

5th April 2016

**Release of Petsec Energy Investor Presentation:
Acquisitions and Exploration Success Deliver 3,000% Increase in 2P Reserves***Petsec Energy Ltd (ASX: PSA / OTC ADR: PSJEY)*

Petsec Energy (the "Company") is pleased to release an updated Investor Presentation covering:

- The 3,000% uplift to the Company's net oil and gas proved and probable (2P) reserve base from 0.3 million barrels of oil equivalent ("MMboe") to 9.3 MMboe following the completion of Independent Reserve Assessments across its USA and MENA Portfolios.
- The assessed net present value (NPV₁₀) to the Company of the net 2P reserves of 9.3 MMboe of US\$188.1 million.
- The recently acquired Damis (Block S-1) Yemen assets and delivery of the Company's stated MENA strategy of acquiring attractively priced developed and undeveloped oil and gas reserves in the Middle East Region.
- The addition of net 2P oil reserves of 5.6 MMbbl for the An Nagyah Oilfield.
- The size and scope of the developed An Nagyah Oilfield from which the company expects to restart production in 2016.
- The material upside that exists in the undeveloped oil and gas discoveries in Yemen Block S-1 and Block 7.
- The significant discoveries made in the USA on the Mystic Bayou and Hummer prospects.
- The addition of net 2P oil and gas reserves in the USA of 3.6 MMboe.

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Petsec Energy Ltd is an independent oil and gas exploration and production company listed on the Australian Stock Exchange. It has operations in the shallow waters of the Gulf of Mexico and state waters of the Louisiana Gulf Coast region of the USA, and exploration activities in the Gulf Coast onshore and bay areas of Texas and Louisiana, USA and Yemen.



Investor Presentation

2P Reserves: 9.3 MMboe

NPV10: US\$188.1million



April 2016

Forward Looking Statement Disclaimer

This presentation contains predictions, estimates and other forward looking statements that are subject to risk factors associated with the oil and gas industry. Although the company believes that the expectations reflected in these statements are reasonable, it can give no assurance that its expectations and goals will be achieved. Important factors that could cause actual results to differ materially from those included in the forward looking statements include, but are not limited to, commodity prices for oil and gas, currency fluctuations, the need to develop and replace reserves, environmental risks, drilling and operating risks, risks related to exploration and development, uncertainties about reserve estimates, competition, loss of market, government regulation, economic and financial conditions in various countries, political risks, project delay or advancement, and approvals and cost estimates.

All references to dollars in this presentation are to US currency, unless otherwise stated.

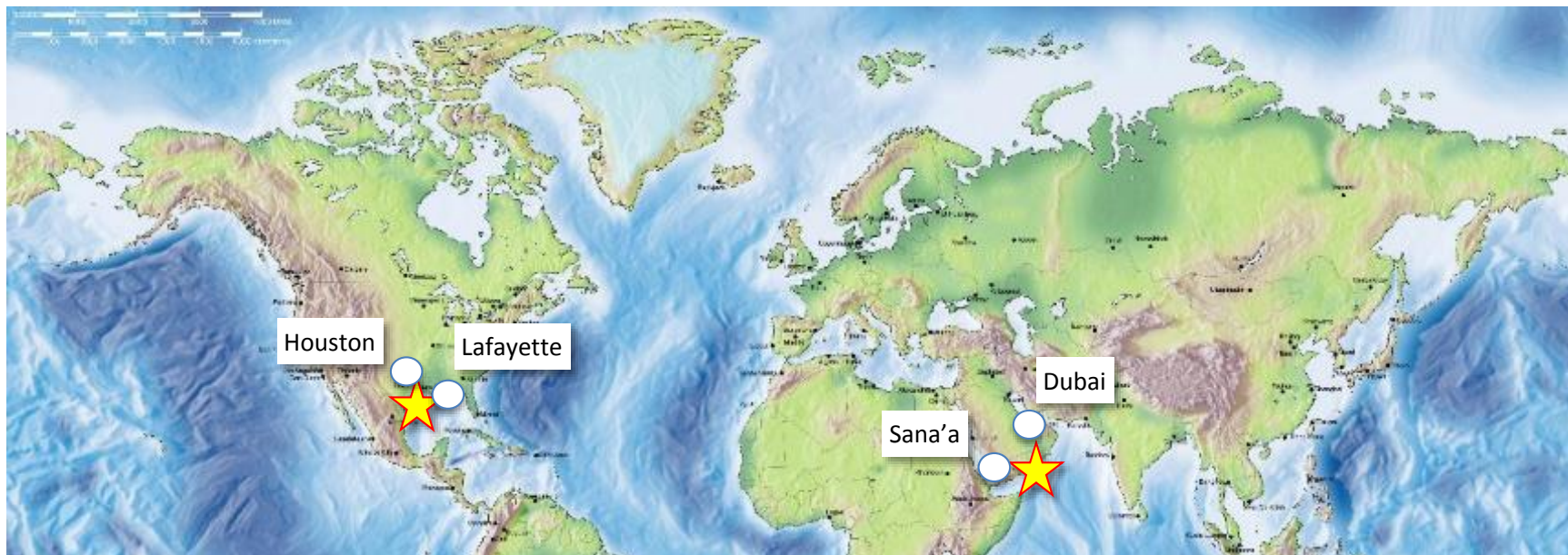
The reserves assessment follows guidelines set forth by the Society of Petroleum Engineers – Petroleum Resource Management System (SPE-PRMS). The USA and Yemen reserve assessments presented throughout this report are consistent with the announcements released to the ASX on 8 March 2016 and 15 March 2016, respectively.

The Company confirms that it is not aware of any new information or data that materially affects the information included within the Financial Statements and the Annual Report, and that all the material assumptions and technical parameters underpinning the estimates therein continue to apply and have not materially changed.

Corporate Profile:

Portfolio Of Material Assets

Petsec Energy is an **Australian independent oil and gas exploration and production company** listed on the Australian Stock Exchange with operations onshore in the Republic of Yemen, onshore Louisiana and in the shallow waters of the Gulf of Mexico, USA. Operational and administrative offices are located in Sydney, Houston, Lafayette, Sana'a and Dubai.



USA

- ❖ Operations in USA Gulf of Mexico and Louisiana since 1991
- ❖ High exploration drilling success:
109 wells / 81 successful / 74% success
- ❖ 2015 Discoveries: Mystic Bayou and Hummer (Main Pass 270) gas/condensate fields.
- ❖ **2P Reserves of 3.7 million barrels of oil equivalent**
- ❖ Mystic Bayou: Into production on 31 August 2015
- ❖ Hummer Prospect: Well completion Q3 2016. Production Q2 2017

Yemen

- ❖ Block 7: Acquired a 75% working interest (63.75% participating interest) and operatorship- subject to approvals.
- ❖ Large lease area (5000 sq. km) – Al Meashar oilfield discovery and 8 high potential oil targets.
- ❖ Al Meashar oilfield: Greater than 11 million barrels of oil (MMbo) gross target resource (7 MMbo net @ 63.75%).
- ❖ Damis (Block S1). 2016: Acquired 100% participating interest and operatorship.
- ❖ Damis (Block S-1) contains the developed/producing An Nagyah Oilfield - **2P Reserves of 5.6 MMbo** net to Petsec. Restart of production expected in late 2016.

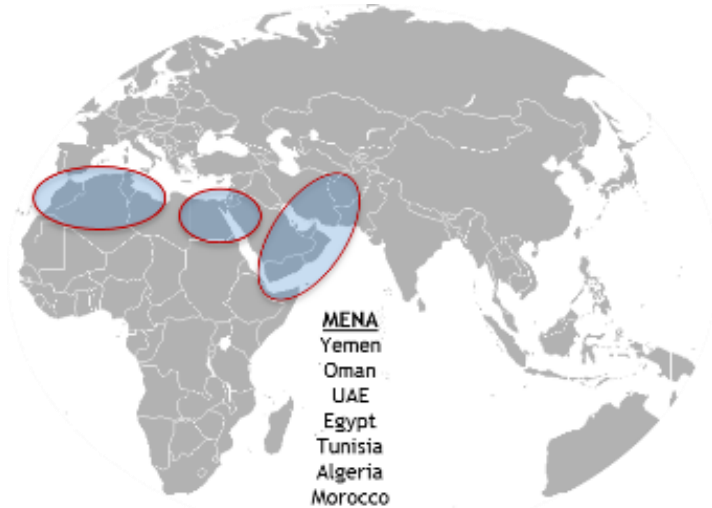
Sydney

MENA: Growth Strategy

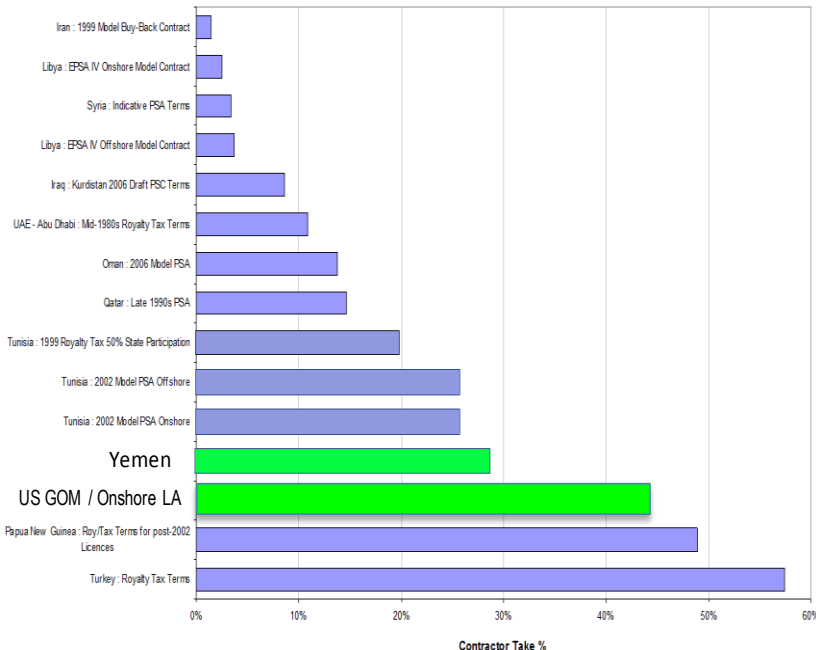
Middle East and North Africa region (‘MENA’)

STRATEGY:

- ❖ Acquire oil reserves both developed/producing and undeveloped, with near term production capacity, which hold the potential to substantially increase the value of Petsec Energy.
- ❖ Acquire assets in the MENA region during the current period of low oil prices and difficult political climate which prohibits much larger companies from operating, and where our network of contacts and relationships can advance projects.



Contractor Take: Ranking for Yemen and Selected Countries



2016 Oil & Gas 2P Reserves: US\$188.1 MM Value

Petsec Energy – Net Reserves & Valuation

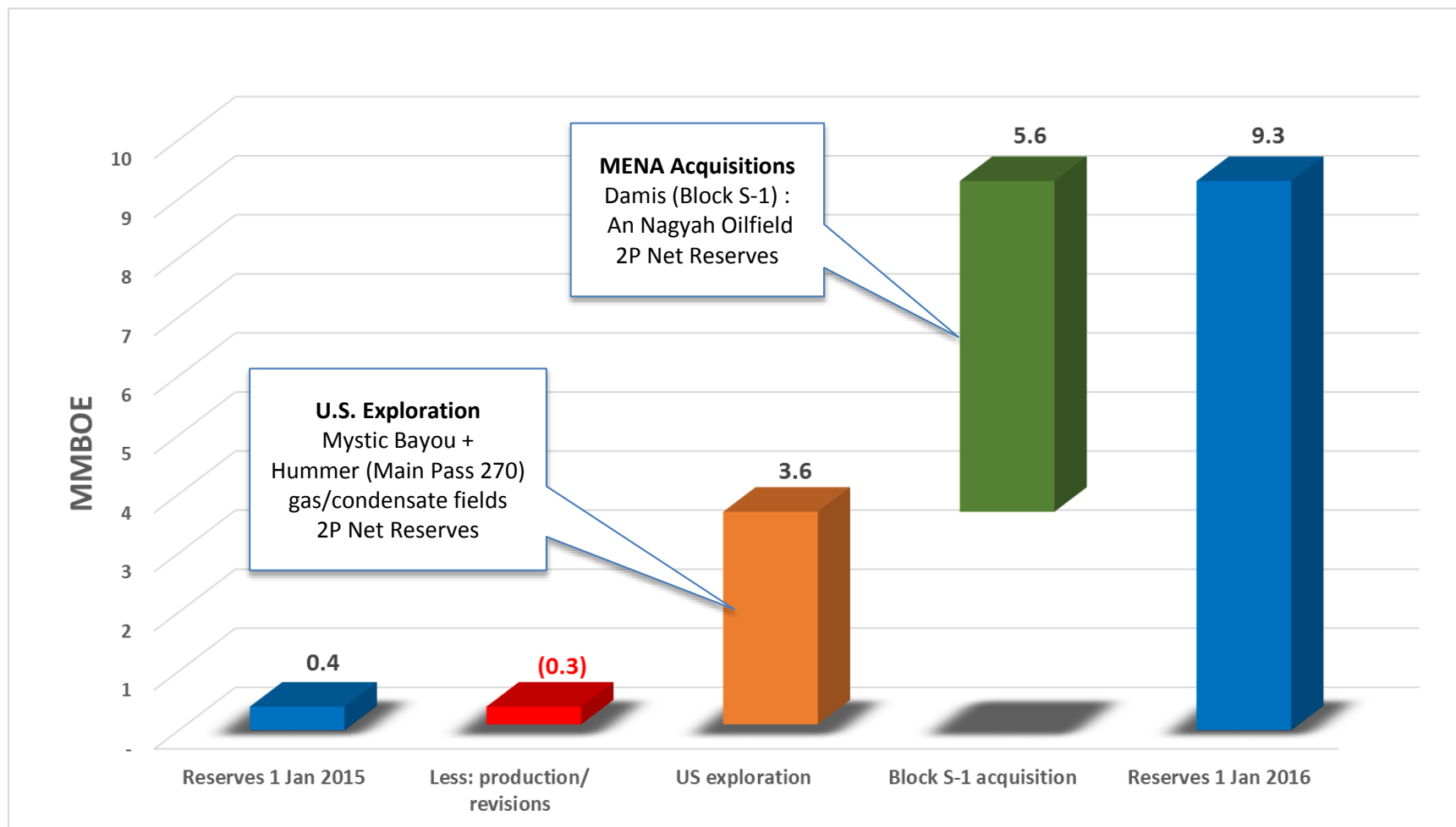
Oil Equivalent (MMBoe) ¹	Net Proved Reserves ²	Net Probable Reserves ²	Net Proved + Probable Reserves ²
USA Reserves			
Reserves as of 1 Jan 2015	0.3	0.1	0.4
Additions	2.0	1.6	3.6
Revisions	(0.1)	(0.1)	(0.2)
Production	(0.1)	-	(0.1)
USA reserves as of 1 Jan 2016	2.1	1.6	3.7
Yemen Reserves			
Reserves as of 1 Jan 2015	-	-	-
Acquisitions – An Nagyah Oilfield	4.5	1.1	5.6
Yemen reserves as of 1 Jan 2016	4.5	1.1	5.6
Total Petsec Group Reserves as of 1 Jan 2016	6.6	2.7	9.3
NPV₁₀ Petsec Group Reserves as of 1 Jan 2016			US\$188.1MM

¹ Million barrels of oil equivalent (using a ratio of approximately six thousand cubic feet of natural gas to one barrel of oil).

² Net reserves means those reserves representing the Company's net revenue interest (or net economic interest) which is the Company's working interest less royalties payable in the USA , and in Yemen net of all costs including all Yemen government costs including taxes .

2016 Oil & Gas Reserves: 9.3 MMboe as of 1 January 2016

Petsec Energy Reserves Growth



2015 USA Discovered Reserves: 3.6 MMboe

Main Pass 270: Hummer Prospect – Gulf of Mexico

- ❖ Located 80 kilometres (50 miles) southeast of the Mississippi River delta, in 65 metres (215') of water in the Gulf of Mexico USA.
- ❖ Petsec owns a 12.5% non-operating working interest (10.2% net revenue interest).
- ❖ The Main Pass 270 #3 exploration well was drilled in June-December 2015 to a total measured depth of 4,812 metres (15,788'), equivalent to 4,800 metres (15,748') true vertical depth.
- ❖ Installation of jacket, completion of well and well testing is anticipated in the 3rd quarter 2016, with first production expected in 2nd quarter 2017.



Mystic Bayou Prospect – Onshore Louisiana

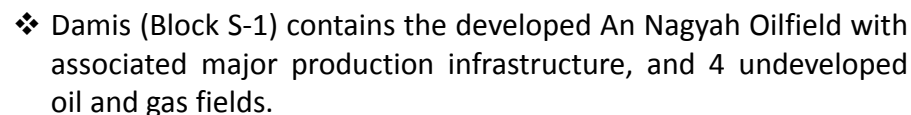
- ❖ Located 65 kilometres (40 miles) southeast of Lafayette in a low lying area of the Atchafalaya River Basin in St. Martin Parish, onshore Louisiana USA, the Mystic Bayou Field has produced in excess of 3.4 million barrels of oil and 39 billion cubic feet of gas in the target horizons.
- ❖ Petsec owns a 25% non operating working interest (18.5% net revenue interest).
- ❖ The Williams #2 Alt well was drilled to a total measured depth of 5,263 metres (17,266'), equivalent to 5,143 metres (16,873') true vertical depth.
- ❖ The well tested at 5.7 million cubic feet of gas and 744 barrels of condensate and was brought into production on the 31st August 2015.
- ❖ Future development will focus on drilling the adjacent three well locations of proved undeveloped reserves.



Petsec Energy Yemen Leases: Damis (Block S-1) & Block 7

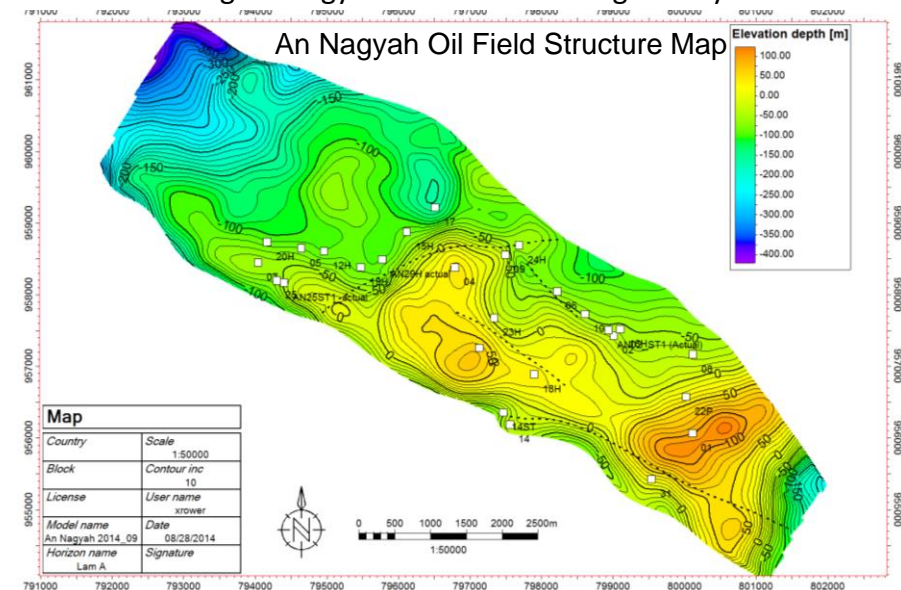


- ❖ Damis (Block S-1) Production Licence and Block 7 Exploration Licence are located in the Shabwa Basin which has extensive oil production and pipeline transportation facilities.
- ❖ The Shabwa Basin has exceptional petroleum source rocks and associated petroleum system, in excess of 2 billion barrels of oil have been discovered in the basin to date.
- ❖ Damis (Block S-1) includes 5 oil and gas fields with significant production infrastructure that is connected to the main Marib Export Pipeline.
- ❖ Block 7 holds the Al Meashar Oilfield and is strategically located adjacent to major infrastructure and planned future pipelines

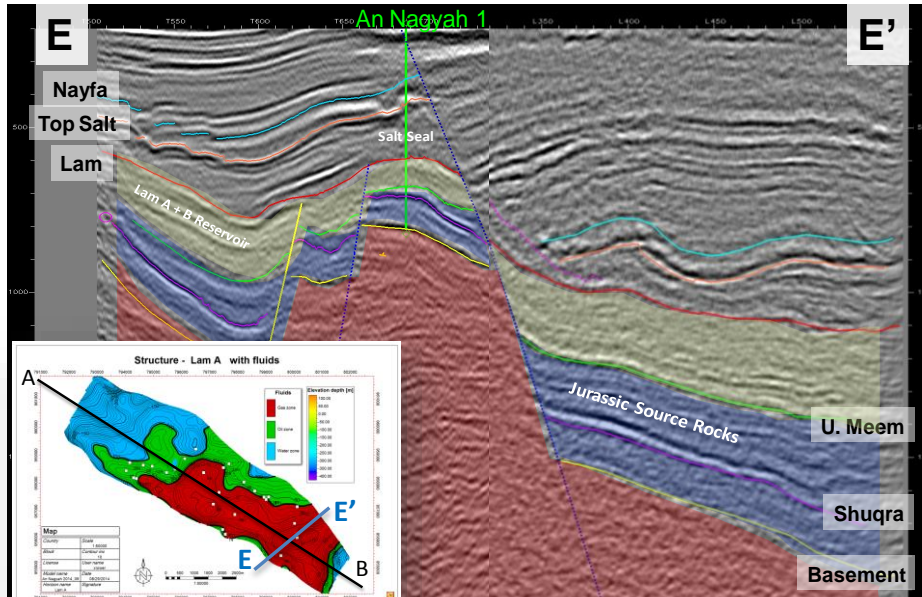


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|-----------------------------|-------------------------|
| ❖ An Nayah – Oil & Gas | 5.6 MMbbl net to Petsec |
| ❖ Osaylan – Oil | 5 MMbbl |
| ❖ Harmel – Oil | 17 MMbbl |
| ❖ An Naeem – Gas/condensate | 550Bcf + 12 MMbbl |
| ❖ Wadi Bayhan – Gas | |

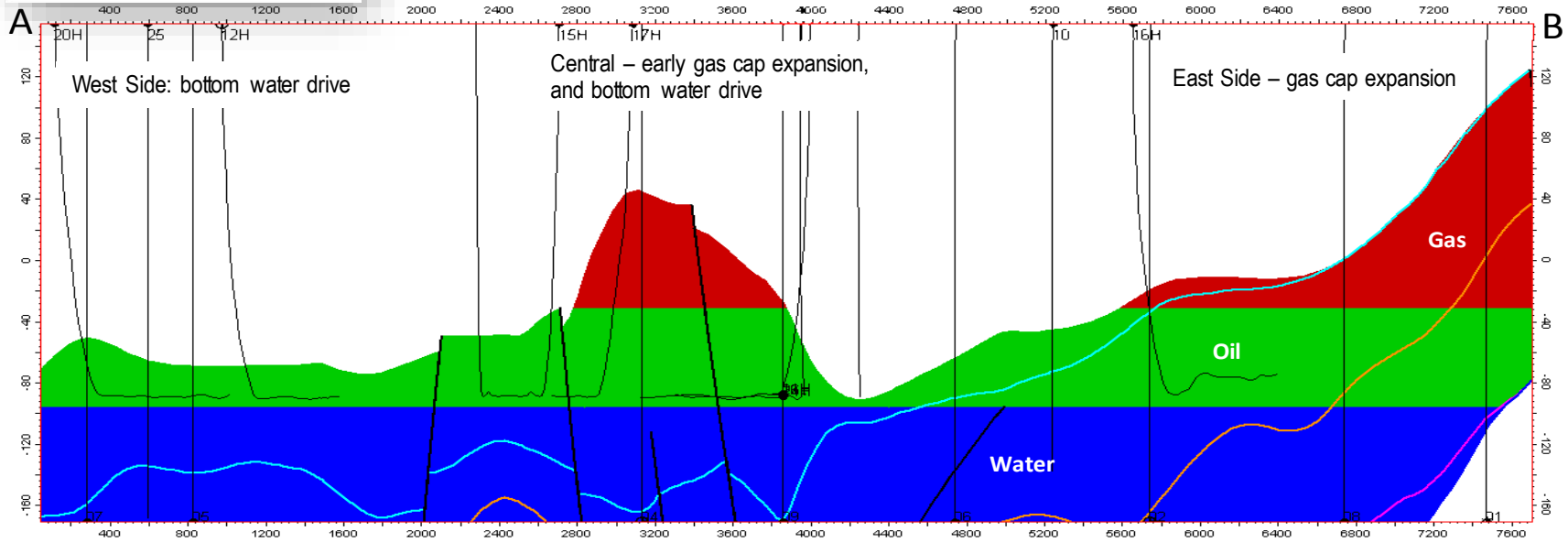
- ❖ An Nagyah Oil Field production was suspended in February 2014 at a rate of over 5,600 bopd, exporting crude oil through the Marib Export Pipeline to the Ras Isa Export Terminal on the Red Sea.
- ❖ Significant upside potential exists in the remaining undeveloped oil and gas fields which can be readily developed and connected to the existing An Nagyah Central Processing Facility



An Nagyah Oilfield: Geological Cross Sections



- ❖ The An Nagyah Oilfield is located within a world class petroleum system containing in excess of 2,000m of exceptional quality Jurassic petroleum source rocks.
- ❖ Structurally the field is a North-West to South-East trending tilted horst block within the Jurassic aged Sab'atayn Rift Basin.
- ❖ The most prolific reservoir is the uppermost Lam Sandstone, a thick sequence (100-125m) of delta front sandstones belonging to the Late Jurassic aged Alif Formation.
- ❖ The primary cap rock for the accumulation is a thick Salt Sequence which is widespread across the Sab'atayn Basin
- ❖ Production in the field is maintained through an active aquifer in the north-west flank of the field and via gas expansion in the up dip South-Eastern crest where there is a significant gas cap. Peak production was 12,000 bopd.



An Nagyah Oilfield: Central Processing Facility

Generators & Office Block



- ❖ The Central Processing Facility (CPF) was completed in 2004 producing up to 12,000 bopd. Production was suspended in February 2014 at a rate of 5,600 bopd.
- ❖ The CPF can process 20,000 bopd, which rate can be increased at a modest cost, and has crude storage capacity of 17,500 bbls.
- ❖ The CPF is connected via a 80,000 bopd pipeline to the Marib Export Pipeline (200,000 bopd capacity) to the Export Terminal at Ras Isa on the Red Sea.
- ❖ Experienced Yemeni production staff are based at the CPF.
- ❖ The facility has been well maintained in preparation for the restart of production.

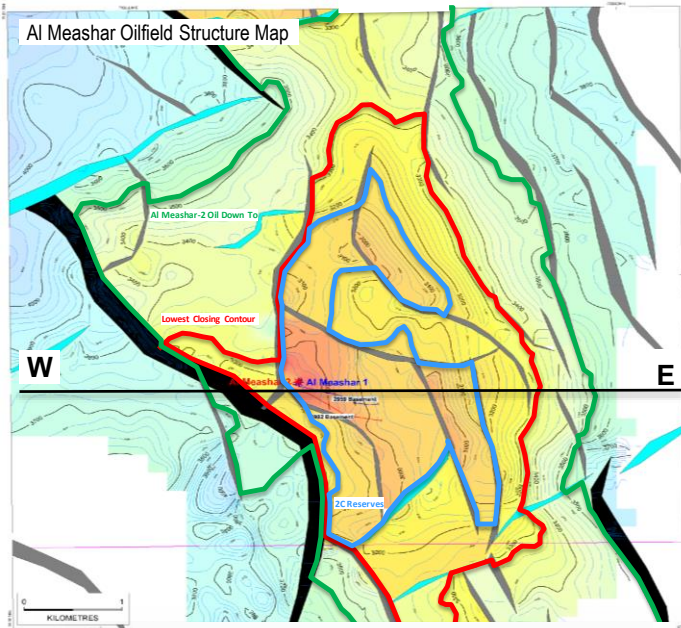
Separator



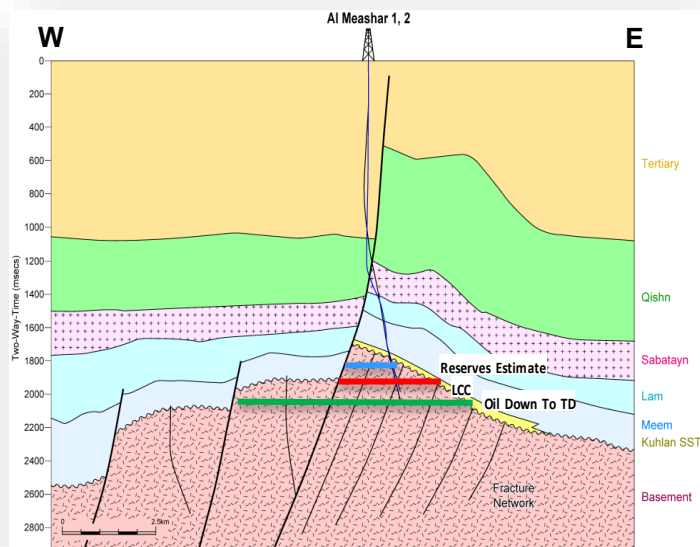
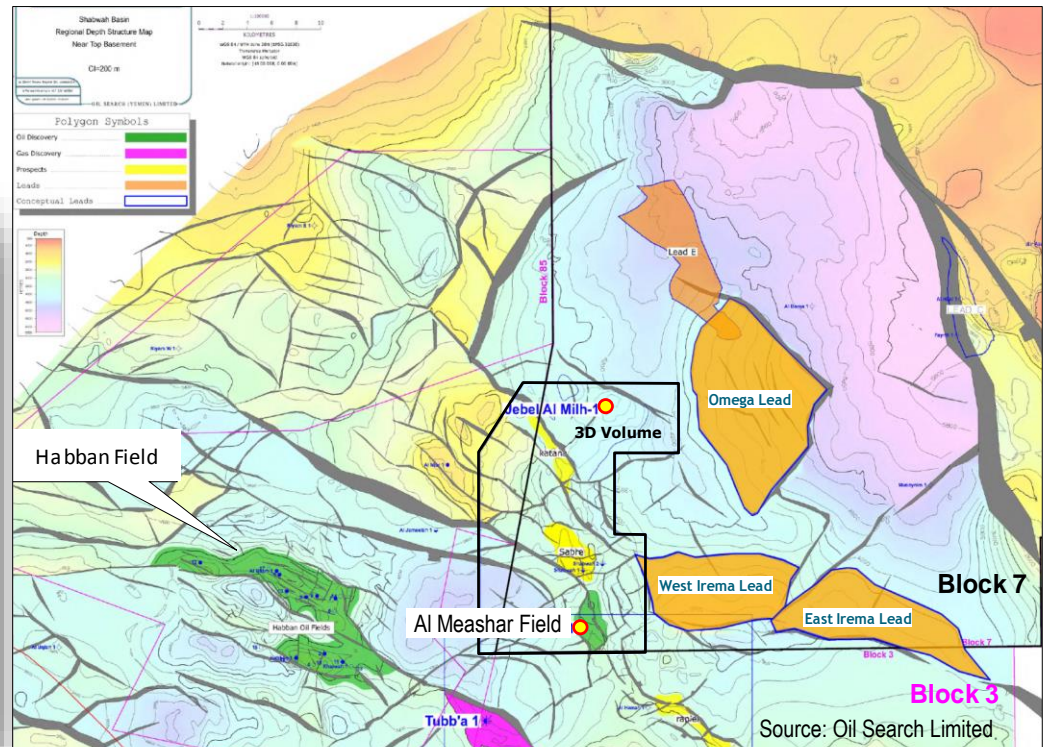
Crude Storage Tank



Block 7: Development & Exploration Potential



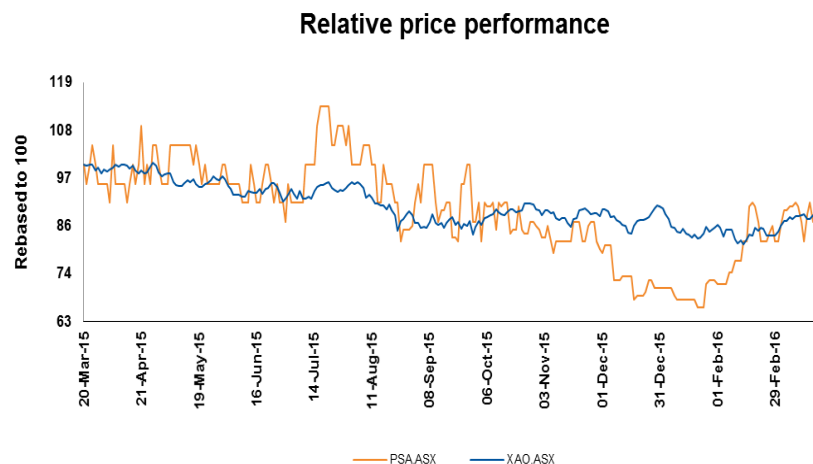
- ❖ Block 7 holds the Al Meashar Oil Field discovery (11 MMbo gross target resource), and 8 seismically (3D and 2D) defined prospects and leads with mapped target sizes ranging from 2 – 900 MMbo all with the same primary objectives of the Khulan-Basement reservoirs productive in OMV's Habban Oilfield in the adjacent Block S2.
- ❖ The Al Meashar wells discovered an oil column in excess of 800m in the same formation as for OMV's Habban Oilfield which has an oil column of 945m, located 14km to the West of Al Meashar.
- ❖ Significant potential is also recognised in Cretaceous sands of the Lam and Meem formations which have had extensive shows in the wells drilled in Block 7 and which have tested and flowed over 1000 bopd in the neighbouring Habban Field.



Petsec Energy Capital Structure

Capital Structure		Top 20 Shareholders		
Market Listing	ASX: PSA / OTC ADR: PSJEY	Holder Name	No. of Shares	%
Shares / Options on issue	235.5 MM / Nil	Canning Oil	25,709,116	10.9
Market capitalisation at 4/4/16	A\$34.1 MM	Martin Place Securities Nominees	24,426,981	10.4
Cash at 31/12/15	US\$12.8 MM	HSBC Custody Nominees (Australia)	12,133,747	5.2
Net oil & gas reserves (2P) as of 1/1/16	9.3 MMboe	Lippo Securities	11,372,195	4.8
PV10 reserves (2P) as of 1/1/16	US\$188.1 MM	Mr & Mrs David A Mortimer	8,411,448	3.6
		Petroleum Securities Share Plan	6,700,000	2.8
		National Nominees	5,410,020	2.3
		Martin Place Securities Nominees <Gulf Stream a/c>	5,261,475	2.2
		ABN AMRO Clearing Sydney Nominees	4,305,725	1.8
		Kirman	4,129,700	1.8
		Mr & Mrs Edward Gacka	3,855,763	1.6
		Mr & Mrs Peter Gacka	3,642,000	1.5
		Humboldt Capital Corporation	3,624,532	1.5
		Mr Ross Adrian Keogh	3,612,500	1.5
		Citicorp Nominees	3,602,036	1.5
		J P Morgan Nominees Australia	3,201,432	1.4
		Den Duyts Corporation	3,057,635	1.3
		Calveston Worldwide	2,460,000	1.0
		Sino Champion Development	2,459,579	1.0
		Ms Dan Luo	2,291,943	1.0
		Total Shares held by Top 20	139,667,827	59.3
		Total Shares on Issue	235,461,630	

PSA Share Price vs. S&P/ASX200 Energy Index (XEJ)



Corporate Profile: MENA Management

Significant Experience in Middle East & North Africa

- ❖ The Company MENA leadership has lived, worked and **managed operations in the MENA region since the 1990s through to now.**
- ❖ Maki Petkovski joined Petsec Energy in March 2015, leaving Oil Search Ltd where he was involved with operations in the MENA region and in Yemen for the past 15 years.
- ❖ Murray and John, both with technical expertise, and proven relationships in Yemen and the MENA region will oversee Yemen operations directly.



Maki Petkovski
Chief Executive Officer of
Petsec Energy (Middle
Eastern) Limited

- ❖ Over 25 years' experience in the international oil and gas industry
- ❖ Bachelor of Science (Geology) Degree from the University of Technology, Sydney
- ❖ He has worked in the MENA Region since 2000
- ❖ Ex BP, Ampolex Limited and most recently **20 years with Oil Search** where he was responsible for managing Oil Search's MENA portfolio



Murray Hawkes
Chief Operating Officer & Yemen
General Manager
Petsec Energy (Middle Eastern)
Limited

- ❖ Over 35 year' experience in the international oil and gas industry
- ❖ Bachelor and Master of Science (Geology) degrees from Canterbury University in Christchurch, New Zealand
- ❖ He has lived and worked in the MENA region since 2004
- ❖ **12 years with Oil Search** where he became Yemen General Manager based in Sana'a, Yemen. He has also held senior managerial roles in Tunisia, Iraqi Kurdistan, and worked for Pacific Tiger Energy, BHP Petroleum.



John Rees
VP Technical of Petsec
Energy (Middle Eastern)
Limited

- ❖ Over 40 years' experience in international oil & gas
- ❖ Bachelor of Science (Geology & Computing Science) degree from the University of Calgary, Canada
- ❖ Has lived and worked in the MENA Region since 1991, lived in Aden, Yemen and worked on the prolific Masila basin project which peaked at 250,000 bopd
- ❖ **Lived 5 Years in Yemen with Nexen, Lasmo, British Gas, PetroKazakhstan,**

Significant Experience in the USA



Dick Smith
Chief Executive Officer of
Petsec Energy Inc.

- ❖ Over 35 years experience in the U.S. and international oil & gas industry
- ❖ Master of Science (Geology) from the University of Tennessee, Knoxville, Tennessee and a Bachelor of Science (Geology) from SUNY at Brockport, Brockport, New York
- ❖ Ex Amerada Hess Corporation, Amoco Production Company, Pedernales Production LLC, Houston Energy LLC, Prime Natural Resources (formerly F-W Oil Interests, Inc.), and F-W Oil Exploration LLC/F-W Oil Trinidad LLC



Ross Keogh
President of Petsec Energy Inc. &
Group Chief Financial Officer

- ❖ Over 30 years of experience in the oil & gas industry
- ❖ Bachelor of Economics Degree, Macquarie University
- ❖ Ex Total Oil Company & Bridge Oil Limited



Ron Krenzke
Executive Vice President Exploration
of Petsec Energy Inc.

- ❖ 40 years of experience in the oil & gas industry
- ❖ Bachelor of Science Degree (Geophysics), Texas A&M University
- ❖ Ex Mobil, Amerada Hess, VP Exploration Gryphon Exploration Company

Corporate Profile:

Board of Directors

- ❖ **Petsec Energy** is an **Australian Company** listed on the Australian Stock Exchange with 2 Australians and 2 Americans on its Board.
- ❖ The Company was **founded in 1967** and has been involved in Oil & Gas operations since 1981.



**Terry Fern,
Chairman &
Managing Director**

- ❖ Over 35 years experience in petroleum & minerals exploration, development and financing
- ❖ A geophysicist
- ❖ Bachelor of Science Degree, University of Sydney



**David Mortimer AO,
Non-Executive Director**

- ❖ Over 40 years experience in corporate finance
- ❖ Bachelor of Economics Degree (First Class Honours), University of Sydney
- ❖ Ex CEO of TNT Limited Group and Chairman of Leighton Holdings, Chairman of Australia Post
- ❖ Current Chairman of Opera Australia, Crescent Capital Partners Limited, Buildcorp Advisory Board, and the Senate Investment and Commercialisation Committee.
- ❖ Current Director of MySale Group PLC, Clayton Utz Foundation, the Grant Samuel Advisory Board and is on the CEDA's Board of Governors



**Alan Baden,
Non-Executive Director**

- ❖ Over 35 years experience in the U.S. oil & gas industry
- ❖ Juris Doctor Degree from Case Western Reserve University, and a Bachelor of Science (Economics) Degree from the University of Pennsylvania
- ❖ Ex Partner at Vinson & Elkins
- ❖ Current Senior Commercial Lawyer with Thompson & Knight



**Mark Lober,
Non-Executive Director**

- ❖ Over 35 years experience in the U.S. oil & gas industry
- ❖ Master of Science (Geophysics) Degree from the Boston College, and a Bachelor of Science (Geology) Degree from the State of New York at Brockport
- ❖ Ex Senior Geophysicist, Exploration Manager and New Ventures Manager with a number of U.S. entities including Amoco Production Company, Standard Oil Production Company, Amerada Hess Corporation.