

## APPENDIX

Table A1. Minerals of marine evaporites.

Table A.1. Minerals of marine evaporites. (Stewart, F. W., 1963, Data of geochemistry, Chapter Y, Marine Evaporites: U. S. Geol. Survey Prof. Paper 440-Y)

[Those in capitals rank as major constituents]

Chlorides:

HALITE	NaCl
SYLVITE	KCl
Bischofite	$MgCl_2 \cdot 6H_2O$
Koenenite	$Mg_9Al_4Cl_8(OH)_{22} \cdot 7H_2O$
Zirklerite	Basic chloride of Al and $Fe^{+2}$ , with minor Ca and Mg
Chlorocalcite ( = hydrophilite)	$KCaCl_3$
CARMALLITE	$KHgCl_3 \cdot 6H_2O$
Tachyhydrite	$CaMg_2Cl_6 \cdot 12H_2O$
Douglasite	$K_2FeCl_4 \cdot 2H_2O?$
Erythrosiderite	$K_2FeCl_5 \cdot H_2O$
Rinneite	$NaK_3FeCl_6$

Fluorides:

Fluorite	$CaF_2$
Sellalite	$MgF_2$

Sulfates:

Aphthitalite (glaserite)	$(K, Na)_3Na(SO_4)_2$
Thenardite	$Na_2SO_4$
Barite	$BaSO_4$
Celestite	$SrSO_4$
ANHYDRITE	$CaSO_4$
Vanthoffite	$Na_6Mg(SO_4)_4$
Glauberite	$Na_2Ca(SO_4)_2$
LANGBEINITE	$K_2Mg_2(SO_4)_3$
Mirabilite	$Na_2SO_4 \cdot 10H_2O$
Syngenite	$K_2Ca(SO_4)_2 \cdot H_2O$
Loewelite	$Na_4Mg_2(SO_4)_4 \cdot 5H_2O$
Blodite (Astrakanite)	$Na_2Mg(SO_4)_2 \cdot 4H_2O$
Leonite	$K_2Mg(SO_4)_2 \cdot 4H_2O$
Picromerite (Schoenite)	$K_2Mg(SO_4)_2 \cdot 6H_2O$
POLYHALITE	$K_2CaMg(SO_4)_4 \cdot 2H_2O$
Gorgeylite	$K_2Ca_5(SO_4)_6 \cdot H_2O$

Table A.1 - Minerals of marine evaporites (continued)

Sulfates (continued):

Bassanite	$2\text{CaSO}_4 \cdot \text{H}_2\text{O}$
KIESERITE	$\text{MgSO}_4 \cdot \text{H}_2\text{O}$
Sanderite	$\text{MgSO}_4 \cdot 2\text{H}_2\text{O}$
GYPSUM	$\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$
Starkeyite (Leonhardtite)	$\text{MgSO}_4 \cdot 4\text{H}_2\text{O}$
Pentahydrate (Allenite)	$\text{MgSO}_4 \cdot 5\text{H}_2\text{O}$
Hexahydrate	$\text{MgSO}_4 \cdot 6\text{H}_2\text{O}$
Epsomite (Reichardtite)	$\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$
KAINITE	$\text{KMg}(\text{SO}_4)\text{Cl} \cdot 3\text{H}_2\text{O}$
Anhydrokainite	$\text{KMg}(\text{SO}_4)\text{Cl}$
D'Ansite	$\text{MgNa}_{21}(\text{Cl}_3\text{SO}_4)(\text{SO}_4)_9$

Carbonates:

CALCITE	$\text{CaCO}_3$
MAGNESITE	$\text{MgCO}_3$
Siderite	$\text{FeCO}_3$
Aragonite	$\text{CaCO}_3$
Strontianite	$\text{SrCO}_3$
DOLOMITE	$\text{CaMg}(\text{CO}_3)_2$
Ankerite	$\text{Ca}(\text{Fe},\text{Mg})(\text{CO}_3)_2$

Borates:

Pinnoite	$\text{Mg}(\text{BO}_2)_2 \cdot 3\text{H}_2\text{O}$
Kurgantaite	$(\text{Sr},\text{Ca})_2\text{B}_4\text{O}_8 \cdot \text{H}_2\text{O}$
Priceite (Pandermitte)	$\text{Ca}_4\text{B}_{10}\text{O}_{19} \cdot 7\text{H}_2\text{O}$
Ulexite	$\text{NaCaB}_5\text{O}_9 \cdot 8\text{H}_2\text{O}$
p-Veatchite	$\text{SrB}_6\text{O}_{10} \cdot 2\text{H}_2\text{O}$
Colemsnite	$\text{Ca}_2\text{B}_6\text{O}_{11} \cdot 5\text{H}_2\text{O}$
Hydroboraoite	$\text{CaMgB}_6\text{O}_{11} \cdot 6\text{H}_2\text{O}$
Inderborite	$\text{CaMgB}_6\text{O}_{11} \cdot 11\text{H}_2\text{O}$
Inyoite	$\text{Ca}_2\text{B}_6\text{O}_{11} \cdot 13\text{H}_2\text{O}$
Kurnakovite	$\text{Mg}_2\text{B}_6\text{O}_{11} \cdot 15\text{H}_2\text{O}$
Inderite	$\text{Mg}_2\text{B}_6\text{O}_{11} \cdot 15\text{H}_2\text{O}$
Howlite	$\text{Ca}_2\text{SiB}_5\text{O}_9(\text{OH})_5$

Table A.1 - Minerals of marine evaporites (continued)

Borates (continued):

Paternoite	$\text{MgB}_8\text{O}_{13} \cdot 4\text{H}_2\text{O}$
Ginorite (Cryptomorphite)	$\text{Ca}_2\text{B}_{14}\text{O}_{23} \cdot 8\text{H}_2\text{O}$
Kaliborite	$\text{KMg}_2\text{B}_{11}\text{O}_{19} \cdot 9\text{H}_2\text{O}$
Volkovite	Hydrous borate of Sr and K
Ivanovite	Hydrous chloroborate of Ca (and K?)
Szaibelyite	$(\text{Mg})(\text{BO}_2)(\text{OH})$
Boracite	$\text{Mg}_3\text{B}_7\text{O}_{13}\text{Cl}$
Ericaite	$(\text{Fe}, \text{Mg}, \text{Mn})_3\text{B}_7\text{O}_{13}\text{Cl}$
Hilgardite	$\text{Ca}_8(\text{B}_6\text{O}_{11})_3\text{Cl}_4 \cdot 4\text{H}_2\text{O}$
Parahilgardite	$\text{Ca}_8(\text{B}_6\text{O}_{11})\text{Cl}_4 \cdot 4\text{H}_2\text{O}$
Strontiohilgardite	$(\text{Ca}, \text{Sr})_2(\text{B}_5\text{O}_8(\text{OH})_2\text{Cl})$
Heidornite	$\text{Na}_2\text{Ca}_3\text{Cl}(\text{SO}_4)_2 \cdot \text{B}_2\text{O}_3(\text{OH})_2$
Lueneburgite	$\text{Mg}_3\text{B}_2(\text{OH})_6(\text{PO}_4)_2$
Sulphoborite	$\text{Mg}_6\text{H}_4(\text{BO}_3)_4(\text{SO}_4)_2 \cdot 7\text{H}_2\text{O}$
Danburite	$\text{CaSi}_2\text{B}_2\text{O}_8$

Elements, sulfides, oxides, silicates, phosphates:

Sulfur  
 Pyrite  
 Hauerite  
 Hematite  
 Goethite (limonite)  
 Magnetite  
 Quartz  
 Opal  
 Talc  
 Illite  
 Kaolinite  
 Goyazite



