



# EMPYREAN

ENERGY PLC

**EMPYREAN ENERGY PLC**  
**Registered Number 05387837**

**Interim Results 30 September 2018**



## Highlights

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### ***Block 29/11, Pearl River Mouth Basin, China (EME 100%)***

- 31% Uplift in Best Case Gross Prospective (Un-risked) Resources
- Oil Migration Study Completed
- Petroleum Contract for Block 29/11 signed
- Gaffney, Cline & Associates independent assessment validates internal Oil-in place estimates
  - Audited unrisks Mean Oil-in place of **884 MMbbl**
  - Audited unrisks P10 upside of **1,588 MMbbl**

### ***Duyung PSC Project, Indonesia (EME 10%)***

- Plan of Development, including reserves certification, submitted to Indonesian oil and gas regulator SKKMigas
- Heads of Agreement signed with regional gas buyer for sale of all Mako gas
- Further appraisal wells planned to increase 2P reserves
- Significant exploration 'lead' Mako Deep identified; currently being mapped and evaluated

### ***Sacramento Basin, California (EME 25-30%)***

- Natural Gas sales commenced at Dempsey in July 2018, technical evaluation of further targets and related well permitting activities underway
- Technical evaluation continuing to refine test targets and perforation intervals at Alvarez
- Further wells planned for 2019

### ***Corporate***

- Placement at 10p per share raises £1,028,000 (US\$1,322,000) before costs in November 2018.

For further information please visit [www.emyreanenergy.com](http://www.emyreanenergy.com) or contact the following:

#### **Empyrean Energy plc**

Tom Kelly

Tel: +618 9380 9920

#### **Cenkos Securities plc (NOMAD)**

Neil McDonald

[nmcdonald@cenkos.com](mailto:nmcdonald@cenkos.com)

Tel: +44 (0) 131 220 9771

Beth McKiernan

[bmckiernan@cenkos.com](mailto:bmckiernan@cenkos.com)

Tel: +44 (0) 131 220 9778

#### **St Brides Partners Ltd (Public Relations Adviser)**

Lottie Wadham

[lottie@stbridespartners.co.uk](mailto:lottie@stbridespartners.co.uk)

Tel: +44 (0) 20 7236 1177

Frank Buhagiar

[frank@stbridespartners.co.uk](mailto:frank@stbridespartners.co.uk)

Tel: +44 (0) 20 7236 1177

## Chairman's Statement

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Empyrean continued to make progress on its portfolio of exploration projects in China, Indonesia and the United States during the six months to 30 September 2018.

The work completed in China over the past six months has been particularly pleasing. Block 29/11, located directly to the south of, and on trend to, the largest oil field in the basin with three prospects (Jade, Topaz and Pearl) has significant resource potential, which was delineated by excellent quality 3D seismic acquired during 2017. An Oil Migration Study completed in June 2018 has now established effective potential oil migration pathways into the prospects. In November 2018 the Company announced the results of the independent audit of Oil-in-place estimate of the three prospects by Gaffney, Cline & Associates (GCA). GCA validated the internal oil in-place estimates and independently assessed the Geological Chance of Success (GCoS) at Jade and Topaz to be approximately 30%. The significant potential of the prospects combined by the high GCoS is very encouraging.

Empyrean signed the Petroleum Contract ("PSC") on Block 29/11 in September 2018, thereby securing the Block, and the Company is now positioned to progress the project and deliver the associated news flow from China over the next twelve months and beyond.

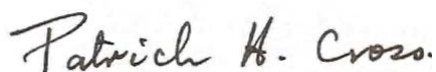
In Indonesia, the operator Conrad Petroleum submitted the Plan of Development (POD), which included a certification of reserves by Lemigas, to the Indonesian regulator in August 2018. As part of the POD submission, a Heads of Agreement was signed with a regional gas buyer for the sale of all Mako gas.

Recently completed re-processing of 2D seismic has also led to the identification of a new exploration lead called Mako Deep. Seismic mapping is currently being conducted on this prospect. The operator is also planning further appraisal wells to increase the reserves estimate and potential of the Mako field so there should be no shortage of news from Indonesia.

In California, the first well, Dempsey 1-15, was successfully drilled to basement and several gas zones were tested. This culminated in gas sales commencing at Dempsey in July 2018. Technical evaluation is currently being conducted at both Dempsey and the second prospect, Alvarez, to determine the future test program.

The Company also recently strengthened its cash position, completing a placement in November 2018 of approximately £1,028,000, pleasingly at a small premium to the market price.

The Company continues to assess other acquisition opportunities in parallel to the current activities and will also evaluate any attractive divestment opportunities in due course.



**Patrick Cross**

Non-Executive Chairman

21 December 2018



## Operational Review

### China Block 29/11 Project (100% WI)

Block 29/11 is located in the prolific Pearl River Mouth Basin, offshore China, approximately 200km Southeast of Hong Kong. Empyrean is the operator with 100% of the exploration rights of the permit during the exploration phase of the project. In the event of a commercial discovery, China National Offshore Oil Corporation Limited (**CNOOC**) will have a back in right to 51% of the permit.

The initial contractual term, called the Geophysical Service Agreement (**GSA**), was for two years with a work programme commitment of acquisition, processing and interpretation of 500km<sup>2</sup> of 3D seismic data. Empyrean exceeded the work obligation of the permit for the current GSA phase by successfully completing a 3D seismic survey in August 2017, which acquired 580km<sup>2</sup> data.

In September 2017, Empyrean completed an internal interpretation and preliminary mapping of the raw 3D data which confirmed the structural validity of the Jade and Topaz prospects and also identified a third significant prospect named Pearl, located immediately north of the Topaz prospect. Preliminary mapping estimated the gross unrisksed Oil-in-place for Jade, Topaz and Pearl in August 2017 but have been superseded (and enhanced) as detailed below.

#### *Completion of Processing of 3D seismic data*

Following the successful acquisition of a large 3D survey, the seismic data was then processed optimally. Empyrean had regular interaction with the China Oilfield Services Limited (**COSL**) processing team at all stages of the project. Time (**PSTM**) and Depth (**PSDM**) processing of the 3D seismic data was completed in January 2018. The final processed data was of high-quality that clearly imaged the potential reservoirs, faults and deeper basin.

Interpretation of the processed data commenced immediately following the completion of processing which resulted in the Jade and Topaz prospects being developed into better defined and very substantial opportunities. The Pearl Prospect, which was a substantial lead based on the vintage regional 2D seismic, has evolved into a significant prospect following the 3D seismic interpretation. The results indicated that all three prospects are large and are in favourable geological settings.

The Oil-in-place (un-risked) estimates of these three major high graded prospects was also revised upwards by 31% (from boat processed 3D data), as per the table below. The revised estimates are higher than previously reported estimates because of detailed mapping and the improved assessment of the reservoir parameters.

Gross (100%) 'Best' case Oil-in-place combined are estimated at 774 MMbbl on an un-risked basis, as per below.

Block 29/11 China: Gross Oil-in-place (un-risked) MMbbl*						
Timeline	September 2017			June 2018		
	(Seismic Boat Raw 3D data)			(Final Processed 3D data)		
Prospect	Low Case	Best Case	High Case	Low Case	Best Case	High Case
Jade	89	103	143	94	190	303
Topaz	280	365	498	292	435	728
Pearl	84	123	206	94	149	256



## Operational Review

Given that one of the major challenges with resource estimation rests heavily on an estimation of Gross Rock Volume (GRV), a critical step to reducing the uncertainty of estimating GRV is to better understand and quantify velocity field and depth conversion. As a result, two approaches were taken for depth 'conversion of time' interpretation of the seismic marker for the potential reservoir top. The resulting two GRVs from two structure maps were then combined to generate an industry standard probabilistic result using Monte Carlo simulation with 1,000 trials (using Crystal Ball software). This probabilistic method has produced Gross Oil-in-place (un-risked) as shown below.

Block 29/11 China: Gross Oil-in-place MMbbl*				
Probabilistic Estimates				
Prospect	P90	P50	P10	Mean
Jade	110	183	230	202
Topaz	298	431	631	453
Pearl	105	152	220	159

### *Oil Migration Study Completed*

Substantial geological work was also undertaken during the year, focusing on migration pathways of oil in the basin which culminated in an Oil Migration Study (**the Study**) which was completed in June 2018. The Study established the maturity profile of source rock, and unambiguously established that the source rock in the Baiyun Sag East (**BSE**) area was at peak maturity when oil expulsion commenced. The main implications for Block 29/11 prospectivity are very positive with the entire source rock within BSE interpreted to have produced abundant hydrocarbons. In addition, any potential oil accumulation in Block 29/11 prospects are expected to be light and therefore similar to the oil discoveries around Block 29/11 that range from 33-38 API.

The Study validated the interpreted oil migration pathways from the known oil sources of the Enping Formation (Paleocene aged) within the BSE into the several oil discoveries made by CNOOC Limited to the immediate West and South of Block 29/11 in the period since 2010. This provided strong evidence of a prolific petroleum system in the area. At the same time, the Study interprets effective migration pathways from BSE towards the northern flank of the Baiyun uplift where the Jade and Topaz prospects are located.

In addition, 28km<sup>2</sup> of 3D seismic data that was acquired outside Block 29/11 over the 2013 CNOOC Limited oil discovery LH 23-1d-1 which is located 8km west of the Jade prospect, helps confirm potential "fill-and-spill" pathways to the Jade structure from the oil discovery. Whilst early exploration techniques such as this are no guarantee of exploration success, the Company believes that this form of "seismic tie" to a nearby known discovery helps to reduce the risks associated with exploration and helps to provide an improved understanding of the geology in the basin and within Block 29/11.

Comprehensive interpretation of the 2017 3D seismic data has helped map a new sub-basin called Baiyun Sag North (**BSN**). BSN is located between the Jade and Topaz prospects and is entirely within Block 29/11. The Study confirms a potential effective migration pathway from BSN into Jade and Topaz.

The Study also indicates that the Pearl Prospect is potentially located in a migration shadow for oil migrating from BSE or BSN. As a result, further work has been done focusing on the possibility of migration from the Huizhou Sag located NW of Block 29/11. The Lihua 11-1 field complex that contained an estimated 1.1 billion barrels of oil is located immediately North of Block 29/11 and has been interpreted to have received oil from

## Operational Review

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Huizhou Sag. Additional work completed now indicates that the Pearl prospect is located favourably for receiving oil charge from Huizhou Sag.

### *Petroleum Contract for Block 29/11 signed*

Having successfully completed the committed work program for the first phase (**GSA**), the Company signed the PSC with CNOOC for Block 29/11 on 30 September 2018.

The PSC became effective on 13 December 2018. The first phase of the contract is for 2.5 years with a commitment to drill one exploration well to a depth of 2,500m or to basement formation.

### *Gaffney, Cline & Associates Independent Review of Oil-in-place estimates*

In November 2018 Gaffney, Cline & Associates (“GCA”), an independent petroleum advisory firm, completed an independent audit of the Company’s oil initially in place estimates over the Jade, Topaz and Pearl prospects identified in Block 29/11, Pearl River Mouth Basin, offshore China. GCA’s audit primarily consisted of reviewing, checking and validating the available data and existing interpretations and auditing the technical work that has been performed by EME and its contractors. GCA’s independent assessment validated the Company’s internal estimates, with Total Mean Oil-in-place increasing 9% to 884 MMbbl (from 814 MMbbl) and the total P10 estimates increased 47% to 1588 MMbbl (from 1081 MMbbl) on an un-risked basis. Importantly, GCA’s estimates of the Geological Chance of Success of Jade and Topaz prospects were assessed at 32% and 30% respectively.

### **Duyung PSC Project, Indonesia (EME 10%)**

In April 2017, Empyrean acquired from Conrad Petroleum Pte Ltd (**Conrad**) a 10% shareholding in West Natuna Exploration Ltd (**WNEL**), which holds a 100% Participating Interest in the Duyung Production Sharing Contract (**Duyung PSC**) in offshore Indonesia and is the operator of the Duyung PSC.

The Duyung PSC covers an offshore permit of approximately 1,100km<sup>2</sup> in the prolific West Natuna Basin. The main asset in the permit is the Mako shallow gas discovery that has an independently verified 2C and 3C gas resource of between 430-650 Bcf recoverable gas, that was completed before drilling the Mako South-1 well. The Mako South-1 well exceeded the Company’s expectations encountering excellent reservoir quality rock with high permeability sands in the multi Darcy range with 23 feet of gas bearing reservoir. This zone flowed gas at a stabilized rate of 10.9 million cubic feet per day through a 2 inch choke. The gas is of high-quality being close to 100% methane.

In August 2018 Conrad submitted the Plan of Development (**POD**) to the Indonesian regulator SKKMigas, which was the culmination of detailed and comprehensive technical studies incorporating all the sub-surface data collected in the discovery well. Substantial commercial and facilities studies were also completed as a part of POD. The POD process paves the way for the Duyung PSC to convert into a Production Permit through to 2037 following approval of the POD by the Indonesian Ministry of Energy and Mines. As part of the POD submission, a Heads of Agreement for the sale of all Mako gas to a regional utility was also negotiated and signed.

As part of the POD submission, the Indonesian government owned and accredited consultant Lemigas completed a certification of reserves (**Lemigas Reserves**) based primarily on the Mako South-1 well and an area of circumference spreading out from the well. In addition, Conrad has completed an internal calculation of its contingent resources (**Contingent Resources**) based on the full Mako Gas Field. The Conrad preliminary estimate

## Operational Review

of 2C Contingent Resources of 373Bcf is expected to be converted into reserves following a Final Investment Decision (**FID**) by WNEL and the signing of a GSA and agreements to access (**Access Agreements**) the West Natuna Transport System (**WNNTS**), the pipeline that carries gas to mainland Singapore. Conrad also has plans for third party certification of its Contingent Resources using current Society of Petroleum Engineers (**SPE**) standards in due course. The “Lemigas Reserves” are shown in the table below:

“Lemigas Reserve” Certification*	1P	2P	3P
Initial Gas In Place (Bcf)	38.03	190.38	620.70
Recoverable Gas Reserve (Bcf) as at April 01, 2018	30.42	152.30	496.56

### Lemigas Mako POD “Reserves”

\* It is important to note that “reserves” in this context does not equate with the current SPE definitions followed by Conrad but does signify approval for WNEL to extract the certified volume of gas.

Whilst the POD work was being performed, it was decided to re-process the vintage 2D seismic data. The main focus of the reprocessing was to achieve substantial improvement in the imaging of the geological features underneath the Mako Gas Field.

The reprocessing efforts helped identify a significant exploration ‘lead’, named Mako Deep. The target depth of the prospect is relatively shallow (approximately -6000ft below mean sea level). Mako Deep is expected to contain well developed thick sand packages as proven by the Tengirri-1 well (drilled by Conoco in 1975) which are the conventional reservoirs in most oil and gas fields in the area. Provisional initial estimates show that Mako Deep has the potential to contain very large quantities of recoverable hydrocarbons, both oil and natural gas.

Seismic interpretation is currently underway to further delineate and de-risk this exciting ‘lead’ for prospect for potential future appraisal drilling.

### Sacramento Basin, California (EME 25-30%)

In May 2017, Empyrean entered into an agreement with ASX listed Sacgasco Limited (**Sacgasco**), a Sacramento Basin focused natural gas developer and producer, to farm-in to a package of gas projects in the Sacramento Basin, onshore California. The package includes two mature, prospects, Dempsey and Alvarez, and an Area of Mutual Interest (AMI) along trend from Dempsey that includes at least three already identified Dempsey style follow up prospects.

Empyrean earned a 30% interest in the Dempsey Prospect by paying US\$2,100,000 towards the cost of drilling the Dempsey 1-15 exploration well. Dempsey 1-15 well was spudded on 2 August 2017 and drilled to a TD of 2,970 metres (9,747 feet) in September 2017. Wireline logs confirmed numerous potentially gas-bearing zones. A comprehensive production testing programme was designed to assess the production capability of these zones through 2017 and 2018. A total of three zones (Zone 2, 3, and 4) in the well were tested.

In July 2018, Dempsey 1-15 began producing into the sales gas pipeline at an approximate rate of 1,300 mcf per day from Field Level Kione Sandstone and the combined Zones 2 and 3.

At the time of this report, the Dempsey Well is shut-in awaiting an imminent change in production piping to make production more efficient going forward, followed by, if advantageous, the perforating of additional gas zones in the shallow section. Technical analysis indicates significant quantities of natural gas remain to be produced from the Dempsey well.

## Operational Review

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Based on extensive testing of several zones in the Dempsey 1-15 well that has produced clean dry natural gas over 2000 feet, the geological risk in the deeper level has been reduced significantly for future exploration.

The JV is now integrating the subsurface data with regional geology and seismic data to evaluate additional opportunities in the area for future drilling opportunities.

In August 2018 Sacgasco obtained regulatory approval to test the potential of gas in the over-looked natural gas in the Alvarez-1 well. The initial plan at Alvarez is to assess the integrity of the well bore as the basis for a decision to either record modern logs through casing to identify the more prospective zones for perforation or perforate based on existing logs and / or natural gas shows recorded during the drilling of the Alvares-1. An option also exists to side-track the well to evaluate a new section of the Stoney Creek reservoirs.

Empyrean will earn a 25% working interest in the Alvarez appraisal prospect by paying 33.33% of the costs of the next Alvarez appraisal well.

The Dempsey Trend AMI, in which Empyrean will earn a 30% interest, extends to approximately 250,000 acres (including the Dempsey structure) and includes at least three large Dempsey style identified follow up prospects. Empyrean will provide technical assistance to Sacgasco to further mature prospects within the Dempsey Trend AMI and will also have an option to participate in the already identified prospects on the following basis:

- Prospect #1: EME pays 60% of dry hole cost (i.e. to testing and setting production casing or abandonment) to earn 30% WI
- Prospect #2: EME pays 45% of dry hole cost (i.e. to testing and setting production casing or abandonment) to earn 30% WI
- Prospect #3: EME pays 45% of dry hole cost (i.e. to testing and setting production casing or abandonment) to earn 30% WI

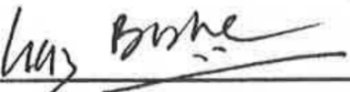
### **Riverbend Project (10%) and Eagle Oil Pool Development Project (58.084% WI)**

Little or no work has been completed on these projects in the period and no budget has been prepared for 2018/19 whilst the Company focuses on other projects.

### **Definitions**

**2C:** Contingent resources are quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations by application of development projects, but which are not currently considered to be commercially recoverable. The range of uncertainty is expressed as 1C (low), 2C (best) and 3C (high).

\* Cautionary Statement: The volumes presented in this announcement are STOIP estimates only. A recovery factor needs to be applied to the undiscovered STOIP estimates based on the application of a future development project. The subsequent estimates, post the application of a recovery factor, will 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 movable hydrocarbons.



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**Gajendra Bisht M.Sc. (Tech) in Applied Geology**

Executive Director (Technical)

21 December 2018



**Statement of Comprehensive Income  
For the Period Ended 30 September 2018**



		6 months to 30 September 2018 (unaudited) US\$'000	6 months to 30 September 2017 (unaudited) US\$'000	Year ended 31 March 2018 (audited) US\$'000
<b>Revenue</b>		-	-	30
<b>Cost of sales</b>				
Operating costs		-	(1)	(1)
Impairment of oil and gas properties		(51)	(45)	(48)
Amortisation		-	-	-
Total cost of sales		(51)	(46)	(49)
<b>Gross loss</b>		(51)	(46)	(19)
<b>Administrative expenditure</b>				
Administrative expenses		(218)	(186)	(397)
Directors' remuneration		(175)	(229)	(225)
Compliance fees		(42)	(62)	(415)
Foreign exchange differences		(34)	134	114
Total administrative expenditure		(469)	(344)	(923)
<b>Operating loss</b>		(520)	(390)	(942)
Finance income/(expense)	5	1,145	(3,982)	(2,558)
<b>Profit/(loss) from continuing operations before taxation</b>		625	(4,372)	(3,500)
Tax benefit in current year		5	18	797
<b>Profit/(loss) from continuing operations after taxation</b>		630	(4,354)	(2,703)
Profit on discontinued operations net of tax		-	73	73
<b>Profit/(loss) after taxation</b>		630	(4,281)	(2,630)
<b>Total comprehensive profit/(loss) for the year</b>		630	(4,281)	(2,630)
Earnings per share from continuing operations (expressed in cents)				
- Basic	2	0.15c	(1.21)c	(0.71)c
- Diluted		0.15c	(1.12)c	(0.71)c
Earnings per share from discontinued operations (expressed in cents)				
- Basic	2	-	0.02c	0.02c
- Diluted		-	0.02c	0.02c

**Statement of Financial Position**  
**As at 30 September 2018**

		6 months to 30 September 2018 (unaudited) US\$'000	6 months to 30 September 2017 (restated unaudited) US\$'000	Year ended 31 March 2018 (audited) US\$'000
	<b>Notes</b>			
<b>Assets</b>				
<b>Non-current assets</b>				
Oil and gas properties: exploration and evaluation	3	8,590	6,771	7,820
Investments	4	2,866	2,547	2,572
Total non-current assets		<b>11,456</b>	9,468	10,392
<b>Current assets</b>				
Trade and other receivables		188	176	183
Corporation tax receivable		-	540	1,320
Cash and cash equivalents		230	4,650	388
Total current assets		<b>418</b>	5,366	1,891
<b>Liabilities</b>				
<b>Current liabilities</b>				
Trade and other payables		451	3,675	374
Provisions		54	51	54
Derivative financial liabilities	5	1,318	3,887	2,463
Total current liabilities		<b>1,823</b>	7,613	2,891
<b>Net current (liabilities)/assets</b>		<b>(1,405)</b>	(2,247)	(1,000)
<b>Net assets</b>		<b>10,051</b>	7,071	9,392
<b>Shareholders' equity</b>				
Share capital	6	1,205	1,164	1,205
Share premium		25,280	24,661	25,280
Share based payment reserve		39	2,421	10
Retained losses		(16,473)	(21,175)	(17,103)
<b>Total equity</b>		<b>10,051</b>	7,071	9,392

## Statement of Cash Flows

### For the Period Ended 30 September 2018

	6 months to 30 September 2018 (unaudited)	6 months to 30 September 2017 (restated unaudited)	Year ended 31 March 2018 (audited)
Notes	US\$'000	US\$'000	US\$'000
Cash generated from operating activities – continuing operations	(624)	(655)	(1,002)
Receipt of corporation tax	1,325	18	17
<b>Net cash inflow/(outflow) from operating activities</b>	<b>701</b>	<b>(637)</b>	<b>(985)</b>
Net proceeds from disposal of discontinued operations	-	73	73
Purchase of oil and gas properties: exploration and evaluation – continuing operations	(531)	(3,198)	(7,725)
Acquisition of investments	(294)	(2,547)	(2,572)
Payment for exploration bonds and bank guarantees	-	(150)	(150)
<b>Net cash outflow for investing activities</b>	<b>(825)</b>	<b>(5,822)</b>	<b>(10,374)</b>
Issue of ordinary share capital	-	4,976	5,635
Payment of equity issue costs	-	(108)	(108)
<b>Net cash inflow from financing activities</b>	<b>-</b>	<b>4,868</b>	<b>5,527</b>
<b>Net decrease in cash and cash equivalents</b>	<b>(124)</b>	<b>(1,591)</b>	<b>(5,832)</b>
Cash and cash equivalents at the start of the year	388	6,106	6,106
Forex on cash held	(34)	135	114
<b>Cash and cash equivalents at the end of the period</b>	<b>230</b>	<b>4,650</b>	<b>388</b>



**Statement of Changes in Equity  
For the Year Period 30 September 2018**

	Share capital US\$'000	Share premium reserve US\$'000	Share based payment reserve US\$'000	Retained losses US\$'000	Total equity US\$'000
<b>Balance at 1 April 2017</b>	<b>754</b>	<b>18,466</b>	<b>2,421</b>	<b>(16,894)</b>	<b>4,747</b>
(Loss) after tax for the period	-	-	-	(4,281)	(4,281)
Total comprehensive loss for the period	-	-	-	(4,281)	(4,281)
<i>Contributions by and distributions to owners</i>					
Shares issued in the period	410	6,303	-	-	6,713
Equity issue costs	-	(108)	-	-	(108)
<b>Contributions by and distributions to owners</b>	<b>410</b>	<b>6,195</b>	<b>-</b>	<b>-</b>	<b>6,605</b>
<b>Balance at 30 September 2017</b>	<b>1,164</b>	<b>24,661</b>	<b>2,421</b>	<b>(21,175)</b>	<b>7,071</b>
<b>Balance at 1 April 2017</b>	<b>754</b>	<b>18,466</b>	<b>2,421</b>	<b>(16,894)</b>	<b>4,747</b>
Loss after tax for the year	-	-	-	(2,630)	(2,630)
Total comprehensive loss for the year	-	-	-	(2,630)	(2,630)
<i>Contributions by and distributions to owners</i>					
Shares issued in the period	451	6,922	-	-	7,373
Equity issue costs	-	(108)	-	-	(108)
Transfer of expired options	-	-	(2,421)	2,421	-
Share based payment expense	-	-	10	-	10
<b>Contributions by and distributions to owners</b>	<b>451</b>	<b>6,814</b>	<b>(2,411)</b>	<b>2,421</b>	<b>7,275</b>
<b>Balance at 31 March 2018</b>	<b>1,205</b>	<b>25,280</b>	<b>10</b>	<b>(17,103)</b>	<b>9,392</b>
Profit after tax for the period	-	-	-	630	630
Total comprehensive income for the period	-	-	-	630	630
<i>Contributions by and distributions to owners</i>					
Share based payment expense	-	-	29	-	29
<b>Contributions by and distributions to owners</b>	<b>-</b>	<b>-</b>	<b>29</b>	<b>-</b>	<b>29</b>
<b>Balance at 30 September 2018</b>	<b>1,205</b>	<b>25,280</b>	<b>39</b>	<b>(16,473)</b>	<b>10,051</b>

The accompanying accounting policies and notes form an integral part of these financial statements.

## Statement of Accounting Policies For the Period Ended 30 September 2018

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### **Basis of preparation**

The Company's financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as adopted by the European Union and Companies Act 2006. The principal accounting policies are summarised below. The financial report is presented in the functional currency, US dollars and all values are shown in thousands of US dollars (US\$'000). The financial statements have been prepared on a historical cost basis and fair value for certain assets and liabilities. These condensed interim financial statements of the Company for the six months ended 30 September 2018 have been prepared in accordance with International Financial Reporting Standards as adopted by the European Union (IFRSs) and with those parts of the Companies Act 2006 applicable to companies reporting under IFRS. The same accounting policies, presentation and methods of computation are followed in these financial statements as were applied in the Company's latest audited financial statements for the year ended 31 March 2018, except for adoption of the following new standards:

- (i) *IFRS 9: Financial Instruments - effective for annual periods beginning on or after 1 January 2018*
- (ii) *IFRS 15: Revenue from Contracts with Customers - effective for annual periods beginning on or after 1 January 2018*

The financial information for the period ended 30 September 2018 does not constitute the full statutory accounts for that period. They have not been reviewed by the Company's auditor. The Annual Report and financial statements for the year ended 31 March 2018 have been filed with the Registrar of Companies. The independent auditor's report on the Annual Report and financial statements was unqualified, did not draw attention to any matters by way of emphasis, and did not contain a statement under Section 498(2) or 498(3) of the Companies Act 2006.

### **Going concern**

The Directors consider that the Company has adequate resources to continue in operational existence for the foreseeable future and that it is therefore appropriate to adopt the going concern basis in preparing its financial statements. The Company had a cash balance of US\$0.23m at 30 September 2018 (US\$0.39m: 31 March 2018), net current liabilities of US\$1.41m at 30 September 2018 (US\$1.00m: 31 March 2018) and net operating cash inflows of US\$0.70m at 30 September 2018 (US\$0.99m outflows: 31 March 2018).

In addition, the Company raised £1.03m (US\$1.32m) in November 2018 through a placement at 10p per share.

## 1. Segmental analysis

The Directors consider the Company to have three geographical segments, being China (Block 29/11 project), Indonesia (Duyung PSC project) and North America (Sacramento Basin project), which are all currently in the exploration and evaluation phase. Corporate costs relate to the administration and financing costs of the Company and are not directly attributable to the individual projects. The Company's registered office is located in the United Kingdom.

Details	China US\$'000	Indonesia US\$'000	USA US\$'000	Corporate US\$'000	Total US\$'000
<b>30 September 2018</b>					
Revenue from continued operations	-	-	-	-	-
Cost of sales of continued operations	-	-	(51)	-	(51)
<b>Segment result</b>	-	-	(51)	-	(51)
Unallocated corporate expenses	-	-	-	(469)	(469)
<b>Operating loss</b>	-	-	(51)	(469)	(520)
Finance income/(expense)	-	-	-	1,145	1,145
<b>Profit/(loss) before taxation</b>	-	-	(51)	676	625
Tax benefit in current year	-	-	-	5	5
<b>Profit/(loss) after taxation</b>	-	-	(51)	681	630
<b>Total comprehensive profit/(loss)</b>	-	-	(51)	681	630
Segment assets	4,769	3,017	3,821	-	11,607
Unallocated corporate assets	-	-	-	267	267
<b>Total assets</b>	<b>4,769</b>	<b>3,017</b>	<b>3,821</b>	<b>267</b>	<b>11,874</b>
Segment liabilities	-	-	290	-	290
Unallocated corporate liabilities	-	-	-	1,533	1,533
<b>Total liabilities</b>	-	-	<b>290</b>	<b>1,533</b>	<b>1,823</b>

Details	China US\$'000	Indonesia US\$'000	USA US\$'000	Corporate US\$'000	Total US\$'000
<b>30 September 2017</b>					
Profit on sale of discontinued operations	-	-	73	-	<b>73</b>
Cost of sales of continued operations	-	-	(45)	-	<b>(45)</b>
Cost of sales of discontinued operations	-	-	(1)	-	<b>(1)</b>
<b>Segment result</b>	-	-	<b>27</b>	-	<b>27</b>
Unallocated corporate expenses	-	-	-	(344)	<b>(344)</b>
<b>Operating profit/(loss)</b>	-	-	<b>27</b>	<b>(344)</b>	<b>(317)</b>
Finance income/(expense)	-	-	-	(3,982)	<b>(3,982)</b>
<b>Profit/(loss) before taxation</b>	-	-	<b>27</b>	<b>(4,326)</b>	<b>(4,299)</b>
Tax benefit in current year	-	-	-	18	<b>18</b>
<b>Profit/(loss) after taxation</b>	-	-	<b>27</b>	<b>(4,308)</b>	<b>(4,281)</b>
<b>Total comprehensive profit/(loss)</b>	-	-	<b>27</b>	<b>(4,308)</b>	<b>(4,281)</b>
Segment assets (restated)	4,216	2,698	2,554	-	<b>9,468</b>
Unallocated corporate assets	-	-	-	5,366	<b>5,366</b>
<b>Total assets</b>	<b>4,216</b>	<b>2,698</b>	<b>2,554</b>	<b>5,366</b>	<b>14,684</b>
Segment liabilities	3,502	-	-	-	<b>3,502</b>
Unallocated corporate liabilities	-	-	-	4,111	<b>4,111</b>
<b>Total liabilities</b>	<b>3,502</b>	-	-	<b>4,111</b>	<b>7,613</b>
<b>31 March 2018</b>					
Revenue from continued operations	-	-	30	-	<b>30</b>
Profit on sale of discontinued operations	-	-	73	-	<b>73</b>
Cost of sales of continued operations	-	-	(48)	-	<b>(48)</b>
Cost of sales of discontinued operations	-	-	(1)	-	<b>(1)</b>
<b>Segment result</b>	-	-	<b>54</b>	-	<b>54</b>
Unallocated corporate expenses	-	-	-	(923)	<b>(923)</b>
<b>Operating profit/(loss)</b>	-	-	<b>54</b>	<b>(923)</b>	<b>(869)</b>
Finance income and expense	-	-	-	(2,558)	<b>(2,558)</b>
<b>Profit/(loss) before taxation</b>	-	-	<b>54</b>	<b>(3,481)</b>	<b>(3,427)</b>
Tax benefit in current year	-	-	-	797	<b>797</b>
<b>Profit/(loss) after taxation</b>	-	-	<b>54</b>	<b>(2,684)</b>	<b>(2,630)</b>
<b>Total comprehensive loss</b>	-	-	<b>54</b>	<b>(2,684)</b>	<b>(2,630)</b>
Segment assets	4,596	2,722	3,254	-	<b>10,572</b>
Unallocated corporate assets	-	-	-	1,711	<b>1,711</b>
<b>Total assets</b>	<b>4,596</b>	<b>2,722</b>	<b>3,254</b>	<b>1,711</b>	<b>12,283</b>
Segment liabilities	41	-	81	-	<b>122</b>
Unallocated corporate liabilities	-	-	-	2,769	<b>2,769</b>
<b>Total liabilities</b>	<b>41</b>	-	<b>81</b>	<b>2,769</b>	<b>2,891</b>
		<b>6 months to 30 September 2018 (unaudited)</b>	<b>6 months to 30 September 2017 (unaudited)</b>	<b>Year ended 31 March 2018 (audited)</b>	

## 2. Earnings per share

The basic earnings per share is derived by dividing the profit/(loss) after taxation for the year attributable to ordinary shareholders by the weighted average number of shares on issue being 413,995,110 (2017: 358,675,105). The diluted weighted average number of shares on issue was 428,995,110 (2017: 358,675,105). Details of potentially issuable shares that could dilute earnings per share in future periods are set out in Note 6.

### Earnings per share from continuing operations

Profit/(loss) after taxation from continuing operations	<b>US\$630,000</b>	(US\$4,354,000)	(US\$2,703,000)
Earnings/(loss) per share – basic	<b>0.15c</b>	(1.21)c	(0.71)c

Profit/(loss) after taxation from continuing operations adjusted for dilutive effects	<b>US\$630,000</b>	(US\$4,354,000)	(US\$2,703,000)
Earnings/(loss) per share – diluted	<b>0.15c</b>	(1.12)c	(0.71)c

### Earnings per share from discontinued operations

Profit after taxation from discontinued operations	-	US\$73,000	US\$73,000
Earnings per share – basic	-	0.02c	0.02c

Profit after taxation from discontinued operations adjusted for dilutive effects	-	US\$73,000	US\$73,000
Earnings per share – diluted	-	0.02c	0.02c

	<b>6 months to 30 September 2018 (unaudited)</b>	<b>6 months to 30 September 2017 (restated unaudited)</b>	<b>Year ended 31 March 2018 (audited)</b>
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## 3. Oil and gas properties: exploration and evaluation

Balance brought forward	<b>7,820</b>	87	87
Additions <sup>(a)</sup>	<b>821</b>	6,729	7,781
Impairment	<b>(51)</b>	(45)	(48)
Net book value	<b>8,590</b>	6,771	7,820

(a) The Company was awarded its permit in China in December 2016. Block 29/11 is located in the Pearl River Mouth Basin, offshore China. Emphyrean is operator with 100% of the exploration right of the Permit during the exploration phase of the project. The initial contractual term is for two years with a work programme commitment of acquisition, processing and interpretation of 580km<sup>2</sup> of 3D seismic data. In May 2017 Emphyrean entered into a joint project with ASX listed Sargasco Limited, to test a group of projects in the Sacramento Basin, California, including two mature, multi-TcF gas prospects in Dempsey (EME 30%) and Alvarez (EME 25%) and also further identified follow up prospects along the Dempsey trend (EME 30%).

## 4. Investments

	<b>6 months to 30 September 2018 (unaudited)</b>	<b>6 months to 30 September 2017 (restated unaudited)</b>	<b>Year ended 31 March 2018 (audited)</b>
Balance brought forward	<b>2,572</b>	-	-
Additions <sup>(a)</sup>	<b>294</b>	2,547	2,572



Net book value	<u>2,866</u>	<u>2,547</u>	<u>2,572</u>
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- (a) The Company acquired a 10% working interest in the Duyung PSC, Indonesia during the 2018 financial year. Due to the 10% shareholding and lack of significant influence over operations, the acquisition has been classified as an investment. The carrying value approximates the fair value which consists of the acquisition cost plus subsequent exploration expenditure. For further information, please refer to the Operational Review.

	<b>6 months to 30 September 2018 (unaudited)</b>	<b>6 months to 30 September 2017 (unaudited)</b>	<b>Year ended 31 March 2018 (audited)</b>
<b>5. Derivative financial liabilities</b>			
Opening balance	<b>2,463</b>	459	459
Fair value movement	<b>(1,145)</b>	3,428	2,004
Net book value	<u><b>1,318</b></u>	<u>3,887</u>	<u>2,463</u>

Derivative financial liabilities represent the fair value of 15,000,000 options granted to Macquarie Bank and linked to the extension of a now repaid loan facility held with Macquarie Bank. As announced on 13 March 2017, the Options are currently owned by Apnea Holdings Pty Ltd, a company which is wholly owned by Tom Kelly, CEO of Empyrean. The options were granted on 27 July 2015 and are referred to as the Tranche 4 options. At the date of grant these were considered to fall outside of the scope of IFRS 2 and unlike Tranches 1-3 were not accounted for as a share-based payment. The Macquarie Bank loan facility was repaid in 2016 but the options did not expire at that point.

During a prior financial year, the Company modified the exercise price of the options. This was deemed to be a substantial modification under IAS 32 and IAS 39. The value of the derivative financial liability was extinguished at that point and the fair value of the modified options recognised at the date that they were granted. As a financial liability at fair value through the profit or loss these were revalued at period end. The fair value is measured using a Black-Scholes Model with the following inputs:

Fair value of share options and assumptions

	At 30 September 2018	At 30 September 2017	31 March 2018
Grant date	27 July 2015	27 July 2015	27 July 2015
Expiry date	26 July 2019	26 July 2019	26 July 2019
Share price	£0.0875	£0.214	£0.138
Exercise price	£0.02	£0.02	£0.02
Volatility	82%	78%	79%
Option life	0.83	1.83	1.33
Expected dividends	-	-	-
Risk-free interest rate (based on national government bonds)	0.81%	0.46%	0.74%

Expected volatility was determined by calculating the historical volatility of the Company's share price over the expected remaining life of the options.

**6. Called up share capital**

	6 months to 30 September 2018 (unaudited)	6 months to 30 September 2017 (unaudited)	Year ended 31 March 2018 (audited)
<b>Issued and fully paid</b>			
413,995,110 (2017: 398,995,110) ordinary shares of 0.2p each	<b>US\$1,205</b>	US\$1,164	US\$1,205
Opening balance (number: 413,995,110)	-	754	754
Share issue (number: 70,000,000)	-	180	180
Share issue (number: 34,316,551)	-	89	89
Exercise of options (number: 15,000,000)	-	38	38
Placement (number: 16,080,000)	-	41	41
Placement (number: 12,000,000)	-	31	31
Placement (number: 11,764,706)	-	31	31
Exercise of options (number: 15,000,000)	-	-	41
Closing balance (number: 413,995,110)	<b>1,205</b>	1,164	1,205

The Companies Act 2006 (as amended) abolishes the requirement for a company to have an authorised share capital. Therefore the Company has taken advantage of these provisions and has an unlimited authorised share capital.

## Share options and warrants

The following equity instruments have been issued by the Company and have not been exercised at 30 September 2018:

Option Class	Employee Options	Financier options (Tranche 4)
Grant Date	20 January 2018	27 July 2015
Options awarded	2,500,000	15,000,000
Exercise price (£)	£0.17	£0.02
Expiry date	20 January 2021	26 July 2019

The options outstanding at 30 September 2018 have an exercise price in the range of £0.02 to £0.17 and a weighted average remaining contractual life of 1.14 years. The remaining 15,000,000 financier options have vested and are fully exercisable at the date of this report.

## 7. Events after the reporting date

In November 2018 Gaffney, Cline & Associates (“GCA”), an independent petroleum advisory firm, completed an independent audit of the Company’s oil initially in place estimates over the Jade, Topaz and Pearl prospects identified in Block 29/11, Pearl River Mouth Basin, offshore China. GCA’s audit primarily consisted of reviewing, checking and validating the available data and existing interpretations and auditing the technical work that has been performed by EME and its contractors. GCA’s independent assessment validated the Company’s internal estimates, with Total Mean Oil-in-place increasing 9% to 884 MMbbl (from 814 MMbbl) and the total P10 estimates increased 47% to 1588 MMbbl (from 1081 MMbbl) on an un-risked basis. Importantly, GCA’s estimates of the Geological Chance of Success of Jade and Topaz prospects were assessed at 32% and 30% respectively.

In November 2018 the Company issued 10,280,000 new ordinary shares at a price of 10p per Placing Share (the “Placing Price”) raising gross proceeds of £1,028,000 (the “Placing”). The Placing was completed under the Company’s existing authorities and was not subject to the approval of shareholders. The Placing Price represented a 0.37% premium to the Volume Weighted Average Price of the Company’s Shares over the twenty trading days prior to the Placing. The Placing Shares were issued to new sophisticated investors and existing shareholders, including Dr Patrick Cross, the Company’s Chairman who subscribed for 100,000 shares under the Placing. The funds raised pursuant to the Placing will be used for the Company’s general working capital purposes.

There were no other significant events post reporting date.