



## MINERAL ASSAY (Analysis) - ROCKFORT MINERAL BATH

Minerals are naturally occurring inorganic substances formed through geological processes with a characteristic chemical composition. In any given environment, the number of minerals that can be produced is determined by the chemical composition of the parent material together with the temperature and pressure at which crystallization takes place. Mineral Springs are naturally occurring springs that produce water containing minerals or other dissolved substances that alter its taste or give it therapeutic value. Salts, sulfur compounds and gases are among the substances that can be dissolved in the water during its passage underground.

**The source of the mineral waters at Rockfort Mineral Bath is the Rock Spring (a cold spring).**

ITEM	UNITS	VALUE (Rock Spring)	VALUE (Public Pool)
Alkalinity	mg	236	227
Conductivity	mS/m	219	915
Ammonia	mg	<0.02	<0.02
Free Chlorine	mg/L	<0.02	<0.02
Orthophosphate	mg/L	0.39	0.36
pH	pH Units	7.9± 0.5 @ 25.0 °C	7.5± 0.5 @ 25.0 °C
Sulphate (SO <sup>24</sup> )	mg/L	116	400
Nitrate (NO) <sup>3</sup>	mg/L	6.16	5.28
Manganese	micro g/L	<20	<20
Magnesium	mg/L	40.7	124
Iron	micro g/L	45	145
Silicon Dioxide	mg/L	27.7	28.5
Sodium	mg/L	258	1325
Potassium	mg/L	17.3	76



Bicarbonate (CaCo <sup>3</sup> /L	mg	236	227
Calcium (Ca)	mg/L	76	148
Carbonate (CaCo <sup>3</sup> /L	mg	<1	<1
Copper (Cu)	micro g/L	<10	<10
Aluminum	mg/L	<0.1	<0.1

### List of Benefits from Some Given Minerals

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- Sodium**                      Regulates the fluid balance of the body and also binds the water in cells
- Chloride**                      Forms additional acids in the stomach and helps to regulate fluid balance
- Potassium**                      Alleviates nervous conditions and is a positive influence on heart rhythm
- Magnesium**                      Regulates calcium level in the fluids of the body and has a positive influence on muscles and nerves
- Calcium**                      Has a positive influence on bones and teeth, stimulates the heart and demonstrates a positive influence on the permeability of cell membrane
- Iron**                      Transports oxygen and has a positive influence on haemoglobin
- Copper**                      Helps protect the cardiovascular, skeletal and nervous systems. Copper is also helpful in treating rheumatoid arthritis and osteoporosis as it helps to promote healthy collagen in the body. Copper is also good for relieving aching joints.