Paleomagnetism of Upper Carboniferous Sedimentary and Volcanic Units from the Río Blanco Basin, Central West Argentina.

1GEUNA, S.E., 2ESCOSTEGUY, L.D. and 2FAUQUÉ, L. 1Laboratorio de Paleomagnetismo Daniel Valencio, Dpto. de Cs. Geológicas, FCEN, UBA, Buenos Aires, Argentina; 2SEGEMAR, Buenos Aires,Argentina.

The Punta de Agua and Río del Peñón Formations are part of the filling of the Río Blanco Basin in the Argentine Precordillera and Cordillera Frontal (29ºS, 68º30'W). The Punta de Agua Formation is a volcanic complex mainly composed of andesites, breccias and conglomerates. This is conformably overlaid by the Río del Peñón Formation, a marine clastic sequence of Late Carboniferous age.Thirty-eight sites composing 121 block samples of these units were collected from both flanks of the Rincón Blanco syncline. After removal of a small present-day field overprint by 300ºC or 15mT, a characteristic steeply down direction was isolated during thermal and alternating-field treatment, in most of the volcanics and sedimentary rocks.This reversed polarity characteristic magnetization passes a fold test at the 95% confidence level suggesting that the remanence is pre-tectonic. The formation of the Rincón Blanco syncline might have begun with the San Rafael orogenic phase (Early Permian). Then the age of the magnetization is restricted to the Kasimovian-Gzelian (beginning of the Kiaman reversed interval) to Asselian.The directions calculated from 30 sites yield a paleomagnetic pole at 73.3ºS 283.4ºE, with A95=8.1. This direction is not in agreement with the Upper Paleozoic apparent polar wander path of Gondwana, suggesting a possible clockwise rotation of the sampling area, of about 40 degrees.