

Accepted Manuscript

Petrographic and geochemical characterization of organic-rich Mississippian black shales in the north of Spain: Vegamián Formation, Cantabrian Zone

A.G. Borrego, A. López García, O. Merino-Tomé

PII: S0166-5162(17)30322-1
DOI: doi: [10.1016/j.coal.2017.08.012](https://doi.org/10.1016/j.coal.2017.08.012)
Reference: COGEL 2877

To appear in: *International Journal of Coal Geology*

Received date: 15 April 2017
Revised date: 24 August 2017
Accepted date: 28 August 2017

Please cite this article as: A.G. Borrego, A. López García, O. Merino-Tomé , Petrographic and geochemical characterization of organic-rich Mississippian black shales in the north of Spain: Vegamián Formation, Cantabrian Zone. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. *Cogel*(2017), doi: [10.1016/j.coal.2017.08.012](https://doi.org/10.1016/j.coal.2017.08.012)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Petrographic and geochemical characterization of organic-rich Mississippian black shales in the north of Spain: Vegamián Formation, Cantabrian Zone

A.G. Borrego^{a,*}, A. López García^{a,b}, O. Merino-Tomé^b,

Corresponding author: A.G. Borrego (angeles@incar.csic.es)

^a. Instituto Nacional del Carbón (INCAR-CSIC). C/Francisco Pintado Fe 26, 33011, Oviedo, Spain.

^b. Department of Geology. University of Oviedo. C/Arias de Velasco s/n, 33005 Oviedo, Spain.

Abstract

Black shales (1-60 m thick) with minor cherts (radiolarites) and phosphate nodules of Mississippian age (Middle – Upper Tournaisian; Vegamián Formation) occur in the fold-and-thrust belt of the Cantabrian Zone (N Spain) at the base of the Carboniferous succession, which is infilling the Variscan foreland basin. The Vegamián Formation was accumulated in a similar sedimentary and paleogeographic context to the Upper Devonian-Carboniferous black shales of the Appalachian, Arkoma, Fort Worth, Western Canada and Antler foreland basins (North America) and to the Variscan foreland basin in Belgium and Germany. Five stratigraphic sections were investigated in the southern branch of the Cantabrian Zone, corresponding to the shallower sectors of the passive margin of the Variscan foreland basin in N Spain, where this stratigraphic unit reaches a thickness of generally less than 15 m. The total organic carbon (TOC) ranges from 2.81 wt.% to 7.43 wt.% with a significant number of values over 5 wt.% indicating a high level of organic matter preservation. Thermal maturity can be considered to be between the peaks of oil and wet gas generation. The total sulphur (TS) content is generally low with few samples showing values higher than 1.5 wt.%.

Download English Version:

<https://daneshyari.com/en/article/8123442>

Download Persian Version:

<https://daneshyari.com/article/8123442>

[Daneshyari.com](https://daneshyari.com)