

## Billion Barrel Oil Potential Assessed in Pancontinental's PEL 87 Offshore Namibia

- **Giant\* scale oil potential in multiple Large Leads in PEL 87**
- **Vast Cretaceous Superfan directly on top of Mature Oil Source**
- **Oil potential exceeding 1 Billion Barrels Recoverable**
- **Pancontinental operates PEL 87 with a 75% interest**
- **Mapping is ongoing on Plays in the 10,947 km<sup>2</sup> block**

**TABLE OF BEST ESTIMATE VOLUMES**

<b>PLAY TYPE</b>	<b>GROSS BEST ESTIMATE PROSPECTIVE RESOURCES POTENTIAL*</b>	<b>LEAD</b>
Aptian Depositional Wedge	<b>1.3 Billion Bbls</b>	Saturn Superfan**
Mounded Facies	<b>152 Million Bbls</b>	A
Structural (4 way rollover)	<b>73 Million Bbls</b>	C1
Structural / Stratigraphic	<b>345 Million Bbls</b>	D
First Turbidite lobe/Sheet sand	<b>349 Million Bbls</b>	G
Structural/Mound (4 way rollover)	<b>40 Million Bbls</b>	H

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See Disclaimers for further information.

The oil volumes shown are gross volumes. For Net to Pancontinental volumes- see full Table below.

\*A Giant field has at least 500 MMBOE recoverable potential

\*\* The overall Saturn Superfan incorporates all of the other Leads, but with different risk inputs

Pancontinental Oil & Gas NL ("Pancontinental"), (ASX: PCL) has completed the first major stage of assessing the potential prospective oil resources in its 75% owned PEL 87 project in the Orange Basin, offshore Namibia.

**Giant-scale prospective oil resource potential has now been quantified by Independent Experts.**

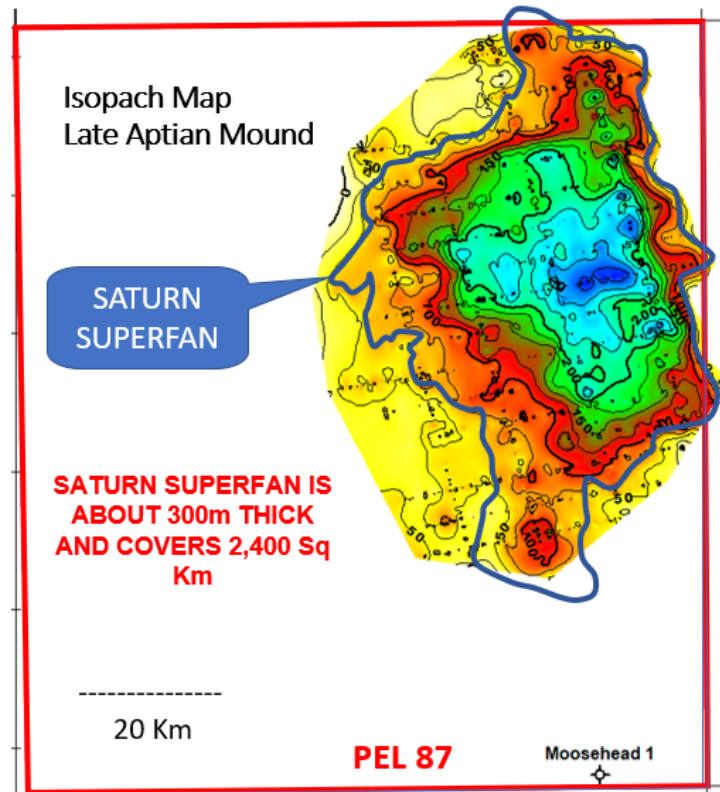
**Pancontinental's hugely advantageous position in Namibia, with material interests in two large blocks, comes directly from the pioneering and ongoing work of Director, Mr Barry Rushworth, ably supported by long-time director Mr Ernie Myers.**

**The enormous oil potential of PEL 87 is now being documented. The PEL 87 licence, which was issued in 2017 follows the Company's 2012 licencing of PEL 37 to the north. Pancontinental founded the PEL 37 joint venture which is currently drilling the highly anticipated Cormorant-1 well.**

## PEL 87 Oil Potential - Saturn Superfan

Good quality 2D seismic data totalling over 2,800 line km, regional well information including the Moosehead -1 well (drilled on an invalid play in the block in 2013), Sequence Stratigraphic mapping and other techniques have been used to map the potential of PEL 87.

The largest of the prospective Plays identified so far is a Cretaceous (Late Aptian) turbidite fan system covering 2,400 km<sup>2</sup> (Figs. 1 & 2). This "**Saturn Superfan**", corresponds to the Ponded Turbidite Fairway reported to the ASX on 18 June 2018.



The Saturn Superfan is interpreted to contain a number of individual Leads, while it is itself mapped to be enveloped in sealing shale and with the potential to be one vast, single, oil trap.

The Superfan lies immediately on top of oil-mature and rich oil source shales that were drilled by Moosehead-1 and interpreted throughout PEL 87.

The Superfan is a highly prospective Play Type tested in analogue basins but not yet drilled in Namibia.

Fig 1. The Superfan is large, thick turbidite wedge

## THE SATURN SUPERFAN IS A UNIQUE UNTESTED OIL PLAY

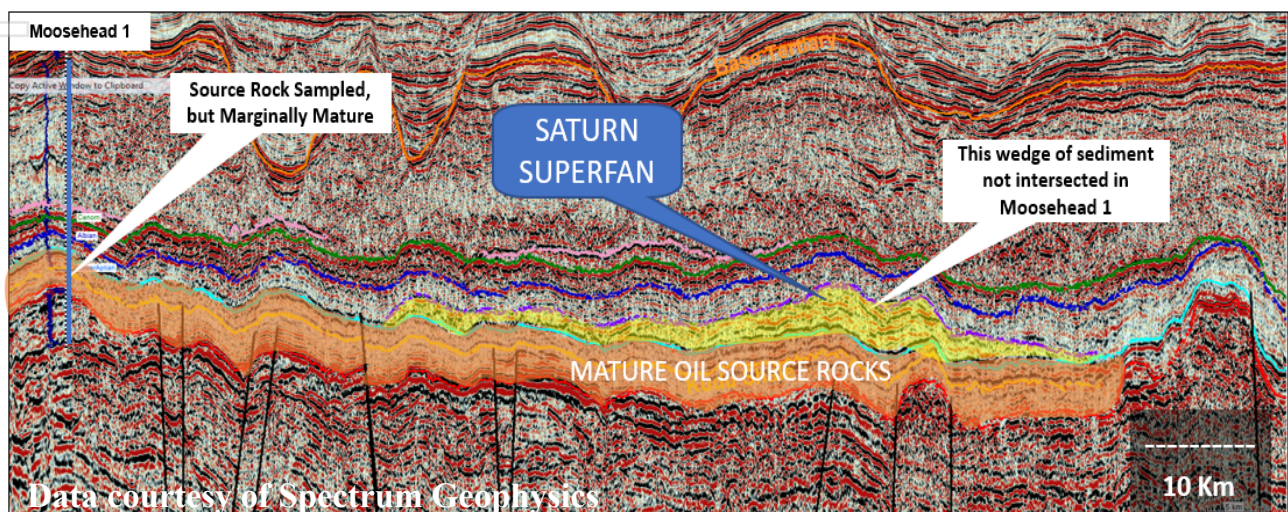
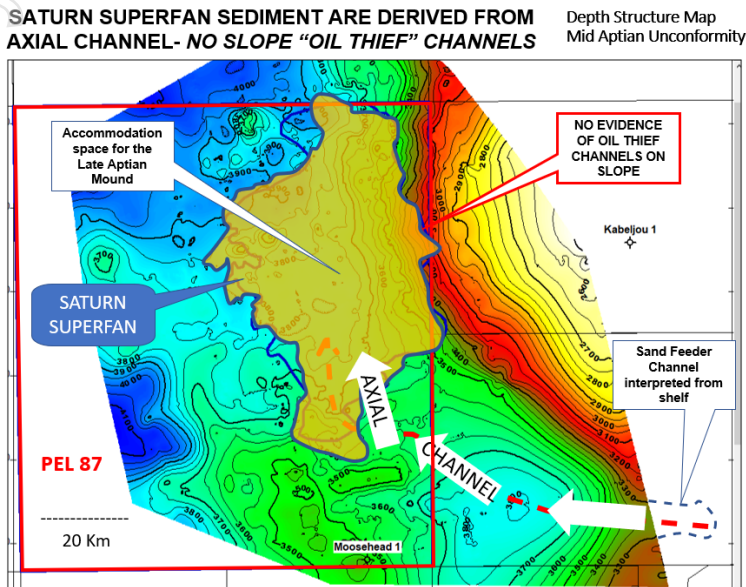


Fig 2. Seismic Section through the Saturn Superfan showing a large closed anticlinal-drape Lead

Pancontinental's mapping shows that the fan system was originally deposited axially into a seabed low, now uplifted, with sediment input from a single large canyon entering the PEL 87 area from the southeast. Water depths across the feature vary from approximately 800m to 1900m east to west.



**The Saturn Superfan is located almost entirely within PEL 87** and has a different age and depositional history to the fan bodies in Pancontinental's PEL 37 block in the Walvis Basin to the north. There, by contrast, the Cormorant-1 well is currently testing one of several large submarine fan bodies with sediment sourced from the east and deposited directly in front of the depositional slope.

There are a range of large Leads within the Superfan, with differing trap characteristics.

Fig 3. The Superfan has an axial sediment source

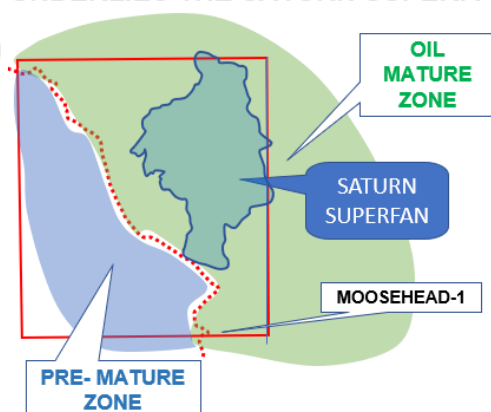
These include large 4-way dip closures and other potential traps that rely on stratigraphic closure.

The interpreted sandy turbidite and channel facies in the Superfan were not penetrated by Moosehead-1 located in the southern part of PEL 87 and have not yet been tested for oil in the Orange Basin.

*The key Moosehead-1 well, however, provides accurate seismic ties that prove a thick shale Top Seal over the Superfan, as well as the underlying shales that form a Bottom Seal and a thick Mature Oil Source.*

## High Quality Oil Mature Source Rocks

### HIGH QUALITY MATURE OIL SOURCE UNDERLIES THE SATURN SUPERFAN



### HIGH QUALITY OIL SOURCE ROCKS IN MOOSEHEAD-1

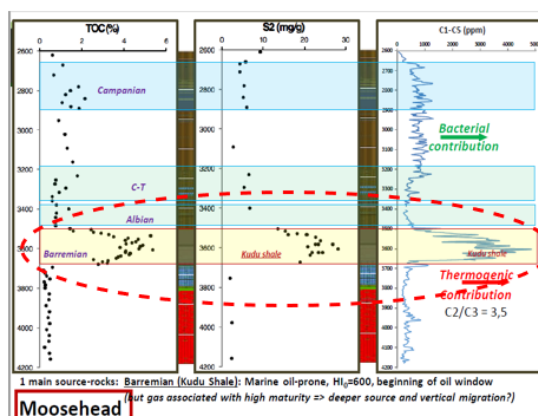


Fig 4. A large region of Mature Aptian Oil Source Rocks underlies the Superfan

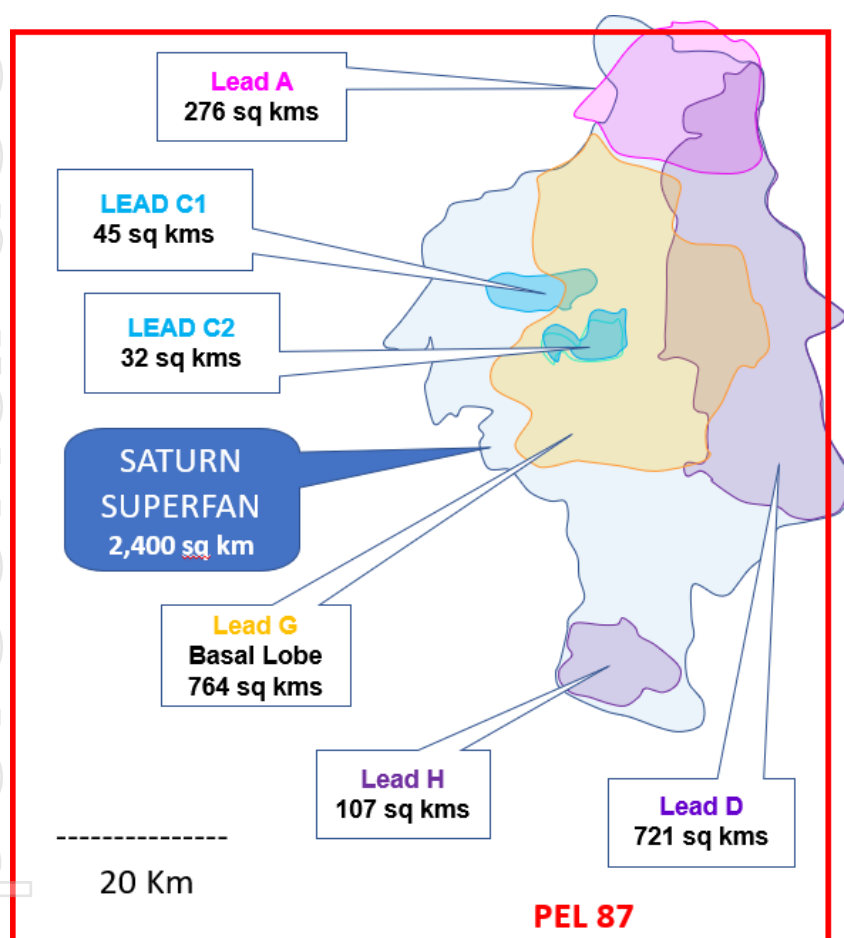


High quality, marginally oil-mature source rocks were penetrated by Moosehead-1 in 2013. These same oil-prone source rocks are interpreted to be **fully Oil Mature** beneath the Superfan, due to greater burial depth, as well as over a very large area adjacent to the Superfan.

### Large Scale Individual Leads within Superfan

The Superfan has now been mapped and assessed for seismic stratigraphic relationships and the volumetric analysis of potential prospective oil resources.

The Superfan contains a number of discrete, and in some cases interconnected, Leads over areas from 32km<sup>2</sup> to more than 750km<sup>2</sup>.



These very large individual potential oil traps occupy settings within the Superfan with varying geological characteristics and interpreted sand types.

Sand bodies relating to channel systems, turbidite mounds and sheet flow sands have all been interpreted.

Ultimately 3D seismic will be required to better define the whole system and mature Leads to drillable Prospect status.

Fig 5. Saturn Superfan and Individual Leads

## Prospective Oil Resources (Recoverable)

The Superfan has been examined by Mr Brian Diamond<sup>(2)</sup> an independent expert in calculating Prospective Hydrocarbon Resources.

The potential recoverable oil resources, classified as Prospective Resources, have been estimated probabilistically on an unrisked, Best Estimate basis.

### INDIVIDUAL LEADS

MAIN LEADS – RECOVERABLE OIL POTENTIAL									
Lead	Gross Prospective Resources				Pancontinental Net Entitlement <sup>1</sup>				GPOS
	MMbbls				MMbbls				%
	P90	P50*	Mean	P10	P90	P50	Mean	P10	
Lead A	39	152	224	549	28	108	160	391	11%
Lead C1	24	73	102	213	17	52	73	152	19%
Lead D	57	345	829	2026	41	246	591	1444	10%
Lead G	75	349	603	1433	53	249	430	1021	7%
Lead H	6	40	95	234	4	29	68	167	7%
TOTAL					143	684	1322	3175	

\*P50 represents Best Estimate Prospective Resources

### SATURN SUPERFAN AS A SINGLE OIL TRAP

SATURN SUPERFAN – RECOVERABLE OIL POTENTIAL									
Lead	Gross Prospective Resources				Pancontinental Net Entitlement <sup>1</sup>				GPoS* %
	MMbbls				MMbbls				
	P90	P50*	Mean	P10	P90	P50	Mean	P10	
Saturn**	245	1329	2830	7820	175	947	2016	5572	5%

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\* Estimated chance of finding oil based on risk relating to presence of: Trap X Reservoir X Seal X Source X Charge

\*\* The overall Saturn Superfan incorporates all of the other Leads

Note 1- PCL share is its Entitlement Share, net of applicable royalties and equates to 71.25%

Preliminary estimates of the exploration risk (Probability of Success- "GPoS") are expected to substantially improve after future work designed to mature the best Leads to Prospect status. Reflecting the relatively early stage of the project, the estimated chances of discovery (GPoS) range from 5% up to 19%. The main technical elements of risk relate to reservoir presence due to the lack of a well penetration and, for the purely stratigraphic traps, the sealing elements.

Pancontinental considers that if oil is discovered within the resource ranges estimated, then assuming that industry development costs and oil pricing are similar to those currently prevailing, it is probable that a commercial development would take place.

*While the Superfan is very large on a global scale, its potential to contain oil (if any) will not be properly determined until drilling has been undertaken.*

### Ongoing Programme

*The Saturn Superfan is only one of a number of Play Types within PEL 87.*

Pancontinental is continuing to map other potential oil-bearing features, both on trend, and in other parts of the 10,947 km<sup>2</sup>, PEL 87 area.

The Company intends, as it has so successfully done in the past, to seek a major joint venture partner to fund an accelerated forward program, including 3D seismic over the Saturn Superfan.

The recent published details of accelerated investment activity by major oil companies into Namibia provides Pancontinental with high confidence in its forward strategy.

### Pancontinental Offshore Namibia

Pancontinental has two projects it originated offshore Namibia. In PEL 37 the Joint Venture (PCL 20%) is currently drilling the Cormorant-1 well. In PEL 87 Pancontinental has 75% and is project Operator.

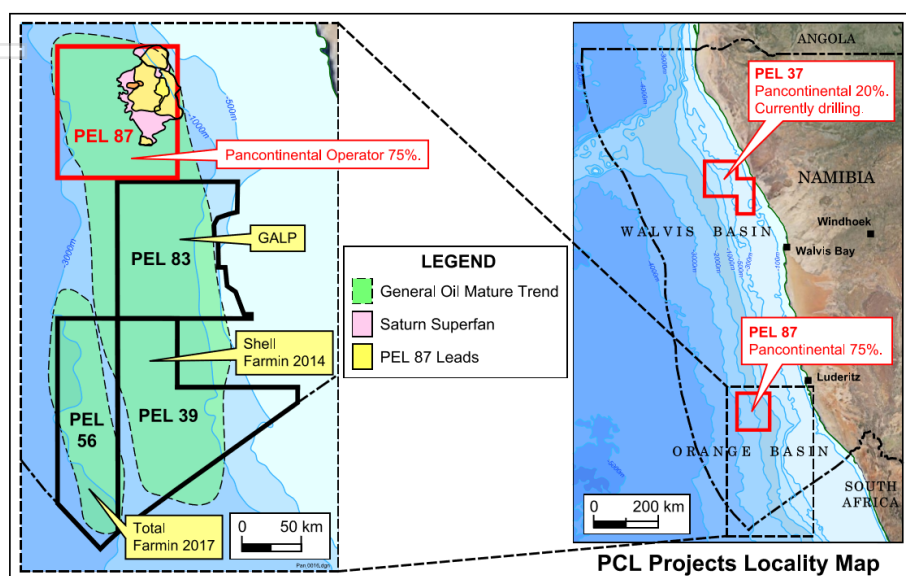


Fig 6.  
Pancontinental's  
Projects Offshore  
Namibia

The participants in PEL 87 are-  
Pancontinental Orange Pty Ltd  
Custos Investments (Pty) Ltd  
Namcor

75.00% \*  
15.00%\*\*  
10.00%\*\*

\* Operator

\*\*Carried to Development

For and on behalf of  
**Pancontinental Oil & Gas NL**

**John Begg**  
**CEO and Executive Director**

#### NOTES

(1) Mr Barry Rushworth compiled this Report, using information derived from a number of sources.

(2) QRRE Person (Qualified Petroleum Resources Evaluator)

Mr Brian Diamond is a Geoscientist [BSc (hons) Geology, MSc Geophysics] with more than 20 years' experience, practicing in Petroleum Geology and Resource estimation and is a member of the AAPG. The Prospective Resources information relating to the project in this report are based on, and fairly represent, information and supporting documents prepared by Pancontinental and Mr. Diamond. Mr Diamond has consented to the inclusion of the information in the form and context in which it appears.

#### DISCLAIMERS

##### **Prospective Resource Estimates Cautionary Statement**

The estimated quantities of petroleum in this report that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

##### **Prospective Resources**

All Prospective Resource estimates in this report are prepared as of 10 September 2018. The estimates have been prepared in accordance with the definitions and guidelines set forth in the Petroleum Resource Management System "PRMS" approved by the Society of Petroleum Engineers and have been prepared using Probabilistic methods. Unless otherwise stated the estimates provided in this report are Best Estimates. The estimates are unrisked and have not been adjusted for an associated risk of discovery and risk of development. The 100% basis refers to the total resource.

Prospective Resources estimates in this report have been made by Mr Brian Diamond for Pancontinental Oil & Gas NL and may be subject to revision if amendments to mapping or other factors necessitate such revision.

##### **Prospects and Leads**

The meanings of "Prospects" and "Leads" in this report are in accordance with the Petroleum Resource Management System 2007 approved by the Society of Petroleum Engineers. A Prospect is a project that is sufficiently well defined to represent a viable drilling target. A Lead is a project associated with a potential accumulation that is currently poorly defined and requires more data acquisition and / or evaluation to be classified as a Prospect.

### **Competent Person Statement Information**

The hydrocarbon resource estimates in this report have been prepared by Dr Brian Diamond, who has more than 20 years' experience in practising petroleum geology.

Dr Diamond consents to the inclusion in this report of information relating to the hydrocarbon Prospective Resources in the form and context in which it appears.

### **Forward Looking Statements**

This document may include forward looking statements. Forward looking statements include, are not necessarily limited to, statements concerning Pancontinental's planned operation program and other statements that are not historic facts. When used in this document, the words such as "could", "plan", "estimate", "expect", "intend", "may", "potential", "should" and similar expressions are forward looking statements. Although Pancontinental believes its expectations reflected in these are reasonable, such statements involve risks and uncertainties, and no assurance can be given that actual results will be consistent with these forward looking statements.

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