



### **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.

To the maximum extent permitted by law, the company and its personnel:

- disclaim any obligations or undertaking to release any updates or revisions to the information to reflect any change in expectations or assumptions;
- do not make any representation or warranty, express or implied, as to the accuracy, reliability or completeness of the information in this presentation, or likelihood of fulfilment of any forward looking statement or any event or results expressed or implied in any forward looking statement; and
- disclaim all responsibility and liability for these forward looking statements (including, without limitation, liability for negligence).

Nothing contained in this presentation constitutes investment, legal, tax or other advice. The Information does not take into account the investment objectives, financial situation or particular needs of any recipient. Before making an investment decision, each recipient of this presentation should make its own assessment and take independent professional advice in relation to the information and any action taken on the basis of this presentation.

The reserves assessment follows guidelines set forth by the Society of Petroleum Engineers – Petroleum Resource Management System (SPE-PRMS). The USA and Yemen reserve estimates provided within this presentation are based on information contained within the following releases to the ASX: Announcements on 8 March 2016 and 15 March 2016; and the 2015 Annual Report.

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



#### **Contents**

### Petsec Energy: Corporate Profile

- Corporate Objective and Strategy
- Operations
- Capital Structure / Valuation
- Comparative Valuation vs Peers
- Oil & Gas Prices / Industry Review

### Petsec Energy : Oil & Gas Assets

- USA Production / Exploration Onshore Louisiana & shallow waters of the Gulf of Mexico
- MENA / Yemen Damis (Block S-1) Production, Block 7 (Al Barqa) Exploration



# Petsec Energy Corporate Profile: Corporate Objective & Strategy

### **Corporate Objective**

To increase shareholder value through successful oil and gas exploration, development and production, and by oil and gas reserve acquisitions, thereby building Petsec Energy into a significant mid-tier oil and gas exploration and production company.

### **Corporate Strategy**

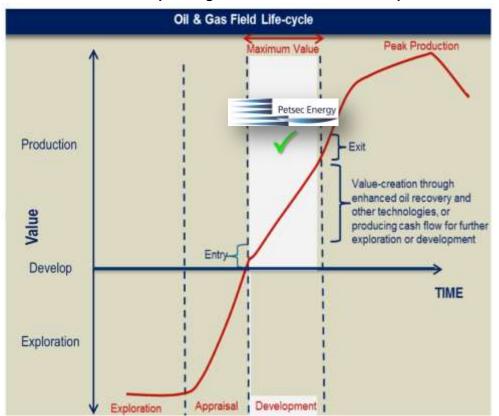
To drill high impact exploration prospects, predominately for oil and develop those discoveries, and to acquire oil and gas reserves, developed/producing or undeveloped, in onshore leases which hold significant development, low risk exploitation and high exploration potential, that make a major positive impact on the value of Petsec Energy.

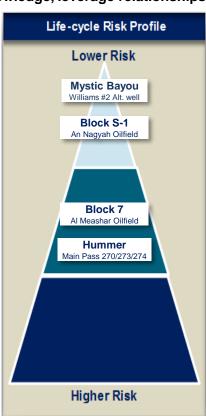
The geographical focus is onshore and offshore Louisiana and Texas, USA, the Republic of Yemen, and the MENA region generally.



# **Corporate Strategy: Growth Strategy**

- Acquire assets during the current period of low oil prices and in locations with a challenging political climate which prohibits much larger companies from operating, and where our network of contacts and relationships can advance projects.
- ❖ 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.
- Risk Management:
  - Subsurface: The Geology Target 'World Class Petroleum Systems'.
  - o Engineering: Acquire ready to produce hydrocarbons / Facilities & wells are in place.
  - o Surface Conditions / Operating Environment: 'Licence to operate' local knowledge, leverage relationships & contacts.



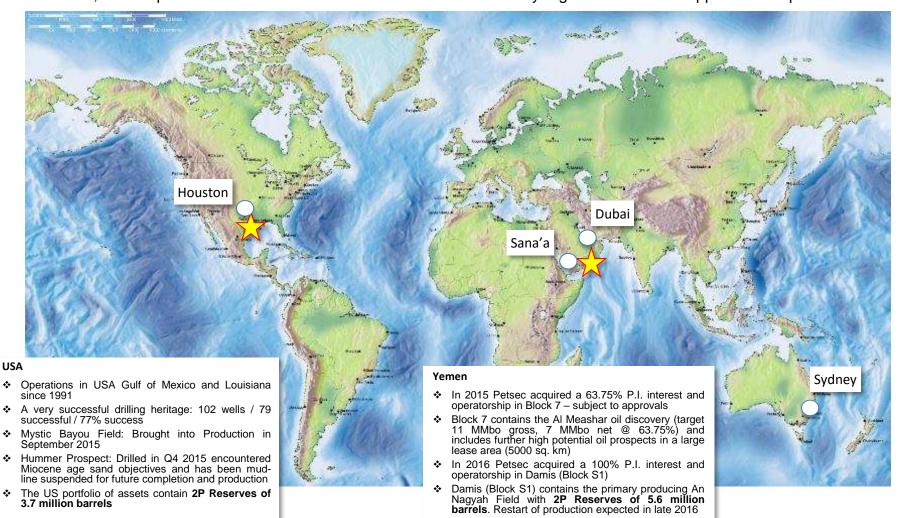




# **Corporate Profile: Portfolio Of Material Assets**

March 2016

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 key regional centers in support these operations.





# Petsec Energy Corporate Profile: Operations

**Petsec Energy** is an independent oil and gas exploration and production company listed on the Australian Stock Exchange with operations in the shallow waters of the Gulf of Mexico and onshore Louisiana, USA (offices Houston & Lafayette), and onshore in Yemen (offices Sanaa & Dubai-UAE).

#### **USA**

- Operated in USA Gulf of Mexico and Louisiana since 1991.
- ❖ Drilling success: 109 wells / 81 successful / 74% success net production 214.3 Bcfe, US\$564MM EBITDAX.
- 2015 discoveries: Mystic Bayou & Hummer (Main Pass 270/273/274) / 2P reserves 3.6 MMboe (predominately Mystic).
- Hummer: Potential to exceed predrill mapped target of 59 Bcf & 1.2MMbbl 183 Bcf & 3.7MMbbl. Reserves determination requires well test to determine oil component and further development wells.
- ❖ 2016 Development Hummer: Jacket, well completion, well test oil volumes. Net capex ~ U\$2MM.
- Net 2P reserves as of 1 January 2016: 3.7 MMboe / NPV10 US\$32.7MM (Cawley, Gillespie & Associates).

#### Yemen

- Commenced operations 2014.
- Damis (BlockS-1) Production Licence (100% PI) acquired February 2016:
  - Holds five oil & gas discoveries An Nagyah (developed/productive) / Osaylan, Harmel, An Naeem & Wadi Bayhan (undeveloped).
  - An Nagyah Oilfield reserves as of 1 January 2016 <sup>2</sup>: 12MMbbl oil gross / 5.6 MMbbl net (NPV10 U\$155.4MM).
  - The four undeveloped oil & gas fields hold resource potential <sup>3</sup>: > 34 MMbbl oil & 550Bcf gas gross.
- ❖ Block 7 (Al Barga) 75% working interest (63.75% participating interest) acquired 2014/2015:
  - Al Meashar undeveloped oil discovery 2 wells / target 11 MMbbl oil gross (7 MMbbl net) / > 50 MMbbl potential
  - Eight prospects / leads: target sizes 2 to 900 MMbbl oil gross.

<sup>1</sup> Calculated using deterministic method and conversion to BOE was calculated using ratio of six thousand cubic feet of natural gas to one barrel of oil

<sup>2</sup> Source: DeGolyer and McNaughton Canada Limited

<sup>3</sup> Source: Wood Mackenzie Asia Pacific Pty Ltd



# Petsec Energy Corporate Profile: Capital Structure / Valuation

Capital Structure	
Market Listing	ASX: PSA / OTC ADR: PSJEY
Shares on issue	231.5 MM
Market capitalisation at 18/7/16 @ 14 c/s	A\$32MM
Cash at 30/06/16	US\$9.2 MM
Debt at 30/06/16	Nil
Net oil & gas reserves (2P) as of 1/1/16	9.3 MMboe
NPV <sub>10</sub> reserves (2P) as of 1/1/16	US\$188.1 MM

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

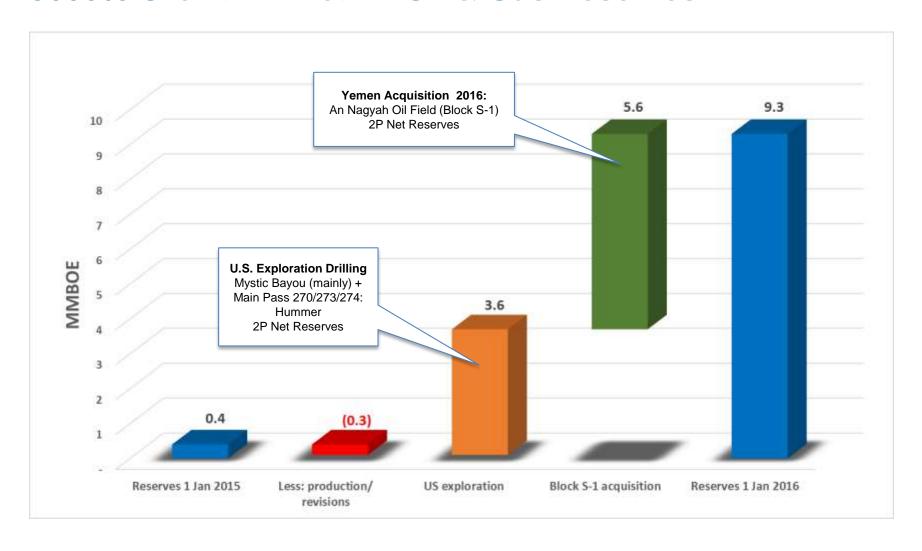






# Petsec Energy: Capital Structure & Valuation

### 3000% Growth in Net 2P Oil & Gas Reserves





# Petsec Energy: Capital Structure / Valuation

### **Net Reserves – NPV10 US\$188.1MM (~ A\$1.06/share)**

Oil Equivalent (MMBoe) <sup>1</sup>	Net Proved Reserves <sup>2</sup>	Net Probable Reserves <sup>2</sup>	Net Proved + Probable Reserves <sup>2</sup>
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
NPV <sub>10</sub> Petsec Group Reserves as of 1 Jan	US\$188.1MM ~ A\$1.06/share		

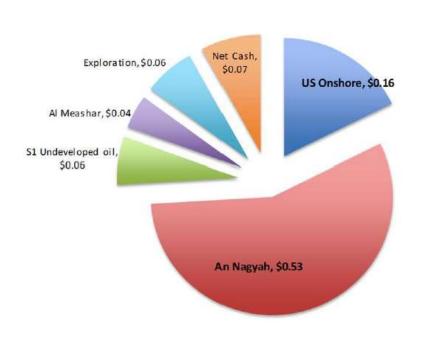
<sup>1</sup> Million barrels of oil equivalent (using a ratio of approximately six thousand cubic feet of natural gas to one barrel of oil).

<sup>2</sup> 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.



# Petsec Energy Corporate Profile: Capital Structure / Valuation

### Red Leaf Securities Pty Ltd<sup>1</sup>: Petsec Energy Valuation of 93 cents/share



		Pr	A\$M	Acps
US Onshore		100%	\$39	\$0.16
Yemen	An Nagyah	75%	\$123	\$0.53
	S1 Undeveloped oil	10%	\$14	\$0.06
	Al Meashar	10%	\$10	\$0.04
Exploration			\$15	\$0.06
TOTAL				\$0.77
Net Cash			\$18	\$0.07
			\$219	\$0.93

	2016F	2017F	2018F	2019F	2020F	LONG TERM
FX	0.7416	0.7426	0.7382	0.7256	0.7190	0.7500
WTI OIL (US\$/B)	38.73	44.89	47.47	48.41	49.32	70.00



# Petsec Energy Corporate Profile: Comparative Valuation vs. Peers

### Red Leaf Securities Pty Ltd<sup>1</sup>: PSA is simply undervalued

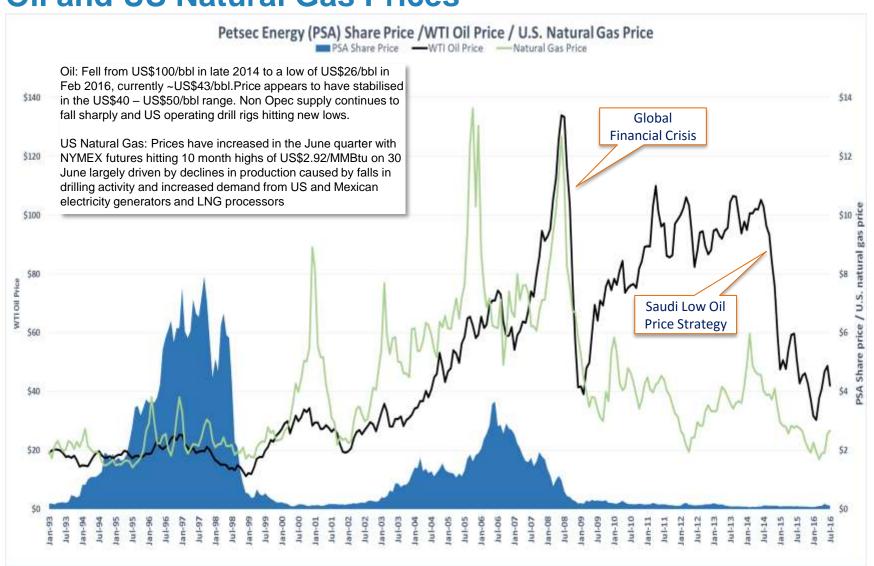
Petsec Energy	PSA	0.14	33	18	16.2	1.11
Tap Oil	TAP	0.10	24	58	4	14.20
Horizon	HZN	0.06	82	256	13	19.51
Cooper Energy	COE	0.25	82	55	3	19.15
Senex Energy	SXY	0.23	259	160	94	1.70
AWE Ltd	AWE	0.62	324	521	109	4.78
Beach Energy	BPT	0.64	1191	1179	98	12.03
Santos	STO	4.03	7118	13648	945	14.44
Oil Search	OSH	6.74	10263	14771	513	28.81
Woodside	WPL	26.44	21759	20832	1508	13.81
		A\$	A\$mn	A\$mn	2P Mboe	A\$
COMPANY		Price	Cap'n	EV	Reserves	EV/2P

<sup>1</sup> Source: Andy Williams, Oil & Gas Analyst, on behalf of Red Leaf Securities Pty Ltd



# Petsec Energy: Oil & Gas Prices / Industry Review

### Oil and US Natural Gas Prices





# Petsec Energy USA Oil and Gas Assets



# Petsec Energy Oil & Gas Assets USA Production / Exploration

#### Onshore Louisiana & Shallow Waters Gulf of Mexico

- ❖ USA net 2P oil & gas reserves as of 1 January 2016 were 3.7 MMboe with a NPV10 of US\$32.7 million (Cawley, Gillespie & Associates).
- ❖ Production: Two fields Jeanerette (ASF #4 well) (2014) and Mystic Bayou Williams # 2 Alt. well (2015).
- P&A: Main Pass Block 19 reached end of its economic life in mid-June 2015. P&A late 2016.
- Development:
  - Williams No.2 Alt. well on the Mystic Bayou Field brought into production on 31 August 2015, just four months after spud. Three development well locations – PUD locations (2017/2018).
  - Main Pass 270 #3 BP 1 well on the Hummer prospect (discovered in 2015) to be completed and tested in 2016. Three to nine additional development locations (2017-2019).





# Petsec Energy Oil & Gas Assets USA Production / Exploration

### 2015 USA Discovered Reserves: 3.6 MMboe

#### Main Pass 270/273/274: 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.
- **❖** Fabrication of jacket completed in July 2016.
- ❖ Installation of jacket, completion of well and well testing is anticipated in the 3<sup>rd</sup> quarter 2016, with first production expected in 2<sup>nd</sup> 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.
- Currently producing at a gross rate of ~5.2 MMcfpd and 240 bcpd.
- Future development will focus on drilling the adjacent three well locations of proved undeveloped reserves.



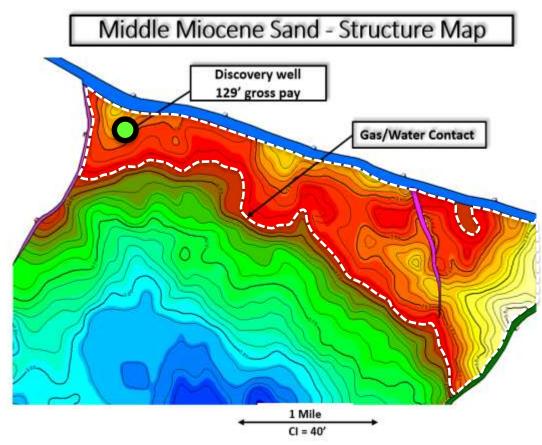




### **Petsec Energy Ltd: Operational Overview**

### Hummer Platform Installation & Well Testing

- Discovery well cased and mud-line suspended December 2015. Intersecting 129 feet oil & gas pay.
- Indicated resources potential exceed predrill mapped resource of 59 Bcfg + 1.2 MMbo to 183 Bcfg + 3.7 MMbo
- Remaining high potential resources subject to further testing. Further 3 to 9 development wells considered 2017-2019.
- Platform Jacket construction has now been completed. Installation of the jacket is planned for mid-August 2016.
- Well completion and production testing is expected to be completed in September 2016.
- ❖ First production expected 2<sup>nd</sup> Qtr. 2017.





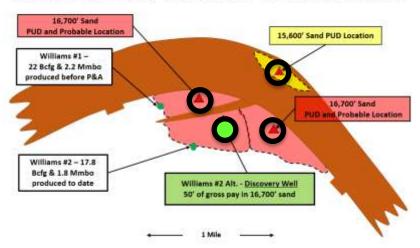
### **Petsec Energy Ltd: Operational Overview**

#### **Mystic Bayou Field**

- Petsec owns a 25% non operating working interest (18.5% net revenue interest).
- 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.
- 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.
- Currently producing at a gross rate of ~5.2MMcfpd and 240bcpd.
- Net reserves 14.1 Bcfg + 0.9MMbbc NPV10 US\$31MM.
- Future development will focus on drilling the adjacent three well locations of proved undeveloped reserves-development drilling 2017.



Mystic Bayou Map with 16,700' Reservoir Outlines

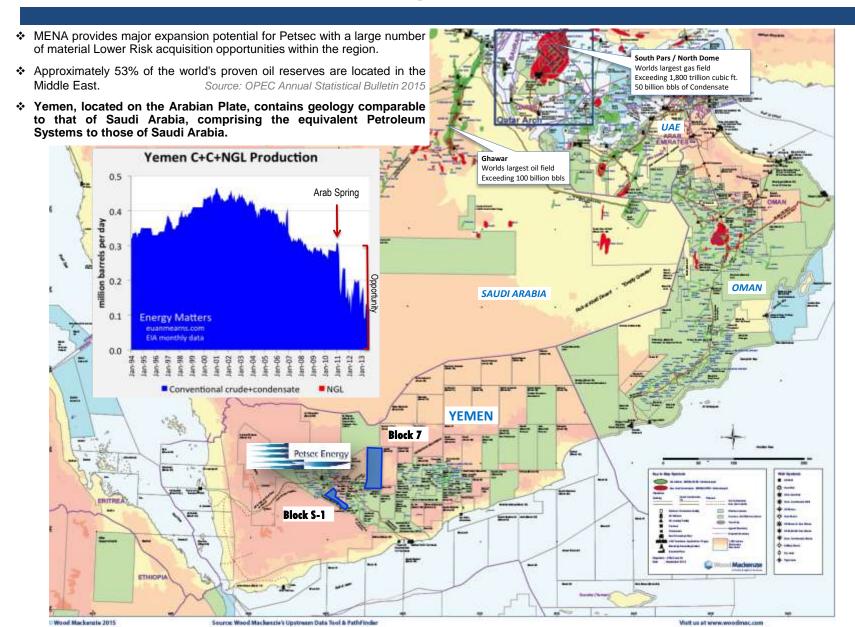




# Petsec Energy MENA Oil and Gas Assets

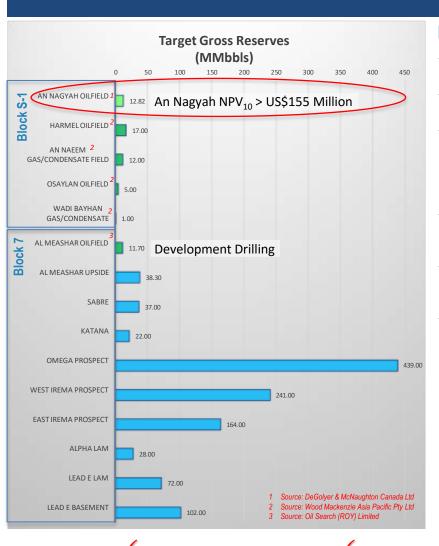


### Middle East and North Africa (MENA) World's Largest Oil & Gas Reserves



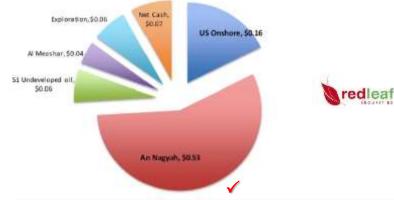


### Middle East and North Africa (MENA) 12 Month Progress: 'The Score Card'



#### Results

- ❖ Activities over the past 12 months have secured a material resource base that provides a platform for major growth in the coming years.
- Yemen has delivered high value, low technical risk, developed assets, at very low entry costs.
- ❖ DAMIS (Block S-1) contains 5 discovered oil and gas fields plus additional development opportunities beneath the current productive reservoirs within the discovered fields. There is also additional exploration potential in the licence area currently being evaluated by our technical team in Dubai.
- Block 7 contains the discovered, to be developed Al Meashar oilfield with 2 wells / target 11 MMbbl oil gross (7 MMbbl net) and > 50 MMbbl potential. Eight prospects / leads: target sizes 2 to 900 MMbbl oil gross
- ❖ Commercial analysis by Red Leaf Securities suggests Petsec's Yemen acquisitions have a value in excess of A\$219 million OR 93 cents per share.
- ❖ The analysis by Red Leaf gives minimal value to the 4 undeveloped fields in Block S-1 and to Al Meashar in Block 7. Each field has been defined by 3D seismic and at least 2 wells.



Production

Damis (Block S-1)

Development

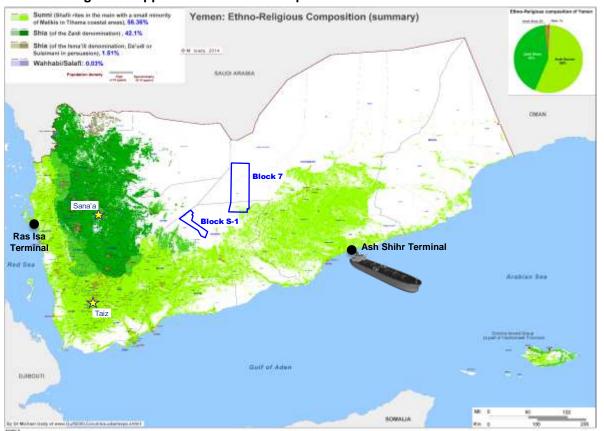
**Targeted Exploration** 

Al Barqa (Block 7)



### Yemen Political Status Peace Negotiations Underway

- August 2016 Ash Shihr Terminal in the Gulf of Aden to open, lifting of 3 million barrels of crude by Glencore
- 22<sup>nd</sup> April 2016 Peace negotiations begin in Kuwait.
- 10th April 2016 Ceasefire announced, implemented, and is generally holding.
- 30th April 2015 Last crude exports with cessation of liftings, oil industry in Yemen remains shut-in.
- ❖ 28<sup>th</sup> March 2015 Saudi-led coalition of Gulf Arab states launches air strikes against Houthi targets and imposes naval blockade.
- 14<sup>th</sup> October 2014 Houthi rebels take control of Sanaa.
- 1st August 2014 President Hadi sacks his coalition cabinet & ministry.
- Our areas of operation in the Shabwah Governorate are very sparsely populated (see figure) and remain relatively peaceful, with the local government extending their support for the restart of operations in both Block S1 and Block 7.

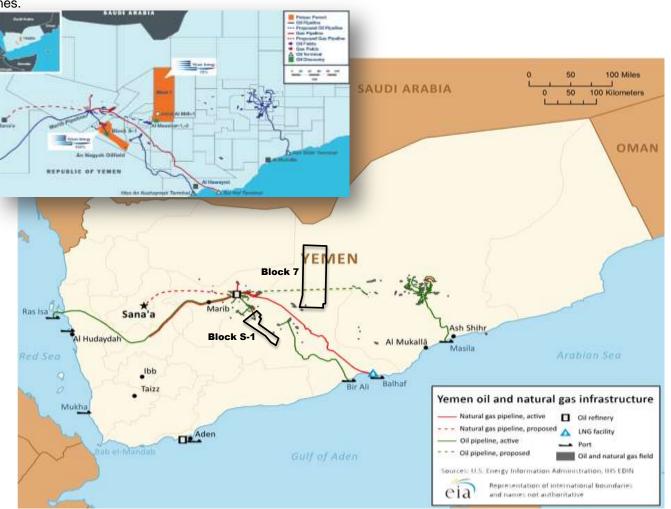




# Petsec Energy Yemen Leases: Damis (Block S-1) & Block 7

- Petsec's Yemen blocks are located in the prolific Shabwa Basin that 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, including the productive and developed An Nagyah Oil Field with significant production infrastructure that is connected to the main Marib Export Pipeline.

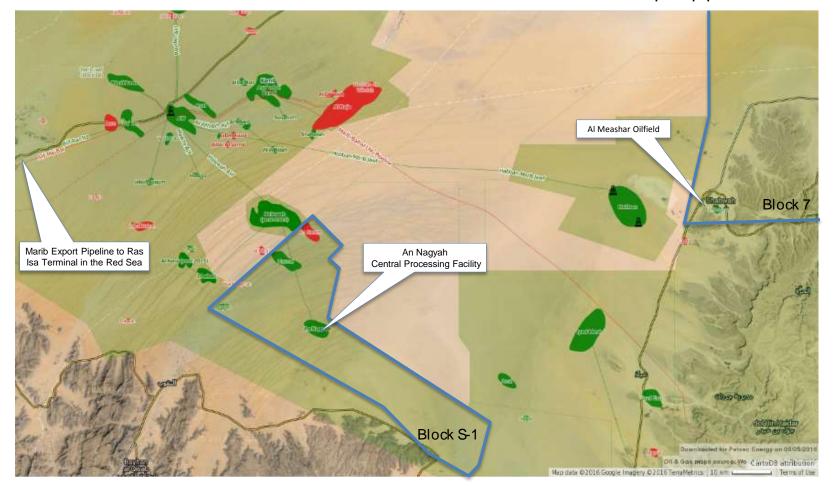
Al Barqa (Block 7) holds the Al Meashar Oilfield and eight material prospects and leads located adjacent to major infrastructure and planned future pipelines.





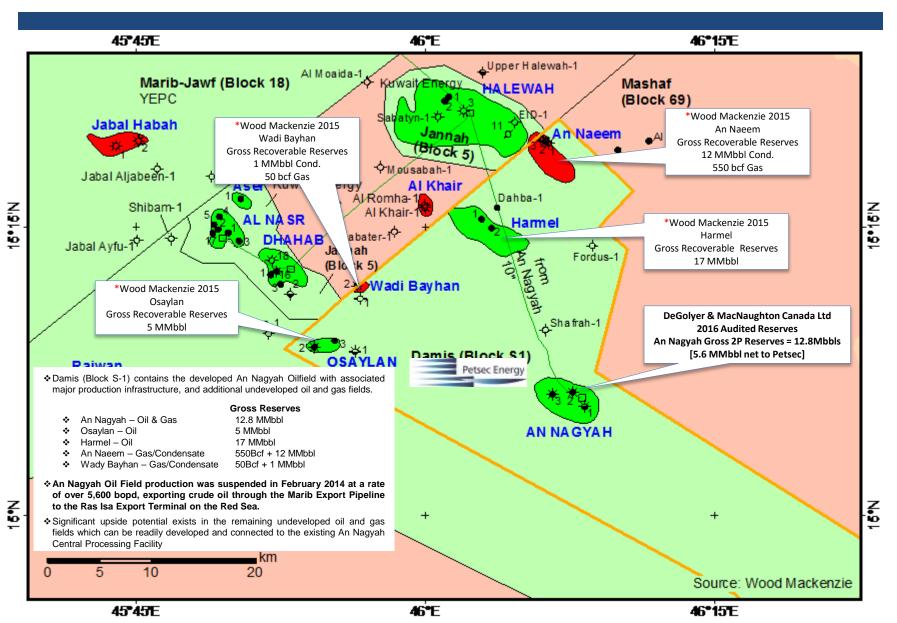
### Damis (Block S-1): An Nagyah Oilfield Marib-Shabwah Basin Production Hub

- Damis (Block S-1) and Block 7 are located within the prolific, 'world class', Marib-Shabwah Basin.
- Excess production capacity at the An Nagyah CPF in Block S-1 can be utilised to produce the identified reserves in the four undeveloped fields within the block.
- ❖ An Nagyah is connected to the Marib-Shabwah production hub which delivers crude for export directly to the Ras Isa Terminal on the Red Sea via a 610-910mm diameter 438 km export pipeline.



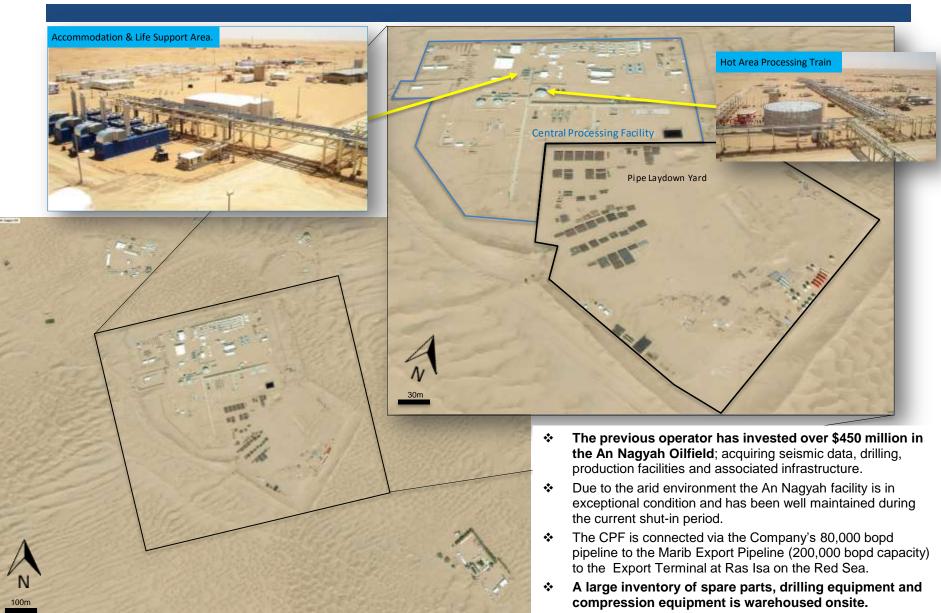


### Damis (Block S-1) Production Licence 5 Oil & Gas Fields





# An Nagyah Oilfield Central Processing Facility





### An Nagyah Oilfield Central Processing Facility



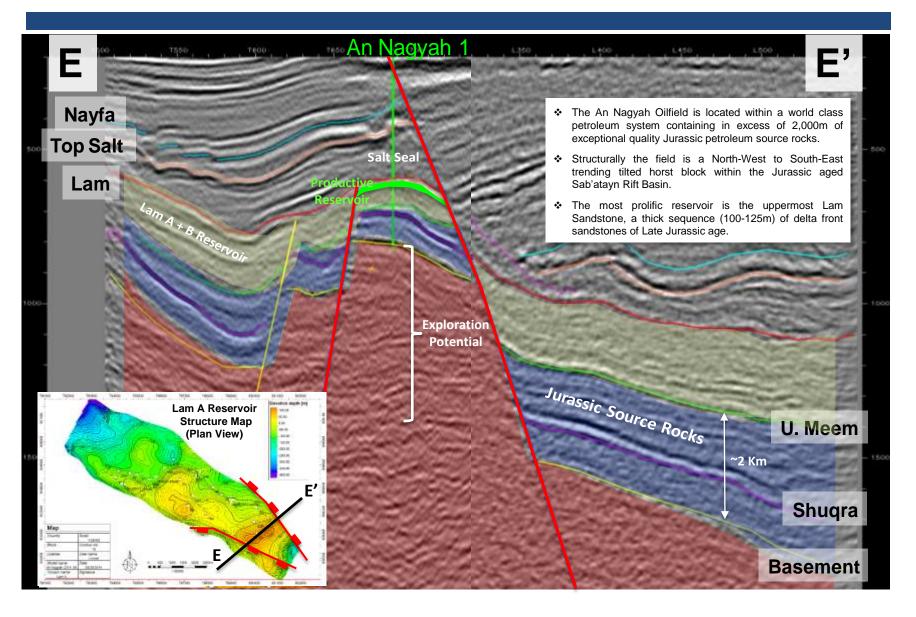
- The Central Processing Facility (CPF) was completed in 2004 reaching a peak production rate of over 12,000 bopd.
- The CPF can process 20,000 bopd.
- Crude storage capacity of 17,500 bbls.
- ❖ The field was producing in excess of 5,000 bopd when production was suspended in February 2014.
- There are currently 15 production wells shut-in.
- Experienced Yemeni production staff are based at the CPF.
- The company is planning for the re-start of production in the fourth quarter of 2016.





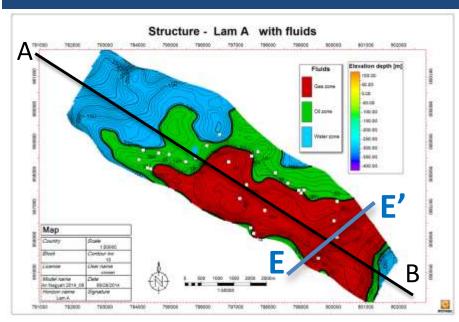


### **An Nagyah Oilfield Seismic Cross Section**

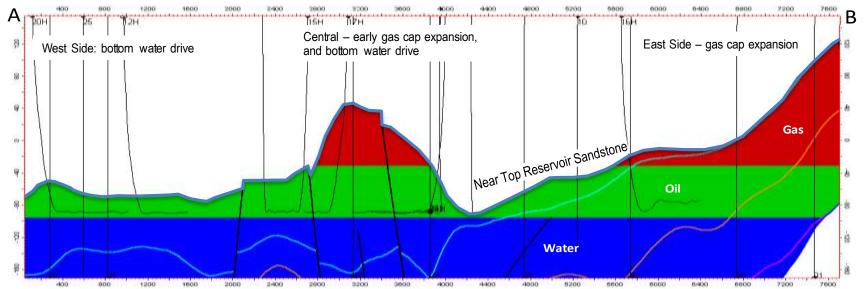




### An Nagyah Oilfield Geological Cross Section

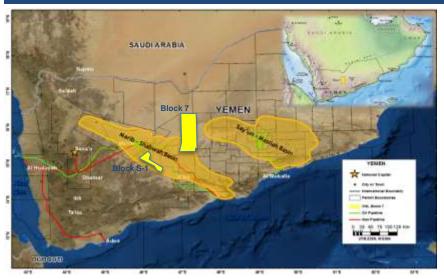


- The An Nagyah Oilfield contains a 50 metre oil column and up to a 135 metre gas cap at its structural crest.
- Oil is produced through vertical and horizontal wells drilled across the sandstone reservoir.
- Production in the field is maintained through an active aquifer in the north-west flank of the field and via gas expansion in the up dip South-Eastern crest where there is a significant gas cap.
- Peak production has exceeded 12,000 bopd but has been limited by gas compression capacity for the re-injection of produced gas back into the reservoir.
- The re-injected gas maintains reservoir pressure and allows for greater recovery of oil from the field.

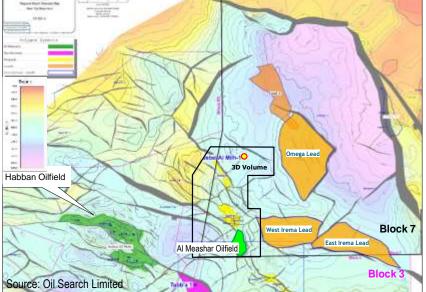




### Al Barqa (Block 7) Development & Exploration Potential



- ❖ Block 7 is located approximately 80km east of Block S-1, within the prolific Shabwah Basin.
- The block holds the Al Meashar Oilfield (two wells) targeting 11 MMbbl oil gross (7 MMbbl net) to > 50 MMbbl potential.
- In addition, there are eight 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 14km to the west of Al Meashar in the adjacent Block S2 (recent past production 20,000 BOPD).
- Significant potential is also recognised in Cretaceous sands of the Lam formations (An Nagyah Block S-1 production) - extensive shows in the wells drilled in Block 7 and flowed over 1000 bopd in the neighbouring Habban Oilfield.

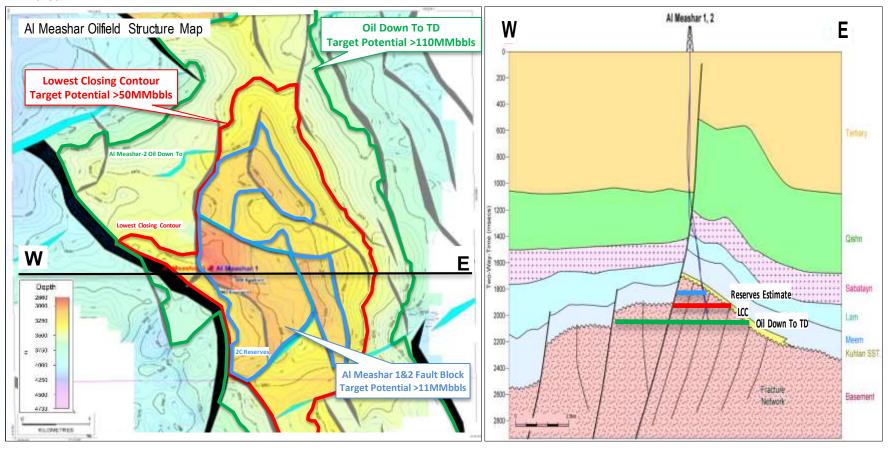






### Al Barqa (Block 7) Al Meashar Development Potential

- ❖ The Al Meashar 1 & 2 discovery wells intersected an oil column in excess of 800m in the Kuhlan Sandstone and Basement formations, the same formations as in OMV's Habban Oilfield which has an oil column of 945m and has been producing ~20,000 BOPD up until production was suspended in March of 2015.
- The Al Meashar undeveloped oil discovery within the drilled fault block two well intersection targets 11 MMbbl oil gross (7 MMbbl net) with potential to increase to > 50 MMbbl within the currently mapped red Lowest Closing Contour.
- The oil column identified in the Al Meashar wells exceeds the mapped structural closure by more than 200m as defined by the red LCC contour in the map below. Current estimates of oil target within the oil-down-to (ODT) green contour exceeds 110 MMbbls.
- Development drilling on the Al Meashar structure is expected to extend the oil potential of the entire play fairway within the Block 7 licence area.





# Yemen Reserves Potential Significant Upside

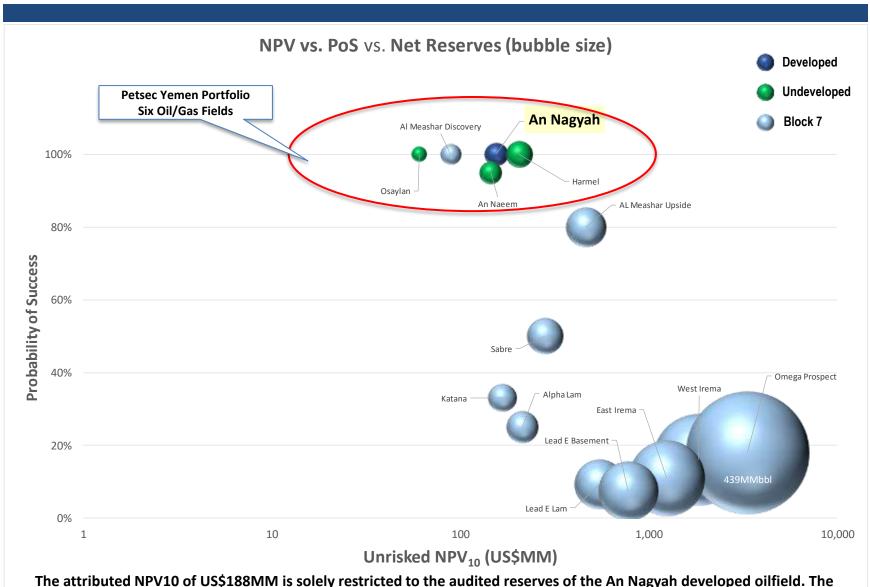
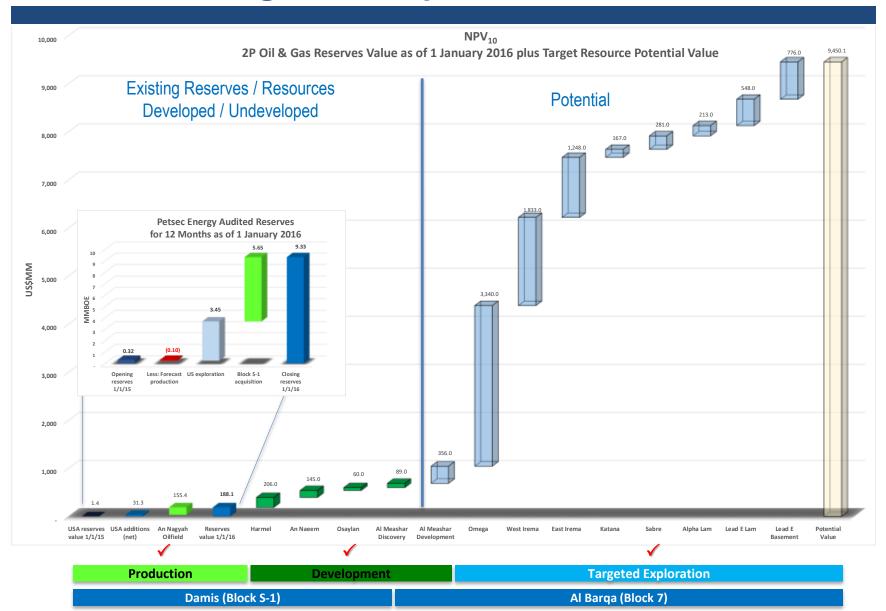


Chart above clearly identifies An Nagyah as the starting point to a significant reserve base of material value.



### Estimated Reserves Value & Potential Significant Upside





#### An Nagyah Production Restart & Further Oil Reserve Acquisitions

#### Damis (Block S-1)

- ❖ Restart oil production at the An Nagyah Oilfield- late 2016:
  - Currently there are 15 wells capable of producing oil at An Nagyah; production is expected to restart at or above 5,000 bopd - field exceeded 5,650 bopd when it was last in production in February 2014.
  - ❖ Following the start-up of production a work-over and infill drilling campaign is targeted to double production.
  - Production from the other oilfields in Block S-1 will also be initiated from existing wells with produced crude being trucked to the An Nagyah CPF for processing and export via pipeline.

#### Al Barqa (Block 7)

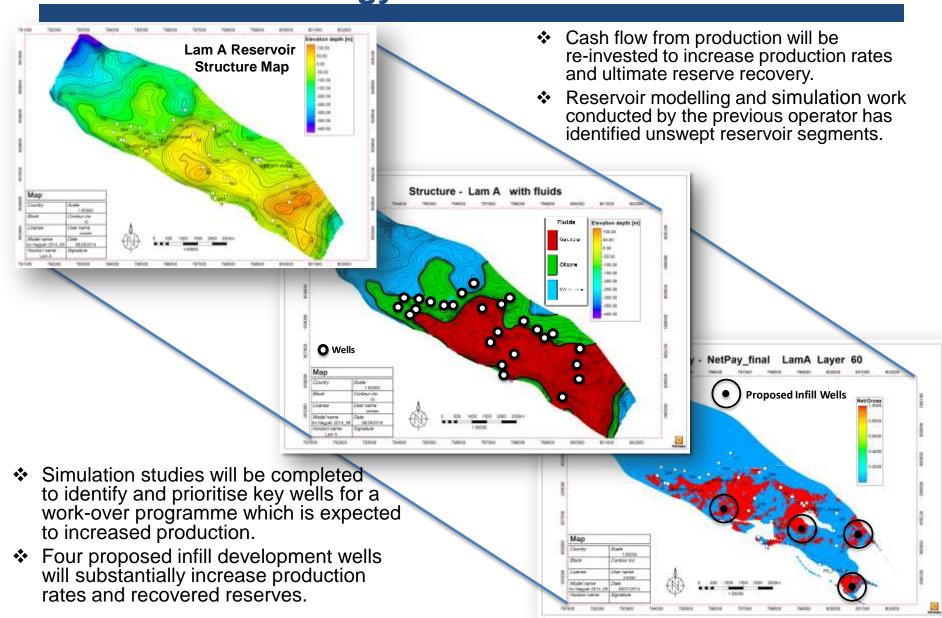
- Initiate a long term production test of the Al Meashar 1 & 2 wells when conditions allow.
- Drill an exploration well on the Omega Prospects given rig availability.

#### **Acquisitions**

- ❖ There are a number of projects available in Yemen that have the potential to deliver significant upside through the application of new technology, and low cost operations.
- 'Distressed' assets are available in the current low oil price environment and the current political climate which restricts larger companies from operating.



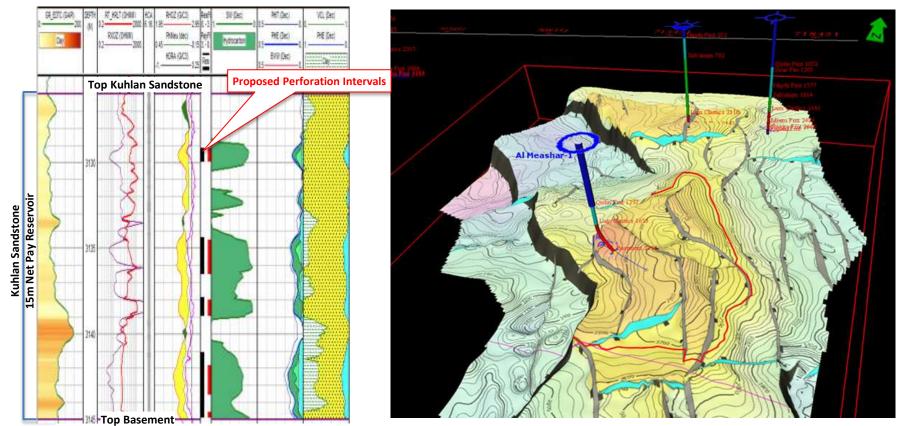
# **2016-17 MENA Programme An Nagyah - Production Increase**





### 2016-17 MENA Programme Al Meashar - Proposed Well Re-Entry & Early Production

- ❖ The Al Meashar 1 & 2 well heads are in place and both wells are suspended. The proposed re-entry will drill out the suspension plugs and install production tubing in both wells using a low cost work-over rig located at the Habban CPF, 14km to the West.
- Petrophysical analysis of the Kuhlan Sandstone in Al Meashar-2 demonstrates 15m of oil saturated net reservoir pay, the casing will be perforated for production testing of the Kuhlan Sandstone.
- In Al Meashar-1 the basement section is to be tested utilising a long tail pipe to avoid interference with production in Al Meashar-2 out of the Kuhlan Sandstone. The Al Meashar-1 well tested a peak flow of 1046 BOPD & 6.36 MMcfpd gas on 1" choke over Shukra, Kuhlan and basement during testing of the discovery well.
- ❖ The Kuhlan Sandstone overlaying basement is in communication with the Basement reservoir and is the production 'highway' as demonstrated in the Habban Oilfield. The well logs suggest 11% porosity consistent with Kuhlan in OMV's Hubban Oilfield to the West.





### **Petsec Energy: A Value Proposition**

# Net Reserves – NPV10 US\$188.1MM (~ A\$1.06/share) Red Leaf Securities Pty Ltd: PSA is simply undervalued

