



IGas
Energy

ELLESMERE PORT WELLSITE UPDATE

Following on from the successful drilling of an exploratory well in Ellesmere Port in 2014, and having completed our evaluation of the geological data gathered from the well, we are now in a position to provide an update of our plans for our site in Portside North, Ellesmere Port.

About IGas

IGas plays a key role in Britain's onshore energy production; safely exploring, developing and producing onshore oil and gas at our sites for over 30 years. Our management and technical teams have many decades of experience in onshore energy production and most live and work in the communities in which we operate.

IGas Energy is a leading British oil and gas explorer and developer, producing 2,500 barrels of oil equivalent per day from over 100 sites across the country, with significant potential yet to be delivered from our assets.

IGas is extremely well positioned for the future as we move closer to unlocking Britain's untapped oil and gas resources.

Site history

In January 2010 Cheshire West and Chester Council granted conditional planning consent for the drilling of two exploratory boreholes with a minimum depth of 900m for coal bed hydrocarbon appraisal, production and power generation (Decision No. 09/02169/MIN).

Located in the Portside North industrial estate and surrounded by commercial use buildings, the wellsite was constructed in 2011 and, towards the end of 2014, we drilled a 2,000m vertical well allowing us to evaluate the geology underneath the site.



Proposal

With this evaluation work now complete, we have applied to Cheshire West and Chester Council for permission to conduct further tests on the well. As part of this, we will also be applying to the Environment Agency for the relevant permits and the Oil and Gas Authority for well test consent.

This will require us to re-enter the existing well with the intention of testing the Pentre Chert formation to better understand the volumes of gas it contains with a view to establishing whether commercial hydrocarbon production is possible. The proposed development consists of five (5) principal phases:

1. Installation of well test equipment, including workover rig;
2. The first of two tests: Drill Stem Test (DST);
3. A second test: Extended Well Test (EWT);
4. Suspension of the well; and
5. Removal of test equipment.

What it's not

Before explaining our plans in more detail, it is worth first saying what it's not. Our proposals:

- do NOT involve any additional drilling;
- do NOT involve the deepening of the existing well or laterals, and;
- do NOT involve hydraulic fracturing

We are proposing only to flow test the Pentre Chert Formation using the existing well, along with associated preparatory works (also known as a "workover") necessary to prepare the well for test. These are standard industry operations used by a range of sectors for a variety of reasons.

What is a Drill Stem Test / Extended Well Test?

In short, Drill Stem Tests (DSTs) and Extended Well Tests (EWTs) are techniques used to isolate and test certain rock formations. In this case of our Ellesmere Port well, we are targeting a rock formation called the Pentre Chert.

There are a variety of methods used to conduct DSTs and ETWs all of which are standard industry practice. During our tests on Ellesmere Port we are proposing to use a stimulation technique called 'acidisation', a process which has been used safely in the global oil and water-well drilling industry over 120 years, and onshore in the UK for the last 50 years. It is a well-understood procedure used not only by the oil and gas industry but also by a range of other industries including water and geothermal.

The water industry regularly uses the technique following borehole construction to improve capacity of a potable (drinking water) borehole thereby making it more efficient.

The oil and gas industry has been using the method since the 1930's in carbonate rocks, such as our target at Ellesmere Port - the Pentre Chert.

The dilute acid solution, typically hydrochloric acid, is applied to a specific and targeted section of the well and releases the natural gas contained within the rocks. The solution dissolves small amounts of the targeted rock within a few metres of the well bore.

The solution is similar in strength to that in domestic toilet cleaners and lime scale removers. Typically, the concentrations used by the oil and gas industry are around half of that used by the public water supply industry.

For the test we are seeking permission to conduct, the dilute acid solution will be applied only to the Pentre Chert, which is over 5,500 feet below the surface. This is well below any fresh water bearing rock formations, which are protected by the well's steel casings.

The reaction neutralises the dilute acid solution (i.e. it no longer exists as an acid) and becomes a mix of water, calcium chloride (a natural component of sea water) and small volumes of carbon dioxide.

It is a technique that has been used on the majority of oil production wells in South East England and the East Midlands. It is a one-time process and is only used to either test or prepare a well for production, the former of which we are proposing to do at Ellesmere Port.

For more information on our work in Ellesmere Port please visit www.igas-engage.co.uk or contact:

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