

28 August 2023

## ASX Release

### June 2023 Annual Independent Reserves Assessment

- **Net Proved Reserves (1P) of 8.5 MMbo and 23.2 Bcfg, (12.4MMboe), a decrease of approximately 6% compared to 2022 mainly due to production**
- **Net Proved and Probable Reserves (2P) of 13.8 MMbo and 31.1 Bcfg (19.0 MMboe), an increase of approximately 2% over 2022**
- **Approximately 85% of total 1P reserves are attributable to Byron's March 2019 US\$4.3 million acquisition of SM58 lease the SM58E1 producing wellbore and the SM69E platform and pipelines**
- **Annual Production of 569,000 Bo and 1.5 Bcfg Net to Byron**
- **Lease Operating Expense of \$10.32/boe, remain well below GOM peer averages**

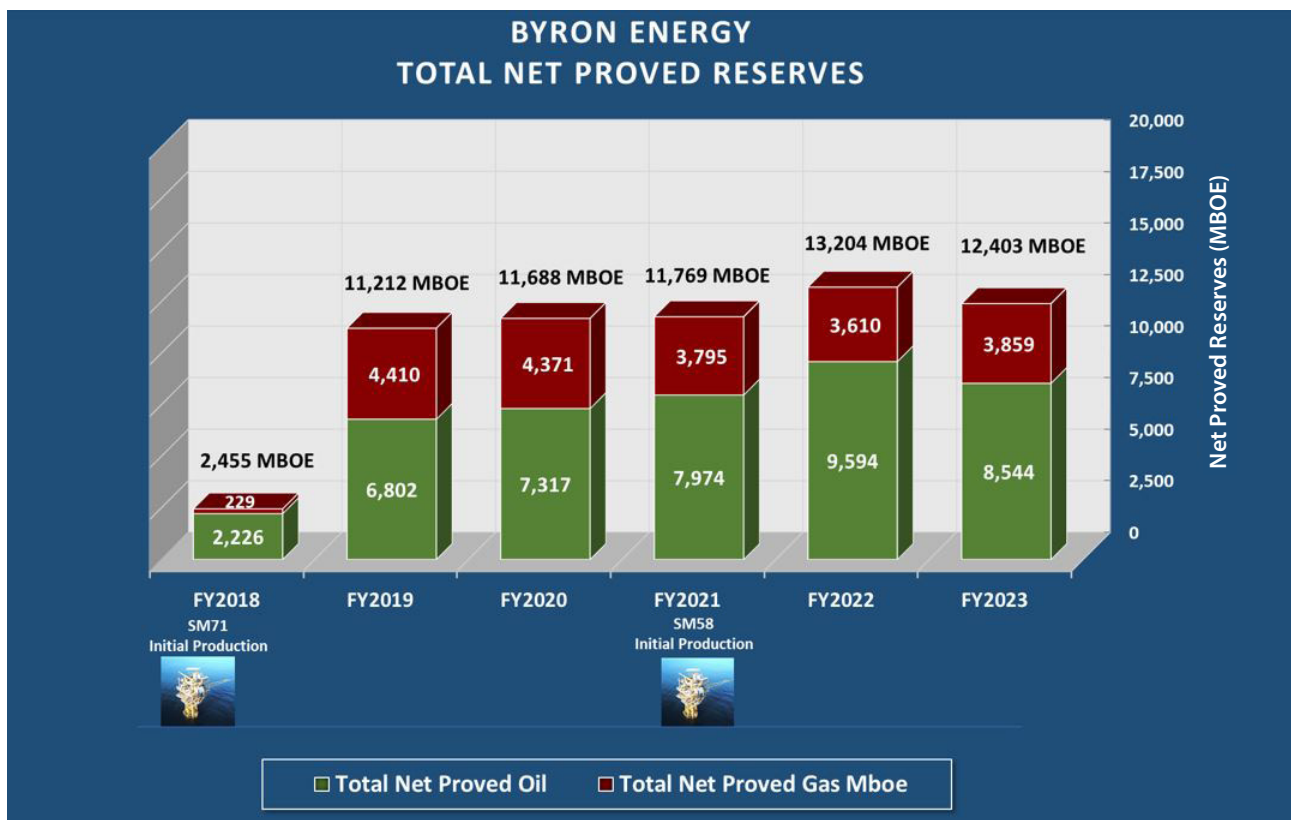


Figure 1: Byron historical annual Total Proved Reserves

**Conversion to boe** - using a ratio of 6,000 cubic feet of natural gas to one barrel of oil – 6:1 conversion ratio is based on an energy equivalency conversion method and does not represent value equivalency

**Byron Energy Limited (Byron or the Company) (ASX: BYE)** is pleased to provide a summary of the independently assessed estimates of reserves and resources, as at 30 June 2023, for the Company's projects in the shallow waters of the Gulf of Mexico. The annual report covers Byron's leases comprising producing and exploration properties SM71, SM58, SM57, SM61, SM69 and GI63/72. The independently assessed reserves and resources estimates were prepared by Collarini Associates (Collarini), based in Houston, Texas, USA.

**Table 1: Remaining Reserves and Prospective Resources, Net to Byron, are as follows:**

Byron Energy Limited - Reserves and Resources Gulf of Mexico, Offshore Louisiana, USA				
Net Remaining as of 30 June, 2023	Category	Oil (Mbbbl)	Gas (MMcf)	Mboe (6:1)
Proved Developed Producing	PDP	1,434	2,348	1,825
Proved Behind Pipe	PDBP	1,801	2,601	2,235
Proved Undeveloped	PUD	5,309	18,205	8,343
<b>Proved (1P)</b>	<b>1P</b>	<b>8,544</b>	<b>23,154</b>	<b>12,403</b>
Probable Reserves		5,231	7,894	6,547
<b>Proved and Probable (2P)</b>	<b>2P</b>	<b>13,775</b>	<b>31,048</b>	<b>18,950</b>
Possible Reserves		4,813	5,364	5,707
<b>Proved, Probable &amp; Possible (3P)</b>	<b>3P</b>	<b>18,588</b>	<b>36,412</b>	<b>24,657</b>
<b>Prospective Resources (Best Estimate Unrisked)</b>	<b>Pr</b>	<b>18,350</b>	<b>208,186</b>	<b>53,048</b>

**Reserves** - The aggregate 1P may be a very conservative estimate and the aggregate 3P may be a very optimistic estimate due to the portfolio effects of arithmetic summation

**Conversion to boe** - using a ratio of 6,000 cubic feet of natural gas to one barrel of oil – 6:1 conversion ratio is based on an energy equivalency conversion method and does not represent value equivalency

**Prospective Resource** - The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially recoverable hydrocarbon

### 2023 Highlights and Key Factors contributing to changes in reserves and resources since 30 June 2022

The Company's 1P reserves as at 30 June 2023 decreased by approximately 6% year on year to 12.4 Mmboe while 2P reserves and 3P reserves increased by approximately 2% and 4% respectively to 2P reserves of 19.0 Mmboe and 3P reserves of 24.7 Mmboe.

Approximately 85% of total 1P and 84% of total 2P reserves, on a boe basis, are attributable to Byron's March 2019 acquisition for approximately US\$4.3 million of the SM58 lease and the SM58E1 producing wellbore and the SM69E platform and pipelines, as shown in the table below.

**Table 2: Net Remaining Reserves by Field:**

Byron Energy Limited - Remaining Reserves Net to Byron by Field				
30 June, 2023	Category	Oil (Mbbbl)	Gas (MMcf)	Mboe (6:1)
<b>SM71</b>	Proved (1P)	1,626	1,149	1,818
	Proved & Probable (2P)	2,701	2,237	3,074
<b>SM58</b>	Proved (1P)	5,801	20,808	9,269
	Proved & Probable (2P)	9,931	27,604	14,532
<b>SM 58/69 (includes E2)</b>	Proved (1P)	1,116	1,197	1,316
	Proved & Probable (2P)	1,142	1,206	1,343
<b>Total</b>	Proved (1P)	8,543	23,154	12,402
	Proved & Probable (2P)	13,774	31,047	18,949

The Company's Prospective Resources as at 30 June 2023 decreased by approximately 39% year on year to 53 Mmboe after accounting for relinquishments.

**(i) Reserve Additions/Revisions:**

- *Total Proved Reserves* remained nearly unchanged at 12.4 million barrels of oil (MMboe), with 94% total Proved Reserve replacement from 2022 at 13.2 Mmboe for a fifth consecutive year of near or greater than 100% Total Net Proved Reserve replacement (see Figure 1). Total Proved Reserves changes were characterised by the 1 July 2022 to 30 June 2023 net production of 0.8 MMboe (0.6 MMBO & 1.5 billion cubic feet of gas (Bcfg)) being largely offset by additions & revisions to the total proved reserves noted below:
  - *Net Additions* during the period of 0.7 MMbo and 4.1 Bcfg, or 1.4 MMboe to the Total Proved reserves is attributable to the addition of oil leg reserves associated with the SM58 G1 well related to the onset of oil production and the addition of Proved Undeveloped (PUD) reserves associated with the SM57 Silver Trout prospect after acquiring the SM57 lease again in March 2023.
  - *Net Revisions* during the period of -1.2 MMbo and -1.1 Bcfg, or -1.4 MMboe to the Total Proved reserves is largely attributable to the performance of the J zone in the G3 related to connectivity within the mapped reservoir, potentially requiring a more optimal penetration point within the mapped reservoir. Proved reserves revisions includes updates to L2 and N2 sand volumetrics in SM58 G5 and movement of the majority of those reserves from the SM58 G-5 Smoked Trout well into PUDs in the SM58 G-6 Gila Trout well to be tested in the ongoing 2023 drilling program.
  - 2023 reserve additions and movements were impacted by the lack of drilling or workover activity required to bring on new production as the Company's 2022 development drilling program was unavoidably delayed beyond the period into August of 2023.

**(ii) Prospective Resources Additions/Revisions:**

- The addition of 4.6 MMbo and 147.4 Bcfg of Net Prospective Resources at GI63/72 is being evaluated for future drilling.

**(iii) Portfolio Acquisitions/Divestitures/Relinquishments:**

- Byron added 3 leases to the portfolio of opportunities with SM57, GI63, & GI72. SM57 provided +3.9 Bcfg and +0.4 MMbo of Net Proved Undeveloped Reserves, included in SM58 reserves. GI63/72 provided +147.4 Bcfg and +4.6 MMbo of Net Prospective Resource exposure for future drilling and development programs. In 2023 the following leases were relinquished: MP293, MP305, MP306, SM60, & SM70. The MP leases had no associated reserves booked. SM60 had 208.8 Bcfg and 2.3 MMbo of Net Prospective Resources. SM70 had 32.6 Bcfg and 3.2 MMbo of Net Prospective Resources.

**Further details on proved and probable reserves and prospective resources are included in appendices A, B, C and D**

**Lease Operating and Production Costs:**

2023 Annual Production of 569 mbo and 1.5 Bcfg net to Byron at what remains a Best-in-Class Lease Operating Cost (LOE) of \$10.32/boe and 3-year average of US\$7.55/boe; well below Gulf of Mexico (GOM) Peer estimated averages of greater than US\$14.00 and \$12.00 respectively. Production Costs in 2023, being LOE plus transportation costs, totalled US\$14.54/boe, up approximately 30% primarily due to industry wide cost inflation, with a 3-year average cost of US\$11.24/boe. Once again, Byron operated at costs well below several US GOM operator peer averages of between US\$17.00-18.00 over the same period with all operators experiencing operating expense increases in the order of 30% (see Figure 2). GOM peer costs are based on data extracted by Byron from GOM operator annual reports.

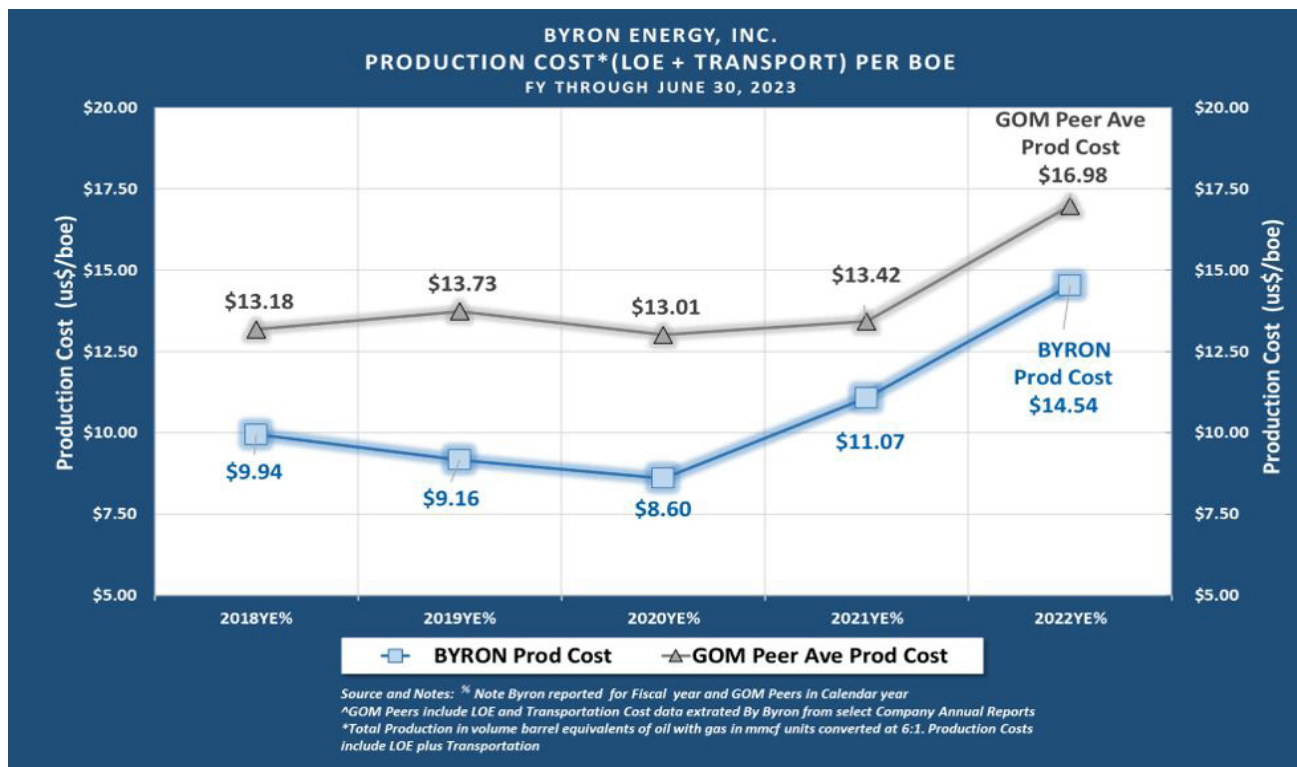


Figure 4: Byron vs GOM Peers average Production Cost in US\$/Boe. Extracted by Byron from select company annual reports for the period shown.

**Commenting on the 2023 reserves and prospective resources report Mr. Maynard Smith, CEO, said:**

*"While the unavoidable delay in the 2023 development drilling program has slowed Byron's efforts in adding to the 2022 reserve base, it is encouraging that we were able to record a minimal 6% decline in 1P reserves despite producing a net 567,000 barrels of oil and 1.5 bcf of gas during the preceding twelve months. This, combined with the continued best-in-class operating performance at Byron's SM71 and SM58 platforms, is a credit to all involved. Irrespective of the results of the G4 and G6 wells, which I fully expect will be positive, Byron is well placed to continue to add to its reserve base through its inventory of quality prospects across current and future projects. The Company has, over the last five years and despite numerous challenges, demonstrated a consistent ability to find and develop commercial oil and gas reserves. This is testament to the experience, technical skill and professionalism of the entire team at Byron."*

Authorised by: 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 and 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 visit the Company's website at [www.byronenergy.com.au](http://www.byronenergy.com.au).

### Glossary

Bbl = barrels  
Bcf = billion cubic feet  
Bcfg = billion cubic feet of gas  
Bo/bo = barrels of oil  
Boe/boe = barrels of oil equivalent  
Bopd/bopd = barrels of oil per day  
Btu = British Thermal Units  
mcfg = thousand cubic feet of gas  
MMcfg = million cubic feet of gas  
mcfcpd = thousand cubic feet of gas per day

MMcf = million cubic feet  
mbo/mbbl = thousand barrels of oil  
MMbo/MMbbl = million barrels of oil  
Mbo = thousand barrels of oil  
mboe = thousand barrels of oil equivalent  
MMboe = million barrels of oil equivalent  
mcf = thousand cubic feet  
MMcf = million cubic feet  
MMbtu = million British Thermal Units



### Appendix A - Oil and Gas Properties as at 30 June 2023

As at 30 June 2023, Byron's portfolio of properties, all in the shallow waters of the Gulf of Mexico, offshore Louisiana, USA comprised: -

Properties	Operator	Interest WI/NRI* (%)	Lease Expiry Date	Area (Km <sup>2</sup> )
South Marsh Island Block 71	Byron	50.00/40.625	Production	12.16
South Marsh Island Block 57	Byron	100.00/81.25	April 2028	21.98
South Marsh Island Block 61	Byron	100.00/87.50	September 2027	20.23
South Marsh Island Block 58 (Excl. E1 well)	Byron	100.00/83.33**	Production	20.23
South Marsh Island Block 58 (E1 well in S ½ of SE ¼ of SE ¼ and associated production infrastructure in NE ¼ of NE ¼ of SM69)	Ankor	53.00/44.167		
South Marsh Island Block 69 (NE ¼ of NE ¼)	Byron	70.00/58.33***	Production	1.3
South Marsh Island Block 66	Byron	100.00/87.50	December 2025	20.23
Grand Isle Block 63	Byron	100.00/81.25	April 2028	20.23
Grand Isle Block 72	Byron	100.00/81.25	April 2028	20.23

\* Working Interest ("WI") and Net Revenue Interest ("NRI").

\*\* 100.00% WI to a depth of 13,639 feet TVD and 50% WI below 13,639 feet TVD.

\*\*\* Effective 1 January 2023 Byron's 100% WI and 80.33% NRI in the SM69 E2 well reduced to 70% WI with an unburdened 58.33% NRI, after WT Offshore exercised its option to convert its overriding royalty interest into a 30% working interest in the E2 well which achieved payout in December 2022.

## Appendix B – Additional Information on Remaining Reserves as at 30 June 2023

### Reserves Summary

#### 1P and 2P total changes to reserves:

Proved Reserves (1P net to Byron) as at 30 June 2023 were 8.5 MMbbl of oil and 23.2 Bcf of gas or 12.4 MMboe, compared to 9.6 MMbbl of oil and 21.7 Bcf of gas, 13.2 MMboe, as at 30 June 2022.

Proved and Probable Reserves (2P net to Byron) as at 30 June 2023 were 13.8 MMbbl of oil and 31.0 Bcf of gas, 19.0 MMboe, compared to 13.8 MMbbl of oil and 28.7 Bcf of gas, 18.6 MMboe, as at 30 June 2022.

Byron's year on year Byron's 1P reserves decreased by 6% or 0.8 MMboe (equivalent to 7/1/22 to 6/30/23 net production of 569 Mbo and 1.5 Bcfg), while 2P reserves increased by 2% or 0.4 MMboe.

#### Remaining reserves - developed versus undeveloped:

The following table shows a split of Byron's net remaining reserves, as at 30 June 2023, into developed and undeveloped categories by product. All of the remaining reserves are located in shallow water in the Gulf of Mexico, Offshore Louisiana.

Byron Energy Limited - Remaining Reserves Net to Byron					
	Developed		Undeveloped		Total
June 30, 2023	Oil	Gas	Oil	Gas	Boe
	Mbbl	MMcf	Mbbl	MMcf	Mboe (6:1)
<b>Total</b>					
<b>Proved (1P)</b>	<b>3,234</b>	<b>4,949</b>	<b>5,309</b>	<b>18,205</b>	<b>12,402</b>
Probable Reserves	1,015	1,209	4,216	6,684	6,547
<b>Proved and Probable (2P)</b>	<b>4,249</b>	<b>6,158</b>	<b>9,525</b>	<b>24,889</b>	<b>18,949</b>
Possible	1,128	1,176	3,687	4,188	5,709
<b>Proved, Probable &amp; Possible (3P)</b>	<b>5,377</b>	<b>7,334</b>	<b>13,212</b>	<b>29,077</b>	<b>24,658</b>

### Reserves reconciliation

The following table reconciles the movement in Byron's reserves between 30 June 2022 and 30 June 2023.

Byron Energy Limited Reserves (Net to Byron)										
Reserves Reconciliation	Oil (Mbbl) (Net to Byron)					Gas (MMcf) (Net to Byron)				
	Remain- ing 30/6/2022	Produc- tion 2023	Additions Revisions 2023	Relinquish- ments 2023	Remain- ing 30/6/23	Remain- ing 30/6/22	Produc- tion 2023	Additions Revisions 2023	Relinquish- ments 2023	Remain- ing 30/6/23
<b>Proved (1P)</b>	<b>9,594</b>	<b>-569</b>	<b>-481</b>	<b>0</b>	<b>8,544</b>	<b>21,657</b>	<b>-1,464</b>	<b>2,961</b>	<b>0</b>	<b>23,154</b>
Probable Reserves	4,228	0	1,004	0	5,232	7,060	0	833	0	7,893
<b>Proved and Probable (2P)</b>	<b>13,822</b>	<b>-569</b>	<b>523</b>	<b>0</b>	<b>13,776</b>	<b>28,717</b>	<b>-1,464</b>	<b>3,794</b>	<b>0</b>	<b>31,047</b>
Possible Reserves	4,214	0	599	0	4,813	5,115	0	249	0	5,364
<b>Proved, Probable &amp; Poss. (3P)</b>	<b>18,036</b>	<b>-569</b>	<b>1,122</b>	<b>0</b>	<b>18,589</b>	<b>33,832</b>	<b>-1,464</b>	<b>4,043</b>	<b>0</b>	<b>36,411</b>

## Appendix C –Prospective Resource as at 30 June 2023

The following table shows prospective resources as of 30 June 2023 and a comparison of changes between 2023 and 2022.

Byron Energy Limited Prospective Resources (net to Byron)			
Best Estimate Unrisked 30 June 2023	Oil MBBL	Gas MMCF	MBOE (6:1)
SM 71	977	19,885	4,291
SM 58	12,196	40,403	18,930
SM 58 / 69	545	545	636
GI 63 / 72	4,632	147,353	29,191
<b>Total Prospective Resources (2023)</b>	<b>18,350</b>	<b>208,186</b>	<b>53,048</b>
<b>Total Prospective Resources (2022)</b>	<b>23,931</b>	<b>297,435</b>	<b>73,504</b>

### Material Changes to Prospective Resources

- SM60 and SM70 were relinquished undrilled during the period.
  - SM60 had 208.8 Bcfg and 2.3 MMbo of Net Prospective Resources
  - SM70 had 32.6 Bcfg and 3.2 MMbo of Net Prospective Resources.
- GI63/72 added +147.4 Bcfg and + 4.6 MMbo of Net Prospective Resources.



## **Appendix D – Notes to Reserves and Resources Statement**

### **Reserves and Resources Governance**

Byron's reserves estimates are compiled annually. Byron engages Collarini and Associates, a qualified external petroleum engineering consultant, to conduct an independent assessment of the Company's reserves. Collarini and Associates is an independent petroleum engineering consulting firm that has been providing petroleum consulting services in the USA for more than fifteen years. Collarini and Associates does not have any financial interest or own any shares in the Company. The fees paid to Collarini and Associates are not contingent on the reserves outcome of the reserves report.

### **Competent Persons Statement**

The information in this report that relates to oil and gas reserves and resources was compiled by technical employees of independent consultants Collarini and Associates, under the supervision of Mr Mitch Reece BSc PE. Mr Reece is the President of Collarini and Associates and is a registered professional engineer in the State of Texas and a member of the Society of Petroleum Evaluation Engineers (SPEE), Society of Petroleum Engineers (SPE), and American Petroleum Institute (API). The reserves and resources included in this report have been prepared using definitions and guidelines consistent with the 2007 Society of Petroleum Engineers (SPE)/World Petroleum Council (WPC)/American Association of Petroleum Geologists (AAPG)/Society of Petroleum Evaluation Engineers (SPEE) Petroleum Resources Management System (PRMS). The reserves and resources information reported in this Statement are based on, and fairly represents, information and supporting documentation prepared by, or under the supervision of, Mr Reece. Mr Reece is qualified in accordance with the requirements of ASX Listing Rule 5.41 and consents to the inclusion of the information in this report of the matters based on this information in the form and context in which it appears.

### **Reserves Cautionary Statement**

Oil and gas reserves estimates are expressions of judgment based on knowledge, experience and industry practice. Estimates that were valid when originally calculated may alter significantly when new information or techniques become available. Additionally, by their very nature, reserve and resource estimates are imprecise and depend to some extent on interpretations, which may prove to be inaccurate. As further information becomes available through additional drilling and analysis, the estimates are likely to change. This may result in alterations to development and production plans which may, in turn, adversely impact the Company's operations. Reserves estimates and estimates of future net revenues are, by nature, forward looking statements and subject to the same risks as other forward looking statements.

### **Prospective Resources Cautionary Statement**

The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially recoverable hydrocarbons.

### **Forward Looking Statements**

This document may contain forward-looking information. Forward-looking information is generally identifiable by the terminology used, such as "expect", "believe", "estimate", "should", "anticipate" and "potential" or other similar wording. Forward-looking information in this document includes, but is not limited to, references to: well drilling programs and drilling plans, estimates of potentially recoverable resources, and information on future production and project start-ups. By their very nature, the forward-looking statements contained in this document require Byron and its management to make assumptions that may not materialise or that may not be accurate. Although Byron believes its expectations reflected in these statements are reasonable, such statements involve risks and uncertainties, and no assurance can be given that actual results will be consistent with these forward-looking statements.

### **Pricing Assumptions (in US\$)**

West Texas Intermediate (WTI) Strip prices starting on August 1, 2023, of \$83.47 per barrel. Beginning January 1, 2024, the Reuters Poll consensus pricing was used with a starting price of \$79.16 per barrel and with a final price of \$66.69 per barrel on January 1, 2027, then held constant thereafter. Gas prices used in this report represent a Henry Hub base August 9, NYMEX Strip prices starting on July 1, 2023, of \$2.96 per MMBtu. Beginning January 1, 2024, the Reuters Poll consensus pricing was used with a starting price of \$3.67 per MMBtu, increasing to \$4.17 per MMBtu on January 2025 then declining to \$3.670 per MMBtu on January 1, 2026, and held constant thereafter. These prices were then adjusted to account for transportation cost, basis difference, Light Louisiana Sweet (LLS) vs WTI oil gravity.

## ASX Reserves and Reporting Notes

- (i) The reserves and prospective resources in this document are as at 30 June 2022 (Listing Rule (LR) 5.25.1)
- (ii) The reserves and prospective resources in this document have been estimated and is classified in accordance with SPE-PRMS (Society of Petroleum Engineers - Petroleum Resources Management System) (LR 5.25.2)
- (iii) The reserves and prospective resources in this document are reported according to the Company's economic interest in each of the reserves and prospective resources net of royalties (LR 5.25.5)
- (iv) The reserves and prospective resources information in this document has been estimated and prepared using the deterministic method (LR 5.25.6)
- (v) The reserves and prospective resources in this document have been estimated using a 6:1 BOE conversion ratio for gas to oil; 6:1 conversion ratio is based on an energy equivalency conversion method and does not represent value equivalency (LR 5.25.7)
- (vi) The reserves and prospective resources in this document have been estimated on the basis that products are sold on the spot market with delivery at the sales point on the production facilities (LR 5.26.5)
- (vii) The method of aggregation used in calculating estimated reserves was the arithmetic summation by category of reserves. As a result of the arithmetic aggregation of the field totals, the aggregate 1P may be a very conservative estimate and the aggregate 3P may be a very optimistic estimate due to the portfolio effects of arithmetic summation (LR 5.26.7 & 5.26.8)
- (viii) Prospective resources are reported on a best estimate basis (LR 5.28.1)
- (ix) For prospective resources, the estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons (LR 5.28.2)

## ASX LR 5.35 Additional Prospective Resources information for GI 63/72 (reported for the first time)

- (i) In respect to the prospective resources referred to in this statement, Byron acquired GI 63/72 (approx. 5,000 acres each) at the BOEM Lease Sale 290 held in March 2023, located in the shallow waters of the Gulf of Mexico, offshore Louisiana, USA (LR 5.35.1).
- (ii) The prospective resources have been estimated on the following basis (LR 5.35.2):-
  - prospective resources have been identified near the existing developed and undeveloped reserves, at the same or deeper stratigraphical levels but are deemed isolated from mapped reserves;
  - a combination of volumetric assessment and field analogues have been used to estimate the prospective resources; exploration drilling will be required to assess these resources.
- (iii) The chance of discovery is considered moderate as the prospective resources are near developed and undeveloped reserves and in a proven oil and gas producing province. There is a risk that exploration will not result in sufficient volumes of oil and/or gas for a commercial development (LR 5.35.3).
- (iv) Prospective resources are un-risked and have not been adjusted for an associated chance of discovery and a chance of development (LR 5.35.4).