

Accepted Manuscript

Tectonic influence on the morphology, facies and distribution of Miocene reservoirs, southern Gulf of Mexico

Hilda Clarisa Gutiérrez-Paredes, Rolando Peterson-Rodríguez, Octavian Catuneanu, Ulises Hernández-Romano



PII: S0895-9811(18)30187-1

DOI: [10.1016/j.jsames.2018.09.003](https://doi.org/10.1016/j.jsames.2018.09.003)

Reference: SAMES 2000

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

Received Date: 30 April 2018

Revised Date: 12 September 2018

Accepted Date: 13 September 2018

Please cite this article as: Gutiérrez-Paredes, H.C., Peterson-Rodríguez, R., Catuneanu, O., Hernández-Romano, U., Tectonic influence on the morphology, facies and distribution of Miocene reservoirs, southern Gulf of Mexico, *Journal of South American Earth Sciences* (2018), doi: <https://doi.org/10.1016/j.jsames.2018.09.003>.

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.

Tectonic influence on the morphology, facies and distribution of Miocene reservoirs, southern Gulf of Mexico

Hilda Clarisa Gutiérrez-Paredes ^{a*}, Rolando Peterson-Rodríguez ^b, Octavian Catuneanu ^c, Ulises Hernández-Romano ^d.

^a University of Alberta/Pemex Exploración y Producción, 509 Michener Park, Edmonton Alberta Canada T6H4M5,

* Corresponding autor. hgutier@ualberta.ca / clarisagtzp@hotmail.com .

^b Pemex Exploración y Producción, Avenida Marina Nacional #329 Ciudad de Mexico, Mexico 11311

rolando.heberto.peterson@pemex.com

^c Department of Earth and Atmospheric Sciences, University of Alberta, Edmonton, Alberta Canada T6G 2E3, octavian@ualberta.ca

^d Pemex Exploración y Producción, Avenida Marina Nacional #329 Ciudad de México, México 11311 ulises.hernandez@pemex.com

ABSTRACT

In the southern Gulf of Mexico, deepwater sediments were affected during deposition by contractional and extensional deformation events and halokinesis. The Miocene reservoirs in this area were deposited in slope and basinal settings during the falling-stage systems tracts and the lowstand systems tracts, where channel and frontal splay depositional elements were the most important. The integration of the structural analysis with seismic data, seismic attributes and isochron maps allows us to evaluate how the deformational events (especially the contractional event D3) controlled the distribution of sediments and the external geometry of their deposits. This interplay between deformation and sedimentation mainly occurred in two ways. First, the structural elements modified the paleobathymetry of the basin and created an accommodation space for clastic deposition. Second, the structural features controlled the entry of sediments. During the Oligocene and early Miocene, the depocenters were bounded by diapirs, salt sheets

Download English Version:

<https://daneshyari.com/en/article/11033119>

Download Persian Version:

<https://daneshyari.com/article/11033119>

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