Joint number of $\left(\frac{P_2O_5}{3} \text{ and } CO_2\right)$'s—	0·2227
,, ,, of (CaO and MgO)'s—	0·1521
Excess of acid Eqq.	0·0706
The ferric oxide — $\frac{1}{3}Fe_2O_3$ ×	0·2337
Excess $\frac{1}{3}Fe_2O_3$ ×	0·1631

Transferring this (*i.e.*, 0·0544 × Fe_2O_3) to the silicate part, we have

	SiO_2	R_2O_3	RO R_2O	H_2O (red heat)	H_2O 100°
×	1	0·3025	0·1063	1·008	0·8576
(In eqq. . . .		1·0138)			
× or 10		3·025	1·063	10·08	8·6

Here again we have a surprisingly close approximation to small integers, leading to the formula

$$\left.\begin{matrix} 3R_2O_3 \\ 1RO \\ 10H_2O \end{matrix}\right\} \overset{xx}{10SiO_2} + 8Aq.$$

But unfortunately this formula does not agree with the one found for the silicate in No. 1. From the analyses it seems that No. 2 was prepared from No. 1 by treatment with dilute acid; if so, then clearly, if one of the two formulæ represents a chemical species (or mixture of isomorphous species), the other certainly does not.

22. RED CLAY.—Station 281. Lat. 22° 21′ S., long. 150° 17′ W., 2385 fathoms (Brazier).

	Loss on ignition after drying at 230° Fahr., .	7·70
Portion soluble in Hydrochloric Acid = 74·47	Alumina, ...	8·80
	Ferric oxide, ...	24·60
	Calcium phosphate, . . .	small trace
	Manganese oxide, ...	2·73
	Calcium sulphate, ...	trace
	Calcium carbonate, ...	2·50
	Magnesium carbonate, ...	3·24
	Silica, ...	32·60
Portion insoluble in Hydrochloric Acid = 17·83	Alumina, ...	1·60
	Ferric oxide, ...	3·80
	Lime, ...	0·84
	Magnesia, ...	0·32
	Silica, ...	11·27
		100·00

23. RED CLAY.—Station 285. Lat. 32° 36′ S., long. 137° 43′ W., 2375 fathoms (Brazier).

	Loss on ignition after drying at 230° Fahr., .	9·00
Portion soluble in Hydrochloric Acid = 77·03	Copper, ...	trace
	Alumina, ...	7·50
	Ferric oxide, ...	23·55
	Calcium phosphate, ...	0·70
	Manganese oxide, ...	14·53
	Calcium sulphate, ...	0·58
	Calcium carbonate, ...	4·07
	Magnesium carbonate, ...	1·13
	Silica, ...	24·97
Portion insoluble in Hydrochloric Acid = 13·97	Alumina, ...	2·85
	Ferric oxide, ...	1·05
	Lime, ...	0·55
	Magnesia, ...	0·09
	Silica, ...	9·43
		100·00