## **ASX Release**

20 April 2018

Dear Shareholder,

#### ADX Dougga Presentation to ETAP and Ministry in Tunisia

ADX Energy Ltd (ASX: ADX) are pleased to advise that the Tunisian national oil company "ETAP" has requested that ADX makes a presentation to ETAP representatives and the Tunisian Ministry of Energy to highlight the opportunities to commercialise gas offshore Tunisia and to summarise the potential significance of ADX's Dougga gas condensate appraisal and development project.

Attached is a presentation to be made in Tunis on the 20<sup>th</sup> of April 2018 which highlights the strategic importance of Dougga. ETAP and the Directorate General of Hydrocarbons (DGH) in Tunisia have been very supportive of our appraisal and feasibility work on Dougga. Due to gas production decline Tunisia has become highly dependent on imported gas and LPG. Tunisia is seeking to reinvigorate its oil and gas sector and is undertaking reforms to increase investment.

**Yours Sincerely** 

lan Tchacos Executive Chairman



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## Tunisia Summary and Offshore Gas Potential "Dougga Gas Condensate Project"

#### ETAP Workshop sur l'Exploration Pétrolière en Tunisie Tunis 20 April 2018

"ADX Energy Ltd is an ASX listed company which holds a 100% equity in Alpine Oil and Gas - ADX/Alpine holds the offshore Kerkouane License with Dougga Gas Condensate Project"

**By: Ian Tchacos - Executive Chairman** 

## **DOUGGA - AN EXAMPLE OF UNREALISED GAS POTENTIAL**

#### **Strategically Important Gas Project**

- Large 70km<sup>2</sup>, 3D-defined gas-condensate 1981 discovery
- 165MMBOE 2C Resource with potential for long-lived revenue streams
- 84MMCFD sales gas & 12,800BPD (LPG & condensate).
- Important products for Tunisia >> Sales Gas and LPG

#### **Technical Challenges**

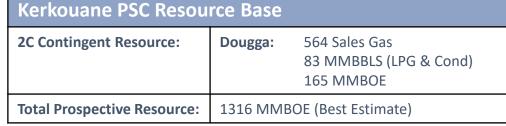
 Deep water, high CO2, Carbonate Reservoirs which can be overcome with new technologies

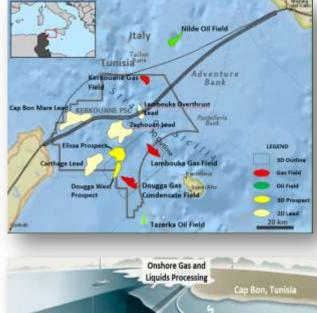
#### **Development Concept Viability**

- Subsea tie-back to shore concept confirmed by TechnipFMC as technically viable
- CAPEX estimate US\$1,180million; first gas possible 2021

#### Dougga Sud Well Planned for 2018:

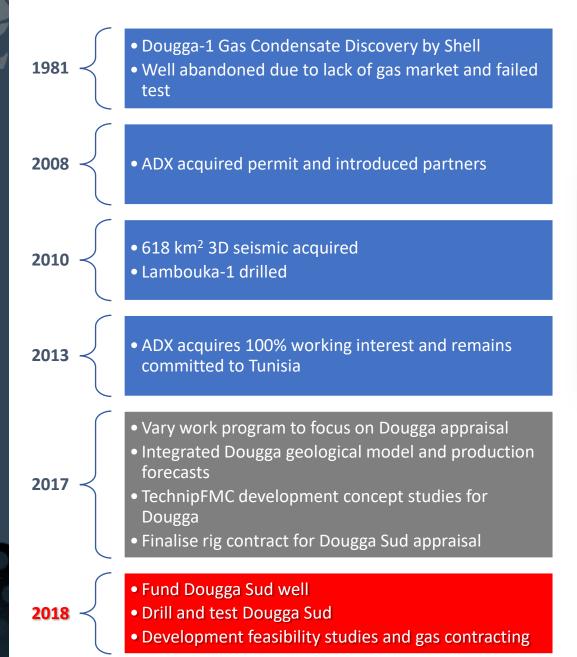
- Confirm gas composition, reservoir quality and reservoir deliverability
- Rig contract option signed for 2018 for Deep water drillship

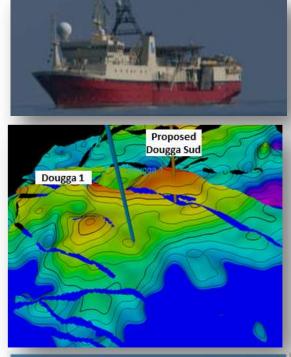






## **KERKOUANE PERMIT HISTORY – Dougga the Forgotten Gas!**







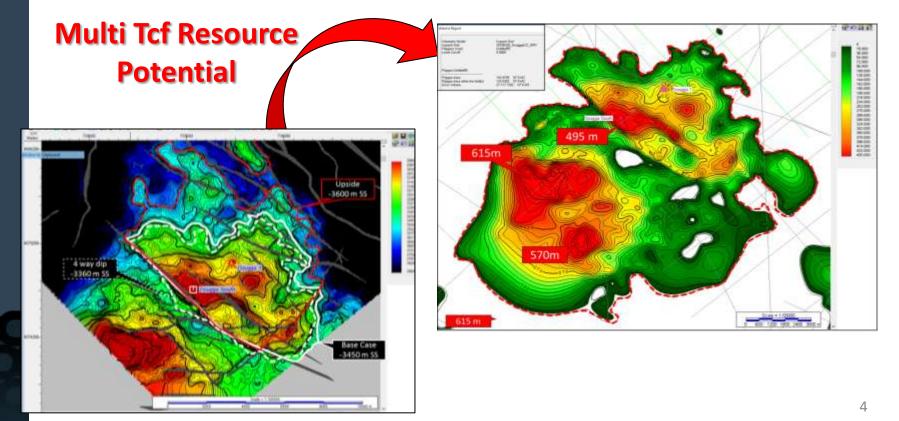
## DOUGGA PROJECT – Can Unlock Large Growth Opportunity

## **Resource expansion opportunity:**

• Exploration upside within and outside Kerkouane permit

### Potential for a gas hub development:

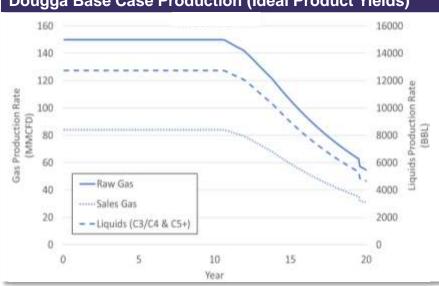
- Commercialise smaller stranded gas discoveries with high liquid and CO<sub>2</sub>
- Encourage further exploration to unlock vast Mesozoic gas condensate potential offshore Tunisia
- Reduce cost of bringing dirty gas (high CO2) to market



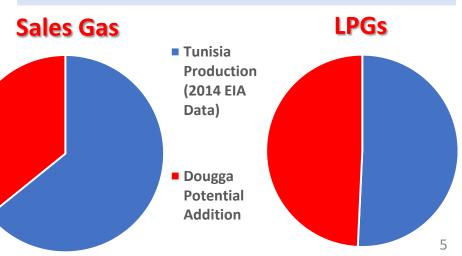
## **PRODUCT SUMMARY & TUNISIAN MARKET OUTLOOK**

## "Dougga is an important potential project for Tunisia"

- Over \$1 billion potential investment
- Dougga production has the potential to significantly displace Gas and LPG imports
- Positive Impact of Balance of Payments
- Can significantly improves Tunisia's energy security position
- Long-term government revenues
- Local employment at onshore gas plant and associated services
- Reinvigorate upstream industry



#### Dougga Potential Production compared to current Tunisia



#### **Dougga Base Case Production (Ideal Product Yields)**

# GAS COMMERCIALISATION – Getting Dougga gas out of the ground and into the pipeline?

## HOW WAS IT BEFORE??

- No gas market but high liquids content
- Deep water and high CO2
- Reservoir Productivity & liquids content not confirmed
- High cost for conventional platform development
- Challenging Fiscal Terms for offshore Gas Project

#### WHAT IS NOW POSSIBLE??

- Collaboration between Contractor and National Oil Company to enhance project viability.
- Motivation to explore
- Dirty gas Production Hub
- Meet unsatisfied local demand
- Attract further capital and economic growth

## WHAT HAS CHANGED??

- Desperate need for domestic gas
- LPG is a very important product
- New proven technologies to produce reliably in deep water
- CO<sub>2</sub> extraction is more common
- Fracture modelling and analogues indicates potential for economically productive wells
- Cost of subsea technology is reducing and contractor competition is strong

## OVERCOMING OFFSHORE GAS CHALLENGES - can create a Brighter Future for Tunisia

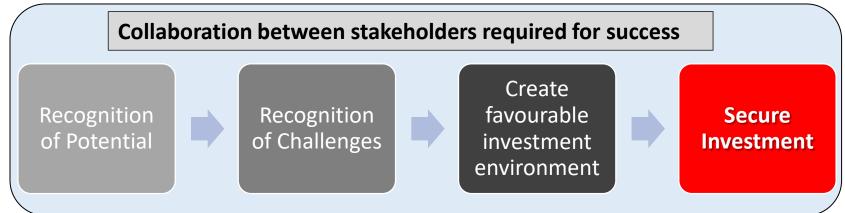
Tunisia needs new investment to reinvigorate the industry >> new oil and gas projects needed >> not just ownership changes in depleting assets.

#### Why is Tunisia attractive

- Proven hydrocarbon basins
- Remaining exploration potential
- Stable government & industry conditions
- ETAP and DGH support and assistance
- Strong local gas and LPG demand
- Potential access to European markets

#### Why new investment is challenging

- Current projects are mature
  - Opportunities are either late-life production or high-risk exploration
- Fiscal terms are inferior in comparison to other jurisdictions especially for offshore and high CO<sub>2</sub>
- Challenging geology >> productivity & CO<sub>2</sub> risk



# Thank you for your attention!

Ian Tchacos – Executive Chairman

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## DISCLAIMER

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#### **CONTINGENT RESOURCES & DEFINITIONS**

**Tunisia:** 26/9/2012 (contingent). ADX confirms that it is not aware of any new information or data that affects the information included in those market announcements and that all the material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

Contingent Resources: those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations but, for which the applied project(s) are not yet considered mature enough for commercial development due to one or more contingencies.

1C, 2C, 3C Estimates: in a probabilistic resource size distribution these are the  $P_{90}$  (90% probability),  $P_{50}$ , and  $P_{10}$ , respectively, for individual opportunities. Totals are by arithmetic summation as recommended under PRMS guidelines. This results in a conservative low case total and optimistic high case total.

#### Persons compiling information about Hydrocarbons.

Pursuant to the requirements of the ASX Listing Rules 5.41 and 5.42, the technical and resource information contained in this presentation has been reviewed by Paul Fink, Technical Director of ADX Energy Limited. Mr. Fink is a qualified geophysicist with 23 years of technical, commercial and management experience in exploration for, appraisal and development of oil and gas resources. Mr. Fink has reviewed the results, procedures and data contained in this presentation and considers the resource estimates to be fairly represented. Mr. Fink has consented to the inclusion of this information in the form and context in which it appears. Mr. Fink is a member of the EAGE (European Association of Geoscientists & Engineers) and FIDIC (Federation of Consulting Engineers).