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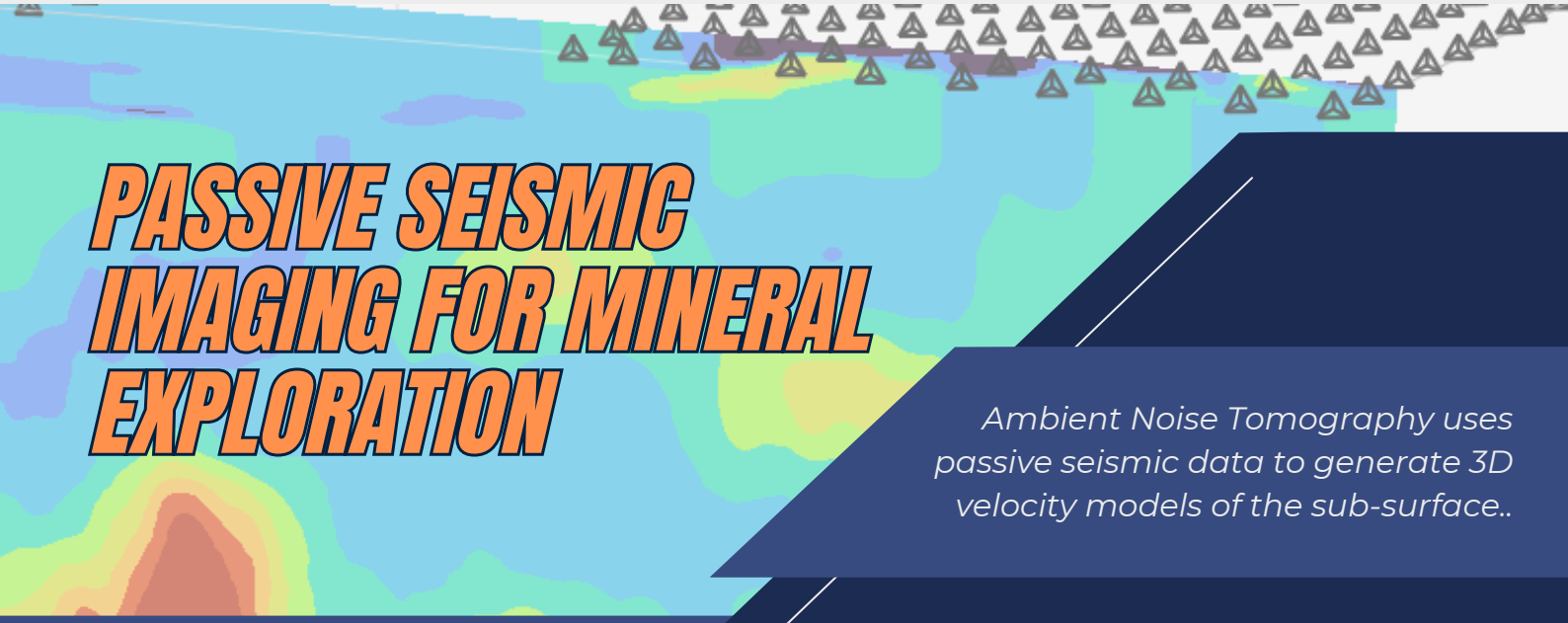

PASSIVE SEISMIC IMAGING FOR MINERAL EXPLORATION

Ambient Noise Tomography uses passive seismic data to generate 3D velocity models of the sub-surface..

Surface wave arrivals are detected in the continuous data, recorded by an array of sensors deployed at surface. These observations are used as constraints to infer sub-surface velocity structure.

METHOD

ANT is a passive seismic method, surface waves are measured at surface

ADVANTAGES/FEATURES

- Does not require active sources
- Low cost and low environmental impact
- Reduces development costs by informing targeted drilling campaigns

COSTS

Dependent on sensor array size, please contact us for a quotation.

CONTACT

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In collaboration with the Institute of Mine Seismology www.imseismology.org

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WHY USE ANT?

ANT imaging should be applied in early-stage exploration to identify structural controls and inform subsequent drilling campaigns. A high resolution array with shorter node-spacing should also be deployed in late-stage exploration for low cost resource estimation/ orebody delineation.

SCOPE OF WORK

Rental and Deployment:

·Array design

·Rental seismic nodes for deployment at the designated locations.

· (Optional) installation and retrieval of nodes

Data Acquisition and Processing:

· Download the recorded seismic data from the deployed nodes.

· Perform data quality control procedures.

Seismic Inversion and Imaging:

·Calculate cross-correlations

·Surface wave velocity picking

· Conduct ambient noise surface wave tomography inversion.

· Generate a digital 3D seismic velocity volume.

Reporting:

· Prepare a comprehensive report outlining the methodology used, a detailed discussion of the results, and interpretation of the findings.

(Budget) Node rental of 2 – 3 weeks, processing costs: 4 – 8 weeks including report