

This water is clear and sparkling, has a specific gravity of 1006·46 at 60° Fah., and is strongly alkaline. A crystalline sediment had formed, the composition of which was—carbonate of lime 81·21, and carbonate of magnesia, with traces of iron, 18·79. The quantity of free carbonic acid and other gases present in the water as it escapes from its source cannot well be determined, except at the spring. This is therefore a very interesting water, and is an alkaline one comparing with many of the famous "Continental" waters of this class; for instance, those of Vichy, in France, and of Fachingen (Nassau). These waters are used medicinally, especially for the cure of gravel, kidney diseases, and gout, also for acidity of the stomach, their most active agent being carbonate of soda.

No. 1406 (11).—From Hot Spring, Tarawera: is a water containing a considerable amount of free acid (hydrochloric). Its principal constituent is chloride of sodium. The silica is very low, but the sodium high, in amount.

No. 1406 (12).—From Mr. Parke's spring, Taupo. The most saline water of this series. It contains a large quantity of silica, and is rich in iodine.

				Acidulous Mineral Water.	Alkaline Mineral Water.
				(11.)	(12.)
Chlorine, with bromine traces	...	...	...	40·497	56·076
Iodine	...	...	...	·714	1·012
Sulphuric acid	...	...	...	2·150	2·156
Silica	...	...	...	2·221	16·752
Carbonic acid	...	...	...	Traces	*35·751
Alumina	...	...	...	·621	...
Iron	...	...	...	1·049	...
Lime	...	...	...	2·036	1·994
Magnesia	...	...	...	·492	·613
Potash	...	...	...	3·681	5·675
Soda	...	...	...	46·495	80·710
Silica	...	...	...	Traces	Traces
Phosphoric acid	...	...	...	...	...
				99·956	200·739

The other samples from the springs in Hawke's Bay Province have been examined so far that their general character has been ascertained. The results will be found in the table appended.

It should be stated that all these samples of mineral waters gave evidence of the presence of sulphuretted hydrogen, but, as they were enclosed in corked bottles, the quantity of this gas naturally existing in them could not be ascertained; organic matters, such as cork, being able to generate sulphuretted hydrogen from aqueous solutions of the sulphates when in contact with them.

No.	(Computed in Grains per Gallon).					Physical Character.	Reaction.
	Salts Soluble in Water.	Salts Soluble in Acids.	Silica.	Total of Salts.	Loss by Ignition.		
	Principally alkaline chlorides.	Principally sulphate of lime.					
1	5·28	·74	7·86	13·88	3·47	pale yellow, clear	faintly acid.
2	13·88	4·31	9·25	27·44	3·08	colourless, clear	"
3	3·85	1·69	2·94	8·48	1·54	" "	"
4	138·07	4·21	10·03	152·31	3·09	" "	"
5	64·72	1·63	18·51	84·86	12·97	yellow, turbid	"
6	8·13	9·24	15·75	33·12	1·52	colourless, clear	slightly acid.
7	24·12	3·84	28·51	56·47	3·24	" "	"
8	127·62	9·62	6·25	143·49	4·61	" "	neutral.
9	6·16	3·08	12·33	21·57	4·65	pale yellow	slightly acid.
10	3·09	4·62	6·10	13·91	3·08	colourless, turbid	"
11	...	...	2·22	99·95	...	" clear	very acid.
12	...	...	16·75	200·73	...	" "	faintly acid.

In the following schedule the localities of the various waters are stated, together with certain interesting particulars which have been furnished with the samples, and also their general character as adduced from results described in the foregoing table:—

No. 1.—Otumuheke Spring, collected 1st May, 1873. A siliceous water, more than half the solid matters present being silica; the remaining portion is principally chloride of sodium, with a notable quantity of iodides.

No. 2.—From same locality, collected at same time: is also a siliceous water; but, though it contains a large proportion of alkaline chlorides, it gives but slight indications of iodine.

* The carbonic acid in No. 12 is that which is in a combined form; there is, besides, a quantity of this acid in a free state.