| RESIDUE.  |   |   |   | Additional Observations.  |
|-----------|---|---|---|---|
| Per cent. | Siliceous Organisms.  | Minerals.   | Fine Washings.  |   |
| 92.85     | (1.00%), Radiolaria, Spongo spicules, Rhabdammina.  | (20.00%), m. di. 0.10 mm., angular; felspar, angite, magnetite, glauconite, a few glassy volcanic particles.  | (71.85 %), amorphous matter, minute mineral particles, a few remains of siliceous organisms.                          | In this sounding—which is the deepest taken by the Challenger in the Atlantio—the deposit was red on the surface, while the deeper layers were greyish, and appeared to contain more carbonate of lime than the upper. The dredge contained a red coloured mud, but no organisms, other than a few dead shells of Foraminifera. A sounding tube which was sent down attached to the dredge gave on the outside some traces of a blue mud. The deposit brought home contains some Pturpods and other Molluscan shells and Foraminifera, which appear to have come from a previous dredging, possibly from the same dredge having been used. During the early part of the cruise there was not so much care taken as later. There are, however, some things which indicate two distinct layers in this deposit. |
| 94.00     | (1.00 %), Radiolaria and Sponge spicules.   | (1.00 %), m. di. 0.07 mm., angular; sanidine, augite, magnetite, tourmaline, epidote, zircon, glassy volcanic fragments (some altered to palegonite), manganese grains. | (92.00 %), amorphous matter,<br>with minute fragments of<br>minerals and siliceous organ-<br>isms.                    | Note the increase of amorphous matter with decrease of<br>carbonate of lime in these soundings. The organisms<br>are few in number, and are in a more or less fragment-<br>ary condition. The manganese grains are relatively<br>rare.  |
| 96-75     | (1.00 %), one or two siliceous<br>spicules, and fragments of<br>Radiolaria.               | (1.00 %), m. di. 0.06 mm.,<br>angular; felspar, magnetite,<br>glassy volcanio fragments.  | (94.75 %), amorphous matter, with many minute fragments of minerals, and a very few fragments of siliceous organisms. | Only slight effervescence was observed when the deposit was treated with dilute acid. Even in the washings of a large quantity of the deposit there were few calcarcous organisms.  |
| 81 -21    | (1.00 %), a few Sponge spicules<br>and one or two arenaceous<br>Foraminifera.             | (1.00 %), m. di. 0.06 mm.,<br>angular; felspar, magnetite,<br>minute pieces of pumice, one<br>or two manganese grains.  | (79*21 %), amorphous matter,<br>many minute mineral particles,<br>and a few fragments of sili-<br>ceous organisms.    | The organisms observed in this deposit are very minute, and in a more or less fragmentary condition. Dredge empty.  |
| 78-16     | (1.00%), Radiolaria, Sponge spicules, Astrorhizidæ, Haplophragmium.                       | (1.00%), m. di. 0.06 mm., angular; a few fragments of felspar, augite, palagonite, volcanic glass, manganese grains.  | (76.16 %), amorphous matter, fine mineral particles, and fragments of siliceous organisms.                            | A large quantity of the deposit came up in the dredge. When this was passed through fine sieves a few pellets of manganese, about one millimetre in diameter, were obtained, also some pieces of palagonite, and one piece of pumice.   |
| 71.12     | (1.00 %), a few Sponge spicules, one or two Radiolaria, Haplo-phragmium.                  | (1.00%), m. di. 0.06 mm.,<br>augular; a few fragments of<br>sanidine, magnetite, and<br>volcanic glass.   | (69.12 %), amorphous matter, minute mineral particles, and a few fragments of siliceous organisms.                    | The deposit in the sounding tube indicated the same kind of clay as in preceding station.   |
| 45.30     | (1.00 %), Sponge spicules, Haplo-<br>phragmium.   | (1.00 %), m. di. 0.06 mm.,<br>angular ; folspar, volcanic<br>glass, magnetite.  | (43.30 %), amorphous matter, minute mineral particles, and small fragments of silicous organisms.                     | This deposit contained much amorphous matter. Note the increase of carbonate of lime with decreasing depth in the last few soundings.   |
| 30.39     | (1.00 %), Radiolaria and Sponge spicules, Trochammina.                                    | (1.00 %), m. di. 0.06 mm.,<br>angular; fragments of felspar<br>and volcanic glass, magnetite,<br>augite.  | (28:39 %), amorphous matter,<br>minute mineral particles, and<br>fragments of siliceous organ-<br>isms.               | Some of the organisms are macroscopic. The presence of fragments of calcarcous Algae shows the approach to shallower water.   |
| 18-14     | (2.00%), Radiolaris, Sponge<br>spicales, Rhabdammina, Haplo-<br>phragmium, a few Diatoms. | (1.00 %), m. di. 0.06 mm., angular; a few fragments of folspar.   | (15.14 %), amorphous matter, small fragments of siliceous organisms and minerals,                                     | Many of the organisms are macroscopic. Between 10 and 20 per cent. of the carbonate of calcium contained in this deposit is made up of numerous fragments of calcareous Algae, a true indication of sudden shallowing of water, which the following soundings show.   |