



For immediate release

2 November 2011

### **Findings of report on seismic events published**

Cuadrilla Resources, the British company exploring for natural shale gas in the Bowland Basin in Lancashire, has today released the findings of the report that was commissioned following unusual seismic activity near Poulton-le-Fylde in April and May 2011.

Cuadrilla announced in September a gas-in-place figure of more than 200 trillion cubic feet in all the shale in its license area in Lancashire. The creation of a shale gas industry in the UK, with the Lancashire site at its hub, offers a substantial growth opportunity providing a large economic benefit to the British economy. Economic development consultancy Regeneris has said that Cuadrilla's operations alone could create up to 5,600 high-pay high-skills jobs in the UK, of which 1,700 will be based in Lancashire. Experience from the United States where production of domestic shale gas has rapidly grown, shows that shale gas development has exerted significant downward pressure on domestic wholesale gas prices.

*"The Geo-mechanical Study of Bowland Shale Seismicity"* confirms that there is little risk of future seismic events reoccurring in the Bowland Basin but proposes a series of mitigation measures in case of any future seismic activity. This report which fulfils a commitment made by Cuadrilla to be fully open with the community about all findings, is the most comprehensive scientific study ever undertaken on the geology of the Bowland Basin.

Cuadrilla intends to seek a peer review of the report and commits to publishing that review.

The report concludes:

- It is highly probable that the hydraulic fracturing of Cuadrilla's Preese Hall-1 well did trigger a number of minor seismic events.
- None of the events recorded, including one in April of 2.3 and one in May of 1.5 on the Richter scale, had any structural impact on the surface above.
- The seismic events were due to an unusual combination of geology at the well site coupled with the pressure exerted by water injection as part of operations.
- This combination of geological factors was extremely rare and would be unlikely to occur together again at future well sites.
- If these factors were to combine again in the future local geology limits seismic events to around magnitude 3 on the Richter scale as a "worst-case scenario".



- Cuadrilla's water injection operations take place very far below the earth's surface which significantly reduces the likelihood of a seismic event of less than 3 on the Richter scale having any impact at all on the surface.

Using the findings, the report sets out an early detection system which Cuadrilla can use to monitor seismic activity and implement a series of steps to prevent the escalation of any future seismicity. Very similar systems are in place in the Netherlands and Germany. The purpose of this system is to ensure that any seismic activity triggered by the hydraulic fracturing process, however unlikely, can be managed to prevent any impact to people and property.

**Mark Miller, Chief Executive of Cuadrilla Resources, commenting on the release of the report said:**

*"We unequivocally accept the findings of this independent report and are pleased that the report concludes that there is no threat to people or property in the local area from our operations.*

*We are ready to put in place the early detection system that has been proposed in the report so that we can provide additional confidence and security to the local community.*

*Cuadrilla is working with the relevant local and national authorities to implement the report's recommendations so we may safely resume our operations."*

The report has been submitted to the Department of Energy and Climate Change (DECC) and the British Geological Survey (BGS), the latter acting in their capacity as advisers to DECC. The report's authors and Cuadrilla are in regular contact with government officials to provide further clarification on various technical aspects of the report.

The report was commissioned by Cuadrilla Resources in consultation with the Department of Energy and Climate Change. The study was carried out by a European team of independent seismic experts, all leading authorities on the subject, directed by Dr Hans de Pater.

**Ends**

## **Notes**

1. The Executive Summary and Seismic Report can be downloaded from <http://www.cuadrillaresources.com/news/news/>
2. The Regeneris Report can be downloaded from [http://www.cuadrillaresources.com/cms/wp-content/uploads/2011/10/Full\\_Report\\_Economic\\_Impact\\_of\\_Shale\\_Gas\\_14\\_Sept.pdf](http://www.cuadrillaresources.com/cms/wp-content/uploads/2011/10/Full_Report_Economic_Impact_of_Shale_Gas_14_Sept.pdf)
3. **Media enquires to the Cuadrilla press office on 0800 170 1116, Paul Kelly on 07500 841 459 or Helen Roache on 020 7529 1769 or 07769 143 577.**