

RESERVES AND CONTINGENT RESOURCES ASSESSMENT FOR CERTAIN FIELDS IN INDONESIA

Reference LEAP_INTER_06_2018_093 summary

QUALIFIED PERSON'S REPORT

Performed for Ramba Energy Limited on the Lemang, Jatirarangon and West Jambi Assets

LEAP Energy – a Three60 Energy company 2018



Our Ref : Reference LEAP_INTER_06_2018_093 summary

Date : September 21, 2018

Daniel Jol, Commercial and Executive Director RAMBA ENERGY LIMITED

SUBJECT: RESERVES AND CONTINGENT RESOURCES ASSESSMENT FOR CERTAIN FIELDS IN INDONESIA

Dear Sir.

In response to the Letter of Engagement ("LoE"), dated 4th July 2018, with Ramba Energy Ltd (RAMBA), LEAP ENERGY Partners Sdn Bhd ("LEAP ENERGY") has completed an independent evaluation of in-place and recoverable hydrocarbons in certain fields where RAMBA ("The Company") has represented it holds an interest. This report is issued by LEAP ENERGY under the appointment by RAMBA and is produced as part of the services detailed therein and subject to the terms and conditions of the Letter of Engagement ("Agreement").

This report is addressed RAMBA Energy Limited. The report is only capable of being relied on by the Company and any third parties under and pursuant to (and subject to the terms of) the Agreement. The report has been compiled in accordance with the guidelines on the scope and content of a Qualified Person's Report ("QPR") in accordance with Practice Note 4C Section 5 and Appendix 7D of the Singapore Exchange (SGX) Catalist Board Listing Rules.

This report is based on data and information available up to December 2017 and the effective date for the evaluation reported herein is **31 December 2017**. The Services have been performed by a LEAP ENERGY team of professional petroleum engineers, geoscientists and economists and is based on the data supplied through RAMBA.

The properties that are evaluated in this report with the respective working interest held by RAMBA are as follows (Table 0-1):

Table 0-1: Assets evaluated in this report

Asset Name	Working Interest	Development Status	License Expiry Date	Type of Resource
Lemang PSC	31%	Development underway, some early production	January 18, 2037	Oil, Condensate and gas
Jatirarangon TAC	70%	Producing	May 22, 2020	Gas, minor Oil
West Jambi KSO	100%	Undeveloped	June 13, 2031	Oil, Condensate and Gas

All Reserves and Resources definitions and estimates contained in this report are based on the 2007/2011 SPE/AAPG/WPC/SPEE Petroleum Resource Management System ("PRMS"). Our approach has been to review the RAMBA technical interpretation of their base case geoscience and engineering data for the field for reasonableness and to review the ranges of uncertainty to generate a 1P, 2P and 3 estimate of the recoverable resources ("Reserves") and an estimate of the 1C, 2C, 3C Contingent Resources ("Contingent Resources").

ECONOMIC SCREENING

Screening of Operator's economic inputs and assumptions to confirm reasonableness has been performed on resources included in Reserves category only. Contingent resources have not been subjected to economic scrutiny and hence there is no certainty about the economic viability of recovering any contingent resources in any of the fields.

QUALIFICATIONS

LEAP ENERGY is an independent consultancy specialising in petroleum reservoir assessment and asset evaluation. LEAP ENERGY is independent of Ramba Limited and is remunerated by way of a fee that is neither linked to the value of RAMBA. Neither LEAP ENERGY nor any of its directors, staff or sub-consultants who contributed to the report has any interest in the Company, its subsidiaries, or any of its assets or securities (including the common shares).

Mr Laurent Alessio, Managing Director and Mr Chris Connell, Director and Head of Advisory Services for LEAP ENERGY, have reviewed the results of the evaluation and approved the report. Mr Alessio has over 22 years of experience in upstream oil and gas whereas Mr Connell has over 30 years' experience in upstream oil and gas. Both are long standing members of the Society of Petroleum Engineers. Other LEAP ENERGY employees involved in this work hold at least a Master's degree in geology, geophysics, petroleum engineering or a related subject or have at least five years of relevant experience in the practice of geology, geophysics or petroleum engineering. This QPR was not the product of a sole practitioner.

BASIS OF OPINION

The results presented herein reflect our informed judgement based on accepted standards of professional investigation, but is subject to generally recognized uncertainties associated with the interpretation of petrophysical, geological, geophysical and engineering data. The services have been conducted within our understanding of petroleum legislation, taxation and other regulations that currently apply to these interests. However, LEAP ENERGY is not in a position to attest to the property title, financial interest relationships or encumbrances related to the properties. No site visit was performed to the asset location. Only a high-level validation of costing assumptions (based on analogues and industry standard data) was done and no detailed assessment of equipment required for the exploitation of any of the fields was made.

Our estimates of Reserves and Resources are based on the data set available to LEAP ENERGY, and provided by The Companies. We have accepted, without independent verification, the accuracy and completeness of these data.

The report represents LEAP ENERGY's professional judgement and should not be considered a guarantee or prediction of results. It should be understood that any evaluation, particularly one involving exploration and future petroleum developments, may be subject to significant variations over short periods of time as new information becomes available. LEAP ENERGY cannot and does not guarantee the accuracy or correctness of any interpretation made by it of any of the data, documentation and information provided by the Companies or others in accordance with the Agreement. LEAP ENERGY does not warrant or guarantee, through the Services, this report or otherwise, any geological or commercial outcome.

In preparing the Report LEAP ENERGY has used reasonable skill and reasonable care to be expected of a consultant carrying out services of the type set out in the Letter of Engagement. LEAP ENERGY is responsible for this report and declares that it has taken all reasonable care to ensure that the information contained in the QPR is, to the best of its knowledge, in accordance with the facts and contains no omission likely to affect its import.

CONSENT FOR USE AND DISTRIBUTION

LEAP ENERGY hereby consents to the publication and use of: (i) the QPR; and (ii) its name, by the Companies, in both electronic and paper form, including the Companies' website, in the form and context in which it appears. As at the date of this letter, LEAP ENERGY has not withdrawn this consent.

This report relates specifically and solely to the subject assets and is conditional upon various assumptions that are described herein. The report, of which this letter forms part, must therefore be read in its entirety. This report may only be used in accordance with purpose stated in the Agreement, except with permission from LEAP ENERGY. The report must not be reproduced or redistributed, in whole or in part, to any other person than the addressees or published, in whole or in part, for any other purpose without the express written consent of LEAP ENERGY. The reproduction or publication of any excerpts is not permitted without the express written permission of LEAP ENERGY

Yours Faithfully,

Arnout Everts

Technical Director and Managing Partner

Certified European Geologist (Title No. 1435, awarded by the European Federation of Geologists)



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RAMBA ENERGY LIMITED

21 September 2018

This report relates specifically and solely to the subject asset and is conditional upon various assumptions that are described herein. This report must, therefore, be read in its entirety. Our estimates of potential reserves, resources, unrisked and risked values are based on data provided by the Companies. We have accepted, without independent verification, the accuracy and completeness of these data. All interpretations and conclusions presented herein are opinions based on inferences from geological, geophysical, engineering or other data. The report represents LEAP ENERGY's professional judgement and should not be considered a guarantee of results. Our liability is limited solely to The Companies as covered in the Letter of Engagement between The Companies and LEAP ENERGY.

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1 EXECUTIVE SUMMARY

1.1 ASSET INTRODUCTIONS

This report details the evaluation of petroleum resources in certain Indonesian assets in which Ramba Energy Ltd (RAMBA) represents it holds an interest. The three assets that are evaluated herein are:

- Lemang Production Sharing Contract (PSC). This acreage located in the northern most part of the hydrocarbon-rich South Sumatra basin was awarded the working contract area on 18 January 2007. Following acquisition and interpretation of seismic data, completion of civil works to access the area and exploration/appraisal drilling in 2012 to 2014, a Plan of Development (PoD) was approved in August 2015. Execution of the PoD commenced in 2017 and oil production from the field has started. Operator intents to also develop the gas resources of Lemang but some of the required commercial arrangements for gas development are still pending.
- Jatirarangon Technical Assistance Contract (TAC). This acreage is located in Cikarang, West Java, approximately 20 kilometers from the Indonesian capital of Jakarta. RAMBA is currently producing gas with minor amounts of oil and condensate from the field. The TAC expires in 2020.
- West Jambi (KSO). This acreage is located in the northern part of South Sumatra basin. In June 2011, Ramba Energy executed a KSO (Joint Operation) agreement with Pertamina, giving the company the rights to explore and exploit the asset for 20 years as the asset Operator. There is no current production from the block and some of the firm work commitments still need to be fulfilled before a PoD can be crafted.



Figure 1-1: Location of the Indonesian assets evaluated in this report

A summary of working interest, development status and other key aspects of each of these three assets is listed in Table 1-1.

Asset Name	Working Interest	Development Status	License Expiry Date	Type of Resource
Lemang PSC	31%	Development underway, some early production	January 18, 2037	Oil, Condensate and gas Reserves and Contingent Resources
Jatirarangon TAC	70%	Producing	May 22, 2020	Gas, minor Oil Reserves and Contingent Resources
West Jambi KSO	100%	Undeveloped	June 13, 2031	Oil, Condensate and Gas Contingent Resources only

Table 1-1 Key features of the assets evaluated in this report

1.2 LIMITATIONS & DISCLAIMERS

The evaluation presented in this Qualified Person's Report ("QPR") has been conducted within our understanding of the regional petroleum legislation, taxation and other regulations that currently apply to these interests. LEAP ENERGY is not in a position to attest to the property title, financial interest relationships or encumbrances related to the property. Our estimates of potential resources and risks are based on the data set available to LEAP ENERGY as provided by Ramba Energy. We have accepted, without independent verification, the accuracy and completeness of these data.

1.3 STANDARDS USED IN THIS REPORT

Volumes and risk factors in this report are presented in accordance with the 2007 SPE/WPC/AAPG/SPEE Petroleum Resource Management System ("PRMS") and the 2011 SPE/WPC/AAPG/SPEE Guidelines for the Application of PRMS. Below we provide a summary of the relevant definitions and references that are in consideration for the resource classification definition.

1.3.1 PRMS Resource classification

The SPE 2007 PRMS document provides the following risk and uncertainty based assessment.

Vertical axis: resource type classification

The Risk is represented on the vertical axis, and is the basis for the classification in Discovered Reserves, Discovered Contingent Resources and Undiscovered Resources.

The main difference between Contingent Resources and Reserves is whether commercial viability has been established with sufficient definition and is combined with an intent to develop the resources. For resources to be classified as reserves, a project to develop them must be sufficiently defined, its viability established technically and commercially, and there must be an intent and commitment to go ahead within a reasonable timeframe.

Undiscovered identified resources are classified as Prospective (see the next section for the definition of Discovery status).

Note that further sub-classifications are made within these three main groups, to capture project economic, technical and technological maturity.

Horizontal axis: uncertainty based classification

Within each of these three main groups (Reserves, Contingent and Prospective Resources), the level of uncertainty is captured by the respective 1P/2P/3P, 1C/2C/3C and Low/Mid/High estimates. The PRMS classification recommends a mapping to be made between the probabilistic assessment P90/P50/P10 and the 1/2/3 and Low/Mid/High categories.

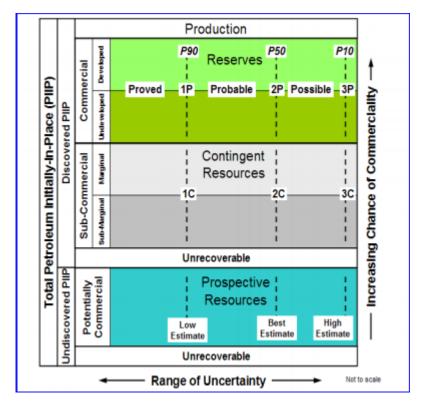


Figure 1-2: PRMS 2007 Resource Classification diagram

1.3.2 PRMS Discovery Status justification

According to the PRMS 2007 document, the following defines the requirement for volumes to be 'discovered'":

A discovery is one petroleum accumulation, or several petroleum accumulations collectively, for which one or several exploratory wells have established through testing, sampling, and/or logging the existence of a significant quantity of potentially moveable hydrocarbons. In this context, "significant" implies that there is evidence of a sufficient quantity of petroleum to justify estimating the in-place volume demonstrated by the well(s) and for evaluating the potential for economic recovery. Estimated recoverable quantities within such a discovered (known) accumulation(s) shall initially be classified as Contingent Resources pending definition of projects with sufficient chance of commercial development to reclassify all, or a portion, as Reserves. Where in-place hydrocarbons are identified but are not considered currently recoverable, such quantities may be classified as Discovered Unrecoverable, if considered appropriate for resource management purposes; a portion of these quantities may become recoverable resources in the future as commercial circumstances change or technological developments occur.

1.3.3 PRMS Project Maturity Subclasses

As detailed in PRMS 2007 and the PRMS application guidelines of 2011, development projects (and their associated recoverable quantities) may be sub-classified according to project maturity levels and the associated actions (business decisions) required to move a project toward commercial production.

For Reserves, the project maturity sub-classes include the following:

- 1. Reserves (On Production)
- 2. Reserves (Approved for Development)
- 3. Reserves (Justified for Development)

Whilst the "On Production" subclass is self-evident, the difference between "Approved for Development" and "Justified for Development" is more subtle. Projects "Approved for Development" have all required approvals and contracts in place. For a project to classify as "Justified for Development", there must be a firm agreement by all parties and stakeholders that the project is commercially viable and to be executed (i.e., there is a firm "intent") whilst some of the specific contracts and approvals are still being secured. Therefore, projects normally would not be expected to be classified as "Justified for Development" for very long. In PRMS, the recommended benchmark is that development would be expected to be initiated within 5 years of assignment to this subclass.

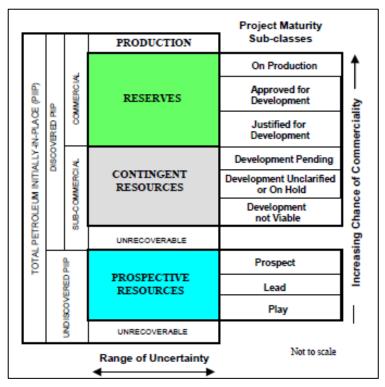


Figure 1-3: subclasses based on project maturity

Discovered sub-commercial projects are classified as Contingent Resources. For contingent resources, the subclasses include the following:

- 1. Contingent Resources (Development Pending);
- 2. Contingent Resources (Development Unclarified or on Hold);
- 3. Contingent Resources (Development not Viable).

The PRMS defines a project as Sub-Commercial if the degree of commitment is such that the accumulation is not expected to be developed and placed on production within a reasonable time frame. While 5 years is recommended as a benchmark, a longer time frame could be applied where, for example, development of economic projects are deferred at the option of the producer for, among other things, market-related reasons, or to meet contractual or strategic objectives.

PRMS divides projects currently classified as Contingent Resources into two groups, based on assumptions regarding future conditions and their impact on ultimate economic viability. These two groups are Marginal Contingent Resources

and Sub-Marginal Contingent Resources. Marginal Contingent Resources are known (discovered) accumulations for which a development project has been evaluated as economic or reasonably expected to become economic but commitment is withheld because of one or more contingencies. Sub-Marginal Contingent Resources on the other hand, are known (discovered) accumulations for which a development project has been evaluated to not meet economic criteria, even considering reasonably expected improvements in conditions.

1.3.4 PRMS Risk Assessment

Both Contingent Resources and Prospective Resources are subject to risk. Prospective Resources are undiscovered and the probability of success is referred to in PRMS as the Chance of Discovery (CoD). Contingent Resources are by definition discovered but are subject to a Chance of Development (also CoD). Assigning a CoD is not required formally as part of external reporting, as stated in the 2011 Guidelines for the application of PRMS:" If Contingent Resources are reported externally, the commercial risk can be communicated to users (e.g., investors) by various means, including: (1) describing the specific contingencies associated with individual projects; (2) reporting a quantitative chance of commerciality for each project; and/or (3) assigning each project to one of the Project Maturity subclasses"(p16).

In the case of Contingent Resources, at present there is no accepted industry approach to estimating Chance of Development. In this report, we therefore choose to report Contingent Resources on an 'unrisked' basis.

When dealing with prospective resources i.e., undrilled prospects, there is a more accepted industry approach to risk assessment for Prospective Resources. It is standard practice to assign a Probability of Success (PoS) which represents the likelihood of source rock, charge, reservoir, trap and seal combining to result in a present-day hydrocarbon accumulation. LEAP ENERGY assesses risk by considering both a play risk and a prospect risk. The chance of success for the play and prospect are multiplied together to give a Probability of Success (PoS). We consider three factors when assessing play risk: source, reservoir, seal and we consider four factors when assessing prospect risk: trap, seal, reservoir and charge. The result is the chance or Probability of discovering hydrocarbon volumes within the range defined. It is not an estimation of commercial chance of success.

1.3.5 PRMS Resources Aggregation

In case of multiple hydrocarbon pools being under consideration, it is common for operators to develop a resource summary for the aggregated portfolio of discovered and undiscovered reserves and resources, into different categories (1P, 2P, 3P, 1C, 2C, 3C). Given the corresponding confidence factor associated with these resources (1P and 1C = 90%, 2P and 2C = 50%, 3P and 3C = 10%), it is only statistically correct to probabilistically aggregate those, and not arithmetically add the reserves and resources within their corresponding categories. Probabilistic addition can be adequately performed with a sampling method such as Monte Carlo simulation, or other similar methodologies.

PRMS however recommends that for reporting purposes, assessment results should not incorporate statistical aggregation beyond the field, property or project level. It also recognizes that the arithmetic sum of 1P Reserves or 1C Resources will be pessimistic and not representative of the true aggregated P90 Reserves or Resources. Similarly the arithmetic sum of 3P Reserves or 3C Resources will be optimistic and not representative of the true aggregated P10 Reserves or Resources.

1.4 WORK CONDUCTED IN SUPPORT OF THIS REPORT

LEAP Energy conducted a SPE-PRMS compliant Reserves and Resource evaluation to SPE-PRMS of the assets listed in Table 1-1. The reference date for the Reserves and Contingent Resources reported herein is **31 December 2017**.

Our evaluation made use of data, interpretations and models generated by the asset Operator(s) and provided to us by Ramba. We have accepted, without independent verification, the accuracy and completeness of the data. No site visit was made. However, interpretations of - and interpretative models based on - the said data were checked for technical

reasonableness and alignment to industry standard practices. In specific instances where deemed required or appropriate, Operator's interpretations or models were complemented or replaced by interpretations made by LEAP. Specific aspects of our subsurface interpretations review include geophysics, petrophysics, reservoir geology and petroleum engineering discipline reviews. In relation to resources to be classified in Reserves category, Operators economic and cost assumptions were screened for reasonableness and also other applicable factors such as status of regulatory approvals, commitment of funding etc. were verified.

A generic illustration of the workflow followed in our quantification of Reserve and Resources of each asset is shown in Figure 1-4. First, available static reservoir data and interpretations are scrutinized and then integrated into a 3D reservoir framework model within which reservoir properties are mapped, fluid contacts assigned and from which in-place hydrocarbon volumes (Oil Initially In-Place or STOIIP, and Gas Initially In-Place or GIIP) are estimated. STOIIP and GIIP are subsequently combined with estimates of the technically anticipated Recovery Factor (RF) that take into account subsurface reservoir conditions and applied or proposed development concept. Application of this workflow yields a range in estimates (Low, Mid, High) of the potentially recoverable hydrocarbon resources in the field (herein referred to as *Technical* EUR or T-EUR).

Then, forecasts of production profiles are made considering historic production in the field, and/or relevant analogue data or insights. This is done using industry accepted techniques such as Decline Curve Analysis (DCA). Where applicable, other techniques such as Material Balance modeling may also be used. Pending favorable review of economic and commercial considerations, production forecasts for existing development (wells and facilities) in the field comprise the developed Reserve whilst forecasts for <u>firmly committed</u> future development activities comprise the undeveloped Reserve. A consistency check is then made to ensure that the sum of historical production (Np) + forecasted Reserve (developed + undeveloped) is always less or equal than the potentially recoverable hydrocarbon resources in the field (the T-EUR) for the relevant estimation subclass (Low, Mid, High). Any potential hydrocarbon resource in excess of the *Np plus Reserve* can then be considered for inclusion into Contingent Resource category.

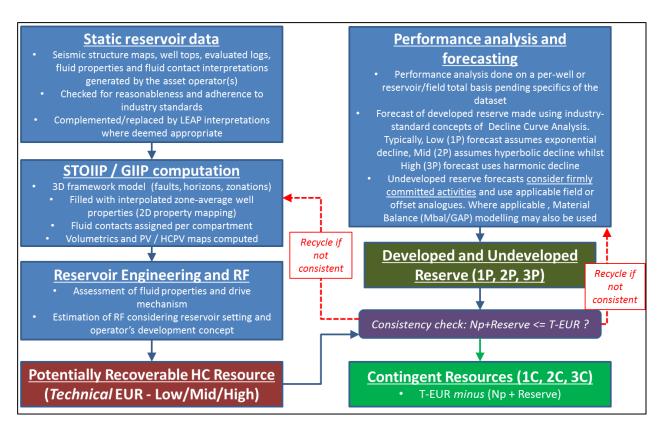


Figure 1-4: generic workflow used in the quantification of Reserve and Resources

1.5 IN-PLACE HYDROCARBON VOLUMES

A summary of our assessment of Hydrocarbons Initially In Place (STOIIP and GIIP) in the portfolio of Indonesian licenses and assets where RAMBA represented it owns an interest, is provided in Table 1-2. Effective date of our assessment is 31.12.2017.

Under Hydrocarbon Volumes "Net attributable to Issuer", we tabulate the Working Interest fraction of the STOIIP and GIIP reflective of the specific working interest in each of the blocks and assets. Note that Working Interest STOIIP and GIIP should NOT be construed to be equal to or represent net entitlement to Reserves and Resources from interests owned by RAMBA.

Net Risk Gross Attributable to attributable to Category **Factors** Remarks Licence (MMbbl/Bcf) Issuer (1) (2) MMbbl/Bcf Hydrocarbons Initially In Place Oil Initially In Place (STOIIP - MMbbl) 11.22 N/A Lemang PSC (oil in LTAF formation; 2018 drilling may prompt further Low 16.87 revision up or down). Jatirarangon (oil in TAF and Batu Rajah Mid 49.89 38.22 N/A 93.99 68.95 N/A formation), West Jambi (oil in ABF formation) High Gas Initially In Place (GIIP - Bcf) Lemang PSC (Non-Associated Gas in UTAF formation), Jatirarangon 115.01 73.96 N/A Low Mid 168.28 108.29 N/A (NAG in Cisubuh, Parigi & Cibulakan formation), West Jambi (NAG in High 267.82 145.85 N/A Gumai & LTAF formation).

Table 1-2: Tabulation of Hydrocarbons-Initially-In-Place across the portfolio of Indonesian assets evaluated herein, as of effective date 31 December 2017.

Specific notes pertaining to Table 1-2 are as follows:

- 1) Tabulated values are Working Interest STOIIP and GIIP volumes which do not necessarily equate to net entitlement under license contract terms
- 2) No risk factors have been applied to any of the discovered Hydrocarbon In Place volumes

Because PRMS Resource classification applies to recoverable resources only whilst above tabulation is hydrocarbon in place volumes, we use an uncertainty-based classification into "Low", "Mid" and "High" to reflect different degrees of confidence associated with each estimate.

1.6 RESERVES AND RESOURCES

A summary of Reserves and Resources evaluated by us in the portfolio of Indonesian licenses and assets RAMBA represented it owns an interest, is provided in Table 1-3. As said, **effective date of our assessment is 31.12.2017**.

Under Reserves and Resources "Net attributable to Issuer", we tabulate Working Interest Reserves and Resources reflective of the specific working interest in each of the blocks and assets. Note that Working Interest Reserves and Resources should NOT be construed to be equal to or represent net entitlement Reserves and Resources from interests owned by RAMBA.

As per PRMS2007/2011, "P" denotes Reserves category which implies that commercial viability has been established with sufficient definition combined with a firmly demonstrated intent to develop the resources. Subclasses 1P, 2P and 3P denote Low (proved), Mid (proved + probable) and High (proved + probable + possible) estimates of hydrocarbon Reserve quantities. Note that 2P and 3P estimates have not been risk adjusted to make them comparable to 1P reserves.

"C" denotes Contingent resources as per PRMS2007/2011 which means that there are unresolved technical and/or commercial contingencies with regards to the said resources and there is no certainty in recovering any of those Contingent Resource quantities. 1C, 2C and 3C denote Low, Mid and High estimates of Contingent Resources.

Table 1-3: Tabulation of Reserves and Resources across the portfolio of Indonesian assets evaluated herein, as of effective date 31 December 2017

Category	Gross Attributable to Licence (MMbbl/Bcf)	Net attributable to Issuer (1) MMbbl/Bcf	Risk Factors (2)	Remarks		
Reserves						
Oil Reser	ves (MMbbl)					
1P	0.92	0.28	N/A	Lemang oil (LTAF formation; 2018 drilling may prompt further revision		
2P	3.24	1.01	N/A	up or down). Jatirarangon oil (JRR-01D oil production reinstalled)		
3P	5.21	1.62	N/A			
Natural G	as Reserves (Bcf)					
1P	0.63	0.44	N/A	Jatirarangon developed +undeveloped gas (uplifted to reflect		
2P	1.55	1.09	N/A	committed WP&B)		
3P	2.70	1.89	N/A			
Natural G	as Liquid Reserves (MN	∕lbbl)				
1P	-	-	N/A			
2P	-	-	N/A			
3P	-	-	N/A			
Contingent	t Resources (CR)					
Oil (MMb	obl)					
1C	1.67	1.00	N/A	Lemang discovered oil resource potential beyond the approved PoD		
2C	4.02	3.52	N/A	scope. W. Jambi discovered oil (revised to reflect new well results and		
3C	12.00	9.69	N/A	new mapping)		
Natural G	Gas (Bcf)					
1C	49.69	29.53	N/A	Lemang Gas resources awaiting commercialization. Jatirarangon gas		
2C	84.92	52.27	N/A	resources beyond current production capacity. W.Jambi discovered gas		
3C	149.34	78.72	N/A			
Natural G	Natural Gas Liquid (MMbbl)					
1C	0.47	0.21	N/A	Lemang Gas Liquid resources awaiting commercialization. W.Jambi		
2C	0.83	0.40	N/A	discovered gas		
3C	2.07	0.83	N/A			

Specific notes pertaining to are as follows:

- 1) Tabulated values are Working Interest Reserve and Resource which do not necessarily equate to net entitlement under license contract terms
- 2) No risk factors have been applied to any of the discovered Reserve and Resource estimates
- 3) 1P: Proved; 2P: Proved + Probable; 3P: Proved + Probable + Possible Reserves
- 4) 1C: Low Estimate; 2C: Best Estimate; 3C: High Estimate Contingent Resources
- 5) MMbbl: Millions of stock tank barrels
- 6) Bcf: Billions of standard cubic feet

1.7 DEVELOPMENT AND COMMERCIAL STATUS OF RESOURCES

1.7.1 Lemang PSC

The focus of ongoing and future hydrocarbon development activities in the Lemang PSC is the development of the Akatara field. Discovered hydrocarbons in Akatara are Non-Associated gas in the Upper Talang Akar Formation (UTAF) and Oil and Associated Gas in the Lower Talang Akar Formation (LTAF). The Akatara field is currently at the development stage for the oil on the basis of an approved Plan of Development (POD) and following an appraisal stage that included various PSC-committed exploration/appraisal activities which are all fulfilled. Approved development scope as per the POD includes drilling of ten (10) wells in addition to recompletion of the existing three (3) exploration/appraisal wells. At the time of writing this report, the Akatara field has two (2) active oil producers, one (1) active injector/water disposal well and three (3) idle wells awaiting recompletion as oil producers. Operator also has a firm intent to develop

the (associated and non-associated) gas resources in Akatara and there is one (1) idle well earmarked as a future gas producer. However, some of the commercial and regulatory contingencies required for Akatara gas commercialization are not yet resolved; for example there is no Gas Sales Agreement (GSA) in place and hence no certainty on date of commencement of gas export, offtake rate or gas price.

Our assessment of Akatara resources is based on inspection of geophysical, petrophysical, geological and petroleum engineering data following industry standards, to map in-place volumes of oil and gas. These estimates were then combined with estimates of recovery efficiency to yield a potentially recoverable resource base. Decline Curve Analysis (DCA) of historic well production combined with analogue evidence were then used to forecast production of oil and associated gas for the POD-committed oil development. Potential gas recovery profiles were generated using Material Balance modeling. Economic assumptions made by RAMBA in justification of the oil development project were inspected and found not unreasonable.

Based on the results of development drilling to date, the Akatara field appears to be geologically rather complex. Observed formation pressures and fluid distribution indicate a significant degree of compartmentalization in the oil reservoirs of Lower Talang Akar Formation (LTAF). On the other hand, the gas bearing sands of the B-member of Upper Talang Akar Formation (UTAF-B) appear in pressure communication across the field despite varying sand thickness and quality from well to well. The field is covered by good quality 3D-seismic data and operator appears to utilize state-of-the-art seismic interpretation tools and techniques to aid mapping of sand distribution and optimizing placement of the wells. Given the ongoing development drilling in the field, insights into the hydrocarbon Resources base and anticipated Reserve profile in Akatara are likely to evolve further as time progresses and more well data becomes available.

Considering the technical project maturity and other considerations like regulatory approvals, committed funding and the like, we are satisfied that oil resources in Akatara related to the POD approved development plan meet the criteria for inclusion in Reserves category as per PRMS2007/2011. On the other hand, it is our view that gas resources in Akatara currently have the status of Contingent Resources. They can mature to Reserve category once a Heads of Agreement (HOA) with sufficiently defined Gas Sales Agreement (GSA) terms, is in place.

1.7.2 Jatirarangon TAC

Production of oil and gas from Jatirarangon field commenced in 2004. Gas is evacuated to the Petragas trunk line some 6.7km away from the field itself and sold to PGN at 6.75 USD/MMbtu. Gas production comes from sandstone reservoirs in Cisubuh Formation (CBS), Parigi Formation and Cibulakan Formation (CBA). In addition to the gas, minor quantities of oil are produced from sandstone reservoirs in Talang Akar Formation (TAF) and from a limestone reservoir in Batu Raja Formation. Based on historic production data provided by RAMBA, it appears that at end 2017 there were three (3) active gas producer wells in the field and one (1) well producing minor quantities of oil. The Jatirarangon Technical Assistance Contract (TAC) that provides the regulatory basis for hydrocarbon exploitation by RAMBA expires in late May 2020.

Our analysis of developed Reserves in Jatirarangon field is based on Decline Curve Analysis (DCA) of the field's historic production records. We noted that over and above the developed Reserve, RAMBA are bound to execute two (2) well service jobs to enhance gas production and execute three (3) well workovers to restore gas production in (near-) idle wells in Jatirarangon during the course of 2018. Using historic production data, we have estimated a range of production rate gains for these activities and included them as Undeveloped Reserve. No undeveloped oil Reserve was quantified. All Reserve forecasts are truncated at end of May 2020 when the license expires. RAMBA's economic assumptions pertaining to developed and undeveloped Reserve were reviewed and found not unreasonable.

Considering techno-commercial factors pertaining to Jatirarangon resources including regulatory requirements and approval status, committed funding, economic assumptions made by RAMBA etc etc. we are satisfied that the resources included in Developed and Undeveloped Reserves category in Jatirarangon meet the criteria for classifying them as Reserves as per PRMS 2007/2011.

1.7.3 West Jambi KSO

West Jambi block is held under a KSO (Joint Operation) Contract with a license period from 2011 until 2031. The block is currently still in the Exploration stage and there is no production from the block. Some of the firm license commitments are still outstanding include acquisition of 3D Seismic, drilling of one (1) additional exploration well and commissioning of a GG&R Study. Compilation of a Plan Of development (to be approved by regulator) can only be done once those firm license commitments are fulfilled.

We have done an assessment of in-place hydrocarbon resources in West Jambi based on geophysical interpretations made by RAMBA (which were found not unreasonable) combined with hydrocarbon reportings in key wells and our assessment of petrophysical properties from available well logs. We then combined our estimates of discovered hydrocarbon in-place volumes with estimates of recovery efficiency from a potential future development, in a manner consistent with available reservoir and fluid data/assumptions and sound engineering practice. Considering the outstanding license commitments and other considerations such as the absence of a development plan, we are of the opinion that any discovered hydrocarbons in West Jambi should be classified as Contingent Resources as per PRMS 2007/2011.

1.8 DATE AND SIGNATURE

I, Dr. Arnout Everts, holder of an MSc (Honours) in Geology and a PhD in Geology (both from the Institute for Earth Sciences, Vrije Universiteit Amsterdam, Netherlands), of A-1 3A Highbank Condominium, Sri Bukit Persekutuan, 50480 Kuala Lumpur, Malaysia, hereby certify that:

- 1. I am an employee of LEAP Energy Partners Sdn Bhd (LEAP Energy) and supervised the preparation of the Qualified Person's Report RESERVES AND CONTINGENT RESOURCES ASSESSMENT for certain fields in Indonesia. The effective date of this evaluation is 31 December 2017.
- 2. LEAP Energy and I are independent of Ramba Energy Limited, their subsidiaries, their respective directors, senior management, and advisers, in compliance with Rule 442 of the Rulebook governing the listing of securities on the Singapore Exchange.
- 3. I attended Institute for Earth Sciences, Vrije Universiteit Amsterdam and graduated with a Master of Science (Honours) degree (1990) and a subsequent Doctorate of Philosophy in Geology (1994). I am Holder of the title *EuroGeol* (registration no 1435) awarded by the European Federation of Geologists. I am also registered as a Professional Geologist (PG415) with the Board Of Geologists in Malaysia. I am an upstanding member of the American Association of Petroleum Geologists (AAPG 30 years) and also a member European Association of Geologists and Engineers (EAGE). I have in excess of 23 years' experience in the Petroleum Industry.

SIGNED:

Dr. Arnout J.W. Everts

LEAP Energy Partners Sdn Bhd

Technical Director and Managing Partner

Date: 21 September 2018

2 APPENDIX A: GLOSSARY OF TERMS AND ABBREVIATIONS

1C	denotes a Low estimate scenario of Contingent Resources
2C	denotes a Mid or Best estimate scenario of Contingent Resources
3C	denotes a High estimate scenario of Contingent Resources
1P	denotes a Low or Proved estimate scenario of Reserves
2P	denotes a Mid or Proved + Probable estimate scenario of Reserves
3P	denotes a High or Proved + Probable + Possible estimate scenario of Reserves
2D seismic	seismic data acquired in a single traverse or series of traverses. 2D seismic data provides single cross sections
3D seismic	seismic data acquired as multiple, closely spared traverses. 3D seismic data typically provides a more detailed and accurate image of the subsurface than 2D seismic
Abex	Decommissioning costs
Aggregation	the process of summing reservoir (or project) level estimates of resource quantities to higher levels or combinations such as field, country or company totals. Arithmetic summation may yield different results from probabilistic aggregations of distributions
API	American Petroleum Institute
appraisal	the phase of petroleum operations immediately following a successful discovery. Appraisal is carried out to determine size, production rate and the most efficient development of a field
appraisal well	a well drilled as part of an appraisal of a field
asl	above sea level
В	billion
bbl(s)	barrels
bbls/d	barrels per day
Bcm	billion cubic metres
block	term commonly used to describe areas over which there is a petroleum or production licence
Bg	gas formation volume factor
Bgi	gas formation volume factor (initial)
Во	oil formation volume factor
Boi	oil formation volume factor (initial)
Bw	water volume factor

boe	barrels of oil equivalent. Converting gas volumes to oil equivalent is customarily done on the basis of the nominal heating content or calorific value of the fuel. Before aggregating, the gas volumes must be converted to the same temperature and pressure. common industry gas conversion factors usually range between 1 barrel of oil equivalent = 5,600 scf of gas to 6,000 scf of gas
bopd	barrels of oil per day
BS&W	basic sediment and water
BTU	British Thermal Unit
Bscf	billions of standard cubic feet
bwpd	barrels of water per day
charge or migration	the movement of hydrocarbons from source rocks into reservoir rocks. Migration can be local or can occur along distances of hundreds of kilometres in large sedimentary basins, and is critical to a viable petroleum system
closure	the height from the apex of a reservoir structure to the lowest contour that contains the reservoir structure (spill). Measurements of both the areal closure and the distance from the apex to the lowest closing contour are typically used for the calculations of the estimates hydrocarbon content of a trap
CO2	Carbon dioxide
commercial discovery	discovery of oil and gas which the Company determines to be commercially viable for appraisal and development
condensate	liquid hydrocarbons which are sometimes produced with natural gas and liquids derived from natural gas
CGR	Condensate Gas Ratio
Contingent Resources	those 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 due to one or more contingencies
Conventional	Conventional resources are defined as hydrocarbons above a mapped structural closure.
сР	centipoise
Cretaceous	the final period of the Mesozoic era ranging from approximately 65 to 144 million years ago
CROCK	rock compressibility
CT	Corporation Tax
Cw	water compressibility
DBA	decibels
DCA	Decline Curve Analysis
Decommission or decommissioning	the process or the procedure by which the facilities and the infrastructure related to the production of hydrocarbon from an oil field are demobilised and abandoned
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dip	the angle at which a rock stratum or structure is inclined from the horizontal
discovery	an exploration well which has encountered oil and gas for the first time in a structure
drilling campaign	a period of time in which drilling activities are performed
dry well	a well which does not encounter hydrocarbons in economically producible quantities
DST	drill stem test
Decommissioning	cost of charge associated with decommission procedures
charge	
E&P	exploration and production
Ea	areal sweep efficiency
ELT	Economic Limit Test
EMV	Expected Monetary Value
Eocene	the epoch after the Palaeocene and before the Oligocene in the Tertiary period from approximately 55.8 million to 33.9 million years ago
ESD	emergency shut down
EUR	Estimated Ultimate Recovery (Technically Recoverable pre-ELT)
Evert	vertical sweep efficiency
exploration	the phase of operations which covers the search for oil or gas by carrying out detailed geological and geophysical surveys followed up where appropriate by exploratory drilling
exploration drilling	drilling carried out to determine whether oil and gas are present in a particular area or structure
exploration well	a well in an unproven area or prospect, may also be known as a "wildcat well"
facies	sedimentological description of rock
farmout	a term used to describe when a company sells a portion of the acreage in a block to another company, usually in return for consideration and for the buying company taking on a portion of the selling company's work commitments
FBHP	flowing bottom hole pressure
field	a geographical area under which either a single oil or gas reservoir or multiple oil or gas reservoirs lie, all grouped on or related to the same individual geological structure feature and/or stratigraphic condition
formation	a body of rock identified by lithic characteristics and stratigraphic position which is mappable at the earth's surface or traceable in the subsurface
FPSO	Floating production storage and offloading
FTHP	flowing tubing head pressure
ft	feet
ftSS	depth in feet below sea level
GDT	Gas Down To
	1

geophysical	geophysical exploration is concerned with measuring the earth's physical properties to delineate structure, rock type and fluid content — these measurements include electrical, seismic, gravity and magnetics
GIP	Gas in Place
GIIP	Gas Initially in Place
GOR	gas/oil ratio
GPoS	Geological Possibility of Success
GRV	gross rock volume
GSA	Gas Sales Agreement
GWC	Gas Water Contact
H2S	Hydrogen sulphide
HIC	hydrogen induced cracking
hydrocarbon	a compound containing only the elements hydrogen and carbon. May exist as a solid, a liquid or a gas. The term describes any combination of oil, gas and/or condensate
infrastructure	oil and gas processing, transportation and off-take facilities
IRR	internal rate of return
KB	Kelly Bushing
ka	absolute permeability
kh	horizontal permeability
km	kilometres
km2	square kilometres
kPa	kilopascals
kr	relative permeability
krg	relative permeability of gas
krgcl	relative permeability of gas @ connate liquid saturation
krog	relative permeability of oil-gas
kroso	relative permeability at residual oil saturation
kroswt	relative permeability to oil @ connate water saturation
kv	vertical permeability
licence	an exclusive right to explore for petroleum, usually granted by a national governing body
licence area	the area covered by a licence
m	metre
M	thousand

Miocene	the epoch after the Oligocene and before the Pliocene in the Tertiary period approximately from 23 million to 5.3 million years ago
MM	million
MMstb	million barrels
MMboe	million barrels of oil equivalent
MMstb	million stock tank barrels
M\$	thousand US dollars
MM\$	million US dollars
MD	measured depth
mD	permeability in millidarcies
m3	cubic metres
m3/d	cubic metres per day
MMscf/d	millions of standard cubic feet per day
m/s	metres per second
msec	milliseconds
mV	millivolts
Mt	thousands of tonnes
MMt	millions of tonnes
MOD	Money of the Day
MPa	mega pascals
MPD	Managed pressure drilling
natural gas	gas, predominantly methane, occurring naturally, and often found in association with crude petroleum
N2	Nitrogen
NTG	net to gross ratio
NGL	Natural Gas Liquids
offshore	that geographical area that lies seaward of the coastline
oil	a mature of liquid hydrocarbons of different molecular weight
oil field	the mapped distribution of a proven oil-bearing reservoir or reservoirs
Oligocene	the epoch after the Eocene and before the Miocene in the Tertiary period approximately from 34 million to 23 million years ago
onshore	that geographic area that lies landward of the coastline
operator	the company that has legal authority to drill wells and undertake production of oil and gas. The operator is often part of a consortium and acts on behaif of this consortium

OWC	oil water contact
P90	denotes a scenario which has at least a 90% probability of occurring
P50	denotes a scenario which has at least a 50% probability of occurring
P10	denotes a scenario which has at least a 10% probability of occurring
participating interests	the proportion of exploration and production costs each party will bear and the proportion of production each party will receive, as set out in an operating agreement
Pb	bubble point pressure
Pc	capillary pressure
petroleum	A generic name for oil and gas, including crude oil, natural gas liquids, natural gas and their products
petroleum system	Geologic components and processes necessary to generate and store hydrocarbons, including a mature source rock, migration pathway, reservoir rock, trap and seal
phase	a distinct state of matter in a system, e.q. liquid phase or gas phase
phi	porosity fraction
pi	initial reservoir pressure
PI	productivity index
Play	a conceptual model for a style of hydrocarbon accumulation
PLEM	Pipeline end manifold
Pliocene	the epoch after the Miocene up to the end of the Tertiary period approximately from 5.3 million to 1.8 million years ago
POD	Plan Of Development
ppm	parts per million
Probable Reserves	reserves which, based on the available evidence and taking into account technical and economic factors, have at least a 50 per cent. chance of being produced
PLT	Production Logging Tool
POR	porosity
PHIT	Total porosity (including clay-bound water)
PHIE	Effective porosity
prospect	an identified trap that may contain hydrocarbons. A potential hydrocarbon accumulation may be described as a lead or prospect depending on the degree of certainty in that accumulation. A prospect is generally mature enough to be considered for drilling
Prospective Resources	those quantities of petroleum which are estimated, on a given date, to be potentially recoverable from undiscovered accumulations
prospectivity	the likelihood of an area to contain potential hydrocarbon accumulations, i.e. prospects

Proved Reserves	reserves which, based on the available evidence and taking into account technical and economic factors, have at least a 90 per cent chance of being produced
psi	pounds per square inch
psia	pounds per square inch absolute
psiq	pounds per square inch gauge
Pwt	flowing bottom hole pressure
PVT	pressure volume temperature
rb	barrel(s) of oil at reservoir conditions
rcf	reservoir cubic feet
Reserves	those quantities of petroleum which are anticipated to be commercially recoverable by application of development projects to known accumulations from a given date forward under defined conditions, reference should be made to the full PRMS definitions for the complete definitions and guidelines
reservoir	an underground porous and permeable formation where oil and gas has accumulated
Resources	Contingent and Prospective Resources, unless otherwise specified
RFES	Ring Fence Expenditure Supplement
RFT	repeat formation tester
RKB	relative to Kelly bushing
rm ₃	reservoir cubic metres
SCADA	supervisory control and data acquisition
SCAL	Special Core Analysis
scf	standard cubic feet measured at 14.7 pounds per square inch and 60° F
scf/d	standard cubic feet per day
scf/stb	standard cubic feet per stock tank barrel
seal	a relatively impermeable rock, commonly shale, anhydrite or salt, that forms a barrier or cap above and around reservoir rock such that fluids cannot migrate beyond the reservoir. A seal is a critical component of a complete petroleum system
seismic survey	a method by which an image of the earth's subsurface is created through the generation of shockwaves and analysis of their reflection from rock strata
SGS	Sequential Gaussion Simulation
SIS	Sequential Indicator Simulation
sm ₃	standard cubic metres
So	oil saturation
Sor	residual oil saturation
Sorw	residual oil saturation (waterflood)

Swc	connlate water saturation
Soi	irreducible oil saturation
Sw	Waters saturation
Sw _{irr}	Irreducible water saturation
source	characteristic of organic-rich rocks to contain the precursors to oil and gas, such that the type and quality of expelled hydrocarbon can be assessed
source potential	characteristic of a rock formation to constitute a source of oil and gas
source rock	a rock rich in organic matter which, if given the right conditions, will generate oil or gas. Typical source rocks, usually shales or limestones, contain at least 0.5 per cent total organic carbon (TOC), although a rich source rock might have as much as 10 per cent organic matter. Access to a working source rock is necessary for a complete petroleum system
sq km	square kilometre
SSCC	sulphur stress corrosion cracking
stb	stock tank barrels measured at 14.7 pounds per square inch and 60° F
stb/d	stock tank barrels per day
STOIIP	stock tank oil initially in place
Sw	water saturation
\$	United States Dollars
t	tonnes
Tertiary	the Tertiary Period is a geological period from approximately 65 million to 1.8 million years ago
THP	tubing head pressure
trap	A configuration of rocks suitable for containing hydrocarbons and sealed by a relatively impermeable formation through which hydrocarbons will not migrate. Traps are described as structural traps (in deformed strata such as folds and faults) or stratigraphic traps (in areas where rock types change, such as unconformities, pinch outs and reefs). A trap is an essential component of a petroleum system
Tscf	trillion standard cubic feet
TVDSS	true vertical depth (sub-sea)
TVT	true vertical thickness
TWT	two-way time
Unconventional	Unconventional intervals are those below structural closure in which hydrocarbons have been demonstrated to be present or considered to be present
US\$	United States Dollar
Vsh	shale volume
W/m/K	watts/metre/ ° K
WAP	weighted average gas price

WC	water cut
WGIIP	Wet Gas Initially in Place
WOSPS PLEM	West of Shetland Pipeline System: Pipeline End Mandold
WUT	Water Up To
μ	viscosity
µgb	viscosity of gas
μob	viscosity of oil
μw	viscosity at water