

QUARTERLY REPORT DECEMBER 2019

BUILDING ON DORADO SUCCESS

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Managing Director's Comments

QUARTER HIGHLIGHTS

- → Exceptional flow tests from both intervals tested in the Dorado-3 appraisal well.
- → Dorado concept select and development planning advanced.
- → Buffalo project progressed under Timor-Leste jurisdiction.
- → Strong cash balance of A\$119 million to comfortably fund 2020 expenditure.

The successful appraisal and confirmation of the Dorado resource during the 2019 calendar year signifies the beginning of the transformation of the Company.

The future production potential from the Company's world class Dorado asset is very encouraging and is supported by the Operator's recently reported target production flow rates.

The quarter itself was highlighted by the incredible flow tests from the Dorado-3 well.

In particular, the highly successful Caley interval flow test exceeded 11,000 barrels of oil per day plus associated gas. The test indicates very high potential flow rates of around 30,000 barrels per day from each production well in the Caley reservoir.

With the appraisal drilling campaign completed in the quarter, Carnarvon and its Joint Venture partner focused on the Dorado field development planning with FEED to commence early in the new calendar year.

The initial concept selection work supports a liquids development with gas-reinjection as the preferred development model. Early financing discussions have demonstrated strong support for this type of development. Moving to the Buffalo project, with the Maritime Boundary change completed in the prior quarter, Carnarvon now has the clarity to continue to work towards drilling a Buffalo well and to achieve first oil as soon as practical.

During the quarter, Carnarvon effected its transition to Timor-Leste jurisdiction and continued the process to introduce a partner to the project. I look forward to providing further updates as this project advances.

On corporate matters, I'd like to thank our shareholders who were able to attend the AGM held during the quarter. It's a very special day for the Company and as always, I thoroughly enjoyed the opportunity to discuss our Company's progress with you.

Carnarvon finished the quarter with a very strong cash balance of A\$119 million with no debt.

The higher closing cash position than previously forecast was primarily due to lower than planned Dorado drilling costs in 2019.

Because we have maintained a strong and prudent financial position, the Company is now able to very comfortably cover all of its planned 2020 expenditure.



Dorado Appraisal

(Carnarvon 20%; Santos is the Operator)

The Dorado-3 appraisal well and flow tests were successfully completed during the quarter.

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Following great results from the Baxter reservoir flow test in the previous quarter, the Joint Venture performed an exceptional flow test in the Caley reservoir.

The well test was conducted over an approximate 11 metre section of the reservoir and achieved the maximum possible measured flow rate of approximately 11,100 barrels of oil per day plus 21 million scf per day of gas.

Importantly, the Caley test indicates the potential for prolific flow rates of around 30,000 barrels per day from each production well in the Caley reservoir.

With the highly successful conclusion of our assessment of the Dorado resource, the Joint Venture has increased its focus on planning for the Dorado field development.

The project is currently in the late stages of concept selection work. The work to date supports the development of the Dorado liquids accompanied by gas-reinjection through a miscible flood which is expected to considerably enhance the oil recovery rates. A secondary development of the gas resources would then take place once the liquids production has commenced.

The Joint Venture is expected to commence the Front End Engineering and Design ("FEED") phase in early calendar 2020. During the FEED process, the final development and contracting strategy will be selected for key components of the development. These include decisions on the



Noble Tom Prosser Drilling Rig during the Caley well test

number of wells required and whether the Joint Venture leases or acquires an appropriate Floating Production Storage and Offtake ("FPSO") vessel.

Phoenix Project Exploration

(Carnarvon 20%-30%; Santos is the Operator)

The Keraudren 3D seismic survey was completed in 2019 with the data expected to be available during the first quarter of 2020.

The existing seismic data has already identified a number of exciting and material exploration opportunities near to Dorado and additionally across the Bedout basin permits.

The two standout oil prospects near Dorado which were covered by the data acquisition are Pavo and Apus. These prospects were significantly de-risked following the Dorado discovery, appraisal and flow tests.

The Pavo and Apus prospects are estimated by Carnarvon to contain 82 million barrels and 612 million barrels respectively of oil recoverable (Gross Pmean) (refer to ASX announcement on 15 October 2018). Importantly, there are numerous prospects which are being investigated across the significant acreage held by the Joint Venture. We look forward to providing further details on some really exciting prospects as the data is interpreted and the prospects are further refined.

Buffalo Project -Timor-Leste

(Carnarvon 100% and operator)

The Maritime Boundary change, completed in August 2019, resulted in the Buffalo project moving from Australian to Timor-Leste jurisdiction.

This coincided with Carnarvon signing a Production Sharing Contract ("PSC") with the government of Timor-Leste. Importantly, Carnarvon's PSC has a similar net back after government taxes and duties when compared to Australia's offshore PRRT regime.

During the quarter, the Company completed its transition requirements under the PSC and continued to develop its presence in Timor-Leste. This included the Company's first Management Committee Meeting ("MCM") with the Timor-Leste regulator which



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established the Company's 2020 plans for the Buffalo project.

With the PSC now effective, Carnarvon has the clarity to continue to progress its plans to redevelop the Buffalo oil field.

Carnarvon also continued the process to secure a partner to join the project. The introduction of a partner will be integral towards Carnarvon's funding strategy as the Company moves towards the development of both the Dorado and Buffalo fields.

Condor & Eagle Projects - AC/P62 & AC/P63

(Carnarvon 100% and operator)

During the quarter, Carnarvon continued its technical work on the Condor and Eagle projects which are located in the proven Vulcan Sub-basin (within the Bonaparte Basin).

Within the Condor project, Carnarvon has identified a late Permian carbonate reef oil prospect of significant size.

The structure of the prospect, named Moa, is approximately 132km² and is a similar play to the Petrel / Tern discoveries that are also within the Bonaparte Basin. There is also the potential that the porosity of the reservoir has been enhanced through karsting and the presence of shallow marine castics.

The Company plans to provide further updates on Moa and the Condor project as the technical work progresses.

Within the Eagle project, the standout target is the Toucan prospect in the Jurassic Plover formation. The Jurassic reservoir is well tested along the North West Shelf of Australia and typically features very good porosities and permeabilities within the Vulcan Sub-basin where the Eagle project is located.

The Toucan structure is analogous to or bigger than existing oil fields along the same trend and in close proximity which provides an exciting exploration opportunity, de-risked by existing discoveries. Carnarvon has also identified additional Jurassic oil plays within the Eagle Project permit which are similar to the nearby Audacious and Tenacious oil fields. With seismic interpretation possibly identifying petroleum indicators, Carnarvon intends to continue its work to refine the potential of these Jurassic plays.

The Condor and Eagle projects cover an area of 2,100 km² in the world class oil and gas Vulcan Subbasin featuring the Montara, Jabiru, Skua and Challis oil fields. The basin is currently experiencing a renaissance which is being driven by new 3D seismic data. Carnarvon is utilising the high-quality Cygnus 3D survey which was completed by Polarcus in 2018.

Carnarvon is currently seeking expressions of interest from potential partners to further these exciting projects.

Maracas Project -WA-524-P

(Divested during the quarter)

Following the completion of the primary term commitments for the WA-524-P permit, Carnarvon has elected to return the permit back to the regulator.

Whilst Carnarvon's technical work identified some prospectivity, these were not deemed to be material within the Company's portfolio. The Company made the prudent decision to not continue with the Maracas project and to focus on its other quality assets.

Corporate / Financial

The Company's cash holdings at the end of the quarter were A\$119.1 million, compared to A\$133.4 million at the end of the previous quarter.

As Carnarvon completed its Dorado drilling campaign, A\$13.0 million was spent on exploration activities during the quarter. The expenditure primarily included Dorado-3 drilling costs and technical work on Carnarvon's other exploration activities. The Company also spent A\$0.8 million on business development and corporate costs and received A\$0.4 million in interest during the quarter.

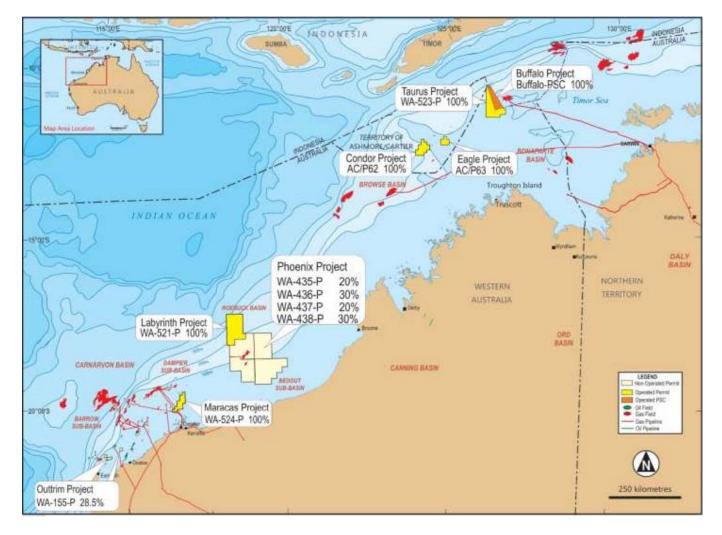
The Company's United States Dollar ("USD") holdings at the end of the quarter were US\$10.8 million and its Australian Dollar ("AUD") holdings were A\$103.7 million. Carnarvon holds a balance between USD and AUD as a natural hedge to expected future expenditures denominated in both USD and AUD. The retention of US dollars influences Carnarvon's reported cash holdings due to AUD / USD exchange rates at each reporting period end.

A significant strengthening of the average Australian Dollar relative to the US dollar during the quarter resulted in a foreign exchange translation adjustment that decreased the Company's reportable cash holdings by A\$0.9 million.



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Project Map



Project Table

| Project | Permit(s) | Operator | Interest held | Interest acquired Q/Q |
|-----------|---------------|---------------------|---------------|--------------------------|
| Phoenix | WA-435-P | Santos | 20% | - |
| Phoenix | WA-436-P | Santos | 30% | - |
| Phoenix | WA-437-P | Santos | 20% | - |
| Phoenix | WA-438-P | Santos | 30% | - |
| Buffalo | TL-SO-T 19-14 | Carnarvon Petroleum | 100% | - |
| Taurus | WA-523-P | Carnarvon Petroleum | 100% | - |
| Labyrinth | WA-521-P | Carnarvon Petroleum | 100% | - |
| Maracas | WA-524-P | Carnarvon Petroleum | - | (100%) |
| Condor | AC/P62 | Carnarvon Petroleum | 100% | - |
| Eagle | AC/P63 | Carnarvon Petroleum | 100% | - |
| Outtrim | WA-155-P | Santos | 28.5% | - |



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| Acronym | Definition | |
|---------|---|--|
| Bopd | Barrels of oil per day | |
| Bbls | Barrels of oil | |
| CVN | Carnarvon Petroleum Limited | |
| JV | Joint Venture | |
| Km | Kilometres | |
| Km² | Square kilometres | |
| m | Millions | |
| Qtr | Quarter | |
| Q/Q | Quarter on Quarter | |
| Tcf | Trillion cubic feet (gas) | |
| 2D | Two dimension seismic data | |
| 3D | Three dimensional seismic data | |
| MC3D | Multi-client 3D - seismic data acquired for multiple parties that require licensing | |
| USD | United States of America dollar | |

Cautionary Statement

There are numerous uncertainties inherent in estimating reserves and resources, and in projecting future production, development expenditures, operating expenses and cash flows. Oil and gas reserve engineering and resource assessment must be recognised as a subjective process of estimating subsurface accumulations of oil and gas that cannot be measured in an exact way.

Prospective Resources are the estimated quantities of petroleum that may potentially be recovered by the application of a future development project and may relate to undiscovered accumulations. These prospective resource estimates have an associated risk of discovery and risk of development. Further exploration and appraisal is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

Resources

All contingent and prospective resources presented in this report are prepared as at 7 February 2018, 23 April 2018, 15 October 2018 and 30 June 2019(Reference: CVN ASX releases of at 7 February 2018, 23 April 2018, 15 October 2018, 15 July 2019 and 27 August 2019). The estimates of contingent and prospective resources included in this announcement have been prepared in accordance with the definitions and guidelines set forth in the SPE-PRMS and have been prepared using probabilistic methods.

Carnarvon is not aware of any new information or data that materially affects the information included in this report and that all material assumptions and technical parameters underpinning the estimates in this presentation continue to apply and have not materially changed.

Competent Person Statement Information

The Resource estimates outlined in this report were compiled by the Company's Chief Operating Officer, Mr Philip Huizenga, who is a fulltime employee of the Company.

Mr Huizenga has over 25 years' experience in petroleum exploration and engineering. Mr Huizenga holds a Bachelor Degree in Engineering, a Masters Degree in Petroleum Engineering and is a member of the Society of Petroleum Engineers. Mr Huizenga is qualified in accordance with ASX Listing Rules and has consented to the form and context in which this statement appears.

Forward Looking Statements

This document may contain forward-looking information. Forward-looking information is generally identifiable by the terminology used, such as "expect", "believe", "estimate", "should", "anticipate" and "potential" or other similar wording. Forward-looking information in this document includes, but is not limited to, references to: well drilling programs and drilling plans, estimates of reserves and potentially recoverable resources, and information on future production and project start-ups. By their very nature, the forward-looking statements contained in this news release require Carnarvon and its management to make assumptions that may not materialize or that may not be accurate. The forwardlooking information contained in this news release is subject to known and unknown risks and uncertainties and other factors, which could cause actual results, expectations, achievements or performance to differ materially, including without limitation: imprecision of reserve estimates and estimates of recoverable quantities of oil, changes in project schedules, operating and reservoir performance, the effects of weather and climate change, the results of exploration and development drilling and related activities, demand for oil and gas, commercial negotiations, other technical and economic factors or revisions and other factors, many of which are beyond the control of Carnarvon. Although Carnarvon believes that the expectations reflected in its forward-looking statements are reasonable, it can give no assurances that the expectations of any forward-looking statements will prove to be correct.