



*Press Release*

*For Immediate Release*

## **Update on the Results of Two Horizontal Wells Drilled on the Bourque Property**

**Québec, June 22, 2017: Pétrolia (PEA-TSXV)** announced last December 23<sup>rd</sup> that the most recent step in the process of confirming the presence of resources on the Bourque property, namely the re-entry and completion of Bourque No. 1 as well as the drilling of an additional well (Bourque HZ No. 3), were completed on time and within the budget. At the time, down-hole recorders were lowered in both wells in order to continue collecting pressure data.

Drilling work for the lateral section of Bourque No. 1 began on September 25 and, thereafter, the drilling rig was moved a few metres toward the s expansion of the Bourque No. 1 site to drill Bourque HZ No. 3.

The down-hole recorders were removed on May 17<sup>th</sup> and data was transmitted to Petro Management which issued its final report on June 19.

### **Bourque HZ No. 1 R1**

After having recovered the 181 m<sup>3</sup> of fluids used during the completion, the Bourque HZ No. 1 R1 Pétrolia well experienced, in its initial production period, a decrease of its gas flow to the surface from 40,400 m<sup>3</sup>/ day down to a flow too small to be measured (TSTM). It consisted of wet gas in which 120 litres of light oil (43,57 ° API) was recovered. The well was then closed for a short period for pressure buildup.

After a 27-hour period of closure and a 2,620 kPa wellhead pressure, and before the two down-hole recorders were put in place, a static pressure gradient survey was performed (with the well closed at the surface). This survey showed that the base of the production tubing of Bourque HZ No. 1 R1 contained light oil (0.70 kg/l) from the measured depth of 1,625 m located near the entrance of the horizontal drain to the measured depth of 1,471 m (1,439 m TVD) which suggests an oil vertical column of 66 m. This oil column was topped by low pressure wet gas.

After a 24-hour period of closure and a rise of wellhead pressure to 3,128 kPa, the well was then put into production on a 6.25 mm (¼") choke valve for a period of 8 hours. During test period, the gas flow to the surface reached 5,080 m<sup>3</sup>/ d to subsequently decrease to 1,180 m<sup>3</sup>/ d at the end of the test period.

The well was subsequently left closed for a final pressure buildup with the two down-hole recorders until May 17<sup>th</sup>, 2017 (3,740 hours). During the recovery of the down-hole recorders, a static pressure gradient survey was performed (with the well closed at the surface). This survey indicated that the production casing was filled with light oil (0.72 kg/l) to a measured depth of 693 m (686 m TVD), which corresponds to an oil vertical column of 819 m. This oil column was topped by low pressure wet gas.

The presence of an oil column that moved up in the tubing to 686 m TVD indicates that the Forillon formation from Bourque HZ No. 1 R1 is a reservoir containing light oil and associated gas. A specific depth sampling procedure is required to define if it is light oil or gas condensate. The analysis of the pressure buildup data reveals that the initial reservoir pressure was 9,065 kPa and at the end of the closure period was 8,823 kPa.

A diagnostic derivative analysis of the log-log plot-flow regime identification has been performed on the pressure buildup data and a good match was obtained by applying a horizontal well in a dual porosity reservoir model. The shape of the derivative suggests that the Bourque HZ No. 1 R1 reservoir is formed of mainly tight carbonate—naturally fractured formation—and consists of matrix blocks feeding open fissures.

### **Bourque HZ No. 3**

More than 88.3 m<sup>3</sup> of fluid was injected in the Pétrolia Bourque HZ No. 3 well during cleanup operations, from the setup of coil tubing on December 16<sup>th</sup> up to the end of operations on December 20<sup>th</sup>. 54.4 m<sup>3</sup> of fluid has been recovered in storage tanks. The difference, that is 33.9 m<sup>3</sup>, was injected in the formation during these completion operations.

The same day, a one-hour production test with a 6.25 mm (¼ ") choke valve produced flammable gas with an initial flow of 860 m<sup>3</sup>/d decreasing to a flow too small to be measured. After this production period, two recorders were installed down-hole. The presence of a gas/fluid interface was detected at about 935 m. The well was then closed for a final pressure buildup until May 17<sup>th</sup>, 2017 (representing 3,580 hours).

On May 17<sup>th</sup>, 2017, during the pull out of down-hole recorders, a static pressure survey was performed (with the well closed at the surface). This survey shows that the production tubing is filled with water (1.06 kg/l) up to the measured depth of 536 m, which corresponds to a water vertical column of 762 m. This water column is surmounted with non-pressurized gas. Taking into account the open horizontal drain and the water column in the casing, the total volume is estimated at 34.5 m<sup>3</sup>, which corresponds to the remaining water/brine in the well at the end of the stimulation test. The analysis of pressure buildup data reveals that the initial reservoir pressure of the Bourque HZ No. 3 well is around 8,234 kPa.

### **Next Steps**

The operations on these two wells have established the presence of oil and gas in the reservoir. It has also revealed that the reservoir is tight and will require some additional work to allow an economic production. It must be noted that 80% of new wells in Canada are completed with hydraulic fracturing and that more than 200,000 wells have been fracked in Canada. To continue the assessment of the Bourque project, Pétrolia as the operator will propose to its partners (Ressources Québec and Tuliq Énergie) the following exploration program in chronological order:

- Resume the production test on the Bourque HZ No. 1 R1 well by using a swabbing unit to better quantify reservoir productivity, take a depth sample (PVT) and check the pressure regime.
- Resume the production test of the Bourque HZ No. 3 well by using a swabbing unit.
- Re-evaluate the resources by integrating the data of these two wells and 3D seismic data (reprocessed after Sproule's initial evaluation).
- Study the best options for stimulation and completion.

The citizen follow-up committee—made up of three representatives of the citizens of Murdochville, one hunting association representative, one Côte-de-Gaspé MRC representative—as well as the mayors of the concerned municipalities will be kept up to date on the next operations on these wells. Transparency is at the heart of Pétrolia's concerns about its relations with communities and it is in this spirit that these next steps will be performed.

**About Pétrolia**

*Pétrolia is a junior oil and gas exploration company which owns interests in oil and gas licences covering 16,000 km<sup>2</sup> (4 million acres), which represents almost 23% of the Québec territory under lease. Pétrolia is a Québec leader in oil and gas exploration and its vision is to develop oil from here, by the people here, for here. The social and environmental dimensions are a major concern of Pétrolia and its exploration process. Pétrolia holds 21.7% of the Hydrocarbons Anticosti L.P. limited partnership and its Pétrolia Anticosti Inc. subsidiary is the operator of its île d'Anticosti project. Pétrolia has 108,399,683 shares issued and outstanding.*

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**For More Information**

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