residue is 87·52, and the range with respect to depth is the reverse of that given for the carbonate of lime.

With reference to the siliceous organisms in the Blue Muds, these are estimated in the Tables as ranging from 1 per cent. in several instances to 15 per cent. in two cases, the average for the whole being 3·27 per cent. These organic remains consist of the frustules of Diatoms, Radiolarians, Sponge spicules, arenaceous Foraminifera, and casts of the carbonate of lime organisms in glauconite or some allied silicate.

The mineral particles are mostly derived from the adjacent lands, and consist largely of the fragments and minerals of the various rocks forming the continents. The size of the mineral and rock particles varies much with the position; they are as a rule larger near the shore, and smaller as the deep sea is approached, except in those regions affected by floating ice. More than half of the deposit is in many cases made up of the mineral particles, consisting largely of rounded grains of quartz.

In the Challenger samples the mineral particles are stated to be angular in 32 cases, rounded in 3 cases, and in 21 cases to be angular and rounded. The size varies from 0·06 to 0·30 mm. in diameter, and the average diameter is 0·115 mm. The percentage is very variable, ranging from 1 per cent. in several cases to 75 per cent. in one instance, the mean percentage being 22·48.

It may be noticed here that quartz particles, which are relatively rare, not discernible, or absent in typical pelagic deposits, are the most abundant among the mineral particles of these terrigenous deposits, which are further characterised by the presence of particles of older crystalline or schisto-crystalline rocks, quartzite, sandstones, limestones. Among the minerals we observe, besides quartz, orthoclase and plagioclase, green hornblende, augite, white and black mica, epidote, chloritic scales, zircon, tourmaline, &c. Glauconite cannot be considered characteristic of Blue Muds, but is to be found in nearly all of them, though in limited quantity compared with what is met with in those other terrigenous deposits called Green Muds.

The fine washings range from 16·11 per cent. to 97·00 per cent., the average being 61·77 per cent. The fine washings in the Blue Muds are probably always less abundant than in the Red Clays and Radiolarian Oozes.

The following table is arranged to show the average percentage of the minerals and fine washings, as also the average size of the mineral particles, for successive groups of 500 fathoms :—

	Minerals.	Size.	Fine Washings.
Under 500 fathoms, . .	29·08	0·137 mm.	53·22
500 to 1000 „ . .	30·18	0·102 „	56·48
1000 „ 1500 „ . .	19·77	0·118 „	58·29
1500 „ 2000 „ . .	23·33	0·115 „	62·25
2000 „ 2500 „ . .	18·00	0·119 „	66·23
Over 2500 „ . .	16·89	0·087 „	69·46