

8 September 2023

ASX Release

South Marsh Island 58 G6 Well Logs two Oil and Gas Zones

- The Enterprise 264 jack-up drilling rig is on location at SM58 G to drill the G4 and G6 wells
- The SM58 G4 has been drilled to 3,037 feet MD/2,944 feet TVD and surface casing has been set
- After setting surface casing to 3,010 feet MD/2,942 feet TVD the SM58 G6 well was drilled to intermediate casing point of 10,465 feet MD/8,667 feet TVD and has logged two oil sands
- One of the two primary objective sands, the L2 Sand, logged 32 feet MD net oil and gas pay (23 feet TVT)
- 12 feet MD oil pay was logged in the I1 Sand (10 feet TVT)
- The second primary objective sand, the N2, was found to be of poor reservoir quality in the G6
- The Company is currently running production casing to 10,466 feet MD

Byron Energy Limited (Byron or the Company), (ASX: BYE) is pleased to provide the following update on company operated drilling activities at its South Marsh Island 58 G (SM58 G) platform.

As announced on 14 August 2023, Byron is on location at the Company operated SM58 G platform with the Enterprise Offshore Drilling 264 drilling two wells, the SM58 G4 (G4) and SM58 G6 (G6). The wells are being drilled in batch mode with operations switching from well to well. Surface casing has been set in both wells and the G6 has reached its intermediate casing point.

On 5 September 2023 (USCDT), the G6 well drilling the Gila Trout prospect reached a depth of 10,466 feet Measured Depth (MD) /8,627 feet True Vertical Depth (TVD), the intermediate casing point below both primary objectives. Log While Drilling (LWD) tools, including neutron density logs (LWD/Triple Combo), have logged two pay sands, The I1 Sand, and the L2 Sand, one of the two primary objectives. The N2 Sand, the other primary objective, logged as a hydrocarbon charged silty interval in the G6 wellbore.

The LWD triple combo logs across the L2 Sand indicate the G6 well intersected a gas oil contact, high on structure. This result confirms the presence of oil and a small updip gas cap in the L2 Sand. The logs confirm the L2 Sand is a very clean high quality sand with porosities ranging from 28 - 32%. Consistent with pre-drill expectations and nearby well control, the G6 logged a total of 32 feet MD thickness hydrocarbon equating to a True Vertical Thickness (TVT) of 23 feet. The G6 L2 Sand oil pay was logged 500 feet updip to a well with 19 feet TVT oil pay drilled in 1965 that was not produced. The L2 Sand will be completed for production.

The I1 Sand is a thin sand has never been produced on the SM58 block and was not expected in this well. Gamma Ray and Resistivity logs along with mudlog data indicate the I1 Sand is oil or condensate. There are three nearby wells which logged similar, thin, clean I1 Sand with apparent oil pays. Triple combo logs were not obtained over the I1 Sand due to tool problems. Based on the Gamma and

Resistivity logs the zone is assessed as productive and will be a future plug back completion. Byron has adjusted the casing cementing program to ensure cement will cover the I1 sand for future production.

The N2 Sand exhibited high gas readings from mudlog gas detectors, however LWD logs indicate the N2 Sand is silty with poor reservoir characteristics in the G6. There are multiple N2 Sand producers adjacent to the G6 well both updip and downdip with high quality N2 Sand. It is apparent the G6 encountered a localized siltstone that was below the resolution of seismic data.

Net Hydrocarbon Pay Counts – SM58 G6 Well – Gila Trout Prospect

I1 Sand	12 feet MD	10 feet TVT
L2 Sand	32 feet MD	23 feet TVT

As of noon (USCDT), 7 September 2023, the rig has begun running 7 5/8” casing to a depth of 10,466 MD. After cementing the casing, Byron will drill the G6 to its final, adjusted permitted total depth of 10933 feet MD/9106 feet TVD. There is one additional high geologic risk target below casing and the stratigraphic information gained from the deeper section of the G6 will be useful in refining other prospects nearby. The G6 is in a portion of the SM58 salt dome where few wells have logged the section immediately above salt so new information will be highly valuable.

After drilling the G6 well, the rig will skid back to the G4 and drill out of surface casing to permitted total depth of 10,204 feet MD/9,046 TVD. The G4 well will drill the Tiger Trout prospect with one primary objective, the K4/B65 Sand and two secondary objectives, the K6 and L2 Sands. Once both wells are drilled to final total depth, completion operations will begin with first production occurring after downhole operations and surface hook-up.

To date the drilling program has been executed safely and is currently on budget and on schedule with only minor rig issues and no weather delays. Further updates will be made as operations progress.

Byron’s CEO Maynard Smith said:

“The initial results of the G6 are very encouraging. The L2 Sand is a very clean, high quality sand. Confirming an oil leg this high on structure is useful in determining both reserves and a future production profile. We expect the L2 Sand to start out with a high gas composition and slowly switch to oil as the down dip support kicks in. The presence of the thin I1 Sand in the G6 was a nice addition to the well and helps make up for the result of the N2 Sand. Although the I1 Sand has never been produced on SM58, it is present in adjacent wells with hydrocarbon logged in at least three of those wells.”

“It was surprising to see the poor quality of the N2 Sand in the G6 which is fault separated from last year’s G5 well that logged oil in a good quality N2 Sand. Unfortunately, the N2 Sand was not well developed in this location”.

“Importantly the current drilling program is progressing safely and is currently on budget and on schedule. I look forward to seeing the results of the G4 well”.

Authorised by: *The Board of Directors*

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About Byron:

Byron Energy Limited (“Byron or the Company”) (**ASX: BYE**) is an independent oil and natural gas exploration and production company, headquartered in Australia, with operations in the shallow water offshore Louisiana in the Gulf of Mexico. The Company has grown through exploration and development and currently has working interests in a portfolio of leases in federal waters. Byron’s experienced management team has a proven record of accomplishment of advancing high quality oil and gas projects from exploration to production in the shallow water in the Gulf of Mexico. For more information on Byron please visit the Company's website at www.byronenergy.com.au

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