

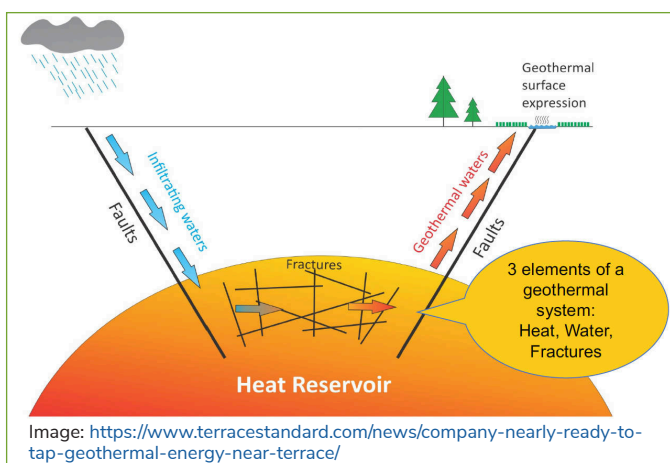
## Exploring Geothermal: Examining the potential.

Since 2016, the Yukon Geological Survey (YGS) has been examining the geothermal energy potential in the Yukon.

### What to look for?

Geothermal resources require three elements:

1. heat;
2. water; and
3. permeability (e.g., fractures and cracks).

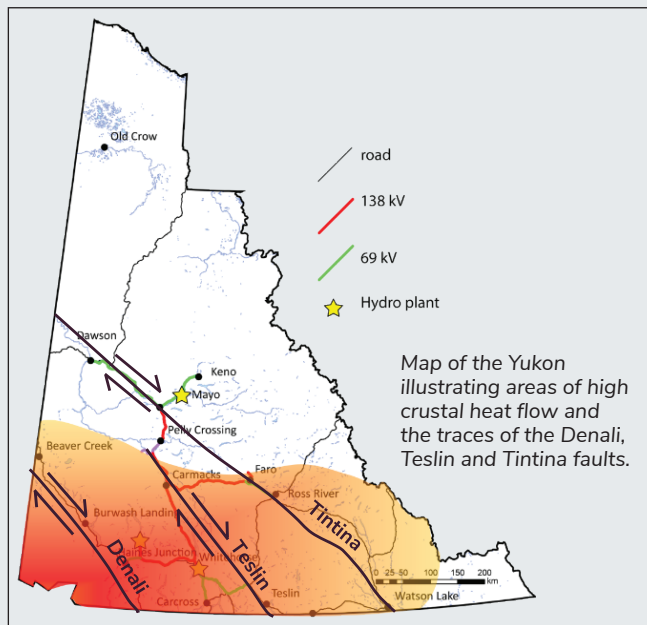


Geological mapping, combined with several desktop studies in recent years, has shown that southern Yukon has higher levels of heat flow in the mid-to-lower crust compared to the rest of the territory.

Furthermore, there are several large, deep-seated faults in southern Yukon, namely the Tintina, Teslin and Denali faults. Although they are shown on the map as a single line, these large faults are actually a series of connected fractures that define a wide fault zone of highly fractured rock. Faults and fractures can increase permeability and are areas to target when looking for a geothermal resource.

### FOR MORE INFORMATION, PLEASE CONTACT:

Yukon Geological Survey at [geology@yukon.ca](mailto:geology@yukon.ca)



### Taking a closer look

YGS' current research focuses on some of the Yukon's large fault zones in the southern part of the territory. Within a fault zone, individual fractures bend and curve locally, and where they do, their geometry can create openings, or 'pull-aparts' when the ground across the fault moves. Pull-aparts can enhance permeability and enable the flow of water (another important element for geothermal resources). Since these features occur at depth, YGS uses low-impact and passive geophysical surveys to image the fault system, which can help to identify potential geothermal targets.

