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ASX Release

Production Update: SM58 and SM71 Platforms

- Production from Byron's two operated South Marsh Island platforms has been steady
- The SM58 G platform has now produced 1.9 Bcf of gas and 25,050 barrels of oil since September, current gross daily sales rates are 23.7 Mmcfpgd and 410 bopd
- SM58 G2ST is producing at daily gross test rate of 6.6 Mmcfpgd and 202 bopd of 38.8 gravity oil
- Total production from the SM71 F platform has exceeded 2.8 million barrels of oil in three years, current gross daily sales rates are 2.3 Mmcfpgd and 2,734 bopd
- The SM71 F1 and F3 wells are the top two active producing oil wells on the GOM shelf since March 2017

Byron Energy Limited ("Byron" or the "Company") (ASX: BYE) would like to provide a year-end update of current production volumes from the Company operated South Marsh Island 71 ("SM71") and ("SM58") projects and its non-operated South Marsh Island 69 ("SM69") project. This update is based on well test rates as of 16 December 2020. Byron's actual daily sales volumes are reduced from well test volumes due to system shrinkage factors.

South Marsh Island Block 58 G Platform

Byron owns and operates the SM58 lease on a 100% working interest ("WI") basis with a net revenue interest ("NRI") of 83.33%. Initial production from the South Marsh Island 58 G platform ("SM58 G") began on 7 September 2020 from the SM58 G1 well. The SM58 G platform was constructed and installed during 2020 after the Company drilled the SM58 011 well (later renamed the SM58 G1). Since then, the SM58 G2ST well was drilled and was placed into production on 1 November 2020. Total gross production from both wells on the SM58 G platform now stands at 1.9 billion cubic feet ("Bcf") of gas and 25,050 barrels of oil and condensate. After its first month of production, the SM58 G platform ranked number three (3) in gas production of all actively gas producing blocks on the Gulf of Mexico ("GOM") shelf.

The SM58 G1 well produces from the Upper O Sand and as of 16 December 2020 has produced a gross total of 1.55 Bcf of gas, 23,560 barrels of consistent 56.5-degree gravity condensate and no formation water. The SM58 G1 saw an early drop in flowing tubing pressure and rate but now shows signs of pressure support from the expected water drive mechanism of the Upper O Sands in this portion of the SM58 block. After the initial decline, the well has been very stable with the most recent well test data indicating the SM58 G1 is producing 17.2 million cubic feet of gas per day ("Mmcfpgd"), 230 barrels of 56.5-degree condensate per day ("Bcpd"), and no formation water with flowing tubing pressure of 1,234 psi.

The SM58 G2ST well is also completed in the Upper O Sand but was drilled into a different fault block than the SM58 G1 well. Since production began, the SM58 G2ST has produced a total of 0.3 Bcf, 1,490 barrels of condensate (and oil), and no formation water. The SM58 G2ST was drilled in an attic

position to two previous wells that combined to produce over 2 million barrels of 34-degree oil from the Upper O Sand. The production history of the previous wells indicates that oil production from the Upper O Sand in this area was primarily the result of a water drive mechanism, but the upper portion of one well indicated that production from one Upper O Sand lobe behaved as pressure depletion.

Cased hole logs from the SM58 G2ST indicate that it is a combination of both the older wells in that the uppermost portion of the Upper O Sand interval showed signs of being a lower pressure, more gas prone Upper O Sand lobe compared to the more oil prone lower lobes of the Upper O Sand. Because of the mix of pressure regimes within the Upper O Sand package, sand control measures pumped across the Upper O Sand were biased towards treatment of just the lower pressured shallower lobes of the Upper O Sand while the higher pressured, oily lower lobes of the Upper O Sand were not treated as effectively.

After three weeks of production, Byron ran a series of production logs (combination spinner, temperature, and pressure surveys) to confirm the complex flow regime in the wellbore. Through these logs it was determined that over 90% of the hydrocarbons entering the wellbore were from the lower pressure upper most, gassy lobe of the Upper O Sand with very little contribution from the lower, more oil prone lobes. This information confirmed a complex flow regime exists between the various lobes in the whole Upper O Sand section in the well.

The SM58 G2 ST well was placed into continuous compression approximately 8 days ago to create more pressure drawdown across the perforations with a goal of moving more oil into the wellbore from the lower, oil prone lobes. Since then, the oil rate climbed from 20 barrels per day to current levels of 202 barrels of oil per day (“bopd”) and are still increasing daily as of 16 December. Just as importantly, oil gravity has dropped from its initial 60-degrees API of clear condensate to its current gravity of 38.8-degrees API dark oil, a clear indication of feed-in from the lower lobes of the oily, water drive portion of the Upper O Sand. Figure 1 (page 5) shows the progression of oil produced from the Upper O Sand in the SM58 G2ST well.

Because of the complexity of the flow regime, the SM58 G2ST has been slower to stabilize, but is now showing continued improvements in oil rates and also in the gravity of oil it is producing indicating the wellbore may be seeing signs of aquifer support as expected. Initial rates from the SM58 G2ST were reported at 10.2 Mmcf/gpd and 50 Bcpd of 60-degree API condensate. Well test rates on 16 December 2020, indicate the SM58 G2ST is now producing 6.6 Mmcf/gpd, 202 barrels of 38.8-degree API oil and no formation water.

The SM58 G2ST is being watched carefully and will be evaluated to see if any remedial work will be needed to increase flow from the oil prone lobes of the Upper O Sand. Right now, the well is continuing to increase its daily oil rate which is consistent with the Company’s expectations.

South Marsh Island 71 F Platform

Byron owns and operates the South Marsh Island 71 lease with a 50% WI and a 40.625% NRI. Otto Energy Limited Group (ASX: OEL) holds the remaining WI and NRI in SM71. Initial production from the South Marsh Island 71 F platform (“SM71 F”) began on 23 March 2018 from the SM71 F1 well and since then production from the SM71 F2 and F3 wells was added and in 2020, Byron drilled the SM71 F4 well on a 100% basis. Total production from all wells on the SM71 F platform now stands at 2.85 million barrels of oil, 3.8 billion cubic feet of gas and 5,080 barrels of water (primarily completion fluids). South Marsh Island 71 is the number two (2) ranked active oil producing lease on the Gulf of Mexico shelf over the past twelve months.

The SM71 F1 and F3 wells are completed in the D5 Sand which was the primary target of the initial well drilled by the partners in 2016. The SM71 F1 and F3 wells have now combined to produce a gross total of 2.75 million barrels of oil, 3.2 Bcf of gas and 800 barrels of completion fluids from the D5 Sand in less than three years.

Well test rates as of 16 December 2020 for the SM71 F1 were 773 bopd, 1.2 Mmcf/gpd and no water at a flowing tubing pressure of 840 psi. Test rates as of 16 December 2020 for the SM71 F3 well were 2,097 bopd, 0.796 Mmcf/gpd and no water at a flowing tubing pressure of 1,015 psi. These two wells have been extremely stable in their daily flow characteristics over the course of the past 12 months with both wells showing signs of water support from the downdip aquifer.

Since March of 2018, the SM71 F3 and F1 rank number one (1) and number two (2) respectively of all actively producing oil wells on the Gulf of Mexico shelf.

The SM71 F2 was initially perforated across the B65 Sand interval, but pressure depleted rapidly, producing only minor amounts of oil and gas. In late 2018, the SM71 F2 well was recompleted in the thin, B55 Sand and has now produced a gross total of 50,600 barrels of oil, 0.056 Bcf of gas and 2,472 barrels of formation water from the B55 Sand. Well test rates for the SM71 F2 well as of 16 December 2020 were 28 bopd, 0.197 Mmcf/gpd and 7 barrels of formation water per day at a flowing tubing pressure of 107 psi in compression. The SM71 F2 well has been producing at these rates consistently over the past few months.

The SM71 F4 well was drilled on a 100% WI basis by Byron in early 2020 after Otto declined to participate. After drilling and logging, Byron completed the SM71 F4 well in the D5 Upper Sand and it experienced a rapid decline in pressure, indicating a very limited reservoir. The well has been shut-in since late September but is building pressure at very slow rate each day, indicating weak support from downdip sands. Total gross production from the SM71 F4 stands at 0.679 Bcf of gas, 6,120 barrels of condensate and 196 barrels of completion fluid and formation water. The well will be opened to production in the future before an uphole recompletion is performed.

The SM71 F5 well was jointly drilled as a D5 Sand acceleration well by Byron and Otto in early 2020. After evaluating the logs from the well, in Byron's opinion, the SM71 F5 well only reached the upper 10-15 feet of the objective D5 Sand but had to be abandoned due to difficult drilling conditions caused by sloughing shales above the target section making drilling any deeper mechanically very risky. Additionally, the outbreak of COVID-19 was just beginning, and it was deemed prudent to stop drilling and the SM71 F5 well was left in a manner allowing it to be sidetracked in the future. Byron is considering the best timing for that sidetrack operation considering its planned development activity at SM58.

South Marsh Island 69 E Platform (non-operated)

Byron holds a non-operated 53% WI (44.167% NRI) in the South Marsh Island 69 E platform with one active producing well, the SM58 E1 well. The SM58 was drilled from a surface location in SM69 to a bottom hole location in SM58 in 2011 and is completed in the K4 Sand (B65 Sand) and has produced a total of 630,000 barrels of oil, 0.185 bcf of gas and 800,000 barrels of formation water. The SM58 E1 well is currently making less than 50 bopd and will soon be recompleted by sliding a sleeve covering existing perforations with sand control across the K Sand (B55 Sand). The operator is currently working with regulatory agencies for the required permits before the work is scheduled. Because the wellbore completion work is already in place, the cost of recompletion is less than US\$100,000 net to Byron.

Byron's CEO Maynard Smith said:

"The performance of our SM71 F1 and F3 wells continues to be outstanding. It is extremely rare to have two wells on the Gulf of Mexico shelf combine to produce over 2.8 million barrels of oil without any formation water. In addition, the SM58 G1 well is also performing strongly and we anticipate that its oil rate may increase and turn to a true oil gravity in the future as we continue to see the aquifer support. The SM58 G2 ST is finally experiencing what we had hoped for initially and we are constantly monitoring it to determine if any future work is required. Overall, the Company is on a sound production footing at the end of a very volatile and eventful year, and I expect it will provide a solid foundation to build on in 2021."

Authorised by:
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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.

Figure 1:
SM58 G2ST oil samples demonstrating change in API oil gravity since first production

