GEOLOGICAL SURVEY OF NEW JERSEY

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GEOLOGIC MAP OF NEW JERSEY

Compiled from published folios and from manuscript data in possession of the Survey, the latter chiefly the field work of

W. S. BAYLEY, (Pre-Cambrian)
H. B. KÜMMEL, (Paleozoic, Triassic, Quaternary)
R. D. SALISBURY, (Quaternary)
G. N. KNAPP, (Cretaceous, Tertiary, Quaternary)

BY

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1910-1912

SCALE: 1:250,000 (approximately 4 miles to an inch)

LEGEND

SEDIMENTARY ROCKS

TERTIARY

Beacon Hill Gravel — Quartz gravel with some chert and sandstone pebbles.

UNCONFORMITY?

Cohansey Sand — Chiefly quartz sand, with some clay and gravel. (Probably Miocene.)

UNCONFORMITY?

Kirkwood Sand — Fine micaceous sands with local beds of dark clay. (Miocene.)

UNCONFORMITY?

Shark River Marl — Mixture of greensand (glauconite) and light colored earth, chiefly north of Asbury Park. (Eocene.)

UNCONFORMITY?

CRETACEOUS

Manasquan Marl — Dark green glauconitic marl contains by an unknown mixture of fine quartz sand and pretty white clay.

Vincentown Sand — Glauconitic quartz sand alternating with beds of limestone (fragments, etc.), the latter locally non-calcareous.

Hornerstown Marl — Dark green glauconitic marl with varying amounts of quartz, fine earth, and clay. Marked fault line at the base of Atlantic series with Cretaceous marl below.

Red Bank and Tinton Sands — Coarse glauconitic sands, locally quartz pebbles. In Monmouth County contains by a bed of hard green clayey and sandy rock. (Tinton.) Red Bank is not found north of Sphenodiscus. (Surface.)

Navesink Marl — Dark green glauconitic marl with shell bed at the base, bench of Sphenodiscus series with Hornerstown marl above.

Mount Laurel and Wenonah Sands — Coarse glauconitic sand (Mount Laurel) overlying fine micaceous sand (Wenonah).

Marshalltown Formation — Black sandy clay in clayey glauconitic marl.

Englishtown Sand — White and yellow sand with little mica and glauconite and local thin layers of clay.

Woodbury Clay — Black to dove-colored clay, usually non-glauconitic.

Merchantville Clay — Black sandy clay, usually glauconitic.

Magothy and Raritan Formations — Magothy: Light colored micaceous sand underlain by near the top (Magothy) overlying dark colored, formerly carbon sands and clays, chiefly light colored (Raritan).

UNCONFORMITY?

TRIASSIC (NEWARK GROUP)

Brunswick Formation — Soft red shales and sandstones, with lower more abundant lower (Pb) sandstone; conglomerate beds (Pcc) along northeastern border with quartzite or limestone pebbles in red matrix.

Lockatong Formation — Hard dark argillites, black shales, and sandstones (Stockton); conglomerate beds (Pcc) along north eastern border with quartzite or limestone pebbles in red matrix.

Stockton Formation — Gray feldspathic sandstone (arkose), conglomerate, and red shale; conglomerate beds (Pcc) along northeastern border with quartzite or limestone pebbles in red matrix.

UNCONFORMITY?

DEVONIAN

Skunnemunk Conglomerate — Coarse white quartz pebbles in purple-red matrix with frequent beds of red sandstone. (North central area).

Bellvale Sandstone and Poxpatan Shale — Gray sandstone (Pb) sandy shale (Pp-Sch) overlying dark sandstone (Pbl) and black shale (Pp-Sch). (North central area.)

Marcellus Shale and Onondaga Limestone — Marcellus black shale (in Delaware River Valley) (Dm) overlying thin-bedded cherty limestone (Do).

Oriskany Sandstone — Dark coarse sandstone with strong cleavage. (North western area).

Oriskany and Schoharie Limestones (including Port Ewen beds) — Schoharie: Gray limestone (Dsc) overlying in northwest, separated from the gray cherty Oriskany limestone below by a formation (principally Port Ewen beds) of dark shale and sandstone; by heavy glacial drift. (Northwestern area.)

New Scotland, Stormville and Coeymans Formations — Hard cherty limestone and limy shale (New Scotland), overlying massive gray limestone (Coeymans), capped sandstone by a thin sandy bed (Stormville). (Northwestern area.)

SILURIAN

Late Silurian Formations — Including Bossardville limestone (Shawangunk), (North western area) dark thin-bedded limestone (Bossardville), thin beds of limestone and shale (Rondout), gray limestone (Decker), limy shale (Bossardville) (Rondout), limy shale (Decker), red, and buff or greenish limy shale (Poxino Island).

High Falls Formation — Hard red shale (Shawangunk), (Sgf) (Sgs) (Sgc) the latter more abundant near the top (North western area).

Shawangunk Conglomerate — Conglomerate of white quartz pebbles in red matrix, with local beds of shale, the latter with beds of coarse hard sandstone.

UNCONFORMITY?

ORDOVICIAN

Martinsburg Shale — Black shale (Omb) (Omc) (Omr) (Omm) (Omf) (Omg) (Omd) (Omp) (Omt) (Omk) (Omn) (Omo) (Omi) (Omh)