01/16/2007: Replace pages 443 and 444, MINERALOGY CODES, with the following.

SOIL SURVEY LABORATORY CODES FOR MINERALS, MINERALOIDS, AND ROCKS

Resistant Minerals

AE = Anatase
AN = Andalusite
BY = Beryl
CD = Chalcedony (Chert, Flint, Jasper, Agate, Onyx)
CE = Cobalite
CH = Cliachite (Bauxite)
CN = Corundum
CR = Cristobalite
CT = Cassiterite
DI = Diatoms
FE = Iron Oxides (Goethite, Magnetite, Hematite, Limonite)
GD = Gold
GE = Goethite
GI = Gibbsite
GN = Garnet
HE = Hematite
HS = Hydroxy-Interlayerd Smectite
HV = Hydroxy-Interlayered Vermiculite
KK = Kaolinite
KY = Kyanite
LE = Lepidocrocite
LM = Limonite
LU = Leucoxene
MD = Resistant Mineraloids
MG = Magnetite
MH = Maghemite
MZ = Monazite
OP = Opaques
OR = Other Resistant Minerals
PO = Plant Opal
PN = Pollen
QC = Clay-Coated Quartz
QI = Iron-Coated Quartz
QZ = Quartz
RA = Resistant Aggregates
RE = Resistant Minerals
RU = Rutile
SA = Siliceous Aggregates
SL = Sillimanite
SN = Spinel
SO = Staurolite
SP = Sphene
SS = Sponge Spicule
TD = Tridymite
TM = Tourmaline
TP = Topaz
ZR = Zircon

Weatherable Minerals

AC = Actinolite
AF = Arfvedsonite
AG = Antigorite
AH = Anthophyllite
AI = Aegerine-Augite
AL = Allophane
AM = Amphibole
AO = Aragonite[1]
AP = Apatite
AR = Weatherable Aggregates
AU = Augite
AY = Anhydrite[1]
BA = Barite
BC = Biotite-Chlorite
BE = Boehmite
BG = Basic Glass
BK = Brookite
BR = Brucite
BT = Biotite
BZ = Bronzite
CA = Calcite[1]
CB = Carbonate Aggregates[1]
CC = Coal
CL = Chlorite
CM = Chlorite-Mica
CO = Collophane
CY = Chrysotile
CZ = Clinozoisite
DL = Dolomite
DP = Diopside
DU = Dumortierite
EN = Enstatite
EP = Epidote
FA = Andesite
FB = Albite
FC = Microcline
FD = Feldspar
FF = Foraminifera
FG = Glass-Coated Feldspar
FH = Anorthoclase
FK = Potassium Feldspar
FL = Labradorite

FM = Ferromagnesium Mineral
FN = Anorthite
FO = Oligoclase
FP = Plagioclase Feldspar
FR = Orthoclase
FS = Sanidine
FU = Fluorite[1]
FZ = Feldspathoids
GA = Glass Aggregates
GC = Glass-Coated Grain
GG = Galena
GL = Glauconite
GM = Glassy Materials
GO = Glaucophane
GS = Glass
GY = Gypsum[1]
HA = Halite[1]
HB = Hydrobiotite
HG = Glass-Coated Hornblende
HN = Hornblende
ID = Iddingsite
IL = Illite (Hydromuscovite)
JO = Jarosite
KH = Halloysite
LA = Lamprobolite
LC = Analcime[1]
LI = Leucite
LO = Lepidomelane
LP = Lepidolite
LT = Lithiophorite
MC = Montmorillonite-Chlorite
ME = Magnesite[1]
MI = Mica
ML = Melilite
MM = Montmorillonite-Mica
MR = Marcasite
MS = Muscovite
MT = Montmorillonite
MV = Montmorillonite-Vermiculite
NE = Nepheline
NJ = Natrojarosite
NX = Non-Crystalline
OG = Glass-Coated Opaque
OV = Olivine
OW = Other Weatherable Minerals
PA = Palagonite
PD = Piemontite
PG = Palygorskite
PI = Pyrite
PJ = Plumbjarosite
PK = Perovskite
PL = Phlogopite
PM = pumice
PR = Pyroxene
PU = Pyrolusite
PY = Pyrophyllite
QG = Glass-Coated Quartz
RB = Riebeckite (Blue Amphibole)
RO = Rhodochrosite
SC = Scapolite
SE = Sepiolite
SG = Sphalerite
SI = Siderite
SM = Smectite
SR = Sericite
ST = Stilbite[1]
SU = Sulphur
TA = Talc
TE = Tremolite
TH = Thenardite[1]
VC = Vermiculite-Chlorite
VH = Vermiculite-Hydrobiotite
VI = Vivianite
VM = Vermiculite-Mica
VR = Vermiculite
WE = Weatherable Mineral
WV = Wavellite
ZE = Zeolite[1]
ZO = Zoisite

Glass Count Minerals and Mineraloids[2]

Volcanic Glass Grains[3]	Organic Origin Grains[4]	Other Grains
BG = Basic Glass	DI = Diatoms	OT = Other
FG = Glass-Coated Feldspar	PO = Plant Opal	
GA = Glass Aggregates	SS = Sponge Spicule	
GC = Glass-Coated Grain		
GM = Glassy Materials		
GS = Glass		
HG = Glass-Coated Hornblende		
OG = Glass-Coated Opaque		
PA = Palagonite		
PM = Pumice		
QG = Glass-Coated Quartz		

[1]Minerals not included as "weatherable minerals" as defined by Soil Taxonomy (Soil Survey Staff, 1999) - "the intent is to include only those weatherable minerals that are unstable in a humid climate compared to other minerals such as quartz and 1:1 lattice clays, but are more resistant to weathering than calcite". This group of minerals is not part of the calculation for percent resistant minerals used in the siliceous family mineralogy class or percent weatherable minerals used as criteria for oxic horizon but are included in the calculation of "total resistant minerals" on the SSL mineralogy data sheet. Therefore, the value on the data sheet should be recalculated for strict use in Soil Taxonomy criteria if these minerals (e.g., calcite) are present in the grain count of a selected horizon.

[2]Minerals on this list are identified during the "glass count" procedure of the Soil Survey Laboratory during the quantification of particle size separates in the sand-silt fraction. Minerals in the "OT" category are other weatherable or resistant minerals that would be quantified during a "full grain count".

[3]Minerals and mineraloids in this column are all considered weatherable according to the Soil Survey Laboratory and are defined in Keys to Soil Taxonomy, Tenth Edition, 2006, as being "volcanic glass". The percentages of these minerals are summed as "volcanic glass" and used in the criteria for andic soil properties and in other criteria as defined in Soil Taxonomy.

[4]Mineraloids included in this list are regarded are resistant minerals according to the Soil Survey Laboratory and included in the calculation of "total resistant minerals" on the laboratory datasheet.