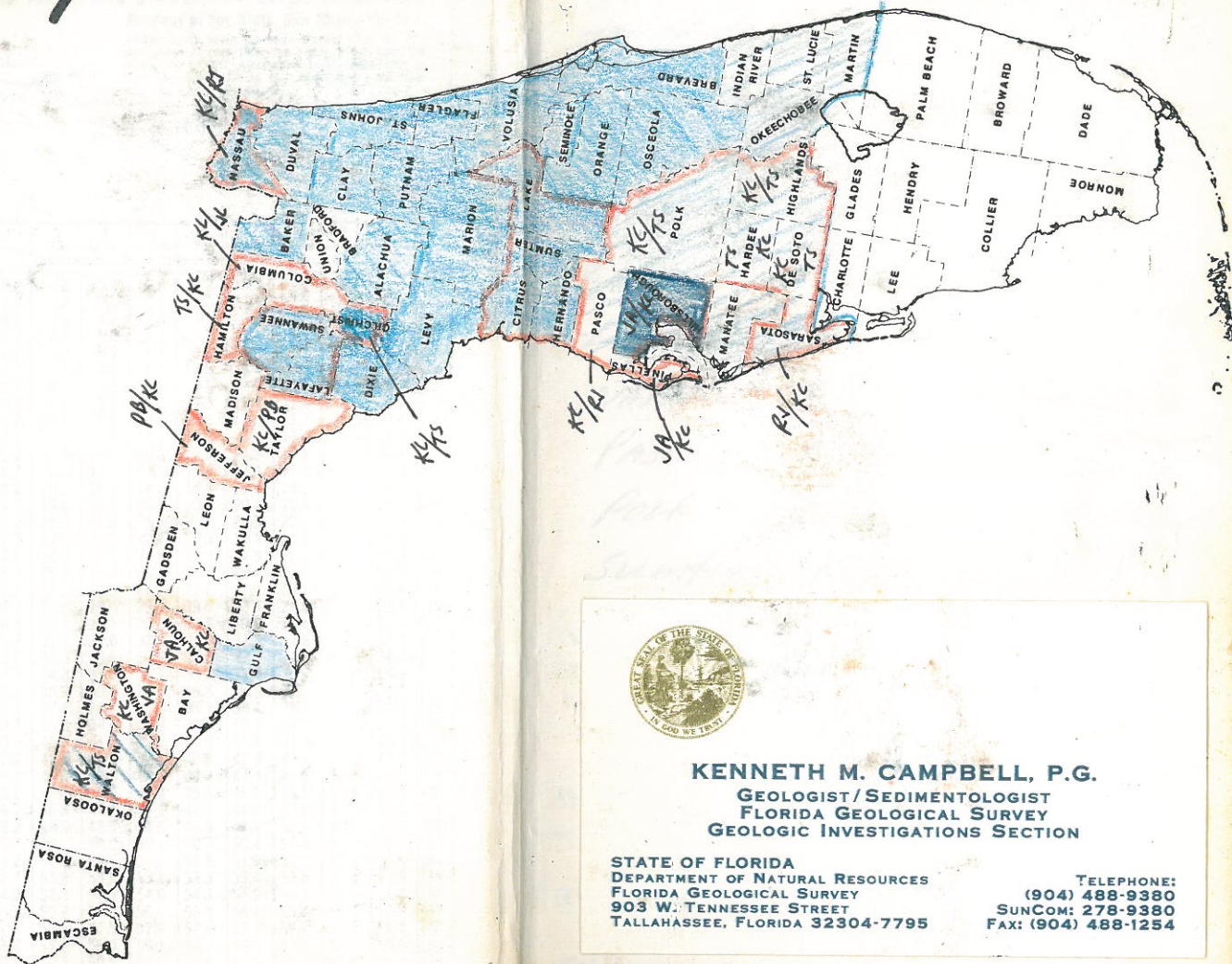


CAMPBELL 1

GEOLOGIC MAP

HILLSBOROUGH
WALTON
PINELLAS
CITRUS CO.
HERNANDO
SUMTER
NAASAU
GIBCHRIST

Campbell



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Citrus Co. PP 1-18
 Hernando Co. 21-25
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W#s - Hillsborough
 99 16456, 15494 HL
 100 8197, 624 "
 101 1604, 1765, 1857 "
 103 2574, 2664 "
 104 2699, 2671, 2760, 2921 HL
 105 3338, 3429, 3625 HL
 106 4637, 4802, 5099 "
 107 5363, 5524, 5662 "
 108 5670, 5671, 5718, "
 109 5943, 5937, 6014 "
 110 6536, 7032, 7795
 111 9019, 9021, 9025
 112 9028, 9030, 9035
 113 9037, 9038, 9040
 10628
 114 11338, 11780, 12198
 115 12252, 13499, 13179
 13184
 116 13250, 13288, 13377
 13494
 117 13495, 13510, 13580
 118 13838, 13935, 14113
 119 14548, 15156, 15283

PRD 15643

121 14274, 14191
 13518, 13261
 122 10673, 8702
 6982
 123 5800, 5498
 4259, 4084
 124 2358, 2178
 2158, 16268

Citrus Co. Geologic Map proj.

6-1-86 TS/KC

NOTE for Levy Co.:

At Long Pond - Q₇ or CANAL
 under construction ~ 1 mile east
 of Hwy 19.

Citrus Co. localities

6-8-86

Ci-1 : T175, R15, sec ¹³ 66d
 on N side of barge canal
 at western most end.
 Inglis ls. overlain by ~ .5' sd.

Ci-2: T 17S, R 16E, sec 18 ddb
1 mile east of Ci-1. Inglis Ls.
no overlying sediment.

Ci-3: T 17S, R 16E, sec 17 da
Ei overlain by 1-2' sd.

Ci-4: T 17S, R 16, sec 9, d cen.
south edge. Ei from
water line to ground surface
~ 8'

Ci-5: at west edge of canal
spur: Ei to grd. surface
1 photo of cobbly Inglis Ls.

2 photos of soft sed deformation in
vicinity of Coast Reg. office (Ei bould)

Ci-6: 200' west of Hwy 19
bridge, N side of Barge
canal. 4-5' sd overlying
Ei. dolomite (Eap?)
begins at water line.

T 17S, R 16E, SEC 11 C6C

M-4800

Ci-7: boat basin at public
launch ramp, S side of B. Canal
immediately to east of Hwy 19 bridge.
Inglis Ls. exposed 8-10' thick,
3-4' brn dolomite (Eap?)
underlying Inglis to water line.
Contact is sharp, undulatory
and unconformable. 1" thick
black clay layer present
at contact in some portions.
photos.

4
Ci-8: Dolomite cut, S side of
large canal 1/6 mile E of Hwy
19 Bridge: 12-15' dolomite
(Eap?) exposed above water level
- recrystallized, micro moldic,
originally a grain stone.

Ci-9: Approx loc sec 12, T17S,
R 16E. Easternmost extent of
dolomite exposed above canal
water level. ~ 15' sd overlying
dolomite (Eap?) - Two photos
dolomitized calcarenite overlying
thinner bedded and x bedded dolomite.
Sand thickness
increasing from Dolomite cut (Ci-8)
toward the W. side. R.

5
6-2-86 KC/TS
Trace Inglis ls east from
Hwy 19 Bridge: Inglis ls.
pinches out approximately
1/2 way between bridge and
the Dolomite cut (dolomite surface
rising).

Dolomite Monocline Qy: 6 d' sec 12,
T17S, R 16E. Several photos
of cut and fill structures and
x bedding in south wall -
blazen for scale
Several photos of unconformity
at top of dolomite section.
Sand and boulders of Inglis ls.
overlying thin clay lens (T.S.)

indicating ^{underlying} dolosilt.
 Although boulders of Inglis ls.
 are in place, they do not
 form a continuous bed.

- addn. photos unconformity
 SAND w black clayey zone over
 Inglis ls. over thin clay lens
 overlying yellowish clay
 dolosilt.

TS + KC consensus that
 (at this time) that Inglis Fm.
 should be restricted to the
 limestone lithology. Include the
 dolomite barren included in
 Inglis with Eap. based on
 lithologic characteristics. If
 this holds up - unconformity
 marker Ei and Eap contact.

LEvy CO - Inglis (town)
 "type" locality Inglis ls. pit.
 T 17 S, R 16 E, sec 3

T 16 S, R 16 E, sec 34 3/4 mile W
 along common line.

Inglis limestone overlain by
 2-4' SAND.

Reckering
 Ci-9a

Ci-9: Crystal River Quarries
 Red Level pits: active pit
 in north west portion of their
 mine area in sec 25 d, 17 S,
 16 E. Dolomite (Eap) overlain
 by 3-4' sd and clay sd.

Ci-10: T 18 S, R 17 E sec 4 d.e. - wet
 pit: little or no sand cover.

Inglis ls. at surface (apparently
was marsh-wetland etc. - may be
natural fracture) C.R. Quad

Ci-11: T 19S, R 17E, sec 33A

Quarry in NW 1/4 - Ecr
exposed at surface. Hornosassa Quad
~~CR Quad~~

int. hwy 490a and Grand marsh Ave
Ci-12: T 19S, R 17E, sec 26a; ~~26a~~

small old pit - water filled; Ecr
overlain by ~ 2' sd. Cr. exposed
below water level in SW corner
of pit. Hornosassa Quad.

Ci-13: SAND pit, T 20S, R 18E
sec 32 cont. ^N line: 8-10' sd
with recrystallized boulders (Os?)
on float. Chernobovitzka Quad.

Ci-14: inactive ls. qy: T 20S, R 18E
sec 36 sde: Vernon locality
C-108; highly recrystallized
Os, little or no sand cover.
Brooksville NW Quad.

HERNANDO CO

T 21S, R 19E, 56 cont. a,
on Forest Road #24: Os
boulders exposed at surface.

T 21S, 18E, sec 13 on E line
~ 200' north of Hebron Church
Os outcrops in road cut, ~

2 ft. overlying sd. B. Ville NW
Quad

M-4742

Ci-15: Abandoned ls. qy

T20S, R19E sec 21 cor 5 1/2

Os, essentially no sd overlying.

Vernon locality C-102, B. Ville NW

Quad.

M-4802

Ci-16: small sinkhole on E

side of FR 13; T20S, R19E,

sec 17; approximately 8-10'

Ecr exposed, Brooksville NW Quad.

Vernon locality C-100.

Ci-17: sec 75^{add}, T20, R19

on both sides of FR. 16,

Ecr - 2' ledge exposed ~50'

down hill from road,

loose boulders at surface

uphill from rd. Secarts quad.

G-3-86 TS/KC

M-4803

Ci-18: sec 30 acc. T20, R18;

SAND pit ~6' deep w/ silicified

Os boulders on float.

Chernohovitzka Quad.

Ci-19: sec 33, T20, R18

sample for granulometric

4' snow crest of large "dune"

on N side of hwy 98 ~ 100 yd

east of powerline, Chessabowitzyka
Quad.

M-4804

Ci-20 Old clay pit: sec 25a
T20, R19: Approximately
6' sd over ~18' red clay sd,
over ~20' grey variably sd
clay & over limestone in
pit bottom - ls is silicified
(opaline) - TPa? yaws post
Sawannee ls? Vernon locality
C-96. Nobleton Quad.

Ci-21: sec 12d, T20, R19:
Old Hamburg Mine, ~~now~~ now
Mutual Mine Recreation Area

15-20' sd overlier white,
clayey (phosphatic?) sd
+ sandy clays (Hartshorn?)
some hardrock phosphate
boulders along waterline.
Inverness Quad.

Ci-22 Horden Mine - sec 26d
T19, R19: ~~grey to tan~~ YB-10'
+ orange slightly clayey sd.

Ci-23: Citrus Co. Central
Landfill: T19, R18 sec 1 sd
east end of active parcel -
0-9' thickness unconsolidated
white sand
12-15' Red clayey sd
~6' White dk clayey sd

~30' section

14
Ci-24: sec 20 lcc, T17.
R 19 - old hard rock phos
phos pit: 20' + red
clg sd.

6-4-86

Ci-25: sec 30 lcc, T17.
R 20, ~150' S of Hwy 200
bridge at Withlacoochee R.
Ew to within 1-2' of
land surface. Some fill
is possible at this loc.
but rock ledges appear to
be in place.

Ci-25a: Marion co side

15
of Withlacoochee R., N of
Hwy 200 bridge. Ew
some "donkey donger"
weathering out but contain
williston Rtho.

M-4805

Ci-26: sec 25 NW 1/4, T 18, R 19,
small sinkhole on exploration
pit: on S side of Spooner
lane, .2 miles E of Hwy 41.
~ 8' unconsolidated sand
overlying limestone ledge 2.5'
high: ls is partially
phosphatized, clg sdg,
phosphatic sdg (amber
grains)

STOKES FERRY Quad

16.
Ci-27: sec 27, T19, R20,
east side of Old Florida
City Rd.: two small pits
Ew to gnd surface, some
handrock phos.

M-4743

Ci-28: sec 19, T20 R20
24 T20 R21

19/24 N 1/4: old ls. 99
Ecr essentially to surface.

Ci-29: sec 2 6d, T21, R20
small sd. pit: irregular
surface - Ecr extends to
gnd. surface in some portion
of the pit - others have
10-15' sd overlying Ecr.

17.
Ci-30: sec 36 CCB, T20, R19:

Small clay pit - 20' + red
~~red clay~~ clay sd, micrystalline
Os boulders lying around but
none outcropping - immediately
to east of Hwy 581

M-4806

Ci-31: Crystal River Quenies
beanto pit - SE CORNER: "Ecr
to top of dy. some small
fragments of Os lithology
in clay sinkhole fill.

Ci-32: Canal beanto pit.
Ecr to ground surface.
sec 32 25d, T18S, R18E
Hemotassa Quad.

Levy Co. - Florida Line +

Dolomite pit ~ int. $\frac{9/10}{10/15}$,

T14, R E16: pockets of
marl ~~to~~ / Inglis ls. 2-4'
overlying Eap. pit in
NE corner of property

Levy Co. - ~~Wacassaw~~ R
at Hwy 19/99 sec 8 dcc

T14, R16. Eap exposed
in river bend to grd. surface.

7-21-86

meet w/ Kim Freedom,
Greg Henderson, John Dekker
+ Jim Clayton (also Tony Gilboy)
as SWFWMD

Examine Ramp CL-3 core

Ramp CL-3

0-126.5' cuttings

0-91.5' Quartz sands
generally clean, trace
heavy minerals, trace
mica

91.5-106.5 dk olive green

clay, gtz silty, sd. micaceous.

106.5-116.5' med.-coarse
quartz sand, trace phos.
some v coarse, some clay on
above.

116.5'-121.5' coarse to v coarse

gtz sd. abundant phos

sd (v coarse) traces of

clay ^{dolomite} cnt 1.

121.5-126.5' as above but dolomite

matrix - top of Alcedia prob.

in this int. top of core at 129.5'

121⁺ ²²³ ^{undif} Top of Arcadian fm.

Dolomite, phosphatic, moldic

223 - ~ 207 Novatze mbr.

~ 227 - 256 Ds grayish brown

ls. bio calcarenite, variably
moldic, moldic porosity

lowest 5' fine grained

calc. & much less porous
calcite cont.

256 - 439.5^{TD} Ecr - pale yl.

known silty calcarenite, poor
to mod indurated, some
moldic porosity, primarily inter
granular, some fossil molds,
common lepis. scales + rollers
fragments floating in mud
matrix.

Below ~ 360' foramin. content
increases - becomes

lep - open lath - very steller

TD

7-22-86 HERNANDO Co.

KE-^{PS}HR-1 : - ON HR-PS line
in pasco co - a.a. sec 6, T 24S
R 16E: sinkhole - 20' + sd.
cover subsidence.

KE-HR-PS-2 in pasco co on
E side of hwy 595 old PASCO Rock Co
pits Ds w 1-2' overburden
loc sec 1 + 12 w central line
T 24S. R 16E (see p 28 for litho
desc.)

KE-HR-3 new deep. CANALS
NE 1/4 sec 24? T 23, R 16E
Ds overlain by ~ 2' sd + much

KC-HR-4 creek bed at Hwy 50
and Mobley Rd. SESE SW sec 20

T22S R19E - clay sd - Mh?

KC-HR-5 (ci)

FRI Radak Hill Dy

Os w var ob. as much
as 30-40' (sd + clay)

sec 3+4 T21S R19

KC HR ci 6

FLA Rock

KC-HR-ci 6 - FL. Rock Ind.

current mine Os (rubble)

with var. clayst & clay ob.

< 20' ob.

KC-HR-7 M-4870

old Camp Dy sec 8+9

T22, R20 (E end)

0-10' ob. then 15' + "part

SWANNEE ls" - clay, gtz sdly

brecciated ls. - spl. collected
from upper surface
also two photos - 1 of weathered

surface, 1 of fresh surface.

see p 29 for spec litho desc.

KC-HR-8 Brooksville Dy (abd),

Os - ~ 20-30' Os rubble

w well mat. Os grainstone cobbles
in a clayey + soft carbonate matrix
underlain by good Os ls.

Dy floor contains abd. clent.

Loc. sec 18 ~~sec~~, T 22S, R 20E

KC-HR-9 Florida Mining + Material

Qy sec 23 d, T 219, R 18E
 ~80' Os with mubby Os
 at top, little o.b.

Ecr under Os w orange
 clay/caliche lens 3-4' thick at
 contact. abundant chert
 primarily in 6-15" thick beds
 photos w/fts standing on contact
 Ralph Shepard Mgr of ENR. Ad.
 Supp.

KC-HR-10 Lansing Qy (abd)

sec 22, T 215, R 19E, (w of RR.)
 Os - 40-70' (~) thick overlies
 Ecr, at least 30-40' Ecr
 exposed. took bunches of
 photos Os/Ecr contact marked
 by yellowish brown layer bed
 as in Fla Mining + Mat. I & N

W. and bench in Ward of
 N wall in at contact.
 (take snow hill rd off of 381)

M-4807

KC-CI-33 SE SE SE sec 21,
 T 183, R 18E small old qy - Os
 at grad surface would expect
 v. thin. HOLDER QUAD

Dolomite min. Barge Canal
 E wall just S of old N cut.
 Exp. exposed at waterline
 ① Dk brown grey saccharine micromorphic
 dolomite mod. undulating
 abundant organic matter as
 blebs + pockets as well as finely
 divided - some thick bed (3)
 underlain by thinner bedded
 dolomite (~ 4-5' thick)

- ② dk greenish gray / black clay dolosilt bed w abd. thin organic stringers ~ 1" thick grayer to lower of with + clay dolosilt or soft dolomite ~ 8"-1' thick overlain by
- ③ rubble dolomite - ~ 1.5-2' thick - ban dolomite clasts mod-well ind in matrix poor to mod ind. - successive micromorphic dolomite.
- ④ hard ledge forming dolomite - base of Inglis? For. mod ind ban. dolomite successive micromorphic contains mollusk molds, periceras lyelli in molds + conoidal / dolomitized apers

lower surface is irregular ~~remainder of section~~
2-4' thick. remainder of Inglis section app ^{20'} thick consists of intermixed hard + soft beds of low thickness + undulation thin beds tend to be x bedded. uppermost 6-8' tends to be v. dolosilty. only thin sd. overlying dolosilty top of Inglis.

soft layers ext. burrowed

see line 7-8 T17, R17

KC-CF#34 - withlacoochee river at Fla Power Corp. dam S side of R ~ 200 yds W of dam Eop with 4-6' sd overlying

28. See B.C. 2, T195R 17E
K6-Ci/20 34a on side of river
VERNON Locality 2-139
~ 3' Ei overlying Eap
~ 3.4' Eap to water level.

KL-Ci-35 - See 24 ddd, T ¹⁷⁵~~176~~
R16E, on E side of rd.
small limestone gy - Ei
at grad surface.

KC-HR-PS-2: sp. filled lime.
ls, v. pale orange, well indurated
calcite cmt, intergranular + moldic
porosity, skeletal + xl grain types.
Re xl grain stone, m mode, F to
granule size, Forams, molluscs,
coral, echinoids, or molds or
partially to completely rexl. ghosts.

Os

29
KC-HR-7 Old Camp on east end,
25., white to v. lt. grey, mod.
induration, calcitic cement,
clay cement, intergranular porosity,
calcitic grain type, ess. no attractors.
v. sl. to sl. gty sdy. This material
is a conglomerate - clasts of above
liths are cemented together with
seams of pale green waxy,
quartz sandy calcareous clay.
Clay is more sandy than ls. clasts.
minor seams of calcite fill.
weathered surface has cobbly
appearance.

Sumter Co

Active Qys

Dixie Lime + Stone

Chuck Rickholt (904) 629-7997
793-2063

T 20S, R 22E sec —

St. Catherine Rock Co. J. Finley (sup)

Leo Herrin (shipping) SA 904

Bill Booth (owner) (904) 793-4526

T 22S, R 21E, S —

Agri Timber Co. Moore - pit supt.

Vic Belote (904) 567-7900

T 25S, R 23E, S 7 dd

Florida Crushed Stone

(904) 787-0608 Johnny Bennett

T 21S, R 23E, sec 16

8-18-86 KC + PR to Sm

Co mp. proj.

M-4857

SM-1 outcrop on w side I 75

~ 200" S of CO 462 overpass

limestone micritized and variably
 recrystallized, 1-2' sd on soil
 overlying lg. ^{ls} large lepidocyclus
 oolite weathering out of some
 gorges, ghosts of next lps &
 opers in some gorges. These
 portions not next are soft
 granular, micritized appear to
 have been pk stone or wk stone
 Ecr? Ew? NE NW SW 28,
 T 18S, R 22E. oxford quad

M-4858

KC-SM-2 small sinkhole

near crest of hill - on SM-MAR.

co line T 18S, 23E sec 6 aab

Ecr essentially at surface -
 sps collected both of silicified Ecr

and now. located just to E
of qy plotted on top

8-19-86

SM-3 canal on N side Hwy 44
campers Cove campground ~150 yd
S. of Wilacochee R.

3' sd / 14' brn sd ^{calcareous} clay
to water level sec 9, T19S
21E. (Shore dry 1ks 1k. limestone)

M-4859

SM-4 ~~EA~~ T19S, R22E, sec 30
and i canal on N side of
Outlet River at Henry's
Marina ~4' sd with
abd. ls pbl + cobbles overlying
Ep. limestone.
Rutland Quad

M-4860

33
SM-5 ST Catherine Pliny Co.

active qy T22S, 21E, sec 1 ac
5-15' ob - sd + clay typically
over Eor limestone - mining

up to ~20' above water table
+ 30-35' below water table

V. Finley Samson (Super)
ST Catherine Quad

M-4861 A-

SM-6 Agatimber Limerock pit
42' Eor and some pass Ew at
base to waterline. 7-10' ob
7' ob where measured (composite sec
of N wall & (0-38') and
S wall 38-~50'. ob is
clay - & w abd. weathered Eor
some silicification + ~8"-1' sd
on soil, ob. runs 0-~8' east
to Coy Moore, T25S, R23E, S7d
Branchborough Quad

M-~~4863~~ 4865

SM-PK-7 - shallow sd pits on
E side of 471; acc 30, T25, R23.
evidently, sd. pits - abundant
silicified ls. float - no rock
showing in place above water
line (n. 5' lsd) - OS float

SM-PK-8 S side of withlacoochee

R. on E side: soft weathered

Ecr in place on E side of
dirt rd to river - 1' soil
overlying Ecr. T25S, R23E
sec 30 AA

SM-LK-9 old clay pit S of
Hwy 50 in db sec 17
T22, R24. Remnant of red
clay sd in place ~13' exp.
w burrows
not casts + fossils, overlies

35

orange + gy clay or sd, clay.
plug was left in place
because a grave site was located
on it. - grave moved since?
mining ceased (used to Anderson)
red clay sd extends to within ~
1.5-2' of LSD
spcs + photos taken

Hyd. Super Ck. Anderson, W.

WRI of R 80-208

1980

M-4864 Bushnell Quad

SM-~~10~~ 10 Fl. Cr. Stone

25-30' ob/Ecr. ~40'-45'
to water level - mining
75-80' below water level.

some very silicified Ecr
w good fossil pres. ~~st cpy of map to Johnny Bennett~~

M-486Z

SM-11

T225, R23E sec 10 6, 11A

FRI Mabel Og

INACTIVE: water level has
risen in the pits to within
4-12' of ground surface - no limestone
in place visible: rk from spoils
in Ecr. ck macgill su-9
loc sheet re ob. thick near
MASCOTTE QUAD

SM-12 5' rd cut s side
of hwy 470 .05 mile w of R co
line 3' grey sd overlying
red-y. or-gy mottled clay sd
Pch? T205, R23E, S13 6b

SM-LK-12a

rock + sand co s side of
470 just into lake co -
mixing red clay sd from hillside
along hwy and grey sd .4 mile
S of 470

SM-LK-13 shallow clay pit³⁷
on w side Hwy 37, .1 mi S of
Hwy 48. - cream-red or clay
sd (mottled) overlain by ~
1' sd

SM-14 shallow borrow pit
S of 468 E of turnpike
T195, 230, S 34 ab
- 6-7' dp - pale y/brown +
pinkish clay sd in w
wall + SE corner - white
sand appear to lap up on
flanks + is covered by
variable thickness of dk br.
gy sd + soil w some knobby
hardpan ? Pch?

spl. collected

SM-15 clay pit on N side
of hwy 466a in T19S, R23E
sec 1 on center line of
E $\frac{1}{2}$ of E $\frac{1}{2}$ 
overburden varies from virtually
none to 6-8'

clay sd in uppermost portion is
dk red or, below get pale orange
+ lightly tinted cream, gy x bedded
sd still clay with quartz granules
+ coarse sd. below get
surging white sl. clay sd
total sec ~ 20-25'

collected 3 spls + took
photos. some sections weather
lavender

spc 3 bottom most - sugary sd
spc 2 x bedded
spc 31 rd clay sd

39
SM-LK 16 like co clay pit
T1B3, R 24E, S 20 ~~at~~ aa
pit 12-15' deep. extends to
ground surface. photos -
4 sps collected

④ in base of pit ~ -12' - white
+ slightly clay sd w coarse sd +
fine granules.

③ ① N-12--7' Red clay sd w occ.
butter gtz.

② - 7--5' x bedded quartz
sd - gravel w abundant
butter gtz to 1x2" size

① top of deposit - sum to 0-5'
red clay sd w some thin beds
w butter gtz - finer than
below.

white sand in base of pit
is exp. undulatory

Ci-36A 15 E of 41 in Hernando

behind 1st baptist church

- shallow borrow pit in hilltop

- orange quartz silt - v sl. clay

(M-4810)

Ci 10 31

T175, R20E, SEC 30 CC

3 of Hwy 200 on Stokes Ferry

Rd in back of SUTWARD

canal - bridge built in '67

clay - gtz sdy to v gtz sdy
light brownish grey to dk grey,
w oxidized streaks, somewhat
plastic

41
Lake Co. mapping proj.

KC-RT 1-5-87 (R.V. priced)

LK-1

same clay pit as SMLK-16

misc photos of wall along Hwy
466 + coarse & bedded zone
on print film.

some photos on slide film. 11
photo of thin bedded crossbedding
in bed 3.

Note pebble beds + coarse
material in general appear
to be conc in the W corner of
the N wall. beds 2 + 3 still
noticeably x bedded toward
east. - appear flat lying
in W wall (a strike)

1-6-87

LK-2 T235, R26E, S 25 sec of SW

~2-4' SS over "Pch"

photo - picked for scale
in lower RH corner of line

LK-3 ^{Pch} T245, R26E, S 27 add
shallow clay pit - outcrop at
E end

~6' SS buff-tan

~3-4' ^{orange} red clayey sand is
lighter mottling.

- intermittent brick red more
clayey bed ~1" thick w grey +
cream blocks (clay coated sd)

over 6' + med brownish orange
sand w only trace clay

~~? is this Pch or something
else - sampled - photo~~

93
LK-4 FRI LAKE SAND MINE

2-6' SS T24, R26, S 20 add C

over clay sand to depth
of ~20-25' ^{below water} then white
sugar sand

collected 5 spcs

^{1 mine for}
LK-5 T245, 25E, S 20 ~~add~~ add
FLS DOT SAND MINE

① 0-3' ^(6") ^{2.5'} hardpan (clay cemented
coarse sand) + organic rich
sands over

② ~6-7' mottled clayey sand
③ over 2-3' brown clayey sand to
water transitional ^{upper} correct ~~lower~~

bed 2 may be transitional
bed of Pch but is much more
clayey.
photos of general outcrops.

note - this material does not
look like cypresswood but is
very similar to the material
found in the various Green
swamp cores

- prob a facies change situation

note different "look" apparently due
to inc. clay content & different
oxidation regime.

Met Jack Koedoe?

old FGS geologist
at lower in Easter's

1-7-87

LK-6 Astor transfer
station (dump) just to
N of old clay pit

T155, R 27E, sec 37 1RR.

~ 8' exposed

0-2 ss, 2-8 Pch?

45
took photos 1) overall outcrop
2) closeup of mottled v. clayey sand
in upper part of Pch.
orange bed at base is v. slightly
clayey sand. R.V. collected
samples

LK-7 T175, 27E, sec 4 cc
clay sd. pit

~ 3' UDSC over

~ 8' Pch

- photo of A-7

photo of outcrop.

photo of soil feature in Pch?
A-7 photos

LK-8

Clay pit 185, 28E, S 32C
~10' UDSC

2'-3' 4" dk orange mottled clay sd
1.5' grey to brick red mottled
clay, sandy in thin laminae
weathers black & forms
slope

7' transitional zone red + orange
to white x bedded sand, within
clay stringers & laminae. clay
flakes weather out on bedding
planes clayey zone toward
base

~2' + white sand (remainder
covered)

LK-9 T215, R25E, S26 db

47

clay pit on W side hwy 27
~25' Pch w 1-2' db

upper zone ~10'

transitional zone ~12'

lower white zone ~3' exposed

photo red tailed hawk

LK-10

clay pit on side hwy 50

T225, R25E, S 21 da

Pch essentially to grid surface
along hwy 50 -

coarse cross bedded + pebbly
clay sd, - coarse button gty
up to 1 1/4 - 1 1/2 in. dia
prob. transitional zone

LK-11

Pact mine - Aillany, Pact co.
greenland fl.

T 215, R 24E, S 17C

LK-12

T 205, R 24E, S 27C ad

~ 3' ss

~ 10' Pch

photos of v cooperative
immature not shouldered back
return to sm-15 - photos (2)

photos of pact mine
T 215, R 26E, S 21, 28 E 1/2

49

NASSAW County

6-15-87 KC+RJ

NA-1

Huddleston's type Charlton

Mbr. locality -

T-15, R 23E, S 30 at Stokes bridge

SPL N-1 - ostracod moldic

x bedded limestone - flat.

no limestone vis. in place

Charlton mbr clay from river

level - clay greenish grey to olive
green, blocky ~~to~~, mottled, abundant
organic material in lower portion
abundant ls clasts, ostracods
benthic fauna + worm tubes vis. in

limy portions

east approach to Stokes bridge
loc NA-1A Clayey sand with some

CLAY clay. sand - light brownish
grey base color with extensive

brick red to orange mottling.
sd is fine to med gr, fine
lenses - possible Cypr.
extends downward to approx
bridge level.

NA-2 small "clay pit" E sd of
hwy ¹²¹ ~~121~~ T-15, R 23E, S 17, CC
- 0-3' fine gr, sd - slightly
mottled overlying 4-5'
clayey sand - ~~parts~~ part. Cypr
also low outcrop on W side
of rd ~ 100' to south

NA-3 - small pit on
NE corner hwy ¹²¹ ~~121~~ - low
outcrop rd. T 2N R 23E
sec 22 d - 1.5' UDSC over

(V) thin Cypr over greenish ⁵¹
blue clay (Charlton)
upper part of Charlton contains
zone with Abd. quartz & quartzite
gravel + pbls. shark teeth +
bone fragments photos of
pbl bed

NA-4
small clay pit on E side of
S 121, T 3N, R 23E, sec 37 SE
of NE. Cypr. zones 1 + 2
mottled, burrowed

NA-5 - T 4N, 23E, sec 38 c
rd cut .2 mile S. R - Cypr
zone 1 ~ 20-~~30~~' vertical
1.5-2' UDSC overlying

NA-6 T 4N, 23E, sec 46 irr
drainage ditch on E side
of RR .2 N of dirt rd,

sand, sl. clay, somewhat mottled
3-4% h.m. - pass lower
pt of cypr?
check prev. pubs. re gill.
boulenger deposit

NA6-B cypr exp on
E sd of RR ~ .5 mile
S of RR bridge over St Mary

NA7 RR bridge over St.

NA8 Marys - Cypr apparently
to within 4-5' of river level
there poorly exposed Charlton

NA8 T2N, R23E sec 25

NA9 VWNW rd cut on dirt rd.
2-4' UDSC over 3' cypr exposed

NA9 UDSC (reworked cypr)
in rd cut

1.5" high C115A - banks of
small brook - 4N-25E sec 18
NE of SW.

NA10 rd cut T4N, 24E,
sec 86 cypr ~ 3' exposed
overlain by 2-3' UDSC

NA11 exposure in NE corner
intersection

T4N, R23E, sec 41 irr center,
0-4' UDSC / cypr - orange
clay sd at top grey to brown
v clay sd or v silty clay below.
also pit on S side of rd.

NA12 Clay sd pit T2N, 25E,
sec 46 irr 5 1/2 ?
0-4' UDSC / cypr
4-6 ft cypr exposed

NA13 West Nassau co. landfill
old clay sd mine loc.
T25E, T2N, 25E, sec 86 d
1.5-2.0' UDSC overlies 6' cypr

exposed: collected 3 spls

NA-14 small pit AND outcrops
in ditch banks T3N-R2SE
Sec 7 SE of NW cypn exp at
surface

NA-15 cypn shallowly covered
in ditch on S side Hwy
A2A 200' W of Edwards Rd.
T2N R26E sec 11 ba

NA-16: 6' + dk brown to
blk brown hematite? cemented
sd. in exc. in low area
.4 mile S of Hwy 108
N16A - yellow + gray brn
s.l. clayey sd to a med clayey
sand. UDSC
loc 1/4 mile E of loc N16

(M-4809)

9-6-87

55°

Loc Citrus Co. CT-36

T19S, R20E sec 10

approx 1/4 mile N of S line from
approx middle of S line.

Ewing ls, spoil ^{from} dredged
channel in lake ^{to Campground} - spoil piles
not attached to land $\therefore$ prob
not hauled in Inverness Quad
granular pebb. ls.

5-22-88

1/2 mile W of 470/301 intersection
M-4867
Loc SM-17 sinkhole on N

side of Hwy 470 to W of Ass of god
Church just outside Slaterville
silicified CLRV and limonite nodules
or flat highly weathered ls
in place on NE edge of sink
0-4' UDSC/CLRV? - very
micritic, clay + gr. sd. mixed in

2-21-88 Gilchrist Co.

NOTE DX CO - 3.0 miles
N of old town on S
side of 19/98 - small
linerock pit 3-4' udsc
over Eo.

M-4811 Sulwannee R. Quad
GR-1 At USGS stream

gage station approx 120 yd
S of Hwy bridge at Fanning
spring T10S, R14E, sec 29

6AA 10-12' udsc over

EGLRV rock is exposed to
approx stage ~~at~~ elev. 11.5'
muddy, granular - traces of lps etc

udsc?
exposed?

GR-2 T10S, R14E sec 20 b6c

sd pit - 2-4' white surficial
over gl. br. clayey sd

M-4812

GR-3 Abd Qy ~100 yd E

51

of C 307 T10S, R15E, sec 7C & E
1 spl collected fr top of Rk

approx 20' exposed.

TRENTON Quad.

M-4813

GR-4 sinkhole on NE side of Hwy 129

T10S, R15E, S 8 & 6b

udsc { mottled gray, or. + brick red clay sd
over v weathered to rubble
Four mile lake Quad

M-4814

GR-5 sinkhole on E side of rd

T10S, R14E, sec 10 CC6

4' ± udsc over muddy (micritized)

?) WLSN. Top of ls irreg.

WANNEE Quad

M-4815

GR-6 intermittently active sd/lv

pit. T10S, R14E, sec 5 b6a

6-10' udsc (sand) over irregular

CLRV - granular, some large lps,

echinoids, oysters - other marine
lks & much lks WLSN - or
may be thin + irreg. CLRV
over WLSN

WANNEE QUAD

M-4816

GR-7 LS. 94 T9S, R14E, S
14 dbd: limestone to
within 3-4' of Lsd CLRV
WANNEE QUAD

M-4817

GR-8 intermittently active ls pit

T9S, R14E, sec 14 aac
1-8' UDSC / CLRV. - Along W
edge of ls in ~1'. Appx
30' CLRV exposed to W.L.

WANNEE QUAD

M-4818

GR-9 Abd. 94 - T9S, R14E
sec 11 DBC 4-10' UDSC
over CLRV 30' + exp.

M4819

GR-10 sinkhole and rock
at surface, ^{same side} 100 yd W of ditch
T9S, R14E, sec 10 dbb
WANNEE QUAD

M-4820

GR-11 N END of ditch in
T9S, R14E, sec 8 ~~made~~
~12-15' UDSC / ls - too dark
to examine (645 p) collected
spec. WLSN?

M-4821 a, b

GR-12 T10S, R17E, sec 18 baa

small chyd borrow area on
S side of ditch rd on N sec line.
Appx 2.5' ylon UDSC sd, sl.

chy. mottled, some organic overlying
~5' red chy sd. 2 spec collected,
Newberry SW Quad

Cypr

M-4822 a.b

GR-AL-13 - sinkhole across

rd fr GR-AL-12. top of sink
matches base of GR-12.

on N edge (far edge) 8-10'
UDSC - possibly slumped over
orange mottled clay sd over
grey mottled clay sd

~~cypr~~

Newberry SW Quad

M-4823

GR-AL-14: sinkhole on

S side of dirt rd N sec line
see 18 aba, T105, R17E

8'-10' CLRV exposed in second

small coalbed sinkhole - 1/2

50' N pipe - NE. 5-15' dia

35 mile E of GR-AL co line

photo - path for scale

Newberry SW Quad

M-4824

AL-GR-15 old phosph pit

W side C 337 T105, R17E

See 30 DDD. no rock exposed

above w. collected 18 p.k. grey

clay - ALCH? now plus - mixed w

exp. litho. collapse/subsidence dep.

M-4825

Newberry SW Quad

GR-AL-16 sinkhole 50' W of hwy

C 337 see 30 bdd - now phosph pit

6' UDSC / CLRV 25

Newberry SW Quad

M-4826

GR-AL-17

ls. gy T105, R17E see

8 C.C. - immediately N of C 337

1-2' UDSC over

Newberry SW Quad

4827, 28

GR-18 old hardrock phosph pit

T105, R16E. sec 1 daa. just N of

sec line,

6-8' UDSC - red clay sd

over ~15' exp no clay sd ~~cypr~~?

some ls rubble in lower part
of pit - none seen which is
verifiably in place - variably
red + purplestained. most of walls
are slumped.

6-8' uosc / cypst /

M-4829.30

GR-19 old Longana Phos Co.

pit 10'-12' UDSC sand over
~ 4' red-or clay sd (cypst)

over white ~~clay~~ clay
sd. - lks lK lower white cyp.

thk about ~ 8'. Thk's v appx
due to slumping, slope wash
etc. - Pinocchio CLRV is

extend to within 12-15' of LSD

some plate rock plus present.

Loc T 95, R 16E, sec 24 aac

12' uosc
cypst

M-4831

GR-20 T 95S, R 16E, sec 14 ddb ⁶³

sinkhole on W side of rd (2337)

~ 35' dp. limestone extends to within
~ 6' of LSD however average
apparently be ~ 12-15'.

UDSC / CLRV

M-4832

GR-21 ~~edge~~ clay sd pit

T 10S, R 16E, sec 9 bdb

2-4' uosc / 4-12' gl. or clay sd
cypst (?) WATERS Lake quad

M-4833 a-d

GR-22 old worn basin which
has been dug out: T 9S, R 16E

sec 16 aac. Appx 15' section
exposed above water - entire
section is jumbled however due
to slumping - sink collapse

CLRV slabs overly all but UDSC
sp. (A). brownish orange
clayey sd. lower ledge in part
of area sp. (B): Gr to or
mottled clayey sd (phos?)
immediately underlier CLRV chert
where the slabs are present
otherwise red or clay sd underlier
UDSC: underlying red clay sd
grayish brown sdy. limy clay.
phos? (sp. D) (ALCH)
CLRV ls chng from below we
although several small parts of ls
extend above we.

postulate ^{udsc} cyp/alc/CLRV
for this site

cyp somewhat modified due to collapse

M-4834
GR-23 E bank of creek on
N side hwy 232

65
T 9S, R 16E, sec. 6 bcc

4' UDSC sd / sg. br mottled clayey
sd. - exp in E bank of cr on
N side of hwy 232.

Four Mile Lake quad
M-4835
GR-24 Hwy 47 and Santa Fe
river, E side of new co/DNR
boat landing park - rubble from
root ball of downed tree - abd
ls cobbles etc lying around.
river too high to see any out-
crops High spgs SW quad

M-4836
GR^{AL}-25 deep sinkhole approx 50 yd
E of co live rd. - follow drainage
ditch fr hwy to edge of sink
T 8S, R 17E, sec 19 CCC

CLRV essentially to LSD
good clay exposure High spgs SW
Quad

M-4837

GR-26 TBS, R16E sec 36 dbd,
immediately to w of county line rd.
in trees. sink / dark pit?
karrenfeldic, CLRV to lsd
photos. Waters Lake Quad

M-4838

GR-27 small group of soln pipes
2-4' diameter at w edge of dirt
rd T9S, R15E, sec 18 bdc
in $\frac{1}{4}$ corner
CLRV to lsd.

M-4839

GR-28 log landing picnic area
~6' scarp at outside of river bend
~2' gr brn sd / gy + or mottled
cly sd to w.l.

TBS, R14E, sec 32 bca

Reworked cpr? UDSC?
weathered HTRN?

M-4840

GR-29 inactive ls gy.

TBS, R14E, sec 35 dac

2-5' UDSC / CLRV appx 30' ls exp.

WANNee Quad.

M-4841

GR-30 TBS, 16E, sec 7 acd

Abd. ls. gy. ~8-10' UDSC over
CLRV Bell Quad

GR-31 small ls. gy ~50' E. of
Hwy 129 R.W. you loc # 316
1' UDSC / CLRV 11.5'

TBS, R14E, sec 13 acb

M-4842

GR-32 ls gy - ~~you loc # 316~~

ls v near lsd - difficult to tell
original ob. CLRV

TBS, R14E, sec 24 dda

Bell Quad

M-4843

GR-33 inactive ls gy

T 8S, R 14E, sec 15 bbc

0-2' udsc / CLRV ~~to~~ gradation
to w. n. ? - granular

CLRV at least at top
Hatchband Quad

Second trip

Photo Record:

RAIN intermittently, overcast

M-4844

GR-34 abd ls gy T 8 7S, R 15E

sec 8 bcd 5-10' udsc / ls

spe collected not in place -

rubble along haul road - 150'
from edge of pit
no truncation - CLRV

Hildreth Quad

M-4845

GR-35 ls exp in river bank

just s of boat ramp. T 7S, R 15E,
sec 12 dab Hildreth Quad

M-4846

GR-36 old Philpot ls. gy. B 49

loc # 320 0-1' udsc / CLRV

T 7S, R 14E, sec 13 bbb just to
w of hwy 129.

M-4847

GR-37 old ls. gy - pass loc in

pre existing sink. T 8S, R 15E

sec 6 dbc immediately to N of

dirt rd. 6-8 (more?) udsc

sand / ls - CLRV Bell quad

M-4848

GR-38 T 7S, R 14E, sec 36 abd

semi active ls gy 2-4' udsc sand

over CLRV? w. n. ? ~ 15' ls exp.

Bell Quad

M-4849

GR-39: B49 loc 193.

T 75, R 14E, sec 36 CCCb

lg. sink immediately to E of hwy
129. 0-4' uosc / ls curv?

bell Quad

M-4850

GR-40 T 75, R 14E, sec 35, 36

on sec line 35 bbb

4-10' uosc sd / ls curv?

Hatchband Quad

M-4851, 4852

GR-41 Old phos pit - Lawrence

3-4' uosc / 8'-10' sdg clay/clayd

? - phos over weathered ls.

ls. pinnacles extend to
within 3-6' of LSD

T 95, R 16E, sec 24 aaa

just to E of dirt rd on
section line

- MICROSCOPE EXAM SHOWS ALCH
phos clay + ^{phos} lowm nit espnely sd
mixed in. phos clay nodules

downward to weathered ls. WATER LAKE QUAD

GR-AL-42 sinkhole on E side
of county line rd (CR 2085)

T 85, R 17E, sec 18 CAC

2-8' uosc / CLRV ls.

GR-43 - next page

GR-44 Bob Wray (owner)

Ginnie Springs:

M-4855
WELL #2 T 75, R 16E, sec 34

dbc - samples collected by
Wes Skiles -

15' y.l. br. sl. mottled clayey sd

20 " " mottled clayey sd

35' " " " "

top of rock to 30-35' - CLRV

WELL #3 sec 34 bed

0-15' SAND

15' frt clay sd

Ginnie Spg.
top of ls in spring generally
and 2-7' below spring surface

According to Wes Skiles
re WACASSASSA Flats - all
drainage from Flats proper in
surface - surface water
drain along flatter into
several bays / swallows holes
- rough correlation on W
edge w springs on surface

M4854
GR-43 old Rd Rk phos pit
on power line R of way
T 8S, R 16E, sec 21 Eba
8-15' USDC 3d / CLRV pinnacles
to within 6-8' of LSD. Alch
in pockets in pinnacles
photos of Koenigfeld

73
BOB WRAY (owner)
Ginnie Springs

Rt. 1, Box 153

High Springs FL. 32643
(904) 454-2202

WES SKILES (904) 454-2202 ext. 13
KARST ENV. ENGR.

M-4721

MAY-1988

HL-1 - clayey sand pit
reworked PERV?

T2B5, R22E, sec 666 19

- mainly udsc clay sd w ls, thin clay, clay sd etc
minor phos UDSC + phos clay UDSC

HL-4 Zephyr Rock 14-25' ob. UDSC
M-4711.5

4718 clayd generally 14-17' SWNN

6-10' UDSC sd over

greenish, orange streaked
sdy clay - poss phos. / LS

T 265 R 22E Sec 20 CCA

LS ls wht, no trace of highly rep. detrital/
peloid peckstone, sd grs sdy SWNN

M-4722

HL-2 : T2B5, R22E, sec 18 CCA

Campbell ck : bnw +
ck bottom UDSC gy clayey sd in

M-4717

HL-3 : T2B5, R22E, sec 15 CCA
sd pit leached ~~with~~ PERV (BNVL)
blue clay with

M-4723 + Moejua loc # 21

HL-5 : bridge (Knights Rd)

75

over Flint Creek T2B5, R20E,

sec 1 dda. ~10' UDSC sd

over 3-4' UDSC 1' gy plastic clayey sd.

HL-6 : Dot sd pit; T2B5, R20E

sec 2 cab : 3-4' UDSC sd

over ~6' or clayey sd : Accd to

DOT personnel on site or clay sd

extends ~10' below present pit bottom
(boring) - then gy clay.

HL-7 : rd cut : T275, R20E, sec

25 ddd : 2-3' white sd / ~1'

orange mottled clayey sd.

M-4719

HL-8 : Hillsborough R. State Park

Rapids on River : T275, R21E

sec 8 cb : SWNN 13 UDSC (silicified)

forms rapids + river bottom
ferr ~ 1/8 mile

M-4720

HL-8A: Hillsborough R. st. park
evaporation pond see 8 dac
Silicified ^{subnn} Tampa ls at grd
- surface.
ck closely - previous inv. call SWNN

HL-9: MORRIS Bridge Park:

T 27S, R 20E, sec 33 bba.

Si. Tampa boulder exposed in
pond - apparently in place

M-4712

HL-10: SR 41 and Harvey Canal
SE side of bridge: Tampa ls /
blue green clay 1-2' above
water level (approx 20' a/w).

T 28S, R 19E, sec 26 middle
of line between NE + SE quarter.

M-4724

HL-11: Reclaimed sand pit ⁷⁹
to west of Williams Rd. T 28S,
R 20E, sec 19 db, ~ 25' UDSC

M-4713 clay sd / M-4714 TPALS

HL-12: Clay-sand pit E of Hwy 579
and Joe Eber Rd. T 28S, R 20E,
sec 22b c. 4-25' ^{phos} clayey sd.
pinacles of Tampa ls extend to
within 4-6' of LSD also flower
pit in place.

HL-13: DOT sand pit: T 28S
R 20E, sec 27 cb: 30-35' deep,
sand + clayey sd - no LS
UDSC

M-4715 + M-4732

HL-14: T 27S, R 19E, sec 33 ^{b+d} of 6
Tampa ls essentially at LSD
6-8 inches below ls in hammock

M 4725

HL-15: Trinity Spring? -

sinkhole T 2BS, R 19E, sec 18CC

7' + UDSC sand: pinnacle
of white powder, sdy ^{not carbonate} ls in
SW corner of sink - area
fenced off by Tampa public wks
tripoli?

M-4716

HL-16: Hillsborough River ^{downstream &} spillway

20: T 2BS, R 19E, sec 29 6a

~ 8' Tampa ls exposed ^(above w.e.) in S river
bank + boulders in river bed
w.e. below 5' elev.

M 4726

HL-17: Macdill AFB: T 30S,

R 18E, sec 35 d 6: Tampa

ls exposed on shoreline at ~

w.l. - weathered - appear to
be in place.

M-4727

HL-18: Lewis Lake/Macdill 79

AFB: T 30S, R 18E, sec 35 AAA

Tampa ls at 1st.

Wakulla Co.

T 5S, R 2E, sec 6a - west
side of rd to ST Mks. lighthouse
in ditch - weathered irregular
outcrop ST Mks limestone -
intertidal ~ 1' exposed at low
tide - spec collected, bagged + labeled

Pinellas Co 3-6-89

PS 1 Pond being dug

~ 8' UDSC sand + hardpan over
sdy clay + clay sd - TPA resid?

HL-19 M-4745

pipeline excav S side of Hwy 92
at canal sec 25 add T 285, R 20E
~ 4' fill over ~ 6' sd over
bn + blue clay - variably sdy
- phosphatic? - vivianite? etc
2 spcs collected

M-4746

HL-20 Rocky Ck? Canal - ~~cd~~ 26
T 285
R 17E - dredged canal - Tpo
ls in spot ~ 1/8 mile distance
from dam.

M-4747

HL-21 Rocky point - TPA ls
in intertidal zone between

Rocky Point Restaurant + Lincoln Point
etc. ~~bls~~
sec 14 T 295, R 17E

M-4748

HL-22-1 PHOSPHATIC SANDY CLAY
BUFF-GREEN + BLUE-GREEN FOUND
IN STREAM CUT BENEATH BRIDGE

HL-22-2 AS ABOVE - SHELLY SANDY

PHOS. CLAY - MARL - SEC 24cb, T 295, R 22E

HL-23. MARK 2 SITE, CONSTRUCTION

ON NW CORNER OF MORGAN + JACKSON
SAND HIT ROCK AT > 30' DEPTH -

SAND + GUMBO TO THAT POINT. NEED
TO CALL BILL McMANN w/ LAW
ENGINEERING. - THEY HAVE BORINGS

M-4749

HL-24 - GRAY CLAY SAND IN DITCH

Sec 11 add T 295, R 19E ORIENT PARK

M-4750

HL-25 CLAYEY LIMESTONE FROM

DITCH WALL ADJACENT TO LOCK

Sec 14 add T 295 R 19E IN PLACE?

OR FILL?

M 4751
HL-25-2

shell bed ~ 3' below LSP in ditch
T 29S, R 19E, S 35 ~~CCD~~ CCD

M-4752
HL-26

shell bed ~ 3-4' below LSP
in canal bank - not at top
T 30S, R 19E sec 2 and

OK W SWFWMD Re 2
obs/mon wells on S side
Madison Ave sec 2 T 30S
R 19E

M-4753

HL-27 ok-bed UDSC

2-3' fall / clay sd + silty clay
S 4 666, T 30S, R 21E

M 4754, 55
HL-28 Boiling Springs 83

(not boiling) ~ 2' ^{M-4755} Arcadia Fm
exposed above water level
^{M-4754} ~ 2-4' sd + gray clay sd over top
of rock. 2 sps collected.

T 29S R 20E Sec 25

M-4756-59

HL-29 Hopewell Land Corp plss

pit sec 4 c 66 T 30S, R 22E
~ 16' ab (^{M-4756} ~ 14' clay sd + sd, ^{M-4757} 2' clay bed)
^{M-4758} over matrix ~ 10', Arcadia
dolomite at base of pit ~ -30' LSP

M-4760

HL-30 UNNAMED creek bed + ditch

sec 29 dbd T 29S, R 22E ON
old Hopewell Rd.

3-4' UDSC / phosphatic clayey sd
- upper bone vly, ? remarks?
Marsill H-41 site?

M-4728

HL-31 Rice Cr (Maggill bc
H-25) Loc: Sec 2 ~~old~~ bld

T30S, R20E. i ledge ~100'

upstream from bridge

Maggill / 6-8' sd + clay over reef
and partially silicified ~~ferrous~~
phos + qtz, sdg, clay, dolomite + LS - AREA UND.SPL
collected

M-4766

HL-32

TOP TO 15' - MUCKY SAND

T30S, R20E 1.5 TO 5.5 - ORGANIC AND/OR
SEC 33 bldFe STAINED + CEMENTED
SAND

5.5 TO 12' HIGHLY CEMENTED

FINE Fe RICH SAND

12' - 21' Fe STAINED INDURATED

FINE TO MEDIUM SAND MOTTLED
+ GRBBLES

W/ SILT + ORGANICS + BURROWS

* HAVE PHOTOS.

~ 25' SECTION EXPOSED... TRACE TO

NO SHELL.

M-4761

HL-33 Bull Frog cr -

85

6-8' Arcadia fm overlain by

2-6' sd - downstream and

underneath bridge

SEC 30 CDC, T30S, R20E

M-4762

HL-34

Dot sand + shed pit

0-1.5' sd / shed

pit only ~ 2' dp. "CLSER"

SEC 6 bld, T32S, R19E

M-4763

HL-35

ARCADIA LS AT LITHIA

SPRINGS - IN SPRING AREA OF

PARK T30S R21E SEC 17

M-4764

HL-36

INTERSECTION OF G40 AND

ALAFIA RIVER - CRYSTALLINE LS SANDY

+ PHOSPHATIC T30S R21E SEC 16

also prob bc M-296

M-299

HL-37 - Wright + Macgill
loc #24 - Buckhorn spgs
T30, R20 sec 9 db: info
from Sept. 73 loc card:
Five gr clay sd w f gr plus
boulders of sdy ls w 10-15% plus
gravel in spring. No access
in 1989 - pumping station constructed

M-4729

HL-38: Wright + Macgill loc
#27: N bank Alafia R.

T30, R20, sec 17 ad: info
from Sept 73 outcrop card
3' sdy phosphatic mottled greenish
orange set clay underlain by poorly
consolidated phosphatic, calcareous
clay loam zone w 10-15% plus
sd + gr w occas. shk teeth +
bone frags by boat. PCRV

87

HL-39 - Wright + Macgill
loc 30 W bank Alafia R.
by boat: T30S, R20E sec 9C
Info from Sept. 73 location card.
2' sd underlain by 4-5' iron
mottled sdy clay to clay sd, underlain
by shell of phosphatic dolomitic
at water level contains ~10%
plus sd + gravel: ? PCRV/ARCA

HL-40: Wright + Macgill loc 32
N bank Alafia R. T30S, R20E
sec 156: info from Sept 73
location card: clayey phosphatic
dolostone at water level - lg green
clay blebs in dolostone: by boat
ARCA

HL-38 cont. spe collected by KMC
phosphatic, clayey micritic ls + dolomitic
73 - ARCA

underneath & just E of Hwy 301 Bridge

HL-41 : Wright & McGill loc
#33 : N bank Alafia R. T30, R20
sec 15 bd : Info from sept 73
location card : ls - sl. clayey
s.s. plus gravel, mod. ind.
access by boat
ARCA

HL-42 : Wright & McGill loc
#46 : T28, R21, sec 25 ca
S side of Hwy 92 : Info from
Sept 73 location card :
5' sd underlain by 3' sdy clay
w/10% phosphate sd, underlain
by sand. clay is iron stained,
mottled - exposed by sewer
line excav.

UDSC / PCRV ? BNVL

~~HL-43 : Wright & McGill loc #1~~ 89
~~T28, R20, sec 5 ca~~

HL-43 : Wright & McGill loc #5
T29S, R 19E, sec 3A ~~etc~~
Cone Bros pit : data from
sept 73 locality card.

30-35' clean white & gr sd
over yellowish green clay w
ls. clasts & stringers

HL-44 : W+M loc H49
29S, 20E, 14 cd data fr sept 73
locality card - borrow pit - 12'
or fine gr sd.

HL-45 : W+M loc H-50 : Glass sd.
mine 28S, 12E, sec 35 bd : data fr
sept 73 loc. card : clean white fine
gr sd, reported thickness 50'

HL-46 W & M loc #44

SW. foot Fowler Ave bridge over
Hl. R. T28, R19, sec 12 dc
Chert boulders + partially repl.
ls. - dense, finely shly, favors
into fr sept. 73 loc. card
TPA

HL-47: Wright + Macgill loc #39

T29S, R19E, sec 12b; into fr
sept 73 loc. card - canal at
Hwy 301: 4-5' sd + shelly sd
over 7" th. sl. gr pure clay, 1-2'
macrofossiliferous ls, over 5-6'
ls breccia w/ lg clasts, calcite +
dolomite cont. Abt. bands of chert
TPA

HL-48: Wright + Macgill loc #12 91

T30, R18, sec 26 C - Foundation excav.
TPa ls encountered at 6' depth
data fr 73 locality card

HL-49. T31, R19, sec 28 d - shell

beds exposed in ditch to SE of Hwy 41
- Macgill + Wright loc #36 - 2' soil/shell bed
grd down to red clay w shell

HL-50: Wright + Macgill loc #40

canal in trailer park; into fr sept
73 locality card; 32S, R18E 22b a:
slightly shelly sd 5-6' thick over
ls + dolomite, well ind, 10% plus sd
calcareous chert / over

HL-51: Wright + Macgill loc # 7
E. Sligh Av. N of RR X T28, R19
sec 26 C: data fr sept 73
locality card: white, clean, of gr
sd underlain by thin layers of
sdy clay, sm. underlain by chalky,
unfossil., sh sdy, poor ind. ls
UDSC/TPA

HL-52: Wright + Macgill loc # 11
T28, R18, sec 26b: stinky ck
at North Blvd. - on E sec line
data from Sept 73 locality card
soil / cm to or clay w abd. ls
clasts / clean microsparite
in ck bottom. TPA

93

M4730
TPA HL-53 T325, R18E Sec 22 cnc
Two samples, one "over?"
→ OTHER PHOS. DOLOMITE ALONG CANAL
ARCA UND.
CUT + AS ROAD BASE

HL-54 T325 R18E Sec 22 cc CLASH AREA
CANAL AT GATE/ENTRANCE TO
HILLS. COMMUNITY COLLEGE ENVIRONMENTAL

M4733 STUDIES CENTER #4211, TWO SAMPLES -
SLIGHTLY PHOS. LS w/ RIP-UP CLASTS. OVERLAIN BY
M4734 MARLY SHELM SAND, UNCONSOLIDATED

M-4735 HL-55 T325, R21 sec 8 d.c.c. UDSC
stock pond spoils - handpan
poor ind. sd with gty pbls 1-2290

M4736
UDSC HL-56 T325, R19 sec 33b/c
ditch - wht - bl sdy clay inclusion
w weathered ls? also pbls w/ chert?
weathering out of top

33 M-4737
HL-57

TPA

T325, R18E, sec 35 666
ditch to n of rd - ls + dol
in spoils + ditch banks

- gtz sd, calcite, iron stained - partially
recrystallized

HL-58 T305, R20E, sec 21 aba

M-4738

3 river bank - clayey sd
"modern handground" - bared surface
at NW 1/4 - across river fr
LS exposure - 3-4' (possibly
same location as Wright
Macgill loc 28)

M-4739

HL-59 T305, R20. sec 96cc

PCRV clay sd in ditch - ~~fractured~~
contains abundant leached
phosphate grains

M-4740, 41

HL-60

T305, R20E sec 15 95

666  sm. ck on w
side of rd - ^{sd} bluish clay sd
w phos grn + clay bkbs ^{over}
dolomite, clay cemented ~~after~~

gtz sd ~~to~~ at ck bottom
PCRV? / ~~area~~? both spls PCRV

1-25-90

KC/VA - start P.C. Co.

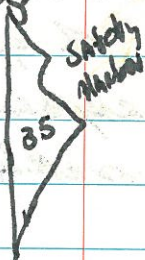
spl PI-1 - see pg 79

PI-2 T285, R16E, sec 21
ctr of A - small ck on
E sd of Booth Rd. - same loc
as Macgill Pin-H - bluish
ol. gr clay - mottled by on
exposed portions - 2-4' sd
overlying.

Pi-3 ~ 150' to west of Pi-2
mod ind. sdly clay + ls weathering
out of the clay - at w.l. to
~ 1' above

Pi-4 T285, R16E, sec 16 acc
west bank of canal ~ 100 yd
N of S-586 bridge. 6-8' sd
+ clay sd over ^{1/2 sec. phosphate} sdly dolomite
(exposed up to ~ high tide level)
- possibly same as McGill
Loc Pin-F. TPA

Pi-5 ~~Phillipi~~ Philippe Pk.
T285, R16E, sec 35
blue clay + dolomite?
at base of seawall
~ mid tide level



Pi-6 T28, R16E, sec 33 ⁹⁷CC
ditch to E of hwy 593: ~ 6' w. sec
sd over grey + br mottled plastic
clay forming ditch bottom

Pi-7 T295, R16E, sec 16
south of country Campbell covering
at expansion of sewage plant
- bluish gr clay sd starting
at low MSL to 5-10' bc
MSL

Pi-8 T295, R16, sec 16 bc
point at Bayview
1-2' TPA ls At w.l. - forms
resistant ledge

Pi-9 - same as Mangill loc
Pi-9 T 29S, R 16E sec 7 CED
CK to N of Hwy 590 2-3'
~ 10' sd + clay sd / clay /
clayey poorly indurated Tpa ls.

Pi-10 T 30S, R 16E, sec 11 ddd
canal. 1-2' sd / 1-2' brn clay
sd / shell bed w sd

Pi-11 T 30S, R 16E, sec 2 CED
~ 2' sd / shell beds / shly ls.
to N of N.S. canal

CI-37

Citrus Co:

~~on 11/98~~ Field cleared - Abd

ls. at surface - old qy ~

~~2.5~~ 1/4 mile E of Hwy

EI? 2.5 mi S of PRX

to C.R. Nuc. power plant 99
T 18S, R 17E, sec 8 da

HL CO W 16456 ROMP BARN
Park UDSC sand + sl clay
sd to 32' 1st traces of
phos in 32-37' interval 1st
traces of pcrv matrix in 37-42'
interval - map as UDSC

T 28 R 18 sec 31 add
HL CO W 15494 Romp 12-3

0-20 UDSC SAND

20-39.5' clay, trace leached
phosphate, tr pyrite

39.5 Top Tampa Limestone
map as UDSC

W HL 8197 T28S, R17, sec 28

0-10 wht sd + hardpan

10-20 wht ^{UL + bn} sd + tan chy

20-30 wht ^{UL + bn} sd w fr shell

30-40 bn sd + sdstone, ~5%
corroded shell etc

MAPAS UDSC

W HL 624 T32S, R 17E, sec 36 dd

~~ARCA?~~
~~gtz + phos sdy~~
~~clay, sdstone.~~

0-10 shelly, chy sd, w plus
grains

10- gtz + phos sdy dolomite
CLSCR/ARCA?

W HL 1604 T29S, R18E, sec 17ddc¹⁰¹

0-4' Fill dirt old to D.C.

4-12 wht sd w buff chy matrix,
minor shell fr + sdy ls frags.

12-23 lt. bl. gy calc. clay, silty, sdy
~~iron present~~

23- Tpa ls: fd, wht sdy ls

MAPAS TPA (M'U orig) SD

W HL 1765 T30, R21, sec 31 c

0-46' UDSC sand

W HL 1857 T29S, 21E, sec 28

0-10 yl. bn sd

10-15 mod bn poorly ind sd, chy
matrix iron stained

15-20 buff gtz + phos sdy clay,
poor ind, phos grns (leached) pred.
but dk grns present

20-25 dolomite, poor ind. gtz +
phos sdy, most phos locked

map as BNVL

W-HL-2321

~~0-23 - ispc - wht to ltyl. or~~

~~clay sd, iron stained, poor ind.
poorly sorted~~

2490 - ESCAMBIA Co. well

~~0-23 1 sample: wht-yl or clay sd.
poor ind, iron ~~not~~ stained, poor
sorting,~~

~~23-47 same as above. but darker
iron staining -~~

~~map as UDSC~~

103
WHL-2574 T29S, R18E, sec 27 aac

0-10 UDSC SAND

10-32 clay sand, with ~5%
chalcidony + weathered fowens
sortia, Archies, + noncon, + sdy
ls.

top tra ls. at 32'

map as UDSC

WHL 2664 T30S, R18S, sec 4 c6

0-27 - 1 sample UDSC SAND
trace ls. fragments

27-34 clayey sd., mod yl. or,
poor ind, calcareous, minor
ls. fragments

34 - soft, wht. to ltyl. or ls.,
gtz sdy, vsl. phos sdy

0-34 UDSC

34 - top TPA

map as UDSC

WHL 2669 T31S, R19E, sec 3d16
1st spl 7-35' in PCRV

WHL 2671 T31S, R19E, sec 15 CE
1st spl 30-40 in ARCA

WHL 2760 T29S, R19E, sec 7
0-10 bn gray silty sd, calcareous
minor organics ~10% shell frag.,
tr phos sd
0-30' UDSC sd
map as UDSC or poss. CSCR

WHL 2921 T28S, R20E, sec 3 AC
0-15 greyish or USC. clay
sd, tr organics
15-30+ Qtz sd, v. or., clay
matrix tr. chert + fossil
map as UDSC

105

WHL 3338 T29S, R19E, sec 10 CD
0-60' UDSC sand - predominantly
f. gr v clean
60 - TPALS
map as UDSC

WHL 3429 T21, R21, sec 8 BAL
0-25 sd + clay sd w ls fragments
disseminated throughout
25 Brown ls
map as UDSC

WHL 3625 T30, R18 sec 16 AC
0-20' UDSC sd + sl. clay sd
20 - TPA ls. highly v. or.,
gr. sd
map as UDSC/TPA

X W-HC-4637 T27, R17, sec 21 dd
str loc does not match
w 5 mi NW of Odessa
Pecos co.

W-HC-4802 T30, R22, sec 20 ad

UDSC 0-20 UDSC sand

20-26 greenish gy clay.

gy + broken phos sdg

26-30 sl sdg dolomite (suit)
phos.

MAP or UDSC/PERV?

or UDSC/AREA?

W-HC-5099 T28S, R21E sec 29 cc

0-20 UDSC

20- PERV?

107
W-HC-5363 T28S, R20E, sec 35

0-15 UDSC sd

15- wht + lt. gn sdg, clay

PERV? ?

W-HC-5524 T30S, R18, sec 4 cc

0-20 DN to dk bn sd, clay +

organic matrix,

20-30 sd clean + frag. TPA is

either contact within this interval or
sdia fr TPA

30- TPA ls

MAP or UDSC/TPA

W-HC-5602 T30, R19, sec 26 bb

0-10 UDSC sl. clay sd

10-30 phos, clay sd

MAP or PERV

IN HL. River

W-HL-5670 T28, R19, sec 13 a

0-2.5 sl phos, clayey, sd

w chem + 1/5 fragments

2.5-20 TD ^{white} micritic sdy ls.

map or ~~UDSC~~ TPA

W-HL-5671 T28, R19, sec 30C

IN HL. River

0- TPA mbr

map or TPA

W 5718 T29 R20, 1966

0-10 UDSC sdy clay sd - organics

10- TPA ls

map or TPA

109

W-HL-5945 T32, R19 sec 12 c

~~UDSC~~ 0-40 BN sd + clay sd

40-60 bn clay sd, phos

60-45 H. gy dolomite/calcined bk, phos sdy

map or UDSC

W-5957 T31, R21 sec 19 da

in PERV at 0-10'

map or PERV

W-HL 6014 T28, R17, sec 7 a

0-9 UDSC sd

9-15 buff clay sd, 1-2% phos sd

15-20 becoming clayey with depth

map or UDSC

6356
W-HC-~~6356~~ T 28, R17, sec 15a

sd thin ~70'

map on UDSC

W-HC-7032 T 27, R22, sec 6 db

0-10 mod brn sd, uncons., cly/org
coating

10-20 cm/lt gr cly sd, tr phos sd.

20-30 cly sd or above + ls frag.

30 ls, w/nt, micritic to peloidal -

trace of bentic forams & tr. gtz sd

✓ brightly red

0-²⁰⁻~~25~~ UDSC/sunn

W-HC-7795 T 27, R17, sec 6 db

1st spl 20-25 calc cly sd

2nd spl 45-50'

map on UDSC

W-HC-9019 T 32, R22E, sec 12d 111

0-30 UDSC sd + cly sd

30+ phosphatic sd - washed spl
only no matrix remaining

map on UDSC

W-HC-9021 T 30S, R22E, sec 22C

0-10 UDSC cly sd

10- gl. or phos, cly sd

map on PERV

W-HC-9025 T 31, R22, sec 12C

0-20 UDSC cly sd + ⁵⁻ ~10%

UDSC hardpan

20-30 cly sd as above, abundant

Base variably leached phos sd + gravel

30-40 coarse phosphatic sd +

fine phos gravel

map on UDSC/GRSL

W-HL 9028 T30S, R22E, sec 24C

UDSC 0-30 Red, yb, wht cly sd
30 Wht cly sd w Abcd
PCRU
phos sd
map as UDSC

W-HL-9030 T31, R21 sec 25 ab

0-20 UDSC cly sd, lt. bn
tracer charcoal
20-30 cly sd w ~5% (leached)
phos sd
map as UDSC/BNVL

W-HL-9035 T31, R21, sec 9cd

0-10 cly sd + v leached phos sd
~5%

10-20 cly sd as above plus
fin gr dolomite, leached phos
20-30 Area litho
map as BNVL/ARCA

113

W-HL-9037 T31, R22, sec 28A

0-30 UDSC
30 BNVL
map as UDSC

W-HL-9038 T31, R22 sec 15A

0-20 UDSC sd + "Al. phos zone"
20 - BNVL sd + phos
map as BNVL

W-HL-9040 T30, R21 sec 31cd

0-30 + lt. bn sdy cly + cly sd
UDSC

W-HL 10628 T32, R19, sec 25

0-30 BN cly sd, cly + org. matrix
30 - v phos sd w ~10-15%
corroded shell material
UDSC

W-HC-11338 T29, R20, sec 6 dab

0-4.5 muck + tan clay sd

4.5-22.5 tan clay sd

22.5-28.5 tan to ult. greenish

shly clay

map or UDSC

W-HC-11780 T31S, R20E sec 28

0-20 lt. bn clay sd

20-30+ sd + sandpan. dark, bn

organic clay matrix

map or UDSC

W-HC-12198 T32, R18, sec 13

0-20 sl shly sd

20- sl shelly, silty, calcareous

sand

CLOCK?

115

W-HC-12252 T32, R19E, S30

0-30 mod bn clay sd - UDSC

30- shell bed, frag

map or UDSC

W-HC-13099 T31, R20 sec 31 db

0-30+ UDSC sd



13179 T29S, R19E sec 34

0-30' UDSC sd w clay + org

matrix

map or UDSC

W-HC-13184 T28, R17, sec 28

0-30' + shell bed + shly sd

W-HL-13250 T27S, R20E, 21

0-15 UDSC

15-20 ?

20-40+ RA LS & SWNN LS?

map on TRP

W-HL-13288 T31S, R20E, sec 11

0-10 UDSC

10-30+ BNVL

map on BNVL

W-HL-13337 T32S, R20E, S 20

0-50 UDSC SD and clay

UDSC

W-HL-13494 T29S, R22 sec 18

0-20 UDSC SAND

20-40 clay sd, int, ~5% v leached

plus sd BNVL?

W-HL 13495

T27, R20 sec 18

117

poor spc interval

1st spc 20-30 UDSC - ylor clay sd

DONOT
USE

UDSC

NOT verbal loc + STR don't match

W-HL-13510

T31, R22, sec 25

0-10

~~10-20~~ UDSC clay sd

10-

20-~~30~~ sd on clay + (leached)

plus + plus matrix sand

- top BNVL in 10-20 int.

map on ~~BNVL~~ BNVL

W-HL-13580

T29, R22, sec 16

0-10 UDSC SD

10-20 sd on clay + variably

leached plus gravels

10-20 Top BNVL

W-HC-13838 T29, R21, Sec 36

- 0 - sd sized phos
from surface down, variably
leached. well drilled post
mining in mine area. upper
spcs may be disturbed,
BNVC?

13935 T32S, R19E, sec 9

0-20 UDSC sand + organic
rich clay

20-30 ~~BNVC~~ PCRV

maper UDSC/~~BNVC~~ PCRV

W-HC-14113 T29, R20, sec 17da

20-40 buff-lt. grn clay +
sdy clay - w chert + blebs of
weathered clay sd etc.

UDSC

W-HC-14598 T28, R17, sec 15b

119

0-10 UDSC sd

16-18 blk sdy muck

18-25 sdy clay scattered frgs. TPALS
maper UDSC ~~frgs.~~

W-HC 15156 T29, R21, sec 25

1st spc at 50-55' (TPALS)

W-HC-15283 T32, R18 sec 36 de

0-10 UDSC sd w fr. phos +
shell frgs.

10-20 BN organic rich sl clay
sd w abd (5-25%) shell
frgs.

maper CWSR

W-HL-15642 T31, R19, sec 32

0-5 UDSC SD

5-10 gy silty, clay, calcareous
+ dk organic "mud"
SD w abd shell frag

10-20 clay, sl. clay sd w 25-40
% shell frag.

map or CUSCR

W-HL-15007 T29S, R20 sec 30

0-15 lt. bl. bn sd w sl. clay nodules

15-20 UDSC SD + ~5% gl. gravel

20-27 UDSC clay sd w sl. extr. w. ^{tho.} 15% shell

map or UDSC

NOTE STR + verbal locs don't

match (w/ine & q of Braden)

121
W-HL-14274 T29S, R20E sec 11

0-20 UDSC

W-HL-14191 T29, R21, sec 23 ad

0-30 SD + "leached zone"

sl. phos clay contd sd., minor parts
primarily leached phos gr. some
grain moldic porosity

30 - top lower BV

BWV

W-HL-13515 T31S, R18E, sec 36 ac

0-25 shell bed

CUSCR

W-HL-13261 T29S, R20E, sec 19

0-15 Hbn UDSC SD

15-20 UDSC

20-30 Hbn clay sd

30-40 bn silty clay, scattered frag

15

map or UDSC

W-HC 10673 T29, R21, sec 10

0-30 gy + bn sd

30- BN gy sd, clay w variably
leached phos sd

map as UDSC

NOTE spl larger shd sec 5A or
10C

W-HC 8707 T31, R20, sec 5

US HW 301 + Rhodin Rd.

0-10 lt bn sd, clay

UDSC 10-20 yl. sd

20-40 lt gy, clay dolomite,

Area dolomite, grt + phos sd

W-HC 6982 T30, R19, sec 40a

0-20 lt bn gy, yl. bn sl clay
sd w ~5% shell frag.

UDSC or CLSC

120
W-HC 5800 T29S, R20E, sec 4 DDD

0-35+ UDSC SAND

W-HC 5498 T31, R19, sec 27 6a

0-30' + UDSC

W-HC 4259 T28, R21, sec 20 6C

0-20 lt gy bn sd

20-30 sd or above + lt. gy clay

fr. leached phos

map as UDSC

W-HC 4084 T29, R21, sec 16 6ad

0-15 UDSC sd + clay sd

15-30 sd + white earthy sd
Alphas zone clay or tripoli - non phos? non
Calc - some look like grain
mudlic

- crossbedding by clean white sugar sd
UDSC

W-HL-235B T27S, R20E, 15 de

1st spl 20-35' in TPA LS

TPA

W-HL-217B T32, R21, S 66

1st spl 10-30' - inconclusive

W-HL-215B T28, R21, Sec 7 CA

0-32 (2 spls) sd + sdy ch
UDSC?

W-HL-1626B CORN 32S, 20E, 12

0-50' + UDSC ch sd

125

6-19-90 TLH-WAUTON CO

STARTING MILEAGE 12765

PERSONAL VEHICLE

6-20-90 starting mileage 12909

WL-1 T4N, R19W, Sec ~~20~~ 16

west line n. 2-.3 mi s of "

S185. - outcrop on

both sides of dirt rd

(crowder rd) CRNL 6'

LORAN lat $30^{\circ}51.20'$

Lon $86^{\circ}09.23'$

SNR 150'
99 92 82

WL-2 Claypit E side of Hwy 83
T5N, R19W, Sec 22 CORN

n 30' CRNL

LORAN L.L. $30^{\circ}55.25'$

$86^{\circ}00.00'$

150'

SNR 99 99 96

5 photos - tail end of print roll

uppermost 4-6' (includ) - upper 1/2
mottled, massive, lower 1/2
x bedded, gravelly, clay shales etc
spl fr x bedded section

WL-3: Rd cut 1.5' leached sd NL
2' CRNL T4N, R20W sec 11 & 6
LORAN 30° 52.18' 154
86° 12.32' SNR 99 89 83

WL-4 rd cut T6S, R19E, sec 28
S 1/2, wedge C.  1 spl fr
8-10' CRNL to LSD base 181'
LORAN 30° 59.63' SNR 99.85, 86
86° 09.08'

WL-5 Natural bridge
T6N, R20W, sec 26 D (ctr)
Nat. bry ck + dirt rd
~ 4-6' is exposed above WL
2 photos

127
WL-6 Nat. bry ck S side of
S-181 T6N, R20W, sec 26 D D
~ 3' y.l. bn clay, 15 cobbles
in ck bed

WL-7 old clay pit T6N, R21W
sec 33 D C
LORAN Lat 30° 58.54'
Lon 86° 20.27'
15-18' Cretanville

WL-8 on stream of hwy bridge
over ck. T4N, R20W, sec 26
aaa, gray reduced clay in
ck bedrock - uppermost material is
oxidized - up to ~ 1 ft

WL-9 CRNL roadcut just w
of rd. line T6N, R18W,
sec 33 666 8-9' CRNL exp.

1 spl collected fr base of cut

LORAN LAT 30° 59.61
LON 86° 02.99

SNR 99 80,60

Ending mileage 6-20 13044

Starting mileage 6-21 13066

WL-10 ^{old} sand/clay pit T3N, R18W
sec 28 CCA spl collected
fr SW corner - 12'-14' CRNL

exp 1-1.5' lt. bn sd/soil
overlying top CRNL - sharp
contact - CRNL gravelly

Loran 30° 44.17'
86° 03.16'

SNR 99 89 85
128

WL-11 1-3' CRNL exposed 129
on loop rd w side of Blue Pond
T4N, R18W, sec 9 add

LORAN 30° 51.66' SNR
86° 02.39' 99 86 85

13165 end mileage

13187 re start

WL-12 clay pit T2N, R18W

sec 2 CCA ~14' CRNL

exposed 2' bn leached sd
overlying - upper portion mottled
some limonitic pbls.

LORAN LAT 30° 42.22 LON 86° 01.15'

SNR 123' 99,76,70

WL-13 low roadcut - (leached)
CRNL. T3N, R16W, sec 6 CCA

Loran 30° 43.12 99,72,72
85° 53.02 117

WL-14 rd cut ~ 15' CRNL

some v gravelly

T3N R12W, sec 15 d L C



2 spcs - 18 gravelly bed
Loren 30° 39.99' 116'
85° 55.85' 9970.54

6-21 Dayend mileage 13252

6-22 starting mileage 13265

WL-15: Turkey ck beneath
S 2A bridge - T4N R 20W;
sec 16 AAA.

1-2' AMBF dk gy clay
in ck bed

6-22 end vicinity, mileage 13367

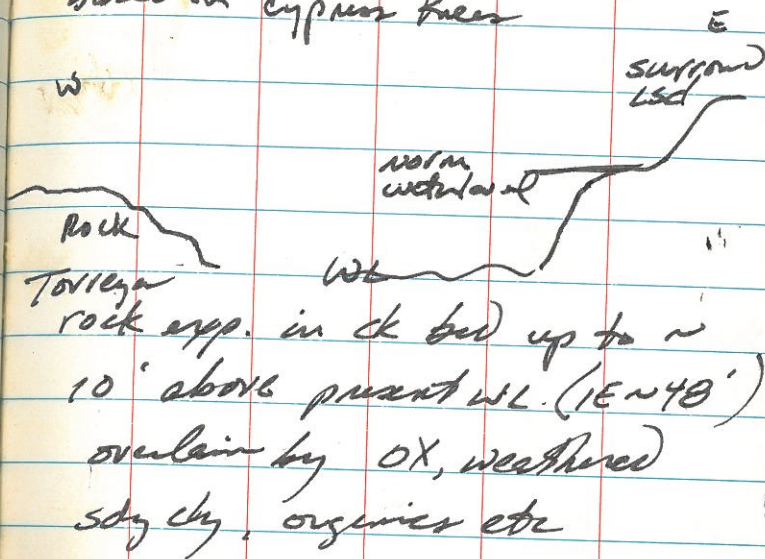
6-22

131

Jefferson Co: Lloyd ck sink, just N

of I 10 water level approx 38.0'
based on temp. stg. of staff

normal WL approx 52-53.5'
based on cypress knees



LAKE DRAIN sink

Rock extends to within 6-8'
of Lsd. Creek bed between the
two sinks has outcrops

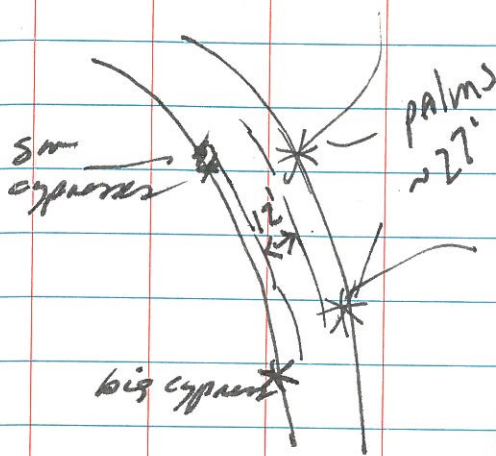
6-20' high + rock up to 15' in places

12-22-93

Met w Bill Torres

Big Blue Springs - Citrus Co
head difference between
spring + Withlerock Rd
~ 1' - fence ~ 5.5' above spg level
recommend using silt barrier
on spring side + backhoe or
similar equip. to dig swale
three feet to ~ 6" below
current spring level.

- Abundant ls. boulders etc
could prob be used to create
a self stabilizing weir
(although not allowing boat
passage).



recommend NOT removing any more
material than needed &
not disturbing trees
on berm

- what is objective
public access?
water flow to river

28°58'09.0"N

82°18'53.5"W

M-4873 137
L-LV-KC-1 ls in bury
Eo: 19/98 ditch & side -
North of Inglis + 0.15 mi S of C40A
uncorrected GPS 29°02'43.1"N
T16S, R16E, Sec 35dca 82°39'53.1"W

M-2874
L-LV-KC-2 inactive
rock pit S sided
Eo of C 336 and E of into C 330
rock exp n 2-3' bldd
uncorrected GPS LAT 29°21'56.3N
T13S, R15E, Sec 7aac 82°51'16.5"W

M-4875
L-DX-KC-1 - borrow pit & side
19/98 - N of cross city
Eo ls pavement exp in SW corner
uncorrected GPS Lat 29°40'20.4"
T9S, R11E, Sec 28aca Lon 83°14'00.8"

Nxt pit n 1/2 mile also.
4.4 mi S of J. Tower

loose ls boulder in NW corner of pit
3 mi S of Vaneboro Tower

Luther Goodwin
Palmdale Tower
(813) 675-0646

0-649.99 - no quote needed

650. - 1499.99 2 phone quotes

Craig Tappan (813) 983-2157
Big Cypress

251

334

736

1736

2539

4879

4987
4989

5054

5528

6393

6540

6541

6590

7736

7737

7802

7882

7961

7970

10250

10465

10937

11262

11453

11471

11564

11606

11650

11659
11662

11761

11827

11933

12241

12794

13349

13350

BOG TAX EXEMPT #

02-000 340447

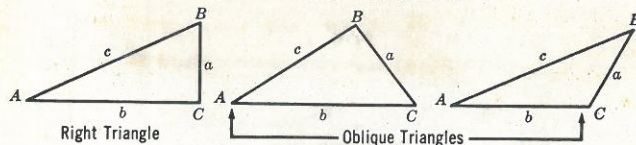
DAVID Dewitt home
SWFWMD 83 841-0706

904 488-8086

FGS ATT #

841-086-8327-8160

SOLUTION OF TRIANGLES



Solution of Right Triangles

For Angle A, $\sin = \frac{a}{c}$, $\cos = \frac{b}{c}$, $\tan = \frac{a}{b}$, $\cot = \frac{b}{a}$, $\sec = \frac{c}{a}$, $\csc = \frac{c}{b}$

Given	Required
a, b	A, B, c $\tan A = \frac{a}{b} = \cot B$, $c = \sqrt{a^2 + b^2} = a \sqrt{1 + \frac{b^2}{a^2}}$
a, c	A, B, b $\sin A = \frac{a}{c} = \cos B$, $b = \sqrt{(c+a)(c-a)} = c \sqrt{1 - \frac{a^2}{c^2}}$
A, a	B, b, c $B = 90^\circ - A$, $b = a \cot A$, $c = \frac{a}{\sin A}$
A, b	B, a, c $B = 90^\circ - A$, $a = b \tan A$, $c = \frac{b}{\cos A}$
A, c	B, a, b $B = 90^\circ - A$, $a = c \sin A$, $b = c \cos A$

Solution of Oblique Triangles

Given A, B, a	Required b, c, C	$b = \frac{a \sin B}{\sin A}$, $C = 180^\circ - (A+B)$, $c = \frac{a \sin C}{\sin A}$
A, a, b	B, c, C	$\sin B = \frac{b \sin A}{a}$, $C = 180^\circ - (A+B)$, $c = \frac{a \sin C}{\sin A}$
a, b, C	A, B, c	$A+B = 180^\circ - C$, $\tan \frac{1}{2}(A-B) = \frac{(a-b) \tan \frac{1}{2}(A+B)}{a+b}$, $c = \frac{a \sin C}{\sin A}$
a, b, c	A, B, C	$s = \frac{a+b+c}{2}$, $\sin \frac{1}{2}A = \sqrt{\frac{(s-b)(s-c)}{bc}}$, $\sin \frac{1}{2}B = \sqrt{\frac{(s-a)(s-c)}{ac}}$, $C = 180^\circ - (A+B)$
a, b, c	Area	$s = \frac{a+b+c}{2}$, $\text{area} = \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	$\text{area} = \frac{b c \sin A}{2}$
A, B, C, a	Area	$\text{area} = \frac{a^2 \sin B \sin C}{2 \sin A}$

REDUCTION TO HORIZONTAL

Horizontal distance=Slope distance multiplied by the cosine of the vertical angle. Thus: slope distance=319.4 ft. Vert. angle=5° 10'. From Table, Page X, $\cos 5^\circ 10' = .9959$. Horizontal distance=319.4×.9959=318.09 ft.
Horizontal distance also=Slope distance minus slope distance times (1-cosine of vertical angle). With the same figures as in the preceding example, the following result is obtained. $\cos 5^\circ 10' = .9959$, $1 - .9959 = .0041$, $319.4 \times .0041 = 1.31$, $319.4 - 1.31 = 318.09$ ft.
When the rise is known, the horizontal distance is approximately: the slope distance less the square of the rise divided by twice the slope distance. Thus: rise=14 ft, slope distance=302.6 ft. Horizontal distance=302.6 - $\frac{14 \times 14}{2 \times 302.6} = 302.6 - 0.32 = 302.28$ ft.

