

Gordaite [Zn₄Na(OH)₆(SO₄)Cl·6H₂O]: Second occurrence in the Juan de Fuca Ridge, and new data*

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ABSTRACT

A hydrous zinc- and sodium-rich hydroxy-chlorosulfate, discovered in a sulfide sample collected by the Deep Sea Recovery Vehicle (DSRV) Alvin in 1984, is identified as gordaite, Zn₄Na(OH)₆SO₄Cl·6H₂O, recently described as a new mineral species from Antofagasta, Chile. Results of re-examination of the original Alvin dive sample from the Juan de Fuca Ridge, northeastern Pacific Ocean, and additional data on gordaite, including vibrational and luminescence spectroscopy, X-ray diffractometry and thermal analysis, are presented.