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WTI ended the week down US$0.76 at US$48.82 a barrel; Brent closed at US$52.10, down US$0.32.

Start of Mth	Oil WTI*	Gas (US)**
July 14	105.74	4.41
Dec	66.15	4.09
Jan 15	52.69	3.00
March	49.76	2.73
April	48.14	2.71
May	59.15	2.76
June	60.32	2.64
July	55.52	2.77
Aug	47.12	2.72
Sept	44.79	2.65
Oct	45.54	2.45
Nov	46.61	2.32
Dec	41.71	2.21
Jan 16	37.56	2.29
19 Jan	26.19	2.05
Feb	33.62	2.30
March	32.78	1.79
April	36.79	1.96
May	45.92	2.18
June	49.33	2.17
July	45.41	2.82
Aug	41.80	2.77
Sept	43.03	2.95
Oct	48.24	2.91
Nov	48.70	2.79
Dec	51.68	3.46
Jan 17	53.90	3.76
Feb	53.14	3.39
Mar	53.33	2.83
April	52.24	3.26
May	49.33	3.28
June	47.66	3.00
July	46.04	3.04
Aug	49.71.	2.94
Now	48.82	2.98

***US$, **MMBtu in US$. US gas rose 21 cents to US$2.98 an MMBtu.**

Oil Prices

A weaker US dollar, another large draw in US commercial crude stocks, slowing US oil production and tensions between the US and North Korea should have supported oil prices this week. But they didn't.

The 6.5 million barrel drop in US crude inventories was partly offset by a 3.4 million barrel increase in total motor gasoline stocks.

US production may have been down 7,000 barrels a day but Lower 48 output was actually up 15,000 barrels. A 22,000 fall in Alaskan production resulted in the small US production decline.

And a fall of eight gas rigs in use in the US oil patch was to blame for the five rig decline in the numbers Baker Hughes released at the end of the week. Oil rigs in use across the US actually increased by three.

The pressure on oil prices came from OPEC itself as the cartel announced that OPEC production rose further in July thanks to a boom in Libyan production.

Moreover with the northern hemisphere summer driving season coming to an end demand for gasoline should slow putting further pressure on prices.

Analysts who believe oil prices will eventually recover argue that the decline in exploration in recent years as companies cut back on spending will ultimately result in a supply shortage. They correctly point out that new discoveries are not replacing the oil the world uses every year.

What the price optimists seem to forget is that there is enough oil already in global reserves to last for decades certainly enough to see a smooth transition to the era of electric vehicles when less oil will be required anyway.

Moreover while companies may not be pursuing costly greenfield exploration as they once did, a lot of money is being spent on enhanced oil recovery and on drilling and completion technology that is designed to increase the amount of oil that can be oil recovered from existing fields including shale plays.

We may be wrong but we can't see oil prices ever recovering to US$60 a barrel, much less US$100 a barrel unless of course a "black swan" event takes significant production out of the market in a major producer.

What we can see is the arrival not only of electric vehicles but also autonomous or self-driving vehicles that will bring an end to the era of the internal combustion engine and with it the end of demand for oil as a transport fuel save only for avgas.

Today the number of electric vehicles sold globally is miniscule when compared to traditional petrol/diesel fuelled vehicles but that is changing fast. The more articles that appear in the daily media about the arrival of the EV era should make investors in oil and gas stocks think twice about their exposure.

The other, more immediate thing we worry about is the possibility of a significant share market correction in the US in coming months that would spread to other markets.

Korea related volatility creeping back into the US market as the Vix bounces off recent record lows.

But there is more to the recent weakness in the US markets than political uncertainty. Stock values appear very stretched and the new tulip mania that is Bitcoins could come crashing back to earth at any moment.

According to a number of US market observers, values in US stocks particularly tech stocks are at dangerous levels. They point to the recent retreat in the share price of companies like Snapchat and the failure of recent IPOs like Blue Apron to warn that a major correction is possible.

Moreover the US volatility index, the Vix soared off recent lows this past week as the verbal threats exchanged by the US and North Korea ratcheted higher. But that may also hide investor concerns at the underlying overstretched state of the markets more broadly. And remember August is historically the most volatile month for stocks.

The same observers believe the market correction could also start with finance company failures given the number of "subprime auto loans" in the US and the soaring rate of auto loan defaults. They claim US auto companies have been virtually giving loans to anyone who could draw breath in order get sale numbers up.

The rise of crypto currencies like Bitcoin is another cause for concern. Traders in any new asset class attracted by the spectacular gains early movers have made in these digital currencies need to be mindful of tulip mania. Their success depends entirely on buyers continuing to outnumber sellers thus pushing up prices. When sellers outnumber buyers watch out below.

Crypto currency promoters point to the number of merchants that are now accepting Bitcoins for example as a positive for their increasing acceptance as a means of exchange.

But that may have more to do with merchants wanting to join the speculative boom than evidence that these digital currencies are about to replace fiat currencies and gold. Our guess is they won't and when the bubble bursts and nobody wants them anymore the result could be the next global financial crisis.

Bitcoin reached an extraordinary A$5,021 this weekend according to BTC Markets before retreating back below A$5,000.

We have seen enough Black Fridays in the past to know that sentiment can change on a dime and when it does the trickle of investors heading for the exits can become a tidal wave. Especially for those who have borrowed to buy stocks and or Bitcoin or bought stocks on margin.

Winners and Losers

Losers outnumber winners but interest in the sector picks up.

Of the 122 oil and gas companies we now cover, 13 of the 34 stocks that traded in any substantial volume and value last week ended Friday higher than where they began Monday.

That was seven more winners than reported the previous week. Five stocks finished flat, unchanged from a week ago and 17 stocks fell, three more losers than reported last week.

Blue Chips

Blue chips all weaker.

The bellwether blue chips were mixed. **Woodside** fell from $29.04 to $29.02 despite announcing another gas discovery offshore Myanmar with the Pyi Thit #1 exploration well in the southern Rakhine Basin. The well intersected a gross gas column of some 65 metres with approximately 36 metres of net pay.

A drill stem test performed over a 29 metre section of the reservoir flowed at 50 MMcf/d on a 44/64 inch choke over 44 hours with strong reservoir pressure support.

Woodside has now drilled three successful wells in two different Blocks A-6 and AD-7 in which it has a 40% interest.

Investors yet to be convinced Santos is on the way back.

Santos was unchanged at $3.33 as investors wait for more evidence that the company has turned the corner. **Santos** shares hit a recent high of $3.47 on Tuesday before being taken down by a weaker oil price.

Origin to cop a $1.2 billion non cash impairment in its FY full year results.

Origin Energy dropped from $7.20 to $7.88 giving back all the previous week's gains. Also on Tuesday, **Origin** announced that it expected to recognise an impairment charge of approximately $1.2 billion for the second half of FY2017 in its full year results to be announced next Wednesday.

Australian Pacific LNG (APLNG) is expected to recognise an impairment charge on its assets of which **Origin** expects to reflect its 37.5% share, some $815 million post-tax. **Origin** also expects an impairment charge of $357 million post-tax for **Lattice Energy**, the conventional gas assets it currently has for sale. That sale should complete before the end of 2017.

Oil Search fell from $6.48 to $6.41. On 4 August **J P Morgan Chase & Co** and its affiliates announced it had reduced their holding in **Oil Search** from 8.73% to 7.62% or from 132,875,739 to 116,072,374 shares.

Cooper Basin Producers

Cooper Basin mid cap stocks mixed.

Beach Energy fell from $0.66 to $0.645. **Senex Energy** fell from $0.285 to $0.27. **Senex** will release its FY2017 results on 22 August. **Cooper Energy** rose from $0.33 to $0.335. The possibility that AGL will go ahead with a $250 LNG receiving terminal at Crib b Point in Victoria may be weighing on investor sentiment towards Cooper Basin and other local gas producers.

Winners

Triangle Energy builds on recent gains.

Triangle Energy was again higher up from 7.0 cents to 9.3 cents after hitting a 12 month's high of 11.0 cents on Friday on reasonable volume before profit taking set in. The company's last made an Investor Presentation on 4 August to the MacEquity Conference.

Triangle is one of those rare breeds of junior oilers that actually have production, 1,000 barrels of oil a day net from Cliff Head, and cash flow of an attributable $24 million. It has relatively few shares on issue following an earlier share consolidation, some 152.8 million and $2.18 million in cash at the end of June with A$1.6 million in drawn debt since reduced to some $975,000.

The company has a 30% interest (paying 40%) in the Xanadu #1 well in TP/15 in the offshore Perth Basin to spud from an onshore location in September.

As we mentioned a fortnight ago **T7 Global Berhad** of Malaysia became a substantial holder in Triangle on 27 July acquiring 16,475,965 shares or 9.86% of the company.

3D Oil believes its T/49 lease in the offshore Otway has 10 Tcf of gas recoverable. Really!

3D Oil was higher up from 5.1 cents to 7.0 cents on negligible volume reminding us that beaten down stocks that rarely trade can make significant and quick gains when interest returns.

3D Oil announced in it June quarter activities report that it had identified new leads in its offshore Otway Basin assets and upgraded its T/49P Prospective Resource at 10 Tcf of gas recoverable.

Well maybe!

Sundance shareholders leaving what they consider a sinking ship.

Not to be outdone **Oil Basins** announced that it had identified significantly larger conventional gas potential than previously defined over the Judith structure in Vic/P 47 in the offshore Gippsland Basin. According to **Oil Basins** Vic/P47 host a P50 unrisked Gas Recoverable of 1.17 Tcf. **Oil Basin** up from $0.003 to $0.005 after trading as high as $0.008 on day trader interest.

	Both **Oil Basins** and **3D Oil** appear to have benefited from an article in the media during the week claiming "**ExxonMobil** lands a whopper in Bass Strait with huge gas reserves". That was pretty poor journalism from Matt Chambers in the Australian. **ExxonMobil** acquired the exploration permit Vic/P70 hosting the Dory prospect from US explorer **Liberty Petroleum**. **Exxon** plans to drill a deep water exploration well in the September quarter of 2018. The reported 2Tcf gas play still needs to be proven.
Carnarvon Petroleum higher.	**Carnarvon Petroleum** was higher up from 7.5 cents to 7.9 cents on a marked increase in investor interest as evidenced by the better volumes last week than in the previous week. **Strike Oil** was up from 7.1 cents to 7.5 cents which hard to explain given the company has pretty much admitted the Southern Cooper Basin Gas Project is a fizzer.
Central Petroleum raises cash to fund a four well gas development program. Market likes the move.	**Central Petroleum** was higher up from 12.5 cents to 13.5 cents. During the week the company announced a fully underwritten $27.2 million capital raising at a price of $0.10. It included both an institutional element and a 5 for 12 pro rata non renounceable entitlement offer. **Central** said the funds raised would be used for a $25 million drilling program of four horizontal wells with the objective of substantially increasing the company's gas reserves in time to have delivery coincide with the Northern Gas Pipeline becoming operational in the second half of calendar year 2018. The company made the point of saying the horizontals wouldn't be fracked, a procedure currently banned in the Northern Territory. Its bit ironic given **Central** shareholders' rejection of **Macquarie's** takeover bid that **Macquarie** along with **Morgans Corporate** should now be the Lead Managers and Joint Underwriters. ***Losers***
Sundance Energy yet to touch bottom.	**Sundance Energy** fell again down from 5.6 cents to 5.4 cents after trading as low as 5.1 cents during the week. As we reported last week in early August, **Sundance** announced it had acquired a US$30 million revenue advance facility with **Vitol Inc.** part of the **Vitol Group.** Revenue advance is repaid through the delivery of oil production at a rate of US $20 per gross barrel in Q4 2017 and US $25 per gross barrel in Q1 of 2018. The market was not impressed with what is seen as little more than survival cash offered on onerous terms. **Sundance** had negative net operating cash of $22.9 million in the June quarter leaving it with just $4.3 million in cash at the end of the month after selling some Texas tenements for US$14.2million. The company has estimated cash outflows of $52.9 million in the September quarter with $42 million earmarked for development. With revenues running at some US$25 million a quarter and the **Vitol's** US$30 million the company might just make it through the next quarter.
Sino hits new 12 months low	**Sino Gas &Energy** fell from 8.5 cents to 7.6 cents a new 12months low. Some 8 million shares traded on Monday when the share price closed down two cents on the day at 8.3 cents. It maybe that tensions with North Korea have influenced buying interest in stocks operating in China's Ordos Basin but it is more likely that it is the slow pace at which the Sanjiaobei and Linxing coal seam gas operations there are progressing to full field development that has disappointed shareholders.

	Update on Potential Company Making Wells The following wells could be game changing for the companies involved.
Melbana Energy will need a farmin partner to drill Beehive #1.	**Beehive #1** **MAY 100%** — In WA 688P in the offshore Bonaparte Basin. Defined by 2D seismic and is made up of two main objectives with combined mean Prospective Resource of 1.5 billion barrels. **MAY** down 1.3c to 1.1c. In T/H ahead of CR.
Melbana suggests Pukatea potentially transformational. To spud Oct/Nov 2017.	**Pukatea #1** **MAY 30%** — In PEP 1153 onshore New Zealand. Best estimate prosp. Resource of 12.4 mmboe. TAG Oil Ltd operator. A conventional target. According to MAY "success at Pukatea transformational". **MAY** as above.
These wells have the potential to do for Melbana what Icewine project once did for 88 Energy.	**Alameda/ Zapato** **MAY 100%** — Melbana on track to drill two wells on its 100% owned Block 9 PSC in Cuba in early 2018. The wells are targeting 130 and 71 million barrels respectively. **MAY** as above.
3 D Oil's Flanagan prospect in offshore Otway Basin drill ready.	**Flanagan** **TDO 100%** — Drill ready Flanagan prospect In T/49P in the offshore Otway Basin. Seismic suggest best estimate prospective resource of 1.38 Tcf of gas. **Beach** exits its 30%. Well in 2017/18. **TDO** up from 5.1 to 7.0 on unusual but lite vol.
Ironbark a major target in Carnarvon Basin. BP's option extended to October.	**Ironbark** **BP 80%** **CUE 20%** — Mungaroo Formation objective with multiple targets in WA 359 P and WA 409 P. Best internal estimate of more than 15 Tcf of unrisked prospective gas resource. BP has option to farm in for 80%. **CUE** down from 5.6c to 5.3c.
Dempsey and Alvares prospects in California. Well spudded.	**Dempsey** **SGC 50% wi** **XST 10% wi** **PCL 10%** — Multi Tcf of gas in Dempsey and Alvares prospects in the Sacramento Basin, Calif. Conventional targets. Pancon acquires Bombora to get its 10%. **SGC** down 9.3c to 9.0c; **XST** down \$0.007 to \$0.006. **PCL** unchanged at \$0.002
First of four wells resumes operations.	**Uruguay** **PRL 51%** — Partner **Schuenbach** drilling four wells on Piedra Sola and Salto concession in Uruguay. Targets mainly conventional. Drilling resumes after suspension due to operational issues. **PRL** up from 2.2 c to 2.3c.
Xanadu to spud in 2H 2017. Well now fully funded.	**Xanadu** **NWE 25%** **WBE 15%** **TEG 30%** — Norwest now free carried. The well will be directionally drilled from onshore targeting the 160 million barrel Xanadu prospect. **NWE** unchanged at \$0.003; **TEG** up from 7.0 to 9.3c. **WBE** up from \$0.007 to \$0.008.
Dorado may deliver the recognition that has so far escaped Carnarvon.	**Dorado** **CVN 20%** **Q'drant 80%** — A large target some 15 km from the Roc discoveries and many times larger. Hydrocarbons expected from the same high generating rocks that charge Roc. Drilling in late 2017. **CVN** rose from 7.5c to 7.9c.

Additional Wells - Progress Reports and Results

Senex, Origin and Planet Gas drilling exploration well Silver Star #1 to test for basin centred gas in PL 638.	**Senex Energy** (53.75%), **Origin Energy** (33.75%) and **Planet Gas** (12.5%) are drilling the Silver Star #1 exploration well in PEL 638 in the Cooper Basin targeting basin centred gas in the Permian sandstones. On 19 June the operator reported that while running production casing, unstable coals in the horizontal section collapsed and damaged the casing.

	The well will be suspended while replacement casing is procured and a forward plan reviewed. No updates while forward plan being finalised.
88 Energy production testing Icewine #2.	**88 Energy's** Icewine #2 well onshore the North Slope of Alaska has been drilled to total depth. The operator has perforated and fracked two zones in the well and has commenced flow back operations. The lower zone was comingled with the higher zone when the upper zone was determined to be in communication with the lower zone. On 18 July the company reported that 16.0% of the simulation fluid had been recovered. The well has now been shut in for six weeks to allow a pressure build up. There is one week to go!
AWE testing southern extension of the Waitsia gas field with two wells. Second well Waitsia #4 spuds.	**AWE** spudded the Waitsia #4 well on 10 July. It is designed to appraise the gas potential in the eastern extension of the Waitsia field with primary targets being conventional reservoirs in the Kingia and High Cliff Sandstones. On 11 August the well had reached total depth of 3,744 metres and preparations were underway to conduct a wireline logging program. The program will assess the elevated gas shows encountered in multiple zones in the Kingia and High Cliff intervals and the good gas shows encountered in the Irwin River Coal measures, a secondary target.
Winchester spuds White Hat 38 #3ML well in Texas.	**Winchester Energy** has commenced drilling the White Hat 38#3ML multi-lateral well on its White Hat lease in Nolan County, Texas. **Winchester** is paying 80% of the well cost to earn a 70% interest. US-based drilling company Ultra Short Radius Drilling is paying its 20% working interest on a heads up basis. **Winchester** will test the USR technology by drilling four 500 foot lateral sections from one vertical well bore all in the Ellenberger formation. The well will cost $1.7 million almost double the cost of a single vertical well but will increase the wellbores exposure to the formation from 100 feet 2,000 feet a 20 fold increase. On 7 August the well had reached planned total vertical depth and was running logs ahead of the drilling of the laterals.
Drilling resumes at Petrel Energy's Cerro Padilla #1 well in Uruguay.	Before the market opened on Friday **Petrel Energy** announced that its partner and operator in their four well program in Uruguay **Schuepbach** has resumed drilling the first well Cerro Padilla #1 after receiving final approvals from the local regulatory authorities. **Petrel** shares opened Friday at 2.5 cents traded as high as 2.8 cents before closing at 2.3 cents on better than average volume of over 5millin shares.
	Melbana Energy Limited
Melbana Energy shares hit by substantial shareholder selling. Now in trading halt ahead of an announcement on a capital raising.	**Melbana Energy** was granted a trading halt in its shares Friday ahead of an announcement about a capital raising. The company has requested that the trading halt remain in place until the earlier of the commencement of trading on Tuesday 15 August or when the announcement is released to the market. On Thursday the company reported a change of interests of substantial holder **Leni Gas Cuba Limited** from 106,656,197 shares or 11.19% to 92,656,197 shares or 9.72%. **Leni** sold its 14million shares on market over the period 20 July to 4 August at an average price of 1.3 cents. The selling by Leni has obviously weighed on the share price which could now come under further pressure as a result of the proposed capital raising. We still think that Melbana is attractive at these prices given the interest it has in upcoming wells in New Zealand and more particularly in Cuba in early

	2018.
Cue Energy's 100% interest in WA389P confirmed.	***Cue Energy increase Carnarvon Basin footprint*** **NOPTA** has approved the registration of **Cue Energy's** 100% equity interest in WA 389 P in the Carnarvon Basin. The permit is adjacent to WA 359 P where BP has an option to farm in for 42.5% equity. The WA 389 P permit is in year 4 of a 5 year renewal period and **Cue** plans to apply for the suspension of the current year permit to allow for further mapping and analysis. Previous analysis in WA389P was primarily focused on the Jurassic aged Caterina prospect but recent regional studies have indicated the potential for a number of Triassic Deep Mungaroo gas leads analogous to the Ironbark prospect in the neighbouring permit.
AWE to impair the carrying value of Ande Ande Lumut asset by up to A$140 million. **But increases Waitsia 2P Reserves by 25%**	***AWE Limited to impair Ande Ande Lumut Carrying value*** It was once presented as a great asset that would contribute to **AWE's** organic growth. But this past week the company announced its share of Ande Ande Lumut's 2P Reserves would be reclassified as 2C Contingent Resources "due to project delays, lower oil prices and the potential sale of the operator's interest". **Santos** is the operator with an equal share of 50% with **AWE Limited.** **AWE** expects to impair the carrying value of the asset to reflect this increased uncertainty and that would involve the write-down by some A$130 to A$140 million and an estimated combined profit and loss impact of AU$220 million before tax. **AWE** will release its full year accounts for FY 2017 on 25 August. On 9 August **AWE** announcement following the excellent results from its Waitsia #3 appraisal well, drilled in May/June 2017 the company had increased its share of 2P reserves for the gas field by 25% to 228 Pj of sales gas.
China New Energy advances more money to Leigh Creek.	***Leigh Creek receives early payment form China New Energy*** **Leigh Creek (LCK)** is a syngas project in South Australia run by at least one former executive of Peter Bond's now disgraced **Linc Energy.** We think the syngas project is a crock run by some clever promoters taking advantage of the media attention given the energy challenges facing South Australia. **China New Energy (CNE)** is a Chinese company that includes among its asset portfolio, investments in new and unusual energy sources. It is committed to invest up to $20 million in **Leigh Creek.** **Leigh Creek** announced this week that **China New Energy** would be making an early part payment of its Tranche 3 commitment taking 17 million **LCK** shares at $0.15 for a total of $2,550,000 taking **CNE's** interest in **LCK** to 19.98%. **LCK** said the money would enable the project to continue on target to produce first gas in 2017. They had better get a move on! **LCK** shares up from 10.5 cents to 13.0 cents on light volume. This is not a play that we could recommend.

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