OAK LEVEL

Oak Level Quad 2/18/97 OLV 111 piles of felsic gneiss along edge of field well foliated f-med grained lit gry - pnk weakly high muscovite foliation

OLV 112 very dk grn sap of mica hbd gn N70W 5 NE nearly flatlying light/dk banding, bio Foliation

OLV113 NS 18 W thn bded felsic gn in pavement exposures in stm

OLV114 Thn bded hbd gneiss pavement N45 W 9 NSW very Flaggy

OLV115 Flaggy/laminated qtz-Felspar-gneiss/muscovite schct partings

OLV121 N80W 15 NE thin bedded qtz-Feld-gn

OLV 122 N30W 20NE then N20W 25 SW cg grgn pavement w coarse pegmatite cross cutting

OLV 123 N55E horizontal lineation in medium-coarse lineated grgn in pavement in Field

VHL 786 N60E 30NW med gr leuco - granite gn, rnded bldrs [illegible]

VHL 787 N80E 35 NW massive [illegible] pink felsic gn [illegible]

VHL788 N70W 10 NE huge bldrs and cocade hat OCS in woods behind house med - coase-gran Foliated to granoblaste

OLV141 N45E 20 NW lineation (streaking) on foliation N70E 18SW coarse grained qtz feld gn, bio stks lineated + highly mylonitic fabric, sand terrace with 4" qtz cobbles surface soil

OLV 116 N40E 30NW interlayered mafic and felsic gneiss, sap, Flaggy felsic layers in road

OLV 117 N45E 30 felsic gn saprolite

OLV118 N20W 20SW mass felsic gn

OLV 119 N30W 5SW mass/muse qtz feld gn

OLV 119 N80W 18NE massive feld gn

4/1/92 @ Jefferson Hotel RNK
Mileage 85 976.3
85 977.5
left on elm 89576.4
rt on ramp to 220 exp 85977.7
rt on OFF ramp to Colonial 979.1
Lt on colonial VWCC 979.2
Wonju 85979.4
rt on overland 85 980
OLV 521 red clay to 2.5'
OLV 522 pent. 1' on side bank
red orange gran sap w lg feld pbs
OLS 531 gray pipe clay just below surface
1.5' refusal in green and white granular
saprolite
OLV 532 eg hbd gn oc in stream
bank N70W 45 NE
OLV 533 orange clay soil
OLV 534 on Miry branch oc N70W 5NE
interlayered pb gran gn and amphibolite
gneiss and schist
OLV 2515 N50W vert fol in hbd schist
along fresh scraped logging road
OLV 2516 N55W 16NE fg hbd gn/sch in stream
comp banded w biosch
OLV 2517 ~~N50E~~ N55W 30NE N80W 15 NW plunge
dextral similar folds in layered

OLV 164 N 85 W 35 NE
Cut bank exposes interlayed mica
schist and bio gneiss w peg core
comp layering - Fine lam to med
bedding in gneiss, schist as slip
cleavage zones dipping gently
NE

OLV 165 coarse musc sch w/ grgn layers, sparkling
musc sch has Kspar p blasts (twinned)
1" long musc up to 10 mm, gneiss
salt and pepper terx bio granite gn
white - lite gray

OLV 141 N 55 W 5 NE Pavement
of musc sh/gn

OLV 142 N 70 W 10 musc sch / gn pavement

OLV 143 btw musc/bio gn with
Flowage folds Forms large rolls
above beaver dam S 20 W 55
F3 hook axes

In woods above Flat there
are ruins of a mill with
segments of burr stone
wheel

OLV 174 blders + cobbles/blocks garnet
qtz sillimanite rock - Fe qtzite

OLV 911 N 45 E 45 NW Dark gry to B&W
Hbd Bio Gn Sap some folded ll bedding
hings some apparent mafic clasts (cobbles
In intermediate gneiss sap

OLV N 40 W 15 NE bio amp sap gn
with schist beds

OLV 953 sandy td top .3' sand
2' red-orange sndy clay
.6' yellow - orange mica
sap - gran gn?

OLV 562 N 80 E 50 N

OLV 491 N60E 12 NW M-cg
granodiorite. /gn
OLV A92 N70E 70 NW Fine gr thin
bedded light and dark gray banded
gneiss, fine bio, dk gn hbd orpy*
OLV 493 very gently dipping bio/hbd
gneiss pavement fold cores
stand in relief on surface
N55E 10 NW Fine bio/hbd layers
~ 1/2 - 1" thick with pelitic
fine garnet qtz feld gn
layers
OLV 731 N85W 35 NE dk gry
cg pb bio gn w hbd layers
in stream channel at int.
Hupps Mill lagers?
OLV 732 N50E 40SE Fine layered stp
bio gneiss (mgw in ledges
hbd rich boudins or fold
cores
Small left lateral fault
EW trend dips 62° SE - Good Photo
Field trip stop
OLV 733 med-cg bio qtz monz-or
granitoid, massive 4 - 8'
joint spacing, road crosses
at pavement strike joints N60E 75 NW
cross joints N25W 70 NE pen stringers

OLV 891 N10E 18SE Leuco gran with closely spaced Fracture cleavage. Bd bldrs

OLV862 N60E 70 SE, Gran and White Bio gn

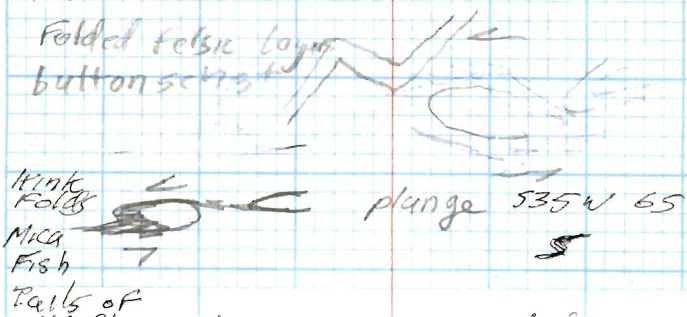
OLV862 N60E 28 NW pavement exposure of coarse, thick layered pink and greenish gray granitoid gneiss pitted weathering, cg feld pclasts all fractured and internally altered this is a micro-meso breccia unit

OLV 942 N60E 45 nw hbd gneiss, thin bedded interlayered with lt gray grgn and dark pb bio gn

N70E 40NW cg hbd gn, leuco mtx looks like dioroid gn some hbds up to 1" across (ortho gneiss? pcg?

OLV911 N60E 60NW Fracture in fg light brn tan grgn suprolite

OLV912 plag pyx granofels white and rust weathering, dk bluish gray fresh granulite like layering (calc silicate?) then on point red mica rich clay sap with sivery gry mica schist partings N70E 40NW



OLV 167 N75W 25 NE int. lin. N50E 17[illegible]

OLV 178 N70W 35NE coarse pb bio gn/ms partings, felsic stringers

OLV 179 N80W 15 NE cg pb banded bio gneiss rotated pb shows domino structure

OLV 1710 Bio gn whale back lineation N50E 5-10 NE

OLV 391 soil probe - orange yellow clay then yellow brn sand soil at ~ 8" - Td?

OLV 392 soil probe red clay on top of yellow-gry gr gran sap. Epidosite bed in bank N86E 36NW

OLV 393 yw brn mica sap at 14" - bio gn/sch

OLV 382 N35W 19NE mica sch layer in deep rd brn gn sap in stream

OLV 383 mom and baby Fish in circular gravel nest babys yellow spotted mom gray mottled ~ 6" long - frisky possible distraction from babys

OLV 384 N15W 15 NE Foliated hbd bio gn w pink to white bio gran dikes

OLV 385 75' up stream in branch bk+w bio (brn) gn N70W 20NE (big mac w/ wht gran stringers hbd Flt at int below

OLV672 1.5' pen gray stick plastic clay then granular saprolite - mafic - int prob hbd / vermiculite

OLV673 Saprop cg bio hbd gn EW 20-3 south dipping much Feldspar in stringers or layers

OLV674 probe refusal at 2.0, 1.0 red micaceous clay subsoil 1.0 orange-brn mica gneiss saprolite with very gentle dip

OLV2510 3.2 of red micaceous clay & mica gn sap brn-yellow mottled at base stopped on qtz vein

OLV2511 3.8' " " "

-12 3.0' semi plastic red-orange slty clay then gran sap

-13 2.6 .8' lt gy-brn slt loam
1.4' lt orge rd slt clay
.4 yl mott orange gran sap

-14 2.9 mica brick red clay then orange mica gn sap

OLV281 2.6 brn sandy loam 1.0 red clay 1.0 then mottled gran gn sap

OLV291 1.0± yelw sandy clay loam 4.0 stick yellow clay .2 cly as ab w/ muscovite ? pog sap!

OLV292 1.7' orange red micaceous clay

OLV293 3.4 red micaclay sub

OLV294 banded rusty gry / white mafic Felsic sap in cut bank N70W 18NE

OLV295 as of apr 1997 this dam no longer holds water 20' diam 15' deep churn at spillway exposes gray gravel layer at base of al

OLV296 N70W 80NE Fault plane cutting cg mica gn sap N70W 18NE Foliation, amp to S of Fault

drag in qtz lens suggest normal displacement

OLV29[illegible] [illegible]

10 mar 1997

OLV 261 2 cores in light ylwish gry micacous fg gran gneiss sap

LV 341 yellow orange silty clay sub soil, hbd gn/amp Float with pink leucogranitoid blocks in barn Found

OLV ~~242~~ 231 dk-med gray banded gneiss w/pegs

OLV 232 coarse banded granitoid in stream

OLV 233 coarse musc/bio granitoid gn blocks in tobacco barn foundation

OLV 234 lt gy-pnkish orange, coarse feldspar pb mylonite / gn sap N35W 15NE

OLV 262 n45E 25 NW leucocratic layers or dikes in granitoid mylonite gn sap

OLV 235 coarse bio gn n50w 28, distinctly layered

11 March 1997

OLV 223. lineated, pink cg grgn sap at dam soil probe indicates upper 14" silty to sandy loam then yellow orange mottled silty clay layer some rnded pebbles in uppor 6" of sandy soil

OLV 224 mottled gry slt and silty clay alluvial base in stream (Pipe clay)

OLV 211 n60W 20 NE ocs of lt gy-pnk grantoid gneiss

OLV 251 n60W 40 NE brownstained bio? grgn sap

OLV 153 N45E 42 NW Coarse bio gn sap
OLV 154 EW 10 N lg grgn pavement
~100 X 75' prickly pear abundant lichen
OLV 148 N70E 23 NW Foliation
in cg mylonite gneiss
OLV 311 soil probe
0-5" ylw gry - sandy loam
.5 - 1.4 pale orange pink mottled ylw
red clay loam
1.4 - 2.8 pale yellow - orange - red
mottled sandy clay soil - old to
qtz sand grains visible w/ ens
OLV 361 N 40E 45 SE Gray bio gn sap, feld
pbs or pbls
OLV 312 N75E 10 SE W layered bio gn
pavement in stream.
OLV 313 N40E 5 NW (Asymmetric NE facing
Antiform in grgn N65E 68 SE
hinge plunging 230 @ 26
OLV 364 N10W 30NE drk pb hbd/bio gn sap
OLV 362 Coarse hbd gn/mgab b/drs
in barn foundation, core in pond
at ~24" in bio fite gn/sch sap
(yellowish gry micaceous clay
subsoil)
OLV 363 yellowish gry micaceous clay
in road ditch, feld dike foliation N 90W 22 SW
3/26/97 OLV 386 N5 10W Sap of bio gn
w mica schist partings
3/27 OLV 164 SOIL PROBE TO 5.7'
Yellow orange plastic clay (wet) to 4.7'
then green to yellow greenish gray
gneiss sap, hbd b drs at bottom
OLV 165 mica gn/sch chips in plowed
regolith
OLV 166 N20 W 22 NE layered mica
gneiss sap in spill wall

4/28/97 Trip 4/29
Call To Jim Hibbard

1-800-955-8000

0-919-515-7242

844 344 5011

15 · 501 -
straight to Duram
Stay on Duke St until
147 duram Expressway
I 40 East To Raleigh

Take Right Forte I 40

Wade Avenue Come to 3rd

light behind Meridith

College Chain Link fence

Left Ridge Shopping Mall

turn right about ½ mile

30 April 97

OLV 913 sillimanite garnet mica sch Flt in soil below td typical orangish rd micasoil visible to top of hill to NE

OLV 914 some amp gn Flt on nose of hill - like Bassett!

OLV 915 n 25E 50NW Hbd gneiss and schist, epidote qtz rx OLV 916 Feld gn Flt

OLV 916c banded tan/blk blo gn sap n 65E 20NW

OLV 919 Feld gn Flt coars cobbles qtz brn soil, many cedars

OLV 919 black and tan pupples coarse um bldrs - by cabin

OLV 951 n 45W 35 NE med-cg pb blo gn Feld pbs strung out along foliation felsic stringers weather out as plates in tan micaceous soil, some fg hbd gn Flt

OLV 910 Deep clay in bottom mottled gray silty clay "pipe clay"

OLV 952 n 80W 55 SW joints in mass med-gr white - lt gray grgn (Orthogneiss or Gran?)

OLV 953 n 70E 24 NE, gentle limb N 10E 80SE, steep OT limb, axis plunges N10E at 30 Black and white hbd gn

5/1/97 OLV 921 n45W 20NE black and white gneissic saprolite, highly granitoid ~~abt~~ Feldspar p blasts

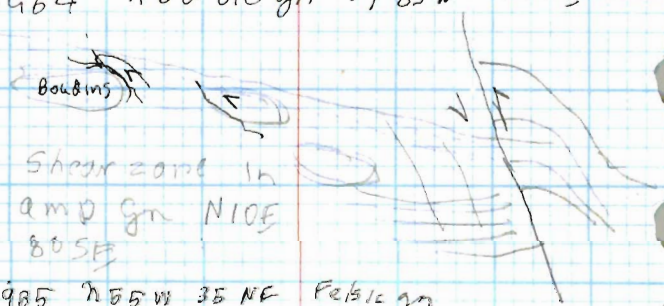
OLV 922 n45W 20 NE medium grained qtz Feldspar gneiss, minor (bio) mafic granular intergrown qtz + Feld leucocratic weathers orange-yellow

OLV961 n80W 20 NE F-Mg gray granitoid gneiss, white and blue feldspar and quartz porphyroclasts up to 2mm could be felsic tuff or graywacke unit minor biotite contain flat stratification like slaty tuffs in Danville

OLV962 n80W 35 NE, Bldrs and flat outcrops in stream, dk gry biogn w bio schist zones

OLV963 n75W 40 NE banded, porphyro-blastic hornblende gneiss, b+w, coarse grained

OLV964 nbd biogn n 85W 40NE

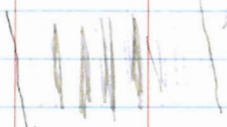


OLV 985 n55W 35 NE Felsic gn

OLV 931 Highly siliceous (vcined, cellular texture calcic plag (greasy qtz rx orange weatered mineral in pores

Volc Breccia?
Altered Carbonate?

OLV 932 EW 65 N, gray bio gneiss sap, amp or bio rich layers boudined and partly surrounded by leucozomes, gneiss has pebble sized



porphyroclasts

OLV 933 Hbd gn Vs downstream N50E 15 NW, Bio gn, highly deformed in stream N70W 70NE

20 May 1997

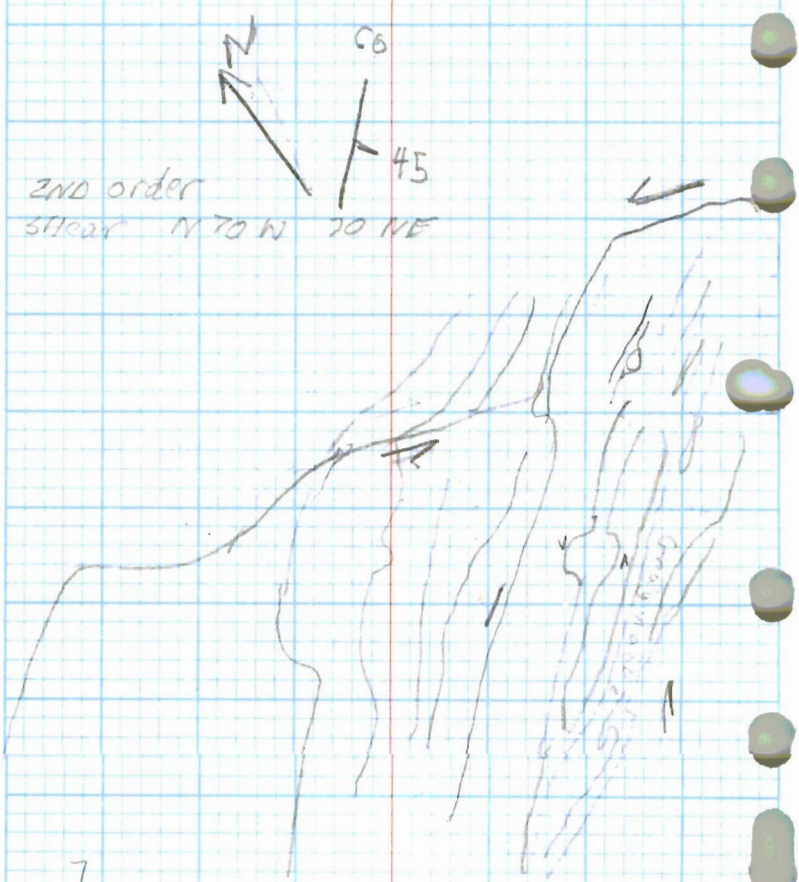
OLV 451 N45E 42 SE ∠ tight isoclinal hinge S60W @ 15 dip N45E 5 NW

unit is Pg mica gn w bio sch/calc qtz granofels layers. gr gn stringers.

OLV 481 N80E 40 SE porphyroblasts of kspar in bio gn sap (Huper Mill type)

OLV 756 N 60E 45 SE B+W 310 GN W Grnt
Stringers shows boudin, stretching
along foliation seams to support
left lateral shear pattern

GOOD FIELD TRIP STOP



OLV 757 N 60E 50 NW gry and white bgn
cut bg ned gr - pink grn

7

OLV 471 Soil Profile

Ft

0.15 Organic mtl

0.40 Sandy loam 5YR 5/3 reddish brn

.20 sandy clay loam 5YR 5/6 yellowish red

.70 sandy clay 5yr 5/6

2.60 Sandy clay saprolite w/ white K feld pbs in place 5yr 6/6 reddish yellow

5/21/97

OLV 471 traverse S of Now Arbor Church yellowish red soil w mottled "C" some foliation in "C" ~ bio gran gn ?340 65 NE

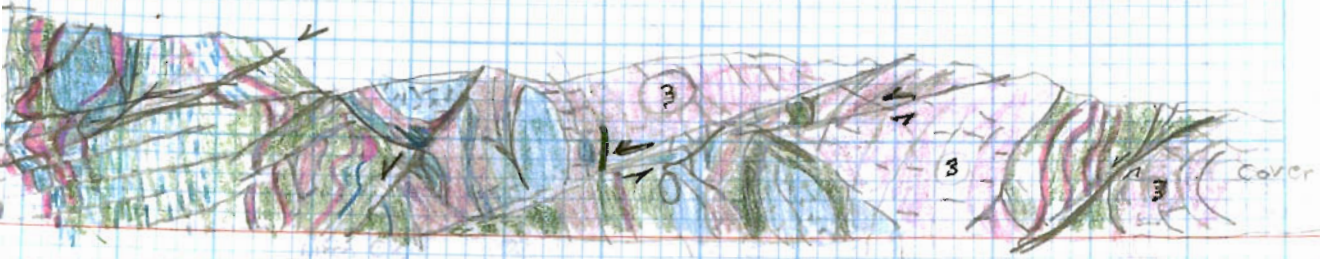
OLV 472 hbd sch/gn sap in road intbed in bgn/grgn sap ylowish red soil

OLV 481 N70W 55 NE hbd schist/um, heavy ylw brn clay soil in bottom

OLV 473 hbd bio gn/sch sap in stream 355 10–20° NE

OLV 712 N50E 78 SE Bird song puzzles my thoughts? Who is he? God has given him a beautiful fanciful song! Hbd bio gn sap in stream, rich mans soil [illegible] field

OLV 713 N60E 60° NW cg porproblastic bio gn, feld pbs 1" long, granitic stringers


3
3
3
Cover

OLV SOIL PROFIL

3" slt loam 5YR4/3 disturbed A

7" (mica) Feld frag. coarse sandy clay 5YR5/6 transition A/B

2" 7.5YR6/4 Micaceous clay, w/white spots B

20" 10YR6/6 clay, mottled red, white B/C

12" greenish gray ganular sap C SAP Hbd bio gn

Foliation at bottom (bio)

~N 30E 20 NW Meas from core

OLV 811 N 10E 45 NW bio gn, fg my sap with musc sch partings and qtz veins/small pegmatites, Jd FH

OLV 832 N 35W 20 NE Hlupps Mill gneiss (Pb bio gn) in stream

OLV 833 Large dump at head of gully

OLV 834 UST and Gas Pump Between House and Barn

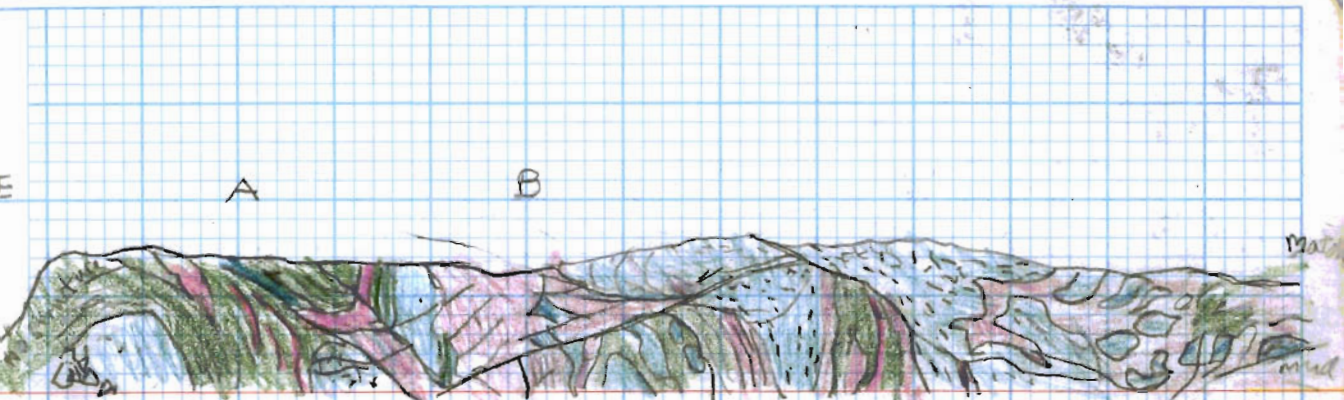
OLV 835 N25W 35NE cg pb bio gn Foliation is mylonitic (sm)

OLV 836 N20W 10SW pure black coarse porphyroblastic bio schist, massive Ty bedded qtz stringers, rare feld pbs

OLV 837 N20W 10 NW coarse hbd diorite gneiss, hbd. follows lineation S80W 5

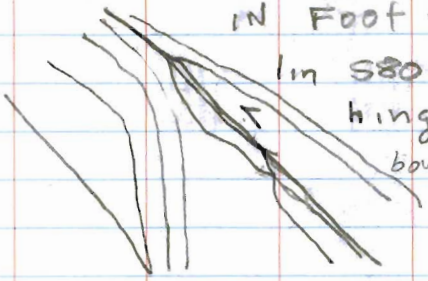
OLV 838 small megascopic Anticline N 40 E 15NW N 40E 30 SE

OLV 791 tan grgn sap in stream
OLV 792 Hbl gab, dk amp blds
OLV 793 Banded Hbl gneiss sap
in cut banks of stream
OLV 794 Siliceous breccia float
along slope
OL

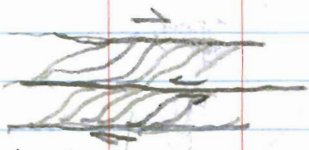

A
B
Mud

Join
Begin Melange
Cover
Covered
Join

OLU 455 A, THRUST FAULT OFFSETTING FELSITIC LAYERS N25E 50 NW EXTENSION IN Foot wall. Streaking in S80W 5°. Fold hinges N20E 18 boudin NS 7 N



C and S structure in hbd bio sch



Shear bands N80W 10° NE

Foliation N40W 45 NE

small snake heads N

OLU455B Normal Fault offsetting boudins N15 E 24 SE