

(1) *Dark Grey Mud.*

The eleven samples of this mud are homogeneous and coherent when dry. A typical sample from 740 feet, opposite Urquhart bay, has the following mineralogical composition:—

Minerals (25 per cent.), mean diameter 0·1 millimetre. Of these particles quartz is the most abundant, often coloured red by a coating of iron oxide. Orthoclase, chloritic minerals, and limonite are also present.

Fine washings (75 per cent.), composed of vegetable matter (15·89 per cent.) and clayey matter with fine mineral particles and limonitic matter (59·11 per cent.).

Chemical Composition.

Total Silica	...	...	...	..	...	.	62·36
Ferric oxide	...	..	..	...	..	...	12·27
Alumina	.	...	..	.	...	..	9·38
Lime	...	...	..	...	.	..	tr.
Magnesia	...	.	...	...	.	...	tr.
Loss on ignition	...	...	...	...	...		15·89
							<u>99·90</u>

The high percentage of silica is due to the great proportion of quartz. The alumina is due to the presence of felspar and clayey matter. The defect 0·10 per cent. is probably due to the fact that the alkalies have not been estimated.

(2) *Ferruginous Mud.*

This type of sediment is limited to the part of the Invermoriston deep basin opposite Horseshoe craig. One of the samples was found after examination to be composed of:—

Minerals (29 per cent), essentially represented by ferruginous grains, which are accompanied by quartz, orthoclase, chlorite, and hornblende. These mineral particles are angular, and have a mean diameter of 0·12 millimetre.

Fine washings (71 per cent.), composed of vegetable matter (18·46 per cent.), and fine minerals (52·54 per cent.) belonging to the species mentioned above.

Chemical Composition.

Total silica	.	.					37·44
Ferric oxide	...	...		..	.	...	24·48
Alumina	..	..	..	.	...	..	15·12
Lime	...	.	...	.		.	2·16
Magnesia	...					...	1·80
Loss on ignition	.			..	.	.	18·46
							<u>99·46</u>

The defect 0·54 per cent. is to be sought for in the alkalies.