

8 August 2022

Dan Negut, M.Sc President & CTO Z-Terra North Inc. 2510, 715 - 5 Avenue SW Calgary, AB T2P 2X6

Dear Dan,

We would like to express our gratitude to you and your team at Z-terra North for the excellent results obtained during the execution of the Mega-Merge PSTM Seismic Processing Project.

The Mega-Merge Project posed a significant challenge for the merging and imaging of 20 vintage surveys for nearly 4,600 sq. km. (4,200 sq. km. in the merged volume). This is by far the biggest 3D seismic merged and imaged survey in the history of our company and indeed in the entire country.

The surveys were acquired with different acquisition parameters, orientations, sources, recording equipment, etc. which added to the project complexity. Minimizing differences across the different surveys in terms of signal to noise level, frequency content, wavelet phases and statics as well as the preservation of relative amplitudes to generate a seamless PSTM volume was the main goal. The careful and targeted processing sequence was very successful in addressing all these issues. Of particular value was the multidimensional, structure-preserving interpolation.

The resulting PSTM image volume is of very good quality and has been invaluable in helping us to identify and carefully map the main structural and stratigraphic play concepts for the thin, fluvial sand bodies that we are looking for. Also, this mega-merge volume has allowed us to better understand the regional geological framework, such as fault trend continuity, paleo-highs, pinch-outs, and other structural features difficult or impossible to understand with the individual surveys.

We also appreciate the opportunity you provided us to collaborate with your highly skilled team of seismic analysts to ensure that the main goals of the project were well understood and guided the decisions in terms of parameter selection and fine-tuning of the processing sequence. We credit the excellent professional relationship generated between our G&G group, our seismic processing advisor, and your team, as an important contributing factor for the very good results of this Project

We will continue to add additional 3D surveys, that we will acquire during 2023 and 2024 to this merged volume.

Sincerely

Cesar Hernandez

**Exploration Manager Llanos Basin** 

GeoPark - Colombia