



If found please return to
[State Geological Survey
Tallahassee
Florida]

Elmer Fairley
Panama City

1891

JHC. M. July 23, 1927

Jacksons bluff Ocklocknee R.

bag 41

5069

Green sand from lower part of

excavation for dam foundations on
W. side Ocklocknee R.

This is from a depth of about
12 to 15 feet. The materials above it
is mostly rather fine white sand containing
a little clay so that it will stand in the
bank. This green sand occurs as
a fairly continuous mass in the lower
part of the cut, perhaps 4 or 5 feet
of it in some places. All small
masses of it surrounded by the
white sand, the green is more
coherent, but it cannot be said that
it is really cemented at all.

No fossils seen anywhere
in the excavation.

bag 54

5070

Sand from recently built delta
at mouth of small creek entering
Ocklocknee R. just below the highway
bridge at Jacksons bluff.

It appears that this is a new
channel for the creek caused by the
diversion, but this was not
checked up by following up stream.
The sample represents material
enriched in heavy minerals at the
top of sand ripples under the
rapid current of the tributary
stream on top of the delta.

July 25, 1927

23 miles N.W. of Tallahassee
on road to Quincy.

Deep cut on highway gives
very good exposure of Alum Bluff
Group. - Light gray and yellow
clay near bottom of cut.

3 miles E. of Chattahoochee on
Highway no. 1

There is a thin scattering of gravel
on the surface about $\frac{1}{4}$ to 1 inch size.

Pebbles all iron stained and probably
many of them are concretions of
iron limbed sand. The underlying
material is a red sandy clay with
streaks of yellow extending through it
very irregularly.

2

July 25, 1929

on Highway No 1, two miles E of
Chattahoochee R. (32.5)

Outcrop of Chattahoochee ls. in
highway cut.

There are many irregular joints in
both the white and the gray portions.
Some of these have a thin black coating.

2 spec. of manganese on soft ls.

July 25

Jackson Co.

1 mi. W. of Chattahoochee R. on
Highway no. 1. - roadside cut shows
a pebbly red sand. The sand averages
only moderately coarse but some parts
contain up to 20% pebbles, from
 $\frac{1}{4}$ to $\frac{1}{2}$ inch - mostly white quartz.

The sand has enough clay and iron
binders so that it stands practically
vertical in a foot bank.

52.1
Road material pit on N. side of
Highway no. 1

Orange sand - mostly medium to
coarse grained. Cross bedded some
parts slightly cemented. Small amount
of qtz pebbles up to $\frac{3}{8}$ inch.
A few concretions on surface.

Sample No.

100

=5100

July 26

8 miles E. Marisoma on old highway
owner W. H. Miller

Sample represents bank 3 ft high.
1 foot loam (sandy) soil
not included in sample.
Considerable sand hauled for
local use.

Contains some vegetable matter
but mostly in upper part where
roots are abundant.

Color light yellow with few
horizontal green streaks.
Bottom not exposed.

200 ft to S. corner branch the same type
of deposit of land of O. McHolman.
This has a little more of the
brown in it and a few iron
concretions. Worked to depth
of four feet. Bottom not reached.
No sample taken.

This locality is about 1/2 mile
N. of the upper highway 2 miles

old road changed north

straight North 1 mile
left hand road 200 yd west of road
cedar trees

July 26

Sample
101

=0-109

Clay

A. J. Barbony Brick plant
Cottendale, 3 miles South.

capacity 15,000 as operated
rated at 40,000.

Pit shows 7 ft depth of
clay with no overburden.

W. H. Miller except the top soil, located
in the woods so there are
roots to be thrown out.

Big mill and stiff mud brick
machine with rated capacity 40,000.

The have burnt only 50,000 (score
kiln). The fire was apparently applied
too rapidly and not long enough
because sides of the brick are
underburned when some cracked.

The raw clay is dark gray. The
underburned brick are lighter & pink
on outside and gray on inside due to
incomplete breakdown out of carbon.

Drying sheds leak and some
of the mud brick have disintegrated
from the water running into them.

The clay was evidently deposited in
a depression very likely a lake.

Mr. B. says he has tested it for
about 8 to 10 acres. It does not
extend into the inland. There is then
cover of sand on some parts of it.

Gravel

July 26

(5)

H. W. Johnson

4 miles S. of Cottontale on highway

Usually 5 to 6 ft. thick
sometimes 9 ft.

Gravelly sandstone 50 to
80 feet thick (part covered)

Gravelly sandstone and quartz
minerals. - 1/4 in. (estimated) high
so that they are cracked and
loose.

Large amount of gravel has been
taken out of the road between Cottontale
and Panama City. Much of this shipped
on R.R. to Panama City. This is the
gravel with clay and sand. Orange color.

Sample 102 is the gravel with some
clay and sand. Deposit is variable but
this can hardly be called an average.
Used to look some for concrete work.

Previous work run

103 is a sandy gravel such
as was washed and screened for concrete.
This is usually only 1/2 to 2 ft thick
and then runs into more clayey gravel.

The gravel occurs on a tract of 360
acres but this is not underlain by a
continuous deposit. It is very variable
in amount of sand and clay and often
passes into red sandy clay.

Road material with clay mixed in
mixed in stream channel. Water in
most of the excavations.

102

=5102

103

=5103

Cottontale

July 26

(6)

Dick Bush + deposit continues
over into the hills. This is a
higher ground than Johnson.

Some used by State Highway Dept.
in construction of gravel road.
1/4 to 1/2 mile W. of railroad.

of which about 1/2 mile long (N-S)

1 1/2 to 2 ft overburden (sandy)

2 1/2 to 3 ft. sandy gravel.
then clayey gravel.

In places overburden runs out to
almost nothing.
Sample of material with large
percentage of pebbles. Gravel

104

=5104

105

Sandy
gravel

=5105

Sample of material with large
percentage of sand. Both of these
are from a pit on land of
Dick Bush where a small amount
has been taken out.

It appears that the greater part
of an 80 acre tract is underlain
by the material but it is
certainly not uniform.

Part of the land is under
cultivation.

Cottondale July 26

(7)

106

=5106

H.W. Johnson
White Sand

W. of R.R. about 1/2 mile
4 mi. S. of Cottondale
(north of Dick Bush)
Tried to 6 ft depth and no
bottom
some used for concrete
3 or 4 bags shipped to
Panama City

Sand varied in texture.
"Fillet" sand with water at
about 2 ft depth
became very fine in damp
land with egress.
Patches of 1 or 2 acres which
contains vegetable matter

Sample to 2 ft depth?

W.A. Griffin

2 1/4 miles N. of Cottondale Station
RR cut shows yellow to red
sandy silty clay
Very little of it for large
fields to call it a meadow
More of it is sand a little
very little pebbles, Mr. Porter got
the

107

=5107

2 1/4 mi. N. of Cottondale

W.A. Griffin Sand

parallel to main stretch of
road out of Panama City
1. Mr. Porter got the sand but
1/2 mile W. of R.R.

Sand was washed water
pumped from pond to north of
bank. - stopped with mach. (pump)
On north side of swamp (bay)
there is more sand than on S. side
where it is worked.

Bank sample to 3 ft depth.

Hard pan below the sand which
was dug - (4 inches hardpan)
more solid below - this could not
be seen with digging

Sand as worked 3 to 4 ft thick

Soil is coarse sand all the
way to the surface as overburden.
Concrete most of track. The land
is worked.

(8)

Cottondale July 26.

(9)

107

no. contractions.
Impure vegetable matter.
Worked for a width of 50 to 100 ft
N-S and ~~some sand is~~
E-W perpendicular to the
railroad
total width of different patches
600 ft. former a dam ridge
Was banded to R.R. in 1914

Mr. Griffin tells of some wells
about 0.50 miles north of Cottondale
which are producing a small amount
of refined oil approximating gasoline.
A well has been run for six months
on the product of one well.
An oil company with offices in
Jacksonville has leased the land
at 10 cents an acre, also some
of the surrounding land.

Marianna

July 26.

10

The Searce Products Company is said to be producing a hard limestone for concrete aggregate. This occurs on the surface.

July 26,

Cottondale

HW Johnson.

The deepest cut shows a maximum of 10 feet of clayey + ferruginous sand and gravel. Max. size pebbles about three inches.

The deposit is very irregularly bedded and no definite section can be given. In places there is gravel at the top and in other places clayey sand. General color of bank is orange, but many of the pebbles are white. Where the sand-gravel deposit has been cut through to the bottom there is a gray clay below it mottled with bright red.

The pebbles in the upper part of the bank are darker, have rougher surfaces and more tendency to disintegrate due to greater weathering.

The sample collected can not be considered as average, they probably contain a little more gravel than the average. Due to the irregularity of the deposit and irregular method of settling an average sample should be very difficult to obtain. The principal workings are shown by the ditch across the beginning to the east but a little water stands in the excavation where they have been digging most recently.

The under clay is in places very smooth and fine from grit so much

Cottondale

July 26

12

be worth looking into. It is not well exposed since it is mostly covered by talus.

$\frac{1}{2}$ mi S. Cottondale

At the top of the hill $\frac{1}{2}$ mile S. of where HW Johnson is working, a considerable amount of a sand, gravel, clay, mixture has been taken out for local use in reinforcing the road. The workings are on both sides of the main highway. The general characteristics are the same as the HW Johnson.

Percentage of pebbles on the whole rather small perhaps 10 or 15% of $\frac{1}{4}$ inch + size.

A general view of the pit gives the impression of more gravel because of the breaking out of the sand and clay by rain.

They seem to be rather redder than that in HW Johnson pit. Perhaps higher elevation and better drainage give more chance for oxidation. Highest bank 7 ft.

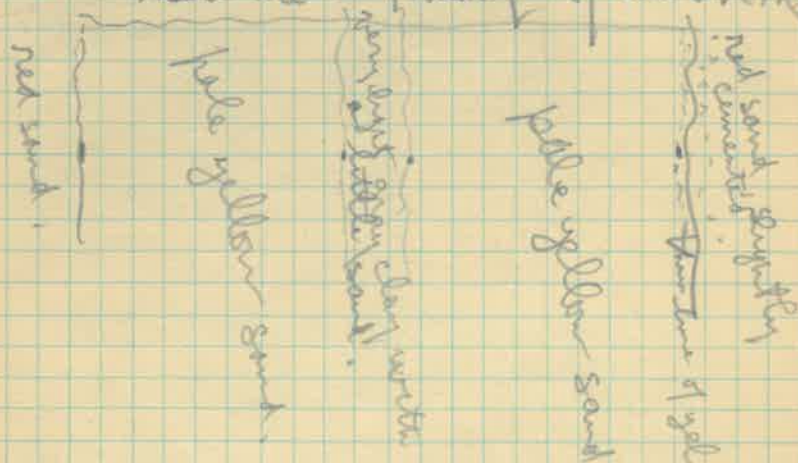
In lower part of cut a moderately hard clayey sand with peculiar mottling of red, white, light gray, and yellow, with the yellow red in excess.

July 27

(13)

4 1/2 miles S. of Cottondale
in railroad cut. Clay remains
red sand.

There are very many of these veins



This shows a section of
one of the veins to true scale and
indicates the usual structure
and about average size.
There are also irregular streaks
and blotches of white and yellow in the
red sand. The red sand is redder
and harder along the vein margins than
elsewhere.

Much of this may have been
caused by the action of tree
roots. Good indications of
this were seen elsewhere.

July 27

(14)

met a native about halfway between
Cottondale and Steele City, who says
that the gravel around here occurs
mainly on the hills.

4 1/2 mi. S. Cottondale,

in cut on highway going down S.
side of hill mentioned on p. 12
gray clay mottled with red, like that
on H.W. Johnson place.
Also pieces of the clay in the sand -
gravel above it.

July 27

(15)

Steele City → Alford

Going down the S. side of the hill
on which the village is located the
highway cut and ditches show
cross bedded clayey sand.

In a few places near the top of the
hill clay shows below the sand.
A gray and purple mixture, similar
to that on the H.W. Johnson property,
which might better have been described
as purple than red.
It is about half of each color the
gray occurring as a network through
the purple.



Veins of dikes of clay extend from the
clay deep into the underlying sand
and as at the locality described on the
preceding page, the sand along the
margin of the dike is red and harder
than the rest.

July 27 ¹⁶ 1/2 mile S. ~~Steele~~ ^{Rford City}

Railway and highway cuts through hill to depth of 10 feet maximum show rather heterogeneous material but in general upper part is a clayey sand with pebbles and concretions and lower part a gray clay, sandy in spots but perhaps with leaching.

bag 202 many black sandy concretions (Compagnone) sample collected

lumps of chert up to about 4 inches in size most abundant near the upper contact of the gray clay but occur also in the overlying orange and reddish material. sample collected

bag 4

(108)
= 5108
25.7
26.5

July 27 ¹⁷ 0.8 miles N. of Round Lake.

Road material pit on E. side of highway. Area of about 120 x 80 ft dug out. maximum depth 11 feet. In some places worked only to depth of 4 ft.

A red coarse sand which will stand vertical in the wall of the pit. Cross bedded. Very few pebbles - white quartz. Within a foot of the top of the sand contains some lumps of clay and some discontinuous streaks of it. Also some thin crusts of bog iron.

Sample 108 - of the red coarse sand, used for road material

July 27. ¹⁸

2 1/2 miles E. of Round Lake at Shore's Mill on West side of the Creek

there is gravel up to about 1 inch size with an occasional larger pebble. A little was used in the dam across the creek but the place where it was dug was covered in and no bank is available for sampling. Several acres seem to be underlain by the gravel judging by the pebbles in the soil.

1/2 mile E. Round Lake.

Iron cemented layer in orange sand on hill - Specimens.

Simonite - sand concretions in orange sand 1/2 mile E. of Round Lake - specimens.

1 mile S. of Round Lake.

Sandy soil and cuts show light yellow loose sand, rather fine. Too fine and too loamy to be very good for concrete, and not hard enough for molding sand.

1 1/2 mi S. of Round Lake.

Bank 300 ft. E. of Road where coarse sand was formerly dug for road. Red and about like no. 108, but has some hard sand concretions, in places almost forming a continuous layer.

41.1 5.7 miles N. of Fromtown Bay County.

White sand forms scrub of 4 or 5 acres partly on each side of the highway.

At about the lowest part of the area clearing away the bank at the head of a small gully showed 3 1/2 feet of sand.

At the bottom of that a "hard pan" (black sand, with organic material)

2 inches thick, below that yellow sandy clay.

Small specimen bag 81 of white sand from bank in this gully.

not recorded X Most the way around this deposit the land is higher and there is yellow sand of the same texture or slightly coarser.

46.8 Fromtown
42.8

42.7

R.R. shows 6 ft fine grained, uniform textured light yellow sand.
An extensive deposit.

Youngstown.
54.1 20 miles N. of Panama City

Road material pit on E side of highway on N. side of a low ridge running E-W.

Show two very distinct layers.

Above a light yellow sand 3 to 5 ft thick which is removed as overburden. This is loose and unconsolidated. A few iron sand concretions in the lowest few inches, but these are probably derived from an iron cemented crust on the top of the underlying sand.

5 to 7 ft of orange red clayey sand is dug for road material. This is immediately below the loose light colored sand with a sharp boundary.

109

Sand
clay
-5109

Red to orange clayey sand Molding Sand. Youngstown

(owner Mr. Parker, T. L.) worked for road material

this sample is from north end of pit bank about 6 ft.

80 ft to the south the sand is harder and more clay.

below the bank as work the sand was less clay but is half way cemented with iron.

22

110
5110

Youngston
Light yellow sand above no. 109.
sample represent 3 ft thickness,
upper 1 ft. of the deposit not
included because of overgrowth
material although it has about the
same texture.

both samples 109 and 110 taken
on W. side of R.R. about $\frac{1}{4}$ mile
(a little less) from it.

The surface indications are that the
deposit continues to or nearly to
the railroad.

23

500 ft. S. of crossing of
Beg Creek on W. side of
highway considerable clayey
sand has been taken out for
road material. It does not look
particularly good for that and
is too clayey and too variable
textured for anything else.

Bayou George

$\frac{1}{4}$ mile N. of bridge crossing Bayou
railroad and highway cut shows
small proportion of pebbles mixed
in the sandy clay soil of the upper
part of the cut. These pebbles are mostly or
entirely of iron cemented sand. Some
contain a large proportion of
limonite.

24

July 28,

111

=5111

Callaway, 9 miles from Panama City

Phillips, owner.

Bank sample from 200 feet E. of Road.
on south side of Callaway Bayou.
Sand deposit occurs in flat
pine land.

Bank as worked 3 to 3 $\frac{1}{2}$ feet.
light yellow color, angular quartz
grains.

Becomes more clayey below this
but in the next foot it does not
look as if the clay were excessive.
for concrete.

Concrete in what this sand has
been used for.

Coarse sharp grains make
it superior to the beach sand
which is the only other sand
to be available.

Overburden removed - 1 foot
of sandy soil.

About 2 to 2 $\frac{1}{2}$ acres has been
worked out on this side of the road.

Taken by truck to Panama
City

Elmer Trank.

B. K. K. K.

112
=5112 Samp deposit as the preceding,
on E. side of Callaway Bayou.

Represents bank 7 ft. high
from which thin overburden of sandy
soil has been stripped.
This pit is perhaps 1 acre in extent
from it sand has been loaded on
barges in the Callaway Bayou.
Below the sand as work is
yellow sand with more clay. Texture
of sand grains is at coarse and
not much different from that above.

This deposit is said to be 65 acres in
extent. While I made no tests,
indications from the surface soil
and the pits opened are that it is
very likely to be as large as this.

Beach sand about opposite mouth
of pass to St Andrews Bay,
appears to be rather variable and
only small pebbles are anywhere
near creek from vegetable material.
Beach is narrow.

Concentrates of glauconite in streaks
parallel to the shore.
bag 114 Spec. of glauconite-rich sand.

~~bag 114~~ This beach sand is said to have
been found unsatisfactory for use
in concrete. It is much too fine
for a good concrete sand and it
would be difficult to obtain it free
from vegetable trash.

St. Andrews - Shell mounds.
1 mile West of St Andrews on
inner side of St. Andrews Bay
about opposite ~~the~~ village of West Bay
there is an accumulation of shells
along the shore. Small amount
has been taken out for road
surfacing.

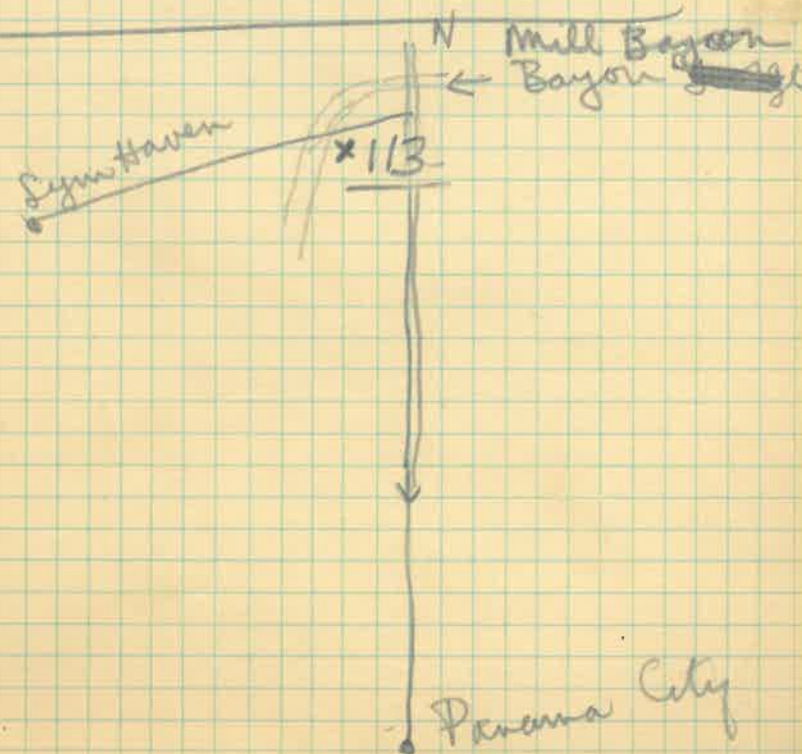
Indian pottery with the
shells.

Bay County.

Much sand was seen as a
superficial deposit but usually it is too
fine for good building sand. Sometimes
too clayey x Deposits frequently thin
with clay or hardpan subsoil.

5 miles N. of Panama City R.R.
cut through small hill shows
5 feet of light yellow sand, medium
fine grained, very similar to sample
no. 110

113



5 miles N.E. Sym Haven,
Mrs L. J. Pickens owner.

(28)

Concrete sand -
bank sample representing 5 foot
thickness.

S. side of Highway leading from
highway no. 20 one mile S. of
Bayou George post office, to Sym
Haven.

Small amount of sand has been
taken out here and somewhat more on
the other side of the bayou.

This is coarser than the usual
surface sand deposits of the region.

Light yellow to white, in places seems
to get coarser with depth and also coarser
nearer the Bayou. Bottom not exposed.

Overburden 1 foot sandy soil.
Below this there are still some roots
in the sand.

(small spec. in bag 88 of this
same sand, from 4 to 6 ft depth below
surface)

Used in Panama City for
concrete. Some parts with iron oxide
have to be

Mingo Branch

Lawrence G. Senart owns the property
adjoining Mrs. Pickens to the N.E.
on his land about 1/4 to 1/2 mile from the
locality of no. 113. Similar sand which
he has used himself for concrete to small

(continued from last page)

Along Mingo Branch to N.E. of
crossing of Mill Bayou on sand
road as the preceding.

White to light yellow sand
extends along the creek at elevation
perhaps 10 to 15 feet above it.
Finer sand further back from
the creek.

Hard clayey sand with limonite
below.

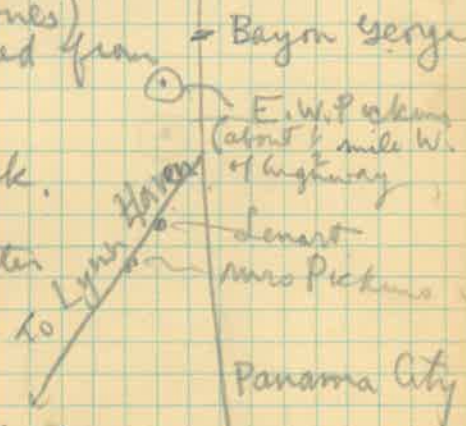
E. W. Pickens

Sand used in the
college (Bob Jones)
has been hauled from Bayou George
here.

Bank exposed is
very near a creek.
Upper part is finer
and a good plaster
sand.

Below coarser
would be for
concrete.

about 5 ft. total thickness of sand
exposed.
below that clayey sand.



(29)

July 28

(30)

In R.R. cut 18 miles S. of
Chapley and 20 miles N. of
Southport (just north of this
milepost) 7 feet coarse sand
exposed. Has been excavated
for a short distance back on
each side of the track and used
for ballast. Contains some iron
oxide and clay - would not be
a first class concrete sand unless
washed. Has a few pebbles up to
slightly over 1/4 inch (quartz).

About a mile north of this, or
17 miles S. of Chapley

- 1 ft. red clayey sand with a few
qtz pebbles.
- 2 1/2 ft. red and gray clay with streaks
of sand.
- 3 1/2 ft. clayey yellow and gray sand with
qtz pebbles.
- two inch clay layer about a foot
from bottom

(31)

Gravel pit.
just before nursery turn to left about
2 miles

Sand from first corner to right
3 blocks, then turn left,
road winding up into high hill

Brick plant
turn right
about 1 mile out take right
turn (first right road out of
town)

White sand - sand, pass
2 miles S. of Bonifay.

Hall Brick Co. Plant, 2 mi S.W. of
Chipley -

Flood plain clay deposited in a
depression

800 ft to W. in cotton field (at higher
elevation the soil is a coarse sand.

Chipley - July 29, 1927 (32)

H. A. Schell (owner)
sand and gravel
4 miles S.E. of Chipley by road.

Workings carried on in a very
irregular manner, many small
excavations over area of 4 acres or less
(about 800 x 250 feet)

Plaster or mortar sand.
H. A. Schell 4 miles S.E. Chipley (by road)

Sample represents $3\frac{1}{2}$ foot thickness
10 inches topsoil with vegetable material
not included

All hand loading - small trucks.

114

=51/4

(33)

Chipley July 29, 1927

115

=51/5

Concrete sand. This represents about
the coarsest material that it would be
possible to produce at this locality. Small
sticks or limbs might be coarser but
no considerable amount.

Represents 3 foot bank - this is not uniform
but is coarser toward bottom, overburden
soil of the same material with vegetable
matter - 1 foot. Below clayey compact
sand.

This deposit has been worked for
road material, mortar and plaster sand
and concrete aggregate.

No part of the deposit contains
enough coarse material for a coarse
aggregate or a complete aggregate
containing both fine and coarse.
In making concrete slag is put with it.

Road from Cottondale to Chipley surfaced
with material obtained here.
The largest excavation for road material
shows.

1 1/2 ft loose light yellow gravelly sand
4 ft gravelly sand with iron and clay bond
(orange) maximum about 15 or 20%
pebbles over 1/2 inch
1 ft fine clayey sand, mostly pinkish

used
for
road

Chapter

chipley J. A. Schell (Cont)

This deposit is on the lower ~~and~~ east
and northwest slope of a high hill
(for the part of the country). Deposit
is evidently larger than shown by
actual workings but limits not
defined. Plants were seen a short distance
to the south at about the same elevation
as well as to the west higher on the
hill where the hard clay sand is at
the surface or with very thin cover.

G. R. McGeachy, owner.
sand deposit on hill $\frac{1}{2}$ mile
S.W. of center of Chaffey,
used for bricklaying and plastering
Sand has been dug only half an acre or
so on south east slope of hill.
Apparently several acres remain.

Thickness as shown in bank 3 to 5 ft
below this yellow sand with more
clay charcoal and other vegetable
material^x roots etc extend the ~~at~~
whole depth. Too fine for concrete
sand.

to surface deposit of recent age

1.5

Bonifay

3 miles E. on main highway
road material put in orange to red
sand clay

Others cut through similar material between these and Bonifay.

"Sand pass" owner. Mrs. Archie Sims

North end is 1.5 miles S.W. of Bonifay

This is an elongated area of white sand extending in approx. N.S. direction.

Length 1300 ft.
width average about 150 ft. } actual
pacing.

This is in flat country but the sand
bars appear very slightly higher than
the land on the sides of it.

Very thick underbrush on the land along the sides of it so that it is difficult to get an idea of where the surface of the ground really is.

on the ends of the sand pass the
land slopes up slightly and while the
top soil is still sandy it is not the white
sand.

Bank sample - representing about
4 ft thickness, down to water level.
Bottom not reached.

Organic matter etc. less and color improves with depth as far as tested. Sounded with pipe only about 1 ft below water and it feels the same.

$$\begin{array}{r} 116 \\ \underline{\underline{\quad}} \\ = 5116 \end{array}$$
$$\frac{1\frac{3}{5}}{4\frac{1}{2}}$$

July 30 - Bonifay, x

$1\frac{1}{4}$ miles W. on both sides
of the highway a white sand like that
of the "sand paper" has been dug into.

Exposed on surface and in small pits show only two or three layers. Very likely, more covered by bushes and sandy soil. All that is in a swamp. Two feet of sand is about the most that is about water level. Bottom not reached. Many white clipped plants in this sand.

50A ^{road material} Ponce de Leon
ft. 1 mile E and again at
1 mile west and 2 miles
W. of Ponce de Leon road crossed
into covered limestone sand.
In deeper parts there is
bedding. Sample of light grey clay

Ponce de Leon

in some layers some layers
possibly but no real gravel.
Bedding sometimes inclined probably
more than could be due to original
dip (slumping).
Most likely weathered
Chapala.

547

652

1 1/2 miles E. of De Funiak Springs
Along creek on N. side of road
in all part of rather fine white
sand. Much of it contains
vegetable matter.

The rest of the way to De Funiak
Springs frequent appearances of red
silt. Clay material which where
it has been taken out for road
surfacing or cut through
the hills. Usually gray bluish
sand and silt on the surface
ground. This may be material in
often covered with loose fine
yellow or green sand.

July 30

De Funiak Springs

on higher form about 6 miles
S.E. of De Funiak.

G. G. Smith who is the caretaker of
the place dug a hole about 30 ft deep
which the sand was through clay. All the
way down about 4 feet of shell
which was not for the hole.

At the time of our visit the hole
was full of water to within 3 ft of
the top and the area within the
year except some of the shells which
had been thrown out. Collected
some of them.

Mr. Smith says that he went
through 20 ft of clay in
digging the well by the hand.

The main object of interest in
digging the well seems to have been
the clay below the shell layer
which is said to have been a clay
though, smooth blue clay.

S. A. Canthor De Funiak Springs

Has two or three kinds of clay on his
place. 8 or 9 miles out in the
country on the worst possible
roads. Somewhere near highway
or railroad. He cannot locate
his great mud to go to show
to show. One kind of it is
white, has been used to make paper.

De Funiak Springs

Corner - editor of paper says
that the top soil and where around
there is good concrete sand.

At office of Chamber of Commerce
they can give no information
about any sand deposits being
worked.

0.8 miles N. of De Funiak Springs on
road to Oklawaha.

Excavation of west side of road
showed

2 ft loose sand, light grayish yellow
clay for filler. 2 small sand &
organic matter.

2 ft (maximum) red to orange
hard packed, homogeneous sand. A
lot of sand, probably in bank.
Perhaps average 5 ft pebbles.

Has been worked for gravel for
the lower station for road surfacing.
Upper part could be used for filling
and ballast. Too fine to be good
for concrete.

On same road 1 1/2 miles N. of De Funiak
Springs on hill slope on S. side of creek
along the same section to show in
road interval and highway cut.
Maximum thickness exposed is

40

2 1/2 ft. fairly loose yellow sand
fairly small amount of clay, a few pebbles
11 ft. coarse red well sorted sand
with 5 to 8 of pebbles

No distinct bedding shows other
than these two layers
On the north side of the same
creek where the land does not slope
up so rapidly the soil over a
considerable area is a nearly pure sand
but rather fine. Very small and has
been taken out along the roadside
but no cuts into it to give general
idea of its structure or extent.

38.0

15 miles E of Valparaiso

~~etc~~

Mossy Head to Valparaiso.

41

July 31, 1927

On road from Mossy Head to
Valparaiso 11.5 miles S.W. where
it turns off from the main
highway going down the hill
and south side of little rocky
creek
At the top of the hill the soil
shows about 4 ft. of loose light
yellow rather fine sand & then
a considerable thickness of orange
sand with moderate amount of hard
shells in both gullies and highway
Toward the bottom of the hill
a granular white sand, perhaps
containing kaolite. Parts of it
are pebbly.

Kaolin

117
=5117

Sample 117 represent thickness
of about 5 ft. from 3 ft. to 8 ft.
depth. The part above this
except for 3 inches or so of top soil
is almost the same but appears
to contain less clay.

* small outcrop of similar material
at a spring on the gully on the
west side of the road.

From Mossy Head to water about
8 miles S.W. of (Valparaiso) Newcastle
approach of orange. Very pebbly sand
in small gullies. Sometimes you can see
no solid material with and in other
places and through on the hills
and through all the water down
the valley to Valparaiso there

42

July 31

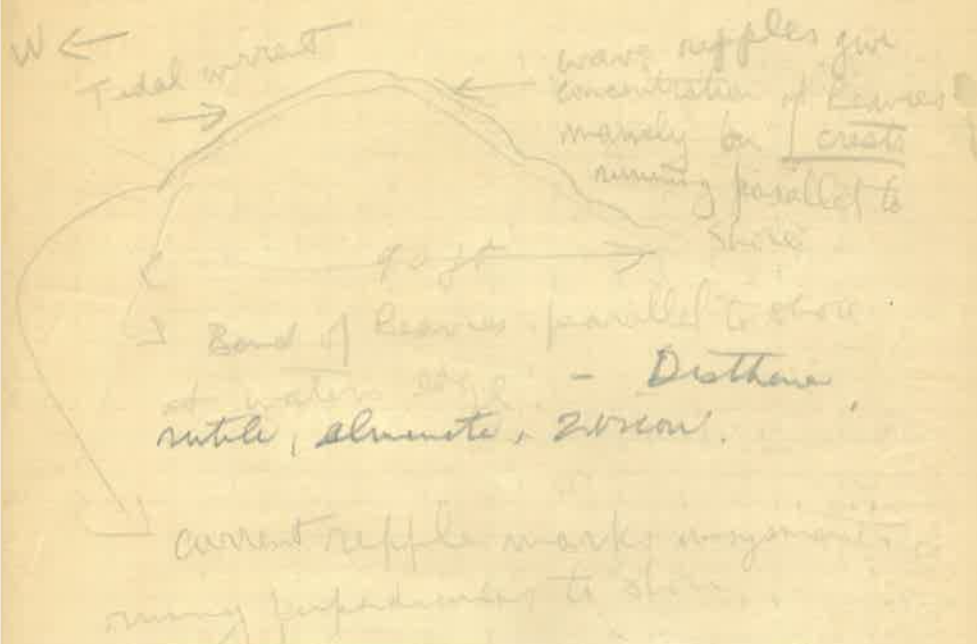
is a covering of fine sand light
yellow to gray or almost white.
The greatest thickness seen was
5 ft. on a hill 1 mile north
of Valparaiso.

sq. ft.
68.3

~~same~~

Landward side of Santa Rosa Island
Opposite Camp Walton

^{visible}
No concentration of heavies along
beach on S. side of Santa Rosa where
exposed to real wave action. It may
be below water line.



Concentration of heavies in troughs
of ripples on dry wind blown sand.

On places there was a notable
concentration of heavies in the troughs
of the current ripple marks but at this
place there seem to be other complicating
factors. The most characteristic asymmetrical
current ripples show little or no concentration.

Camp Walton

July 3/

#3

118

=5118

Dune sand on Santa Rosa Island, opposite Camp Walton near the north side of the island. There is some wind blown sand forming rather thin deposits but no active dunes at this locality at the present time. All of the island is white sand. Some parts which are higher than the general level look as if they were remnants of dunes which have been worn down, perhaps because of destruction by fire. This sample is from a small one of these old dunes.

119

=5119

Beach sand, S. side of Santa Rosa Island, Camp Walton. Sample taken at about the ordinary limit of wave action. Probably this is worked over by the waves at spring tides and during very moderate storms but not every day.

The Gulf View Hotel at Camp Walton appears to be on a shell mound. Shells have been used to a small extent as concrete aggregate around here.

Aug 1.

71.5 Camp Walton
13.2

44

about 4 miles from Camp Walton on road to Niceville (Valparaiso). Road material pit about 2 ft deep in yellow to grayish sand with a little clay in it. Has more binding power than the usual top soil of the region but is far inferior to the red sand clay. Somewhere between Camp Walton and Niceville is a road material pit in red sand clay which I did not see.

120 S.W. $\frac{1}{4}$ section 36

=5120

T 23 W R 1 N
about 2 miles N.W. of Niceville on straight line and $3\frac{1}{2}$ miles by road. A mile west of the Niceville - Crestview Highway.

120

Fine gravel used in surfacing highways in this part of Choctawhatchee National Forest.

overburden 1 to 3 ft loose sand with a few pebbles. Thickness of gravel as exposed 4 to 6 ft. Bottom not exposed in deepest part. In some places coarse sharp loose sand below. Particular bedding - some part of the bank of worked in coarse sand with no pebbles.

Aug 1

45

12 miles $\frac{1}{2}$ mile to left of pit of hill - 2 miles past it. Much of this is more properly a coarse sand than a gravel, strong sand so that lumps smashed off will clump together (clinite). Some small clay clumps. Pebbles quartz and mostly sand.

Two miles N. of Niceville $\frac{1}{2}$ mile East of highway road material pit in red sand clay about 5 ft thick. About 2 ft of loose gray sand overburden above the red sand clay. The material below the sand clay as worked is not exposed but it is said to be clay.

About 4 miles N. of Niceville gully on N. side of creek and E. side of road shows total thickness of about 10 ft. There is some small part of that is clay and coarse but it is mostly fine yellow sand which would be of fine use.

Aug 1

46

3.4

Five miles N. of Niceville on east side of road. Road material pit. Coarse red to orange sand, with overburden of loose light yellow sand about 2 1/2 ft. as maximum.

2 spec. (Portions of the sand with white cementing material forming concretions and in places at about 5 ft depth almost a continuous layer.)

Not quite a mile (0.9) to the north of here another road material pit on the west side of the road, quite similar to the first. A few of the white sand concretions & also a few lumps of white clay in lower part.

On up hill side or highest part of bank the overburden amounts to 5 ft of the usual light grayish yellow sand, perhaps a little coarser than usual.

13 Another pit 5 or 6 miles S. of Crestview.

15.1

2 1/2 miles S. of Crestview.

Road material pit on W side of highway. Rather uniform orange red sand with fairly good bond. Highest bank about 9 ft. Overburden to 1 1/2 feet and may be weathered portion of underlying material.

A few very hard concretions of limonite cemented sand up to about 1 inch diam.

Aug 1

47

Crestview 17.7

Ordinary surface sand used to small extent for bricklaying and concrete building blocks. No localities particularly important.

About a mile west of Crestview a road material pit in red material.

Not quite four miles W. of Crestview on slope going down toward river another sand pit, partly red and partly yellow. Foreman of state road gang says it does not make good surfacing. I think very likely the sand is too fine.

At this locality the uppermost foot or two in places contains some gravel although this is not present everywhere and seems to be only for a certain interval of elevation on the slope. The gravel approaches fine gravel. Probably the most was about 30% of pebbles up to 1/2 inch.

The fine gravel which is applied to the road is shipped in.

Aug 1

48

8 1/2 miles W. of Crestview.

Red sand clay pit on hillside. Shows 8 ft thickness of red sand clay with 1 to 3 ft overburden of loosely bonded sand.

This red sand clay may be good for heavy molding sand.

Aug 2

Milton

Kennedy - send copy of Bulletin
send some larger sand samples.

Pebbly sand used for concrete - Pond Creek.

Clean Creek good sand.

Blackwater river sand does not give good results in mortar although it looks clean and sharp. - probably too fine.

Coldwater Creek in shoals on both branches. - not exposed in bank.

Aug 2

Abundant Bluff Springs All the way
to Alabama line near Tilton
The west branch - little Escambia
River has more gravel in it than
the east or main branch.

Wash on north side of Clear Creek

alluvial fan has piled up sand
to depth of ~~the~~ 3 1/2 feet at the
bank of the creek and 1/2 width of
about 200 feet. The source of
the sand is in the hills to the north
said to be about 1/2 mile long
sets narrower 1/2 toward source
Clear Creek $\nearrow$ S

Good coarse clean sand
suitable for concrete
concrete pipe to about 1 inch
diameter

Clay

Aug 2. Santa Rosa Co
West Branch Coldwater River
at Crow bridge
white sand in bars.

East Branch Coldwater.

Clay deposit
Sec 8 T 4 N R 27 W

- ① Light gray - about three feet
clay
- ② Black - 3 ft.
clay (contains pyrite concretions)
- ③ Light red. 4 1/2 ft.
clay

overburden about 10 feet -
upper part sand - lower 2 or 3 feet
gravel & white quartz pebbles
Tested by boring about 200 yards
back from outcrop in fork of
stream. Outcrops 125 yds along
stream.

according to Dr Kennedy

Aug 2

Santa Rosa Co
All these clays are very plastic
and for the most part free from sand
although the black part contains some

section 22 T 5 R 31 W.
Escambia Co.

Owner?

Escambia Co.

T. S. Kennedy 59 acres listed
~~45 acres listed~~

121 title 1 1/4 miles E. of R.R.
Escambia River sand and gravel.
Sample taken by post hole digger.
= 5121

Tested to 18 ft depth
sand taken out here for road work
to be worked by suction dredge
comes all the way out to the bank
of the little Escambia.

Bars of sand and fine gravel
in the river itself

59 acres in this tract is all underlain
by gravel. Dr Kennedy has
it under a portion of the
land of the little Escambia R.

(over)

but high enough so that it is not
swampy. Water is at around 5 or 6 ft
depth. No overburden on most
of it but there ~~are~~ ~~is~~ is a low
strip which has been filled in
with clay to a depth of about
6 ft. This is on the west side
of the Little Escambia in
Escambia Co. Some gravel
has been loosed out of here by
road work.

Aug 2

52

Little Escambia River bed is gravel.

122 Baron W. side of Little Escambia River. There are bars of the general nature along the Little Escambia from its junction with the main river to far into Alabama. The bed of the river is mostly gravel. This was not taken with magnet can be a really average sample but was not selected as the very best in sight.

Escambia Sand and Gravel Co.

Tarzan

123 No. 1 coarsest gravel produced, retained on $\frac{3}{8}$ screens $\frac{3}{8}$, $\frac{1}{4}$, $\frac{3}{16}$ screens used. (Then why not four grades?)

124 No. 2. Finer gravel - (pea gravel)

125 Sand.

=5125

All three of these are washed. Samples taken from car which is loaded directly from washes. (other side)

Aug 2

53

Escambia sand and gravel Co. suction dredge operated by electricity. Has been running might shift part of time.

Overburden usually only a few inches. In places there is some mud and it is thicker. Worked out several acres.

Jumper Creek, 5 miles S of Antey. Fine white gravel.

Pine Barren Creek. Saw rather fine sand where the road crosses it.

Fine gravel on terrace a few feet above creek. exposed in a bar. Barren pit on W. side of high up to about 1/2 inch. This appears to be only a small deposit from which some has been removed for the highway.

Aug 3

54

Kehoe Farm.

Section 35 T. 2 N R 28

Old Brickyard discontinued many years ago - near Blackwater R. At least 22 years since it was Blackwater R. mostly clay deposits along it within of few miles above Milton. Other old brickyards above then broke this one.

Santa Rosa Co.

E. side of mouth of Escambia R. gravel deposit.

Below mouth of Coldwater River. Good clay outcropping.

White kaolin sand at Milton.

Pond Creek 2 miles S.W. of Milton - Coarse clean sand in barren creek would furnish rather small amount. Bank of creek is sand and sand also outcrops on cut on highway just to west of crossing of creek. Contains a lot of pebbles. Some could be washed but some parts are so red that it is doubtful if they could be washed to give 'satisfactory' color. Nearly clean sand could be obtained by picking out carefully but on large scale operations there would probably be a loss of sand because of so

On the upland in the northern part of Santa Rosa Co there are frequent exposures of fine gravel as a thin coating on the surface, usually mixed with sand and sometimes a little clay. Also in Escambia Co, Fla.

In place also there are streaks of pebbles in the sand at a depth of a few feet. (Pleistocene or Citronelle formation?) Over the state line in Escambia Co. Ala

the coating of gravel on the upland appear more general and thicker.

As far as seen only the valley accumulations are thick and continuous enough to be good for anything more than local improvement of roads.

Aug 3
more fine material.

$\frac{1}{2}$ Mile N. of Molino

Some fine gravel mixed with sand shows in highway cut. Perhaps a terrace deposit of Escambia R. since it is on the side of the valley. Small amount used locally on that road. Not likely to be any commercial deposits.

Crossed Escambia River Bottom to east of McDavid (to Chamuckla Spring). It is nearly all swampy. Could see only sand and silt, no gravel. No sand of probable value.

Within about a mile or two to the north and south of McDavid there are frequent cuts which show fine sandy gravel and pebbly sand with reddish or orange boding materials.

Can only furnish local supplies for road building since deposits are not thick or uniform enough for large scale operations and that yield of gravel would be too small to make washing and screening profitable.

24.3 Aug 3
Mithell Creek just north of McDavid.
On this creek between the highway and the railroad and for a short distance above the highway there is coarse sand and gravel up to about $\frac{3}{4}$ inch or perhaps 1 inch as the deposit is above the banks of the creek. It appears that this sand and gravel has been derived from nearby gullies within recent years. Not extensive enough for commercial production on large scale but a good local supply.
24.8 McDavid

Carpenters Creek - 5 miles out on road No. 1
W.D. Willie - Blunt Building.

Concrete bridge - up hill to right for side - buildings sand
J. E. Barro.

San Carlos - Carpenters Creek and
Shamokin sand and gravel

Chas. W. Murrett &
Res. 1108 N Reno 1262 Phone

Aug 4
Carpenters Creek sand
owner J. E. Barro
6 miles from Pensacola on north side highway No. 1

This sand was used in the reinforced concrete in the San Carlos Hotel mixed with about equal parts of coarse sand from the Escambia sand and gravel Co. For mortar or plastering it is sometimes mixed with the local sand around Pensacola which is too fine to be satisfactory by itself.

126

=5126

Alluvial sand near Carpenters Creek
Escambia Co. - more than $\frac{1}{2}$ mile W. of highway

This deposit may be classed as an alluvial fan. It is formed at the mouth of a gully which runs back into the hill about 900 ft. The gully is about 25 ft deep. 3 to 5 feet of bank is loose light yellowish gray sand (Pleistocene). Below this is irregularly bedded and cross bedded sand (large proportion of it orange sand white) but no continuous layers of white. As it is washed out of the bank most of the clay is carried on the stream bed and gone & of the fine sand along with it. The deposit is worked at the mouth of the gully as far as about 6 inches to 2 ft thick and is on the surface. No grass growing on it because the sand is replenished too often. Loaded trucks and hauled to Pensacola.

this deposit is small, probably only
a few acres or two in extent but
it is highly probable that there
are other similar ones in the vicinity
and with the present method of
working the small size of the deposits
is not a serious drawback

Mr. W.D. Willes (Architect) says the
slay content of this sand can be kept
down to 1 1/2% by requiring care in loading

Immediately to the east of the
highway on the north side of
Carpenter's Creek is another
sand pit or gully from which
similar sand is being hauled.
Some care needs to be taken in
selection because holding of water
in little depressions here and
there has allowed the deposition of
thin layers of clay.

About 10 miles N.W. of Pensacola on stream
which flows by Klondike on E side of RR,
there are beds of sand and the beds are
sand but most of it is too fine to be any
good no deposit of any account

W.W. Harrison, owner of gravel near
Klondike

From Pensacola out along Old Spanish
Road to where it crosses the Perdido
River (Bridge under construction).
The land close to the river is mostly
swampy. There does not appear
to be any coarse sand or gravel
in the bottom deposits.

For four or five miles east of
the Perdido the soil is more clay
than it is to the southeast. The
rest of the way out of Pensacola
along this road.

Turned north on dirt road 4 1/2 miles
this side of Perdido R. Bridge
on end of concrete pavement.
Went north a little less than 3 miles
and came to sign saying 4 1/2 miles
to Mossygrove and 5 miles to Contrecoeur
at fork in road.

Some of the common surface
sand is used in Pensacola for
paving streets etc but is too fine
to be very good.

Small amounts of sea sand
also used in Pensacola for
white surfacing on streets
buildings.

Aug 5, 1927

From O.C. Southwell
from miles S. of Jay on
Milton - Jay road.

Owner Baghdad, Sand and Gravel Co.
Sections 14 and 20 Range 27 T
5N. On bridge between Jay
Creek and small branch to east
of it.

Baghdad, Sand and Gravel Co.
Railroad is to the east of it
now 1 1/4 miles from the main line.
They expect to build a branch
line in here for the gravel
and lumber.

Take any 1 x 2 ft hole without
striking bottom. In general the
material is fine and
is clean to about 100 ft
50 ft of gravel (one 10 ft hole)
will show about 1 ft of the 10 ft hole
is on the left. A 9 foot hole
at the bottom is all of the same
gravel.

River 300 yds N-S on W side

Fluor (dry)
9 ft. hole - gravel & water
at 10 ft. depth
dark & sandy gravel

No gravel in creek deposit of gravel hill. Much of the gravel would have been brought up by dredging and washing.

As for the location of dredging it is not known that the gravel is in the creek bed or in the water table.

sample

127

sect 19 ad 20 range 27W T5N

=5127 Sample of sand-gravel from 3-6 ft depth dug with post hole auger.

Upper 2 ft or so of hole has considerable fine sand in it. They are mostly coarse sand and pebbles as deep as drilled.

Owner Bagdad Land and Lumber Co.

sample

128

=5128

sect 18 S.W. quarter range 27W T5N

Owner Bagdad Land and Lumber Co.

Pebbles on surface in gravel area.

Sample from top to depth of three feet, excluding top soil.

This is on the slope on the west side of Dixon Creek and south of Cedar Creek (between Beaver and Dixon). Probably 20 ft higher than the creek. Pieces of hard iron

scattered sand and gravel scattered around on the surface and also found in bottom of the hole. 2 spec collected.

Aug 6, 1927

Chas. Samuels, owner W.S. Condon

Duncan Anderson

6 miles S. of De Smet

owner of land.

Mr. Condon is unable to tell about the thickness and extent of the deposit in amount of overburden.

Aug 6

Examined supposed occurrence of coal on farm of D.C. Condon, 4 or 5 miles S. of De Smet, Cass County.

The coal has been found in a thin bed. Sandy, low soil, strong and small.

In the same field I found some small pieces of coal, three or four pieces of iron wire, and a few small pieces of slag.

Mrs. Condon gave me a piece of coal (2) which had been picked up in the same field. Another piece it had been found and lost.

Many pieces of charcoal in the same field but I did not have them brought there.

Across the road from the Condon house is a small pond with a spring at the head of it. Above the pond is a small colored sand. Some iron wire and small pieces of slag and there is also found in the field.

This is on the Three Forks Road which was followed by the army during the Civil War.

According to Mr. Condon, the Condon family used to live in the house which is now the Condon house.

C. L. Johnson #97

Cottontail

J. L. Godwin,

Aug 6.

63

C. L. Johnson.
Cottondale Box 97.

(son of H. W. Johnson)

send copy of Sunstone Report.

The clay deposit in which he is interested is the same one which Barbour is working for brick. Johnson does not own it and apparently has no money to do anything with it but is trying to get so other parties interested.

The clay deposit which J. L. Godwin of Marianna is investigating is the same one. Both of these men are working for the lime products Company at Marianna. Godwin is interested in the requirements of lime for agricultural purposes - relative advantages of burned and unburned, blue ash of magnesia, fineness of grinding etc.

Aug 6.

64

C. L. Johnson also took me out to the gravel deposit south of Cottondale to show me a red clay which is below the gravel in places. As far as we dug into it (only a foot or so) it is sandy and ~~not~~ rather "short".

Little R. - K. A. McSwain Quarry
Chattahoochee - Fila gravel Co.
Spartanburg.

Marianna.

Cottondale. Ag. Barbour Brick plant
1 mile S.
Steale City - Johnson gravel Co.
S. of Cottondale.
Gravel on hills around Round Lake.

Bay County - gravel near Escambia.
Look near N. to E. of there
Panama City - Callahan coarse
sand - siliceous gravel.

Crestview to Valparaiso on
Choctawhatchee Bay. to Campbellton,
north of Crestview at Oak Grove
type locality of Oak Grove sand
along the yellow river.

Chipley Mac Katt Sec Chamber
Commerce - Brickyard.
Look for gravel north and south.
Rock Hill Wash. Co.
Gladwin ls. Felling Water Sink
near Chipley

Panacea Leon to de Junction Springs
coarse reddish sand.
de Junction - see Stores - edito
of paper - see Chamber of
Commerce - P. B. Bell, about 5 miles
S. of Rock Hill.

Mossy Head - Type section of
Shoal R. ~~and~~ on Shoal R. near
there. Also exposed in vicinity of
Nagyle

Melton - J. of Hudson County
Agent - coal.

D. T. S. Kennedy real estate

L. E. Simpson } gas and oil
Judge West }

Citronelle
Pensacola Alum Bluff,
E. A. Jones Naval Stores Copper
and Metal Works. old rust blowing
Palafox St. near Waterfront. W side

Mohia - C. H. Barrancay Brick Co.

Dolores - Brick plant.

Tarzon. Escamvia Sand and Gravel
C. H. Hawel, ^{offices} Filsonston