

Date: 25 September 2017

Recommendation: Not Rated

Company Information

ASX Code	TEG
Last Price (\$)	\$0.18
12 month share low	\$0.025
12 month share high	\$0.24
Shares on Issue (m)	183
Market Capitalisation (\$m)	\$33.1
Daily Volume	1.07m

CIQ, DJC Research

Directors and Management

Edward Ted Farrell	Non-Exec Chairman
Robert Towner	Managing Director
Darren Bromley	Exec Director/CFO

Business Description

TEG is a Perth Basin based oil producer who is the majority owner and operator of the Cliff Head Oil Field and the Arrowsmith onshore processing plant. The Cliff Head field produces circa 1,200 barrels of oil per day. TEG is a 30% partner in the recent Xanadu-1 exploration oil well that is operated by Norwest Energy. TEG will own 35% of the recently announced State Gas IPO whose key asset is the conventional Reids Dome Gas prospect. TEG's share of the proposed listed company could be worth circa \$9.5m on completion of a successful IPO.

DJC Research

Share Price Performance



CIQ

Analyst Details

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Triangle Energy (ASX:TEG): Xanadu Oil Discovery Confirmed

Key Points

- Xanadu Oil Discovery Confirmed:** The JV has completed the running of wireline logs over 330m of reservoir quality sand intervals and have confirmed the presence of a 4.6m oil column at the top of the Irwin Coal Measures. Porosity in this sand package ranges from 15% to 16% with hydrocarbon saturation ranging from 41% to 66% over the entire package. The JV believes this field is analogous with nearby Cliff Head. The hydrocarbon saturated zones are near the top of the area of interest and the JV is of the opinion that drilling up-dip could intersect a larger oil column. This is analogous with initial Cliff Head discovery which intersected a gross oil column of 4.8m in a structurally similar setting. A side-track was then drilled up-dip and this intersected a 36m gross oil column and the JV believe that a similar scenario could play out in the Xanadu field.
- Oil recovered to surface:** The JV recovered oil to surface via a specialised sampling tool from Schlumberger. Due to the deviated nature of the well bore it has been challenging to retrieve logs from the well. To log the areas of interest the operator has had to attach the logging equipment to the bottom of the drill stem. The oil samples have been sent to Perth for further analysis and confirmation that it is the same as the oil found at Cliff Head.
- The JV is working on a forward plan:** The JV has several potential options to further delineate the discovery. These include an immediate seismic survey, a side track well or the drilling of a long lateral to test the outboard part of the structure. The seismic coverage is not comprehensive due to challenges of acquiring seismic in the shallow waters over the field. The JV is investigating acquiring short infill lines as a mini-survey to allow for a better understanding of the trap and the potential for follow up targets. The results from the sampling of the recovered oil will also help to firm up the migration model further enhancing the JV understanding of the field. The rig is still onsite and is currently suspending the well. However, the rig does not have a follow up contract and is therefore available for follow on work potentially saving on mobilisation and demobilisation costs.
- Rapid commercialisation is possible:** Thanks to the close proximity of the Arrowsmith plant it will be possible to rapidly commercialise this discovery with a minimal capital injection. The Arrowsmith plant has the capacity to produce 15,000 bbls of oil a day and is currently running at 1,200 bbls per day. On a recent site visit DJC observed a disused railway line that runs near the Xanadu drill pad up to the Arrowsmith plant. This could be used as path for a private haul road or a path for a pipeline.
- The JV and operator have performed well:** The companies in the JV; Norwest Energy, Triangle Energy, Whitebark Energy and 3C have performed very well to get the project this far considering they are relative minnows. Norwest is the operator and its management team has done exceptionally well to fund, permit and drill the well in a relatively short space in time. The fact that a potentially Basin changing discovery has been made is testament to quality of the people involved in all aspects of the project.

Our View

The Xanadu structure is very large at 5km2 and the fact that the very first drill hole into the prospect has resulted in a discovery is a major event. The bulk of the structure remains untested as this well only intersects a relatively small area. A key risk in the Perth Basin is trap seal integrity, and now that it has been confirmed that movable hydrocarbons are present, any further work on the field is considerably de-risked. The JV has several options to take the

discovery to the level of full commercialization, the most attractive in our opinion being drilling up-dip. Norwest the operator has stated that it seems if the well has missed the crest of the discovery and drilling further up the structure is likely to intercept a thicker oil column nearer the apex of the structure. As one moves up-dip, oil saturation increases from 41% to 66% and oil saturation is likely to increase the further away from the oil/water contact the side track well is positioned potentially improving the commerciality of the discovery.



Figure 1: Sample of the oil recovered from Xanadu

Source: TEG

In our opinion this is the best result that the JV could have hoped for at this stage considering the level of data available for pre-drill analysis and interpretation. This is only the beginning of the journey as more data is collected and more holes are drilled, adding to the understanding of what the subsurface looks like. While it is not guaranteed, there is every chance that Xanadu could meet its initial expectations of 160mmbbls of oil, but even if only a tenth of this ultimately makes it into reserves, the field is expected to provide a commercial return. Commercialisation of any produced oil will economic thanks to the fully operational nearby Arrowsmith plant.



Figure 2: The Enerdrill 3 rig onsite at the Xanadu-1 well.

Source: DJC

TEG now has three key parts of its business that underpin its value:

- The producing Cliff Head field and associated Arrowsmith plant. TEG have already lowered production costs to ~\$30 per barrel and are working to bring this down further.
- A 35% interest in the upcoming IPO of State Gas. State Gas's primary asset is the Reids Dome conventional gas accumulation in the Bowen Basin that could be worth \$9.5m when State Gas lists in mid-October. Malcom Turnbull recently announced that the East Gas shortfall could be 3 times what was originally estimated. The Reids Dome project could become very valuable if the expected shortfall of 110PJ per year becomes a reality,
- A 30% share of the Xanadu oil discovery. While it is early days, this could grow substantially as more data is gathered. Any oil that is produced from the field will likely be processed in the Arrowsmith plant giving TEG an additional income stream over and above oil sales.

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The Author of this report made contact with **Triangle Energy Limited** for assistance with verification of facts, admittance to business sites, access to industry/company information. No inducements have been offered or accepted by the company.

Recommendation Definitions

SPECULATIVE BUY – Potential 10% or more outperformance, high risk

BUY – Potential 10% or more outperformance

HOLD – Potential 10% underperformance to 10% over performance

SELL – Potential 10% or more underperformance

Period: During the forthcoming 12 months, at any time during that period and not necessarily just at the end of those 12 months.

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