

## Winchester Energy

# WEL

BUILDING LOW COST PRODUCTION FROM MIGRATED OIL ON THE MIDLAND BASIN'S EASTERN FLANK

### Capital Structure

ASX Code: WEL	
Shares	457.7 m.
Options	50.0 m.
Milestone Con Notes	60 K @60m shrs
Price	\$ 0.021
Market Cap	\$ 9.6 m.
Cash (est Mar '19)	\$ 3.1 m.

### Valuation

Valuation	Success value		Risk Factor	Risky value	
	A\$m.	\$/shr		A\$m.	\$/shr
Cash	\$ 3.1	\$ 0.005	100%	\$ 3.1	\$ 0.005
Production	\$ 2.2	\$ 0.004	70%	\$ 1.5	\$ 0.003
Options	\$ -	\$ -	100%	\$ -	\$ -
New Equity	\$ 2.5	\$ 0.004	96%	\$ 2.4	\$ 0.004
Mustang	\$ 25	\$ 0.044	49%	\$11.5	\$ 0.020
Spitfire	\$ 36	\$ 0.063	25%	\$ 8.7	\$ 0.015
El Dorado	\$ 11	\$ 0.019	46%	\$ 4.4	\$ 0.008
Strawn Play	\$ 40	\$ 0.069	22%	\$ 3.6	\$ 0.006
Shale plays	\$ 20	\$ 0.035	0%	\$ -	\$ -
Corporate	-\$ 4	-\$ 0.007	100%	-\$ 4.0	-\$ 0.007
	\$136	\$ 0.236		\$31	\$ 0.054

Source: Strachan Corporate

### Board

John Kopcheff	Non-Exec Chairman
Neville Henry	Managing Director
Peter Allchurch	Non-Exec Director
Larry Liu	Non-Exec Director

### Opinion

Winchester has outlined three new low risk oil prospects on Nolan County permits with a combined potential to yield a total of 7.8 million barrels of oil at the P50 confidence level. Success would enable it to substantially bootstrap funding for expansion of oil production, adding value to its permits.

The company is assessed with a risky target value of 5.4 cps and upside to over 23 cps should all prospects be confirmed.

Peter Strachan

### Investment Drivers

- ◆ **RISKED VALUATION:** Strachan Corporate assesses a risky value for Winchester of \$31 million or 5.4 cents per share on a diluted basis. Exploration success on newly identified conventional targets offers near-term upside valuation to over 12.5 cps.
- ◆ **ACTIVE DRILLING:** Winchester is raising funds to support drilling at the Mustang prospect where it assesses a 58% probability of success (PoS), targeting ~2 and up to 5 mmbbls of oil. Strachan Corporate assumes that Winchester retains 50% WI at drilling on subsequent prospects, with farm-out funding from a current 75% WI for additional drilling to be considered on merit.
- ◆ **SELF-FUNDING:** The company aims to expand drilling activity supported by operating free cash flow from ongoing oil sales, with early drilling supported by farm-out funding. Value should accrue to the company as new plays are further established to lift land and production value multiples.
- ◆ **MULTIPLE PLAY TYPES IDENTIFIED:** Drilling to date has identified several conventional reservoirs that have either flowed oil or have potential to flow commercial oil with appropriate completion.
- ◆ **MANAGEMENT:** Winchester is managed by industry professionals who have done this before, along the Eagle Ford Shale and elsewhere! The company has identified new play types and regional activity indicated strong potential for extracting oil from fraced horizontal well completions in shales and sands of the Permian Basin.
- ◆ **NEWS FLOW:** The first of three wells targeting zones in both the Strawn and Ellenburger Formations is expected in the March 2019. The market is likely to wait on drill results when a positive market response is likely if the company's target identification shows positive results.



Source: Winchester

*+17,266 net acres on eastern flank of Midland Basin in Nolan County*

*Producing net ~60 BOPD*

*Oil migrates out of the Midland Basin into traps on Winchesters permits*

*New issue funds fraccing of well 39#1 to improve flow, plus drilling of low risk, 2 mmBO Mustang*

*Targeting production uplift by 200->400 BOPD by December quarter '19*

*New prospects outlined on seismic mapping & near well tie-back data*

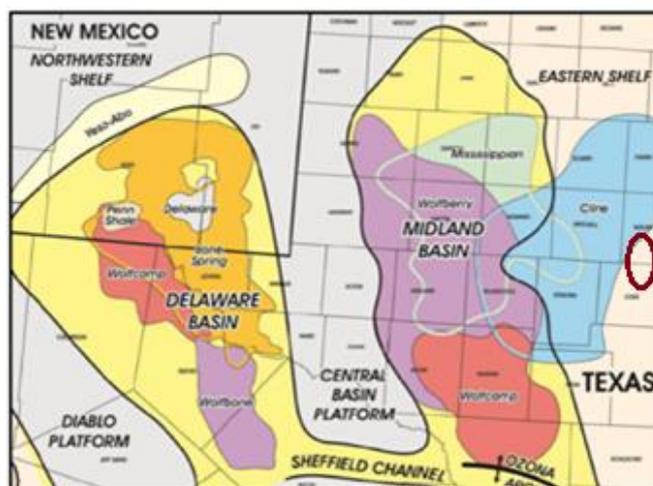
## Summary

Winchester has established a petroleum exploration and production position over +17K net acres on the eastern flank of the Midland Basin in Texas. Winchester is the operator with a 75% WI in wells at the White Hat lease and has 100% WI in permits over Bridgford and Thomas Ranch as well as McLeod and Arledge in Nolan and Coke County.

Winchester has a 75% WI in three upcoming wells, prior to any farm-in funding, which could reduce that WI to 50% post Mustang drilling.

The permits sit on the eastern edge of the prolific Midland Basin, which is part of the larger Permian Basin complex. Sediments thin-out to about 2,200 metres in this location from over 3,700 metres in the most productive, central Midland Basin areas.

Just as on the western flank of Australia's Cooper Basin, oil migrates tens of kilometres from deeper zones to find traps in several horizons on the Basin's edge, under Winchester's leased areas. The company's main focus has been on the Late Ordovician aged Ellenburger and Carboniferous Strawn Formations from where oil is produced. Upcoming drilling targets these conventional units. Additionally, sediments at White Hat and surrounding permits hold potential for trapped petroleum within shale and other tight sedimentary units where stimulation techniques have been shown to be effective on neighbouring permits.



Map showing tectonic subdivision of the Permian Basin, after shaleexperts.com

Winchester's current revenue is derived from net production of about 60 BOPD from wells drilled while the plays were de-risked. The company aims to build its cash flow so that it supports drilling of at least 3 wells per annum.

## Permian Activity

Typical vertical wells in this part of the Permian Basin commence production at ~100 BOPD with small volumes of gas and they can produce ~60K-100K bbls of oil in total. Better wells can produce at an initial rate of over 200 BOPD and deliver more than 200,000 bbls over a productive life. Winchester is aiming for areas of natural fracture as well as some zones that would benefit from low cost, light fracture stimulation to enhance flow and recovery.

## SCHEDULE

The company plans to participate in a fracc recompletion of the White Hat Ranch (WHR) 39#1 well in the Strawn Formation, as well as completion and testing of the Thomas Ranch 119H well and recompletion of the existing WHR 38#3 well in March 2019.

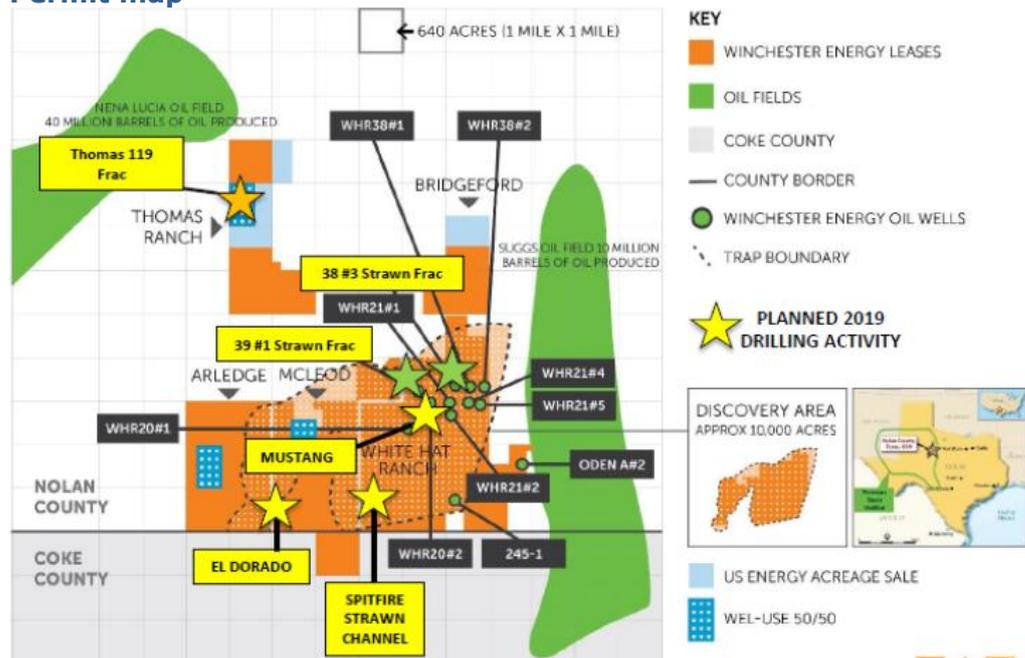
WEL's partner Energy Corporation (USE) plans to fracc the Bridgford 40 well, late in the quarter, all of which should add valuable oil production to Winchester's account on success.

The company's three-well drilling programme is scheduled to run from March through until June 2019. Depending on results, this programme holds potential to add over 150 BOPD and up to 300 BOPD of net WI oil production to Winchester's account.

The company aims to re-enter the White Hat 39#1 well, where it has a 40.6% WI after payout, to stimulate a zone that was previously perforated across the Strawn Formation and flowed oil after being acidized. A commercial flow is anticipated based on the well's previous performance when it flowed at up to 200 BOPD.

Winchester's area of opportunity for accessing oil in the Ellenburger Formation is now opening up shallower zones that have been found to hold oil, especially the **Strawn Formation where the White Hat 20#2 well flowed with an initial rate of over 200 BOPD after stimulation.**

## Permit map



(Note: All planned drilling activity subject to rig availability, funding and farmout)



## MUSTANG PROSPECT

Winchester intends to retain its current 75% WI through drilling of the Mustang 20#3 well which will test the first prospect, expected in March '19. The target is almost a development well with a high, 58% PoS targeting 1.4 mmbbls of oil in the Fry unit of the Strawn Formation plus 600K bbls in the Ellenburger Fm. at depth. This stratigraphic trap with an estimated 1,000 acre closure at about 1,800 metres depth is a virtual twin of the 20#2 well that had an initial production of 20 BOPD and after a simple fracc, initial production increased to 200 BOPD, boosting estimated recoverable to ~112,000 bbls of oil.

## EL DORADO PROSPECT

This prospect is estimated to have a 1000 acre, four-way dip closure at the Strawn level and will target 610K bbls in the Ellenburger carbonates and 650K bbls in the Strawn sandstones with a total PoS estimated at 48%.

The company has relied on several adjacent wells to determine recovery factors plus 3D seismic data mapping to estimate the trapping area. While the two formations above are the main targets, other formations are in-closure and hold potential for additional discovery.

Winchester plans to farm-down from a 75% WI to retain a 50% WI interest in the well after payout and a 33.3% paying.

## SPITFIRE PROSPECT

The Spitfire prospect is rated with a 28% PoS for a P50 target totalling 4.5 mmbbls of oil, with 3,880K bbls in the Strawn and 610K bbls targeted in the Ellenburger. Success here would be somewhat of a game-changer for Winchester, opening up this new, incised valley fill play for more exploration and development.

The WHR 212#1 well targets a large stratigraphic trap with an aerial closure estimated at 2,000 acres. Again, Winchester will seek a farm-in partner and plans to retain a 50% WI.

A programme of nine successful horizontal wells with 1,524 metre laterals, located 24 kilometres northwest, along trend from WEL's permits in the Hermligh Strawn field produced initial production rates averaging 712 BOPD in the Strawn Formation. This location is considered as an analogue to the Spitfire channel play in the company's Strawn section.

## WOLFCAMP 'D' (PENN) SHALE

Wolfcamp shale units are a primary focus for oil production in the central Permian Basin, having produced many hundreds of millions of barrels of oil.

Recent horizontal drilling work on neighbouring permits along-trend from Winchester's, basin edge permits has achieved some notable success in corresponding shale formations.

*Strawn Fm shapes as potential for further discovery*

## Strawn Formation

The company has tested and is now producing oil from two wells in the Pennsylvanian Strawn Formation as well as the target Ellenburger. In the White Hat 20#2 well, where the Ellenburger Formation was found to be water wet, the Strawn Formation was successfully completed and flowed oil at an initial rate of 200 BOPD, averaging 145 BOPD average flow rate over its first 30 days of production. White Hat 38#1 was also recompleted by fracing a zone through the Strawn Formation which showed initial production over just 3 days of 28 BOPD.

Winchester has a 25% WI in the Oden A#2 well which produced oil from the Ellenburger Formation. Logging and sampling results from the Strawn formation while drilling this well provide encouragement to re-complete the well in the Strawn.

The Strawn shows several stacked intervals that are prospective for oil which, along with three unconventional shale units and tight carbonate Formations in the Wolfcamp "D" zone, could ultimately form the basis for a new play type as outlined above.

Electric logs, sidewall cores and FMI formation image data have been recorded to better define plays that may become commercial once the oil price rises above US\$65/barrel to justify drilling horizontally.

*Ellenburger is a prime target, but other zones appear to hold commercial potential*

## Valuation

*Target value of 5.4 cps*

Strachan Corporate takes a conservative view on the value of Winchester's current net oil production of ~60 BOPD. Additionally, risked upside is calculated for the upcoming three-well programme, plus the broader Strawn play and longer term potential valuation up-lift from development of unconventional plays.

Together, Strachan Corporate values total success at each of these plays at A\$132 million or ~A\$0.23 per share for WEL on a fully diluted basis.

Summary well	
IP	100 BOPD
EUR	111 KBOE
Oil Price	\$ 55 US\$/bbl
Gas	\$ 3.6 US\$/Gj
Capex	\$ 0.8 \$m.
Life Av. Opex	\$ 15.7 \$/boe
Pre-tax NPV <sub>7</sub>	\$ 11.6 Per bbl
Post-tax NPV <sub>7</sub>	\$ 7.5 Per bbl

Source: Strachan Corporate

Winchester's permit areas are not directly comparable with the highly rated Midland Basin or the Cline play areas further to the west. Permits in the most highly rated permits transact for over US\$40,000 per acre and productive leases are valued at between US\$52K and US\$125K per flowing barrel of oil equivalent.

A mid-case, 'type well' with IP of 100 BOPD, costing US\$0.8 million to drill and complete is assessed with a pre-tax NPV<sub>7</sub> of US\$11.6/bbl.

Wells that deliver typical Nolan County IP's of between 50 and 200 BOPD and corresponding EURs of 56K to 223K BOE, are assessed at WTI oil prices from US\$50 to US\$65/bbl to deliver a matrix of insitu values per barrel of oil.

For valuation purposes, an oil price of US\$55 and an IP of 100 BOPD is chosen.

Initial target projects are set out in a risked valuation matrix using the ISV selected above and deducting costs for discovery to Winchester.

### Valuation matrix – US\$/bbl v IP & price

Eastern Permian ISV per barrel					
IP	BOPD	50	100	200	
EUR	KBOE	56	111	223	
Pre tax NPV *					
WTI	US\$/bbl	US\$/bbl			
\$	50	-\$1.9	\$ 9.1	\$ 16.2	
\$	55	-\$0.5	\$ 11.6	\$ 18.8	
\$	60	\$ 1.4	\$ 14.1	\$ 21.4	
\$	65	\$ 3.6	\$ 16.6	\$ 24.0	

\* Applying 5% discount to WTI

Source: Strachan Corporate

## Risked exploration matrix

Prospect	WI		Target				Success		POS %	Cost \$m	Risked Value US\$m.	
	%	% rtn	Gas Bcf	Oil mmbbl	ISV USD		Value US\$m	WEL A\$/shr				
Mustang Fry	75%	75%	1	1.4	\$0.9	\$11.6	\$ 12	\$0.030	45%	0.6	5.0	
Mustang Ellenburger	75%	75%	1	0.6	\$0.9	\$11.6	\$ 6	\$0.014	58%	0.0	3.3	
Spitfire Strawn Ch	75%	50%	1	3.9	\$0.9	\$11.6	\$ 22	\$0.054	25%	0.4	5.2	
Spitfire Ellenburger	75%	50%	1	0.6	\$0.9	\$11.6	\$ 4	\$0.009	28%	0.0	1.0	
Eldorado Strawn	100%	50%	1	0.7	\$0.9	\$11.6	\$ 4	\$0.010	45%	0.0	1.8	
Eldorado Ellenburger	100%	50%	1	0.6	\$0.9	\$11.6	\$ 4	\$0.009	48%	0.4	1.4	
Strawn Play	100%	50%	1	4.9	\$0.9	\$11.6	\$ 29	\$0.069	22%	3.8	2.6	
Source: Strachan Corporate												
ISV = Insitu value, US\$ per Mcf or bbl												
							\$ 81	\$0.195			20.3	

Upside value to >23 cps

Further dilution of equity is assumed to be required to support ongoing exploration and development which will also be supported by planned farm-out funds.

## VALUATION MATRIX

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The Spitfire project holds the most upside for success on a standalone basis but is also the most risky of the three prospects outlined. Strachan Corporate estimates that Spitfire's 4.5 mmbbls would be worth about A\$36 million to Winchester on success, which compares favourably with the company's current market capitalisation of \$9.1 million.

Strachan Corporate believes that further modest success on Winchester's Nolan County permits holds potential to lift the value of its key permit areas to over US\$2,000/acre, which translates to a value of 8 cps to Winchester.

## Leadership

### Chairman John Kopcheff

John is a geologist and geophysicist, with over 45 years of experience in Australia, South East Asia, USA, South America and the North Sea, in oil field operations and management.

Mr Kopcheff founded Victoria Petroleum Ltd (now Senex Energy Ltd) and held the position of Managing Director for 26 years from August 1984 until late July 2010 pioneering oil exploration and production success on the western margin of the South Australian Cooper Basin.

During that time Victoria Petroleum Ltd increased its market cap from \$10M at float to \$116M at his retirement.

Mr Kopcheff joined Winchester Energy as Non-Executive Chairman in September 2017.

### Non- Executive Director Larry Liu

Larry is a professional investor who is an associate of Mr Yang Xiangyang, a 25.6% owner of Winchester. He has a corporate history as a senior executive of General Electric

### Managing Director Neville Henry

Neville is a Houston based Geologist with over 40 years of experience in successfully finding oil & gas in six sedimentary basins globally. He was formerly International Exploration and Worldwide Business Development Manager for Anadarko at a time when its oil production rose from 25,000 to 400,000 BOPD.

James is a Texas based Engineer with over 40 years of oilfield experience. His private business is active in exploration and production, providing engineering consulting services to the energy, financial and environmental industries.

### Non- Executive Director Peter Allchurch

Peter is a Geologist and resources venture capitalist with over 50 years of experience in minerals and petroleum exploration, development and production who has founded several successful ASX listed companies. He and Mr Henry were instrumental in developing the Eagle Ford Shale portfolio for Aurora Oil & Gas, Eureka Energy and Adelphi Petroleum.

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