

# Norwest Energy NL

Striving for Success  
in a Challenging  
Market



14<sup>th</sup> September 2016



**norwest**  
ENERGY NL

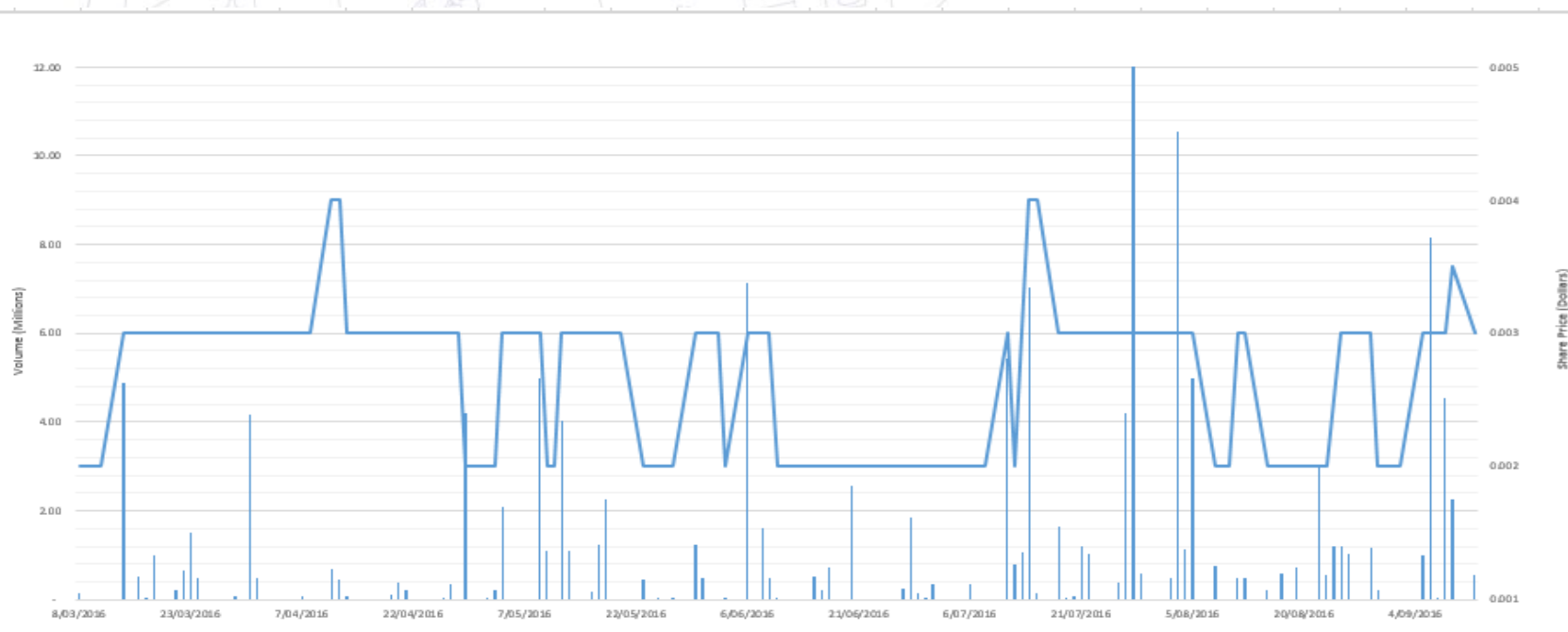
## Corporate Details

ASX code	NWE
Share price	0.3 cents
Ordinary shares	2,465,569,394
Market capitalisation	A\$7.4 million
Cash (as at June 2016)	A\$0.335 million
Debt	Nil
Capital Raising finalised 26/08/2016	\$830,000
Current no. of shareholders	4,005
Top 20 holds	44.26%

## Board and Management

Michael Fry	Non-Executive Chairman
David Kennedy	Non-Executive Director
Ronald Currie	Non-Executive Director
Shelley Robertson	Chief Executive Officer
Emma Curnow	Company Secretary

## Share Price and Volume Chart (6 months to 13 Sep)



# Board & Senior Management



**Michael Fry, Non-Executive Chairman**

- Extensive experience in capital markets and corporate treasury, specialising in risk management.
- Non-Executive Chairman of Brookside Energy and Challenger Energy Limited.



**Shelley Robertson, Chief Executive Officer**

- Significant senior management experience in the resources industry with 20+ years experience.
- SPE & PESA Member with postgraduate qualifications in Petroleum Engineering.
- On the NWE senior management team since early 2010 managing project operations, HR, regulatory compliance and approvals.



**David Kennedy, Non-Executive Director**

- Founding Shareholder & Director of NWE.
- Long association with Australian and New Zealand resource companies.
- Established several successful listed companies (Pan Pacific Petroleum, NZ Oil & Gas, Mineral Resources and Otter Exploration). Chairman of Pancontinental Oil and Gas NL.



**Emma Curnow, Company Secretary, CFO**

- A member of the Institute of Chartered Accountants and the Governance Institute of Australia and holding a Bachelor of Commerce from UWA.
- Significant industry experience with a number of listed O&G companies in Australia and the UK.



**Ron Currie, Non-Executive Director**

- Extensive operational experience in O&G operations with Bonnie Rock Transport, a company he co-founded in 1998 and which provides transport and logistics solutions and mobilisation of large drilling rigs and associated equipment for the O&G industry.



**Dean Powell, Technical Advisor**

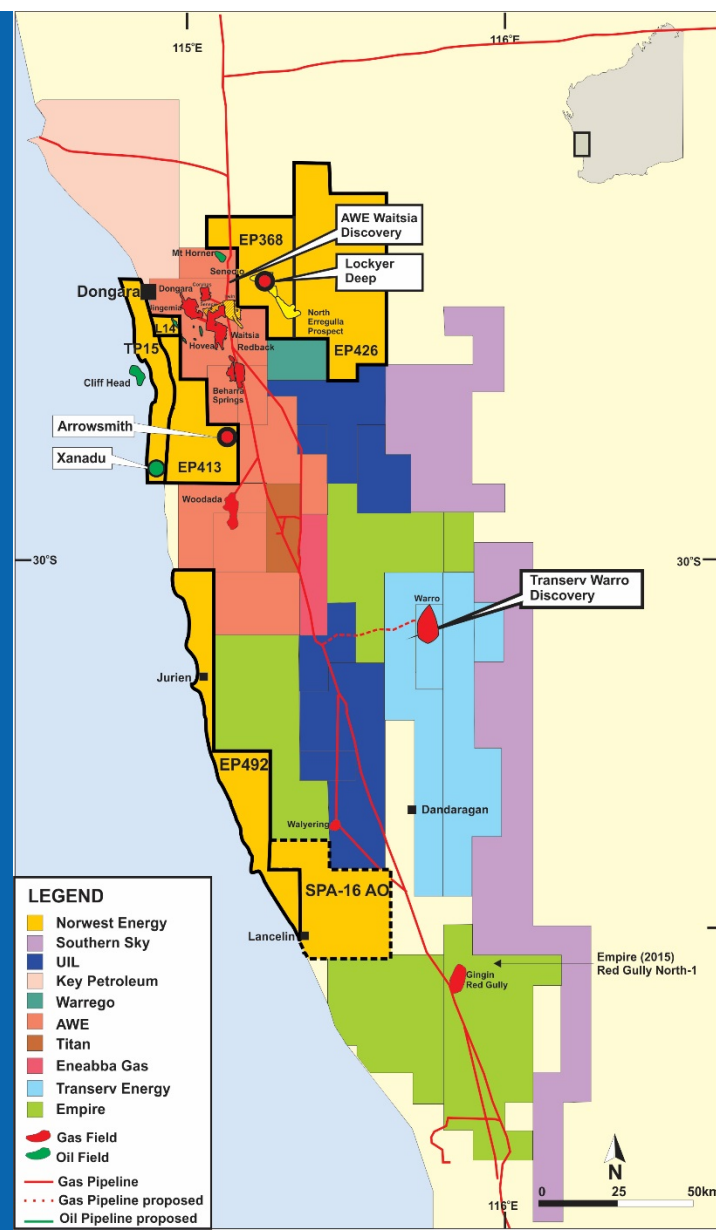
- SEG and PESA Member with 45 years experience in oil and gas exploration.
- Actively involved in Perth Basin exploration since early 1970s.
- Senior geoscientific roles with majors as well as 20+ years as an independent consultant on exploration projects overseas and in many Australian basins.



# PORTFOLIO REVIEW

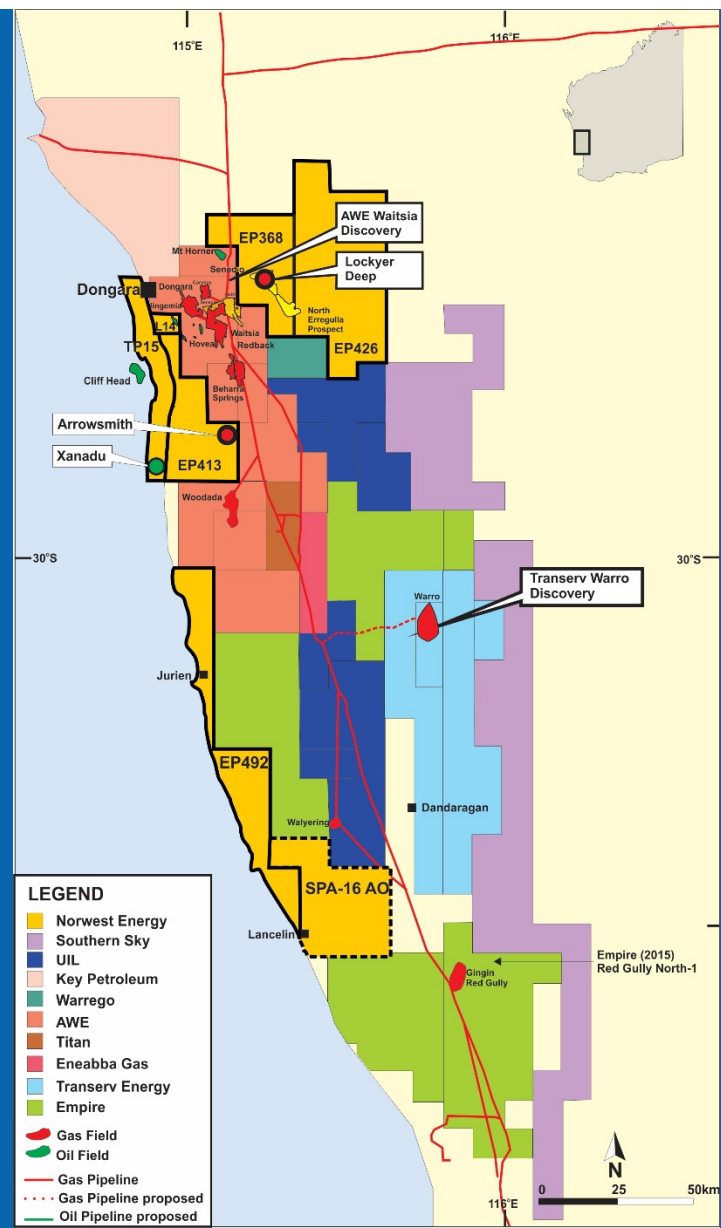


- Interest in seven key permits within the northern Perth Basin.
- A balanced mix of oil and gas, and conventional and unconventional plays.
- Quality projects with the ability to attract equity and funding, even in a difficult market.
- Projects surrounded by discoveries, and producing oil and gas fields.
- Three wells to participate in during 2017/18.



# PORTFOLIO REVIEW

Permit	Location	Type of Permit	Area (100%)	Norwest %
<b>NORTHERN PERTH BASIN</b>				
EP368	Perth Basin, WA	Onshore	600.3 km <sup>2</sup>	20%
EP426	Perth Basin, WA	Onshore	1197 km <sup>2</sup>	22.22%
EP413	Perth Basin, WA	Onshore	508.3 km <sup>2</sup>	27.945%
L14	Perth Basin, WA	Onshore	39.8 km <sup>2</sup>	6.278%
TP/15	Perth Basin, WA	Offshore	645.8 km <sup>2</sup>	100%
EP492	Perth Basin, WA	Onshore	860.0 km <sup>2</sup>	100%
SPA-016 AO	Perth Basin, WA	Onshore	805.0 km <sup>2</sup>	100%
<b>TOTAL AREA NET TO NORWEST</b>			<b>2841.4 KM<sup>2</sup></b>	
			<b>(702,318 ACRES)</b>	
<b>TIMOR SEA</b>				
AC/L6 (ROYALTY)	Vulcan Sub-Basin, NT	Offshore	252.1 km <sup>2</sup>	1.25% ORRI
<b>UNITED KINGDOM</b>				
P2265	Wessex Basin, UK	Offshore	215.3 km <sup>2</sup>	65%



# NORWEST ENERGY HIGHLIGHTS



- A strong focus on the northern Perth Basin with significant exploration potential and exciting opportunities for development and growth.
- Solid portfolio of assets providing ability to raise capital in a challenging market.
- Recently announced Strategic Alliance with Transerv Energy and Capital Raising greatly strengthens Norwest's ability to progress key projects and attract farm-in partners.
- Three wells planned for 2017/18: Xanadu, Lockyer-Deep and Arrowsmith.

**Maintaining Strong Foundations for Growth**





# NORWEST ENERGY STRENGTHS



- Experienced management team focused on delivering outcomes for shareholders.
- Actively seeking funding and partners to participate in exploration programs, both within Australia and overseas.
- Strong relationships and channels of communication with JV partners and other Perth Basin operators allowing for collaboration to achieve common goals.
- Projects strategically located close to pipelines, infrastructure and markets.
- Significant cost savings implemented resulting in increased efficiencies provide a greatly enhanced value proposition to shareholders.



# NORWEST ENERGY STRATEGY



- Think smart – be innovative.
- Continue to develop technical understanding of projects.
- Secure additional funding and partners for our upcoming 3 well program. Think outside the square with funding options.
- Continue to work closely with other operators in the basin.
- Exhibit best practice operations.
- Develop positive relationships with all stakeholders.
- Every dollar counts. Work hard to keep costs down by capitalising on current low cost environment.
- “Expose our shareholders to the drillbit”.

**Key Objective: Increase Long-term Shareholder Value**





## ① XANADU

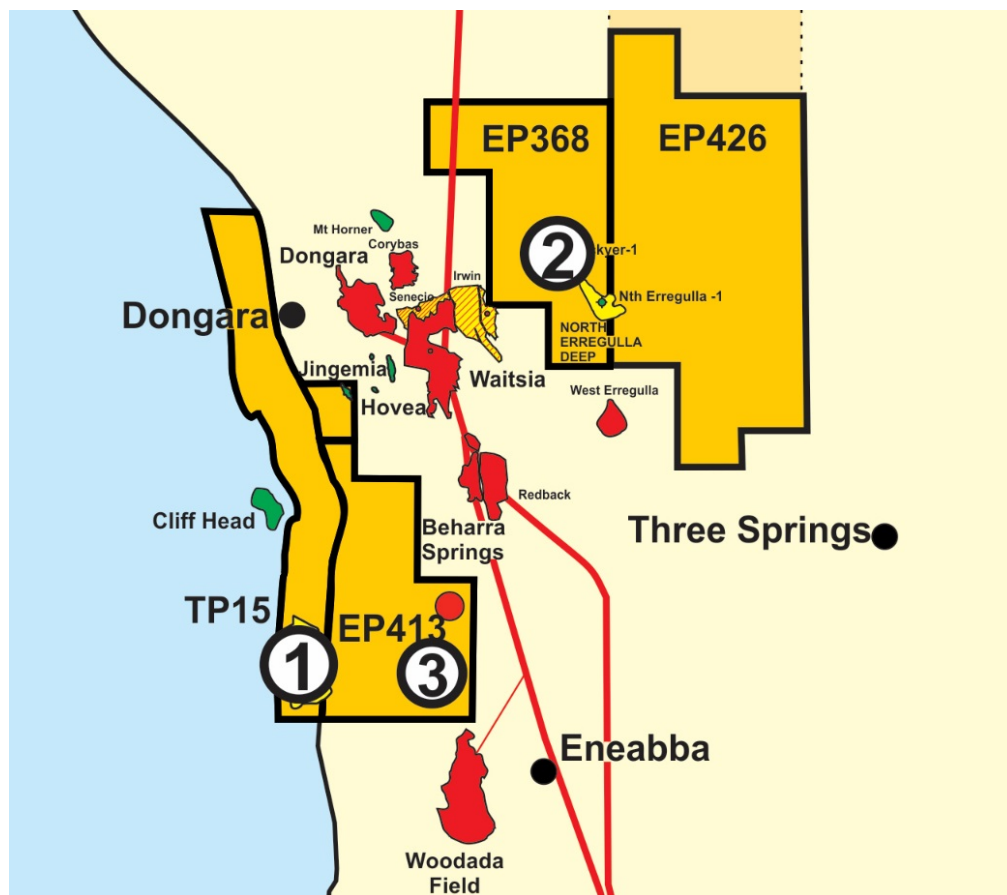
Targeting 160MMbbls conventional oil from a nearshore target drillable from onshore

## ② LOCKYER DEEP

Targeting the Kingia / High Cliff formations directly adjacent to AWE's Waitsia discovery

## ③ ARROWSMITH

Contingent gross recoverable resource 316 BCF and prospective 2.6 TCF with 3D seismic revealing additional conventional prospectivity at the southern end of the permit



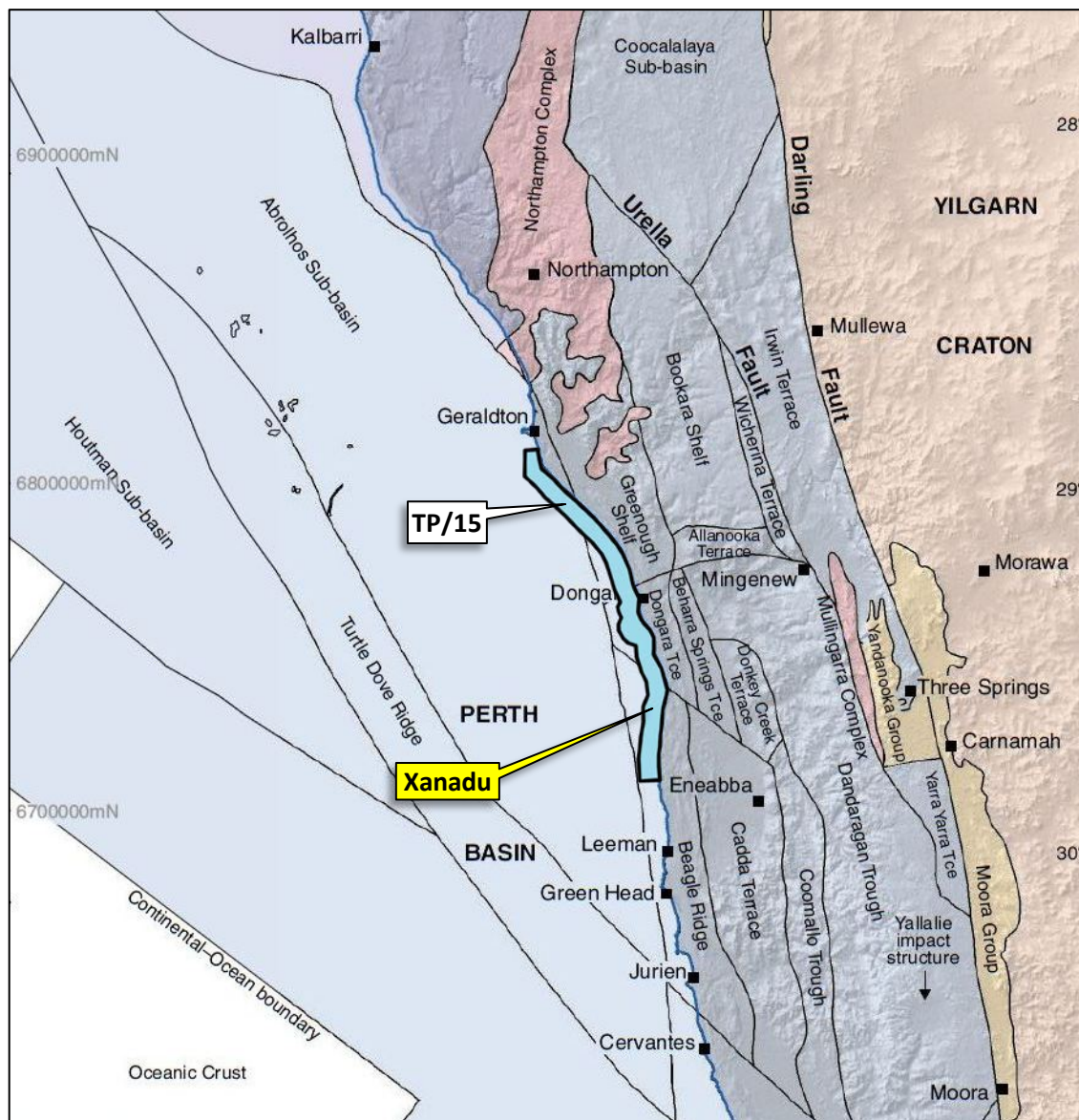
**SUCCESS IN JUST ONE OF THESE WELLS WILL BE A  
GAME-CHANGER FOR NORWEST**

# WELL #1

## TP/15 Xanadu Prospect

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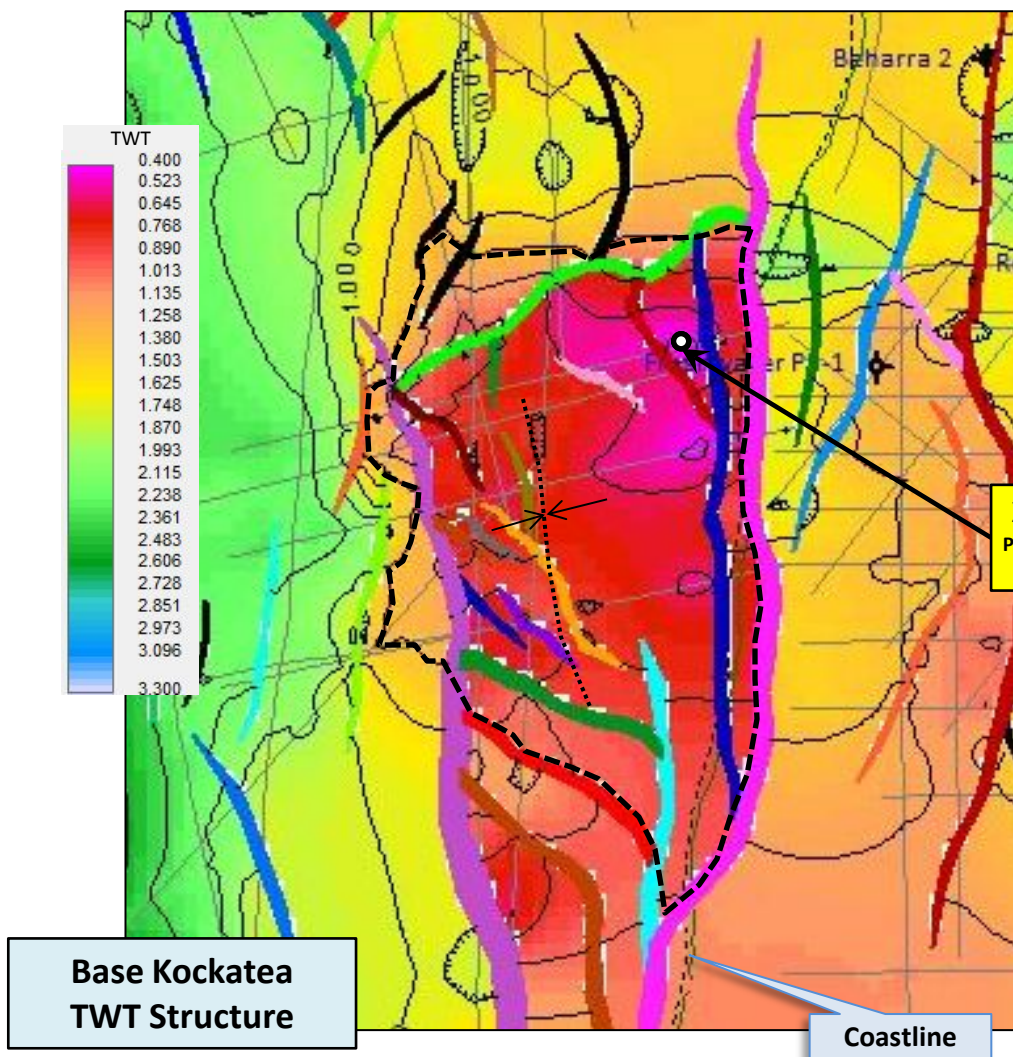


- The **Xanadu Prospect** is within TP/15, located in the northern Perth Basin approximately 250 km north of Perth.
- The permit occupies the 3 nautical mile wide state territorial waters of Western Australia adjacent to the township of Port Denison, and covers an area of 645.8 km<sup>2</sup>.
- Xanadu is a **conventional oil play**, located near the southern end of the permit.

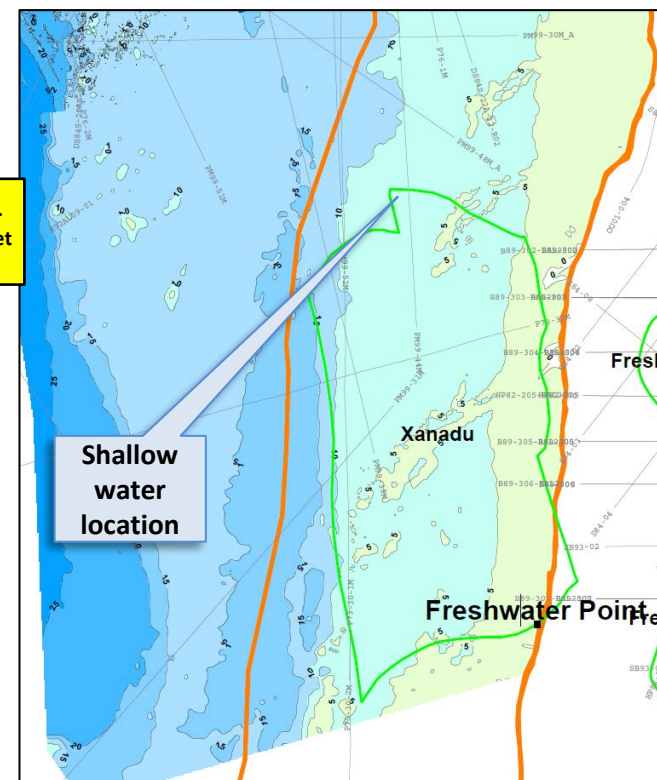


## Prominent Permian Structure

Targets Permo-Triassic sands at a depth of approx 800m. Located in shallow water immediately adjacent to the coast.



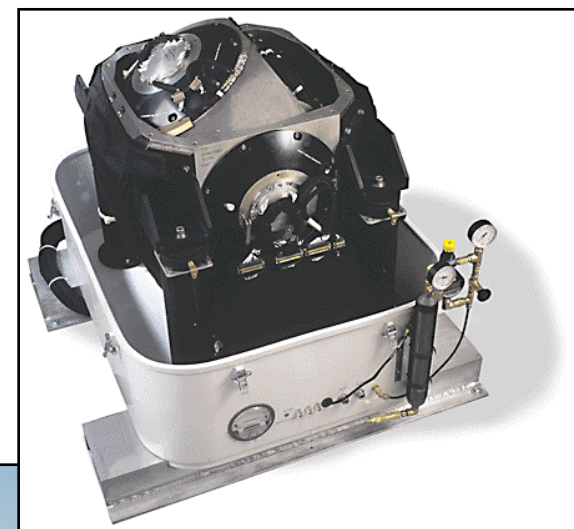
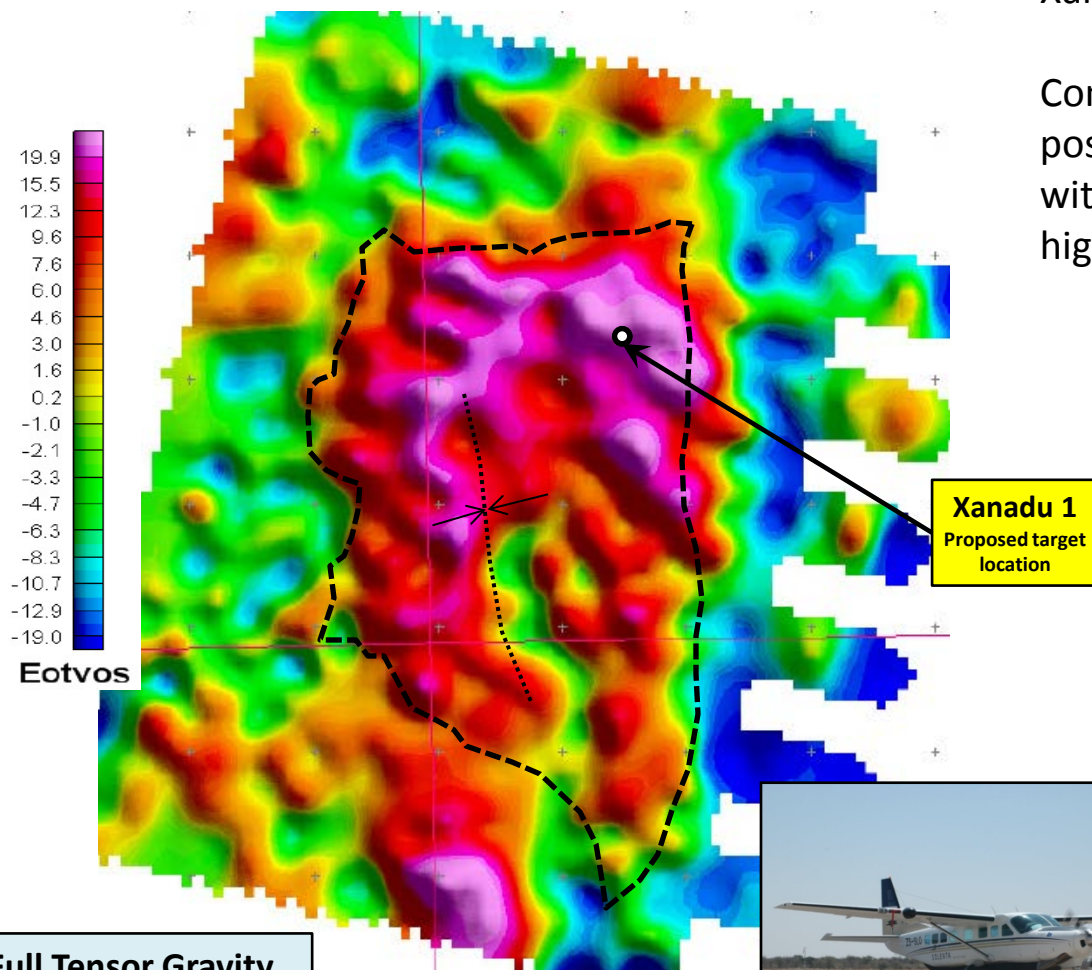
A very prominent horst, fault-bounded on all four sides. The crestal closure, occupying the northeast portion of the horst block, dips strongly to the west and relies on fault-closure to the east and north.



## Prominent Gravity Expression

A **Full Tensor Gravity** (FTG) survey has been conducted over the region of the Xanadu Prospect.

Confirms the presence of a strong positive gravity anomaly coincident with the seismically mapped structural high.



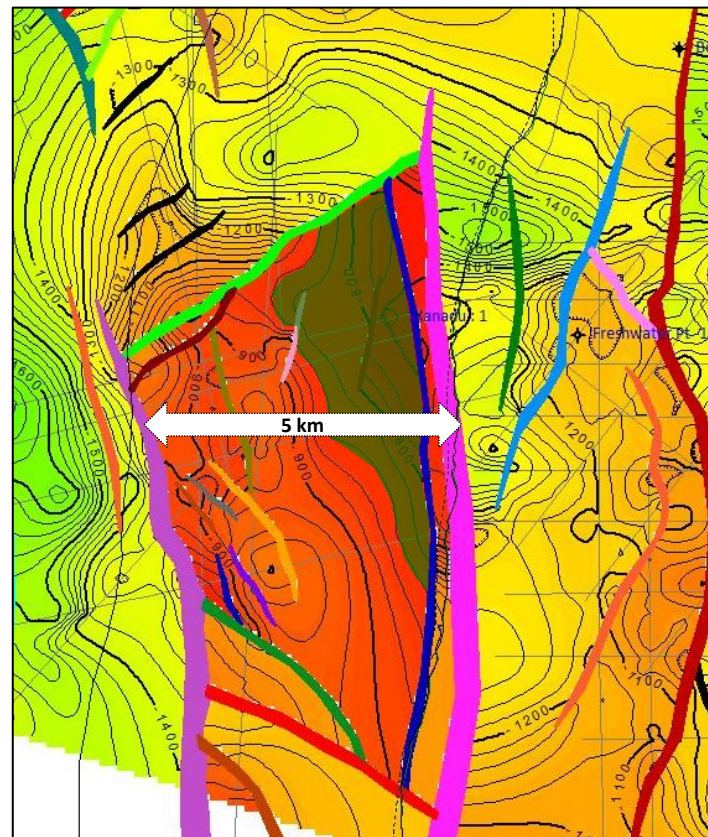
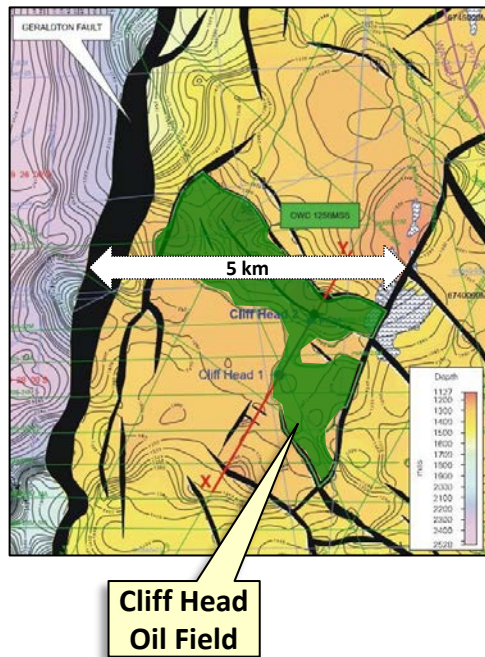
**Full Tensor Gravity**  
**Tzz Terrain Corrected**





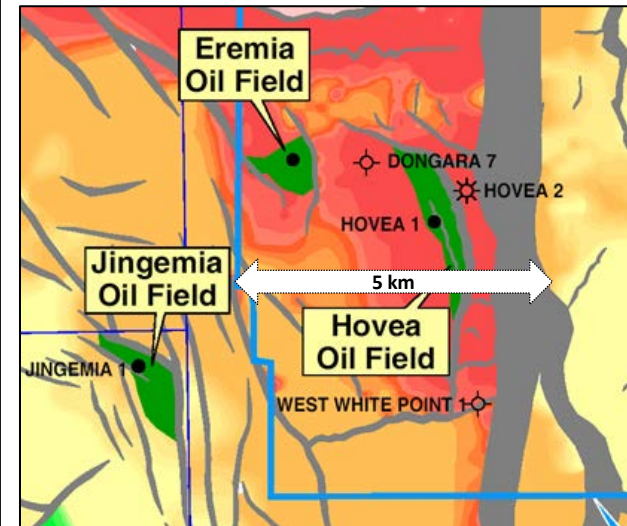
## Xanadu

### Cliff Head Oil Field



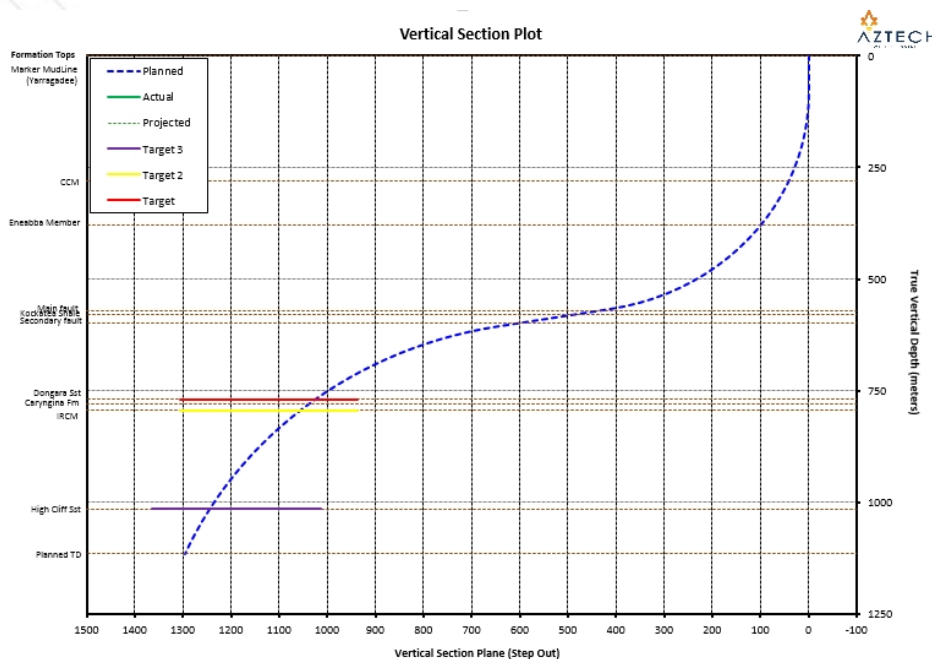
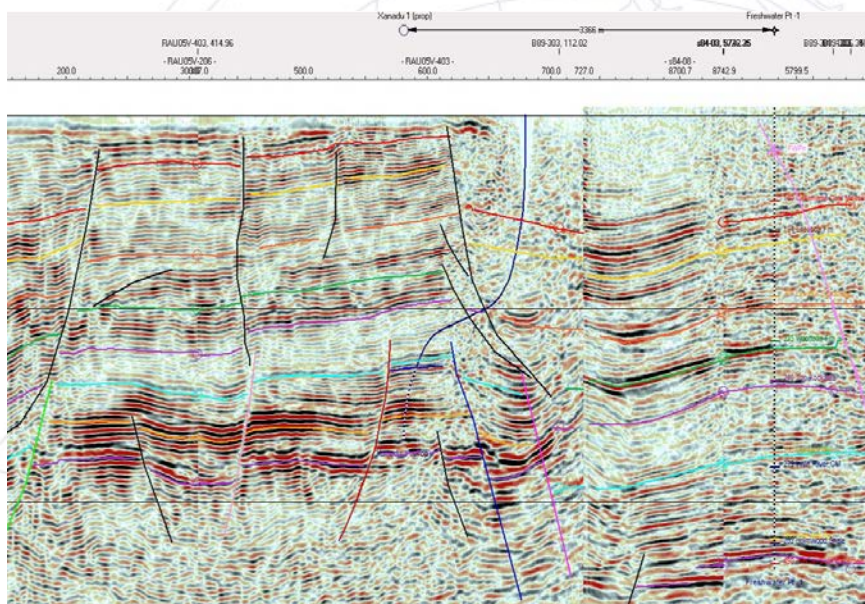
Base Kockatea Depth Structure

### Hovea, Jingemia & Eremia Oil Fields





- Xanadu-1 will be a low-cost deviated well, drilled from onshore to the offshore shallow water target
- Surface location is within the Norwest operated EP413, with site having extinguished native title and located on Crown Land



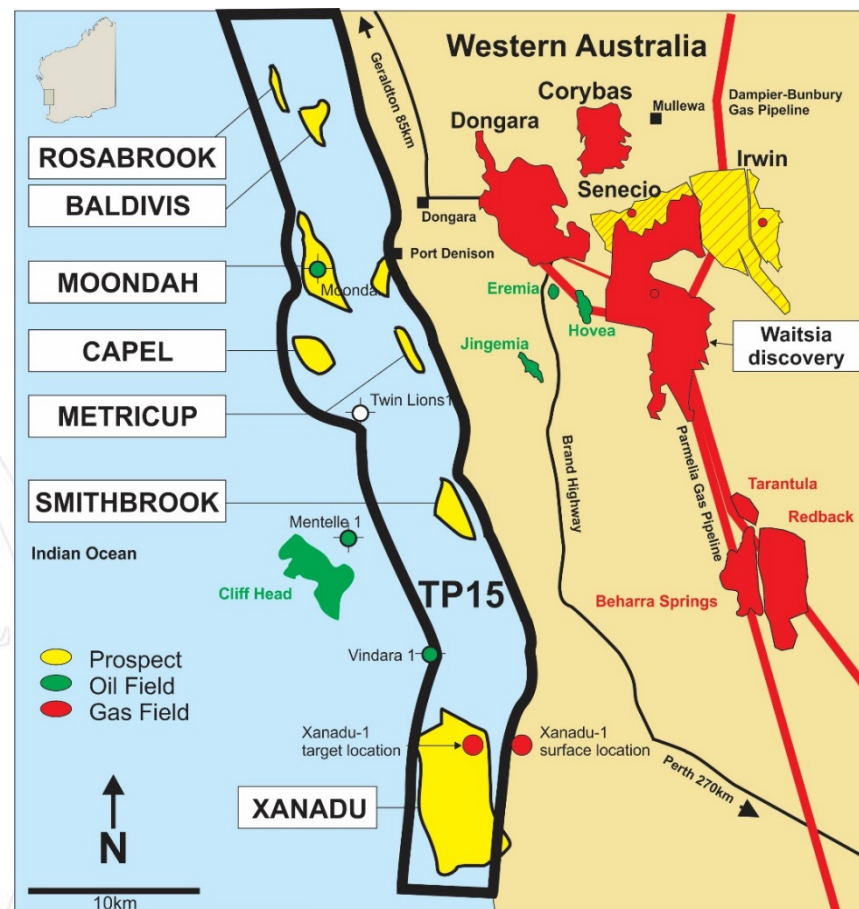
## Fast track to development – low cost pathway to commercialisation

- Option 1: to tie back into the Cliff Head onshore processing facility 15km to the north
- Option 2: Direct road freight to BP Refinery in Kwinana 300km to the south

- An unrisks prospective recoverable resource of **160 million barrels of oil**.
- Since 2001 this play has resulted in **four oilfield discoveries** in the vicinity, namely Cliff Head, Jingemia, Hovea and Eremia.
- Estimated cost to drill circa A\$6M.
- Farm-out discussions continuing with prospective parties.

**This well WILL BE DRILLED in 2017**

## TP/15 – In Summary



Un-risks Prospective Resource: recoverable volumes oil (mmstb)*			
Reservoir	Low estimate	Best estimate	High estimate
Dongara Sandstone	3	12	22
Irwin River Coal Measures	13	88	159
High Cliff Sandstone	29	60	256
<b>Total</b>	<b>45</b>	<b>160</b>	<b>437</b>

\*as per ASX announcement dated 29 Oct 2014 (50% recovery factor assumed)

# WELL #2

## EP368 Lockyer Deep Prospect

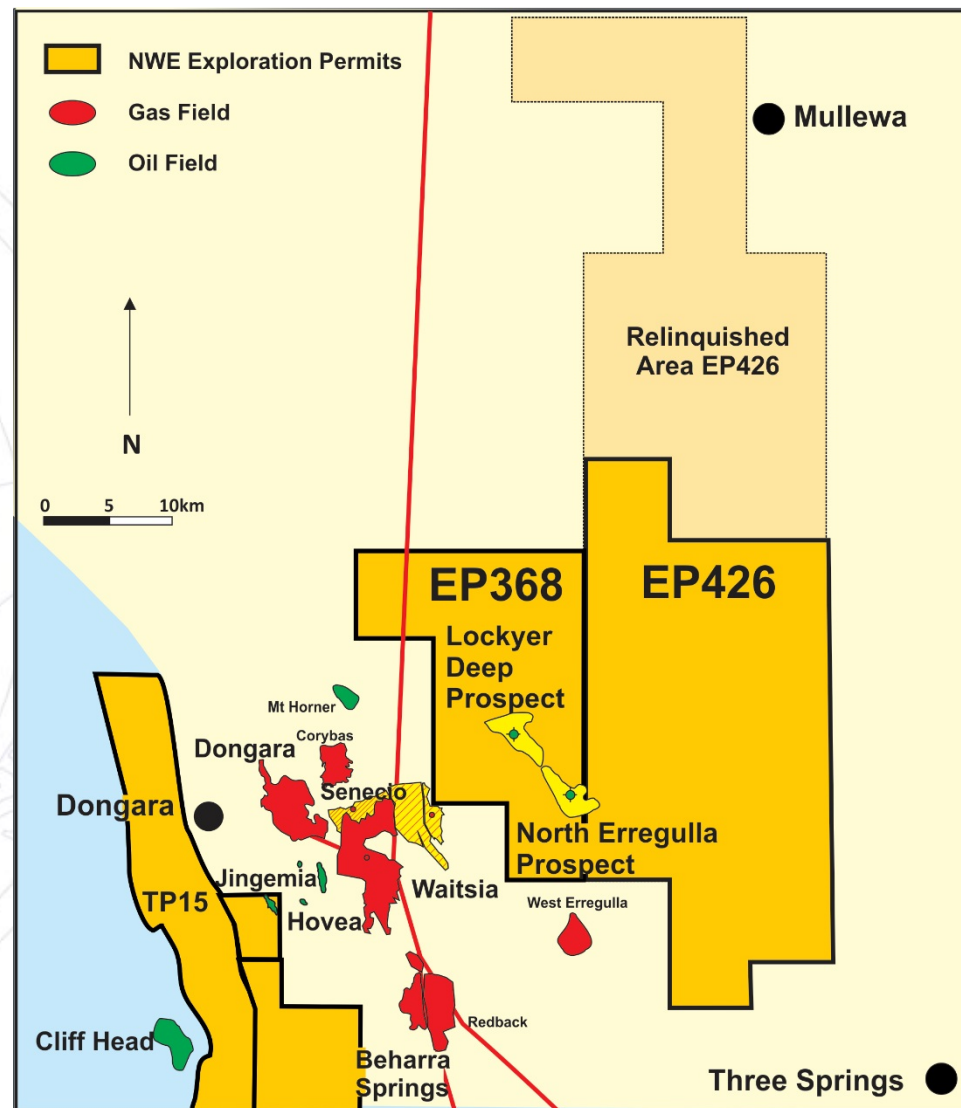
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# EP368 & 426 – Lockyer Deep Prospect

- Major gas prospect located 15 km from AWE's massive Waitsia discovery – targeting the same formations.
- Already proven oil bearing from historic wells North Erregulla-1 and Lockyer-1 at the Dongara Sandstone level, although the deeper Kingia/High Cliff play successful at Waitsia was not tested in either of these wells.
- Lockyer Deep is a medium risk well, targeting between 25 and 134 BCF, with a best case estimate of 58 BCF.
- Timing of well – 2017 subject to approvals.



# WELL #3

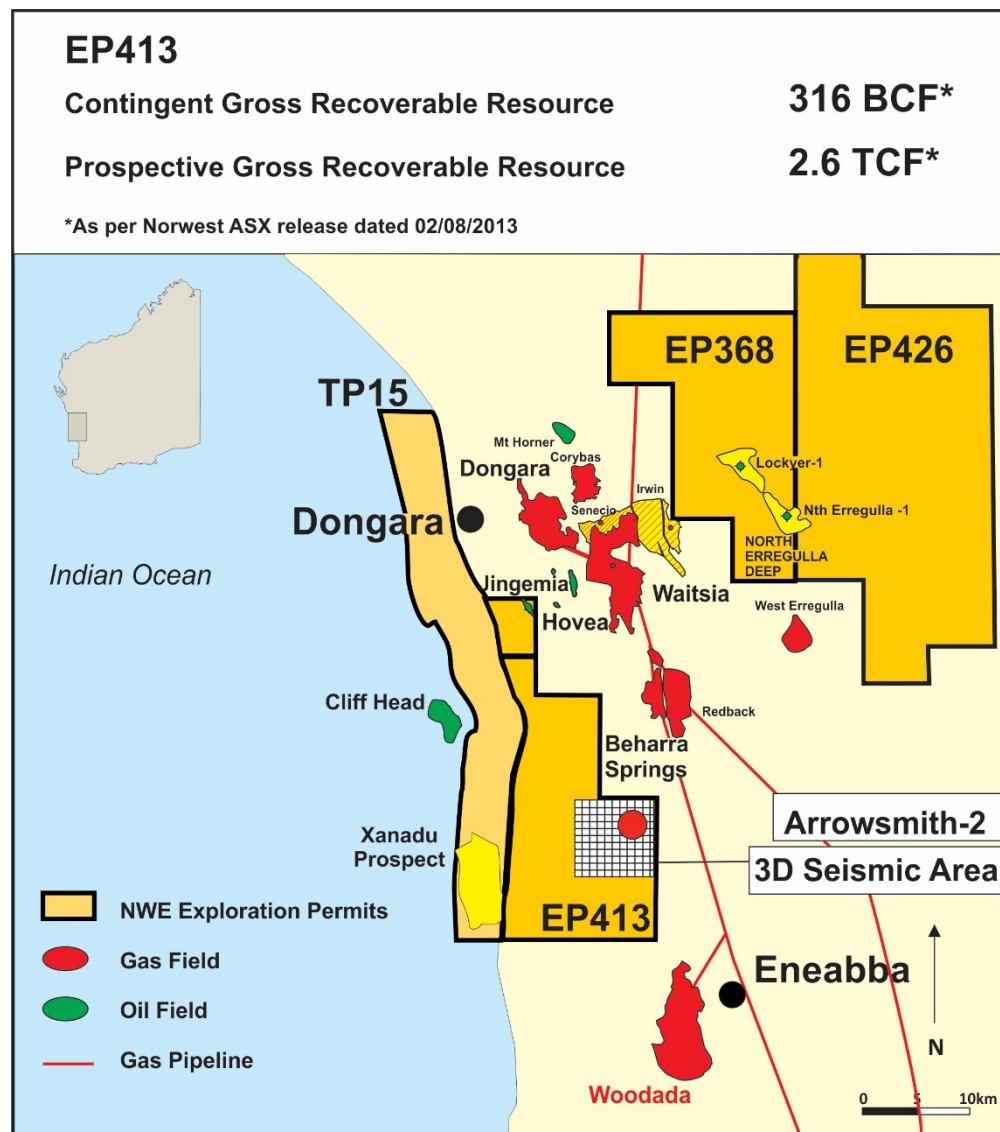
## EP413 Arrowsmith Project

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# EP413 – Arrowsmith Project

- Located approximately 300km north of Perth.
- Arrowsmith-2 well drilled in mid-2011 resulted in the Arrowsmith Field being declared a discovery.
- 3D seismic acquisition carried out in 2015 with results greatly improving structural definition.
- Carynginia Shale and Irwin River Coal Measures identified as primary unconventional targets.
- On the basis of similarities in structural form and seismic character with that seen further south over the Woodada Gas Field, there is the additional potential for stratigraphically trapped conventional gas.
- Current planning is for a well to be drilled in late 2017 / early 2018.





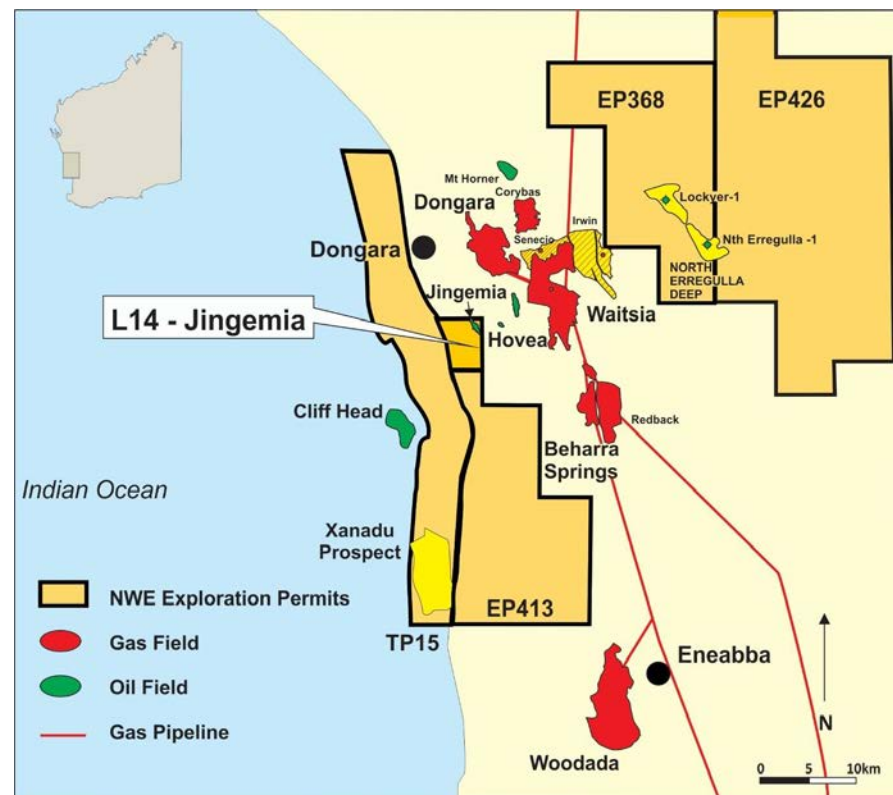
# L14

## Jingemia Oil Field

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- The Jingemias Oil Field is estimated to have initially contained 12 million barrels of oil in place with approximately 4.6 million barrels produced to date.
- Plans are currently in place for the Jingemias Oil Field to recommence production, under proposed new operator Cyclone Energy.
- Subject to DMP and FIRB approvals, Cyclone Energy and RCMA Australia will acquire equity in L14.
- Norwest has elected to retain its 6.278% interest in L14.
- Additional exploration potential has been identified within L14 providing further opportunity to extend field life if proven successful.



# SPA-016 AO / EP492

## Our pipeline of projects to the south



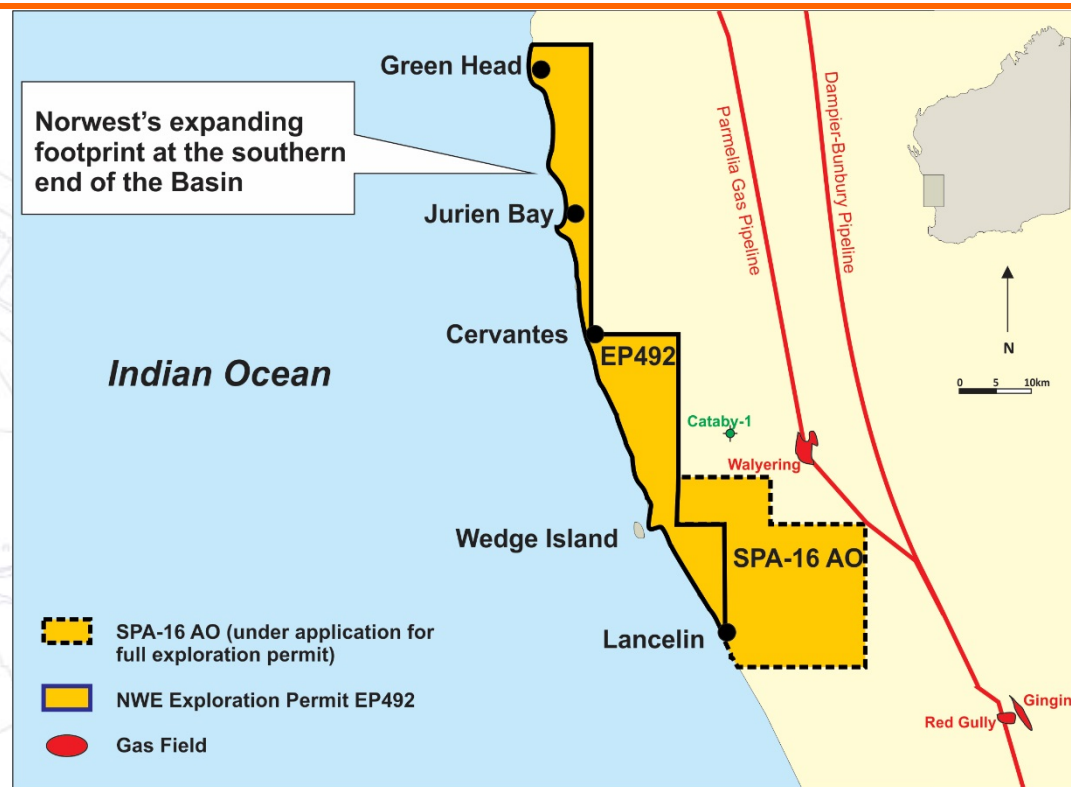


## EP492 (Norwest 100%)

- Total are 860km<sup>2</sup>.
- Desktop studies indicate potential conventional oil and/or gas targets.
- Work commitment – 2D seismic survey. Low cost and low impact as lines to be run on road verges.

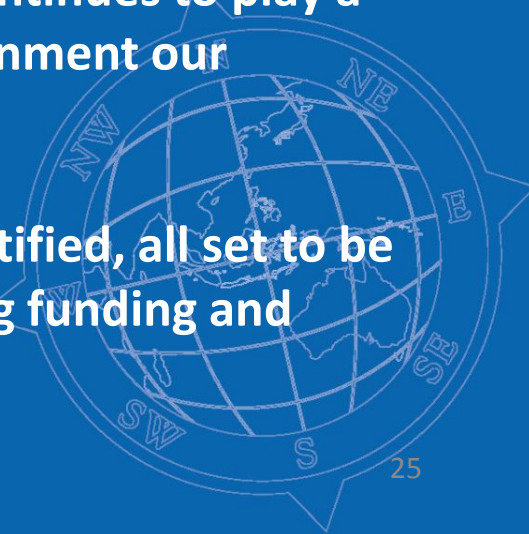
## SPA-016 AO ( Norwest 100%)

- Total area 805km<sup>2</sup>.
- Reprocessed and merged over 2500km<sup>2</sup> of AGG (Airborne Gravity Gradiometry) over SPA and adjoining tenure, identifying a number of leads.
- Application to convert to a 6 year EP has been submitted to DMP.



# In Summary

- Norwest continues to retain a large footprint in the northern Perth Basin, with a net acreage position of 2,841.4km<sup>2</sup>, containing seven permits with conventional and unconventional oil and gas prospects. Norwest's exploration portfolio is considered to contain a number of highly prospective targets, and the company's focus remains to be the realisation and development of these assets.
- There is currently a heightened focus between northern Perth Basin companies and service providers to work together to ensure an ongoing exploration program continues in the Basin. Norwest continues to play a proactive role to ensure that in a difficult market environment our exploration objectives can still be met.
- Norwest currently has three near-term drill targets identified, all set to be drilled within the next 12-18 months, subject to securing funding and regulatory approvals.



# THANK YOU



PHOTOS OF YUED TRADITIONAL OWNERS AND INDIGENOUS ART PURCHASED BY NORWEST ENERGY

IN JOINT CELEBRATION OF NATIVE TITLE AGREEMENT SIGNING



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