

# **ADX Energy**

# **Investor Update**

# Recent Progress and Immediate Opportunities

**Ian Tchacos - Executive Chairman 8 November 2016** 



www.adx-energy.com

#### **DISCLAIMER**



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

**Tunisia:** Refer to ASX announcements 26/9/2012 (contingent) and 6/9/2013 (prospective). **Italy:** Refer to ASX announcements 25/10/2016 and 17/2/2016 (contingent) and 21/4/2016 (prospective). 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. All Italian contingent resource figures quoted in this presentation are third party verified.

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)



# Corporate Overview, Geography and Strategy

"A Large, Underappreciated Portfolio of Appraisal, Development and Exploration assets with a very compelling 2C resource base capable of being commercialised"



# **Corporate Overview**



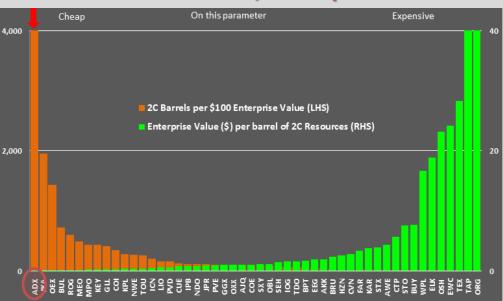
#### **Summary**

- An ASX listed international energy exploration and appraisal Company (ASX:ADX)
- Asset refocus on low cost, low risk, profitable asset commercialisation
- A 2C resource base of approximately 200 mmboe
- Geographic focus Offshore Mediterranean and Onshore Europe
- Experienced Board and Management team
- 11.5% of Riedel Resources (ASX:RIE)

#### **Capital Structure**

Shares on Issue	798.2 million
No of Shareholders	2,613
Market Capitalisation @ 0.7 cents	\$ 5.5 million

#### **ASX 2C Resources / Enterprise Value**



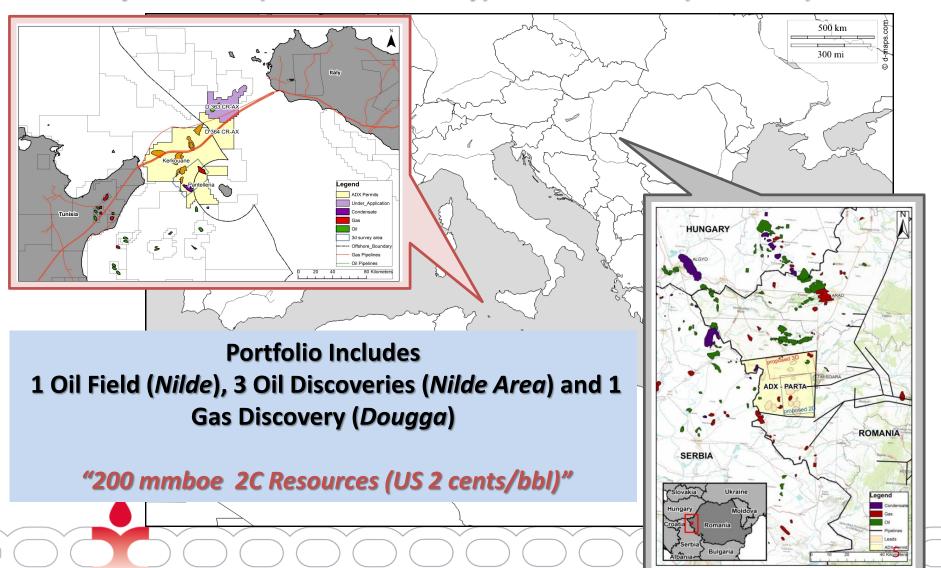
Source: Resource Invest

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# Geography



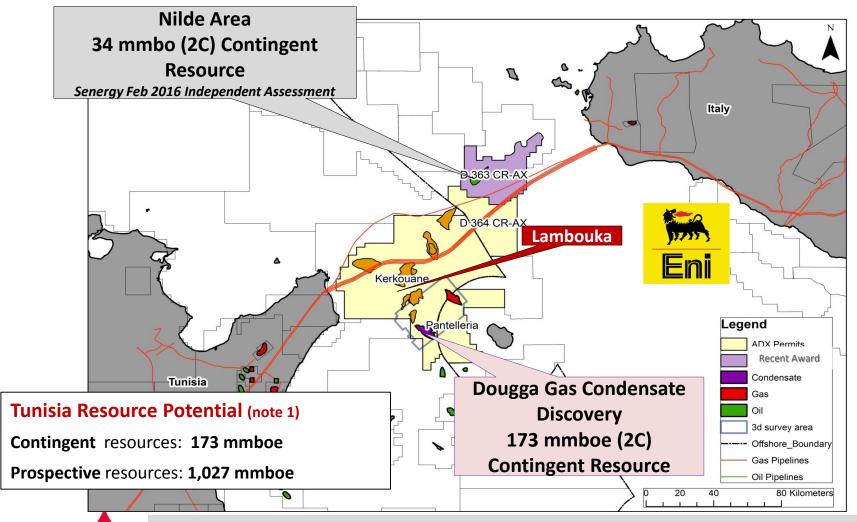
- Sicily Channel (Tunisia and Italy) and Romania (Onshore)



# **Sicily Channel Position**

### - All Permits at 100% equity





Note 1. Prospective and contingent resources were calculated using the probabilistic method and are best estimates. Conversion factor: 1BOE = 5.62 scf. Reporting date: prospective resources 6 Sept 2013, contingent resources 26 Sept 2012.

# **Growth Strategy**



- ADX has large existing Contingent Resource base at the Nilde Oil Redevelopment and Dougga Gas Condensate Discovery - converting these to reserves will create exceptional value growth
  - 1. Nilde is a low risk resource with proven production performance and substantial independently assessed 2C resource
  - 2. Dougga is a large well defined discovery requiring feasibility studies and an appraisal well to mature
- ADX has identified and is assessing a number of Production Opportunities in Romania capable of delivering immediate cash flow, value addition through production enhancement and reserves additions.
  - 3. Ability to leverage in country knowledge relationships and partnerships to access low cost, low risk production.

Resource
Potential to
Reserves

Rapidly
Compliment
Resources
with
Production

Sources of
Capital in line
with
maturation of
Asset Base





# Summary of Recent Progress and Immediate Way Forward



# **Recent Company Focus and Activities**



- Streamline management, finance and administration.
  - Board and management renewal, centralised administration
- Aggressively progressing Nilde Oil Redevelopment Project.
  - Finalising resource assessment based on entire data set
  - Substantial increase in Oil in Place established
  - Ready for farmout and / or project formation

Substantial resource, near term cash flow, low cost, excellent economics

- > Securing Dougga medium term strategic resource.
  - Secured an extension for the Kerkouane permit
  - Commenced feasibility work on large Dougga gas condensate discovery

A large, under appraised, long life, strategic resource

- ➤ Targeting and assessing production and reserves development opportunities onshore Romania.
  - Ongoing review and bidding on production opportunities
  - Operating Exploration with cashed up Joint Venture Partner

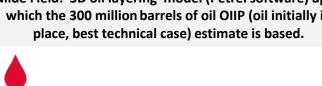


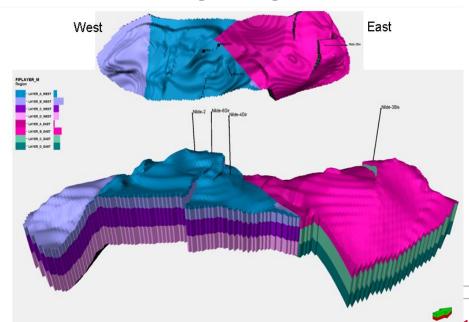
# **Nilde Geotechnical Progress Summary**



- 100 % increased Oil In Place Resource (300 million barrels) **determined by ADX** - Compared to Senergy Independent Report
  - Based on new data and technical studies by ADX assisted by highly qualified geotechnical and reservoir engineering consultancies
  - 60 million barrels 2C remaining resource inferred using same recovery factor as Senergy - 2C Resource of 28 Million Barrels announced 17/2/16
- Reservoir production simulation with revised geological model
  - Determine field recovery factor
  - Field production forecasts using modern development techniques
  - Completion end November

Nilde Field: 3D oil layering model (Petrel software) upon which the 300 million barrels of oil OIIP (oil initially in place, best technical case) estimate is based.

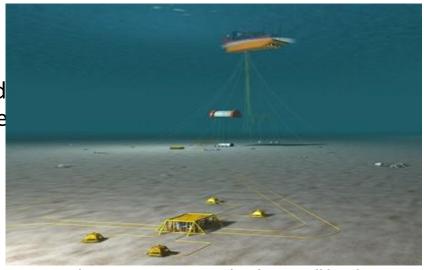




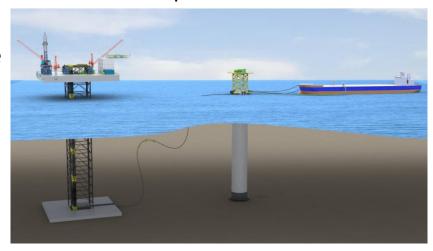
### **Nilde Project Definition Progress**



- Review of development options ongoing with facility providers
  - FPSO's (floating, production, storage and offloading facilities) and MOPU's (mobile offshore production units).
- A drilling and well completion study completed
  - Develop drilling programs and cost estimates for vertical, high angle or horizontal wells.
  - Programs for appraisal wells that can be used as producers.
- Reviewing development philosophy
  - Appraisal and then develop approach
     OR
  - Drill & immediately produce scenario



Above - FPSO option with sub sea well heads



Above - MOPU option with dry well heads
Source: Calm Oceans Pte. Ltd, Mono Column Platform and storage
technologies are proprietary, patented and patent pending.

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## **Immediate Way Forward for Nilde**



ADX is now well placed in terms of resource estimation, preferred development options, facilities costs and well cost estimates to provide clarity in relation to economic potential of the project – *Alternative Funding Options*;

- Farm out or sale to fund appraisal drilling targeting late 2017
  - follow up with development after appraisal
- Engage facility provider that can provide facilities and funding in exchange for a share of oil
  - potential to accelerate development and by pass appraisal based on minimum commercial reserve
  - enables immediate submission of development plan and rapid commercialisation

Both commercialisation options to be pursued immediately, interest in farm in and project participation already received from a number of parties.

# Immediate Goals & Funding Objectives 20



#### **Nilde Redevelopment Project**

- Finalise reservoir simulation to determine revised resource range.
- Finalise farm-in, partial Sale or alternative contractor facilities contribution solution.
- Progress appraisal or early development strategy

#### **Dougga Gas Condensate Field Appraisal and Feasibility**

- Engage in an incentivise arrangement with suitably qualified Contractor to optimise development scenario and cost
- Commence discussions with Tunisian Authorities regarding Dougga appraisal and development license terms
- Commence farm-in discussions with clarity regarding commercialisation

#### **Romanian Reserves and Production Acquisition**

Continue reviewing production opportunities capable of delivering immediate cash flow and production growth





### **Asset Back Ground**

# Nilde Oil Field Redevelopment, Dougga Gas Condensate Discovery and Romania





# Nilde Area Field Area – Offshore Sicily Nilde Redevelopment Project Potential

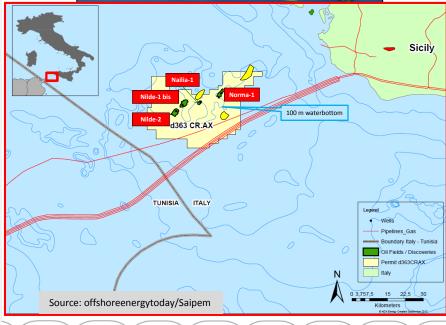


### Nilde Oil Field Area - Back Ground



- 1 Abandoned Oil Field & 3 Oil discoveries (all tested) – between 1979 to 1990
- Nilde Oil field produced at approx 10,000 BOPD from a single well for 5 years before production acceleration resulted in premature water production
- Early generation FPSO facility could not handle water production nor did it have artificial lift facilities.
- Excellent 2D seismic and well data base
- Independently assessed 34 mmbo audited remaining 2C recoverable resources for Nilde & other oil discoveries
- A substantial 1C resource at Nilde and Nilde-Bis of 18 million barrels with 2C resource of 28 million barrels
- 5 exploration leads defined with existing 2D seismic have total best estimate prospective resources of 90 million barrels of oil.

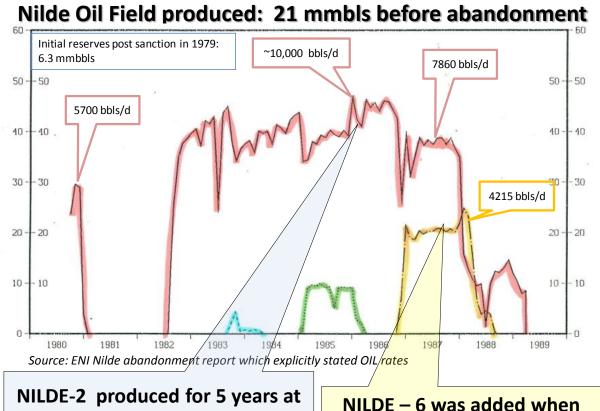






### **Nilde Oil Field - Production History**

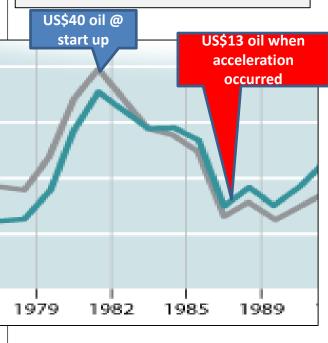




NILDE-2 produced for 5 years at flat rate of 10,000 BOPD with no water

oil price dropped to
accelerate production.
Resulted in water
encroachment with no water
handling on vessel or lifting
capability in wells

Production Acceleration coincided with water break through and 1988 oil price collapse





# Nilde Oil Field - Contingent Resources ac

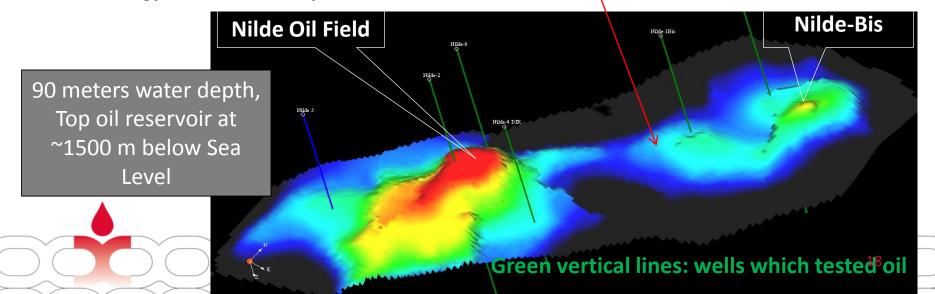


Gross Contingent <sup>1</sup> Resources Volumes (MMstb)					
	1C <sup>2</sup>	2C <sup>2</sup>	3C <sup>2</sup> Estimate		
	Estimate	Estimate			
Nilde Field	8.7	13.1	17.8		
Nilde- Bis Discovery	9.3	15.3	21.0		
Norma Discovery	1.2	3.9	12.9		
Naila Discovery	1.0	1.7	2.7		
Total <sup>3</sup>	20.2	34.0	54.4		

#### **Notes**

- 1. 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.
- 2. 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.
- 3. Totals are by arithmetic summation as recommended under PRMS guidelines. This results in a conservative low case total and optimistic high case total.

Source: Senergy, Feb. 2016, Independent Resources Assessment

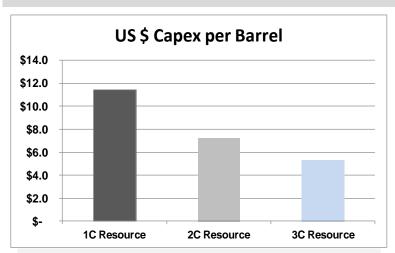


### Nilde Oil Field – Indicative Economics

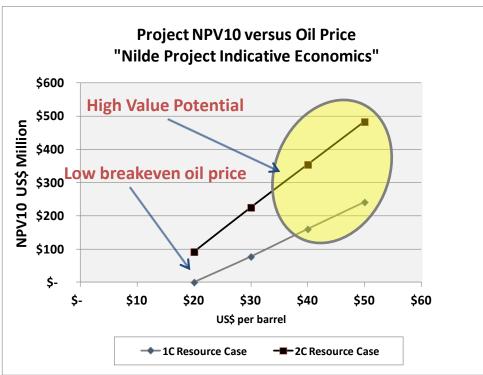


#### **Development Scenario Assumptions**

- •2 slanted production wells centrally located and one non utilised appraisal well
- Develop Nilde and Nilde Bis only
- FPSO Development Build Owned and Operated
- •Well total TVD 1700 m and 90 m water depth
- Oil export via tanker(s) to local refinery



Low Capex / barrel – lower for a leased FPSO



#### **Sources of Data**

- Facilities costs from FPSO contractor estimates and drilling cost studies based on previous drilling performance and recent drill rig rates.
- Production rates based on Senergy resource estimates; 6000 BOPD/well for 1C and 10,000 BOPD/well for 2C resource case



# Nilde Field Redevelopment - Key Attributes (a)



#### **Technical**

- Historical production and test data for all undeveloped discoveries
- Excellent 2 D seismic data quality and good coverage
- High well productivities (approx 10,000 BOPD vertical wells).
- Shallow drill depths (approx 1700m), Modest water depths (approx 90m) and benign sea conditions.

#### **Commercial**

- Large equity interest available for farmout or sale
- High API oil proximal to refineries
- Transformational cash flow potential
- Majority of Development Capex can be accessed via a facilities lease
- Excellent environment for securing leased FPSO or MOPU

Fiscal & Regulatory

- Excellent fiscal terms 4% royalty + Corporate Tax (27.5%)
- 5 year license term with one well commitment
- Similar offshore HSE regulatory obligations as Australia

# Nilde Field Redevelopment



### - Current Status

#### **Progress on Project Definition and Commercialisation**

- 1. Secured all historical production and geological data required to complete subsurface assessment
- 2. Review of Nilde core only outstanding work to complete revised resource assessment, finalise geological model and commence production modelling
- Have finalise drilling and completion costs studies for appraisal and development drilling.
- 4. Alternative design options are being considered with associated 3<sup>rd</sup> party facilities cost estimates available from FPSO or MOPU contractors
- 5. Ongoing engagement with potential funding partners with a view to securing appraisal / development drilling funding at an asset level.

On track to start marketing an asset farm out or part sale in October 2016





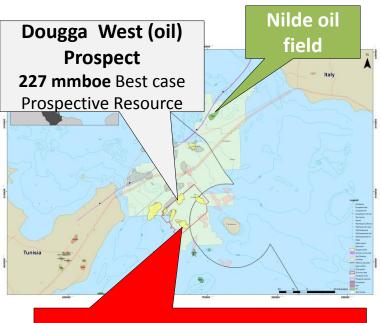
# Dougga Gas Condensate Discovery – Kerkouane permit Offshore Tunisia Dougga Gas Condensate Project Potential



# **Dougga Gas Condensate Field**

## - Background (100% equity)





**Dougga Gas Condensate Discovery** 

**Large Prospective Resource Potential** 

**ADX Best Case Estimate: 1,027 mmboe** 

Note 1. Prospective and contingent resources were calculated using the probabilistic method and are best estimates.

Conversion factor: 1BOE = 5.62 scf. Reporting date: prospective resources 6 Sept 2013, contingent resources 26 Sept 2012.

- The Dougga 1 well intersected approx 600 m gross gas column and tested condensate rich gas in 1981
- Dougga 1 is located in 328m of water, 45kms east of Cap Bon. Dougga gas is liquids-rich but also contains 18% to 30% CO2.
- ADX acquired 3D seismic over the field and near field prospects
- Prior to the Arab spring highly reputable independent expert AGR Tracs assessed that the field was likely to be commercialised.
- Dougga project economics are attractive but contractor economics do not currently justify development.
- Previous project economics assumed offshore floating facilities.
- Near field discovery tie in opportunities and large exploration potential defined on 3 D seismic.

#### What Has Changed Recently

- Improvement in the political landscape and willingness of Tunisian Authorities to consider revised fiscal terms
- Potential to significantly reduce Capex with revised development option.
- ☐ Tunisia has become net importer of gas

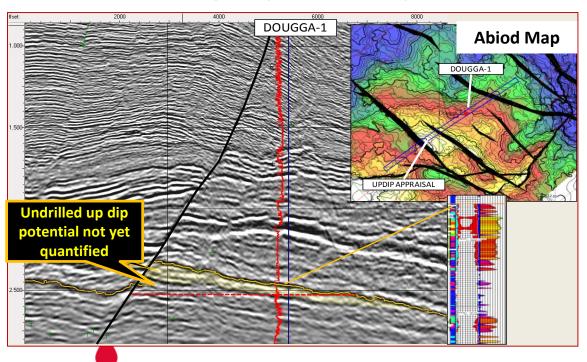
## **Dougga Gas Condensate Field**

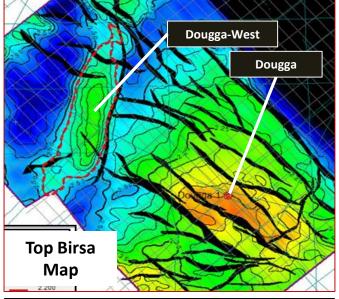




<b>Contingent Resources Estimates</b>	1C	2C	3C
Total Oil Equivalent [mmboe]	88	173	268
Liquids: Condensate & LPG [mmbls]	47	91	142
Sales Gas [bcf]	264	517	804

**Sources:** Competent persons reports (CPR) by TRACS and ISIS, Development Plan by Genesis **Dougga** Gas Condensate Appraisal – Contingent unrisked resources The Tracs CPR from July 2012 estimates a 70% chance of success for a commercial development.





# 600 meter gas column intersected in Dougga #1 well mapped and supported by RFT

mapped and supported by RFT pressure data.

#### 300 Meters of Up dip potential

based on 3D seismic not included in current resource assessment.

#### Dougga West Oil Prospect

located within 9kms of Dougga

### **Dougga Gas Condensate - Key Attributes**



#### **Technical**

- Large Condensate Rich Gas Resource
- Structure well defined with high quality 3D seismic
- Gas contains 70 to 90 Barrels / mcf of condensate and 18 30% CO2
- The previous development scenario is based on floating offshore condensate removal and dehydration with a gas plant on shore.
- Appraisal well required to confirm up dip potential and economic flow rates.

#### Commercial

- An alternative development scenario based on a 45 km subsea tie back to an onshore plant is expected to reduce costs.
- Excellent gas market opportunities in Tunisia (now a gas importer) and Europe via Transmed pipeline.
- Gas sold at oil equivalent pricing in Tunisia.
- Substantial nearby satellite tie in opportunities defined on 3D seismic
- Large equity available for farmout or sale.

#### Fiscal & Regulatory

- PSC with 65% to 35% profit split for Government to Contractor, maximum of 45% Revenue can be claimed as Cost gas in any year.
- Tunisian Authorities have recently stated they will consider new license terms to facilitate a development
- The political situation in Tunisia has continued to stabilise with free elections.

# Dougga Gas Condensate Project - Current Status



#### **Progress on Project Redefinition and Appraisal**

- 1. Since the Arab spring, ADX has concentrated on the exploration potential of the permit in order to maximize the value of its 740 sq km Geostreamer 3D seismic however ADX believes a Dougga commercialisation strategy is more desirable and achievable
- 2. A twelve month license extension was awarded in August 2016
- Commenced new feasibility studies based on a subsea tie back to an onshore tie back with a view to reducing development and operating costs
- Continue discussions with Tunisian authorities regarding an improvement in terms for a Dougga gas condensate development.
- Continue engagement with nearby stranded gas condensate discoveries defined on 3D seismic
- 6. Attract a farminee to fund an appraisal well
- Goal is to demonstrate the commercial viability of the Dougga gas condensate project and its potential to be a transformational project for Tunisia





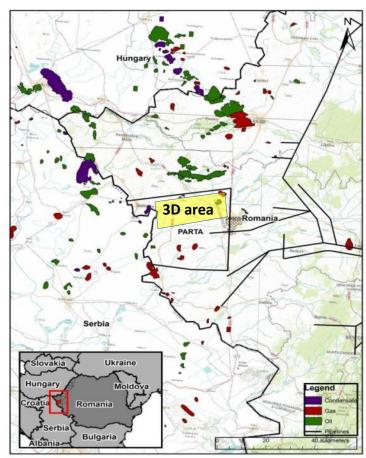
# Parta Exploration Permit – Onshore Romania Romanian Onshore Production Opportunities



### **Parta Permit Progress**

- 50% equity interest and Operator
- ➤ 30 months extension of first exploration phase agreed with government ratification pending
- 2 D seismic acquired indicating excellent prospectivity
- Extensive landowner work to secure access resulting in community support and application of petroleum law as an efficient and fast default process in local courts
- As a result 3D seismic now can be acquired for prospects close to producing fields
- ADX well positioned for farm out







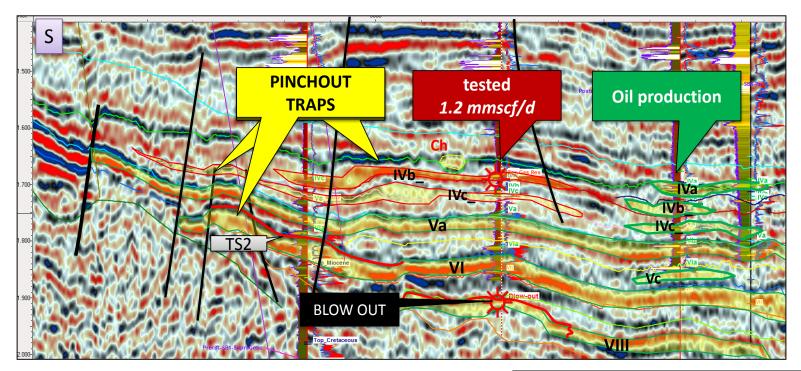






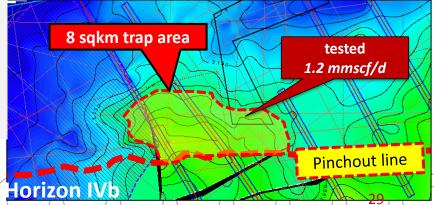
### PARTA Permit 3D Seismic is a likely game changer





- ✓ Oil & Gas charge proven
- ✓ Proven multi horizon plays
- ✓ Use 3D seismic to drill sweet spots
- >>> Like shooting fish in a barrel!





# **Romanian Production Opportunities**



#### **Background**

- Romania is a prolific oil and gas province with good infrastructure and excellent fiscal terms (3.5% Well Head Royalty and 16% Corporate Tax)
- Dominated by a few larger players seeking to maximise production from larger assets
- ADX is a qualified operator in Romania with 4 years of operations in the Parta Permit.
- ADX is well placed to leverage local knowledge and relationships to gain access to production opportunities.
- The low oil price has created momentum in a market for privately held assets.
- ADX is assessing a number of low cost, low risk, production opportunities with substantial reserves upside.

#### **Acquisition Strategy**

- Secure asset that is below the radar of large companies that dominate the landscape.
- Undertake immediate well reinstatement opportunities and development drilling to enhance production and cash flow.
- Get runs on the board while planning additional development drilling opportunities which can be progressed in a rising oil price environment to maximise returns.



## **Long Term Plan:**



- A three pronged approach to build a sustainable growth platform with nearly all the necessary pieces in place
  - Goal is to combine immediate production and reserves (Romanian Production Acquisition) with transformational near term development (Nilde Redevelopment project) and longer term value potential (Dougga Gas Condensate, Sicily Channel exploration and Romanian exploration)
- Large resource base which can provide extraordinary value development by converting it to reserves and then production
- > 18 month ambitions a series of transformational opportunities
  - Nilde Farmin
  - Nilde Appraisal Drilling
  - Potential Romanian Reserves and Production Acquisition
  - Dougga feasibility
  - Dougga development plan and fiscal terms discussions
  - Dougga farmout



Ian Tchacos Executive Chairman

Paul Fink Chief Executive

Head Office: Level 2, Suite 14

210 Bagot Road, Subiaco, WA, 6008

Tel: 61 8 9381 4266

Fax: 61 8 9381 4766

Website <u>www.adxenergy.com.au</u>

Email <u>admin@adxenergy.com.au</u>

**ASX Code ADX** 

