

## **STAR GROUP – NEXT MEETING**

The next meeting of the **SCIENCE, TECHNOLOGY and RESEARCH (STAR) GROUP** will be held on **Monday 4<sup>th</sup> February 2019**. The Session will be led by **Dr Tim Pharoah – British Geological Survey** who is a member of STAR Group. He will be giving a talk on Fracking for Shale Gas & Oil and be giving a talk with the title:-

### **“Fracking for non-conventional hydrocarbons – An update”**

Since Tim’s last talk on this subject in December 2013, there have been numerous developments in the UK sector. The company leading non-conventional exploration in the UK, Cuadrilla Resources, completed its series of exploration boreholes in the vicinity of Blackpool in the Fylde area of Lancashire and obtained planning approval to carry out fracking operations as part of its research at the Preston New Road site. These operations are now proceeding at a pace controlled by a ‘traffic light system’ to mitigate the magnitude of induced seismicity.

The testing aims to establish the potential gas yield from the thick Bowland Shale sequence at depths around 2 km in this region. If high gas yields are obtained extraction is likely to proceed on the basis of a multi-horizon development over a relatively small footprint, rather than a really extensive exploitation of a single horizon (the ‘American Model’). Shale-gas exploration in Poland followed the latter concept, but an intensive exploration programme failed to identify suitable shale targets. This was in large part due to the presence of the ‘wrong sort of mudrocks’. It remains to be demonstrated whether the ‘right sort’ are present in the Fylde, or the other target areas in Britain, where licence-holders are biding their time to see if Cuadrilla are successful.

The recent discovery of oil in the Weald Basin, near Gatwick Airport, in naturally fractured Jurassic limestones, may lead to attempts to develop ‘shale-oil’ using fracture stimulation there, although this is a well-established technique. The British Geological Survey is developing a number of sub-surface research sites, including one at Thornton in the Wirral, well-located to monitor the possible effects (seismicity, groundwater quality) of future shale-gas development in NW England. It is also collaborating with various research projects which use fracking in other ways, for example to exploit geothermal resources.