

3 October 2023

South Marsh Island 58 G6 BP01 Well Logs Pay in the L2 and N2 Sands

- The SM58 G6 BP01 well has reached a final total depth of 10,575 feet MD/8,974 feet TVD
- Log While Drilling (LWD) electric logs have identified likely oil pay in the L2 Sand and a possible gas/oil contact in the second primary N2 Sand target
- Preliminary pay counts total 77 feet MD (78 feet TVT) of hydrocarbon pay across the N2 Sand and 26 feet MD (24 feet TVT) of likely oil pay across the L2 Sand
- Currently the rig is running a 5 inch liner after which completion operations will commence

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 8 September 2023, the Byron Energy operated South Marsh Island 58 G6 well (G6) logged two likely oil sands, in the I1 Sand and the L2 Sand. A primary objective, the N2 Sand was logged as a silty, tight interval. While running 7 5/8” production casing to bottom, the casing became stuck above the L2 Sand preventing it from being completed in this wellbore. At that time, Byron decided to skid the rig to the SM58 G4 (G4) well which was successfully drilled to a total depth of 10,169 feet Measured Depth (MD) 9,017 feet True Vertical Depth (TVD) and production casing was run through the K4 sand (refer to the ASX announcement of 25 September 2023).

While drilling the G4 well the Company evaluated the best path forward for the G6 well given that casing did not reach the L2 Sand. The decision was made to set a whipstock in the casing at 8,700 feet MD and sidetrack to drill the G6 Bypass (G6 BP01) well. The decision to drill the G6 BP01 was intended to provide a clean completion interval in the L2 Sand to maximise rate and recovery. It was also decided to adjust the target point of the N2 Sand with the goal of intersecting a better sand interval and a commercial result. Both these objectives were achieved.

The G6 BP01 reached final total depth of 10,575 feet MD/8,974 feet TVD on Saturday, September 30 (USCDT). Log While Drilling gamma ray and resistivity tools (LWD) have confirmed the presence of 24 feet True Vertical Thickness (TVT) of likely oil pay in the L2 Sand and 78 feet of TVT hydrocarbon pay in the N2 Sand. Additionally, mud log analysis of both sands indicated the presence of oil in the cuttings along with the heavier gasses usually indicative of oil. Cased hole Pulsed Neutron Logs will be run during completion operations to determine the reservoir porosity in all pay zones as well as aid in the determination of the associated hydrocarbon type. As of Monday, October 2 (USCDT), crews were running a 5 inch liner to final depth prior to commencing completion operations.

The G6 BP01 drilled the L2 Sand 30 feet down dip of the original G6 intersection and resulted in what appears to be a full column of oil. Mud log descriptions of the L2 Sand indicate it is a fine grained, well sorted sand with excellent porosity while also exhibiting dull yellow fluorescence across the entire interval along with heavy gasses indicative of oil pay. Resistivity readings from the LWD logs are consistent with the oil leg logged in the original hole.

At the N2 Sand, the G6 BP01 logged a 78 feet TVT column of hydrocarbon within a very high-quality channel sand with a possible oil/gas contact. The G6 BP01 well N2 intersection was approximately 300 feet (90 meters) away from the G6 original hole N2 intersection. The G6 BP01 mud log across the N2 Sand indicates it is a medium to fine grained, well sorted sand with excellent porosity and exhibited dull yellow fluorescence across the entire interval along with moderately heavy gasses present which is commonly indicative of oil pay. However, the electric logs show more resistivity at the top of the sand than is typically associated with oil suggesting a possible gas/oil contact about 20 feet from the bottom of the sand. The G6 BP01 N2 Sand intersection is also 800 feet up dip of the SM58 B12 well which produced 1.4 million barrels of oil with a strong water drive.

Completion designs are currently underway for both the L2 and N2 sands which will be completed with modern sand control methods to provide high rates and long life over the course of production. Now that drilling operations have been concluded, completion operations will begin immediately and first production from the G4 and G6 Bypass wells is expected in mid-Q4 2023.

Final Pay Counts – Byron Energy SM58 G6 BP01

I1 Sand	10 feet TVT
L2 Sand	24 feet TVT
N2 Sand	78 feet TVT

Byron’s CEO Maynard Smith said:

“The outcome of the SM58 G6 BP01 well has proven to be a success with three logged pay sands all substantially updip of proven oil reservoirs. The last question to be answered is the gas vs oil question which is always difficult given the logs currently available to us. In either case, even if there is a small gas cap, the primary production in both the L2 and the N2 Sands should ultimately be oil based on historical performance of nearby L2 and N2 Sand producers.

The results of the G4 and G6 add up to a very successful campaign of development drilling and we look forward to wrapping up our operations and establishing stable flow rates from both wells. The G4 and G6 wells will add substantially to the Company’s daily production, cash flow and proved producing reserve base.

Importantly, based on information gained from the G6, Byron has further refined two high quality oil prospects to the drill ready status on SM58 which we will likely drill in our next program. The Company is currently working with Enterprise to bring the EOD 264 drilling rig back to SM58 for these wells in the US spring of 2024.

Soon after the rig departs the G platform, the Company will organise the equipment required to complete the G5 well in either the K4 or N2 sands which were the original targets for the G5.

While I know that some of our shareholders were frustrated by the rig delay in the end, the rig arrived in very good mechanical shape, with virtually no downtime due to the rig. The timing to bring on these new wells in the near term will significantly add to the Company’s future cashflow, especially given the recent bump in oil and gas prices.”

Authorised by: *The Board of Directors*

For Further Information Contact:-

Maynard Smith
Chief Executive Officer
+61 3 8610 6583

Peter Love
Investor Relations
+61(0) 488 820 820

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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