

At the latter point the river touches the base of a hill whose height exceeds 100 feet. From the water's edge to a height of at least 83 feet this bluff consists of Eocene limestone, which appears to fill a deep depression in the eroded Cretaceous surface.

At milepost 83, 4 feet of laminated, dark greenish-gray, glauconitic sand and clay appears at the base of a low Pleistocene terrace section. At Broadhurst Bridge, $82\frac{1}{4}$ miles above New Bern, a few feet of Eocene limestone is again seen at the water's edge. About 100 yards below Broadhurst Bridge, milepost 82, the following section was obtained:

SECTION AT MILEPOST 82, RIGHT BANK.

Pleistocene:

	FEET.
Loam and sand with gravel band at base.....	8
(Unconformity.)	

Cretaceous (Black Creek formation) :

Dark greenish-gray, micaceous sand, in places coarse, and in places interlaminated with dark clay layers and elsewhere with lighter sand layers	8
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Essentially the same kind of materials are exposed almost continuously along the right bank for the next two-thirds mile.

The first marine materials observed containing determinable fossils were at a point $79\frac{1}{4}$ miles above New Bern. The section is as follows:

SECTION $79\frac{1}{4}$ MILES ABOVE NEW BERN, RIGHT BANK.

Pleistocene:

	FEET.
Loam and sand with a band of gravel at base.....	6

Cretaceous (Black Creek formation) :

Greenish-gray, marine sand containing pelecypod casts as follows: <i>Nemodon eufalensis</i> Conrad?, <i>Trigonia</i> sp., <i>Crassatellites carolinensis</i> Conrad, <i>Isocardia cliffwoodensis</i> Weller, <i>Cyprimeria depressa</i> Conrad, <i>Cyclothyris alta</i> Conrad?, <i>Leptosolen biplicata</i> Conrad. (U. S. G. S. Locality No. 5418).....	6
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Dark greenish-gray, glauconitic sand appears a short distance below milepost 77, left bank, beneath about 10 feet of Pleistocene materials. From this was obtained indeterminate pyrites casts of the genus *Perna* (U. S. G. S. Loc. No. 5351).

At a point locally known as "The Cliffs," $76\frac{1}{2}$ miles above New Bern and just above Ivys Landing, the river again strikes against high land, and the following fine section is exposed:

SECTION AT "THE CLIFFS" ABOVE IVYS LANDING, $76\frac{1}{2}$ MILES ABOVE NEW BERN.

Pleistocene:

Sunderland formation (?) :	FEET.
Light-yellow sand	12
Band of small pebbles with sand matrix.....	1.5
(Unconformity.)	