# ASX ANNOUNCEMENT 23 March 2022



This announcement contains inside information

# 88 Energy Limited

# Merlin-2 Well Reaches Total Depth

# **Highlights**

- Merlin-2 has successfully reached Total Depth of 7,334 feet and drilling has now ceased.
- All three (3) target reservoirs in the Merlin-2 well were penetrated with elevated gas readings.
- Observations of cuttings samples have revealed oil shows (under both white and ultraviolet light) over all target intervals.
- Wireline logging is set to commence shortly to confirm whether mobile hydrocarbons are present as well as to evaluate the reservoir quality and flow potential of target zones.

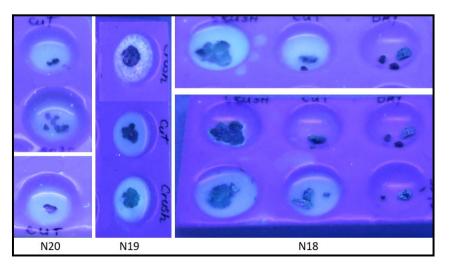
88 Energy Limited (ASX:88E, AIM:88E, OTC:EEENF) (**88 Energy** or the **Company**) is pleased to report that the Merlin-2 appraisal well has reached Total Depth (**TD**) of 7,334 feet on 22 March 2022 (Alaskan time) and drilling has now ceased. The Arctic Fox rig has exceeded expectations in terms of drilling performance, with the well reaching TD safely and efficiently.

All three Nanushuk targets (N20, N19 and N18) were penetrated during drilling, with Logging While Drilling (**LWD**) data and physical cuttings collected throughout the Merlin-2 program.

Initial observations of LWD logs and drill cuttings collected throughout the drilling operations revealed target intervals are thicker than those encountered in Merlin-1 as anticipated pre-drill, with oil shows noted under white light in the three target Nanushuk reservoirs. Fluorescence has also been observed in numerous samples when placed under an ultraviolet light, an indication of oil presence. Additionally, when solvent was applied to the fluorescing samples, "moderately fast" to "immediate and blooming" "cuts" were noted, the speed of which is often a proxy for sample permeability.

Finally, significant mud gas peaks were detected across all target sequences the in Nanushuk. with marked increases in the heavier carbon compounds (C2-C5) observed in each. Further and more detailed analysis will be conducted on the mud gas samples upon the mud gas isotube delivery to 88 Energy's preferred lab.

Figure 1. Merlin-2 Oil Shows: Fluorescence and cut observed in N20, N19 and N18



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A sophisticated wireline logging program will now be run which is designed to confirm reservoir quality and to establish if mobile hydrocarbons are present. The wireline logging program will consist of multiple runs that will include MDT for fluid sampling and flow potential measurements, side wall cores and image logs, and is expected to take approximately seven to ten days to complete.

A further update on the evaluation of the Merlin-2 results will be provided following completion of the wireline logging program, including with respect to further evaluation activities planning.

#### Managing Director, Ashley Gilbert, commented:

"The results to date from the Merlin-2 well are encouraging. Initial indications are that all three target reservoirs in the Merlin-2 well were penetrated, demonstrated elevated gas readings, and observation of cuttings samples have revealed oil shows over the target intervals. We look forward to results from the pending wireline program, which is set to be conducted over the next 7 to 10 days. Following completion of this program, we hope to be able to confirm the presence of mobile hydrocarbons, and a discovery, at Merlin-2."

This announcement has been authorised by the Board.

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Pursuant to the requirements of the ASX Listing Rules Chapter 5 and the AIM Rules for Companies, the technical information and resource reporting contained in this announcement was prepared by, or under the supervision of, Dr Stephen Staley, who is a Non-Executive Director of the Company. Dr Staley has more than 35 years' experience in the petroleum industry, is a Fellow of the Geological Society of London, and a qualified Geologist/Geophysicist who has sufficient experience that is relevant to the style and nature of the oil prospects under consideration and to the activities discussed in this document. Dr Staley has reviewed the information and supporting documentation referred to in this announcement and considers the resource and reserve estimates to be fairly represented and consents to its release in the form and context in which it appears. His academic qualifications and industry memberships appear on the Company's website and both comply with the criteria for "Competence" under clause 3.1 of the Valmin Code 2015. Terminology and standards adopted by the Society of Petroleum Engineers "Petroleum Resources Management System" have been applied in producing this document.



#### **About Project Peregrine**

Project Peregrine is located in the NPR-A region of the North Slope of Alaska and encompasses approximately 195,000 contiguous acres. It is situated on trend to recent discoveries in a newly successful play type in topset sands in the Nanushuk formation. 88 Energy has a 100% working interest in the project.

#### Horseshoe / Pikka / 88 Energy Alaskan Acreage Reserved/ Icewine ~193,000 net acres WI: ~75% Narwhal Prudhoe Bay Kuparuk Unavailable Peregrine (NPRA) 195,373 net acres WI: 100% North Slope Umiat 17,633 net acres WI: 100% Cassin Willow Yukon 38.681 net acres WI: 100% West Willow Mitquq. Point Thomson Nuigst Deadhorse Trans Alaska Inigok Pipeline System Yukon Alkaid-1 • NPR-A Icewine Talitha-A ANWR Icewine-State Harrier-1 Peregrine Existing field/discovery Recent Brookian discovery Merlin-2\* Existing wel • Gubik-4 50km Planned well Existing pipeline Umiat - - Planned pipeline 25 miles

#### **Project Peregrine and Recent Nanushuk Discoveries**

The Merlin-1 well was spudded in March 2021 with drilling operations completed in April 2021. Interpretation of results was completed in August 2021 with post-well evaluation successfully demonstrating the presence of oil in N20, N19 and N18 targets, with 41 feet of net log pay across the three reservoir intervals noted and geochemical analysis determining the oil to have an estimated API gravity between mid-30 to low-40 API (light oil).

A second well, the Merlin-2 appraisal well, spudded in early March 2022 as a follow-up well to the Merlin-1 exploration well. Merlin-2 is targeting a net entitlement mean Prospective Resource of 652 million barrels (unrisked)<sup>1,2</sup>.

To view the Company's video and animated presentations of Project Peregrine, as well as the Merlin-1 well results and details of the Merlin-2 well, please click on the link to the 88 Energy website <a href="https://www.88energy.com">www.88energy.com</a>.

<sup>\*</sup> Approximate Merlin-2 appraisal well location



Independent oil and gas reservoir evaluation consultancy, ERCE Australia Pty Ltd (ERCE), conducted an updated assessment of the Project Peregrine prospective resources post the Merlin-1 well results. The updated prospective resource estimates and risking assessments for Project Peregrine are noted below.

### **Revised Project Peregrine Prospective Resources**

	Project Peregrine: Alaska North Slope	Unrisked Net Entitlement to 88E <sup>1, 4</sup> Prospective Oil Resources (MMstb)				
	Prospects (Probabilistic Calculations)	Low (1U)	Best (2U)	High (3U)	Mean	COS <sup>3</sup>
	Merlin-2 (Nanushuk – N20, N19 and N18)	64	329	1,467	652	56%
	Merlin-1A (Nanushuk – N14S)	25	87	282	132	17%
	Harrier (Nanushuk)	41	175	796	353	24%
	Harrier Deep (Torok)	35	226	1,132	486	20%
	Prospects Total				1,624²	

- 1. The Prospective Resources presented here are the result of a risked probabilistic aggregation of the individual stacked prospective layers in each prospect; the success case estimates present the distribution of possible outcomes in the event that at least one prospective layer is successful.
- 2. Unrisked mean total is not representative of the expected total from the four prospects and assumes a success case in all four wells.
- 3. COS represents the geological chance of success of at least one of the stacked layers which comprise each prospect. This excludes phase risk which ERCE has estimated to be 70% oil (30% gas). The Prospective Resources have also not been adjusted for the chance of development, which is estimated by 88 Energy to be 60% (including phase risk), ERCE sees this as reasonable based on the data available. Quantifying the chance of development (COD) requires consideration of both economic contingencies and other contingencies, such as legal, regulatory, market access, political, social license, internal and external approvals and commitment to project finance and development timing. As many of these factors are out-with the knowledge of ERCE they must be used with caution.
- 4. Gross Prospective Resources include off-block volumes over which 88 Energy has no mineral rights. Net working interest Prospective Resources are based on the on-block volumes and 88 Energy's 100% working interest. Net entitlement Prospective Resources are the net working interest Prospective Resources less royalties payable to others. The net entitlement interest to 88 Energy is calculated as 84.7% of net working interest after deduction of state royalty (12.5%) and overriding royalty interests (1.3% and 1.5%).