

### **ASX Release**

## Byron Energy Net Reserves and Resources at 30 June 2020

- Proved Reserves (1P): 8.1 Mmbbl of oil and 58.5 Bcf of gas
- Proved and Probable Reserves (2P): 17.5 Mmbbl of oil and 105.3 Bcf of gas with a combined Net Present Worth\* of US\$486 million
- Proved, Probable and Possible Reserves (3P): 25.3 Mmbbl of oil and 130 Bcf of gas
- Prospective Resources: 43.6 Mmbbl of oil and 617.3 Bcf of gas

**Byron Energy Limited ("Byron or the Company") (ASX: BYE)** is pleased to provide a summary of the independently assessed estimates of reserves and resources for the Company's projects in the shallow waters of the Gulf of Mexico. The report covers Byron's leases around the South Marsh Island ("SM") 73 salt dome comprising SM71, SM58, SM 57/59/60/69 and Eugene Island Block 62/63/76/77 ("EI77").

The independently assessed reserves and resources estimates were prepared by Collarini Associates ("Collarini"), based in Houston, Texas, USA.

The combined remaining reserves and prospective resources, net to Byron, with changes (including and excluding GI95 which has been removed from reserves and resources as of 30 June 2020 and the lease relinquished subsequently, as reported on 1 September 2020) are as follows:

Byron Energy Limited - Reserves and Resources Gulf of Mexico, Offshore Louisiana, USA									
Remaining as at 30 June 2020 (Net to Byron)	Remaining as at 30 June 2020 Oil Gas Mboe Change %								
Reserves (developed and undeveloped)									
Proved (1P)	8,060	58,518	17,813	6.8%	6.8%				
Probable Reserves	9,409	46,732	17,198	-33.1%	-5.2%				
Proved and Probable (2P)	17,469	105,250	35,011	-17.4%	0.6%				
Possible Reserves	7,832	24,707	11,949	-24.8%	1.8%				
Proved, Probable & Possible (3P)	25,301	129,957	46,960	-19.4%	0.9%				
Total Prospective Resources Best Estimate (unrisked)	43,612	617,296	146,496	18.7%	26.6%				

<sup>\*</sup>Net Present Worth at 10% pre-tax (NPW-10) does not purport, nor should it be interpreted, to represent the fair market value of oil and gas properties

**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 moveable hydrocarbon



### 2020 Highlights include:

### Reserve Additions/Revisions:

- 1 July 2019 to 30 June 2020 annual production of 922 Mbo and 1.4 Bcfg (gross) or 376 MBO and 0.8 Bcfg Net to Byron, from the Byron operated SM71 field.
- The replacement of approximately 70% of the company's Proved Developed Producing reserves or annual production, largely due to continued water-free and stable performance from the D5 Reservoir in the SM71 F1 and F3 wells.
- The addition of 614 Mbo (net to Byron) of Proved Undeveloped reserves in two SM58 area target reservoirs based on increased yield estimates following evaluation of previously unavailable historical well and electric log files and the re-assessment of analog production.

### Prospective Resource Additions/Revisions:

- The addition of 11.7 Mmbo and 13.9 Bcfg of Prospective Resources (net to Byron) attributable to the SM58 Cutthroat Lower O sand reservoirs which were delineated in the SM58 G1 well in September of 2019 which post-dated the release of the 30 June 2019 Reserve Report.
- The addition of 1.3 MMbo and 107.2 Bcfg of Prospective Resources, excluding the transfer from SM59, attributable to the mid-2019 leasing and subsequent evaluation of the SM60 lease block in the eastern portion of Byron's SM area trend.

#### Portfolio Additions/Revisions:

• Byron has elected to release the gas prone GI95 lease block, in recognition of current uneconomic conditions and near lease term expiry making drilling unlikely. This portfolio adjustment equates to a 2P decrease of 44.6Bcfg and 0.1 Mmbo net to Byron, a 3P reserves decrease of 69.2Bcfg and 0.2 Mmbo and a Prospective Resource decrease of 44.4 Bcfg and 0.3 Mbo. The Company will continue to focus its resources on high impact oil prone prospects in its South Marsh Island leases.

### **Management Discussion**

The 2020 Reserves and Resources are based on significantly lower oil and gas price assumptions compared to 2019, due to the impact of COVID-19 on the energy market demand fundamentals. Notwithstanding lower price assumptions, Byron's 1P reserves increased by approximately 7% on a BOE basis with the increase of 560 Mbo and 3.5 Bcfg reflecting revisions based on the SM71 D5 reservoir water free and stable performance and the addition of proved reserves at SM58 as the technical prospect evaluation matures in the greater SM73 Field Area. The Company's 2P reserves, excluding the effects of Gl95, generally remained flat, with an increase of approximately 1% on a boe basis with a small increase in 2P oil reserves of 240 Mbo and a slight decrease in the 2P gas component of 0.2 Bcf. The inclusion of Gl95, a non-salt dome pure gas play currently deemed uneconomic and pending relinquishment, results in a decrease of approximately 17% on a BOE basis. Byron has determined that Gl95, while technically still a sound prospect, is no longer attractive compared with the rest of Byron's oil rich portfolio.

Additionally, Byron also captured a significant increase of Prospective Resources in both SM58 and SM60. At SM58, the Company added 11.7 Mbo and 13.9 Bcfg related to the Lower O Sand encountered in the SM58 G1 well as well as an increase in calculated yields in the Dolly Varden prospect. At SM60, the Company added 208.8 Bcfg and 2.3 Mmbo based on continued evaluation and mapping, once again demonstrating the value of the Company's proprietary processed 3D seismic data set.

Notably, over 60% of Byron's 2P reserves are accounted for by the Company's leases in or around the SM73 field salt dome. The balance of 2P reserves is accounted by another salt dome project, the EI77 field. The follwing table shows Byron's reserves by project.



#### Byron Energy Limited - Remaining Reserves Mboe **Split by Project SM58** SM 58 E1/69 SM 71 **Total** EI 77 30 June 2020 Mboe\* % % Mboe % Mboe % Mboe % Mboe Proved (1P) 4.54 12.44 17,813 100.00 8,663 48.63 808 6,127 34.39 2,216 **Probable Reserves** 7,752 45.08 30 0.17 7,072 41.12 2,344 13.63 17,198 100.00 Proved and 37.70 35,011 100.00 16,415 46.88 838 2.39 13,198 4,560 13.02 Probable (2P) Possible Reserves 4,773 39.94 0.00 5,741 48.05 1,435 12.01 11,949 100.00 Proved, Probable 21,188 45.12 838 18,940 40.33 5,995 46,960 100.00 1.78 12.77 & Possible (3P)

Further details on reserves and resources are included in appendices A, B, C and D.

### Commenting on the 2020 reserves and prospective resources report Mr Maynard Smith said:

"We are very pleased to release our annual Collarini reserves and resources report for 2020, following recent commencement of first production from our SM58 project.

Notwithstanding a substantial reduction in forecast oil and gas prices used in determination of Byron 2020 reserves and resources, we are pleased to have achieved an increase of 8% in our 1P oil reserves while holding flat on our 2P oil reserves. SM58 2P oil reserves increased 5% compared to 2019, reflecting both the replacement of SM71 production and a material add to expected yields in the SM58 prospects based on a growing understanding of SM58 production analogs. These results validate our decision to prioritise high margin oil rich projects and push ahead with development of SM58 during a turbulent period in the oil and gas industry which has seen commodity price and demand volatility and the onset of COVID-19. Pleasingly we also replaced 74% percent of SM71 2020 production at the 1P level through continued excellent performance of the F1 and F3 wells. The current report better reflects the upgraded portfolio of opportunities with the addition of SM60 and the release of our pure gas Gl95 project."

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 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 please visit the Company's website at www.byronenergy.com.au.

<sup>\*</sup>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



### **Project Summary**

### **South Marsh Island 71**

Byron owns the South Marsh Island block 71 ("SM71") a lease in the South Marsh Island Block 73 ("SM73") field. Byron is the designated Operator of SM71 and owns a 50% Working Interest ("WI") and a 40.625% Net Revenue Interest ("NRI") in the block, with Otto Energy Limited ("Otto") group holding an equivalent WI and NRI in the block. As Otto did not participate in the drilling of the SM71 F4 well Byron is entitled to 100% WI/81.25% NRI in SM 71 F4 well, until payout.

For the year ended 30 June 2020, Byron's share of net revenue from SM71 was US\$20.6 million while cash operating costs (lease operating expenses and insurance) were US\$2.7 million, or based on Byron's net production of 376 Mbo and 0.8 Bcfg a unit operating cost of approximately \$5.32 per BOE, demonstrating Byron's operating efficiency and the project's strong cash generating capacity.

At the end of June 2020, Collarini assessed proved reserves at 2.2 million barrels of oil equivalent ("MMboe"), net to Byron, 5.5% lower than 2019, replacing 69% of production.

Remaining 2P reserves as of 30 June 2020, net to Byron, after adjustments and revisions including reduction for actual production to 30 June 2020, are 4.6 MMboe (4.9 MMboe in 2019).

Byron Energy Limited - Reserves and Resources South Marsh Island 71							
	Gr	oss		Net to By	ron		
Remaining 30 June 2020	Oil Mbbl	Gas MMcf	Oil Mbbl	Gas MMcf	Mboe (6:1)		
Reserves							
Proved (1P)	4,865	3,193	1,992	1,341	2,216		
Probable Reserves	5,052	3,870	2,079	1,590	2,344		
Proved and Probable (2P)	9,917	7,063	4,071	2,931	4,560		
Possible Reserves	2,923	2,179	1,275	963	1,436		
Proved, Probable & Possible (3P)	12,840	9,242	5,346	3,894	5,996		
<b>Total Prospective Resources</b>							
Best Estimate (unrisked)	2,402	48,769	976	19,813	4,278		

Further details on SM 71 reserves and resources are included in appendices A, B and C. Appendix D contains additional notes on the SM 71 reserves and resources statement.

### **SM58**

Byron holds all the operator's rights, title, and interest in and to the SM58 Lease Block to a depth of 13,639 feet subsea with 100% WI and 83.33% NRI. Below 13,639 feet subsea, Byron has a 50% WI (41.67% NRI) under a pre-existing exploration agreement. To date, all identified drilling opportunities on the SM58 lease are above 13.639 feet subsea.

In October 2019 the SM58 G1 well encountered a true vertical thickness net pay of 301 feet in the Upper O Sands. Following the setting of casing across the Upper O pay sands the G1 drilled on to test the Lower O Sand objectives. Mud log data indicated a total hydrocarbon bearing interval thickness in the Lower O



section of between 180 and 250 feet. Due to hole conditions, the Lower O Sand interval was not logged in the SM58 G1 well and will be the primary target of the future G2 well.

The SM58 development was nearing completion by 30 June 2020. Installation of the jacket and decks comprising the SM71 G Platform was successfully completed in early July 2020 and the laying of the oil and gas sales pipelines needed to transport produced hydrocarbons to market, was completed in early August 2020. The completion operations on the Upper O Sand in the SM58 G1 well finished in mid-August 2020 with the 300-foot-thick hydrocarbon column logged across the Upper O Sand of the SM58 G1 well perforated and sand control measures were implemented to maximise production rate and recovery. The G1 well has now been placed into production after all pipelines became operational and were tied into the production facility. Upon completion of the SM58 G1 well, EOD 264 commenced operations on the Byron SM58 G2 well expected to be drilled to a total depth of 11,565 feet Measured Depth/10,555 feet True Vertical Depth with the primary goal to test the Lower O Sand section.

For additional information on the SM58 development progress refer to the Company's ASX releases dated 6 July 2020, 13 August 2020, 24 August 2020 and 9 September 2020.

Collarini has assigned 2P undeveloped reserves (net to Byron) of 10.9 Mmbbl and 33.4 Bcf to SM58. Collarini has also assigned 3.9 Mmbbl and 5.1 Bcf (net to Byron) in possible reserves in SM58. Most of the 2P reserves are accounted by the Cutthroat and Steelhead prospects, as outlined in the Company's ASX release dated 17 June 2020.

Collarini has also assigned aggregate net Prospective Resources of 12.2 Mmbbl and 29.4 Bcf to SM58.

The table below shows Collarini's estimate of reserves and prospective resources for SM58 (on a gross and net basis) with all reserves and resources for the section above 13,639 ft true vertical depth.

Byron Energy Limited - Reserves and Resources South Marsh Island 58 (WI 100%)							
	Gr	oss		Net to Byron			
Remaining 30 June 2020	Oil Mbbl	Gas MMcf	Oil Mbbl	Gas MMcf	Mboe (6:1)		
Reserves (undeveloped)							
Proved (1P)	5,619	28,662	4,682	23,884	8,663		
Probable Reserves	7,402	11,405	6,168	9,504	7,752		
Proved and Probable (2P)	13,021	40,067	10,850	33,388	16,415		
Possible Reserves	4,717	6,064	3,931	5,053	4,773		
Proved, Probable & Possible (3P)	17,738	46,131	14,781	38,441	21,188		
<b>Total Prospective Resources</b>							
Best Estimate (unrisked)	14,680	35,296	12,233	29,412	17,135		

### SM 58, E1 wellbore and SM69 E Platform

Byron owns a 53% WI and a 44.17% NRI in the joint area reservoirs from the surface to a depth of 7,490 feet TVD, located in the S1/2 of the SE1/4 of the SE1/4 of SM58, as well as a 53% working interest in the SM 69 E platform. Ankor Energy, LLC ("ANKOR") is the designated operator of this portion of the block to facilitate the surface operatorship of the jointly owned SM 58 E1 well and E platform which is located in the NE corner of the SM 69 block. Byron also holds a farm-in right under the Joint Exploration Agreement ("JEA") with ANKOR group which provides for the drilling of a SM 69 #E-2 exploration well with Byron owning a 100% WI less a 3.0% overriding royalty interest ("ORRI"), converting to a 6% ORRI after payout.



### SM 58, E1 well bore and SM69 E Platform (Cont.)

Collarini has assigned 2P reserves (net to Byron) of 0.67 Mmbbl and 1.0 Bcf to the SM58 E1 and future E1 ST wellbores in the S1/2 of the SE1/4 of the SE1/4 of SM58. To the SM69 farm-in acreage, Collarini has also assigned 2.3 Mmbbl and 2.0 Bcf (net to Byron) in prospective resources to the planned SM69 E2 well.

Byron Energy Limited - Reserves and Resources
South Marsh Island 58 SE 1/4 (WI 53%/NRI 44.165%) & 69 north-east corner (WI 83.33%/NRI 77.33%)

	Gr	oss	Net to Byron			
30 June 2020	Oil Mbbl	Gas MMcf	Oil Mbbl	Gas MMcf	Mboe (6:1)	
Reserves						
Proved (1P)	1,454	2,260	642	998	808	
Probable Reserves	59	52	26	23	30	
Proved and Probable (2P)	1,513	2,313	668	1,021	838	
Possible Reserves	-	-	-	-	-	
Proved, Probable & Possible (3P)	1,513	2,313	668	1,021	838	
<b>Total Prospective Resources</b>						
Best Estimate (unrisked)	2,905	2,540	2,264	1,979	2,594	

### **SM57, SM59 and SM60**

Byron holds a 100% WI and an 81.25% NRI in SM57 and SM 59 and 100% WI and an 87.5% NRI in SM60. Theses leases are in close proximity to Byron's newly set SM58 platform and increase Byron's footprint in the South Marsh Island 73 Field.

SM 57, 59 and 60 carry large prospective resources, as assigned by Collarini. Byron acquired the SM60 lease in 2019 and as a result of extensive mapping has advanced two prospects to drill ready status and determined that prospects previously identified on SM59 extend updip on to SM60, the most likely location for drilling. Because of this, a portion of prospective resources from SM59, in the Company's 2019 report, have been transferred to SM60 as noted below. Initial permitting for the SM60 project is underway.

Collarini has assessed combined net prospective resources of 20.2 Mmbo and 346.9. Bcf, equivalent to 78.0 Mmboe as at 30 June 2020 to SM 57, 59 and 60.

The tables below show the prospective resources for each SM57, 59 and 60 on a gross basis and net to Byron.

Byron Energy Limited - Prospective Resources  South Marsh Island 57							
	Gross Net to Byron				ron		
30 June 2020	Oil Mbbl	Gas MMcf	Oil Mbbl	Gas MMcf	Mboe (6:1)		
<b>Total Prospective Resources</b>							
Best Estimate (unrisked)	1,884	92,607	1,531	75,243	14,072		



### **SM57, SM59 and SM60 (cont)**

Collarini has assessed net Prospective Resources of 1.5 Mmbo and 75.2 Bcf, equivalent to 14.1 Mmboe for SM57 as at 30 June 2020.

Byron Energy Limited - Prospective Resources  South Marsh Island 59							
	Gross Net to Byron			ron			
30 June 2020	Oil Mbbl	Gas MMcf	Oil Mbbl	Gas MMcf	Mboe (6:1)		
Total Prospective Resources							
Best Estimate (unrisked)	20,032	77,255	16,276	62,770	26,738		

Collarini has assessed net Prospective Resources of 16.3 Mmbo and 62.8 Bcf, equivalent to 26.7 Mmboe for SM59 as at 30 June 2020. The SM59 prospective resources reflect the movement of 1.3 Mmbo and 125.1 Bcf to prospects mapped on SM60.

Byron Energy Limited - Prospective Resources  South Marsh Island 60							
	Gross			Net to Byron			
30 June 2020	Oil Mbbl	Gas MMcf	Oil Mbbl	Gas MMcf	Mboe (6:1)		
<b>Total Prospective Resources</b>							
Best Estimate (unrisked)	2,881	257,028	2,341	208,835	37,147		

Collarini has assessed net Prospective Resources of 2.3 Mmbo and 208.8 Bcf, equivalent to 37.1 Mmboe for SM60 as at 30 June 2020. The SM60 reserves reflect the movement of prospective resources from SM59 to resources mapped on SM60 in prospects extending across the shared lease line, now fully held by the Company. Importantly, the prospects identified on SM60 are considered drill ready and can be drilled from the same surface location.

### **EI 77**

Byron acquired Eugene Island blocks 62, 63, 76 and 77 ("El 77"), at Gulf of Mexico OCS Lease Sale 250 held in March 2018 in New Orleans, Louisiana. Byron holds a 100% WI and an 87.5% NRI in El 177.

EI77 has produced 362 billion cubic feet of gas and 6.5 million barrels of oil from sands trapped by the Eugene Island 77 salt dome. Initial production from the field began in 1957. There is no production on these blocks currently.

In 2017 and 2018 Byron undertook a detailed year-long reservoir analysis which resulted in the identification of a number of low risk development opportunities which are updip from previously productive reservoirs. On the basis of this work, Byron acquired El 62/63/76/77 at the OCS Lease Sale 250.

Discussion with several drilling contractors for drilling of El 77 commenced during the December 2018 quarter but have been deferred until after mid-2021, with SM58 projects brought forward ahead of the El77 field wells.

Collarini has assigned 3P undeveloped net reserves of 4.5 Mmbbl and 86.6 Bcf to EI77. Collarini has also assigned aggregate net prospective resources of 8.0 Mmbbl and 219.2 Bcf to EI77.



### **EI77 (Cont.)**

The table below shows Collarini's estimate of reserves and prospective resources for El 77 on a gross and net basis.

Byron Energy Limited - Reserves and Resources  Eugene Island 77								
	Gr	oss		Net to Byron				
30 June 2019	Oil Mbbl	Gas MMcf	Oil Mbbl	Gas MMcf	Mboe (6:1)			
Reserves (undeveloped)								
Proved (1P)	850	36,909	744	32,295	6,127			
Probable Reserves	1,298	40,703	1,136	35,615	7,072			
Proved and Probable (2P)	2,149	77,611	1,880	67,910	13,199			
Possible Reserves	3,001	21,361	2,626	18,691	5,741			
Proved, Probable & Possible (3P)	5,150	98,973	4,506	86,601	18,940			
<b>Total Prospective Resources</b>								
Best Estimate (unrisked)	9,132	250,564	7,991	219,244	44,532			

### **Net Present Worth**

The table below summaries the pre-tax NPW@10% as at 30 June 2020, as calculated by Collarini, using pricing assumptions specified in Appendix D.

Overall the 30 June 2020 2P NPW @10% pre-tax is 13.3% lower than in 2019, primarily due to lower oil and gas price forecasts and lower 2P gas reserves.

Byron Energy Limited - NPW @ 10% pre-tax \$US million*  Source: Collarini									
Property		2P		3P			Prospective Resources		
	30 Jun 20	30 Jun 19	% change	30 Jun 20	30 Jun 19	% change	30 Jun 20	30 Jun 19	
SM 58	\$310.4	\$332.9	-6.8%	\$418.8	\$455.5	-8.05%	\$398.2	\$37.5	
SM 71	\$117.4	\$160.2	-26.7%	\$144.7	\$183.8	-21.26%	\$29.7	\$56.9	
SM 58 E1/69	\$6.7	\$8.8	-23.5%	\$6.7	\$8.8	-23.52%	\$37.1	\$41.1	
EI 77	\$51.8	\$58.3	-11.2%	\$91.6	\$97.8	-6.37%	\$248.1	\$261.5	
GI 95	\$0.0	\$1.6	-100.0%	\$0.0	\$17.3	-100.00%	\$0.0	\$14.5	
SM 57 / 59 / 60	\$0.0	\$0.0	0.0%	\$0.0	\$0.0	0.00%	\$532.7	\$465.5	
Total	\$486.2	\$561.8	-13.4%	\$661.8	\$763.2	-13.28%	\$1,245.8	\$877.0	

<sup>\*</sup>Net Present Worth at 10% pre-tax (NPW-10)

NPW-10 figures are net present value of estimated pre-tax cashflow, after estimated royalties, cash production and transportation costs, but before income taxes and using a discount rate of 10%.

 $NPW\ does\ not\ purport,\ nor\ should\ it\ be\ interpreted,\ to\ represent\ the\ fair\ market\ value\ of\ oil\ and\ gas\ properties.$ 



### **Glossary**

Bbl = barrels

Bcf = billion cubic feet

Bcfg = billion cubic feet of gas

Boe = barrels of oil equivalent

Bopd = barrels of oil per day

Btu = British Thermal Units

mcfg = thousand cubic of gas

mcfgpd = thousand cubic feet of gas per day

mmcf = million cubic feet

Mbo/Mbbl = thousand barrels of oil

MMbo/MMbbl = million 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 2020

As at 30 June 2020, Byron's portfolio of properties, all in the shallow waters of the Gulf of Mexico, and coastal marshlands of Louisiana, USA comprised:-

Properties	Operator	Interest WI/NRI* (%)	Lease Expiry Date	Area (Km²)
South Marsh Island Block 71	Byron	50.00/40.625	Production	12.16
South Marsh Island Block 57	Byron	100.00/81.25	June 2022	21.98
South Marsh Island Block 59	Byron	100.00/81.25	June 2022	20.23
South Marsh Island Block 60	Byron	100.00/87.50	June 2024	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	53.33/44.165		
South Marsh Island Block 69 (north-east quarter of the north-east quarter)	Byron	100.00 / 77.33- 80.33	Production	1.3
South Marsh Island Block 74***	Byron	100.00/81.25	June 2022	20.23
South Marsh Island Block 70	Byron	100.00/87.50	June 2023	22.13
Eugene Island Block 62	Byron	100.00/87.50	June 2023	20.23
Eugene Island Block 63	Byron	100.00/87.50	June 2023	20.23
Eugene Island Block 76	Byron	100.00/87.50	June 2023	20.23
Eugene Island Block 77	Byron	100.00/87.50	June 2023	20.23
Main Pass Block 293	Byron	100.00/87.50	October 2023	20.23
Main Pass Block 305	Byron	100.00/87.50	October 2023	20.23
Main Pass Block 306	Byron	100.00/87.50	October 2023	20.23
Grand Isle Block 95#	Byron	100.00/87.50	September 2022	18.37

<sup>\*</sup> Working Interest ("WI") and Net Revenue Interest ("NRI")

<sup>\*\* 100.00%</sup> WI to a depth of 13,369 ft TVD and 50% WI below 13,639 ft TVD

<sup>\*\*\*</sup> Metgasco Limited ("Metgasco") paid 40% (US\$ 4.5 million, of the initially estimated drilling costs of SM74 D14 to earn a 30% WI in SM74. On 18 July 2019 Byron announced that agreement had been reached with Metgasco to limit Metgasco's financial exposure to the SM74 project. Byron capped Metgasco's additional costs for the drilling of SM74 D14 well at A\$ 1.75m (in addition to US\$ 4.5 million already contributed by Metgasco).

<sup>#</sup> Relinquished subsequent to 30 June 2020



## Appendix B - Additional Information on Remaining Reserves as at 30 June 2020

The following table shows a spilt of Byron's remaining reserves, as at 30 June 2020, into developed and undeveloped categories by project and by product. All of the projects in this table are located in the shallow water in the Gulf of Mexico, Offshore Louisiana.

Byron Energy Limited - Remaining Reserves- Net to Byron							
	Deve	loped	Unde	Total			
30 June 2020	Oil Mbbl	Gas MMcf	Oil Mbbl Gas MMcf		Mboe (6:1)		
SM 71							
Proved (1P)	1,334	951	658	390	2,216		
Probable Reserves	886	565	1,193	1,025	2,344		
Proved and Probable (2P)	2,220	1,516	1,851	1,415	4,560		
Possible Reserves	-	-	1,275	963	1,436		
Proved, Probable & Possible (3P)	2,220	1,516	3,126	2,378	5,996		
SM 58 (100% WI)							
Proved (1P)	-	-	4,682	23,884	8,663		
Probable Reserves	-	-	6,168	9,504	7,752		
Proved and Probable (2P)	-	-	10,850	33,388	16,415		
Possible Reserves	-	-	3,931	5,053	4,773		
Proved, Probable & Possible (3P)	-	-	14,781	38,441	21,188		
SM 58 E1							
Proved (1P)	174	149	468	849	808		
Probable Reserves	26	23	-	-	30		
Proved and Probable (2P)	200	172	468	849	838		
Possible Reserves	-	-	-	-	-		
Proved, Probable & Possible (3P)	200	172	468	849	838		
El 77							
Proved (1P)	-	-	744	32,295	6,127		
Probable Reserves	-	-	1,136	35,615	7,072		
Proved and Probable (2P)	-	-	1,880	67,910	13,198		
Possible Reserves	-	-	2,626	18,691	5,741		
Proved, Probable & Possible (3P)	-	-	4,506	86,601	18,939		
Total							
Proved (1P)	1,508	1,100	6,552	57,418	17,813		
Probable Reserves	912	588	8,497	46,144	17,198		
Proved and Probable (2P)	2,420	1,688	15,049	103,562	35,011		
Possible Reserves	-	-	7,832	24,707	11,950		
Proved, Probable & Possible (3P)	2,420	1,688	22,881	128,269	46,961		



### **Appendix B (cont)**

The following table reconciles the movement in Byron's reserves between 30 June 2019 and 30 June 2020.

# Byron Energy Limited Reserves (Net to Byron) Gulf of Mexico, offshore Louisiana, USA

	Oil (Mbbl)				Gas (MMcf)			
Reserves Reconciliation	Remain- ing 30/6/19	Produc- tion 2020	Additions Revisions 2020	Remain- ing 30/6/20	Remain- ing 30/6/19	Produc- tion 2020	Additions Revisions 2020	Remain- ing 30/6/20
SM 71 (Developed & undeveloped)								
Proved (1P)	2,082	-376	286	1,992	1,583	-797	555	1,341
Probable Reserves	2,277	0	-198	2,079	1,473	0	117	1,590
Proved and Probable (2P)	4,359	-376	88	4,071	3,056	-797	672	2,931
Possible Reserves	1,094	0	181	1,275	759	0	204	963
Proved, Probable & Poss. (3P)	5,453	-376	269	5,346	3,815	-797	876	3,894
SM 58 (100%) (Undeveloped)								
Proved (1P)	4,068	0	614	4,682	23,888	0	-4	23,884
Probable Reserves	6,237	0	-69	6,168	9,610	0	-106	9,504
Proved and Probable (2P)	10,305	0	545	10,850	33,498	0	-110	33,388
Possible Reserves	3,931	0	0	3,931	5,052	0	1	5,053
Proved, Probable & Poss. (3P)	14,236	0	545	14,781	38,550	0	-109	38,441
SM 58 E1/69 (100%) (Developed)								
Proved (1P)	652	-26	16	642	990	-21	29	998
Probable Reserves	26	0	0	26	23	0	0	23
Proved and Probable (2P)	678	-26	16	668	1,013	-21	29	1,021
Possible Reserves	0	0	0	0	0	0	0	0
Proved, Probable & Poss. (3P)	678	-26	16	668	1,013	-21	29	1,021
El 77 (Undeveloped)								
Proved (1P)	699	0	45	744	28,571	0	3,724	32,295
Probable Reserves	1,188	0	-52	1,136	39,338	0	-3,723	35,615
Proved and Probable (2P)	1,887	0	-7	1,880	67,909	0	1	67,910
Possible Reserves	2,625	0	1	2,626	18,704	0	-13	18,691
Proved, Probable & Poss. (3P)	4,512	0	-6	4,506	86,613	0	-12	86,601



### **Appendix B (cont)**

## Byron Energy Limited Reserves (Net to Byron) Gulf of Mexico, offshore Louisiana, USA

	Oil (Mbbl)				Gas (MMcf)			
Reserves Reconciliation	Remain- ing 30/6/19	Produc- tion 2020	Additions Revisions 2020	Remain- ing 30/6/20	Remain- ing 30/6/19	Produc- tion 2020	Additions Revisions 2020	Remain- ing 30/6/20
GI 95 (Undeveloped)								
Proved (1P)	0	0	0	0	0	0	0	0
Probable Reserves	145	0	-145	0	44,621	0	-44,621	0
Proved and Probable (2P)	145	0	-145	0	44,621	0	-44,621	0
Possible Reserves	57	0	-57	0	24,607	0	-24,607	0
Proved, Probable & Poss. (3P)	202	0	-202	0	69,228	0	-69,228	0
Grand Total								
Proved (1P)	7,501	-402	961	8,060	55,032	-1,755	5,241	58,518
Probable Reserves	9,873	0	-464	9,409	95,065	0	-48,332	46,733
Proved and Probable (2P)	17,374	-402	497	17,469	150,097	-1,755	-43,091	105,251
Possible Reserves	7,707	0	125	7,832	49,122	0	-24,415	24,707
Proved, Probable & Poss. (3P)	25,081	-402	622	25,301	199,219	-1,755	-67,506	129,958

### **Material Changes to Reserves**

Oil

### **Proved and Probable Reserves**

No material change in overall 2 P oil reserves.

### **Possible Reserves**

No material change in overall possible oil reserves.

### Gas

### **Proved and Probable Reserves**

Overall 2P gas reserves as of 30 June 2020 are 30% below the 30 June 2019 2P gas reserves, mainly due to removal of 2P gas reserves previously attributed to GI 95 as a result of lower gas prices.

### **Possible Reserves**

Overall possible gas reserves as of 30 June 2020 are 50% below the 30 June 2019 possible gas reserves, mainly due to removal of possible gas reserves, previously attributed to GI 95 as a result of lower gas prices.



## Appendix C - Prospective Resources as at 30 June 2020

The following table shows Byron's prospective resources as at 30 June 2020 and a comparison of changes between 2020 and 2019.

Byron Energy Limited Prospective Resources (net to Byron) Gulf of Mexico, offshore Louisiana, USA					
Best Estimate Unrisked	Oil	Gas	MBOE (6:1)		
30 June 2020	MBBL	MMCF	MIDOE (0:1)		
SM 71	976	19,813	4,278		
SM 57	1,531	75,243	14,072		
SM 58	12,233	29,412	17,135		
SM 58 E1 / SM 69	2,264	1,979	2,594		
SM 59	16,276	62,770	26,738		
SM 60	2,341	208,835	37,147		
El 77	7,991	219,244	44,532		
GI 95	0	0	0		
Total Prospective Resources (2020)	43,612	617,296	146,496		
Total Prospective Resources (2019)	31,575	551,114	123,428		

Movement between 2019 and 2020						
As at 30 June 2019	31,575	551,114	123,428			
Revisions						
SM 71	-513	-325	-567			
SM 57	0	0	0			
SM 58	11,715	13,941	14,039			
SM 58 E1 / SM 69	4	3	5			
SM 59	-1,080	-101,661	-18,024			
SM 60	2,341	208,835	37,147			
El 77	-96	-10,223	-1,800			
GI 95	-334	-44,388	-7,732			
As at 30 June 2020	43,612	617,296	146,495			



### Appendix C (cont)

### **Material Changes to Prospective Resources**

- Addition of 11.7 Mmbbl to SM58 primarily reflecting the Lower O Sand objectives seen in the deeper portion of the G1 well drilled in September of 2019 following the release of the 30 June 2019 Reserve Report;
- addition of SM 60 prospective oil and gas resources (approximately 1.3 Mmbbl and 107.2 Bcfg net to Byron of newly mapped resources plus a transfer of 1.0Mmbbl and 101.6 Bcfg from SM59 to reflect likely takepoint;
- removal of GI 95 prospective dry gas resources (44.4 Bcf net) due to lower gas prices; and
- lower El 77 gas prospective resources due to lower gas prices.



## **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 and 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. The 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 moveable 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**

Nominal oil prices used in this report represent consensus (June 30, 2020 Bloomberg Street Consensus), starting on July 1, 2020, of \$35.45 per barrel, with a final price of \$60.51 per barrel on January 1, 2024, and held constant thereafter. Nominal gas prices used in this report represent a Henry Hub base, starting on July 1, 2020, of \$2.08 per MMBtu, rising to \$2.64 per MMBTu in January 2021 then declining to \$2.56 per MMBtu on January 1, 2022, with a final price of \$2.67 per MMBTu on January 1, 2024 and held constant thereafter. These prices were adjusted to account for transportation cost, basis difference, and oil gravity in order to arrive at realised prices.



### **ASX Reserves and Reporting Notes**

- (i) The reserves and prospective resources information in this document is effective as at 30 June, 2020 (Listing Rule (LR) 5.25.1)
- (ii) The reserves and prospective resources information in this document has 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 information in this document is reported according to the Company's economic interest in each of the reserves and prospective resource 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 information in this document has 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 information in this document has 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)
- (x) All of Byron's reserves and prospective resources are located in the shallow waters of the Gulf of Mexico, offshore Louisiana.

### ASX LR 5.35 Additional Prospective Resources information for SM 60 (reported for the first time)

- (i) The prospective resources information in this document is effective as at 30 June 2020 (Listing Rule (LR) 5.25.1).
- (ii) The prospective resources information in this document has been estimated and is classified in accordance with SPE-PRMS (Society of Petroleum Engineers Petroleum Resources Management System) (LR 5.25.2).
- (iii) The prospective resources information in this document is reported according to the Company's economic interest in each of the reserves and net of royalties (LR 5.25.5).
- (iv) The prospective resources information in this document has been estimated and prepared using the deterministic method (LR 5.25.6).
- (v) The prospective resources information in this document has 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 prospective resources information in this document has 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) Prospective resources are reported on a best estimate basis (LR 5.28.1).
- (viii) 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).
- (ix) In respect to the prospective resources referred to in this statement, Byron acquired SM 60 (approx. 5,000 acres) at the BOEM Lease Sale 252 held on March 19, 2019, located in the shallow waters of the Gulf of Mexico, offshore Louisiana, USA in close proximity to the Company's SM 71 and SM 58 projects (LR 5.35.1).



(x) 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.
- (xi) 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).
- (xii) 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).