

The fine washings vary from 15·37 to 60·70 per cent., the average being 36·87 per cent.

The following table shows the average percentages of minerals and fine washings and the average size of the mineral particles, arranged in groups of 500 fathoms, and it will be observed that there is no definite relation between the size and abundance of either of these and the depth:—

		Minerals.	Size.	Fine Washings.
Under 500	fathoms,	42·00 per cent.	0·126 mm.	31·51 per cent.
From 500 to 1000	„	27·22 „	0·09 „	45·07 „
„ 1000 „ 1500	„	55·00 „	0·11 „	23·49 „
„ 1500 „ 2000	„	28·33 „	0·09 „	38·70 „
„ 2000 „ 2500	„	45·00 „	0·20 „	52·00 „
Over 2500	„	57·00 „	0·125 „	40·00 „

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

Carbonate of lime,	{	Pelagic Foraminifera,	10·50	
		Bottom-living Foraminifera,	2·82	
		Other organisms,	7·17	20·49
			<hr/>	
Residue,	{	Siliceous organisms,	1·82	
		Minerals,	40·82	
		Fine washings,	36·87	79·51
			<hr/>	<u>100·00</u>

Volcanic Sands.—Within depths of 500 fathoms there are in the Tables of Chapter II. 7 samples which are called Volcanic Sands. These sands are found in positions where the particles making up the deposit are set in motion by the action of waves and currents, so that the finer materials are carried away into deeper or stiller water. It thus arises that these sands differ from the Volcanic Muds chiefly in the absence of the fine clayey and calcareous matter so abundant in the muds. The seven samples above referred to range from 100 to 420 fathoms, the average depth being 243 fathoms. The percentage of carbonate of lime in these samples ranges from 6·93 to 71·65, the average being 28·79. Of this carbonate of lime the proportion due to the presence of the shells of pelagic Foraminifera is estimated to range from 2 to 50 per cent., the average being 13 per cent.; that derived from the shells of bottom-living Foraminifera ranges from 1 to 5 per cent., and averages 3·80 per cent.; that due to the presence of other organisms varies from 2·93 to 16·65 per cent., the average being 11·99.

The residue of these sands is black or brown in colour, and makes up from 28·35 to 93·07 per cent. of the whole of the deposit, the average being 71·21 per cent.