

Hypothetical Combinations.

Sodium carbonate	53.21	35.54	35.96	64
Sodium bicarbonate		1.34		0
Sodium sulphate	0.14	0.14	5.21	0
Sodium chloride		0.02	0.33	0
Potassium chloride				0
Magnesium chloride				0
Sodium metaborate		trace.		0
Sodium hydrogen ammonium phosphate		0.02		
Insoluble			0.02	
Water	46.47	62.89	58.48	34.
	99.92	99.95	100.00	99.

1. From stockpile on shore of Goodenough lake near southwest end of Meadow lake, B.C. Analysed by Frederick Baridon, Mines Branch.
2. From deposit on Goodenough lake. Analysed by R.A.A. Johnston, Geol. Surv., Can. Ann. Rept., vol. XI, 1898, pp. 12, 13R.
3. From top of solid crust in Last Chance lake in northeast quarter of lot 1768, between 5 Mile House and Meadow lake. Per F. Calvert. 3.32 per cent of the solid matter derived from the brine in this lake was found to be potash, K_2O .
4. Manufactured material from soda lake in lots 1792, 1793, 3½ miles west of 70 Mile House owned by Pacific Coast Contractors, Ltd. Analysed by Frederick Baridon, Mines Branch.

Table IX.—Analyses of Brines from Soda Lakes.

	1	2
1000 grains of water contains:	Grains.	Grains.
Sodium, Na	18.3800	37.420
Potassium, K	trace.	6.800
Calcium, Ca	trace.	0.016
Magnesium, Mg	0.0261	0.037
Aluminum, Al	None.	0.083
Silica, SiO_2		0.041
Carbonic acid, CO_2	22.6600	42.845
Bicarbonic acid, HCO_3	3.0600	10.731
Sulphuric acid, SO_4	0.0820	7.326
Chlorine, Cl	0.8590	7.902
Boric acid	None.	trace.
Phosphoric acid		0.771
Total	45.0671	114.170
Percentage of total solids (dried at $103^\circ C.$)	4.53	11.14
Specific gravity at $60^\circ F.$	1.044	1.108
Equivalent to degrees Baumé	6.1	

1. Brine from lake 5 miles east of 70 Mile House, just southeast of lot 1514, owned by D. B. Hutchinson. Analysed by Frederick Baridon, Mines Branch.
2. Brine from Goodenough lake. Analysed by F. G. Wait, Geol. Surv., Can., Ann. Rept., vol. XI, 1898, pp. 48 to 50R.