfectly drained, dark grayish brown clayloams.	Eutric Cambisol

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	A-SOILS ON ALLUVIAL DEPOSITS	
A34	Mod. deep to deep, well to somewhat excessively drained, dark brown to reddish brown loamy sands to sandy loams Flat to slightly undulating.	Eutric Regosol shallow petric
A35	Deep to very deep, mod. well to well drained, dark grayish brown to yellowish brown (fine) sandy loams. Flat to slightly unulating.	Calcaric Regosol
A36	Deep to very deep, mod well to well drained, yellowish red to (dark) yellowish brown sandy loams to sandy clayloams. Flat to unulating.	Luvic Xerosol
A37	Deep to very deep, imperfectly to mod. well drained, dark to strong brown sandy clayloams to clay.	Calcic Luvic Xerosol
A37a	Flat to slightly undulating.  Deep to very deep, mod well to well drained yellowish red to yellowish brown sandy loams to sandy clayloams.	Calcic Luvic Xerosol
	Terraces.  Identical but with sandy topsoil.	
A37b	Natural levees.  Deep to very deep, imperfectly to mod, well drained, dark to strong brown sandy clayloams to clay.	Arenic Calcic Luvic Xerosol
A38	Flat to slightly undulating.	Calcic Xerosol
A39	Deep, imperfectly to well drained, brown to reddish yellow sandy clayloams to sandy clay.  Flat to undulating.	Haplic Xerosol
	B -SOILS ON BASIC IGNEOUS AND METAMORPHIC ROCKS	
B1	Very shallow to shallow, well to somewhat excessively drained, reddish brown to dark brown sandy loam to clayloam. Undulating to hilly.	Eutric Regosol lithic
B1a	As B1, but almost flat.	Eutric Regosol
B1b	As B1, but calcareous.  Shallow to mod. deep, well drained, red to strong brown sandy loam to clayloam.	Calcaric Regosol  Chromic Luvisol
B2	Undulating to rolling (mainly on dolerites).	partly petric and lithic
В3	Mod. deep to deep, mod. well to well drained, red to strong brown sandy loam to clayloam.  Almost flat to undulating (on dolerites).	Chromic Luvisol
B4	Mod. deep to deep, mod. well to well drained, reddish brown to red sandy clayloam.  Almost flat to undulating (on dolerites).	Chromic Calcic Luvisol
B5	Mod. deep to deep, mod. well to well drained, reddish brown to strong brown sandy clayloam to clay. Undu lating to rolling (on basalt).	Chromic Luvisol
B5a	Shallow to mod. deep, well drained, reddish brown to strong brown sandy clayloam to sandy clay. Undulating to rolling (mainly on basalt).	Chromic Luvisol partly petric, some lithic
B5b	As B5a, but with Cambic horizon.	Chromic Cambisol
B5c B5d	As B5a, but with aridic moisture regime.  As B5b, but with aridic moisture regime.	Luvic Xerosol  Haplic Xerosol
B6	Mod. deep to deep, mod. well to well drained, dark brown to reddish brown clayloam to clay.  Undulating to rolling (on basalt).	Calcic Luvisol
B6a	Shallow to mod. deep, well drained, dark brown to reddish brown clayloam to clay.	Calcic Luvisol
	Undulating to rolling (on basalt).	Calcic Cambisol
B6b	As B6a, but with cambic horizon.	partly petric, some lithic  Calcic Luvic Xerosol
B6c	As B6a, but with aridic moisture regime.	partly petric, some lithic
B6d	As B6b, but with aridic moisture regime.  Very deep, mod, well to well drained, red to yellowish red sandy clayloam.	partly petric, some lithic
B7	Flat to undulating  Mod. deep to deep, imperfectly drained, dark brown to dark reddish brown sandy clay to clay.	Chromic Vertisol
B8 B9	Almost flat.  Mod. deep to deep, poorly to imperfectly drained, very dark grayish brown to black clay.	Pellic Vertisol
	Flat to almost flat.	partly sodic
	C (or LC)-SOILS ON HIGHLY CACAREOUS MATERIALS  Very shallow (less than 10 cm), mod, well to well drained, brown to dark grayish brown loamy sands to clayloam.	
C1	Flat to undulating.	
C1a	Very shallow, imperfectly to well drained, very dark gray to dark brown sandy loam to clayloam.  Flat to undulating.	Rendzina litho-petrocalcic
C2	Very shallow to shallow, imperfectly to well drained, dark grayish brown to brown sandy loam to clayloam.  Flat to undulating.	Calcaric Regosol litho-petrocalcic
СЗ	Very shallow to shallow, mod. well to well drained, dark yellowish brown to reddish brown sands to loamy sands. Flat to undulating.	Petrocalcic Arenosol litho-petrocalcic
СЗа	As C3, but poorly to imperfectly drained.	Petrocalcic Arenosol litho-petrocalcic
СЗЬ	Mod. deep, mod. well to well drained, (light) grayish brown to dark yellowish brown sands to loamy sands. Flat to undulating.	Calcic Arenosol
C4	Shallow to mod. deep, imperfectly to well drained, very dark gray to reddish brown sandy loam to clayloams.	Calcic Cambisol
C4a	As C4, but with aridic soil moisture regime.	Calcic Xerosol
	Shallow to mod. deep, mod. well to well drained, dark yellowish brown to yellowish red sandy loam to clayloam.	Calcic Luvisol
C5 C5a	Flat to undulating.  As C5, but with aridic soil moisture regime.	partly petrocalcic  Calcic Luvic Xerosol
300	D-SOILS ON FINE-GRAINED SEDIMENTARY ROCKS	TO T
D1	Very shallow to mod. deep, well drained, yellowish brown to reddish brown sandy loam to clayloam.	Dystric Regosol
D1	Undulating to hilly.	petric, partly lithic  Eutric Regosol
D1a	As D1.	petric, partly lithic  Calcaric Regosol
D1b	As D1.	petric, partly lithic
D1c	Very shallow to moderately deep, well to mod. well drained, yellowish brown to reddish brown sandy clays to clay. Almost flat to undulating.	petric, partly lithic
D2	Moderately deep, well drained, yellowish red to brown sandy loams.  Flat to undulating	Ferric Luvisol petric, partly petroferric
D3	Deep to very deep, well drained, yellowish red sandy loam. Flat to undulating.	Ferric Acrisol
D4	Deep, mod. well to well drained, pale brown to yellowish red loams. flat to undulating.	Ferric Acrisol/Luvisol
D5	Mod. deep to deep, mod. well drained, reddish brown to strong brown sandy loam to sandy clayloam.  Flat to slightly undulating.	Ferric/Chromic Livisol partly petric
D5a	Deep to very deep, mod. well drained, reddish yellow to yellowish red sandy loams and sandy clayloams. Flat to slightly undulating.	Chromic/Ferric Luvisol
D6	Mod. deep, mod. well to well drained, reddish brown to yellowish red sandy loams and sandy clayloams.	Ferric Luvisol Acrisol
	Undulating to hilly.  Massive, mod. deep to deep, mod. well drained, dark brown to yellowish brown sandy loams to clayloams.	Ferric/Orthic Luvisol
D7 D7a	Flat to slightly undulating.  Massive, deep, imperfectly to mod. well drained, dark brown to yellowish brown sandy clays.	Orthic Luvisol
U/d	Flat to almost flat.	partly petroferric
D7b	Massive, deep, imperfectly to mod well drained, yellowish red to red sandy clays.  Flat to slightly undulating.	Chromic Luvisol

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	D-SOILS ON FINE-GRAINED SEDIMENTARY ROCKS	
D7c	Massive, mod. deep to very deep, imperfectly to well drained, brown to red sandy clayloams to sandy clays.  Flat to slightly undulating	Ferric Acrisol partly petroferric
D8	Deep, mod. well drained, yellowish red to red sandy clayloam to sandy clay. Flat to undulating.	Chromic Luvisol
D9	Deep, mod. well drained, reddish brown to dark yellowish brown sandy clayloam to sandy clay. Flat to undulating.	Calcic Luvisol
D9a	As D9, but with petrocalcic horizon.	Calcic Luvisol petrocalcic
D10	Very deep, mod. well to well drained, red sandy loams to sandy clayloams.	Eutric Nitosol/Ferric Luviso
	G- SOILS ON ACID IGNEOUS AND METAMORPHIC ROCKS	
G1	Very shallow to shallow, mod. well to somewhat excessively drained, grayish brown to yellowish red sands to sandy loam. Undulating to rolling.	Dystric Regosol lithic
G1a	As G1	Eutric Regosol
G1b	Mod. deep, mod. well to well drained, dark grayish brown to reddish brown sands to sandy loams.  Almost flat to rolling.	Dystric Regosol shallow petric
G1c	As G1b.	Eutric Regosol shallow petric
G1d	As G1b.	Calcaric Regosol shallow petric
G1e	Very shallow, well to somewht excessively drained, grayish brown to brown sand to sandy loam. Undulating.	Lithosol
G2	Mod. deep to deep, mod. well to well drained, dark grayish brown to reddish brown loamy sands.  Almost flat to undulating.	Dystric Regosol petric, some petroferric
G2a	As G2.	Eutric Regosol petric
G2b	Mod. deep to deep, mod. well to well drained, brown to yellowish red sandy loams.  Almost flat to undulating	Ferralic Cambisol petric
G2c	Almost flat to undulating.  Mod. deep, mod. well to well drained, strong brown to red sandy loam to sandy clayloam.  Undulating	Chromic Luvisol
G2d	Undulating.  As G2c, and including grayish brown.	Ferric Luvisol
G2e	As G2c/G2d, but with aridic soil moisture regime.	petric or petroferric  Luvic Xerosol
	Mod. deep to deep, imperfectly to mod. well drained, pale brown to (light) gray massive sands to loamy sands.	Albic Arenosol
G3	Flat to slightly undulating.	some petroferric;
G3a	As G3, but including sandy loams and partly gravelly.  Mod. deep to very deep, well to somewhat excessively drained, strong brown to yellowish red sands to loamy sands.	partly petric or petroferri Ferralic Arenosol
G4	Almost flat to slightly undulating.	some petroferric
G5	Mod. deep to deep, mod. well to well drained, yellowish red to yellowish brown sandy loams to sandy clayloams.  Almost flat to undulating.	partly petric or petroferr
G6	Mod. deep to deep, mod. well to well drained, red to reddish yellow loamy sands to sandy loams.  Almost flat to undulating.	Ferric Luvisol (mostly Arenic -) partly petric or petroferr
G6a	Mod. deep to deep, mod. well drained, red to yellowish red sandy clayloams to clay.  Almost flat to undulating.	Ferric Luvisol partly petric or petroferr
G6b	As G6/G6a but with aridic soil moisture regime.	Luvic Xerosol partly petric or petroferr
G7	Mod. deep to deep, imperfectly to mod. well drained, brown to dark grayish brown (almost) massive sandy loams to sandy clayloams.  Flat to slightly undulating.	Orthic/Ferric Luvisol petroferric or petric
G8	Mod. deep to deep, mod. well to well drained, yellowish red to red sandy loam to sandy clayloam.  Almost flat to undulating	Chromic Luvisol petric
G9	Deep to very deep, mod, well to well drained, yellowish red to (dark) red sandy clayloam to sandy clay.  Almost flat to undulating.	Chromic Luvisol
G10	Deep to very deep, imperfetly to mod. well drained, yellowish red to strong brown sandy clayloam to clay. Flat to almost flat.	Chromic Luvisol
G10a	As G10, but (dark) brown and imperfectly drained.	Orthic Luvisol
G10b	As G10.	Ferric Luvisol
G11	Deep, imperfectly to mod, well drained, gray and red to yellowish red mottled sandy to sandy clayloam.  Flat to slightly undulating.	Plinthic/Ferric Luvisol
G12	Mod. deep to deep, poorly to imperfectly drained, dark grayish brown to dark gray sandy loam to clay.  Flat.	Gleyic Luvisol
G13	Mod. deep to deep, imperfectly to well drained, dark grayish brown to dark reddish brown sandy loam to sandy clay. Flat to undulating.	Calcic Luvisol
G13a	As G13, but with petrocalcic horizon.	Calcic Luvisol petrocalcic
G13b	As G13, but with aridic soil moisture regime.  Very deep, mod. well to well drained, yellowish red to dark red sandy clayloam to sandy clay.	Calcic Luvic Xerosol
G14	Almost flat to gently sloping (pediments, also some terraces).	Eutric Nitosol
G15	Deep to very deep, poorly to imperfectly drained, pale brown to light gray loamy sand topsoils abruptly overlying yellowish brown to strong brown sandy clay to clay subsoils.  Flat to gently sloping.	Solodic Planosol sodic
G16	Deep to very deep, poorly to imperfectly drained, dark gray to grayish brown sandy clayloam to sandy clay.  Flat to almost flat.	Gleyic Solonetz
11	Very deep, very poorly drained, very dark grayish brown to olive siltloam to silty clayloam.	Glevic Solonobak
L1	Flat.  Very deep, very poorly drained, very dark grayish brown to drive shitidam to sitty clayidam.  Very deep, very poorly drained, greenish gray silty clay to clay.	Gleyic Solonchak
L2	Flat.	Gleyic Solonchak Gleyic Solonchak
L2a	As L2, but with duripan in the upper part.  Very deep poorly drained very dark gravish brown to light clive gray loam to clay.	duripan
L3 L4	Very deep, poorly drained, very dark grayish brown to light olive gray loam to clay.  Deep to very deep, poorly drained, light gray to light yellowish brown to dark grayish brown siltloam to silty clayloam.	Takyric Solonchak  Orthic Solonchak
L5	Deep to very deep, poorly to moderately well drained, light olive brown to pale yellow fine sand to loamy fine sand, highly calcareous.	
	Flat to slightly undulating.	Calcaric Gleysol
L6	Very deep, poorly drained, (very) dark gray sandy clay to clay.  Flat.	partly sodic
L7	As L6.	Eutric Gleysol partly sodic
L8	Very deep, very poorly to poorly drained, light yellowish brown to olive gray stratified complexes of coarse sand to silt to clay. Flat.	Calcaric Fluvisol partly saline, sodic
L8a	As L8, but high salinity.	Calcaric Fluvisol saline
L9	As L8	Eutric Fluvisol

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	L-SOILS ON LACUSTRINE DEPOSITS	
L10	Deep to very deep, well to somewhat excessively drained, brown to pale brown fine sand to loamy fine sands. Undulating.	Calcaric Arenosol
L11	As L10, but with calcic hor., calcareous between 0-50 cm.	Calcic Arenosol
L11a	Almost flat to undulating.  As L11, but non calcareous between 0-50 cm.	Calcic Arenosol
L12	Moderately deep, well to somewhat excessively drained, light brownish gray to very pale brown fine sand to loamy fine sand, massive calcrete at mod. depth, calc. 0-50 cm.  Flat to slightly undulating.	Petrocalcic Aenosol
L12a	As L12, but instead of massive calcrete, relatively thin petrocalcic intercalated, calcareous between 0-50 cm.	Petrocalcic Arenosol
L12b	As L12, but non calcareous between 0-50 cm.	Petrocalcic Arenosol
L13	Deep to very deep, moderately well to well drained, grayish brown fine sandy loam to silty clayloam.  Flat to undulating.	Calcaric Regosol
L13a	As L13, but with duripan.  Deep to very deep, mod. well to well drained, grayish brown fine sandy loam to clayloam, with calcic horizon.	Calcaric Regosol duripan
L14	Flat.	Calcic Cambisol
L14a	As L14, but with aridic soil moisture regime.	Calcic Xerosol  Calcic Cambisol
L14b	As L14, but with duripan.	duripan
L15	Mod. deep, mod. well to well drained, grayish brown to pale brown fine sandy loam to silty loam.	Calcic Cambisol petrocalcic
L15a	As L15, but with aridic soil moisture regime.	Calcic Xerosol petrocalcic
L16	Very deep, well to somewhat excessively drained, brown to pale brown fine sand to loamy fine sand, non calcarious between 0 and 100 cm. Undulating, dunes.	Eutric Arenosol
L16a	As L16, but calcareous between 50 and 100 cm.	Eutric Arenosol
L17	Deep to very deep, imperfectly to well drained, very dark grayish brown to brown fine sandy loam.	Eutric Regosol
L18	Very deep, poorly drained, very dark grayish brown to (dark) brown sandy clayloam to clay. Flat.	Gleyic Cambisol
LI9	Very deep, imperfectly drained, very dark grayish brown to (dark) brown sandy clayloam to clay. Flat.	Calcaric Cambisol
L20	As L19, but having calcic horizon.	Calcic Cambisol
L21	Very deep, poorly drained, pale brown to olive silty clayloam to clay. Flat.	Orthic Solonetz saline, sodic
L22	As L21, but less sodic.	Orthic Luvisol
L23	Deep to very deep, poorly to imperfectly drained, dark gray to grayish brown sandy clayloam to clay.	Gleyic Luvisol partly sodic and saline
L24	Very deep, imperfectly drained, very dark grayish brown to brown sandy clayloam to clay.	Calcic Luvisol
R	R- VERY SHALLOW SOILS ON STEEP HILLS, RIDGES AND ESCARPMENTS	
	S (or KS, LS) - SOILS ON COARSE-GRAINED SEDIMENTARY ROCKS	
S1	Very shallow to shallow, excessively drained, yellowish red to yellowish brown sands and loamy sands. Undulating to hilly.	Ferralic Arenosol
S1a	Moderately deep, somewhat excessively drained, yellowish red to yellowish or dark reddish brown sands and loamy sands. Undulating to hilly.	
S1b	Shallow to moderately deep, somewhat excessively drained, brownish yellow to yellowish red sands and loamy sands. Undulating to hilly.	Arenic Eutric Regosol
S2	Deep to very deep, well to somewhat excessively drained, very pale brown to (light) gray E horizon (to at least 50 cm depth) over pale brown to yellowish brown sands and loamy sands. Flat to undulating.	
S3	Deep to very deep, well to somewhat excessively drained, yellowish brown (but with chroma of more than 4) to yellowish red fine sands. Flat to undulating.	Ferralic Arenosol
S3a	As S3, but red (redder than 4YR).	Ferralic Arenosol
S4	Deep to very deep, somewhat excessively drained, reddish brown to brownish yellow medium to coarse sands and loamy sands. Flat to undulating.	Ferralic Arenosol
S5	Deep to very deep, well to somewhat excessively drained, red to strong brown fine sands to loamy fine sands.	Ferralic Arenosol
S5a	Flat to undulating.  As S5, but showing lamellae of clay accumulation.	Luvic Arenosol
S5b	As S5a, but dark grayish brown.	Luvic Arenosol
S6	Deep to very deep, somewhat excessively to excessively drained, red to yellowish brown fine sands and loamy fine sands. Undulating to rolling, dunes.	Ferralic Arenosol
S6a	As S6, but showing lamellae of clay accumulation.	Luvic Arenosol
<b>S7</b>	Deep to very deep, well to somewhat excessively drained, red to strong brown loamy fine sand. Flat to undulating.	Arenic Ferric Luvisol
S7a	As S7, but aridic moisture regime.	Arenic Luvic Xerosol
S8	Deep to very deep, somewhat excessively to excessively drained, red to yellowish red loamy fine sand. Undulating to rolling, dunes.	Arenic Ferric Luvisol
S8a	As S8, but aridic moisture regime.	Arenic Luvic Xerosol
S9	Deep to very deep, somewhat excessively drained, red to strong brown loamy sands to sandy loams. Flat to undulating	Arenic Ferric Acrisol
S9a	As S9, but aridic moisture regime.	Arenic Luvic Xerosol
S10	Deep to very deep, well to somewhat excessively drained, red to yellowish red loamy fine sands over sandy laoms.	Arenic Ferric Luvisol
S10a	As S10, but aridic moisture regime.	Arenic Luvic Xeroso!
S11	Very deep, well to somewhat excessively drained, red to yellowish red and dark brown loamy fine sands to fine sandy loams Flat to undulating.	Arenic Eutric Nitosol
S11a	As S11, but aridic moisture regime.	Arenic Luvic Xerosol
S12	Deep to very deep, well to somewhat excessively drained, yellowish red to yellowish brown loamy sands to sandy loams.	Arenic Calcic Luvisol
S12a	As S12, but aridic moisture regime.	Arenic Calcic Luvic Xero
S13	Moderately deep to very deep, well to somewhat excessively drained, yellowish red to grayish brown sands and loamy sands, having a calcic hor, within 125 cm. Flat to undulating.	Calcic Arenosol
S13a	As S13, but having a petrocalcic hor, within 125 cm.	Petrocalcic Arenosol
S14	Very deep, well to somewhat excessively drained, red to yellowish red fine loamy sands over sandy clayloam. Dunes.	Eutric Nitosol/Ferric Luvi
S14a	As S14, but aridic moisture regime.  Deep to very deep, well to somewhat excessively drained reddish vellow to (vellowish) brown fine sands to loamy fine sands.	Arenic Luvic Xerosol
S15	Deep to very deep, well to somewhat excessively drained, reddish yellow to (yellowish) brown fine sands to loamy fine sands (calcareous between 20, and 50 cm, or having soft powdery lime within 125 cm). Flat to undulating.  Deep to very deep, somewhat excessively drained, light yellowish brown to dark grayish brown fine sands to loamy fine	Calcaric Arenosol
S16	Deep to very deep, somewhat excessively drained, light yellowish brown to dark grayish brown line sands to loamy line sands. Flat to undulating.  Deep to very deep, well to somewhat excessively drained, light yellowish brown to dark grayish brown fine sands to loamy	Dystric Arenosol
S17	fine sands (non calcareous between 50 and 100 cm). Flat to undulating.	Editic Arenosol
S17a	As S17, but durings phase	Eutric Arenosol
S17b	As S17, but duripan phase.  As S17, but medium to coarse sands to loamy sands.	duripan
S17c	As \$17, but medium to coarse sands to loamy sands. Flat to undulating, low ridges.	Eutric Arenosol