



NMR Can Measure Groundwater Directly Even in Permafrost Environments

In permafrost landscapes, the ground remains mostly frozen throughout the year and liquid groundwater only occurs in certain locations or during anomalously warm periods.

Understanding the spatial and temporal distribution of groundwater in these environments is extremely important as it can affect processes ranging from geotechnical soil stability to the release of greenhouse gases. In a warming climate, permafrost systems are undergoing especially dynamic change and are the subject of extensive research across many government and private institutions.



Nuclear magnetic resonance (NMR) is an especially useful technique in permafrost investigations because it is the only geophysical method that can directly and unambiguously identify unfrozen water.

[Click here to learn more about Vista Clara NMR solutions for permafrost.](#)

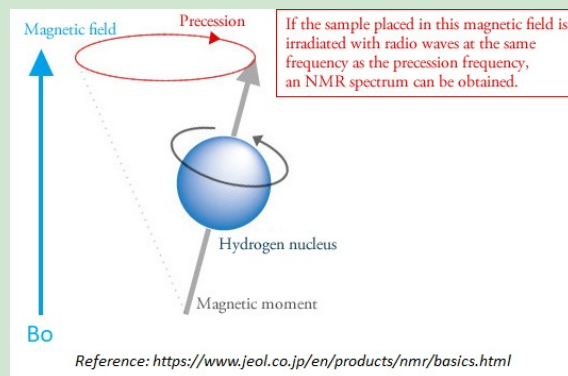
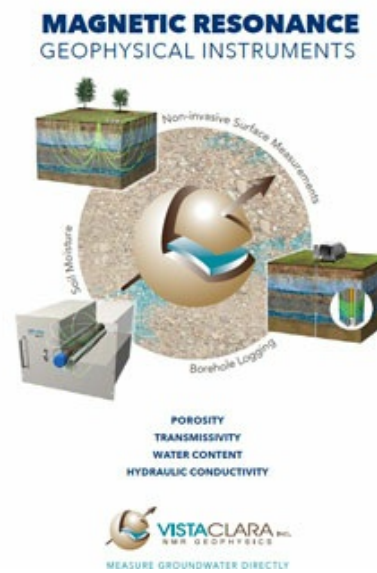
Learn More About Vista Clara's Magnetic Resonance Solutions

Check out our new comprehensive Product Brochure!

Learn more about magnetic resonance system including:

- GMR & GMR Flex surface-based systems
- Javelin Max and Slim wireline logging systems
- Dart portable battery operated logging tools
- Helios soil & core analyzers
- Discus non-invasive soil moisture analyzers

[Click here to download the Product Brochure](#)



Tutorial on Magnetic Resonance Principles

For a quick understanding of Magnetic Resonance Principles, check out this new one page summary. The page also includes a short ten minute video overview by Dave Walsh, President of Vista Clara.

[Click here to learn about Magnetic Resonance Principles](#)

For more info visit the Vista Clara Web Site

Visit our web site at www.vista-clara.com

