## Pantheon Resources plc

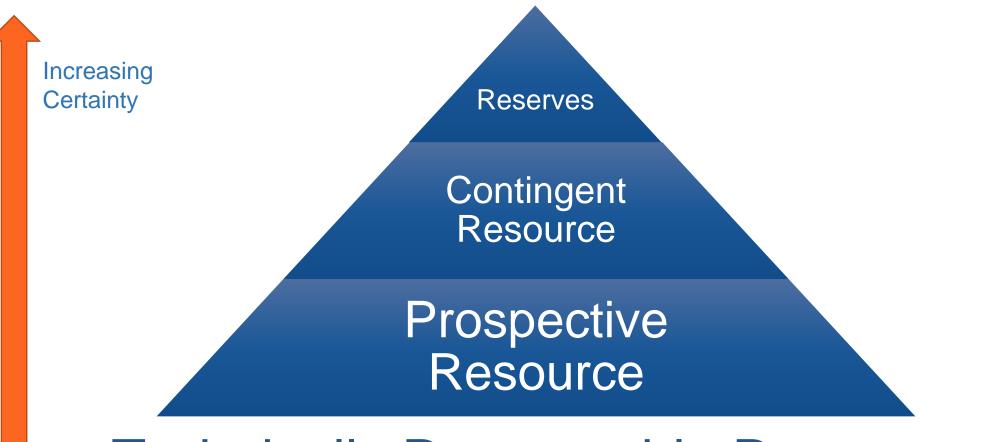
## **Investor Update**

January 2020

Your attention is drawn to the disclaimer at the beginning and footnotes throughout this presentation.

## PANTHEON RESOURCES PLC RESERVE / RESOURCE CLASSIFICATION PYRAMID





## **Technically Recoverable Resource**

## PANTHEON RESOURCES PLC 2019: A Year of Achievement

#### **Greater Alkaid Project**

- > 100% owned Alkaid successfully tested and confirmed as a major oil accumulation in Alaska
- > IER confirms 76.5 MMBO of Contingent Recoverable Resources with significant upside potential
- > 'Contingent Recoverable Resource' is a higher classification than 'Technically Recoverable Resource'
- > IER resource of 76.5 MMBO after 50% risking discount applied to certain parts of the field
- > Phase 1 field development modelled: 30,000 BOPD yields NPV (10) of \$595 million\* and \$8.50 per barrel

### **Talitha/Theta Projects**

- > Expect to upgrade Talitha oil in place (OIP) over coming months
- > Revising and updating resources across all project areas. High grading of portfolio

### New Acreage – Theta West & Leonis

- > Successful bidder at recent Alaskan lease sales leveraging off proprietary 3D seismic & eSeis analysis
  - > Two major projects keyed off oil discoveries, acquired in core acreage
  - > Leonis & Theta West offer tremendous potential: >1 billion barrels oil in place initial estimate
- Acquired control of Vision Energy taking control of East Texas project

<sup>\*</sup> Modelled 20 year phase 1 field development assumptions: 44 wells, 70mmbo produced, 30,000BOPD peak flow, \$55 oil price netback

## PANTHEON RESOURCES PLC Recent History

1. Successfully completed merger with Great Bear Petroleum - January 2019

#### 2. Certified Independent Expert Report - January 2020

- ✓ Certified Contingent Resource 76.5MMBO
- ✓ NPV10 \$595m Phase 1 field development from 44 wells (modelled 70MMBO, 20 years)
- ✓ NVP10 \$8.50 per barrel oil
- ✓ Modlled peak rate 30,000 bopd

#### 3. Confirmed discovery in Alaska (Greater Alkaid) - April 2019

- ✓ Exceeded expectations by > 50%
- Confirmed Hi-Tech Geophysics accurately predicted reservoir parameters
- ✓ Certified Contingent Resource 76.5MMBO

#### 4. Large Resource identified at Talitha

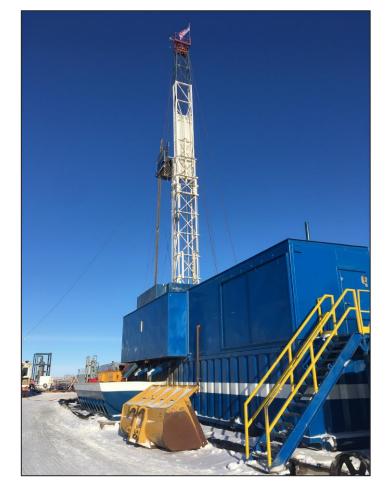
- ✓ Major discoveries in Brookian and Kuparuk Formations
- Multi billion barrel OIP potential adjoining pipeline. Upward revision expected

#### 5. Strategic partnership with eSeis, Inc. - June 2019

- Experts in Hi-Tech Geophysics & Petrophysics
- 5. Commenced farmout process
  - ✓ Farmout process underway
  - ✓ Targeting drilling 2020
  - Potential for rapid production/cashflow upon success

#### 6. Enhanced acreage position in core acreage adjoining export infrastructure

Acquired prospective acreage containing two discoveries. Estimated >1 billion barrels oil in place

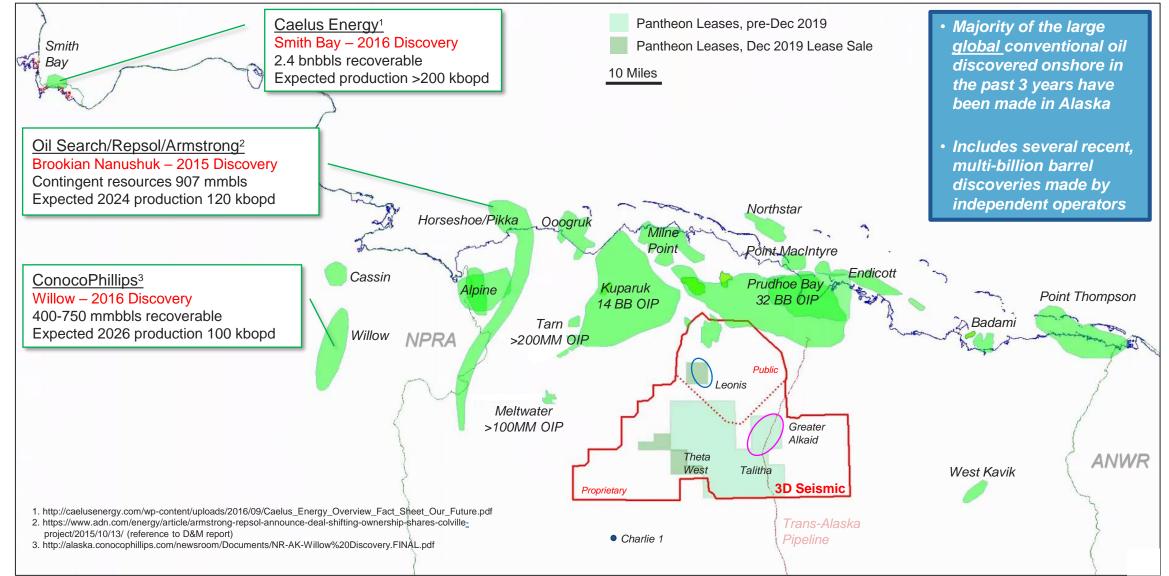


All American rig on location at Alkaid



## PANTHEON RESOURCES PLC Pantheon's Acreage on the North Slope – Regional Context

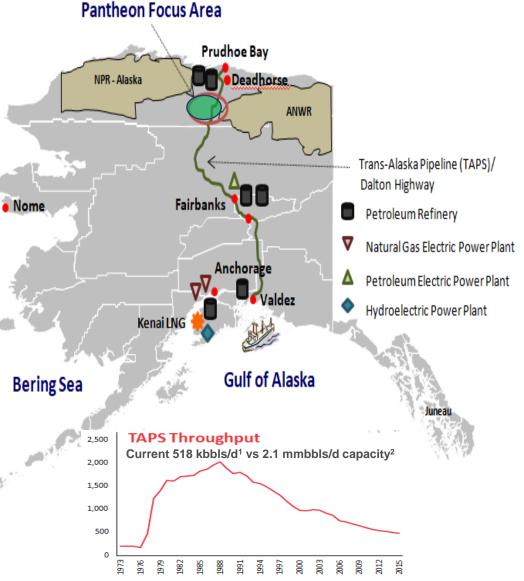




## PANTHEON RESOURCES PLC Alaska Project Ideally Located for Oil Exploration/Development & Export



- Pantheon acreage location provides potential for rapid, low-cost development in event of a discovery
- Established vendor community in Deadhorse, Alaska,
  <20 miles north</li>
- Bisected by the Dalton Highway, simplifying logistics and *materially* lowering costs
- Bisected by the Trans Alaska Pipeline System, providing ease of access to existing underutilized infrastructure, and direct access to markets
- Potential for discovery/appraisal on the existing road system with year-round access to certain sites
- Strategic location minimizes environmental or permitting issues



1. http://alyeska-pipeline.com/TAPS/PipelineOperations/Throughput 2. http://alyeska-pipeline.com/TAPS/PipelineFacts

## PANTHEON RESOURCES PLC

Alaska 1 year comparison

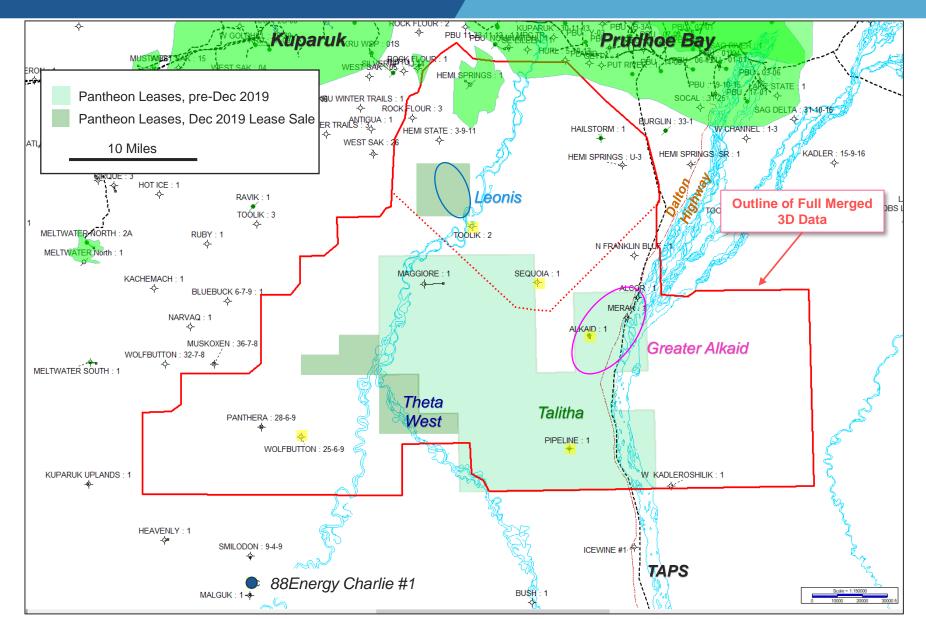


	January 2019	January 2020
Alkaid/Phecda ('Greater Alkaid')		
Ownership interest	75%	100%
Alkaid / Phecda	2 separate accumulations	1 continuous accumulation
Oil in Place (OIP) MMBO – Zone of Interest	600 MMBO	> 900 MMBO
Technically Recoverable Resource	60 MMBO	90 - 135 MMBO
Contingent Recoverable Resource	nil	76.5 MMBO
Per well EUR (P50)	1.875 MMBO	2.25 MMBO
NPV10 per barrel oil	\$7 - \$12	\$8.50*
Talitha / Theta		
Oil In Place	>6 billion barrels oil	Under review - upgrade expected
Theta West / Leonis		
Oil In Place	nil	> 1 billion barrels oil

\* Modelled 20 year phase 1 field development assumptions: 44 wells, 70mmbo produced, 30,000BOPD peak flow, \$55 oil price netback

## PANTHEON RESOURCES PLC Pantheon Acreage, Projects, and Seismic (1,000 sq miles) outline





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# **Greater Alkaid Discovery**

Confirmed Oil Discovery with 35+ deg API oil Contingent Resource 76.5 MMBO recoverable Under Dalton Highway and TAPS!

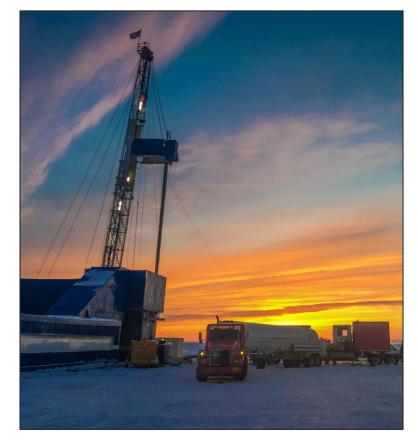
## PANTHEON RESOURCES PLC Greater Alkaid Project (100% owned) – Appraisal & Development

#### **ALKAID 1– CONFIRMED DISCOVERY**

- Drilled 2015 suspended due to weather event
- No oil/water contact found
- Tested March 2019
  - > 450ft gross pay with 240ft net pay
  - > Perforated 6ft interval & flowed 100bopd
- New Independent Expert Report affirms 76.5 MMBO Contingent Resources (recoverable) and NPV10 \$595 million
- > Significant additional upside potential

### HIGHLIGHTS

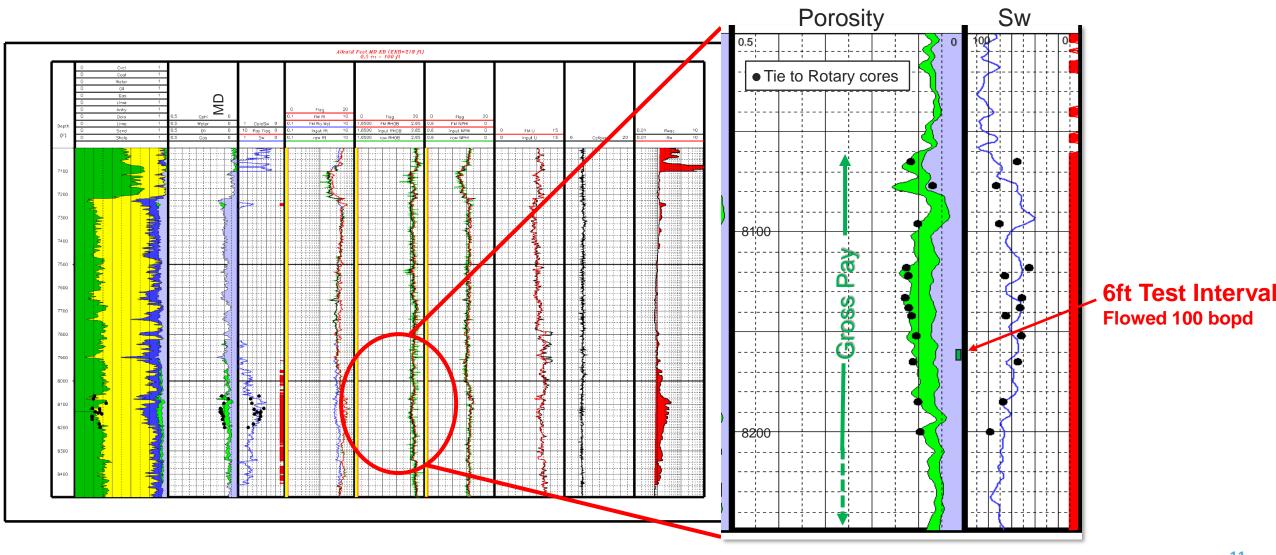
- Proves the accuracy of the high tech geophysics
  - Increased confidence in Talitha appraisal and exploration prospects
- Modelled per well economics
  - Estimated ultimate recovery (EUR) of 2.25 MMBO
    - Wells with greater uncertainty were discounted 50% to 1.125MMBO in production and reserves estimates. Such wells still economic
  - > Estimated maximum flow rate exceeding 1,000 1,500 bopd
  - Estimated NPV10 bbl of oil in the ground confirmed US\$8.50
  - > Peak field development flow rate of 30,000 bopd => highly profitable



Alkaid 1 Well - View of rig at dusk

## PANTHEON RESOURCES PLC Alkaid #1 Petrophysical Analysis: Oil to TD





## PANTHEON RESOURCES PLC Schematic Greater Alkaid Development with upside to 99 million barrels



Darker shaded well paths are those over amplitude anomalies similar to that of Alkaid. 24 wells fall into this category and yield EUR's of 2.25 MMBO/well

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Lighter shaded well paths are those with seismic amplitudes that differ from the Alkaid well

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### 45 million barrels\*

\*Lighter area has 45 MMBO of recoverable oil which has been discounted by 50% to account for the possibility of reservoir differences yielding 22.5 MMBO bringing the total to 76.5 MMBO Contingent Resource. Without the 50% discount the total recoverable resource would be 99 MMBO in the Greater Alkaid development. Future delineation could remove the need for such discounts.



## PANTHEON RESOURCES PLC Independent Expert Report: Greater Alkaid Resources



- > Lee Keeling and Associates (LKA) has been providing oilfield consulting since 1957
- > LKA client base includes some of the largest US producers
- LKA has significant expertise in horizontal multistage reservoir development, analogous to Greater Alkaid

## Highlights of LKA report\* on Greater Alkaid:

- > Alkaid/Phecda now confirmed a single continuous accumulation: 'Greater Alkaid'
- > 76.5 MMBO recoverable barrels certified Contingent Resource
- Estimated project value of \$595 million at (NPV10)
- Field production of 30,000 BOPD
- Under current ANS (Alaska North Slope) oil pricing (\$65/bbl ANS, \$55/bbl realized after transportation differential) the project is estimated at an NPV10 of \$8.50 per recoverable barrel
- > Significant upside exists in Greater Alkaid structure
- > LKA discounted reserves & production in certain parts of Alkaid structure by 50%
- > Modelled on 10% recovery factor. Significant leverage to increased recovery factor

## As development proves acreage near distal well, this discount may be removed. This de-risking adds large volumes of recoverable oil and higher NPV's/bbl

# Appraisal/Exploration Projects: Talitha, Theta West & Leonis

Talitha/Theta: Resource upgrade expected from current analysis\*

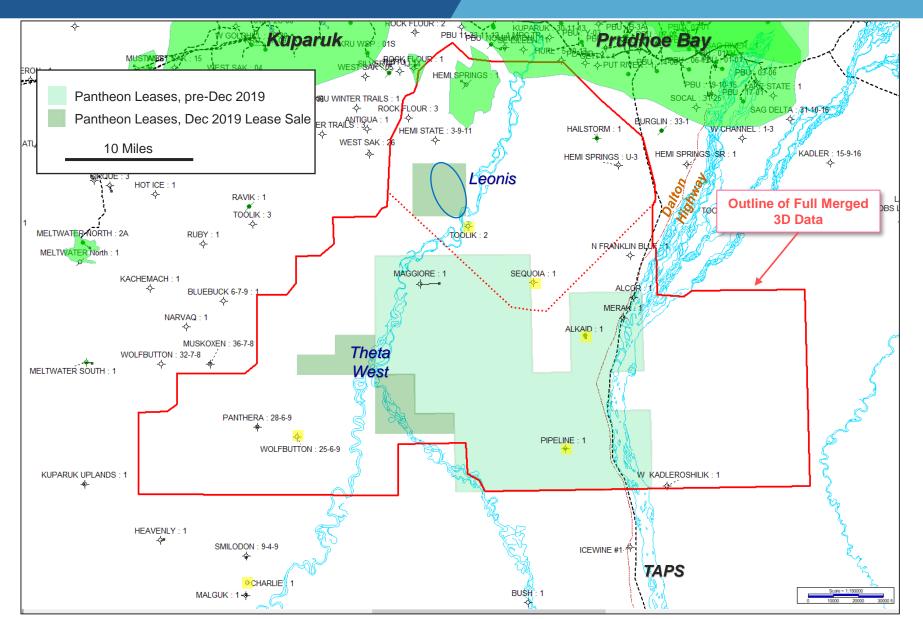
Theta West: Analog Oil Pay identified in the Brookian formation in the Pipeline State#1 well with major resource implications updip...

Leonis: Oil Pay identified in the Brookian formation in the Toolik Fed #2 well with major resource implications updip...

\*This analysis is not complete and therefore there can be no certainty of an increase.

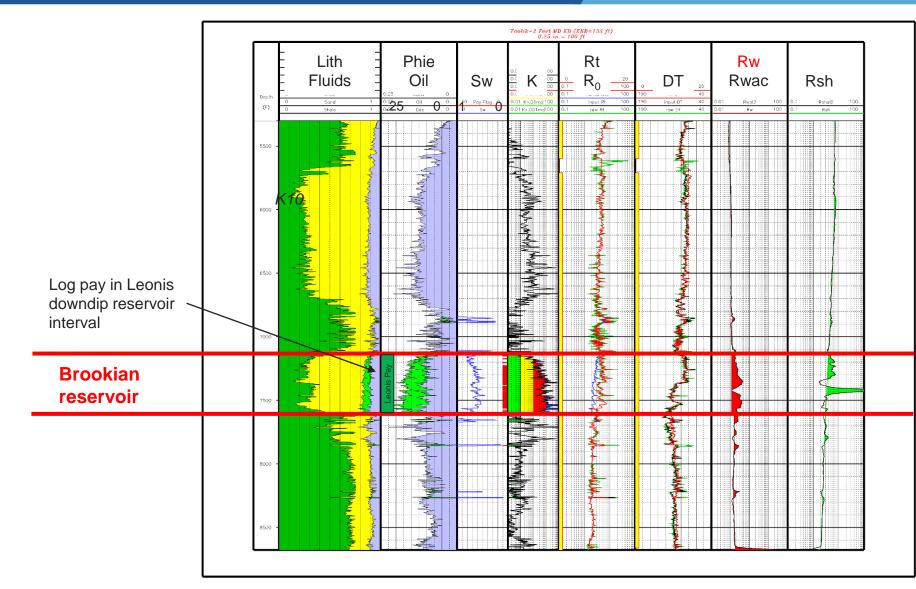
## PANTHEON RESOURCES PLC Theta West / Leonis Base Map

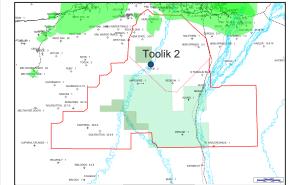




## PANTHEON RESOURCES PLC Leonis Type Log: Toolik 2





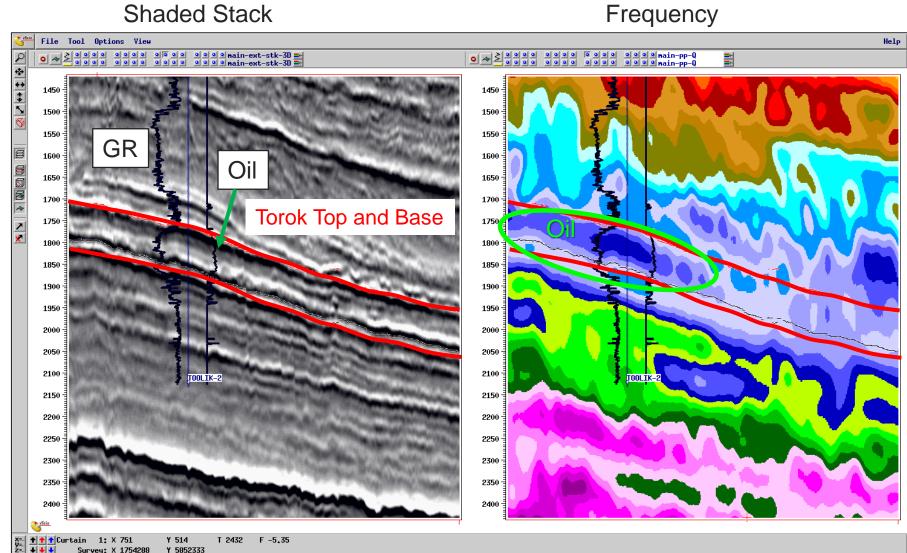


## PANTHEON RESOURCES PLC Leonis Seismic Frequency Attribute showing potential oil reservoir

Survey: X 1754288

Y 5852333







- > East Texas now subordinate to Alaska. Focusing resources on Alaska
- > Technical review presently underway
- > Polk County wells currently shut in for non performance. Well bores remain compromised
- > Tyler County well producing c.200 mcfpd
- > Natural Gas prices in USA at recent winter lows
- > 100% of leasehold now held by Pantheon. Small minority working interest holders in some wells
- > Hired independent expert to analyse well performance issues and drilling/completion practices of former operator
- East Texas still offers great potential

## **PANTHEON RESOURCES PLC** Summary

- > Independent Expert certified Contingent Resources on 100% owned Greater Alkaid
  - > 76.5 million barrels
  - » NPV10 \$595 million
  - Based upon 10% recovery factor!
- > Talitha continuing to improve. Potentially **significant** resource update underway
- New projects (Theta West & Leonis) c.28,000 highly prospective acres acquired, all updip to established log pay.
  - > Outstanding potential: OIP estimated > 1 billion barrels
- Farm out update Oil companies, National Oil Companies & family companies showing interest or have visited data room
- > East Texas Pantheon controls 100% of acreage. Comprehensive technical review underway
- Pantheon is reviewing and high grading its entire project inventory which now has confirmed Contingent Resource and immense scale!!

## PANTHEON RESOURCES PLC Experienced Board and Management



#### **BOARD & MANAGEMENT**

#### Phillip Gobe<sup>(1)</sup> – Chairman

+40 years' experience in the sector. Non-exec director of the S&P 500 Pioneer Natural Resources and Scientific Drilling International Inc, the 5th largest provider of directional drilling & measurement equipment and operational services in USA. Formerly head of Prudhoe Bay operations in Alaska for ARCO.

#### Jay Cheatham<sup>(1)</sup> - Managing Director

Petroleum Engineer. +40 years' experience. Ran family E&P business prior to joining ARCO. At time of BP's \$30bn acquisition Jay headed up ARCO International (responsible for all operations outside USA). Prior to that he led ARCO exploration and production for USA (Gulf coast).

#### Robert Rosenthal<sup>(1)</sup> - Technical Director

Geologist +40 years' experience. Founding Manager of Great Bear Petroleum. Ex BP (Global Consultant - Exploration worldwide). Expert in seismic stratigraphy and high tech geophysics

#### Justin Hondris<sup>(1)</sup> – Director, Finance & Corp Development

Banking & financial background with over 20 years' experience including roles in institutional equities and private equity

#### Jeremy Brest - Non-Executive Director

+ 20 years' experience in investment banking and financial advisory, including deal structuring/execution.

#### Patrick Galvin - Chief Commercial Officer & General Counsel Alaska

Former Alaska State Commissioner of Revenue, Former Petroleum Land Manager for the Alaska Dept of Natural Resources, overseeing the State's oil and gas leasing program. Former partner at K&L Gates.

#### Thomas Michael Duncan - Vice President Operations

Professional Engineer, licensed in Alaska with experience and expertise in conventional and unconventional reservoirs throughout North America

#### Mario Traviati - Advisor to the Board

Previous head of Asia Energy research for Merrill Lynch. +35 years working, analysing & funding oil and gas projects, Founding Manager Great Bear Petroleum, previous Woodside Petroleum

#### Ed Duncan - Senior Geoscience Consultant

Founder Great Bear Petroleum, Geologist +37 years experience

#### **TECHNICAL PARTNERS**

#### **Sierra Hamilton**

One of the world's largest providers of outsourced engineering and on-site supervision services to the oil and gas industry. Recently contracted to Pantheon as a technical team to enhance geological and operational capabilities

#### eSeis Inc.

A pioneer in the use of Seismic Petrophysics / High Tech Geophysics for the petroleum industry. Deep experience in Alaska

#### Bureau of Economic Geology, University of Texas at Austin

Research collaboration on East Texas Assets

## PANTHEON RESOURCES PLC Alaska's Independent Oil & Gas Company





(1) Unconventional OIP is proven to exist on the acreage however has not been recognized as a resource due to the high capital costs associated with its extraction, and therefore requires a long term oil price above the present price to be considered economic. Potential does exist for unconventional oil to be economic if infrastructure is in place for a conventional oil development, however for prudence it should be considered as option value only and not part of the base case.

## PANTHEON RESOURCES PLC Alaska – A Compelling Investment Case



## 70 bn discovered

17 Bn PRODUCED

10 Fields > 100 MMbbls

#### PROLIFIC OIL PROVINCE

Alaska North Slope (ANS) contains the 2 largest (and 4 of the 10 largest) conventional oil fields in North America

# UNDEREXPLORED

Estimated to contain 30% of the remaining resources in the United States <500 exploration wells drilled (3 wells/1,000 mi<sup>2</sup>)

In comparison Wyoming: ~20,000 exploration wells drilled (250 wells/1,000 mi<sup>2</sup>)

# 90%

State dependent on oil revenues – incentivizes rational action

#### LOW SOVERIGN RISK

One of the few proven underexplored basins that exists within a developed economy

Alaska State leases – simple permitting

#### GN ATTRACTIVE FISCAL REGIME

Low royalty rates of 12.5- 16.67%

Incentives available for new oil production

## #1 CONVENTIONAL

Ranked #1 in the USA for remaining conventional oil potential by USGS

Multi billion barrels unconventional oil

Certified by: Netherland Sewell & Associates; HJ Gruy

#### DIRECT ACCESS TO MARKETS

Existing underutilized infrastructure offers regulated access to market

Dalton Highway access

Export potential to Asia

#### COST CURVE TRENDING DOWN

40 year history of service providers ncreasing competition Drilling rigs require winterization, but no special equipment

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