

11<sup>th</sup> September 2020

*This announcement contains inside information*

## 88 Energy Limited

### Final Petrophysical Interpretation Substantially Upgrades Charlie-1 Net Pay

88 Energy Limited ("88 Energy" or the "Company", ASX:88E, AIM 88E) is pleased to provide the following update related to results from the Charlie-1 appraisal well, on the North Slope of Alaska.

#### Highlights

- Final petrophysical interpretation, using sophisticated Laminated Sand Analysis, substantially upgrades net hydrocarbon pay in the Charlie-1 well
- Interpretation integrates log data and advanced lab analysis of cores taken during drilling, including excellent liquid hydrocarbon saturations from both Dean Stark and core NMR<sup>1</sup>
- Increase in pay despite higher cut off values being used to determine pay zones
- Pay zones also high graded vs initial interpretation with lower water saturation / higher oil saturation and better average porosity
- Final petrophysical interpretation will now be integrated into revised mapping of the Seabee and Torok discoveries to determine resource estimates
- Data room for the next Project Icewine farm-out to be opened in the near term
- Thermal maturity of the HRZ shale confirmed as in the peak oil generation window

<sup>1</sup>Nuclear Magnetic Resonance analysis performed on cores under laboratory conditions

#### Detail

The final third party petrophysical interpretation from the recently drilled Charlie-1 well are detailed in the table below. These values consider data from logs obtained during drilling using a sophisticated logging suite as well as multiple laboratory analyses of sidewall cores taken from the key horizons in the Charlie-1 well. Encouragingly, the final interpretation provides a significant increase in net pay, compared to the initial interpretation, of 398' (vs 280'), with the largest contribution coming from the Lima discoveries in the Seabee Formation. These improvements are despite using higher cut-offs for both reservoir and net pay.

PROSPECT/ DISCOVERY	FORMATION	GROSS ft	NET ft	NET to GROSS %	PAY ft	PAY to GROSS %	POROSITY (PHIT) avg %	WATER (SWT) avg %	INITIAL INTERPRETATION
UPPER LIMA	SEABEE	482	260	54	157	33	12.2	43	Net Pay: 8ft PHIT: 11.5% SWT: 77%
LOWER LIMA	SEABEE	320	116	36	76	24	11.4	40	Net Pay: 64ft PHIT: 11.4% SWT: 66%
UPPER STELLAR	TOROK	330	146	44	62	19	11.6	52	Net Pay: 20ft PHIT: 11.4% SWT: 76%
MIDDLE STELLAR	TOROK	234	101	43	56	24	11.4	43	Net Pay: 95ft PHIT: 11.4% SWT: 69%
LOWER STELLAR	TOROK	100	32	32	22	22	10.7	30	Net Pay: 49ft PHIT: 11.1% SWT: 55%
KUPARUK (lead)	KUPARUK	73	57	78	25	34	12.3	57	Net Pay: 44ft PHIT: 13.8% SWT: 70%

Cut-offs: PHIT>9%; SWT<70%, Vshale<40% (previously: PHIT>=8.5%; SWT<=80%, Vshale<=40%)

Both Upper and Lower Lima are confirmed as large oil discoveries by this interpretation and the lab results. The results are particularly significant as these targets are the most extensive of the Icewine conventional horizons as well as being relatively shallow, by comparison to the Torok Formation. The extent of the accumulations will be estimated over the coming weeks as these final petrophysical numbers are integrated into the updated seismic inversion product.

Similarly, the Stellar targets in the Torok Formation are also confirmed as hydrocarbon discoveries with good liquid hydrocarbon content. There remains some uncertainty about the gas to oil ratio as the liquid hydrocarbon saturations measured from the Charlie-1 cores in the lab imply much lower gas to oil ratio than that observed during the downhole tests, which recovered gas condensate. It is possible that these liquids may be unlocked by stimulation of the reservoir.

The Kuparuk also remains a prospective target, with anomalously good reservoir quality for its depth, however, no mapping has been done for this horizon and it is considered more gas prone than the Torok Formation.

### Example of core calibration to final petrophysics

Fig. 1: Photo under white light and UV light displaying strong fluorescence associated with the presence of oil in core taken from Upper Lima

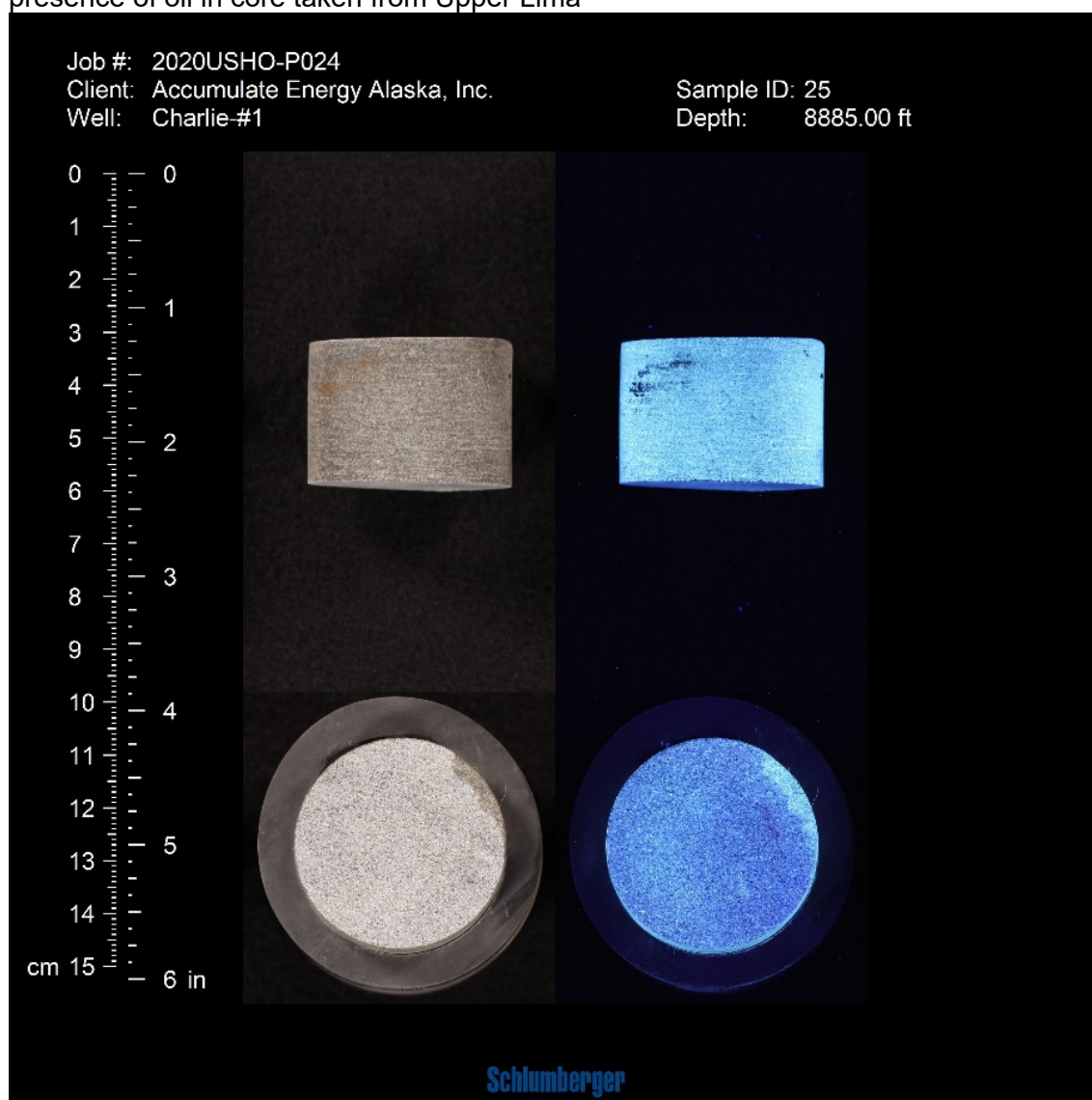


Fig. 2: Core NMR data showing distribution of fluid in the same core from Fig. 1. Note the significant free oil saturation measured in Region 2 of the map

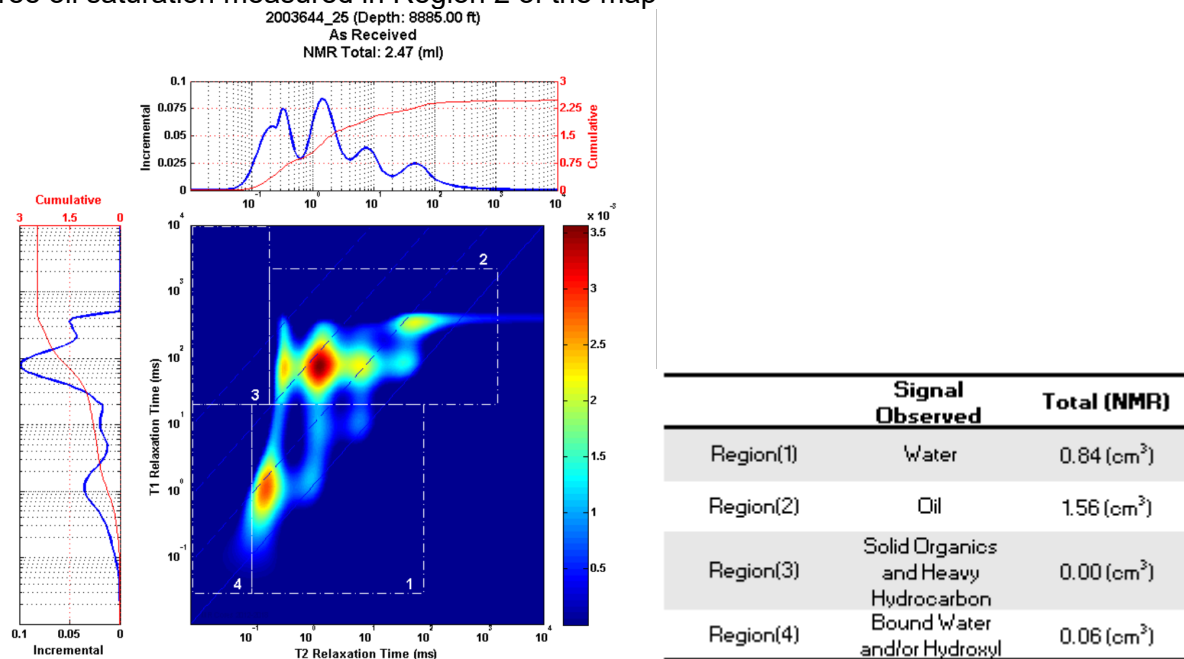
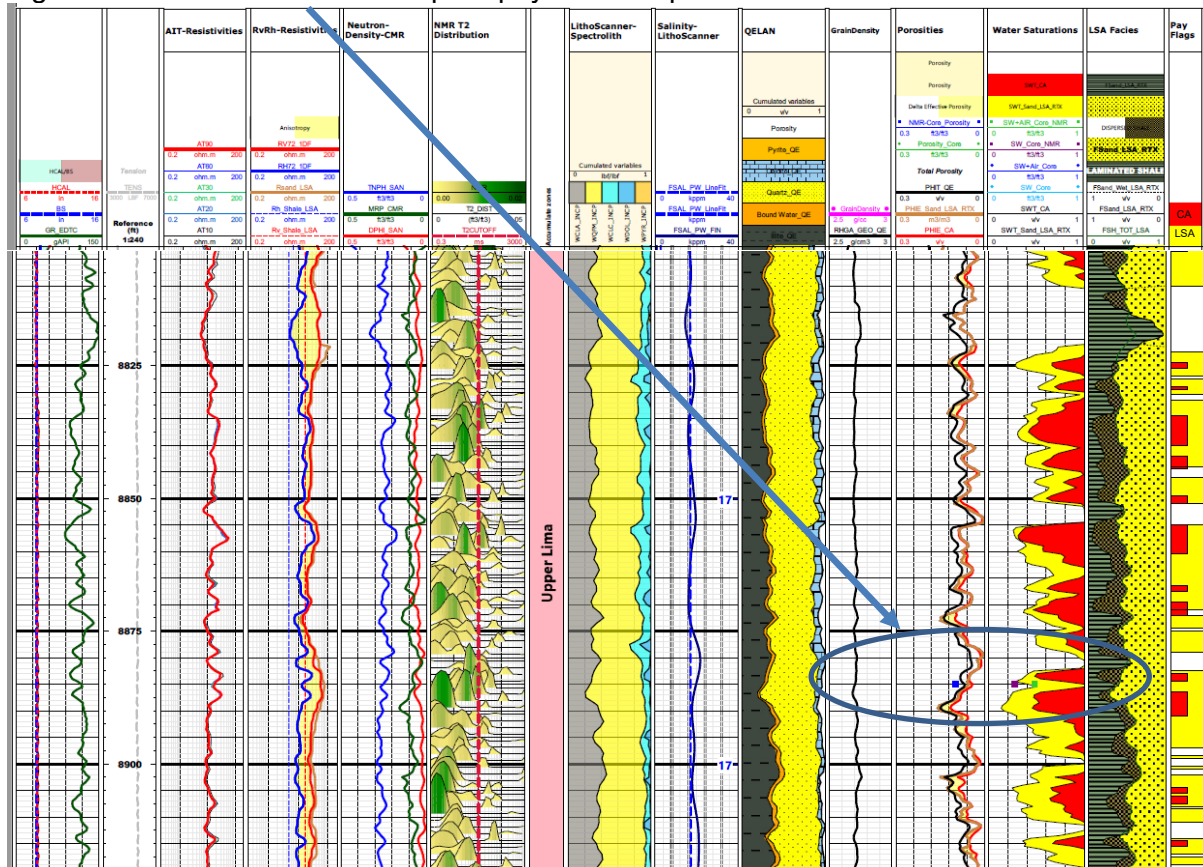


Fig. 3: Excellent match between petrophysical interpretation and actual core measurements



**HRZ Thermal Maturity – Peak Oil Generation Window**

Measurements taken from both core and cuttings have confirmed that the HRZ shale at the Charlie-1 location has a vitrinite reflectance value of 0.9 (VRo %), which is within the peak oil generation window. This was also confirmed by isotope analysis of mud gases recovered whilst drilling. The confirmation of the thermal maturity model is very encouraging and further work is ongoing regarding producibility of the shale.

Managing Director of 88 Energy, Dave Wall, stated: *"The results from the Seabee, despite Charlie-1 not being optimally located, are outstanding. Whilst these may appear as a serendipitous by-product of the well, internal analysis prior to drilling had already significantly high graded this formation; however, it was too late to change the objectives/location of the well meaning that work remained largely on the drawing board. This final interpretation is a strong vindication of that internal effort. We are now looking forward to the conclusion of the evaluation of the Seabee oil discoveries as we integrate the petrophysics into the seismic inversion and subsequent mapping, which will ultimately yield updated volumetrics for our resources that will feed into the Icewine farm-out process."*

*Good progress continues to be made at the newly acquired Project Peregrine on both the farm-out and permitting/planning fronts. Additional news related to that will be provided to the market in a separate announcement in the near term.*

*Finally, the confirmation of the ideal thermal maturity for the HRZ shale is encouraging and will form the basis of further work to continue to unlock its large potential."*

Reporting requirements under LR 5.30

The Charlie-1 well is located on the North Slope of Alaska, ADL 393380, where 88 Energy has a 30% working interest (increasing to 75%). The well penetrated sandstones in seven stacked targets and shale in one target. No flow tests were undertaken; however, gas condensate samples were retrieved to surface from the Torok formation at 10,506' and 10,656' using a downhole sampling tool (Ora) run during the wireline operation.

This announcement has been authorised by the Board.

**Yours faithfully**



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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 prospective resource 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.