

Phase methods for searching and identifying of hydrocarbon deposits in the mode of amplitude-modulated signals

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AIP Conf. Proc. 3102, 040016 (2024)

<https://doi.org/10.1063/5.0199950>

The article examines phase methods of search and identification of hydrocarbon deposits in the mode of amplitude-modulated signals. Analysis of constituent components of surface impedance of media over hydrocarbon for electromagnetic waves with right-hand and left-hand circular polarization depending on signal-carrier frequency is performed. It has been found out that the phase characteristics of the surface impedance can be used to diagnose media. The obtained research results can be used in exploratory geophysics to improve the accuracy of defining boundaries of the deposits.

Topics

Electromagnetism, Geophysics, Telecommunications engineering, Polarization

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