

30 October 2020

ASX Market Announcements ASX Limited 20 Bridge Street Sydney NSW 2000

# September 2020 Quarterly Activities Report

# Highlights

- Share Purchase Plan closed on 14<sup>th</sup> October raising \$656,000 from existing shareholders
- APA commenced Pre-Front End Engineering Design ('Pre-FEED') for the provision of midstream infrastructure and services related to gas that is planned to be produced from the Judith Gas Field following successful appraisal drilling
- Judith Gas Field Dynamic Modelling completed delivering simulated gas production for the Pre-FEED of:
  - 80 Million Standard Cubic Feet per day (MMscfd) sustained across 25 years
  - 4 vertical production wells used at commencement of production
  - An additional 5<sup>th</sup> well introduced in year 15
  - Modelling indicates that a minimum well-head gas delivery pressure of 7000kPa (1050psi) is maintained for at least a 25-year period at a field production rate of 80MMscfd
  - Modelling is based on a 450m Gas Column Height within the Static Geological Model used to generate the Judith Resource Statement
- Drilling Management Consultants AGR engaged by Emperor Energy:
  - Completed an initial design for the Judith 2 Well to a depth of 3,235m
  - Completed a drilling Expressions of Interest (EoI) process with 5 submitted responses
  - Established a probabilistic estimation of well costs at \$25M for a minimum case with logging and without flow testing
  - In a success case Drill Stem Testing (flow testing) will incur additional cost
- Global Seismic Acquisition company CGG:
  - Recently completed a multi-client 3D seismic survey across the offshore Gippsland Basin including the Judith Gas Field
  - Preliminary results of this survey will be available to Emperor Energy in late 2020
  - 3D Survey was carried out with state-of-the-art equipment and techniques and will provide improved interpretation of Judith Gas Field gas accumulations
- Emperor continues to receive farm-in interest from potential drilling partners



Emperor Energy Limited (ASX: EMP) ('Emperor' or 'the Company') is pleased to provide the following activity summary for the quarter ended 30 September 2020.

## Share Purchase Plan Raises \$656k

On 16<sup>th</sup> October 2020 Emperor Energy announced that it had raised \$656,000 through the issue of 23,428,571 new shares at 2.8 cents per share (The Share Placement Plan) in accordance with ASX Listing Rule 7.2, Exception 5, to Rule 7.1 and 7.1A "Security Purchase Plan"

The Placement was non-brokered and attracted strong demand from existing shareholders who have expressed their continuing support for the Company. The net proceeds of the Placement strengthen the Company's balance sheet and provide important funding to continue the Company's exploration activities.

The Shares were issued at \$0.028 which is a 10% discount to the volume weighted average price (VWAP) of Emperor Energy's Shares calculated over the last 5 days on which sales of Shares were recorded on the ASX up to and including the Closing Date, rounded down to the nearest one tenth of one cent.

The New Shares rank equally with existing fully paid shares of the Company.

# **Commencement of Pre-FEED**

On 1<sup>st</sup> September Emperor Energy announced that APA Group (ASX:APA) had commenced the Pre-Front End Engineering Design (Pre-FEED) for the provision of midstream infrastructure and services related to gas that will potentially be produced from the Judith Gas Field in the 100% Emperor Energy owned VIC/P47 Permit in the offshore Gippsland Basin, Victoria.

The Pre-FEED study will include:

- Pre-FEED design for a Gas Processing Plant to operate adjacent to and in parallel with the existing Orbost Gas Processing Plant owned by APA
- Pre-FEED concept design for a Subsea Pipeline approximately 40km in length from the Judith gas field to a shoreline crossing
- Pre-FEED design for an export pipeline to the Eastern Gas Pipeline located to the north of the Orbost Gas Plant
  - Refinement of indicative project cost estimates and project scheduling

The Pre-FEED study is scheduled for completion at the end of December. APA will carry out the work using a balanced combination of both in house and external expertise.

The design basis for the Pre-FEED is 80MMscfd (90TJ/day) of sales gas across a 25-year project life with gas processing to meet the AS4564 gas sales specification.

Emperor Energy and APA had previously established a Memorandum of Understanding (MOU) relating to the Judith Gas Project in October 2019. The Pre-FEED is the first stage of work to progress from the MOU.



## **Dynamic Modelling**

On 1<sup>st</sup> September Emperor Energy also announced it had revised the Judith Gas Field production well simulation to include 4 x vertical production wells at project commencement with a 5th production well included in Project Year 15.

Each modelled well has 7 perforation zones in gas bearing sands using 5 1/2" tubing in the bottom half of the well and a 7" production string to the surface.

Well-head pressures have been modelled and shown to be maintained above the required minimum of 7000kPa (1050psi) at a production rate of 80MMscfd (80 Million Standard Cubic Feet per Day) across a production cycle exceeding 25 years. Data from this modelling is now being used by APA for the Pre-FEED study.

# AGR Well Design and Management

During August, highly regarded global well consultants AGR completed the initial well planning phase of their well delivery process for the Judith-2 appraisal/exploration well. This includes well design, casing design, well costing, regulatory timeline and a drill rig market survey.

The drill rig market survey received a positive response from five drilling contractors offering both Jack- Up and Semi-Submersible Drilling Rigs. Formal tenders and direct negotiations with a preferred supplier to contract the most suitable drilling unit will commence once Emperor Energy secures an Exploration Partner via a Farm-In process currently being conducted.

The well design has been selected and is typical for wells in the area, using conventional casing sizes that are relatively easy to procure. A detailed cost analysis using AGR's proprietary software (P1) was also performed, including running Drill Stem Tests (DST). The most significant risk regarding the well cost is the rig mobilisation/demobilisation costs, driving a strategy to contract a 'rig of opportunity', which is already in the area."

Estimated drilling time for the Judith 2 well is 26 days with costs estimated at AUD \$25 Million excluding any Drill Stem Tests (flow testing).

## CGG Multi Client 3D Seismic Survey Completed

In July 2020, Global Seismic acquisition company CGG have completed a multi-client 3D Seismic Survey of the Offshore Gippsland Basin including the Judith Gas Field.

The seismic acquisition was carried out using state-of-the-art equipment and techniques including 7000m long 3D acquisition cables to ultimately generate the highest quality reservoir resolution possible.

The 3D Seismic Survey was also carried out at an orthogonal orientation to previous 3D Seismic Surveys in the area. The combination of longer cables and different orientation will offer considerable improvements in data quality for re-mapping the Judith Structure.

The first data from this survey will become available for licensing to Emperor Energy on commercial terms at the end of 2020. Final fully processed data will become available during 2021.



Emperor Energy's 100% owned Judith Gas Field is located within the VIC/P47 Permit in the offshore Gippsland Basin, Victoria.

On 11th July 2019 Emperor Energy advised that an Independent Resource Statement had been completed for the Judith Gas Field (Table 1) which highlighted:

- 2C Contingent Gas Resource of 150 Bcf
- P50 Unrisked Prospective Gas Resource of 1.226 Tcf

Judith Gas Discovery		Contingent Resources			
		Low Estimate	Best Estimate	High Estimate	
		1C	2C	3C	
GIIP	Bcf	180	278	386	
Sales gas	Bcf	97	150	209	
Condensate	MMbbl	1.4	2.2	3.2	

# Table 1: Summary of Contingent Resources for Judith within area of VIC/P47(3D-GEO, July 2019)

		Unrisked Prospective Resources		
Greater Judith Area		P90	P50	P10
Judith Deep	Bcf	38	62	92
West	Bcf	83	127	176
Central	Bcf	37	333	628
North	Bcf	29	166	315
North East	Bcf	49	279	494
North West	Bcf	15	102	226
South	Bcf	14	157	565
Total	Bcf	265	1226	2496

# Table 2: Summary of Prospective Resources for Judith within area of VIC/P47(3D-GEO, July 2019)





Figure 1: Location of 100% Emperor Energy owned VIC/P47 offshore Gippsland Basin showing regional permits along with oil and gas fields



#### Figure 2: Judith Gas Field, and Greater Judith Compartments (3D-GEO, July 2019)

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Figure 3: Judith Gas Sand 1 Depth Model from Longtom Gas Field to the Greater Judith Structure

## Finance

At the end of the quarter, 30<sup>th</sup> September, the cash balance was \$387,486. The company has entered into a loan agreement with investors for \$231,000 for the purpose of securing a bank guarantee for engineering works to be completed for Vic/P47. The loan is for 12 months and pays interest of 7.5% pa.

The company paid \$35,738 to directors and management for the quarter ended 30<sup>th</sup> September 2020 for administration and exploration expenses.

A summary of the cash flow for the quarter are attached in the Appendix 5B.

## Tenement holding summary

Below is a list of the tenements held by Emperor Energy Limited as at 30<sup>th</sup> September 2020:

Petroleum Tenement	Location	Beneficial Percentage held
Vic/P47	Victoria	100% / Operator
Backreef Area	Western Australia	100% / Operator



We thank shareholders and our team for their ongoing support and welcome any questions they may have.

This announcement has been authorised for release by the board of directors.

Yours faithfully

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Carl Dumbrell Company Secretary Ph +61 402 277 282 carl@emperorenergy.com.au



## **Classification of Resources SPE-PRMS Society of Petroleum Engineer's Petroleum Resource Management System**

Petroleum resources are the estimated quantities of hydrocarbons naturally occurring on or within the Earth's crust. Resource assessments estimate total quantities in known and yet-to-be discovered accumulations, resources evaluations are focused on those quantities that can potentially be recovered and marketed by commercial projects. A petroleum resources management system provides a consistent approach to estimating petroleum quantities, evaluating development projects, and presenting results within a comprehensive classification framework. PRMS provides guidelines for the evaluation and reporting of petroleum resources.

Under PRMS "**Reserves**" are those quantities of petroleum which are anticipated to be commercially recoverable from known accumulations from a given date forward. All reserve estimates involve some degree of uncertainty. The uncertainty depends chiefly on the amount of reliable geologic and engineering data available at the time of the estimate and the interpretation of these data. The relative degree of uncertainty may be conveyed by placing reserves into one of two principal classifications, either proved or unproved. Unproved reserves are less certain to be recovered than proved reserves and may be further sub-classified as probable and possible reserves to denote progressively increasing uncertainty in their recoverability.

"Contingent Resources" are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations, but the applied project(s) are not yet considered mature enough for commercial development due to one or more contingencies. Contingent Resources may include, for example, projects for which there are currently no viable markets, or where commercial recovery is dependent on technology under development or gaining access to existing infrastructure or where evaluation of the accumulation is insufficient to clearly assess commerciality. Contingent Resources are further categorized in accordance with the level of certainty associated with the estimates and may be sub-classified based on project maturity and/or characterized by their economic status.

"**Prospective Resources**" are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective Resources have both a chance of discovery and a chance of development. Prospective Resources are further subdivided in accordance with the level of certainty associated with recoverable estimates assuming their discovery and development and may be sub-classified based on project maturity.

The estimated quantities of petroleum that may potentially be recovered by the application of 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.



#### **Corporate Directory Board of Directors**

**Registered office & Principle place of business** Level 20, 201 Sussex Street Sydney NSW 2000

Auditors

**ICP** Assurance Services Suite 1204, 227 Elizabeth Street Sydney NSW 2000

**Share Registry** 

Automic Pty Ltd ACN 152 260 814 Trading as Automic Registry Services Level 5, 126 Phillip Street Sydney NSW 2000 Overseas callers: +61 2 9698 5414 Phone: 1300 288 664 Email: hello@automicgroup.com.au

## **Capital Structure**

The company currently has issued capital (as at 30 October 2020) of: Ordinary fully paid shares (ASX: EMP)

**Company Secretary** Carl Dumbrell

**Project & Business Development Consultant** Malcolm King

**Mailing Address** GPO Box 5360 Sydney NSW 2001

Lawyers Hopgood Ganim Level 27, Allendale Square 77 St Georges Tce, Perth WA 6000

### **Investor Relations**

Six Degrees Group Level 10, 84 Pitt Street Sydney NSW 2000

123,186,049



Position	Holder Name	Holding	%
1	Citicorp Nominees Pty Limited	8,625,487	7.00%
2	Scintilla Strategic Investments Limited	4,000,000	3.25%
3	Sama Zaraah Pty Ltd	3,257,000	2.64%
4	Daniel J Peters	3,064,197	2.49%
5	Bond Street Custodians Limited	2,916,474	2.37%
6	Mr Gavin Jeremy Dunhill	2,900,000	2.35%
7	ZLD Holdings Pty Ltd	2,431,391	1.97%
8	Ronald William Billyard & Fiona Currey	2,414,558	1.96%
9	Anthony De Nicola & Tanya Louise De Nicola	2,000,000	1.62%
10	Slade Technologies Pty Ltd	1,828,334	1.48%
11	Littlejohn Embrey Engineering Pty Ltd	1,798,973	1.46%
12	Buduci Fond Pty Ltd	1,649,746	1.34%
13	Craig Graeme Chapman & Joanne Chapman	1,604,762	1.30%
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14	Diacaf Holdings Pty Ltd	1,601,428	1.30%
15	Energy Trader Pty Ltd	1,500,000	1.22%
16	The Australian Special Opportunity Fund LP	1,422,223	1.15%
17	Constantia Investments Pty Limited	1,371,428	1.11%
18	Harness Pty Ltd	1,341,667	1.09%
	M & K Korkidas Pty Ltd	1,330,000	1.08%
20	H&M Investments Pty Ltd	1,283,502	1.04%

#### **Top 20 Shareholders – ASX: EMP**

Appendix

ASX – Australian Securities Exchange Limited

Bcf – Billion cubic feet

**MMcf/d** - Million Cubic Feet per Day

**Tcf** – Trillion Cubic Feet

**P50** – P50 is defined as 50% of estimates exceed the P50 estimate

**2C** - Best estimate of contingent resources