Soil pit description: PR02

Images:	PR02_01.jpg, PR02_02.jpg
Soil class:	Zetek
Map unit:	Z
Location:	15 m N of marker 24, Zetek Trail, ca 50 m E from lake shore
Site position:	Midslope
Slope:	3%, linear, aspect 270^{o}
Parent material:	Caimito marine sedimentary facies colluvium
Forest structure:	Patchy open canopy, moderately thick understory, many palms
Litter:	95% cover, 3 layers, 1 – 2 cm root mat
Outcrops:	None
Stones:	None
Cracks:	None
Microrelief:	None
Faunal activity:	None
Other surface features:	None

Horizon [cm]		Samples [cm]
0 - 5	7.5YR 3/2 (dark brown); no mottles; clay loam; strong fine subangular blocky - crumb, including many medium worm casts; no cutans; many medium pores; dry & friable; many fine & medium tree roots; few fine quartz gravel; few fine black ferrimanganiferous concretions; common medium charcoal in clusters; clear regular boundary to:	[0-5]
5 - 16	7.5YR 4/4 (brown); no mottles; clay loam; strong fine subangular blocky breaking to strong fine crumb; no cutans; many coarse pores; slightly dry & slightly friable; common fine & medium tree roots; few medium subangular quartz stones; many fine black ferrimanganiferous concretions; no charcoal; clear regular boundary to:	[5-15]
16 - 44	7.5YR 3/3 (dark brown) with many medium distinct light orange mottles; silty clay (loam); weak medium fine subangular blocky breaking to moderate fine crumb; weak discontinuous clayskins; common coarse pores; slightly moist & slightly firm; few fine & medium tree roots; few fine quartz & few fine black-coated stones; many fine black ferrimanganiferous concretions; no charcoal; clear regular boundary to:	[16-25] [25-35] [35-44]
44 - 76	10YR 5/6 (yellowish brown) with many fine faint light orange mottles; gritty silty clay; moderate fine subangular blocky breaking to moderate fine crumb; moderate continuous clayskins; few medium pores; slightly dry & slightly firm; few fine tree roots; common very coarse (to 50+ cm) boulders with white coatings & many coarse black-coated stones; many fine &medium black ferrimanganiferous concretions; patches with common fine & medium charcoal; clear regular boundary to:	[45-55] [55-65] [65-75]
76 - 116	5Y 7/2 (light grey) with many medium distinct 10YR 4/6 (dark yellowish brown) mottles; silty clay; weak medium subangular blocky breaking to moderate fine subangular blocky - crumb; moderate continuous clayskins; no pores visible; slightly moist & firm; few fine tree roots; common very coarse (to 50+ cm) boulders & many coarse orange stones; many fine & medium black ferrimanganiferous concretions; no charcoal; diffuse boundary to:	[76-85] [85-95] [95-105] [105-115]
116 - 160	Gley 1 7/10Y (Light greenish grey) with many medium distinct 7.5R 4/4 (dark red) mottles; silty clay loam; moderate medium subangular blocky breaking to moderate fine subangular blocky - crumb; moderate continuous clayskins; few fine pores; slightly moist & firm; few – co0mmon fine & medium tree roots; few coarse boulders; no concretions; no charcoal; diffuse boundary to:	[115-125] [125-135] [135-145] [145-155]
160 - 230	Gley 1 8/5 GY (Light greenish grey) with many medium prominent dark red mottles; clay; slightly moist & slightly firm& sticky; few fine patches soft orange weathered rock	None
230 - 250	Gley 1 7/10Y (Light greenish grey) with many medium prominent dark red mottles; clay; slightly moist & slightly firm, common medium patches soft orange weathered rock; few fine black ferrimanganiferous concretions	None
250 - 265	Gley 1 8/10Y (Light greenish grey) with many medium distinct dark red mottles; sandy clay loam; slightly moist & slightly firm; many medium patches soft orange weathered rock	None
265 - 300	Gley 1 8/10Y (Light greenish grey) with many medium distinct dark red mottles; sandy clay; slightly moist & slightly firm; common medium patches soft orange weathered rock	None
300 - 330	5Y 8/2 (white) with many medium prominent 7.5R 4/4 (dark red) mottles; sandy clay; slightly moist & slightly firm; few fine patches soft orange weathered rock	None
330 - 350+	As above but frequency & size of weathered rock patches increases to many medium	None

Correlations

Catapan (1970):

O T M-N Cf 1
M C 1 0

World Reference Base: Vertic Hyperdystric Gleyic Alisol

Soil Taxonomy: Vertic Oxyaquic Hapludult

Features: The topsoil appears quite well drained with brownish colours, secondary crumb structures and slightly firm consistence. Erratic textural profile and drift boulders indicate parent material is colluvial. The colour, textural and consistence boundary at 76 cm is distinct. This is one of the most base-deficient and highly Al-saturated profiles seen on the island, with subsoil BS & EBS both consistently below 10%. The chemical properties do not change distinctly at the morphological boundary at 76 cm. Unequivocal Alisol.