

International Conference Global Shale Gas Summit 2010



Paweł Poprawa

The International Conference Global Shale Gas Summit took place in Warsaw on the 19th and 20th of July. This prestigious, as it needs to be described, and perfectly prepared conference from the point of view of its organization and content, gathered more than 170 professionals from both Poland and the rest of the world. The conference was organized by American Business Conferences under the auspices of the Polish Geological Institute and was mainly



Panelists for the first part of the conference devoted to partnership and cost-reduction strategy for expanding cost-competitive shale gas production beyond the USA. From the left: Wiesław Prugar – ORLEN UPSTREAM, John Buggenhagen – SAN LEON ENERGY PLC, Wolfgang Rauball – EUROGAS INC., Mike Smith, INTERSTATE OIL & GAS COMPACT, COMMISSION, AI Holcomb, LEWIS ENERGY GROUP, Glynn Ellis – SHELL



Panelists for the part devoted to fiscal regimes and frameworks for attracting investment to make shale gas a commercial reality. From the left: Marion Kaisinger – OMV, Wolfgang Rauball – EUROGAS INC, Małgorzata Szymanska – Ministry of Economy of the Republic of Poland, Michael Schuetz – European Commission

American technologies of producing gas from unconventional resources, that the reduced (as opposed to the current situation) cost of drilling and processes connected with it is achieved in both Poland and Europe. Possible solutions for cost-reduction constituted one of the most important issues discussed during the conference. The authors of more than 30 speeches and papers presented, in a comprehensive and professional way, the technological and legal frameworks regarding the development potential of the exploration and exploitation sector of shale gas in Europe in the context of solutions that function in the USA. But, as mentioned by

sponsored by ORLEN Upstream, followed by the following companies: Adrok, Baker Hughes, Cameron, EuroGas, Geographix, Globar, ION, TNO and PNiG Jasło.

The fact that such a conference could have been held in Poland reflects the Polish success in promoting the exploration of unconventional natural gas resources. Nowadays, Poland has become the most active and competitive area of exploration processes of that kind behind Canada and the USA.

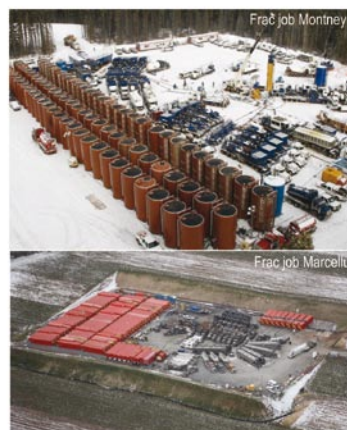
The conference agenda covered a wide spectrum of issues related to the activity of the shale gas industry, dealing with legislative regulation, geological and geochemical aspects of shale gas as well as technologies of producing gas from unconventional resources.

Assuming that the shale gas resources do exist in Poland, it is crucial, when importing

Shale Gas Challenges – Services & Supply Chain



- Shale gas evaluation and exploitation is a resource intensive business.
- Large multi-stage fracs require significant water handling/storage capacity and considerable service company support.
- Increasing activity in certain areas has put stress on service industry.
- Less than adequate service industry support results in rising costs due to competition which in turn is add odds with the need to reduce costs in a marginal business.
- Regulatory framework needs to recognize the need for an open and competitive service industry.



Passage from Tony Atherton's presentation

RG3D™ versus Standard 3D

Full azimuth, long offset data changes the game

- Traditionally of exploration grade, but not ideal for reservoir description
- Used to optimize horizontal drilling programs and enhance completions
- Coarser sampling precludes removal of noise and hinders imaging algorithm
- Complements azimuthal analysis to help unlock resource play challenges

Shale Pioneer: "A key learning; have good 3D seismic before planning the well program"

Other Production Drivers: Geomechanics and Hydraulic Fracture Complexity

•Requirement for sealed natural fracture shale gas systems

Passage from Chris Usher's presentation

Passage from Randy LaFollette's presentation

Wolfgang Rauball from EUROGAS (chair of the first paper session), the situation in Europe was completely different to that in the United States and therefore it would be much harder to proceed with such processes. Nevertheless, according to Glynn Ellis, Europe needs this gas.

Companies which are experienced in working with shale gas and those which are granted the permission to explore for this type of gas in Poland, such as e.g. Talisman Energy Poland (Tony Atherton), Orlean Upstream (Wiesław Prugar), San Leon Energy PLC (John Buggenhagen), presented their views on the matter.

The technical aspect was not the only subject of these often comprehensive speeches. Environmental protection or appropriate actions to gain the consent of local populations, the latter most likely to occur in areas with tourist attractions or in environmentally protected areas such as Natura 2000, were also discussed. Austria is one of the countries facing such problems (restrictive water protection regulations, including groundwater which is necessary when fracturing, noise limits in rural areas, protection of Natura 2000 areas), said Marion Kaisinger of OMV Explorations and Productions.

Society, state, local authorities and exploration-exploitation companies all have to cooperate within the given scope and to cover various costs (including those of the environmental nature), which is crucial from the point of view of the future, said Glynn Ellis from SHELL. The presentation of Małgorzata Szymańska, Head of Oil and Gas Division in the Ministry for the Economy, was of great importance for Poland, as it discussed the Ministry's plans to create a platform for exchanging information about barriers to exploring and exploiting shale gas in Poland. It also mentioned that the Ministry was processing questionnaires from companies regarding the difficulties that occur during the first stage of exploration procedures. These will

be discussed further between the governmental administration and the companies, whereupon a kind of a discussion platform will be created that will concern the changes in question.

Now, American and Canadian shale gas resources are the only examples of the commercial production of this type of gas. Therefore, they constitute the basic model for the rest of the countries as far as the stage of identifying and exploring processes is concerned. This perspective was adopted by Tim Benton to present the American shale gas formations.

Due to the fact that the conference was held in Poland, the country perceived as one of the most promising areas of unconventional gas exploration, the exploration prospects for Poland were also discussed (Paweł Poprawa). This presentation focused on the most important formation in Poland from the point of view of shale gas exploration, i.e. the low Paleozoic formation in the East European craton. It also brought up the specificity of such exploration processes in Poland in the aspect of issues connected with

environmental protection, water resources used for fracturing and social approval of this type of industrial activity.

Interesting examples of other European formations with shale gas potential were mentioned by Roland Vially from France and Frank Van Bergen from the Netherlands. In the first case, a south-eastern formation (region of Marseilles) was presented where geological conditions appear to have very promising shale gas prospects. It is also an instance of a formation where social and environmental conditions may hinder or block the exploration and production of gas, as this area is of scenic beauty and its economy is based on tourism. This case will of course be carefully observed, and in the event of the success of exploitation processes, it may constitute a model of compromise between the need of for the economically justified gas production and the obligation to minimize the effects of such an activity on an environment of unusual sensitivity. The Jurassic formation and the low Paleozoic formation in the Netherlands constitute typical



Orlen Upstream's stand



PNiG Jasio's stand

examples of pools that have difficult geological conditions for shale gas and where the exploration entails a higher risk that discourages potential investors. From the Polish point of view, worth mentioning was the presentation concerning the Silurian Dadas Formation with potential shale gas resources in Turkey (Attila Aydemir), as it is of the same age as formations in Poland that are being explored. Most shale gas formations are younger – they usually stem from the late Paleozoic or the Mesozoic.

A lot of conference time was also dedicated to the modern methodology of data acquisition, the analysis of modern high definition seismic potential, the processes optimization and the improvement of efficiency processes at every stage, from the project to the investment completion, which allows to achieve optimal financial results at the end.

The conference was accompanied by an exhibition prepared by the sponsors which was met with a lot of interest and which served as a



Weatherford's stand

place for discussion during the breaks between the panels.

Taking everything into consideration, it was one of the most important and interesting conferences that have taken place in Poland so far in the subject of shale gas, tight gas and unconventional natural gas resources. One is therefore allowed to state that Poland is seriously considered a potential future natural gas producer.

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Piotr Dziadzio
(photo Piotr Dziadzio)

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Panelists for the session devoted to the use of innovative technologies for reducing the exploration and production costs. From the left: Tom Gardner – SouthWestern Energy Corporation, Chris Usher – Global Geophysical, Fred Poland – Geographix and Paweł Poprawa – Polish Geological Institute