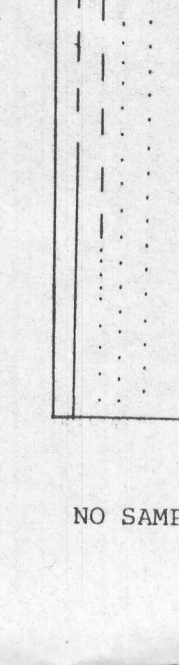


"big drink"

- Ch chlorite
- Q quartz
- C calcite
- K kaolinite - clays
- P pyrite
- E secondary epidote
- B bronze mica

CHOCCKPEB



graywacke - medium fine to fine grained,  
medium to light gray, lithic to felsic  
gray-black phyllitic siltstone-argillite 10-20%  
trace of foliation and silica rims on lithic grains  
kaolinitization of feldspars, quartz & calcite veins

3550

NO SAMPLE

3600

NO SAMPLE

"big drink"

MAJOR CHANGE

3700

NO SAMPLE

3750

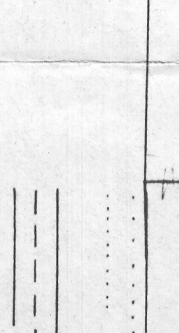
loosing  
100 bbbs/hr

NO SAMPLE

3800

"big drink"  
set gel pill

CHOCCKPEB



graywacke  
medium fine grained, medium gray with some greenish  
gray, more foliation, lithic grains, more micaceous  
minor gray-black phyllite with some quartz interbeds  
some isoclinally folded

3850

stop drilling  
have to circ. out  
LCM

NO SAMPLE

turbo drill  
1/20 bent sub

graywacke - medium gray, fine to medium grained, some  
some greenish gray  
kaolinitization increased, calcite inc. veins, quartz  
centers, calcite frags & sulfide,  
minor dark gray phyllite, + trace of greenstone,  
aphanitic green grains, amphib, biotite, feldspars-  
kaolinitized

3900

30,000# WOB

graywacke - a/a, but finer grained

3950

siltstone - dark gray with calcite and quartz veins-35%  
phyllite - 10%  
graywacke - medium fine grained, medium gray to greenish  
gray 45%  
sand size grains -> soft rock, -> kaolinitization?  
graywacke - greenish gray, fine-medium grained  
trace of green chert and phyllite a/a quartz-py veining

4000

mudstone - hard, slightly phyllitic silicified greenish blk  
siltstone - dark gray  
graywacke - medium gray, fine grained, trace of qtz veining  
some sand size cuttings

graywacke a/a, some greenish gray  
siltstone, dark gray phyllitic  
siltstone - very dark gray, slightly phyllitic  
phyllite, black,  
graywacke, medium-light gray quartz py, chalcopy veins

4050

most cuttings coarse sand size  
graywacke - medium gray, medium fine grained, lithic  
phyllite - grayish black, silty  
quartz veins, minor calcite, trace of py and bronze  
sulfide, regular cuttings  
+ dark gray phyllitic siltstone 5%

4100

some more phyllite  
siltstone - very dark gray phyllitic to micrograywacke  
graywacke - medium gray grained, quartz/calcite veins  
aquamarine mineral clear subhedral quartz Fe  
oxides and sulfides

4150

graywacke a/a with minor siltstone a/a and trace of  
black phyllite  
silicified  
v.f.gr.lithic sulfides/oxides  
graywacke quartz

4200

temp/methane inc.  
drilling break

4232 survey  
14° 84'E

pump trouble

graywacke a/a calcite veins, trace quartz

4250

4293 survey  
13°45' S30'E

wt. of pipe  
147,000 lbs  
175,000 lbs  
up weight  
108 LCM  
55,000 lbs WOB  
45 RPM

presence of pervasive clay  
alteration-soft, bleached  
graywacke w/ slicken slides

graywacke - medium grained, medium gray salt & pepper,  
some calcite cement, very dark silty phyllite trace  
with primary, secondary and tertiary foliations  
common quartz + minor calcite veins, (calc. cuts qtz)  
with Fe oxides, trace of greenstone?  
honey-colored vitreous mineral as alt. of feldspar  
phyllite has secondary and tertiary foliation

graywacke - medium grained, medium gray quartz veins  
yellow green - green gradation in decritan epidote  
aquamarine, clear mineral, chlorite

4300

bypassing shakers

graywacke - a/a except some large lithic frags now  
biot. phyllite  
very dark gray phyllite - <10%  
yellow epidote  
aquamarine

4350

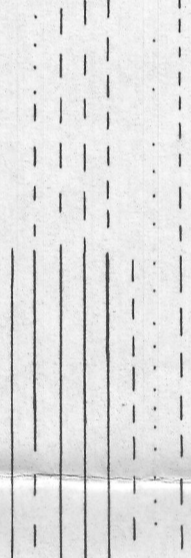
quartz veining with py  
graywacke - a/a with some soft, light gray friable  
clay rich sections associated with slicken slides

4387 survey  
83°E 140°30'

high torque and  
WOB  
55,000 lbs  
at 45 RPM

high torque  
and WOB

KCHOCCKPEB



graywacke - very fine to medium fine grained light to  
gray, some soft friable, very light green gray  
calcareous graywacke with layered (biot), slicken-  
slides  
trace of very dark gray lithic, very fine grained micro-  
graywacke, sample mostly sand grains -> heavy clay  
alteration  
trace of dark gray-black silty phyllite, bronze mica, py,  
trace of yellow-green epidote and aquamarine-green  
mineral quartz and calcite veins with epidote -  
secondary yellow green

4400

drilling rate  
9'/hr  
high torque and WOB

graywacke - medium gray, fine-very fine grained,  
grading to micrograywacke  
aquamarine to dark gray green lithic frags

4450

graywacke - medium gray, medium grained to light gray  
hard, silicified to soft, clay altered, friable,  
layered with chl. biot. + slickenclides, euhedral  
quartz and calcite  
very fine grained dark gray lithic graywacke ->  
argillite - minor to trace

4500

CECI Geol. thinks that at 4540' there is a big change in  
degree of kaolinitization accompanying mineralization  
chl, kaolinite, py, is variable  
slickenclides are often oxidized to brown-black  
biotite is foliated to slickenclides surface

4550

graywacke - medium fine grained, medium gray a/a fresh  
silicified and soft friable kaolinitized gysum?  
Fe oxides

4600

continuous a/a according to CECI Geologist

4650

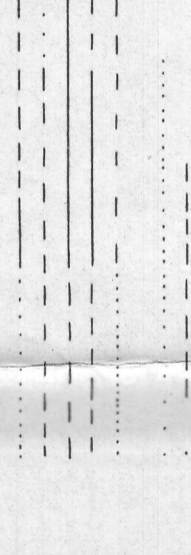
still bypassing shakers

4700

4790  
high torque &  
vassillating WOB

4798

KCHOCCKPEB



graywacke - medium coarse, poorly sorted, medium  
to light gray  
minor micrograywacke - dark-medium gray, lithic v. f.  
gr. hard siltstone  
minor bleached, altered graywacke a/a pink/orange  
calcite? in vein clear quartz; slickenclides w/  
oxidized Fe surface pyrite & chalcopy in quartz  
veins w/ minor calcite  
more micrograywacke & grayish black silty phyllite

4750

high torque &  
Δ in WOB

high torque &  
Δ in WOB  
60,000 # 50 RPM  
drilling speed 12'/hr

graywacke - medium fine to very fine grained, gray-  
dark gray trace of dark gray-black phyllite  
minor bleached clay altered graywacke a/a foliated w/  
chl., biotite, quartz, calcite veins  
graywacke a/a darker, fine grained, is more lithic  
+ minor trace dark gray siltstone + black phyllite  
+ minor bleached graywacke a/a: soft, friable, very  
light gray w/ extensive kaolinitization, layered biot.  
and chlorite + slickenclides w/ br. black Fe  
oxides? + chlorite  
Qtz/calcite veins  
graywacke a/a  
phyllite, very dark gray silty, qtz veins foliation  
graywacke - medium gray to sl. greenish gray, medium-  
very fine grained w/ some bleached soft graywacke a/a  
phyllite dark gray-black 3%

4800

4850

3) foliations in phyllite  
1) mica plane  
2) thin parallel laminae -> links along plane  
surface ->  
3) small folds or kinks 2) perpendicular to their  
fold axis  
CECI Geol. thinks big reduction in alteration mineralogy  
@ 4880?  
seems variable kaolinitization/silicified zones

4900

4950

graywacke a/a with variable minor kaolinitization or clay  
alteration described above, and only a trace of argillite,  
phyllite or siltstone

5000

graywacke a/a according to CECI Geologist

5050

5100

5150

some poor samples collected by logger  
graywacke a/a both hard, and soft, clay altered

5200

5250

5290'  
ledges when  
logging hole

drill bit locking  
up as it does when  
drilling in clay

5325-5450  
ledges when going  
back in hole, logging

KCHOCCKPEB



graywacke - medium gray-greenish gray, fine grained  
Minor: black phyllite & dark gray, hard v. f. gr. silty  
ss, argillaceous silicified  
a/a, more soft bleached graywacke a/a clear and euhedral  
quartz, qtz, calcite, py veins

5300

omnipresent kaolinitization and trace - minor siltstone  
and phyllite a/a

5350

graywacke - light-medium gray to slightly greenish,  
fine-very fine grained  
trace to minor kaolinitization, variable but omnipresent

5400

slight foliation in graywacke-orientation of lithic  
fragments phyllitic grain  
quartz + calcite veins + pyrite

5450

graywacke a/a

5500

5545'  
lost 140 bbbs

5560-ledge when  
logging hole

light-medium gray w/ gr. graywacke minor trace  
gray-black phyllite & dark gray, hard v. f. gr. silty  
argillaceous siltstone, some light gray soft,  
clay altered graywacke a/a  
quartz Fe sulfide veins euhedral, clear quartz

5550

5600

5592' survey  
204°P

NO SAMPLE

graywacke a/a trace phyllite  
graywacke a/a light gray, medium grained trace  
altered a/a trace phyllite

5650

5661' drilling 15'/hr  
loosing mud steadily

NO SAMPLE

graywacke a/a with minor v. f. gr. salt & pepper  
siltstone - micrograywacke  
foliation in hard graywacke, definite grain  
orientation in lithic frags - possible silicifi-  
cation and quartz over growth quartz grains  
break across boundaries

5700

5695  
drilling break 30°E inc.

NO SAMPLE

5716 make connection lose total  
circulation at least 264 bbbs

5750