

Guano, South Sea Islands.

Name of Analyst.	No.	H ₂ O.	Organic Matter and N H ₃ .	Si O ₂ .	Ca Co ₃ .	Ca So ₄ .	Ca ₃ (PO ₄) 2.	Mg CO ₃ .	K ₂ O.	Na ₂ O.	Totals.
G. Fleming ...	1	6.42	17.16	.92	53.37	trace	19.30	trace	0.23	0.32	97.72
H. F. Shepherd ...	2	5.00	23.50	.70	32.10	1.82	31.50	0.72	1.40	5.10	101.84
H. F. Shepherd ...	3	4.00	14.61	.10	56.00	0.39	19.65	trace	1.50	2.70	98.95
W. J. May ...	4	5.00	13.60	...	38.29	0.90	34.19	3.18	1.39	2.53	98.18
W. J. May ...	5	6.80	33.81	.36	44.35	...	9.54	0.36	1.46	1.95	98.63
W. Climo ...	6	2.55	8.90	.10	64.09	...	9.29	8.66	1.58	5.13	100.30
W. Climo ...	7	4.50	24.51	.70	34.01	0.47	30.17	0.44	1.01	4.16	99.97
W. Climo ...	8	3.25	22.05	.25	35.02	2.48	26.73	3.51	1.75	4.94	99.98

"The results of the analysis prove these to be inferior guanos, and, being largely composed of comminuted shells, the calcium phosphates are correspondingly low.

"Rock, Forming Rocky Point, Tararu; analysed by H. F. Shepherd.

Si O ₂ ...	...	...	...	...	...	...	...	...	72.82
Al ₂ O ₃ ...	...	...	...	...	...	...	...	...	19.66
Fe O ...	...	...	...	...	...	...	...	...	Trace
Ca O ...	...	...	...	...	...	...	...	...	0.23
Mg O ...	...	...	...	...	...	...	...	...	1.10
K ₂ O ...	...	...	...	...	...	...	...	...	4.10
Na ₂ O ...	...	...	...	...	...	...	...	...	0.82
H ₂ O ...	...	...	...	...	...	...	...	...	98.73

"This is the yellowish-white splintery fine-grained rock, forming the rocky headland at Rocky Point, half a mile north of Tararu. Mr. Shepherd's analysis corresponds very closely throughout with that performed by Mr. Skey, the Government Analyst.

"Crystalline Limestone, Takaka, Nelson; analysed by R. Mellett.

Ca Co ₃ ...	...	...	...	...	...	...	...	92.46
Mg Co ₃ ...	...	...	...	...	...	...	...	Trace
Al ₂ O ₃ ...	...	...	...	...	...	...	...	4.28
Fe ₂ O ₃ ...	...	...	...	...	...	...	...	Trace
Si O ₂ ...	...	...	...	...	...	...	...	2.00
								98.74

"This a valuable limestone for building purposes, and also for burning for lime, being what is known to agriculturists and lime-burners as a *fat lime*.

"Andesite, Kauaeranga Valley.

	W. Climo.	J. Taylor.
Si O ₂ ...	61.56	61.19
Al ₂ O ₃ ...	9.28	10.84
Fe O ...	6.32	4.95
Ca O ...	8.75	8.60
Mg O ...	2.82	3.59
K ₂ O ...	0.11	0.19
Na ₂ O ₂ ...	7.01	7.14
H ₂ O ...	2.40	2.59
	98.25	99.09

"Mr. Climo and Mr. Taylor have obtained results which correspond very closely. This rock is a very dense black igneous mass, found in the middle and higher parts of the Kauaeranga Valley, where it occurs in fine regular hexagonal prisms of large size.

"Theoretical Chemistry.—This class is principally attended by the members of the Practical Chemistry Class. The attendance throughout the year was very high and most regular. The results of the annual examination show that a number of the students have acquired an intelligent understanding of chemical philosophy and the general principles of chemistry, which will be of great value to them in the prosecution of their studies in the practical branches of the science. This class was largely attended by State-school teachers.

"Mineralogy.—In this class the students have made rapid and sound progress, both in mastering the principles of the science and also in the discrimination of minerals.

"Geology and Geological Surveying.—In this class much time is devoted to the study of physical and stratigraphical geology, and to geology as applied to mining. In the field are studied the reading of natural sections, the dip and strike of lodes and strata, and the displacements and effects due to faults, and cross-courses.