

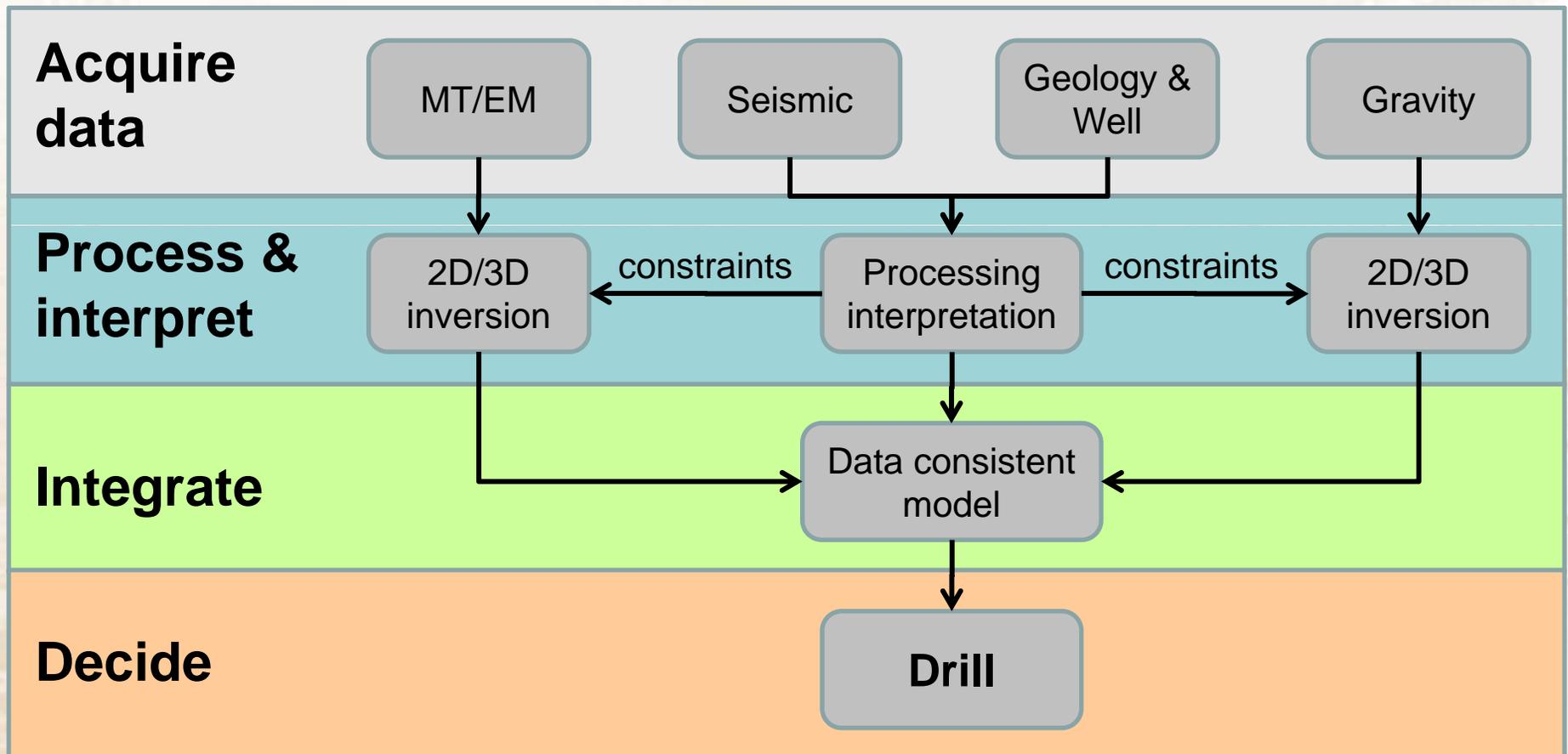
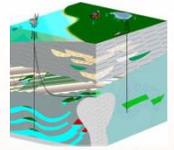
# Geothermal exploration work flow

**KMS Technologies**

An EMGS / RXT company

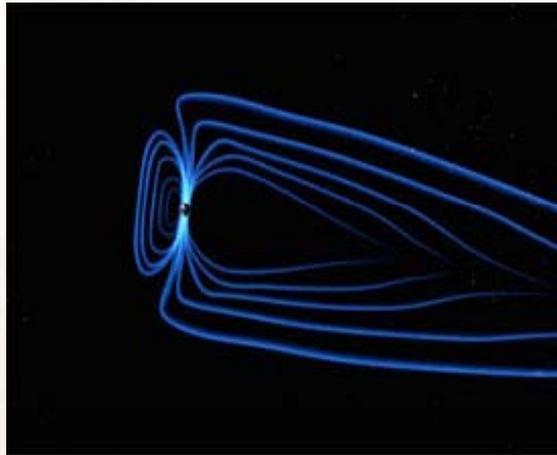
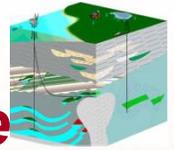
[www.KMSTechnologies.com](http://www.KMSTechnologies.com)

# Geothermal exploration flow

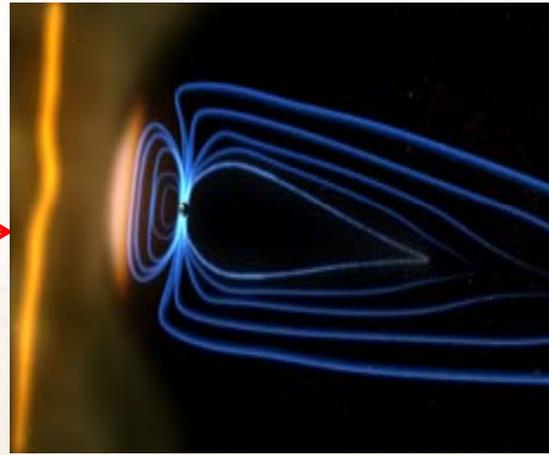


# Electromagnetic methods

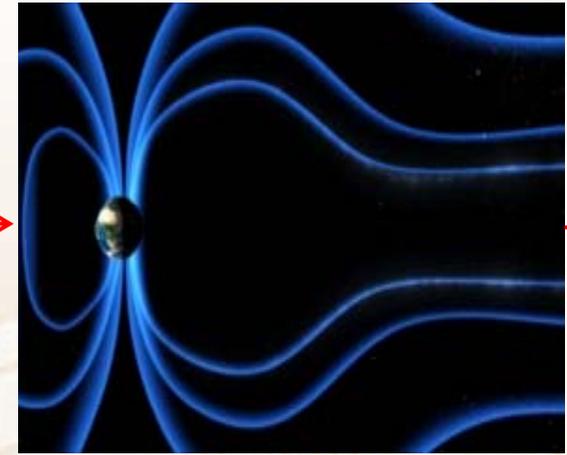
## Sources of magnetotelluric field in the ionosphere



*Earth's Magnetic Field*



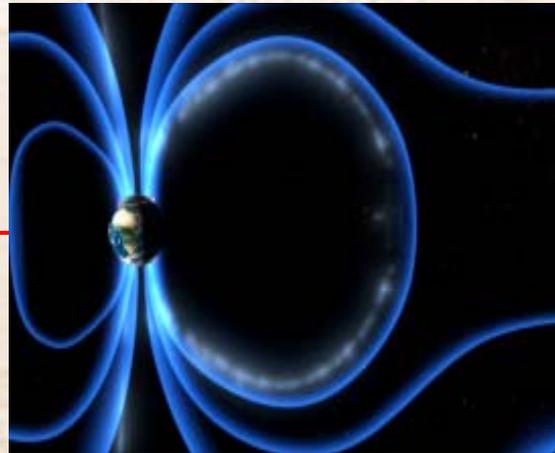
*Massive solar outburst travels on the solar wind*



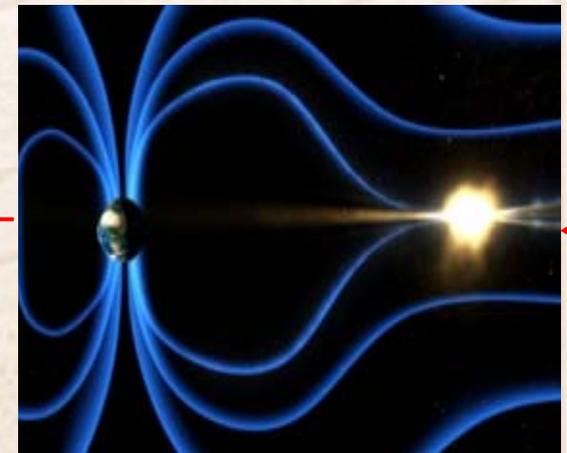
*The solar wind distorting Earth's magnetic field*



*It induces electric field in ionosphere & in extreme cases produces Auroras.*

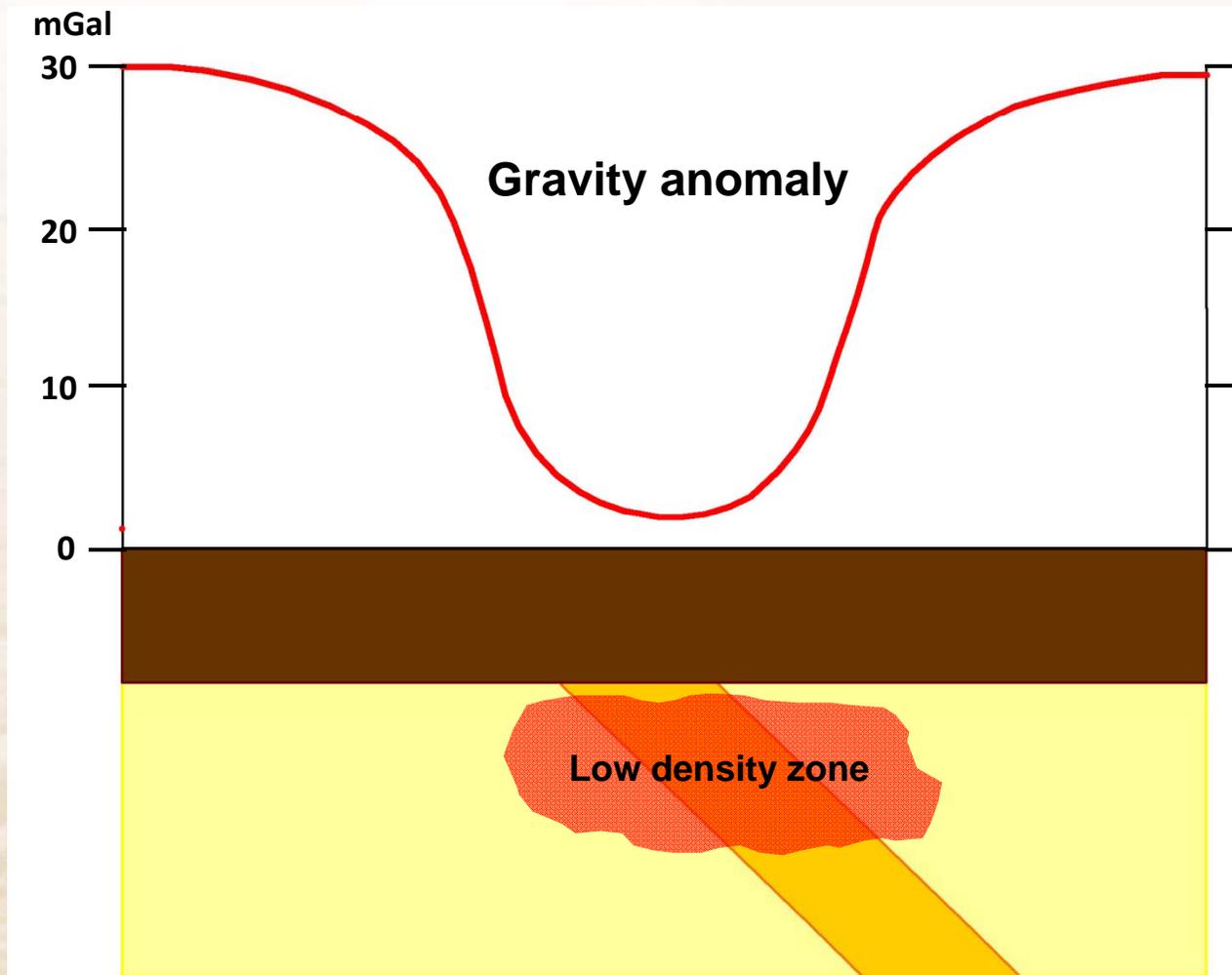
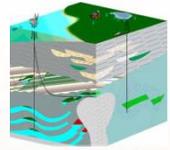


*This fired particles towards the Earth*



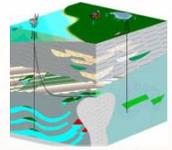
*Two magnetic field lines are reconnecting*

# Gravity methods



More water in the rock means a density decrease; it reduces the gravity field producing a negative anomaly.

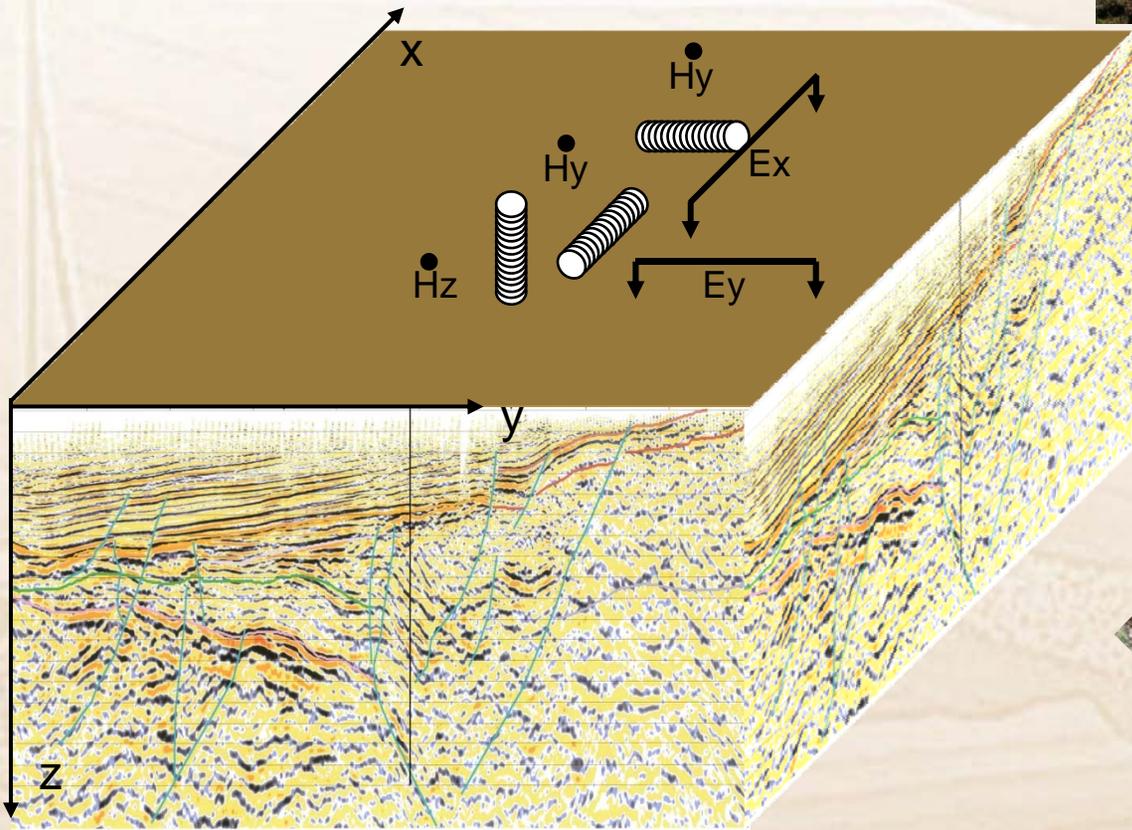
# Magnetotelluric data acquisition



Impedance:  $E / H$   
→ Resistivity of ground



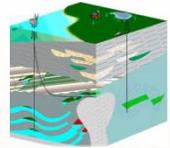
Recording units



Sensors



# Gravity data acquisition

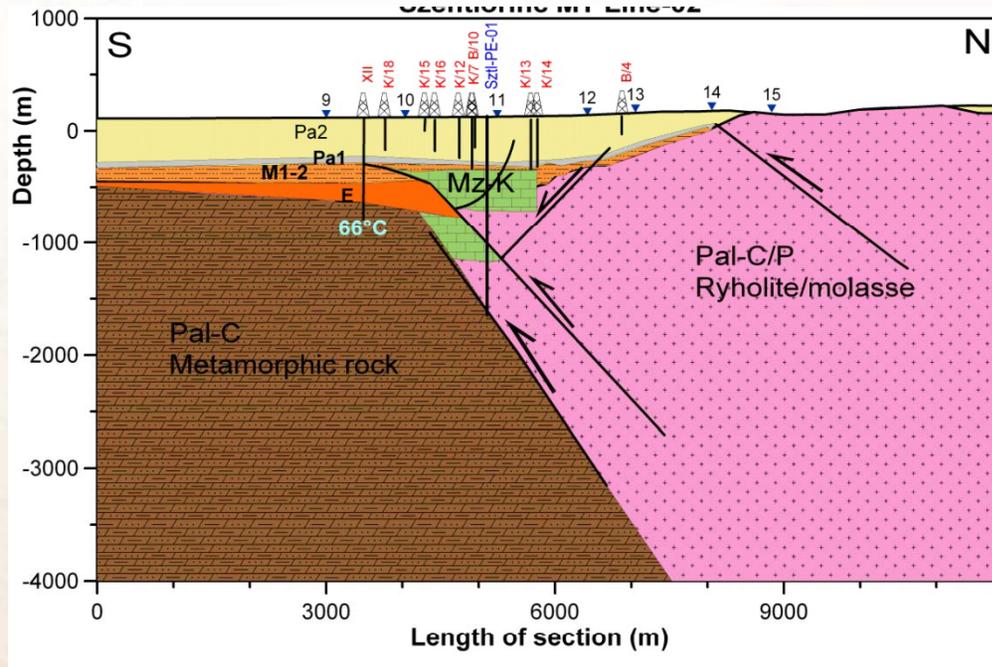
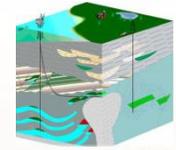


*The instrument = gravimeter*

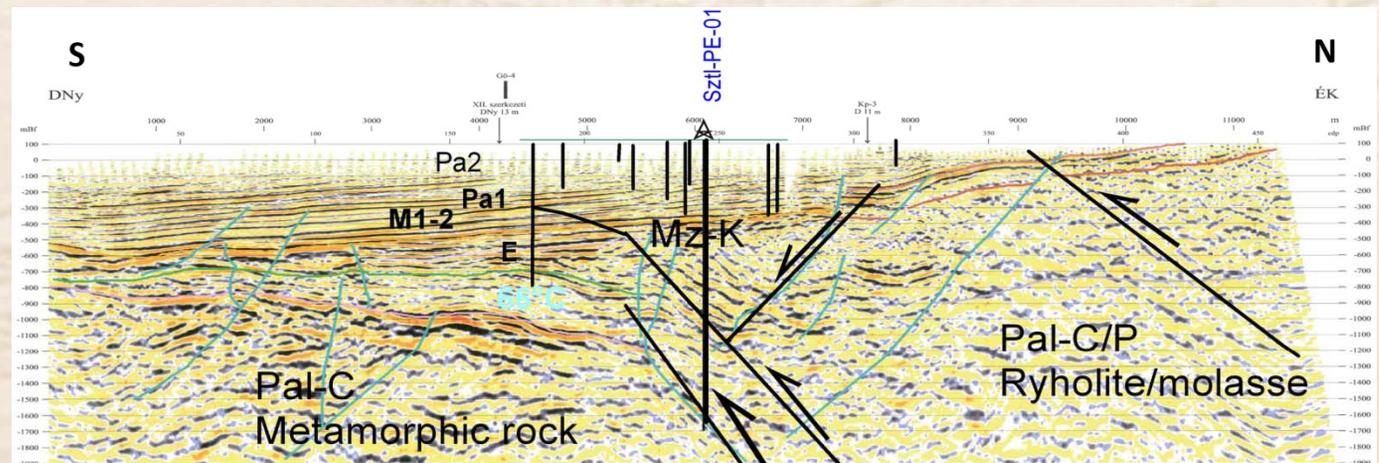


**Gravimeter calibration  
&  
measurements**

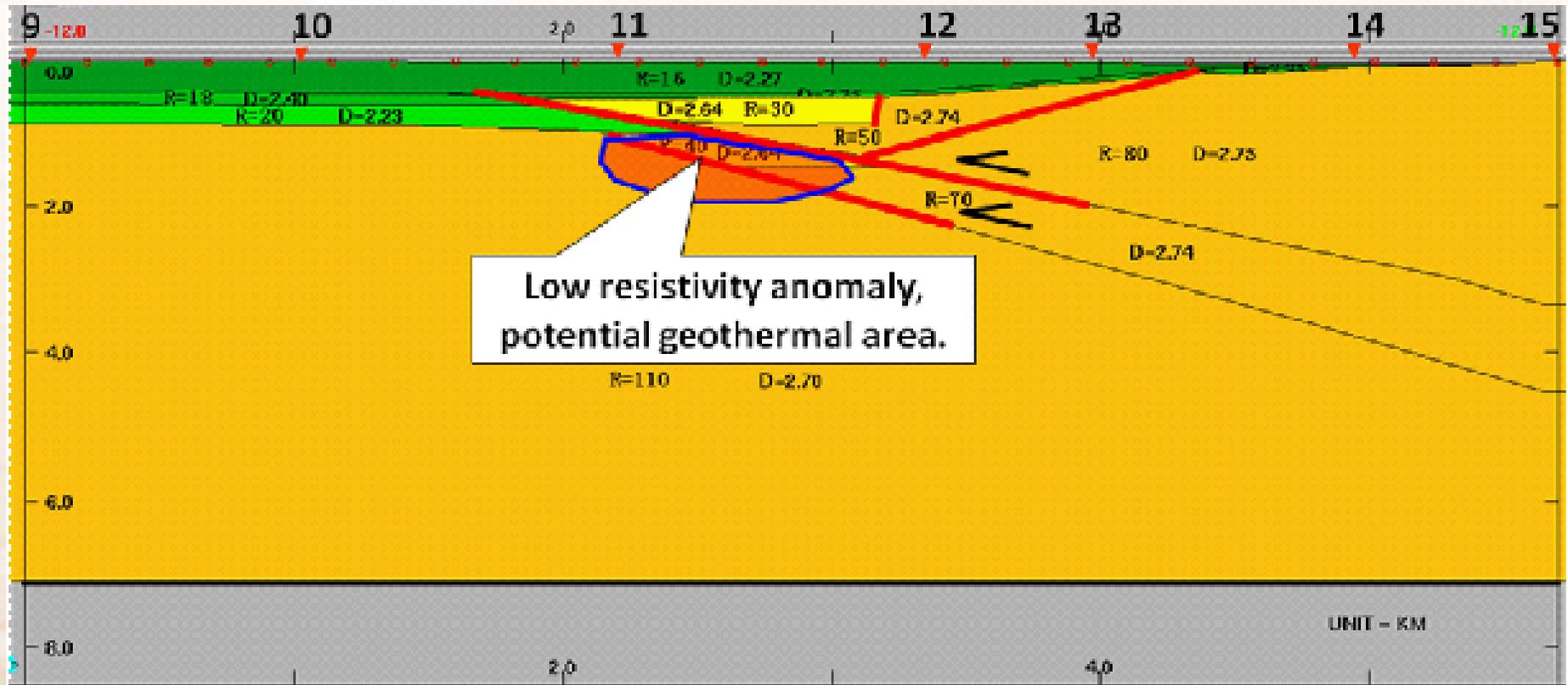
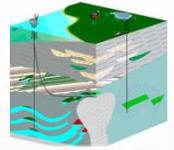
# Integrated interpretation



**Seismic & geologic information for structures & lithology**



# Integrated interpretation



***Magnetotelluric (low resistivity) & gravity (low density) to target geothermal anomaly***

# Drilling

