

Accepted Manuscript

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PII: S0895-9811(16)30149-3

DOI: [10.1016/j.jsames.2017.09.037](https://doi.org/10.1016/j.jsames.2017.09.037)

Reference: SAMES 1813

To appear in: *Journal of South American Earth Sciences*

Received Date: 13 August 2016

Revised Date: 21 June 2017

Accepted Date: 23 September 2017

Please cite this article as: González-León, C.M., Solari, L., Madhavaraju, J., Stratigraphy, geochronology and regional tectonic setting of the Late Cretaceous (ca. 82-70 Ma) Cabullona basin, Sonora, Mexico, *Journal of South American Earth Sciences* (2017), doi: 10.1016/j.jsames.2017.09.037.

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STRATIGRAPHY, GEOCHRONOLOGY AND REGIONAL TECTONIC SETTING OF THE
LATE CRETACEOUS (ca. 82-70 Ma) CABULLONA BASIN, SONORA, MEXICO

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ABSTRACT

The Cabullona basin in northeastern Sonora is a continental depocenter whose origin is related to the adjacent Sierra Anibacachi uplift that bounds its tectonic eastern flank. Its exposed, mostly fluvial and lacustrine sedimentary fill, the Cabullona Group, was deposited between 81.9 ± 0.7 and 69.8 ± 0.7 Ma and its outcrops extends for 70 km from north to south. The oldest measured stratigraphic column of the Cabullona Group is the Los Atolillos column of the southern part of the basin, but its base is not exposed. A basal conglomerate in the younger El Malacate (ca. 80 Ma), Cuauhtémoc (ca. 75 Ma) and San Joaquín (ca. 70 Ma) columns onlaps deformed basement rocks. The type section in which the Cabullona Group was previously named is herein referred as the Naco section and is dated ~73-72 Ma. The younger strata of the Cabullona Group correspond to the fluvial San Joaquín column that onlaps the eastern tectonic boundary of the basin and to the lacustrine Esqueda column. These columns are dated at ca. 70 Ma and may represent the late evolution of the Cabullona basin.

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