

The surface currents, as ascertained by the difference between the position of the ship deduced from astronomical observations and the ship's reckoning, were N. 79° E. (true) 8 miles per day.

The following anemometer observations were taken when the ship was sounding or trawling :—

Date. 1876.	Station.	Velocity of Wind in Miles per Hour.	Force of Wind by Beaufort's Scale, as noted in Log.
February 8	317	22	4.5
„ 11	318	18	3
„ 13	319	36	7

The deposit in 1035 fathoms in this section was a sandy gravel. The trawl line carried away and the trawl was lost, but the tow-net attached to the line at the weights contained some of the gravel. The larger particles were from 1 to 2 cm. in diameter, brown coloured, flattened, ellipsoidal, derived from ancient continental formations, such as schist, gneiss, arkose, and sandstone, together with milky and hyaline quartz, felspar, augite, magnetite, microclin, hornblende, and glauconite. The glauconite was globular, ovoid, elongated, or vaguely triangular, with rounded angles; many of the particles were not so homogeneous as true glauconite, and appeared as aggregates of minerals cemented by a green matter. Sometimes they showed a schistoid structure, and often it was difficult to say whether the fragments were glauconite or pieces of rocks strongly impregnated with a chloritic substance. Mixed up with the above mentioned sandy particles were calcareous Foraminifera, fragments of Molluscs, Brachiopods, Echinoderms, and Polyzoans.

In 2040 fathoms the deposit was a blue mud containing 33 per cent. of carbonate of lime. The trawl was put over at this Station, and although it was over for seven hours, it never seemed to have touched the bottom. Two tow-nets were attached to the beam of the trawl, and one at the weights in front of the trawl, and it seems almost impossible that the trawl could have touched on the mud without these fine nets bringing up some traces of it. The trawl, however, contained a specimen of a new genus of Salmonid Fish (*Bathylagus atlanticus*, Günth.), several large Medusæ (*Atolla wyvillei*, Haeckel), and several bright scarlet Shrimps. In the tow-nets attached to the weights and trawl there were also eighteen species of Phæodaria, identical with those obtained in the deep water of the Pacific, several bright red Copepods, and red *Sagittæ* over 2 inches in length. It is impossible to say how near the trawl may have been to the bottom, but Mr. Murray considers it quite certain that most, if not all, of the animals above