

# Mustang Prospect Development Permian Basin, Texas

# Highlights

- Following the success of White Hat 20#3 (initial production of 306 bopd) a development strategy has been finalized involving the drilling of 9 wells in the central Mustang area followed by a possible further 25 wells across the Mustang North and South areas (total of 34 wells)
- White Hat 20#3 continues to produce oil in line with expectations and, following the recent measurement of modest commercial gas volumes, the well is currently being connected to gas sales
  - New well White Hat 20#4 is on schedule to spud in July followed by White Hat 20#5 (permitting underway) which will be spudded shortly thereafter
  - Incorporating new data from White Hat 20#3, the Mustang Prospect Prospective Resource target best estimate has a P50 of 2.03mmboe recoverable and a high estimate P10 of 3.77mmboe from the Strawn "Fry" Sand member<sup>1</sup>
- The original oil in place in the Fry Strawn Sand member has increased to a best estimate P50 of 10.8 million barrels of oil in place and a high estimate P10 of 16.9 million barrels of oil in place<sup>1</sup>

<sup>1</sup> Cautionary Statement - The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons. mmboe – million barrels of oil equivalent – gas quantities are converted to boe using 6,000 cubic feet of gas per barrel. Quoted estimates are rounded to the nearest boe.

Winchester Energy Limited (Winchester) has formulated a development plan to accelerate oil production from the Strawn Fry Sand member of the Mustang Prospect.

Following the recent success of White Hat 20#3 (initial production of 306 barrels of oil per day (bopd)) Winchester commissioned independent U.S. based petroleum consultants, Mire & Associates, Inc. to conduct an optimization study and update

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ASX Code: WEL

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of the Gross Prospective Resources of the Strawn Sand Fry member within the Mustang Prospect.

Development optimisation studies identified a further 9 well locations within the central Mustang area followed by up to a possible further 25 wells across Mustang North and South (total of 34 wells) subject to ongoing development drilling success.

White Hat 20#3 continues to perform in line with expectations with respect to oil production. Following recent observations documenting modest associated gas flow from White Hat 20#3, Winchester has commenced work to connect the well to gas sales. The gross prospective gas resource converted to barrels of oil equivalent (boe) has also been factored into the revised Gross Prospective Resource estimate in the table below<sup>\*</sup>.

## Revised Prospective Resources Estimate for the Mustang Prospect (Strawn Sand Only)

Mustang Prospect	Low Estimate	Best Estimate	High Estimate
	P90*	P50*	P10*
Gross Prospective Resources <sup>+</sup>	1.078mmboe	2.029mmboe	3.773mmboe

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mmboe (million barrels of oil equivalent) - gas quantities are converted to boe using 6,000 cubic feet of gas to one barrel of oil. 6:1 conversion ratio is based on an energy equivalency conversion method and does not represent value equivalency. Estimates are rounded to the nearest boe.

<sup>+</sup> - WEL's working interest in the Mustang Prospect is 75%. WEL's future entitlement share may be subject to reduction in the event of farmout in the future, should any farmout occur. WEL's future entitlement may also increase should the 25% working interest party (CEGX) not exercise its right to participate.

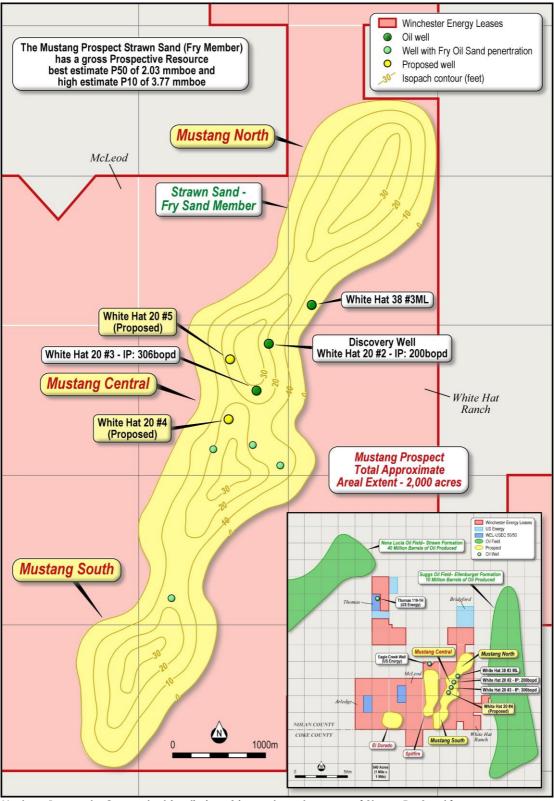
Preparations for the spudding of White Hat 20#4 in the central lobe of the Mustang Prospect, 420 metres south west of the successful White Hat 20#3 well are underway with the well scheduled to spud in July 2019.

White Hat 20#4 is a high-confidence step-out well targeting the Fry Sand member within the Strawn Formation. White Hat 20#4 will effectively twin the Jack Frost-3 well drilled in 1965 which recovered oil and gas cut mud on a drill stem test. Winchester has interpreted from wire line logs run in the well that bypassed oil pay is present in the Jack Frost-3 well. Success in the drilling, fracking and completion of White Hat 20#4 as at White Hat 20#2 and White Hat 20#3 is intended to rapidly and significantly increase Winchester's oil production.

Permitting work has also commenced for new well White Hat 20#5 which will spud shortly after the conclusion of drilling White Hat 20#4.

Carl E Gungoll Exploration LLC (CEGX), a private company, has the right to participate at a 25% working interest in White Hat 20#4.





Mustang Prospect – Conceptual (preliminary) isopach contour map of Strawn Fry Sand from well control and 3D seismic.



# Gross Prospective Resources Summary – All Prospects

The revised Gross Prospective resource estimate for the Mustang Project added to the existing Spitfire and El Dorado Prospects provide a best estimate (P50) independent Gross Prospective resource estimate of 7.788 milion barrels of oil equivalent\*.

Prospect (Productive unit)	Low Estimate P90*	Best Estimate P50*	High Estimate P10*
Mustang (Strawn)	1.078 mmboe	2.029 mmboe	3.773 mmboe
Spitfire(Ellenburger and Strawn)**	1.994 mmbo	4.490 mmbo	9.907 mmbo
El Dorado (Ellenburger and Strawn)**	0.591 mmbo	1.269 mmbo	2.628 mmbo
Total Gross Prospective Resources <sup>+</sup>	3.663 mmboe	7.788 mmboe	16.308 mmboe

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+ - Winchester currently owns a 75% working interest in the Spitfire and Mustang prospects leases and 100% of the El Dorado prospect. WEL's future entitlement share may be subject to reduction in the event of farmout in the future, should any farmout occur. WEL's future entitlement may also increase should the 25% working interest party (CEGX) not exercise its right to participate.

mmboe (million barrels of oil equivalent) - gas quantities are converted to boe using 6,000 cubic feet of gas to one barrel of oil. 6:1 conversion ratio is based on an energy equivalency conversion method and does not represent value equivalency. Quoted estimates are rounded to the nearest boe.

# About Winchester Energy Ltd (ASX Code: WEL)

Winchester Energy Ltd (ASX Code: WEL) is an Australian ASX listed energy company with its operations base in Houston, Texas. The Company has a single focus on oil exploration, development and production in the Permian Basin of Texas. The Company has established initial oil production on its large 17,000 net acres leasehold position on the eastern shelf of the Permian Basin, the largest oil producing basin in the USA. Winchester's lease position is situated between proven significant oil fields. Winchester is of the view that with the several known oil productive horizons in its lease holding, that it can build through the application of modern geology, 3D geophysical analysis, drilling and completion methods, a potentially significant proven reserves and oil production asset.



## **Competent Persons Statement**

The information in this ASX announcement is based on information reviewed by Mr Neville Henry. Mr Henry is a qualified petroleum geologist with over 43 years of Australian, USA and other international technical, operational and executive petroleum experience in both onshore and offshore environments. He has extensive experience of petroleum exploration, appraisal, strategy development and reserve/resource estimation, as well as new oil and gas ventures identification and evaluation. Mr Henry has a BA (Honours) in geology from Macquarie University.

The Prospective Resources estimates in this report have been compiled by Kurt Mire, P.E. Mr Mire is a registered professional Engineer in the State of Texas and has over 30 years' experience in petroleum engineering. These Prospective Resource estimates may be subject to revision if amendments to mapping or other factors necessitate such revision.

Mr Mire consents to the inclusion in this report of information relating to the hydrocarbon Prospective Resources in the form and context in which it appears.

## **Prospective Resource Estimates Cautionary Statement**

The estimated quantities of petroleum in this report that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

## **Prospective Resources**

All Prospective Resource estimates provided in this report are prepared as of 17 June 2019.

The prospective resource estimates provided in this report are low estimate, best estimate and high estimate and represent that there is a 90%, 50% and 10% probability that the actual resource volumes will be in excess of the amounts reported. The estimates are on a 100% basis and have been prepared in accordance with the definitions and guidelines set forth in the Petroleum Resource Management System "PRMS" approved by the Society of Petroleum Engineers and have been prepared using probabilistic methods. Unless otherwise stated the estimates provided in this report are Best Estimates. The estimates are unrisked and have not been adjusted for an associated risk of discovery and risk of development. The 100% basis refers to the gross total prospective resource. The net to WEL prospective resource estimates include royalty interests payable to royalty interest holders.

## **Prospects**

The meanings of "Prospects" in this report are in accordance with the Petroleum Resource Management System 2007 approved by the Society of Petroleum Engineers. A Prospect is a project that is sufficiently well defined to represent a viable drilling target.

# Prospective Resources Reporting Notes for the El Dorado, Spitfire and Mustang Prospects Reported for the First Time

• The prospective resources information is effective as at 30 June 2018 (Listing Rule (LR) 5.25.1).

• The prospective resources information has been estimated and is classified in accordance with SPE PRMS (Society of Petroleum Engineers Petroleum Resources Management System) (LR 5.25.2).

• The prospective resources information in this document has been estimated and prepared using the probabilistic method (LR 5.25.6).

• Prospective resources are reported on a P10-P50-P90 basis (LR 5.28.1).

• For prospective resources, the estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration



appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons (LR 5.28.2).

• The El Dorado, Spitfire and Mustang prospects are located on private leases. In respect of the prospective resources for the prospects referred to in this report, Winchester currently owns a 75% working interest in the Spitfire and Mustang prospects leases and 100% of the El Dorado prospect - however it is noted that third-party companies may additionally farm-in to the prospects, leases and/or wells (LR 5.35.1). Oil company Carl E Gungoll Exploration LLC (CEGX) has a right to participate for up to a 25% WI in the Mustang and Spitfire prospects.

• The P10-P50-P90 and mean prospective resource volumes for the three prospects were estimated using modern onshore 3D seismic data. Such data are standard in the oil and gas industry as a tool for identifying prospects and these data currently provide the industry's most accurate method of estimating prospective resource volumes and attendant risks. The parameters used in the acquisition and processing of the seismic surveys is commensurate with the industry standard for the East Permian Basin area. Exploration drilling will be required to assess these resources. (LR 5.35.2):

• The chance of discovery for each of the three prospects is outlined in the report. There is a risk that exploration will not result in sufficient volumes of oil and/or gas for a commercial development (LR 5.35.3).

• Prospective resources in this report are un-risked and have not been adjusted for an associated chance of discovery and a chance of development. The report includes volumes which are the probabilistic addition of the risked prospective resource distributions. See below for further explanation (LR 5.35.4).

# Further Notes on the Prospective Resources Calculation at the El Dorado, Spitfire and Mustang Prospects

Winchester has accumulated a massive proprietary regional East Permian Basin database comprising well drilling and production information from private and public sources. This database is used by Winchester and Mire and Associates, Inc in generating probabilistic estimates for future wells and programs where the data can be tailored to the specific parameters required for analysis such as depth, play type, etc.

The Prospective Resources were calculated utilising the abovementioned regional database. From the regional database Mire and Associates, Inc developed a series of expectation curves from which the P90-P50-P10 outcomes shown have been extracted. Winchester has undertaken its own due diligence on these data and is satisfied that they represent a good estimate for the portfolio of opportunities to be drilled.

For each of the three prospects, a probabilistic prospective resource was calculated using analogue offset well information and high-quality 3D seismic data. The probabilistic additions above have been undertaken using a Monte Carlo approach to each prospect's expectation curve.

**Forward Looking Statements** - This document may include forward looking statements. Forward looking statements include, are not necessarily limited to, statements concerning Winchester Energy Limited's planned operation program and other statements that are not historic facts. When used in this document, the words such as "could", "plan", "estimate", "expect", "intend", "may", "potential", "should" and similar expressions are forward looking statements. Although Winchester Energy Limited believes its expectations reflected in these are reasonable, such statements involve risks and uncertainties, and no assurance can be given that actual results will be consistent with these forward looking statements. Winchester Energy Limited confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning this announcement continue to apply and have not materially change.