

In colour the muds are of various shades of white, due to the large amount of carbonate of lime, which ranges from 77·38 per cent. in 1500 fathoms to 89·68 per cent. in 380 fathoms, the average being 85·53 per cent. The following shows the average percentage of carbonate of lime at various depths, arranged in groups of 500 fathoms, and it will be observed that there is little or no relation to depth:—

Under 500	fathoms,	.	87·34 mean per cent. CaCO ₃
From 500 to 1000	„	.	89·36 „
„ 1000 „ 1500	„	.	84·59 „
Over 1500	„	.	82·78 „

The carbonate of lime derived from pelagic Foraminifera ranges from 10 to 56 per cent., and averages 31·27 per cent.; that derived from bottom-living Foraminifera ranges from 2 to 40 per cent., the average being 14·64 per cent.; that derived from other organisms varies from 26·31 to 59·68 per cent., and the mean percentage is 39·62.

The residue is always of a brown or reddish colour, and varies from 10·32 to 22·62 per cent., the average being 14·47 per cent. This residue consists of clayey matter, oxides of iron, and mineral particles, generally of volcanic origin, together with a few siliceous organisms.

Siliceous organisms do not make up more than 1 or 2 per cent. of the whole deposit, the average in the above samples being 1·36 per cent. Sponge spicules are always present, and Diatoms and Radiolaria can generally be recognised during the examination of a sample.

The mineral particles are estimated in each of the above samples to make up 1 per cent.; they are always angular, and have an average diameter of 0·07 mm.

The fine washings vary from 8·32 to 20·62 per cent., the average being 12·11 per cent.

Arranged in groups of 500 fathoms, the following table shows the estimated average amount of fine washings and minerals, and the mean diameter of the latter; it will be noticed that no relation to depth is indicated except the greater abundance of fine washings in deep water:—

		Minerals.	Size.	Fine Washings.
Under 500	fathoms,	. 1 per cent.	0·065 mm.	9·96 per cent.
From 500 to 1000	„	. 1 „	0·060 „	8·64 „
„ 1000 „ 1500	„	. 1 „	0·077 „	13·41 „
Over 1500	„	. 1 „	0·067 „	14·88 „

The following shows the average composition of the Challenger samples of Coral Mud:—