

Buffalo Drilling Update

15 February 2021



Highlights

- Carnarvon is progressing with its plans to drill the Buffalo-10 well, targeting 2H 2021.
- Petrofac appointed as drilling management services contractor
- Advance Energy Plc ("Advance") farm-out completion on track for March 2021
- Approvals and procurement process underway

Carnarvon Petroleum Limited ("Carnarvon") (ASX:CVN) is pleased to update shareholders on the Buffalo project.

Carnarvon has awarded the drilling management services to Petrofac, which in the short term will include completion of detailed well design, procurement of long lead items and contracting the drilling rig and associated services, including the shore base location. The appointment followed a highly competitive evaluation process.

The objective is to drill the Buffalo-10 well in the second half of 2021. The well is targeting the crest of the proven Buffalo oil field and will be suspended as a future production well. Further details and updates on timing will be provided once Petrofac and Carnarvon have secured a drilling rig and long lead items.

On the 17 December 2020, Carnarvon announced a binding agreement with Advance (<https://www.advanceplc.com/>) where they will acquire up to a 50% interest in the Buffalo project by funding the drilling of the Buffalo-10 well up to US\$20m on a free carry basis. In addition to this, the newly formed joint venture will acquire development funding from third party lenders and any additional funding requirements (in addition to that provided by third party lenders) will be provided by Advance as an interest free loan.

Carnarvon and Advance have made material progress in satisfying the conditions in relation to the farm-out and we look forward to completing the transaction at the end of this quarter.

More information on the Buffalo re-development project and the Advance transaction are on the presentation attached to this announcement.

Carnarvon Managing Director and CEO, Mr Adrian Cook, said:

"I am pleased to see substantial progress on the Buffalo project since announcing the farm-out to Advance Energy in December 2020.

Petrofac is an established and highly experienced global energy services provider and is well suited to ensure the success in the Buffalo project. They have already made encouraging progress in assessing our well plans, reviewing drilling rig alternatives and assessing the necessary long lead items for drilling.

The Buffalo redevelopment opportunity is well placed for success given its known production capability and low development cost and will be greatly enhanced as oil prices continue their recovery.

We look forward to an exciting year with drilling at the Buffalo Project as well as our Dorado FEED activities and the Apus-1 and Pavo-1 exploration drilling campaign”.

Approved by



Adrian Cook
Managing Director
Carnarvon Petroleum

Investor inquiries:

Thomson Naude
Company Secretary
Phone: (08) 9321 2665
Email: investor.relations@cvn.com.au

Media inquiries:

Luke Derbyshire
Managing Director, Spoke Corporate
Phone: 0488 664 246
Email: luke@spokecorporate.com

About Petrofac

Petrofac (<https://www.petrofac.com>) is a leading international service provider to the energy industry, with a diverse client portfolio including many of the world’s leading energy companies.

Petrofac designs, builds, manages and maintains oil, gas, refining, petrochemicals and renewable energy infrastructure. Our purpose is to enable our clients to meet the world’s evolving energy needs. Our six values – safe; ethical; innovative; responsive; quality & cost conscious; driven to deliver – are at the heart of everything we do.

Petrofac’s core markets are in the Middle East and North Africa (MENA) region and the UK North Sea, where we have built a long and successful track record of safe, reliable and innovative execution, underpinned by a cost effective and local delivery model with a strong focus on in-country value. We operate in several other significant markets, including India, South East Asia and the United States. We have 10,700 employees based across 31 offices globally.

Petrofac is quoted on the London Stock Exchange (symbol: PFC).

About Buffalo Redevelopment Project

Carnarvon was awarded the WA-523-P permit, which included the previously developed Buffalo field, in May 2016 for an initial six-year term. The Field was discovered by BHP in 1996 and subsequently developed using four wells drilled from a small, unmanned wellhead platform installed in 25 metres water depth, tied back to an FPSO. Production commenced in December 1999 at production rates up to approximately 50,000 stb/d and terminated in November 2004 after the production of 20.5 MMstb of highly-undersaturated, light oil (53°API) from the Jurassic-age Elang Formation. All existing facilities and wells were decommissioned and removed prior to Carnarvon being awarded the permit.

Carnarvon initially focussed its technical work on reprocessing of the 3D seismic dataset using state-of-the-art full waveform inversion (FWI) technology. This work supports the interpretation of a significant attic oil accumulation remaining after the original development, based on sub-optimal positioning of early wells using poorly processed seismic data. Reservoir modelling has been conducted using the latest structural interpretation and available well data, including an extensive history-matching effort to calibrate model/well performance to production rates and water-cut development (governed by strong aquifer drive) observed during the original production period.

Based on this work, independently audited volumetric estimates of contingent resources in the Buffalo oil field are 31.1 million barrels (2C) with low estimates of 15.3 million barrels (1C) and high estimates of 47.8 million barrels (3C) - Refer to Carnarvon Petroleum's ASX announcement on 28 August 2017.

Resource Information

The estimates of contingent resources included in this report have been prepared in accordance with the definitions and guidelines set forth in the SPE-PRMS.

A combination of deterministic and probabilistic methods were used to prepare the estimates of these contingent resources.

The resource estimates outlined in this report were compiled by the Company's Chief Operating Officer, Mr Philip Huizenga, who is a full-time employee of the Company. Mr Huizenga has over 20 years' experience in petroleum exploration and engineering. Mr Huizenga holds a Bachelor Degree in Engineering and a Masters Degree in Petroleum Engineering. Mr Huizenga is qualified in accordance with ASX Listing Rules and has consented to the form and context in which this statement appears.

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

Cautionary Statement

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 forward-looking 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.

About Advance Energy

Advance (<https://www.advanceplc.com/>) was originally incorporated in September 2006 and in February 2020 announced Board changes and name change to Advance Energy plc. The Company's main focus is on growth through acquisition or farm-in to non-operated interests in upstream projects where there is an opportunity to add significant value in the short to medium term.

Advance look to identify assets where they can add value, such as via funding, and maximise their value using their unique insights from original technical work, commercial acumen or advantaged relationships.

Advance's business model is to seek non-operated interests either by acquisition or farm-in.

The Advance Energy approach is to support and enhance the performance of upstream operators to deliver exceptional project outcomes and exceptional returns.

CARNARVON

PETROLEUM LTD

Buffalo Oil Field Update & Advance Transaction

February 2021



DISCLAIMER

The resource estimates outlined in this Presentation are based on and fairly represent information and supporting documentation compiled by the Company's Chief Operating Officer, Mr Philip Huizenga, who is a full-time 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.

All contingent and prospective resources presented in this report are prepared as at 28 August 2017, 23 April 2018, 20 August 2018, 15 October 2018 and 15 July 2019 pursuant to the Company's ASX announcements released to ASX on 28 August 2017, 23 April 2018, 20 August 2018, 15 October 2018 and 15 July 2019. The estimates of contingent and prospective resources included in this Presentation have been prepared in accordance with the definitions and guidelines set forth in the SPE-PRMS. Carnarvon is not aware of any new information or data that materially affects the information included in this Presentation and that all material assumptions and technical parameters underpinning the estimates in this Presentation continue to apply and have not materially changed. Carnarvon used deterministic and probabilistic methods to prepare the estimates of these contingent resources. These contingent resources have been aggregated by arithmetic summation and hence the aggregate 1C may be a very conservative estimate and the 3C may be a very optimistic estimate due to the portfolio effects of arithmetic summation.

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 are subjective processes of estimating subsurface accumulations of oil and gas that cannot be measured in an exact way. 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.

This Presentation contains certain "forward looking statements" which involve subjective judgment and analysis and are subject to significant uncertainties, risks and contingencies including those risk factors associated with the oil and gas industry, many of which are outside the control of, change without notice, and may be unknown to Carnarvon, as are statements about market and industry trends, which are based on interpretation of market conditions. Forward looking statements can generally be identified by the use of forward looking words such as "anticipate", "expect", "likely", "propose", "will", "intend", "should", "could", "may", "propose", "will", "believe", "forecast", "estimate", "target", "outlook", "guidance" and other similar expressions within the meaning of securities laws of applicable jurisdictions and include, but are not limited to, the future performance of the Company.

No representation, warranty or assurance, express or implied, is given or made in relation to any forward looking statement. In particular no representation, warranty or assumption, express or implied, is given in relation to any underlying assumption or that any forward looking statement will be achieved. Actual and future events may vary materially from the forward looking statements and the assumptions on which the forward looking statements were based, because events and actual circumstances frequently do not occur as forecast and future results are subject to known and unknown risks such as changes in market conditions and regulations.

Given these uncertainties, readers are cautioned not to place undue reliance on such forward looking statements, and should rely on their own independent enquiries, investigations and advice regarding information contained in this Presentation. Any reliance by a reader on the information contained in this Presentation is wholly at the reader's own risk.

Carnarvon and its related bodies corporate and affiliates and their respective directors, partners, employees, agents and advisors disclaim any liability for any direct, indirect or consequential loss or damages suffered by a person or persons as a result of relying on any statement in, or omission from, this Presentation.

To the maximum extent permitted by law or any relevant listing rules of the ASX, Carnarvon and its related bodies corporate and affiliates and their respective and its directors, officers, employees, advisors, agents and intermediaries disclaim any obligation or undertaking to disseminate any updates or revisions to the information in this Presentation to reflect any change in expectations in relation to any forward looking statements or any such change in events, conditions or circumstances on which any such statements were based.

Nothing contained in this document constitutes investment, legal, tax or other advice. This document, and the information contained within it, does not take into account the investment objectives, financial situation or particular needs of any recipient. Before making an investment decision, you should consider seeking independent professional advice before seeking to take any action based on the information contained in this document.

This presentation has been prepared by Carnarvon. No party other than Carnarvon has authorised or caused the issue of this document, or takes responsibility for, or makes any statements, representations or undertakings in this presentation.

Buffalo Project Background

An existing oil field in the Timor Sea prime for re-development

Location	<ul style="list-style-type: none"> The Buffalo oil field is offshore Timor-Leste in the Bonaparte Basin Near several other oil and gas fields
Production Sharing Contract	<ul style="list-style-type: none"> The project is administrated under a production sharing contract: TL-SO-T 19-14 Buffalo is under a special regime where net taxes are similar to Australia
Project equity	<ul style="list-style-type: none"> Prior to this transaction, Carnarvon owns the project 100% Following the transaction Carnarvon will own between 50% and 75%
Operator	<ul style="list-style-type: none"> Carnarvon Petroleum is the operator and will continue to operate
Discovered oil	<ul style="list-style-type: none"> The field has a number of well penetrations, providing a great degree of well control with re-processed seismic data There is oil remaining, particularly in the un-drilled attic of the reservoir
Certified resources	<ul style="list-style-type: none"> 2C Contingent Resource of 31.1 million barrels of oil Certified by RISC on 26 August 2017
Robust economics	<ul style="list-style-type: none"> Low-cost development Rapid pay back
Quality product	<ul style="list-style-type: none"> High quality 53 degree API oil, free of contaminants such as Sulphur Several crude buyers in the region have expressed strong interest

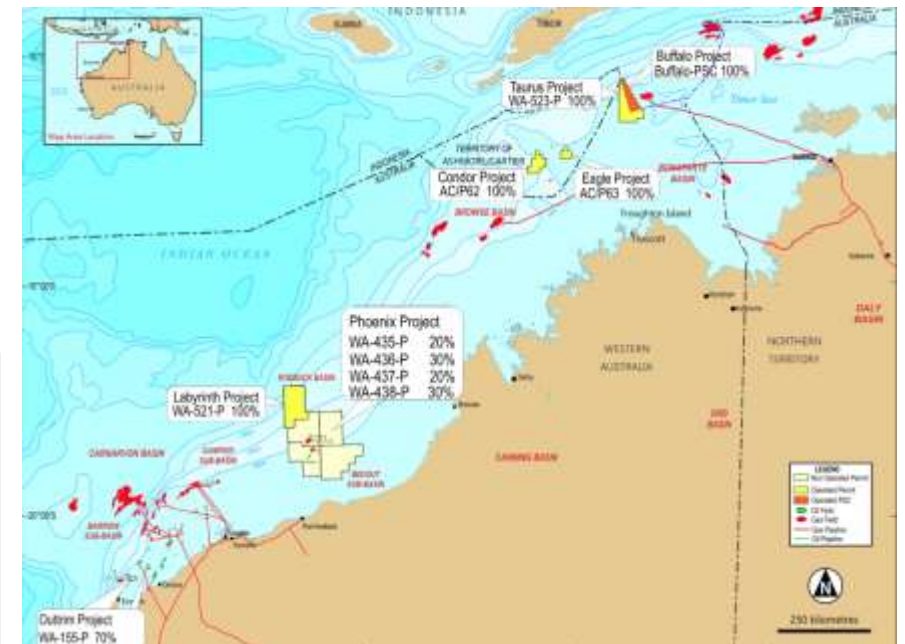
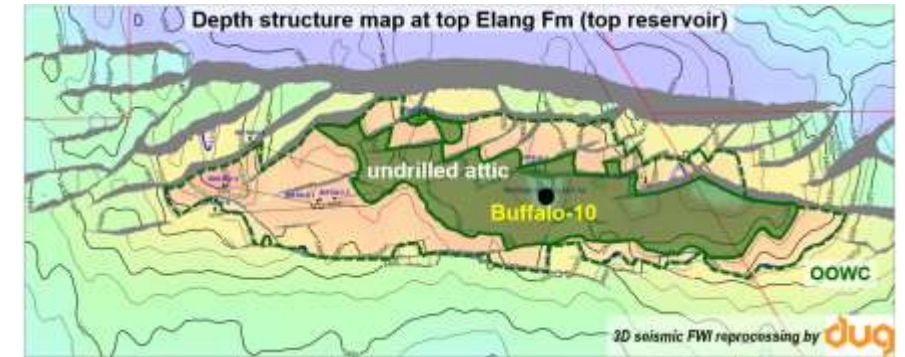


The Buffalo Project is well positioned to take advantage of low drilling and development costs as the oil price recovers

Enabling Value

This transaction activates the biggest portion of Carnarvon’s oil portfolio after Dorado

Progress	<ul style="list-style-type: none"> ▪ The Buffalo-10 well is the first step to re-develop the Buffalo oil field ▪ This well will be suspended as a future production well
Balance sheet management	<ul style="list-style-type: none"> ▪ Carnarvon has cash of A\$106 million, as of 31 December 2020 ▪ This cash is being preserved by Advance covering the well cost up to US\$20m ▪ The joint venture (“JV”) intends to jointly source finance for the development from traditional lenders and prepayment finance from oil traders ▪ Advance will provide a loan to the JV for any development costs above the amount sourced from lenders and trader
Material exposure to value	<ul style="list-style-type: none"> ▪ Carnarvon will have a 50% - 75% interest in the project at the completion of this transaction ▪ Carnarvon retains exposure to at least half of project net cash flows
Alignment	<ul style="list-style-type: none"> ▪ Carnarvon and Advance are aligned in their objective to drill a well in 2021, with a drilling management company appointed (Petrofac) ▪ The JV is aligned on the project development concepts



This gives Carnarvon the ability to move forward with both the Dorado and Buffalo projects while managing the Company’s balance sheet

Project History

Buffalo was a working oil field – Oil was left behind

Proven oil	<ul style="list-style-type: none"> Field produced 20.6 million barrels from December 1999 to November 2004 under operator BHP, followed by Nexen The field was producing at 4,000 bopd prior to decommissioning
High performing reservoir	<ul style="list-style-type: none"> The field produced for 5 years with no material decrease in reservoir pressure Initial production from the first two wells produced in excess of the 40,000 bopd design capacity of the processing facilities This is despite the wells not being optimally placed as a result of challenges with seismic data to due the prevailing technology and computing power at the time
Facilities	<ul style="list-style-type: none"> The previous project drilled 8 wells, a number being off structure due to the challenges with the seismic data The previous development consisted of an unmanned wellhead platform and floating production, storage and offtake vessel
Decommissioning	<ul style="list-style-type: none"> The previous project was decommissioned in 2005 due to low oil prices and limitations on seismic processing capability to optimise well locations at that time No facilities were left behind and all wells were safely plugged

Below: Buffalo facilities before decommissioning



The previous wells and development provide us with a lot of vital information

This information allows us to optimise and plan the re-development project

The Opportunity

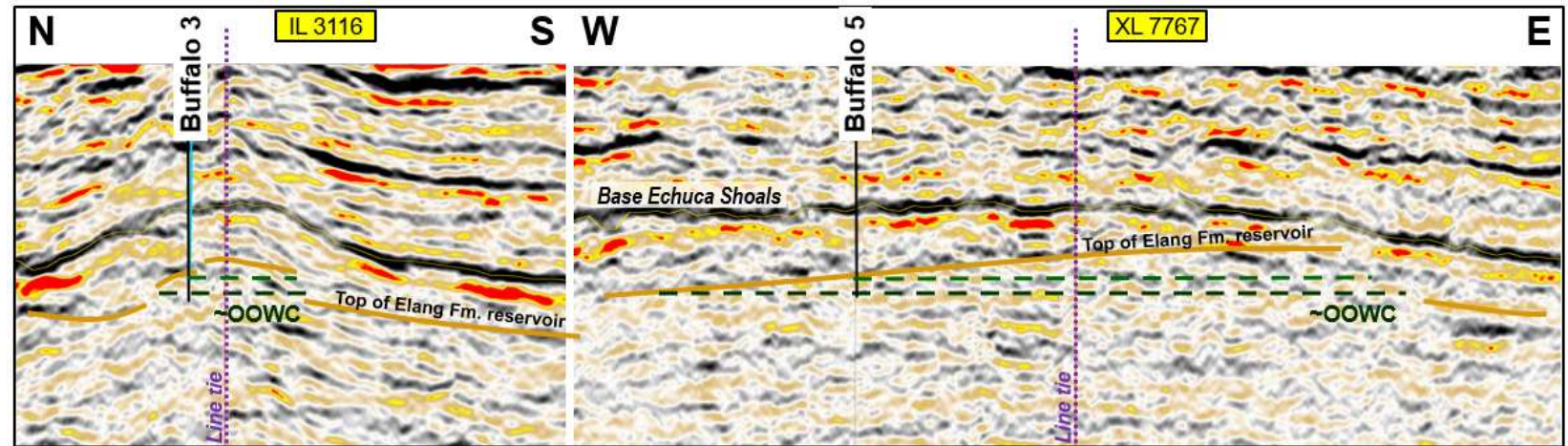
Advances in technology and computing power highlight the opportunity

Carnarvon reprocessed the seismic data using the most recent technology (full waveform inversion or "FWI") using the DUG supercomputer

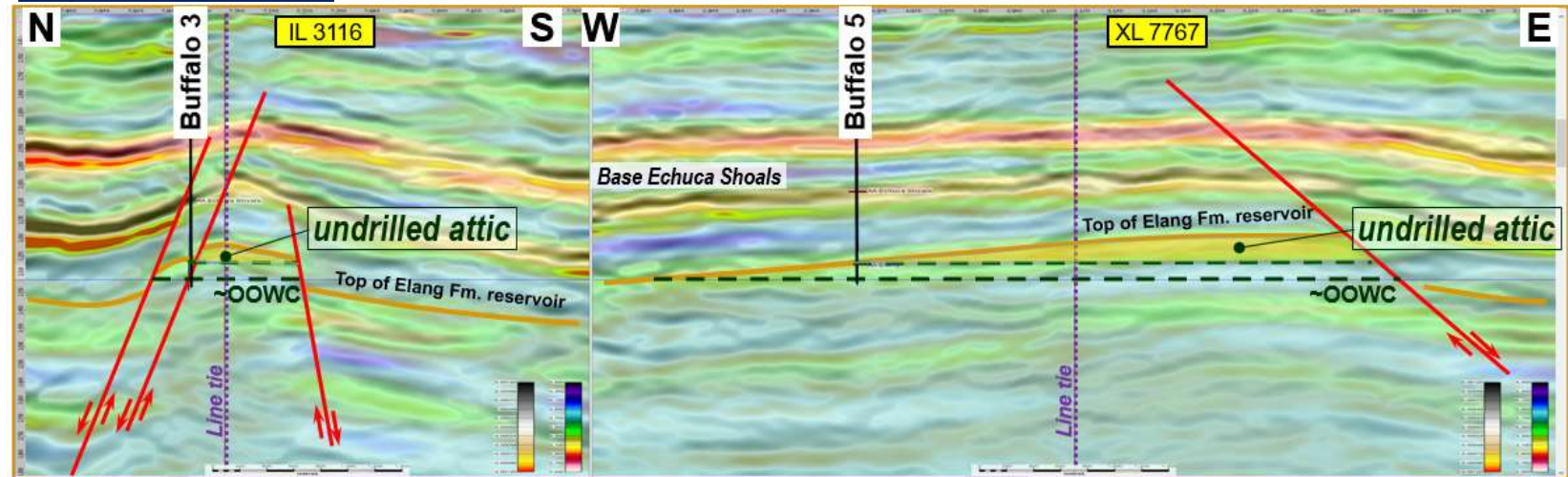
This has significantly improved the data quality and demonstrates the extent of the reservoir that was not intercepted by the previous wells, and therefore, this oil was not produced

The previous operators did not have this benefit and could not drill wells with a degree of accuracy that enabled them to access all of the oil in the reservoir

Original Seismic



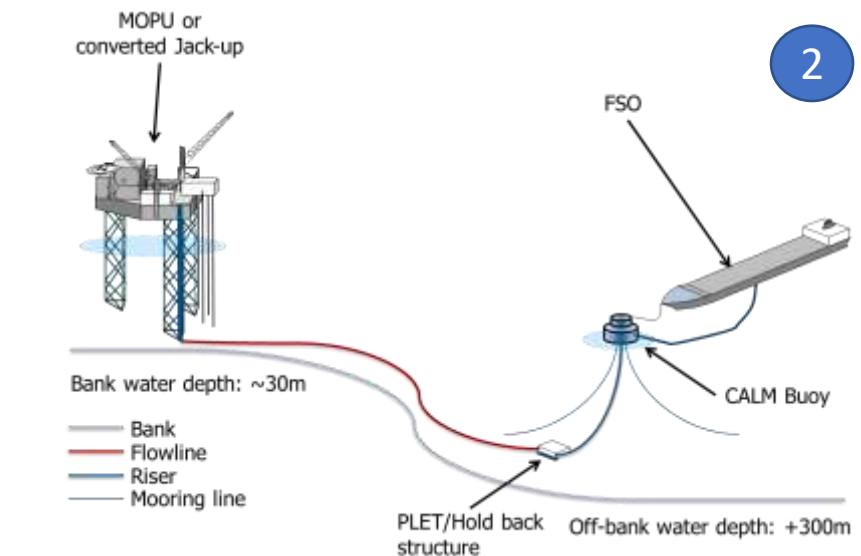
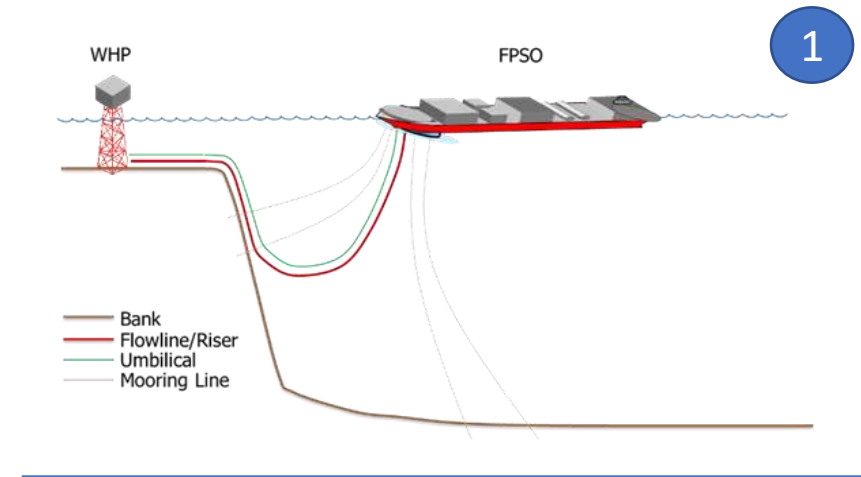
Re-processed Seismic



Drilling & re-development features

A two stepped approach to re-development

Buffalo-10 well	<ul style="list-style-type: none"> ▪ Drill a ~30 day well up-dip of previously drilled wells ▪ Suspend the well as a future production well
Resource	<ul style="list-style-type: none"> ▪ 1C Resource: 15.3 million barrels ▪ 2C Resource: 31.1 million barrels ▪ 3C Resource: 47.8 million barrels ▪ The resource estimates will be re-evaluated after Buffalo-10 well
Development optionality	<ul style="list-style-type: none"> ▪ Either wellhead platform connected to an FPSO (figure 1); or ▪ Mobile operating production unit (MOPU) / converted jack-up rig (with production equipment) connected to an FSO (figure 2) <ul style="list-style-type: none"> ▪ Drill one or two more production wells <ul style="list-style-type: none"> ▪ There is a lot of previously used, low cost equipment available that is suitable for the Buffalo field ▪ The selected option will be based on the result of the Buffalo-10 well and market pricing of the above development options
Low cost & fast development	<ul style="list-style-type: none"> ▪ Shallow water development with highly productive reservoir leads to a low cost development using proven development concepts ▪ Some early development studies have already taken place meaning the time between Buffalo-10 and development can be compressed
Rapid payback period	<ul style="list-style-type: none"> ▪ Anticipated flow rates and low cost environment results in a short duration between developing the field and a return on investment
Robust economics	<ul style="list-style-type: none"> ▪ The resource size, special fiscal regime and low cost development concept options result in strong economic outcomes



Transaction

The Buffalo re-development costs are being funded through this transaction

Consideration	<ul style="list-style-type: none"> Advance will pay US\$10m-US\$20m, which must be used to drill the Buffalo-10 well
Project Equity	<ul style="list-style-type: none"> Advance Energy will acquire between 25% and 50% of the Buffalo project Advance’s level of equity ‘earn in’ will be equal to 2.5% per every \$1 million raised and paid into joint venture bank accounts
Joint Venture	<ul style="list-style-type: none"> Carnarvon and Advance will work in an Incorporated Joint Venture (“IJV”) Carnarvon will be the operator
Development funding	<ul style="list-style-type: none"> The joint venture will source and arrange third party loan funding for the joint venture approved development CAPEX to first oil Any additional funding requirements will be funded by Advance through an interest free loan to the joint venture.
Conditions	<ul style="list-style-type: none"> Advance transferring at least US\$10m to the joint venture bank account by 31 March 2021 Customary government approvals Advance obtaining shareholder approval in accordance with AIM Rules



50 - 75%
(operator)

CARNARVON
PETROLEUM LTD



25 - 50%

ADVANCE ENERGY

This transaction is the catalyst to enabling and retaining material value in the Buffalo project while preserving Carnarvon’s strong balance sheet

An experienced team with a track record of raising capital and project execution

Experienced leadership team	<ul style="list-style-type: none">▪ Chairman: Mark Rollins – Former BG and Shell executive who held a number of other senior leadership positions in the oil & gas industry.▪ CEO: Leslie Peterkin – Held number of operations, management and M&A roles in oil & gas companies globally, including Woodside and Shell.▪ CFO: Stephen West – Chartered Accountant (Australia and England) and former investment banker who has since had various CFO & director roles where he has financed a number of oil & gas and mining projects.▪ NED: Ross Warner – Australian based former corporate lawyer who has held a number of Board positions on ASX and AIM listed companies. Currently the Chairman of Blue Star Helium (ASX).
AIM listed	<ul style="list-style-type: none">▪ Listed on AIM (AIM: ADV) in London, United Kingdom
Funding Sources	<ul style="list-style-type: none">▪ Advance’s intends to raise funds required for the Buffalo-10 well through an equity raise where they have a high level of confidence of execution and are following a well-recognised path for projects of this nature▪ Bank lenders and commodity traders have expressed interest in financing the development
Alignment	<ul style="list-style-type: none">▪ Carnarvon and Advance are aligned on the objectives of the Buffalo-10 well and the development options
More about Advance	<ul style="list-style-type: none">▪ Website: https://www.advanceplc.com/



Operations Status

The work to drill Buffalo-10 is underway

Completed	<ul style="list-style-type: none"> Environmental approvals for drilling Carnarvon Drilling Management System Carnarvon Safety Management System Selection of Buffalo-10 well location Establishment of Dili office in Timor-Leste, local presence and Timor-Leste systems & procedures Appointment of drilling management services contractor
Underway	<ul style="list-style-type: none"> Finalise detailed well design and cost Services contractors prequalification
1H 2021	<ul style="list-style-type: none"> Contract drilling rig and services Procurement of long lead items
2H 2021	<ul style="list-style-type: none"> Drill Buffalo-10*
2022	<ul style="list-style-type: none"> Development - Front End Engineering & Design Development approvals Final Investment Decision
2023+	<ul style="list-style-type: none"> Development execution First oil



The Joint Venture is working to drill the Buffalo-10 well in second half of 2021

* Subject to rig availability and government approvals