

Johnston County JOH-A-4



North Carolina Department of Natural Resources & Community Development

James B. Hunt, Jr., Governor

Joseph W. Grimsley, Secretary

DIVISION OF LAND RESOURCES

Stephen G. Conrad, Director

Telephone 919 733-3833

call before drilling to inform him we can not leave hole open (see instructions on back)

Dear Rayford Lee Adams:

The North Carolina Geological Survey Section, Department of Natural Resources and Community Development is drilling a number of shallow auger holes in order to gather information about geologic structure and rock type. This information will be used to construct a new State Geologic Map. One or more desirable sites for auger holes are located either within the highway easement across your property or on your property as indicated on the attached sketch map.

Geological Survey personnel would be drilling 6-inch diameter auger holes not more than 105 feet deep with a truck mounted auger rig and accompanying service truck. In some instances geophysical equipment would be lowered down the hole to gather part of the necessary information. When finished all equipment, material, and structures will be removed, cuttings scattered, and the holes permanently plugged in accordance with state regulations. All work will take from less than one day to not more than one or two days, depending on how many holes we are requesting to drill on your right-of-way or your property.

Please indicate your permission for us to do this work by signing and returning this letter to us.

Respectfully,

Rebecca M. Emos
Driller-in-Charge

Rayford Lee Adams 894-8439
Land Owner (or) (Benson)
Person in charge of the land

6-2-1983
Date

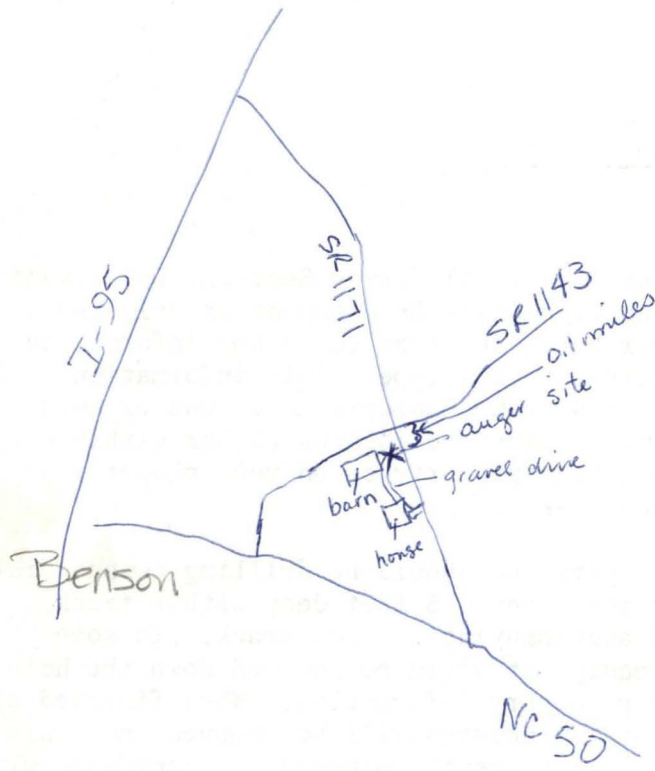
INTE	DRILLING REMARKS	DESCRIPTION: CIRCUATED RETURNS	Sample	CIRCULATION REMARKS	DESCRIPTION: FLIGHT RETURNS	Sample	
0-4	easy 1 min	light tan sand	X	moist	_____		
4-9	easy 1 min	yellow orange sand	X	moist	_____		
9-14	very easy 40 sec	black lignitic clay	X	moist	_____		
14-19	very easy 30 sec	aa	X	moist	SAME AS 19/24	X	
19-24	no spin 30 sec	no sample		✓	SAME AS 24/29	X	
24-29	easy 45 sec	sample spin clay out of hole black clay color at bottom	X	"	OLIVE TO YELLOW SANDY CLAY NEAR FLIGHT TO BROWN CLAYEY SAND	X	
29-34	easy 30 sec	sample brownish gray spin clay out of hole	X	not much return	GREEN AND BROWN MOTTLED CLAY CONTAMINATED W/ SAND	X	
34-39	easy change moderate 30 sec	no sample		aa	SAME AS 39/44 TEXTURE COARSE	X	
39-44	easy 45 s	"		"	GREENISH GREY MICACEOUS CLAYEY SAND; BOTTOM OF FLIGHT	X	
44-49	easy 45 s	"		← water	GREENISH GREY MICACEOUS CLAYEY SAND; FROM BIT	X	
49-54							
54-59							
59-64	note clay spun out of hole down to 34 feet therefore very little black clay left on flights when they were pulled						
64-69							
69-74							
74-79							
79-84							
84-89							
89-94							
94-99					782937		
99-104					352157		

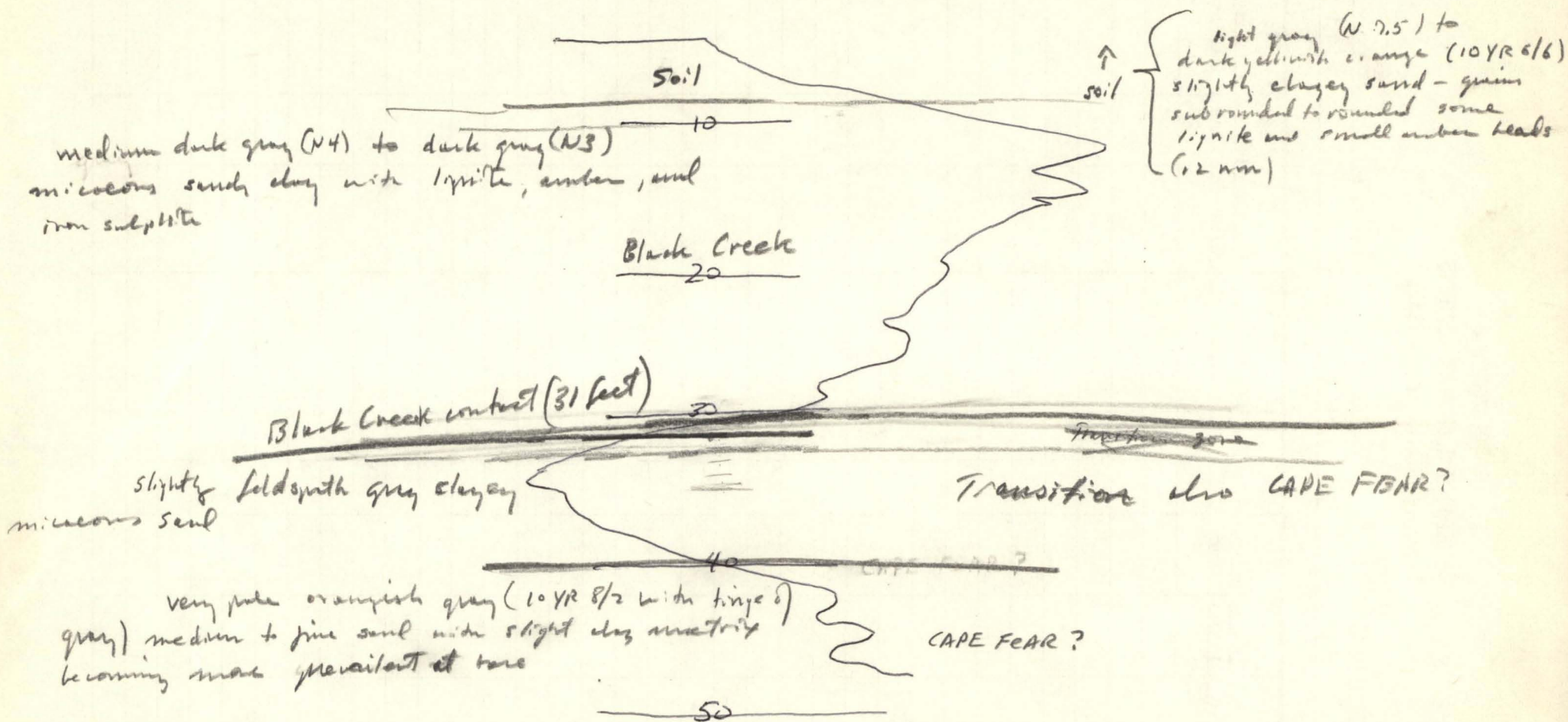
Well: JOH-A-4 Spud: _____ CEMENT: Elev.: 218
DATE: 8/8/83 Plug: _____ SAND: _____ T.D.: 49

leave hole open (to use for ~~barn~~ well) 2" pump to use for sprays

place as close to barn as possible and in center

Johnston County





Contact picked on first appearance
of feldspar and sharp increase in abundance
of iron grains. also increase in grain size and less
rounding of grains just below this point. obvious
color change does not come in until 40 feet.

SRB 9/30/83

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Slides down

- 0-4 ↓ black lignite, rounded beads black & amber, 2 mm
- 4-9 ↓ little return - black lignite
- 9-14 ↓ abund. lignite - black and brown
- 14-19 ↓ sand - rare amber
- 24-29 ↓ aa aa mica common
- 29-34 ↓ aa aa rare black beads mica common

Slides up 14-19 ↑ aa aa aa aa mica common

24-29 ↑ aa no beads

29-34 ↑ aa

34-39 ↑ aa

39-44 ↑ white mica abundant, lignite common

44-49 ↑ aa

wash down

0-4 ↓ quartz abundant, subrounded to rounded, coarse sand - trace of rare grains - mica lignite ^{polished grains} ^{predominately milky} ^{irrefracted}

4-9 ↓ quartz abundant - large grains subrounded frosted or milky, smaller grains predominantly clear - predominantly fine sand with some med. to coarse. - few gravels - rare rare grains some large grains have high polish

9-14 ↓ aa except lignite now common to rare

14-19 ↓ lithic fragments common (gray shale) - rest of samples looks like same quartz as above.

24-29 ↓ quartz aa - lignite common (black) also iron sulphide cemented aggregate rare.

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wash down cont

29-34 quartz is 4-9 abundant - iron sulphide rare to common. - a few gravel up to 3 mm - limonite

wash up

14-19' ~~of same~~ as 24-34 ↓ except - iron sulphide now more common. - and some limonite grains and lignite common to rare

19-24 ↑ aa

24-29 ↑ similar to above - less limonite - less rounding of larger grains - more clear quartz

29-34 ↑ aa

34-39 ↑ different - - much less lignite - iron sulphide larger grain size - coarse sand - more iron quartz and feldspar is rare to common - large sand grains less rounded

39-44 - fine grained quartz sand ^{now} more iron sulphide which common to abundant. rare lignite at

44-49 aa

day colors

unwash down

0-46 light gray (7.5) slightly clayey sand

4-9 ↓ dark yellowish orange (10YR 6/6) aa

9-14 ↓ med. dark gray (N4) micaceous sandy clay

14-19 ↓ aa

24-29 ↓ aa iron sulphide

29-34 ↓ aa no iron sulphide

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dry colors

unwork up

14-19 ↑ med. dark gray (N4) micaceous sandy clay - 1 mm lumps
of darker gray material (not lignite)

19-24 ↑ dark gray (N3) clayey sand - iron sulphide grains
sand is med to coarse - micaceous

24-29 ↑ aa

29-34 ↑ aa rare feldspar

34-39 ↑ med gray (N5) sand with clay matrix - micaceous

39-44 ↑ very pale orangish gray (10YR 8/2 with tinge of gray) med
to fine sand with slight clay matrix rare iron sulphide

44 ↑ color as 39-44 ↑ - med to fine sand with light colored
clay matrix