

Check out the Latest News from Vista Clara!

NMR Investigations in Coastal Ecosystems - by Darya Morozov

Coastal ecosystems are ecologically fragile but provide important ecosystem services and are often understudied. Physical sampling methods such as coring and well installation provide direct information but are limited in spatial and temporal resolution. Moreover, the disturbance caused by drilling or coring may damage fragile sediment structures causing ecological harm. In addition, these conventional sampling methods are time and cost consuming.

As part of a DOE-funded Phase 2 SBIR proposal, Vista Clara and University of California Santa Cruz (UCSC) conducted in-situ measurements of soil hydrogeology in a salt marsh system using Nuclear Magnetic Resonance technology.

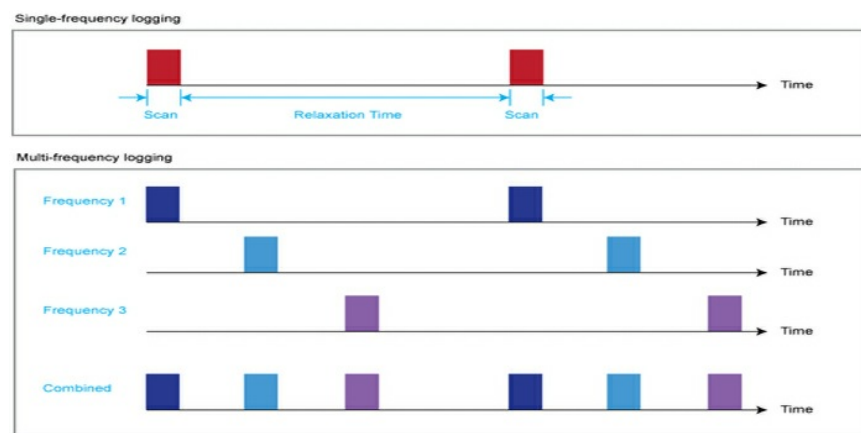
[Read the Full Article Here](#)



New Tech Note: Multi-Frequency NMR Logging

This new Technical Note provides a detailed discussion of the benefits of multi-frequency NMR logging.

Modern NMR logging tools, such as those provided by Vista Clara, have the ability to perform NMR measurements at multiple frequencies. As shown below, multi-frequency logging can use the relaxation time at each frequency to make measurements at other frequencies, thereby improving performance as compared with single-frequency operations.

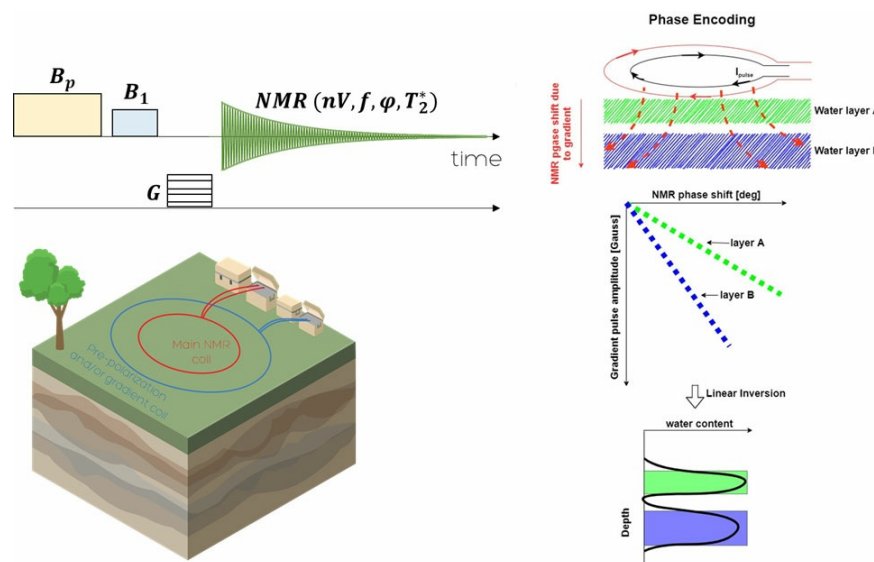


[Read More and Download the Technical Note Here](#)

Using Gradient-based Imaging Methods with GMR Flex Surface NMR

Recently, Dr. Darya Morozov presented details at SAGEEP regarding Vista Clara's development of a new break-through methodology for using gradient-based imaging in conjunction with NMR data obtained with the non-invasive NMR.

Gradient-based imaging is the basis for 2D and 3D imaging in medical MRI. In this work, we applied similar principles to produce controlled magnetic field gradients, using a GMR-Flex instrument with a single auxiliary device and gradient coil. We combined this new instrumentation capability with surface NMR-specific forward modeling and linear inverse methods to significantly improve both detection (signal-to-noise ratio) and spatial resolution of near surface water content using surface NMR.



[Read More Here and Request Additional Details](#)

For more information on Vista Clara and our NMR technologies:

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