



Energy in  
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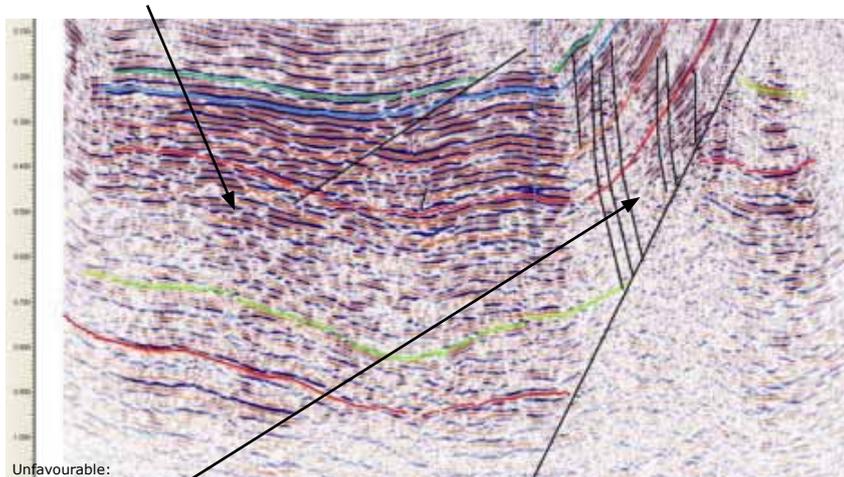


## Two Dimensional (2D) Seismic Survey Fact Sheet

Seismic data helps us build a regional geological picture about the areas we are currently exploring. Geologists and geophysicists can then interpret this data to identify possible coal deposits. This enables them to make better decisions about where to explore and where not to.

A two dimensional (2D) seismic survey is an exploration method used to create a map of the structures beneath Earth's surface (see image below). The method sends energy waves into the Earth. The different rock formations then reflect the waves back to the surface, where they are recorded over a period of time and converted into a seismic image

Favourable:  
 > Continuous seams  
 > Low complexity



Unfavourable:  
 > Faulted area  
 > Complex



^ An envirovibe truck.

### About us

AGL has been operating in Australia for over 170 years and was one of its first listed companies.

AGL is one of Australia's leading renewable energy company and is Australia's largest private owner, operator and developer of renewable generation assets. AGL also operates retail, merchant energy and upstream gas businesses and has over three million customer accounts.

AGL is taking action towards creating a sustainable energy future for our investors, communities and customers.

### AGL's 2D Seismic Exploration.

2D seismic exploration is non-intrusive to the landscape. Prior to the seismic survey, surveyors identify a path that minimises potential impacts on land use, such as in areas already cleared or on existing roads and trails.

If necessary the path may be slashed for technical, safety and visibility reasons.

This will also stop the geophones recording vibrations from the wind through tall grass.



^ A geophone in the ground.



^ The recording vehicle.

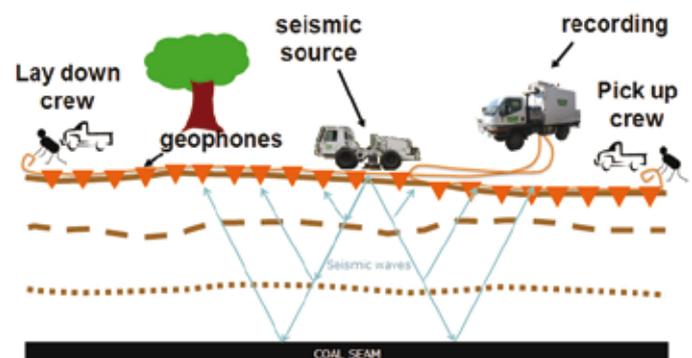
## How are the energy waves made?

To create the seismic 'energy waves', AGL intends to use a combination of devices; Envirovibe trucks, an onSEIS and Mini-Sosie (also called a wacker packer).

The Envirovibe truck is a seismic unit mounted on a tractor sized buggy with an under-mounted vibrating plate that is lowered to the ground and vibrated for approximately 10 seconds.

The onSEIS is a small, light weight tracked vehicle, which is more agile and accessible to difficult terrain. It uses small accelerated weight drop source which has little or no environmental impact.

The Mini-Sosie is a portable, hand-operated surface compactor similar to those used on construction sites, which vibrates on the ground.



^ The Seismic acquisition layout.

## How do you record the energy waves?

A small, portable instrument known as a geophone converts the returning energy waves into a readable, analog signal. Before the energy waves are generated, a survey team lays out geophones that are held to the ground by a 75mm peg. This is the 'lay down' crew.

The geophones are then connected by cables to a recording truck. Typically, around 6 kilometres of the survey can be recorded each day.

Another team, the 'pick up' crew, follows the seismic source to collect the geophones and transport them to the lead team to be laid down again.

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