

TR14-196-197

R.589. Phosphatic material from the seabed west of Tasmania

The object was to investigate the possibility of concentrating the phosphorus in the seabed samples.

SAMPLES

In 1966 and 1967 Ocean Mining A.G. sampled the seabed W of Tasmania. Samples taken during that time were given to the Department in June 1969, together with assay results.

From these assay results selected samples were made into three composite samples according to their indicated phosphorus content.

The composition of each of these three samples is given below. The individual samples used carry Ocean Mining A.G. numbers.

Composite sample	Expected assay % P ₂ O ₅	Samples used to make the composite
A	> 14	WT 7; WT 28.
B	> 1, < 2	WT 112; WT 102.
C	< 1	WT 124; WT 124(b); No. 2 WT No. 51 17.1.67; WT No. 2 18.1.66; WT Loc. 22 No. 2.

When the phosphorus content of these three samples was determined, the low values precluded concentration. A complete analysis of each sample was made at the request of the Chief Geologist.

ANALYSES

Description	Assays (%)		
	A	B	C
SiO ₂	4.5	6.8	29.3
Al ₂ O ₃	1.4	1.0	9.4
Fe ₂ O ₃	4.3	6.2	7.6
FeO	0.67	0.57	1.7
TiO ₂	0.10	0.14	1.2
P ₂ O ₅	1.6	0.69	0.41
MnO	0.06	0.06	0.10
MgO	2.0	3.5	8.1
CaO	45.5	42.1	15.4
K ₂ O	0.35	0.23	1.1
Na ₂ O	0.34	0.38	1.5
Loss on ignition	38.7	38.7	24.1

CONCLUSION

While these samples did not contain sufficient phosphorus to allow an investigation into its concentration, the complete analysis does provide information on an area not previously sampled.