

MAGMA DRILLERS

SAVE PLANET EARTH



GEOPHYSICIST

Mission 2: Energy from magma

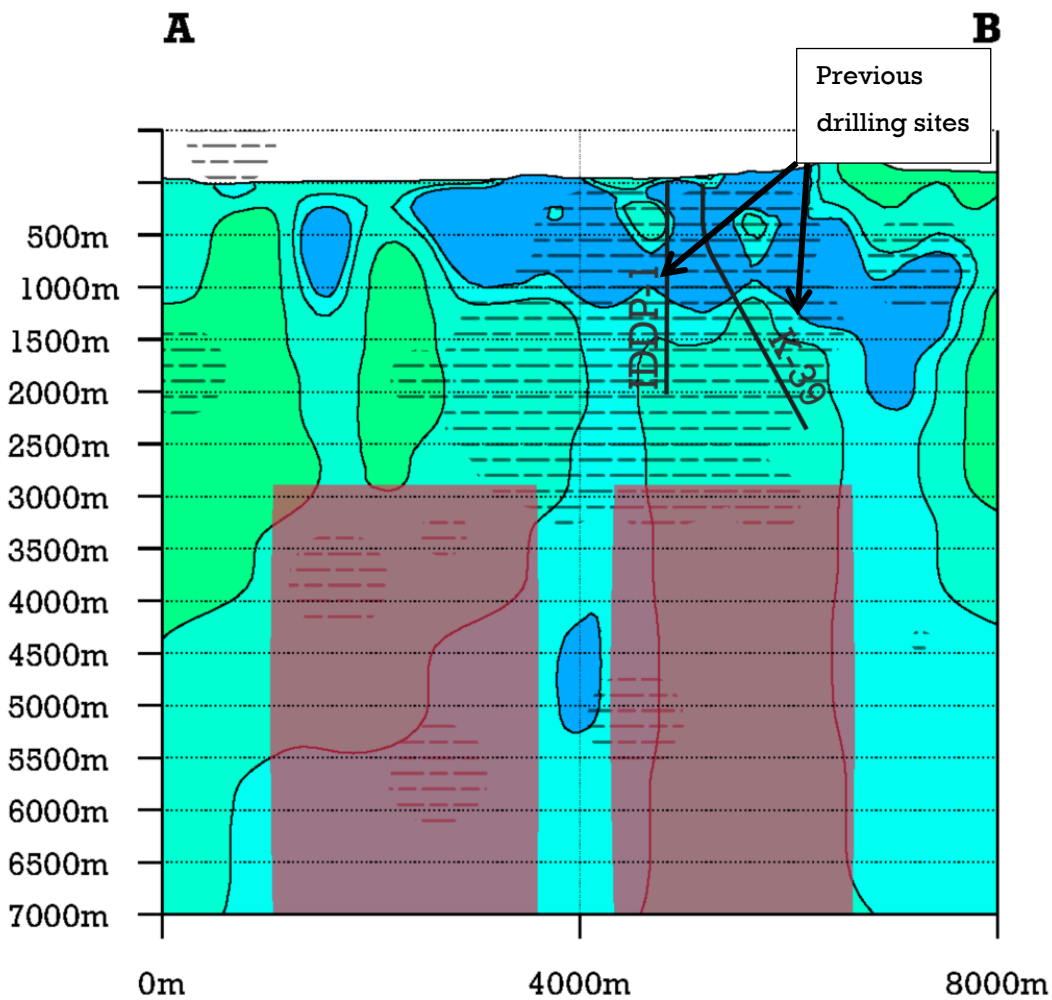
It is the year 2035, natural disasters ravage the planet. The world is recovering from years of environmental exploitation under Donald Trump (who tragically died after a freak wave of plastic burger boxes buried him during a beachside golf tournament). Kim Kardashian is now president of the United States; her revolutionary thinking leads the world in a search for cleaner energy and an effort to become better guardians of the natural forces around us. She has chosen you to be part of team to push the limits of science, technology, and bravery to save the planet.

In order to complete this mission, you will have to watch both the “energy from magma” video and the geophysicist video for this mission.

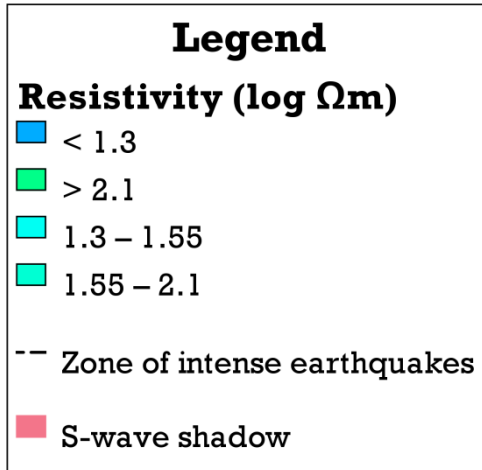
Again, you will be asked to collaborate with other scientists in order to achieve your goals. You will use what you have learnt so far to help you decide on the depth of the magma bodies.

The diagrams on the following page will help you answer the ensuing questions. Once you are confident about your answers to those questions, you will be able to report back to your team and help make a final decision on where to drill to intercept magma bodies

Geophysics diagram



The cross-section is located in the same area as Mission 1.



Question 1

Which dataset (information) is most likely to indicate the location of:

Cracking rocks? _____

Magma? _____

Acid Clay? _____

Choose from the following list:

- S-wave shadows
- Earthquake activity
- Resistivity

Question 2

Mark clearly on the cross section where you think magma might be located.

Question 3

What argument do magma drillers use to explain the location of magma at IDDP-1 (previous drilling location)?

Question 4.

Choose your preferred location to drill. Mark it on the cross section.

Well done! You are now at the end of your passport.

The next section will be filled out by a judge.

Drilling planning evaluation

Did everyone on the team share information that helped make the final decision?

How well did your team communicate to achieve its goals? What could improve your communication in the future?

Did your plan address all the potential risks and hazards?

Was your mission cost effective?

Did your drilling plan meet all requirements for the mission?

1 2 3 4 5



1 2 3 4 5



1 2 3 4 5



1 2 3 4 5



1 2 3 4 5

**CURIOUS
MINDS** 
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