

# **SOUTHERN PORCUPINE BASIN DRUID & DROMBEG PROSPECTS**

## **TECHNICAL UPDATE ON EXPLORATION COLLABORATION PROJECT**

**Multi-domain analysis confirms that the 3D seismic responses from the Druid and Drombeg prospects are consistent with the presence of two large vertically stacked stratigraphically trapped oil accumulations**

**Total cumulative in-place un-risked prospective resources of c. 5.095 BBO (PMean)**

- Druid - 3.180 BBO (PMean)
- Drombeg - 1.915 BBO (PMean)

**Both prospects could be evaluated with a single vertical exploration well**

- Latest internal well cost estimate is c. \$85 million (gross)

**Dublin and London – April 22, 2016** Providence Resources P.I.c. (PVR LN, PRP ID), the Irish based Oil and Gas Exploration Company, today provides a technical update on its Exploration Collaboration Project with Schlumberger over certain of its assets in the southern Porcupine Basin, offshore Ireland (the “**Collaborative Project**”).

### **SCOPE OF COLLABORATIVE PROJECT**

The Collaborative Project commenced during Q3 2015 and has been specifically designed to focus on the Druid, Drombeg, Newgrange and Dunquin South exploration prospects in the southern Porcupine Basin.

Over the past 6 months, a multi-disciplinary team of 30 technical professionals from Providence/Sosina and Schlumberger have worked on this project focusing on the primary technical disciplines of Geology, Geophysics, Geomechanics and Petroleum Systems Modelling. With thousands of man-hours involved, this project was designed to confirm prospective resource potential as well as helping to mitigate risk at both the basin and prospect levels.

The initial results of the Collaborative Project being released today focus specifically on the Druid and Drombeg exploration prospects, which are located in Frontier Exploration Licence (FEL) 2/14. Further work is ongoing relating to the Newgrange exploration prospect, which is located in Frontier Exploration Licence (FEL) 6/14 and further updates will be provided on this when appropriate.

### **DETAILS ON FEL 2/14**

The Druid/Drombeg licence is situated c. 220 km off the west coast of Ireland. The licence is operated by Providence Resources P.I.c. (“**Providence**”) (80%) on behalf of its partner Sosina Exploration Limited (“**Sosina**”) (20%).

During the initial pre-FEL 2/14 authorisation phase (Licensing Option 11/9 - 2011 through 2013), Providence and Sosina identified two large vertically stacked Paleocene (‘Druid’) and Lower Cretaceous (‘Drombeg’) fan systems with notable Class II amplitude versus offset (AVO) anomalies primarily from

2D seismic data acquired in 2008. Providence and Sosina subsequently agreed to underwrite a multi-client 3D seismic survey over the area. This 3D survey was acquired by Polarcus in the summer of 2014 and subsequently processed by ION Geophysical in 2014/15.

The main results of the Collaborative Project in relation to the Druid and Drombeg prospects are detailed below:

#### **DRUID PROSPECTS (PALEOCENE)**

- Two fans located c. 1,750 m BML and structurally up-dip from a potential significant fluid escape feature from the underlying pre-Cretaceous Diablo Ridge
- Cumulative in-place un-risked prospective resources of 3.180 BBO (PMean)
  - Fan 1 – 984 MMBO (PMean)
  - Fan 2 – 2,196 MMBO (PMean)
- Pre-stack seismic inversion and regional rock physics analysis shows Druid is consistent with a highly porous (30%) and high net-gross, light oil-filled sandstone reservoir system up to 85 metres thick
- A depth conformant Class II AVO anomaly is present and synthetic forward modelling of an oil-water contact correlates with the observed seismic response
- Spectral decomposition, seismic compactional drape and mounding are reflective of a large sand-rich submarine fan system with no significant internal faulting and clear demonstration of an up-dip trap mechanism
- Geomechanical analysis using regional well and high resolution seismic velocity data indicates that Druid is normally pressured and the top seal is intact

#### **DROMBEG PROSPECT (LOWER CRETACEOUS)**

- Located c. 2,750 m BML and structurally up-dip from a potential significant fluid escape feature from the underlying pre-Cretaceous Diablo Ridge
- In-place un-risked prospective resource of 1.915 BBO (PMean)
- Pre-stack seismic inversion and regional rock physics analysis shows Drombeg is consistent with a highly porous (20%), light oil-filled sandstone reservoir system up to 45 metres thick
- A depth conformant Class II AVO anomaly is present and spectral decomposition is reflective of a large sand-rich submarine fan system with no significant internal faulting, and supports an up-dip trap mechanism
- Geomechanical analysis using regional well and high resolution seismic velocity data indicates that Drombeg is over-pressured with an intact top seal

The provisional location for a vertical well to test the two stacked prospects lies in c. 2,250 m water depth. The latest internal cost estimate for a dual objective Druid/Drombeg well is c. \$85 million compared with the nearby c. \$200 million Dunquin North exploration well, which was drilled to a similar depth in 2013.

Speaking today, John O’Sullivan, Technical Director of Providence, said:

*“These results from the Collaborative Project have confirmed the interpretation of two large stacked deep-water fan systems with associated seismic responses which are consistent with the presence of highly porous light oil bearing sandstone reservoir systems. Whilst our respective in-house technical teams initially generated and matured these prospects, our collaboration with Schlumberger has fundamentally ‘changed the game’ by leveraging proprietary technology and work-flows to de-risk significant hydrocarbon potential.”*

*“The Druid prospect looks particularly attractive, given its size, resource density, shallow depth, modelled high porosities, normal pressures and beautifully imaged Class II AVO anomaly. The underlying Drombeg prospect adds further significant resource potential that is also AVO supported and which could be accessed with the deepening of a Druid exploration well.”*

*“These targets are clearly highly attractive for drilling given the magnitude of the resource base together with the significant de-risking that has resulted from the Collaborative Project. In addition, the current rig and offshore services market adds the important further dimension of a highly attractive cost dynamic.”*

Karin Hoeing, UKG GeoMarket Manager, Schlumberger, adds:

*“We have studied both the Druid and Drombeg prospects using our latest state-of-the-art analytical subsurface tools and confirmed that both prospects demonstrate the attributes that are consistent with the presence of large, light oil accumulations in porous sandstone reservoirs. We look forward to continuing our collaborative effort with Providence to ultimately progress these high potential prospects to the drilling stage.”*

#### **INVESTOR ENQUIRIES**

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#### **ABOUT PROVIDENCE RESOURCES**

Providence Resources is an Irish based Oil and Gas Exploration Company with a portfolio of appraisal and exploration assets located offshore Ireland and the UK. Providence’s shares are quoted on AIM in London and the ESM in Dublin.

#### **GLOSSARY**

BBO – Billion Barrels of Oil

MMBO – Million Barrels of Oil

BML – Below Mud-Line

**ANNOUNCEMENT**

This announcement has been reviewed by Dr John O’Sullivan, Technical Director, Providence Resources P.l.c. John is a geology graduate of University College, Cork and holds a Masters in Applied Geophysics from the National University of Ireland, Galway. He also holds a Masters in Technology Management from the Smurfit Graduate School of Business at University College Dublin and a doctorate in Geology from Trinity College Dublin. John is a Chartered Geologist and a Fellow of the Geological Society of London. He is also a member of the Petroleum Exploration Society of Great Britain, the Society of Petroleum Engineers and the Geophysical Association of Ireland. John has more than 25 years of experience in the oil and gas exploration and production industry having previously worked with both Mobil and Marathon Oil. John is a qualified person as defined in the guidance note for Mining Oil & Gas Companies, March 2006 of the London Stock Exchange. Definitions in this press release are consistent with SPE guidelines.

SPE/WPC/AAPG/SPEE Petroleum Resource Management System 2007 has been used in preparing this announcement.

**MAP**

