inaugurated all about the Adirondacks causing the interior sea to spread northward and eastward over the entire region. The Black River is locally absent along some of the southwest border, owing to slight irregularities in the floor on which it was laid down, and less frequently some of the basal Trenton is absent from the same cause. Whether these irregularities were due to wear or to slight folding has not been determined.

While apparently some slight remnants of the old Adirondack island persisted above sea-level during the whole or part of the Trenton, it is probable that they were of insignificant extent and likely confined to the southern part of the region. With these possible exceptions the sea of the closing Trenton seems to have overswept the entire Adirondack region.

The Black River and Lower Trenton are quite pure limestone deposits and hence clear water formations. But the Trenton soon comes to show some mud admixture, at first slight and intermittent but slowly increasing in amount, till finally it equals and then exceeds the lime, and the deposit becomes a calcareous shale rather than a limestone. These muds came from some land area to the eastward and progressively invaded the sea toward the west, so that limestone was still in progress of formation on the west while shales were forming to the east.

Utica formation. The limestones of the Trenton pass gradually upward into shales through increasing invasion of mud from the east. Trenton submergence was much interrupted on the south and southeast, so that the formation is much thinner there than on the west and the northeast. In the latter locality the greater thickness is likely due to more rapid, or to less interrupted subsidence. On the west it is, at least in part, due to the gradual encroachment westward of the muds. Eventually however the conditions of mud deposit held sway over the entire region and far beyond. The sea was not deep, and the muds were swept in by currents moving toward the southwest. Subsidence was considerable, so that several hundred feet of shales accumulated in nearly all parts of the region, and in some portions a much greater thickness.