

# Independent Certification confirms West Erregulla 2C of 513 Bscf gross with significant upside potential

- An independent, third-party review of the West Erregulla gas field by RISC has confirmed Central Area 2C Contingent Resources of 513 Bscf gross from 1 well
- Additional upside Central Area potential in 3C estimate of 966 Bscf gross
- Northern Area Prospective Resources of 102 Bscf gross could become a contingent resource in the event of a successful WE-3 well
- Recently approved Appraisal Plan comprising WE-3, WE-4 and potentially WE-5 wells will provide valuable sub-surface data for future resource estimates

Warrego Energy Limited ("Warrego", ASX: WGO), provides the following update in relation to Contingent and Prospective Resources for the West Erregulla gas field following the completion of an independent, third party review by Perth-based RISC Advisory Pty Ltd ("RISC"). The West Erregulla gas field, located in EP 469, onshore Perth Basin, Western Australia, is 50% owned by Warrego.

The independent, third party review and evaluation of West Erregulla was commissioned by Warrego to provide certainty to potential gas buyers and optimise term and price outcomes in negotiations for gas processing and sales.

Table 1. Independent estimate	of Central West Erregulla unrisked	Contingent Resources as at 11 May 2020

Central Area	Contingent Resource (100%) (Bscf)			Warrego Net (50%) (Bscf)		
Reservoir	1C	2C	3C	1C	2C	3C
Kingia	169	388	693	85	194	347
High Cliff	19	48	94	10	24	47
Dongara	19	58	130	10	29	65
Wagina	6	19	49	3	10	25
TOTALS	213	513	966	107	257	483

#### Notes:

1. Probabilistic evaluation methods have been used. The four reservoirs have been added arithmetically and include fuel and flare.

## Warrego's Managing Director and Group CEO, Mr Dennis Donald, said:

"To achieve certified 2C Contingent Resources of 513 Bscf gross from only one well confirms West Erregulla's status as a world class asset with significant upside potential. To put this in perspective, three wells were drilled on the nearby Waitsia field before similar volumes were booked<sup>1</sup>.

<sup>2.</sup> Contingent Resources are 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 owing to one or more contingencies.

<sup>3.</sup> The resources in this report have been evaluated by Mr Ian Cockerill, Head of Geoscience at RISC Advisory Pty Ltd and are based on, and fairly represent, information and supporting documentation provided by Warrego. Ian is a Petroleum Geologist with 19 years of experience and is a qualified petroleum reserves and resources evaluator (QPPRE) as defined by ASX listing rules. He is a full-time employee of RISC and has consented to the inclusion of this information in the form and context in which it appears.

<sup>&</sup>lt;sup>1</sup> Refer AWE Limited's announcement to ASX on 21 August 2015. Waitsia 2P + 2C totalled 484 Bcf. Wells drilled were Waitsia-1, Waitsia-2 and Senecio-3.



"Importantly, independent third-party certification also provides a high level of certainty to prospective gas buyers as well as potential suppliers and stakeholders. It also enables Warrego to target optimal outcomes when negotiating gas sales and processing arrangements," he said.

"Discussions with a number of potential gas buyers are well advanced and we are actively progressing commercialisation options.

"We are excited about commencing the West Erregulla 3 and 4 drilling campaign in the second half of 2020. The additional data we expect to acquire over the drilling campaign has the potential to further increase our contingent resources, particularly from the Northern Area of the field which has not yet been drilled," said Mr Donald.

The West Erregulla field is an elongated north-south four-way dip closed structure, approximately 10 km long by 4 km wide with a structural relief in the order of 100 m. West Erregulla-2 encountered gas in four Permian reservoirs with the Kingia sandstone being the primary reservoir in terms of resources and producibility. West Erregulla-2 was the deepest onshore well ever drilled in Australia with the Kingia reservoir encountered at over 4,500 mSS. The well flow tested up to 69 MMscf/d from the Kingia reservoir; consistent with test results from the Kingia reservoir at Waitsia.

The review by RISC confirms that West Erregulla is a significant gas discovery with low risk exploration upside. The Kingia is classified as a high quality, conventional gas reservoir. Additional data and further testing of the High Cliff, Dongara and Wagina reservoirs will be undertaken in the planned West Erregulla 3 and 4 wells to allow for a more definitive classification to be determined. Positive results may allow for higher recovery factors to be applied to these reservoirs in future.

In accordance with the Society of Petroleum Engineers' internationally recognised Petroleum Resources Management System (PRMS 2018), Warrego subdivided the West Erregulla field into a Central Area and a Northern Area. Seismic attributes were not used to assess the extent of the field.

Table 2. Independent estimate of	Northern West Erre	gulla unrisked Prospective	Resources as at 11 May 2020.

Northern Area	Prospectiv	Prospective Resource (100%) (Bscf)			Warrego Net (50%) (Bscf)		
Reservoir	1U	2U	3U	1U	2U	3U	
Kingia	33	79	156	17	40	78	
High Cliff	6	14	32	3	7	16	
Dongara	1	5	13	1	3	7	
Wagina	1	4	10	1	2	5	
TOTALS	41	102	211	21	51	105.5	

#### Notes:

- 1. Probabilistic evaluation methods have been used. The four reservoirs have been added arithmetically and include fuel and flare.
- 2. Prospective resources are the estimated quantities of petroleum that may potentially be recovered by the application of a future development project and may relate to undiscovered accumulations. These estimates have both an associated risk of discovery and risk of development. Further exploration and appraisal is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

In the Central Area, the West Erregulla-1 well intersected the Dongara reservoir while the West Erregulla-2 well intersected the Dongara, Wagina, Kingia and High Cliff reservoirs. The Central Area has been classified by RISC as a contingent resource (development unclarified). The resources can move to reserves when a commercial development plan is clarified and approved with associated gas sales.

The Kingia reservoir at West Erregulla is deeper and higher pressure than at Waitsia resulting in potentially higher recovery factors. The high productivity Kingia is estimated to deplete in a production phase with gas recovery factors up to 90%.



No wells have been drilled in the Northern Area, which has been classified by RISC as a prospective resource and has been given a 65% chance of geological success. The Northern Area would become a contingent resource in the event of a successful well.

Table 3. Independent estimate of Central and Northern West Erregulla Gas-in-place as at 11 May 2020.

Central Area	Gas-in	Gas-in-place (100%) (Bscf)			Warrego Net (50%) (Bscf)		
Reservoir	P90	P50	P10	P90	P50	P10	
Kingia	221	505	899	111	253	450	
High Cliff	31	77	149	16	39	75	
Dongara	35	110	244	18	55	122	
Wagina	11	36	93	6	18	47	
TOTALS	298	728	1385	149	364	693	

Northern Area	Gas-in-place (100%) (Bscf)			Warrego Net (50%) (Bscf)		
Reservoir	P90	P50	P10	P90	P50	P10
Kingia	52	123	237	26	62	119
High Cliff	9	23	50	5	12	25
Dongara	3	10	25	2	5	13
Wagina	2	8	19	1	4	10
TOTALS	66	164	331	33	82	166

Further wells, testing and data are likely to reduce uncertainty and may potentially result in revisions to these estimates. Gross rock volume is the key variable for field modelling and further appraisal is required to assess:

- Resource extension into the Northern Area;
- Gas Water Contact (yet to be encountered);
- Reservoir productivity from the High Cliff, Wagina and Dongara reservoirs; and
- Gas composition in the Wagina and High Cliff sandstones.

## The Joint Venture Partners in EP 469 are:

Warrego Energy Limited (ASX: WGO) (via subsidiaries) 50% Strike Energy Ltd (ASX: STX) (via subsidiaries, Operator) 50%

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## **About Warrego Energy Limited**

Founded in 2007, Warrego secured 100% of EP469 located onshore Perth Basin, Western Australia, in 2008. Warrego farmed out 50% of the block and operatorship in 2018 to Strike Energy Limited. In March 2019, Warrego completed a reverse takeover of Petrel Energy Limited which was renamed Warrego Energy Limited, the ASX listing being retained. Warrego is now focused on the development of onshore assets in Western Australia and Spain.



# **Summary of Abbreviations**

3D Three dimensional (seismic survey)
Bscf Billion standard cubic feet (of gas)

CO2 Carbon Dioxide
EP Exploration Permit

Km Kilometres m metres

mSS metres Sub Sea level

MMscf/d Million standard cubic feet (of gas) per day

PJ Petajoules

# **Appendix**

Figure 1. EP469 location of completed WE-2 and upcoming appraisal wells comprising WE-3, WE-4 and potentially WE-5

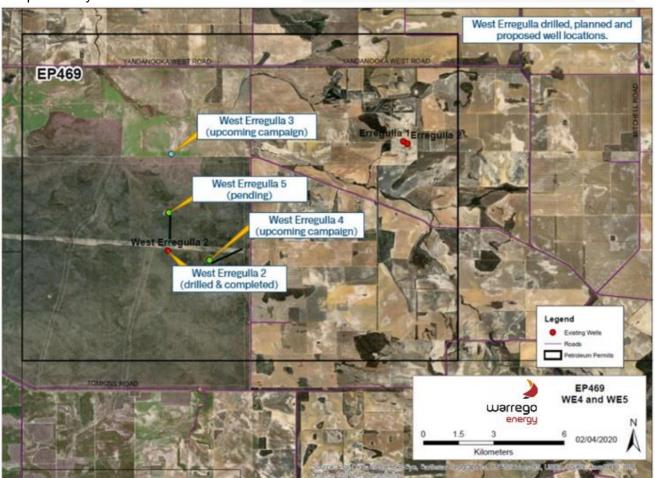
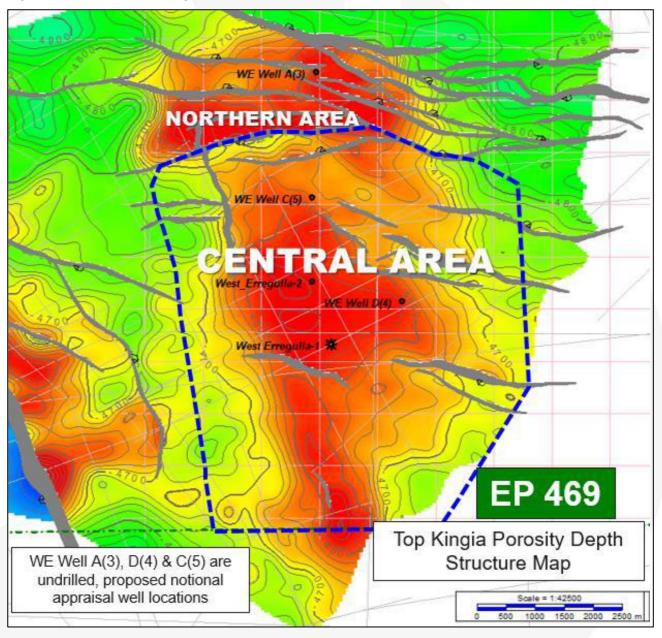




Figure 2. EP469 West Erregulla field Northern and Central Areas



**ENDS**