

ABSTRACT  
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**Niter and Sylvite from Jenolan Caves, New South Wales,  
Australia**

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1 - Austratian Museum - 6 College Street - Sydney, N.S.W. 2000. AUSTRALIA

2 - School of Professional Studies, A35 - University of Sydney, N.S.W 2006. AUSTRALIA

Niter deposits occur in two large natural bridges, the Grand Archway and the Devil's Coach House at Jenolan Caves, New South Wales. The likely source is urine from colonies of brush-tailed rock wallabies (*Petrogale penicillata*) that lived in the bridges until the late 1960s. Niter associated with sylvite is found in the "Dust Cave", an extremely dry section of the Grand Archway. The Grand Archway has an east-west orientation and strong dry cold wind flow though it in the winter, bringing temperatures below zero. Evaporation at low temperature is proposed to account for the deposition of sylvite, but not halite, in the Archway.