

Winchester Energy

WEL

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

Capital Structure

ASX Code: WEL	
Shares	244.7 m.
Options	44.0 m.
Con Note	60 K @60ms hrs
Price	\$ 0.072
Market Cap	\$ 17.6 m.
Cash (est Dec '17)	\$ 1.9 m.

Valuation

	A\$m.	\$/shr
Cash	\$ 2	0.006
Options	\$ 9	0.024
New Equity (assumed)	\$ 2	0.005
Ellenburger 8	\$ 6	0.016
Ellenburger 1000 ac	\$ 6	0.016
Ellenburger 4000 ac	\$ 14	0.036
Strawn Play	\$ 4	0.010
Corporate	-\$ 4	-0.011
	\$ 39	\$0.103

Source: Strachan Corporate

Board

John Kopcheff	Chairman
Nevill Henry	Managing Director
Peter Allchurch	Non-Exec Director
James Hodges	Non-Exec Director
John Kenny	Non-Exec Director
Larry Liu	Non-Exec Director

Opinion

Winchester is on the brink of testing a potentially game-changing well completion technology to enhance oil production from its Nolan County permits. Success would enable it to boot-strap funding for expansion of oil production, adding value to its permits.

The company is assessed with a target value of 10.3 cps and upside to over 50 cps should all prospects be confirmed.



Investment Drivers

- ◆ **RISKED VALUATION:** Strachan Corporate finds a risked value of 10.3 cents per share for Winchester. Exploration success on targets already identified offers upside valuation to over 50 cps.
- ◆ **MANAGEMENT:** Winchester is managed by industry professionals who have done this before, along the Eagle Ford Shale and elsewhere! The company has pegged out a new play type and its early drilling vindicates prospectivity.
- ◆ **ACTIVE DRILLING:** The company is trialling short length, horizontal radial completion technology (USR) to improve initial production, total oil recovery and all up financial results for low cost vertical wells. While work so far validates this commercial oil play, success from USR application would be a game changer, lifting value for its Nolan County permits by several multiples.
- ◆ **SELF FUNDING:** The company aims to build drilling activity on the back of operating free cash flow from ongoing oil sales. Value should accrue to the company as the play is further established to lift land and production value multiples.
- ◆ **MULTIPLE PLAY TYPES IDENTIFIED:** Drilling to date has identified several conventional reservoirs that are either producing oil or have potential to flow commercial oil with appropriate completion.
- ◆ **NEWS FLOW:** The first of two wells employing USR completions is due to be tested by early October with a second well to follow. The market is likely to wait on results but a positive market response is likely should USR work prove positive.

Winchester's project area



Source: Winchester

+19,200 acres on eastern flank of Midland Basin

8 wells producing ~net 220 BOPD

Oil migrates out of the Midland Basin into traps on Winchester's permits

Funding for short lateral drilling tests in place

Summary

Winchester has established a petroleum exploration and production position over 19,210 net acres on the eastern flank of the Midland Basin in Texas. After an initial work-in period that ended in March 2017, Winchester moved from a 50% working interest (WI) on the White Hat Ranch lease activities to become operator with a 75% WI in subsequent wells at White Hat and has 100% WI in permits over Bridgford and Thomas Ranch as well as McLeod, Arledge and Coke County permits and a 25% WI at the Oden Drilling Unit.

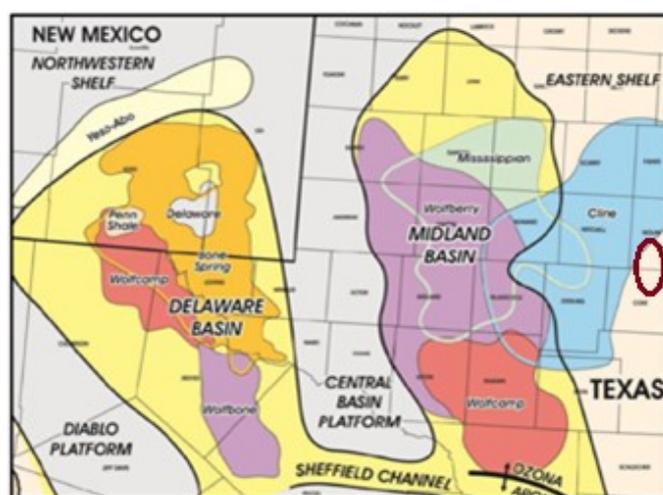
Going forward, Winchester will start with 75% WI in upcoming wells, prior to any farm-in funding while 7 wells remain at 50% WI plus one at 25% WI.

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 the Cooper Basin, oil migrates over tens of kilometres out from deeper zones to find traps in several horizons on the Basin edge, under Winchester's leased areas. The company's main focus has been on the Late Ordovician aged Ellenburger Formation from where oil is produced but other units also hold conventional commercial oil reservoirs. Additionally, sediments at White Hat and surrounding permits hold potential for trapped petroleum within shale and other tight sedimentary units where stimulation techniques may be able to extract commercial volumes of petroleum products.

In June 2017 the company raised ~\$2.5 million through a rights issue at 9 cps to assist with funding a program of wells that will apply multi-lateral, ultra short radius (USR) completion technology. Wells that are currently under way will drill to a depth of ~2,133 metres and then be completed with four, USR completions extending in different directions for a length of approximately 152 metres from the well bore, significantly increasing exposure to productive sediments.

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



Per Well Oil Production Summary Adjusted Average BOPD June 2017 Quarter				
Oil Well	Adjusted Average Gross Oil Production Per Day (bopd)	WEL's WI %	Adjusted Average Net Oil Production to WEL (bopd)	Well Downtime ^A (days)
White Hat 20#1	13 bopd	50%	6.5 bopd	18
White Hat 20#2	111 bopd	50%	55.5 bopd	1
White Hat 21#1	61 bopd	50%	30.5 bopd	4
White Hat 21#2	21 bopd	50%	10.5 bopd	2
White Hat 21#4	192 bopd	50%	96 bopd	6
White Hat 38#2	23 bopd	50%	11.5 bopd	2
White Hat 21#5	15 bopd	50%	7.5 bopd	2
Oden A#2 ^B	26 bopd	25%	6.5 bopd	b
TOTAL	462 bopd		224.5 bopd	

Note A: The number of days a well is not producing due to maintenance, weather or well workover.
Note B: Vertical well Oden A#2 commenced steady state production on 26 June 2017.

The company holds five current leases with modest continuous drilling provisions of 1 to 2 wells per year, to any depth to hold all depths after the initial 3 year term on each lease.

Winchester's current revenue is derived from net production of about 220 BOPD from 8 wells that were drilled while the plays were de-risked, in which it has a 50% interest. The company's operating cash flow of about \$700,000 in the June '17 quarter currently supports the drilling of a vertical well from cash flow every 4 months.

USR programme

The Ultra Short Radius drilling technology being deploying by Winchester through September '17, is proprietary to the USR company. With an eye to expanding its position in the Basin the USR group is supplying its technology to the project at concessional rates and as a show of good faith and in recognition of the commercial appeal, has agreed to take 20% equity on a well by well basis in part of the White Hat Lease. Winchester has negotiated an exclusive agreement with USR for use of its technology over its Nolan and Coke County permits.

USR completions increase contact with the reservoir 20 fold

Trial completions aim to increase initial oil flow by at least three fold & possibly double recoverable oil per well

USR completions aim to take advantage of variable reservoir porosity over short distances

Ramping up activity & production with USR completions

USR completions in the company’s wells will initially target the Ordovician age Ellenburger Formation to provide at least 600 metres of additional contact between the well bore and the reservoir. Radial extensions drilled at different depths down the well will be orientated to provide the best chance of intersecting natural fractures in reservoir sands.

The aim of the USR technology is to lift initial production from each well so as to improve overall economics of oil produced from the Basin, without the high costs associated with drilling long horizontal completions and applying fracture stimulation.

The company is budgeting for a drilling cost of US\$800,000 per vertical well, leading to ~US\$1.6 million for a completed well with four, 152 metre short lateral completions, providing the well with up to 20 times the exposure to the target reservoir than with conventional well completion processes.

Further cost efficiencies are likely to accrue once the process has been established and USR can be guaranteed a 12 month multi well programme.

White Hat 38#3ML is the first well in the USR programme. Winchester has a 60% WI but an 70% paying interest after carrying former operators CEGX for 10% in this well only. Service provider USR is backing itself by taking up a 30% WI. In all subsequent wells, Winchester will have an 80% WT.

The target Ellenburger Formation has variable porosity over short distances as a result of diagenic alteration of sediments, resulting in variable outcomes over very short distances. Application of the USR technology will reduce the risk of landing in a low porosity zone and provide options to access multiple zones of improved permeability and porosity, away from the well bore.

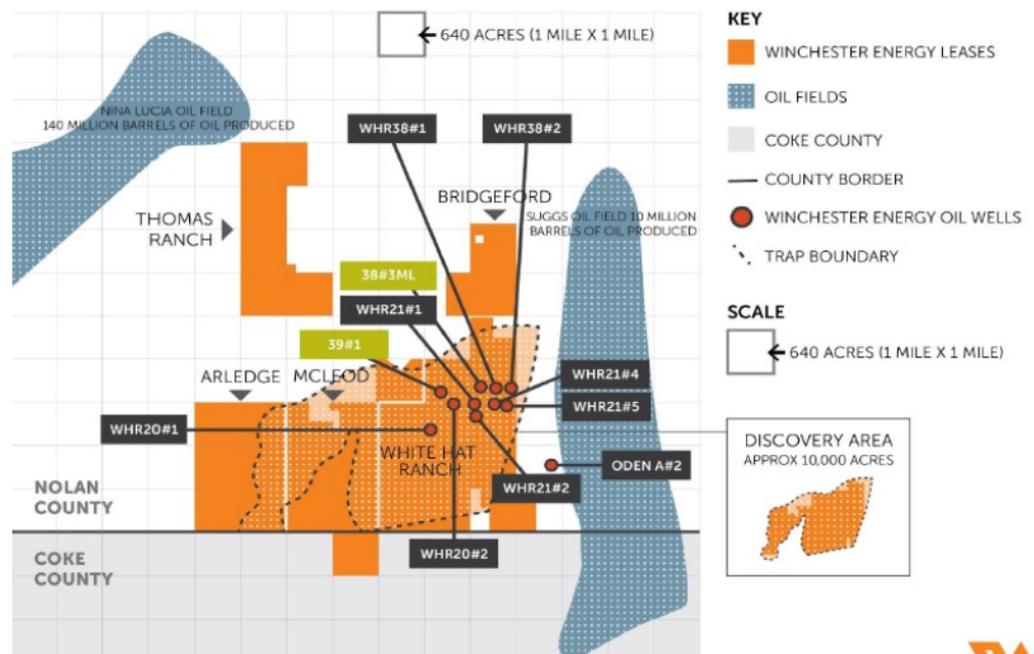
Permian Activity

Once Winchester demonstrates success with USR completion technology it will be in a position to expand acreage positions beyond the current 19,200 net acres while restricting competition from peer groups.

Success from the current programme of lateral completions that are now being tested will substantially boost productivity from each well, lift profitability and reduce the company’s current cost of finding oil below US\$16 per barrel.

Wells with lateral extensions will be located on 80 acre spacing. Successful lateral completion in areas of lower performing well productivity is expected to lift initial oil production several fold. The technology potentially expands Winchester’s area of opportunity for accessing oil in the Ellenburger Formation and could open up shallower zones that have been found to hold oil, especially the **Strawn Formation where the White Hat 20#2 well was recently successfully stimulated and flowed with an initial rate of over 200 BOPD**. To date, the company maps out 125 vertical well locations over 5,000 acres of prospective permits at 40 acre spacing.

Permit map



Strong results from the Strawn Fm lead to mapping of potential for further discovery

Strawn Formation

The Eastern Shelf has produced oil and gas from multiple intervals from 1,220 to 1,830 metres. These include the Odom, Strawn and Canyon (Wolfcamp D). Drilling the deeper Ellenburger enables analysis of these shallow horizons and while drilling the 8 current producing wells plus the 39#1 and 38#3ML wells the company has reported oil and gas shows over a several of these horizons.

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 26 BOPD from the Ellenburger Formation during the June quarter. Logging and sampling results from the Strawn formation while drilling this well provide encouragement to re-complete the well in that Formation as well.

The company is evaluating offset drill locations and is now mapping the Strawn Formation regionally to look for areas where it is best developed as a primary oil target.

Other Formations

The company has identified several other stacked intervals that are prospective for oil which, along with three unconventional shale levels at this location and tight carbonate Formations called the Crystal Falls in the Wolfcamp "D" zone that were noted while drilling, could ultimately form the basis for a new play type. Shows have also been seen in the Pennsylvanian Carbonate Shelf that extends across the White Hat Ranch lease.

Electric logs, sidewall cores and FMI formation image data are being recorded to better define plays that may become commercial once the oil price rises above US\$50/barrel to justify drilling horizontally.

While Ellenburger is prime target, many other zones appear to hold commercial potential

Valuation

Target value of 10.3 cps

Valuation	A\$m.	\$/shr
Cash	\$ 2	0.006
Options	\$ 9	0.024
New Equity (assumed)	\$ 2	0.005
Ellenburger 8	\$ 6	0.016
Ellenburger 1000 ac	\$ 6	0.016
Ellenburger 4000 ac	\$ 14	0.036
Strawn Play	\$ 4	0.010
Corporate	-\$ 4	-0.011
	\$ 39	\$0.103

Source: Strachan Corporate

WEL - Current Multiples

Market Cap	\$ 64,465	US\$/BOEPD
Market cap/acre	\$ 738	US\$/acre

Source: Strachan Corporate

Strachan Corporate takes a conservative view on the value of Winchester's current net oil production of ~220 BOPD. Additionally, risked upside is calculated for a further 5 million barrels of Prospective Resources within the most prospective 1,000 acres of its Nolan County permits plus a further 10 mmbbls of Prospective oil Resources under an additional 4,000 acres.

Following recent production success, Strachan Corporate assesses potential for an additional 5 mmBO from the Strawn Formation.

Together, Strachan Corporate values total success at each of these plays at US\$166 million or A\$0.55 per share for WEL on a fully diluted basis.

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.

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 15 cps to Winchester, after diluting for in-the money options and conversion of its target based notes.

Summary well

IP	400 BOPD
EUR	446 KBOE
Oil price	\$ 50 US\$/bbl
Gas	\$ 3.3 US\$/Gj
Capex	\$ 1.6 \$/m.
Life Av. Opex	\$ 9.3 \$/boe
Pre-tax NPV ₇	\$ 16.1 per bbl
Post-tax NPV ₇	\$ 10.5 per bbl

Source: Strachan Corporate

Strachan Corporate values a 'type well', assuming success from adoption of USR technology, applying an oil price of US\$50/bbl and an NRI of 76.5%.

Evaluation assumes IP of 400 BOPD to produce at an average rate of 293 BOPD over year one, with total petroleum production of 446 KBOE over a

Lifting value per acre to US\$2K would boost WEL's vale to 15 cps.

well life of 14 years. Initial capital of US\$1.6 million is applied to assess a post tax NPV of US\$10.5/BOE.

When risking production, appraisal and exploration projects, sunk costs at the company's existing Ellenburger/Strawn wells result in an assessed value of US\$15/bbl, while a value of US\$12/bbl is applied to other targets.

Valuation Matrix

Prospect	WI		Target		Success		POS %	Cost \$m	Risked Value \$m.			
	%	% rtn	Gas Bcf	Oil mmbbl	ISV					value US\$m	WEL A\$/shr	
Ellenburger 8	50%	50%	-	1	\$1.0	\$15	\$ 5	\$ 0.02	90%	0.0	5	
Ellenburger 1000 ac	75%	75%	1	5	\$1.0	\$12	\$ 46	\$ 0.15	50%	12	11	
Ellenburger 4000 ac	75%	60%	1	10	\$1.0	\$12	\$ 73	\$ 0.24	25%	15.0	3	
Strawn Play	100%	70%	1	5	\$1.0	\$12	\$ 43	\$ 0.14	30%	5.3	8	
<i>Source: Strachan Corporate</i>												
<i>ISV = Insitu value, US\$ per Mcf or bbl</i>												
							\$ 166	\$ 0.55				26

Leadership

John Kopchreff Chairman

John is a Geologist and Geophysicist with over 40 years of experience in global oil & gas exploration and production. He founded Victoria Petroleum which is now Senex Energy, successfully pioneering oil exploration on the western Margin of the Cooper Basin.

Neville Henry Managing Director

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.

John Kenny Non- Executive Director

John is a lawyer with experience advising ASX listed companies in corporate, mining and banking. He has been a venture capital investor and Director of several public companies.

Peter Allchurch Non- Executive Director

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.

James Hodges Non- Executive Director

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.

Larry Liu Non- Executive Director

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.

Disclaimer

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