MARYLAND GEOLOGICAL SURVEY
WM. BULLOCK CLARK, STATE GEOLOGIST.

U. S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

MAP OF ANNE ARUNDEL COUNTY SHOWING THE GEOLOGICAL FORMATIONS

MARYLAND GEOLOGICAL SURVEY,
WM. BULLOCK CLARK, STATE GEOLOGIST.
IN CO-OPERATION WITH
U.S. GEOLOGICAL SURVEY
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1916

Scale 1/62500
Miles
Kilometers
Contour interval 20 feet.
Datum is mean sea level.

COLUMNAR SECTION

Showing average thicknesses

FORMATION		MATERIAL
Talbot	70 feet	Clay, peat, sand and gravel
Wicomico	50 feet	Clay, peat, sand and gravel
Sunderland	35 feet	Clay, sand and gravel
Brandywine	40 feet	Gravel, sand and loam
Calvert	100 feet	Clay, marl and diatomaceous earth
Nanjemoy	60 feet	Glauconitic sand, highly argillaceous and locally calcareous.
Aquia	100 feet	Glauconitic sand
Monmouth	40 feet	Glauconitic sand
Matawan	80 feet	Dark clay and glauconitic sand
Magothy	40 feet	Light sand and dark laminated clay
Raritan	80 feet	Clay and more or less indurated sand
Patapsco	120 feet	Variegated clay and sand
Arundel	130 feet	Drab clay with lignite and iron carbonate nodules
Patuxent	880 feet	Light colored arkosic bedded sand with clay lenses.
Gneiss	Thickness unknown	Mesozoic hornblendic and chloritic gneiss cut by granite, diorite, gabbro, serpentine and pegmatite

1 inch = 100 feet

LEGEND

PLEISTOCENE COLUMBIA GROUP
- Pct — Talbot formation
- Pcw — Wicomico formation
- Pcs — Sunderland formation

PLIOCENE (?)
- Pb — Brandywine formation

MIOCENE CHESAPEAKE GROUP
- Mcck — Choptank formation
- Mcc — Calvert formation

EOCENE PAMUNKEY GROUP
- En — Nanjemoy formation
- Ea — Aquia formation

CRETACEOUS
UPPER CRETACEOUS
- Kmo — Monmouth formation
- Kma — Matawan formation
- Km — Magothy formation
- Kr — Raritan formation

LOWER CRETACEOUS POTOMAC GROUP
- Kp — Patapsco formation
- Ka — Arundel formation
- Kpa — Patuxent formation

ARCHEAN METAMORPHIC
- Gb — Gabbro

SECTION ALONG LINE A-B, ANNE ARUNDEL COUNTY, MD.

A. Hoen & Co. Lith. Baltimore, Md.