ASX Release

7 November 2019

Galilee Basin Deeps Joint Venture Update

- **Stimulation and gas flow testing to follow successful appraisal drilling program**
- **Final stimulation planning underway utilising well results and Albany-2 core analyses**
- **Reservoir continuity and structure confirmed**
- **Log analyses indicate presence of gas and porosities up to 15%**

A highly successful, two well, appraisal drilling program on the Albany Gas Field in the Galilee Basin in Queensland will shortly be followed by a stimulation and gas flow testing program to determine the commercial potential of the field.

With the drilling of the Albany-2 and Albany-1 ST1 wells now complete, Vintage Energy Ltd ("Vintage", ASX: VEN) is pleased to provide a detailed overview of the substantial progress made to date in the Albany Field appraisal program.

Vintage Managing Director, Neil Gibbins, said "The very positive outcomes of the Albany Field appraisal thus far provides strong impetus for completion of the next stage in the program."

"It is hard to believe that we are nearing the end of what has been a very successful appraisal program. We identified the Galilee Basin a while back as an area that is underexplored with significant potential. The information gathered from the drilling program to date has not only confirmed but enhanced this perspective. We will be stimulating these wells and flow testing them over the coming months, which will provide even more valuable information around the commercial viability of these untested reservoir sands. With both APA Group and Jemena progressing plans to connect the Galilee Basin to the eastern Australia gas market, we very much look forward to what lies ahead."

The next steps in the evaluation of the Albany Field will be to stimulate the reservoirs and flow-test both Albany-1 ST1 and Albany-2, to demonstrate the potential commercial viability of the wells. Condor Energy Services Ltd ("Condor") is expected at the Albany-2 site in early-mid December, subject to them completing their current program.

The Albany wells, located in the Galilee Basin, form the core activity of the Galilee Basin Deeps Joint Venture ("GBDJV") with Comet Ridge Ltd ("Comet Ridge", ASX: COI) to date. The staged program has delivered Vintage a 30% equity stake in the GBDJV, with the operator Comet Ridge having the remaining 70%. The GBDJV permits total approximately 9,800 km^2 in area, with the initial focus of the GBDJV being the appraisal of the 1995 gas discovery that was made in the Lake Galilee Sandstone at Carmichael-1.

Vintage management identified the GBDJV permits as having the potential for extensive upside. The Albany Field has a certified gross 2C contingent resource of 153 PJ and contains many of the hallmarks required to open a new play that is not only in an undeveloped basin, but also proximal to the Australian east coast gas market. Well testing of the Lake Galilee Sandstone in Carmichael-1 in 1995 flowed gas to surface at rates too small to measure, with gas pay calculated over multiple intervals. However, Carmichael-1 was drilled for oil, with gas not the focus. Vintage management hypothesised that sub-optimal drilling practices were employed, such as overbalanced drilling, in relatively low permeability reservoir. The result of this was potential damage to the formation and inhibited gas flow. As such, it was considered that improved flows could be possible by utilising underbalanced drilling techniques along with reservoir stimulation.

FY19: Proof of concept for improved flow through underbalanced drilling

Albany-1 was drilled in mid-2018 using air and nitrogen, however, due to mechanical issues the full reservoir section was not penetrated. Drilling reached the upper 'B sand' (Figure 2), representing only approximately 10% of the target Lake Galilee Sandstone target reservoir, with this section flow tested to produce the first ever measurable gas flow from the Galilee Basin of 0.23 MMscfd, unstimulated.

This activity represented the first element of a staged program to address the requirements for these sandstone targets to potentially commercialise this large 61km^2 structure. Further appraisal drilling was needed after Albany-1 to address the full extent of the Lake Galilee Sandstone reservoir section in the Albany Field. The follow up well drilled to appraise the Albany Field was Albany-2, which was located approximately 7 kilometres to the south east of Albany-1.

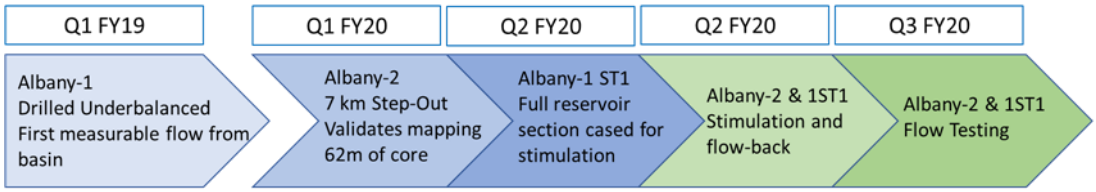

Figure 1: GBDJV drilling activity to date and stimulation / testing timing

Q1/Q2 FY20: Two well drilling campaign to further appraise the Albany Field and address development potential

With the drilling of Albany-2 and the side-track of Albany-1 through the entire reservoir section, the joint venture set out to:

- Confirm the Albany Field structural mapping
- Confirm the presence of gas 7 kilometres to the south east of Albany-1 via an aggressive step-out
- Assess the continuity of the reservoir sands
- Investigate any variation in reservoir quality
- Acquire core to aid with stimulation design
- Acquire core to investigate sensitivities to drilling fluid components

The joint venture is pleased to advise that all the above objectives have been met.

Albany Field Drilling Program	
Objectives	**Achievements**
Structure	Albany-2 was drilled as a 7 kilometre step out to the south east of Carmichael-1 and Albany-1, with initial interpretation indicating that the Lake Galilee Sandstone was penetrated some 25 metres up-dip of Albany-1 ST1, consistent with pre-drill mapping.
Presence of gas across the structure	Log analysis at Albany-2 calculates gas in multiple sands of the Lake Galilee Sandstone reservoir section.
Continuity of reservoir sandstones	The cross-section below in figure 2, demonstrates that reservoir sandstones extend across the Albany Field. Some stratigraphic variation is observed with most variation in the A and B sands. Despite the reduction in sand content within the A interval at Albany-2, there is still around 140 metres of gross sandstone within the B, C and D intervals.
Variation in reservoir quality	Log analysis at Albany-2 shows maximum porosities up to 15%. Over small intervals this is in excess of those calculated at the Carmichael-1/Albany-1 ST1 location, providing potential upside for gas in place and flow potential.

Core for stimulation design	A total of 62 metres of core was acquired in Albany-2. X-Ray Diffraction ("XRD") analysis has been undertaken on cored reservoir samples. This examines the constituent minerals of the rock to assist with the chemical selection for the stimulation fluid. Capillary suction testing will also be carried out to select the stimulation fluid that will provide the best outcome for flowing gas through targeted reservoir sandstones. In addition, triaxial testing is also underway to provide information on how the reservoir rock behaves under various stress regimes, which indicates how fractures in the rock might grow as they are subjected to pressure through pumping stimulation fluids.
Core for drilling fluid design	A program of testing will be designed to study how various drilling mud components may interact with the reservoir rock to inhibit flow (i.e. what are the potential damaging mechanisms for this reservoir). This data will be used for either designing optimal drilling fluids or to consider whether a mud system should be used versus an air/nitrogen underbalanced system.
Conventional core analysis	Core porosity and permeability data will be used to calibrate log analysis for these reservoirs.
Gas shows in ST1	Albany-1 ST1 showed excellent gas shows in the B sand section that flowed gas to surface at 0.23 MMscfd from Albany-1. Shows of equal and better magnitude were evident in multiple sands not penetrated in Albany-1, offering encouragement for what a flow test of the full reservoir section might offer post-stimulation.

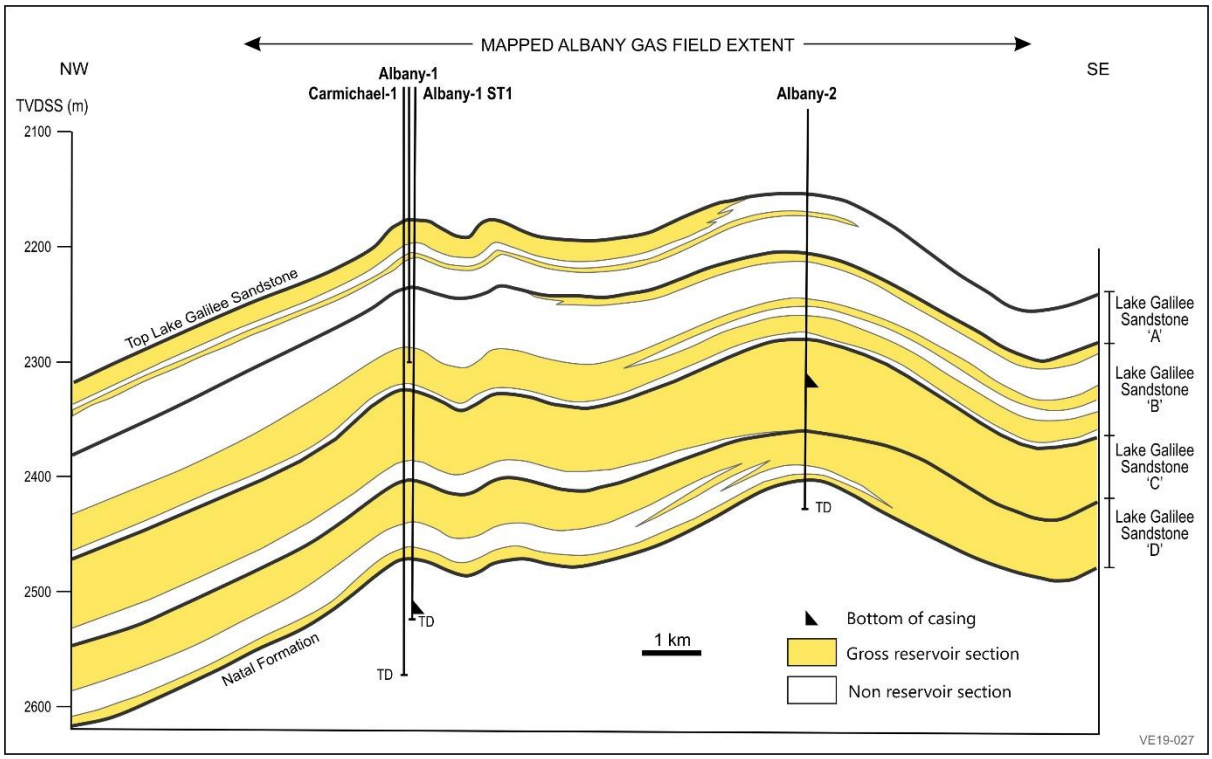

Figure 2: Albany Gas Field Cross Section

Q2/Q3 FY20: Next Steps – Stimulate and Flow

The next steps in the evaluation of the Albany Field will be to stimulate the reservoirs and flow-test both Albany-1 ST1 and Albany-2, to demonstrate the potential commerical viability of the wells. Stimulation of similar quality reservoirs in the Cooper Basin is common-place. Both Albany-1 ST1 and Albany-2 have been cased in preparation for stimulation expected to commence in early-mid December.

The design of the stimulation program is being finalised by the joint venture in collaboration with Condor. It is expected that up to four stages will be stimulated in Albany-2 in the B sand and the upper part of the C sand.

The well is cased to the middle of the C sand unit, therefore the lower sections in Albany-2 will not be available for stimulation.

For Albany-1 ST1, the whole reservoir section is cased and available for stimulation. With log analyses and gas shows indicating the presence of gas in each of the A, B, C and D sand units, it is expected that these will all be stimulated with at least one stage each. Having only recently acquired logs for this well, the analysis of the optimal program for Albany-1 ST1 is at an early stage.

Albany-1 ST1 and Albany-2 will be the first wells to be stimulated in the Lake Galilee Sandstone of the Galilee Basin, and it is likely there will be optimisation of the stimulation approach based on the outcomes from these first two wells.

Once stimulation has been completed, the wells will be flowed back in a controlled manner to enhance the recovery of stimulation and drilling fluids to maxmise the subsequent potential gas flows. The plan at this stage is to run a Production Logging Tool ("PLT") once the wells are flowing to assess the contributions from each of the sand sections.

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About Vintage

The natural gas supply crisis currently afflicting the eastern part of Australia and the energy market more widely have been the catalysts for the creation and ASX listing of Vintage, with Reg Nelson (former Managing Director of Beach Energy Ltd) as Chairman and Neil Gibbins (former Chief Operating Officer of Beach Energy Ltd) as Managing Director. The company has acquired high quality gas exploration and appraisal assets close to infrastructure with the potential for rapid development and the promise of early cash flow. Vintage will continue to identify and seek to acquire further high-quality gas exploration and production assets with a focus on those that offer the potential for accelerated pathways to commercialization.

Oil potential in prominent onshore basins is also a key focus, particularly given the experience of Vintage team members in discovering and developing oil fields on the Western Flank of the Cooper-Eromanga basins in South Australia.