

## INTERPRETED PIMA-II SWR MINERALOGY

PLATE No. 2380.1

Cadia Ridgeway deposit Au-Cu 2

porphyry

Australasian & Pacific Porphyries

Sample	Mineral1	Mineral2	Mineral3	Mineral4	Possible Mineral1	Possible Mineral2	Dominant Illite/muscovite composition
001r	Int chlorite/biotite	carbonate?					
002r	Int chlorite	carbonate	montmorillonite				
003r	carbonate	chlorite			+/-montmorillonite		
004r1	carbonate	chlorite					
004r2	chlorite	kaolinite?	water				
005r	Int chlorite	actinolite					
006r	carbonate?	chlorite?					
009r	chlorite	actinolite?	kaolinite?				
010r	chlorite/biotite?						
011r	Int chlorite						
013r	Int chlorite						
014r	chlorite/biotite	illite					tending to phengitic (i.e. Mg/Fe substituted and/or low octahedral Al)
016r	chlorite	actinolite?					

Samples on Lithotheque plates number left to right, commencing at top left. Samples are numbered 001-020. The letter after the number refers to the type of measurement made: r = representative; v = vein; vs = vein selvage; m = matrix; c = clast; l = layer; p = phenocryst (if large). Not all plates contain 20 samples; not all samples have been measured; some samples have multiple measurements. THIS PAGE IS DESIGNED TO BE PRINTED.

### Summary of Cadia Lithotheque Plates 2377, 2378, 2379, 2380 and 2381

Phengite is common in the Cadia ore bodies, particularly at Cadia Hill and at East Cadia. However, the sericite composition is variable and a number of different phases are evident in the spectra suggesting a complex overprinting history of sericite alteration in the area. Many of the Cadia Hill samples, for example, clearly contain more than one sericite phase (a phengite and a muscovite). It is possible that there may be a particular phase associated with mineralisation, but this is not clear from the available samples. It is also likely that sample lithology also has an influence.

The crystallinities of the illitic sericite also appear to vary significantly in the samples, which may also be a function of position in the alteration system.

The chlorite compositions appear to vary, although not enough samples have good spectra to be able to evaluate this variation in detail.

Note that late stage laumontite does not display any diagnostic features apart from very strong water absorptions. Late stage alterations at Cadia include prehnite as well as the logged epidote, carbonate and laumontite.

*The summary is based on a relatively small number of samples which are not spatially attributed. Observations are indicative rather than definitive of the spectral and mineralogical characteristics of this deposit.*

Interpretation by Dr Sasha Pontual of Auspec International: <http://members.ozemail.com.au/~pima/>