### **ASX Release**



8 August 2017

### Letter from Chairman - Low Risk Appraisal Program Providing a Rapid Path to Cash Flow Onshore Romania

ADX Energy Ltd

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Dear Shareholder

I am very pleased to report to you an exciting gas appraisal program which we have developed in our ADX operated Parta License, onshore Romania. ADX recently acquired 20km<sup>2</sup> of modern 3D seismic data which has upgraded and derisked two attractive gas appraisal opportunities. Each appraisal target was previously drilled by a 1980s exploration well, where gas potential in both was demonstrated from multiple reservoir horizons by either tested gas to surface and/or electric line logging.

The attached "Parta Appraisal Program Summary of Economic Potential" shows that for an initial investment of approximately US\$5 million in the two appraisal wells combined, approximately US\$80 million of post-tax NPV10 value may be realised in the event that all identified zones come in as prognosed. If only one zone per well is successful, approximately US\$13 million of post-tax NPV10 value may still be realised. These excellent success-case economics for a relatively small upfront investment are due to the expected short development time frames, strong gas pricing, low drilling and development costs, proximal available gas processing infrastructure and excellent fiscal terms.

Based on our evaluation to date of this small 20km<sup>2</sup> 3D seismic data set, ADX believes a more extensive 3D program in this highly prospective area will add further exceptional appraisal and exploration opportunities for both oil and gas to our Romanian inventory of opportunities.

The Parta licence interest is held by ADX via a 100% wholly owned Romanian subsidiary (ADX Energy Panonia Srl) which Operates and holds a 50% interest in the exploration permit containing the appraisal opportunities. The participating interest of ADX in the appraisal program will depend on whether our joint venture (JV) partner RAG will elect to participate and this will be resolved via the usual JV processes in the coming weeks. If RAG elects to participate, ADX will have 50% interest in the program, however if RAG does not participate, ADX may have the opportunity to farmout some of the drilling costs to further leverage its position.



Of particular importance, ADX has received strong interest from London and Europe for potential investment in a Romanian appraisal program that can deliver low risk reserves and rapid cash flow development. ADX intends to secure funding for the appraisal drilling program as well as the acquisition of greater area of 3D seismic in the Parta block and ADX is reviewing financing structures that will enable direct investment in the Company's Romanian assets via a suitable subsidiary holding the assets. This approach for funding Romanian investment opportunities enables ADX to leverage its operating capability, its local knowledge and its local relationships built up over time in a jurisdiction where there is extensive unrealised oil and gas potential, strong gas pricing, good access to infrastructure and excellent fiscal terms.

Romania, if funded appropriately, can provide a valuable third leg to the business that can deliver meaningful cashflow and value development without dilution at the parent company level. This ensures our investors can benefit fully from the unlocking of the value potential available from the Nilde Oilfield Redevelopment Project ("Nilde") and the Dougga Gas Condensate Appraisal Project ("Dougga").

The Romanian appraisal initiative does not in any way diminish the Company's ongoing focus and determination to progress Nilde and Dougga. To ensure this, ADX is continually developing its technical and commercial capability in Australia and Europe to push forward on all three fronts. ADX will continue to provide market updates on our progress with Nilde and Dougga in the coming weeks.

Your Board believes this appraisal program is an excellent opportunity for the Company to build an organically generated cash flow business at low cost from our existing Romanian operated acreage. Developing these assets can potentially transform the Company into a producer within a rapid time frame which in turn will further expand the Company's access to new funding sources for all its projects.

We look forward to providing further updates on this exciting initiative in the near future.

**Yours Sincerely** 

IAN TCHACOS

**EXECUTIVE CHAIRMAN** 





# Parta Appraisal Program Summary of Economic Potential

Parta Licence, Onshore Romania 8 August 2017





### **Disclaimer**

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

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).





#### INVESTMENT HIGHLIGHTS

### Low risk, low capital organic growth opportunity identified

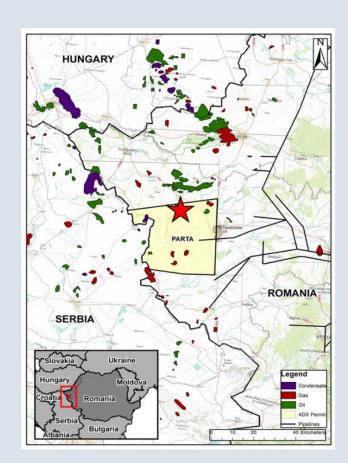
- Drill 2 appraisal wells that have been identified on recently acquired 3D Seismic in the ADX operated Parta Permit, onshore Romania.
- Appraisal wells are "redrills" of historical wells drilled in the late 1980s where multiple gas zones were confirmed from gas flows to surface or interpreted from well logs and seismic hydrocarbon indicators.
- 5 gas zones are being targeted across the 2 wells.

### A compelling investment case

- Excellent gas pricing and fiscal terms
- Low drilling and development costs due to shallow target depths and proximal availability of gas infrastructure
- Rapid path to cash flow
- Ability to leverage position with 3D seismic into multiple exploration plays

### Excellent economic potential

- Unrisked post-tax NPV10s ranging from *US\$6million to US\$64million* at 100% equity interest for the low side single zone/single well development case and the multi well/dual zone development case respectively.
- Potential peak cash flows from *US\$2.5million to US\$12million per annum*.
- An appetite for investment has been identified at an asset level in the UK and Europe which may enable ADX to progress the opportunity with out dilution at a corporate level.
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WESTERN ROMANIA PANNONIAN BASIN
1,221 KM² PERMIT AREA,
PHASE 1 EXPLORATION UNTIL JUNE 2019,
ADX 50% & OPERATOR

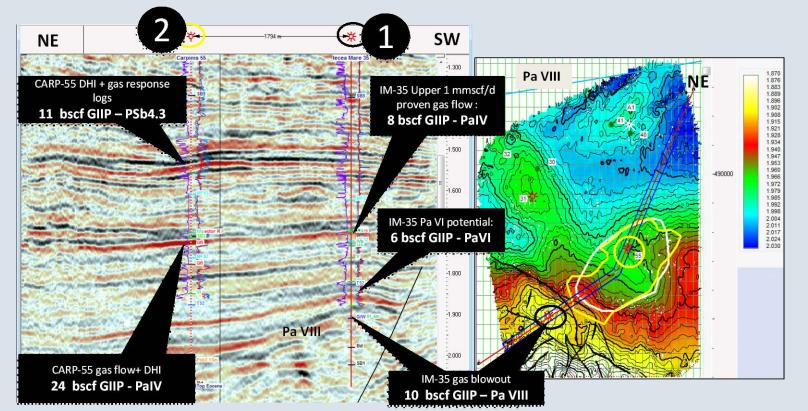




#### **GEOTECHNICAL SUMMARY**

ADX has identified two appraisal drilling opportunities (lecea Mare 35 and Carpinis 55) on modern 3D seismic with a total most likely unrisked in place gas resource potential of 59 bscf

- The drilling targets are approximately 1.8km apart and will be redrills of 1980s exploration wells.
- Each opportunity has multiple gas targets that have flowed gas to surface (3 zones) and/or been identified on logs and direct hydrocarbon indicators from seismic.
- The primary reservoir horizons for the lecea Mare 35 and Carpinis 55 appraisal wells (identified as 1 and 2 respectively) are shown below on a 3D seismic line.







#### SUMMARY OF ECONOMIC POTENTIAL

#### Parta Appraisal Program Economic Summary

(Carpinis and Icea Mare Proposed Drilling Program @ 100% Equity Interest)

Drilling & Devt	Well	Develo	opment	Target	Evidence	GIIP Note3		Rec Gas Not		Post Tax	Return on	Risc	Comments
Scenario	Cost Note	1 Cost	Note2	Zone	of Occurence	(BSCF)	(BSCF)	(BSCF)	Classification	NPV (10)	Investment	<b>Cover Ratio</b>	
							(single well)	(full field)		(unrisked)	Note4	Note5	
Carpinis Appraisal													
Carp A	\$ 2,200	\$	2,600	PsB 4.3	Logs & DHI (Noted	11	3.3		Prospective	\$ 7,036	2.5	4.2	Single Well Development
							30%		(Note 8)				(single shallow zone)
							(Note7)						
Carp B	\$ 2,500	) \$	2,600	PsB 4.3	Logs & DHI	31	7.3		Contingent	\$ 19,247	4.77	8.7	Single Well Development
				& Pa IV	Gas Flows & DH		24%		& Prospective				(Dual Zone)
Carp C	\$ 2,500	) \$	13,300	PsB 4.3	Logs & DHI	31		25.4	Contingent	\$ 64,344	5.34	26.7	Full Field Development
	. ,			& Pa IV	Gas Flows & DH			82%	& Prospective				5 wells (Dual Zone)
<u>lecea Mare Ap</u>													
IM A	\$ 2,400	) \$	2,600	Pa IV	Gas Flows & DF	8	3.2		Contingent	\$ 6,373	2.27	3.7	Single Well Development
							40%		(Note 9)				(single shallow zone)
IM B	\$ 3,200	) \$	2,600	Pa IV	Gas Flows & DF	18	8		Contingent	\$ 22,392	4.86	8.0	Single Well Development
				Pa VIII	Gas Flows & DH	II	44%		(Note 10)				(Dual Zone)

Notes

All Costs, Cashflows and NPV's are in US\$ 000

- 1) Includes G&G, drilling, completion and testing costs.
- 2) Includes local gas processing (dehydration), additional Production wells and export pipeline.
- 3) Assumes P(50) or most likely case.
- 4) "Return on Investment" is the Ratio of Discounted Cash Flow divided by Discounted Capital Costs.
- 5) "Risk Cover Ratio" is the Ratio of Post Tax NPV after appraisal drilling divided by the appraisal drilling costs.
- 6) DHI refers to direct hydrocarbon indicators identified on 3D seismic and callibrated against known gas occurences.
- 7) Recovery Factor recoverable gas divided by gas initially in place.
- 8) **Prospective Resources**: The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both a risk of discovery and a risk of development.
- 9) **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.
- 10) This is the first Reporting Date for Propsective and Contingent Resources relating to the Carpinis and Iecea Mare appraisal opportunities in the Parta Permit in Romania.





### **DISCUSSION OF RESULTS (1)**

### Single Well, Single Zone Development (100% Equity)

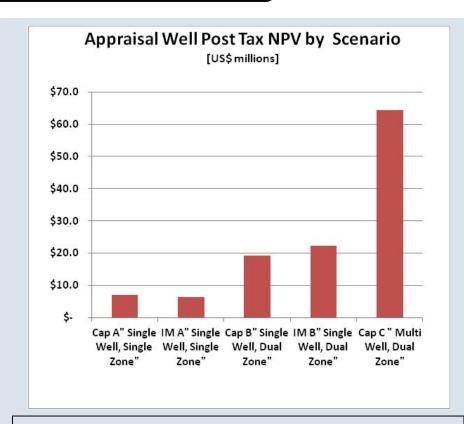
The low side resource, single well, single gas zone development cases are robust for both wells *(Carp A and IM A Scenarios)* with post tax NPV10s of US\$6.4 to US\$7million, strong Returns on Investment (2.3 to 2.5) and comfortable Risk Cover Ratios (3.7 to 4.2) compared to appraisal risk based on the assumptions and estimates summarised in this presentation.

### Single Well, Dual Zone Development (100% Equity)

The expected resource case, single well, dual gas zone development cases *(Carp B and IM B Scenarios)* offer significant post tax NPV10s (US\$19.2 to US\$22.4million), strong Returns on Investment (4.8 to 4.9) and high Risk Cover Ratios (8 to 8.7) compared to appraisal risk based on the assumptions and estimates summarised in this presentation.

### Multiple Well, Dual Zone Development (100% Equity)

The full field development resource case of Carpinis, with dual gas zone development and multiple wells *(Carp C Scenario)* indicates a very compelling post tax NPV10 of US\$64million, exceptional Return on Investment (5.3) and a very high Risk Cover Ratio compared to appraisal risk (26.7) based on the assumptions and estimates summarised in this presentation.



#### **ECONOMIC ASSUMPTIONS** (applied to all models)

- Gas price: US\$ 6.23/mmBtu
- Gas fields: dry gas
  - Reference price for royalty calculation is assumed higher than actually obtained quote, (US\$10.36/mmBtu EU market price)
- Tax depreciation model: 10 yrs. Linear depreciation except for wells, wells depreciation based on ratio product output vs. allocated reserves.
- Corporate Tax Rate: 16%
- Inflation: 2% p.a. applied to gas prices and operating costs
- ADX Equity: 100%

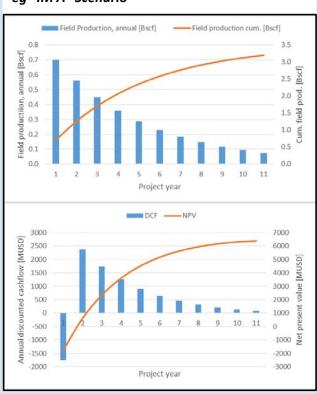




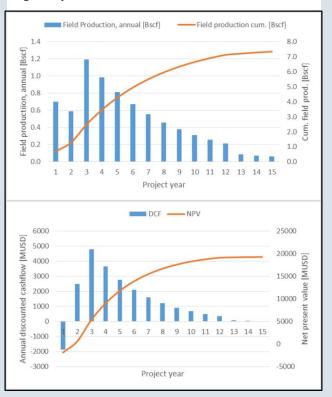
### **DISCUSSION OF RESULTS (2)**

### Field Production and Annual Discounted Cash Flow By Scenario

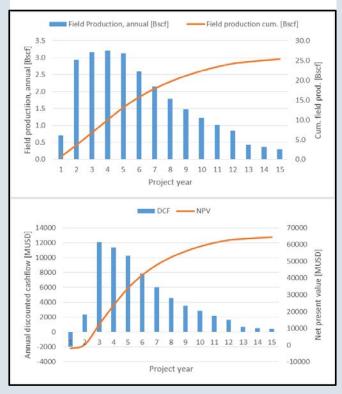
### Single Well, Single Zone Development eg "IM A" Scenario



### Single Well, Dual Zone Development eg "Carp B" Scenario



### Multiple Well, Dual Zone Development eg "Carp C" Scenario



Note that all cases have rapid payback periods within 2 to 3 years after drilling due to modest costs and short development schedule with off the shelf or existing infrastructure.





#### ECONOMIC SCENARIOS – lecea Mare

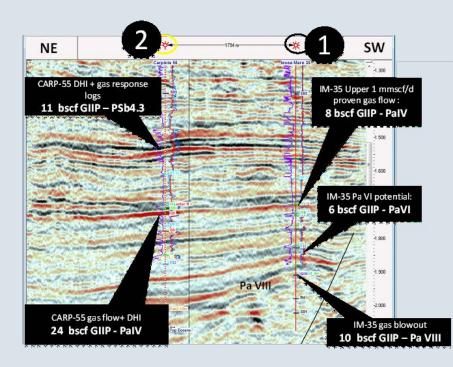
Scenario modelling has been undertaken to account for the various potential resource and production outcomes from the multiple reservoir horizons targeted.

### lecea Mare 35 Appraisal Well (redrill – shown as Well 1)

- 2 reservoir targets (of 3) which have previously flowed gas to surface have been economically evaluated:
- PalV sand at 1900m; estimated GIIP of 8 Bscf
- PaVIII sand at 2300m; estimated GIIP of 10 Bscf

Scenario "IM A": Single appraisal well drilled to PalV (approx. 1950m TD); completed as gas producer with 3.2 Bcf recovery and peak rate of 2 MMscf/d

Scenario "IM B": Single appraisal well drilled to PaVIII (approx. 2350m TD); completed as gas producer with initial production from lower PaVIII sand. After pressure equilibration of PaVIII with the PaIV, produce commingled from both zones with 8 Bcf recovery at a peak commingled rate of 3.4 MMscf/d







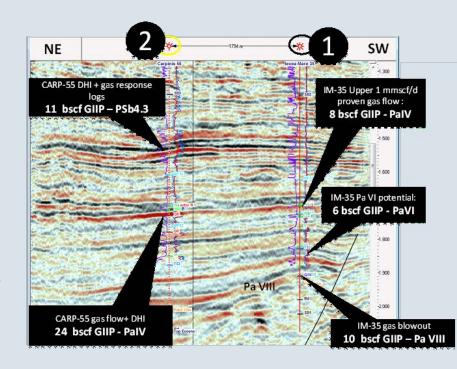
### **ECONOMIC SCENARIOS - Carpinis**

Scenario modelling has been undertaken to account for the various potential resource and production outcomes from the multiple reservoir horizons targeted.

### Carpinis 55 Appraisal Well (redrill – shown as Well 2)

### 2 reservoir targets:

- PsB4.3 sand at 1650m; estimated GIIP of 11 Bscf. Gas column interpreted from logs.
- PalV sand at 1950m; estimated GIIP of 24 Bscf. Previously flowed gas to surface.
- **Scenario "Carp A":** Single appraisal well drilled to PsB4.3 (approx. 1700m TD); completed as gas producer with 3.3 Bcf recovery and peak rate of 2 MMscf/d
- Scenario "Carp B": Single appraisal well drilled to PalV (approx. 2000m TD); completed as gas producer with initial production from lower PalV sand. After pressure equilibration of PalV with the PsB4.3, produce commingled from both zones with 7.3 Bcf recovery at a peak commingled rate of 3.4 MMscf/d
- **Scenario "Carp C":** Full field development following the "Carp B" scenario including 4 additional production wells, and a dehydration unit extension/upgrade. 25.4 Bcf recovery at a peak rate of 9.2 MMscf/d.



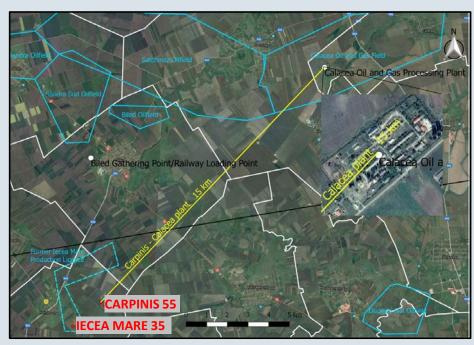




#### PREFERRED DEVELOPMENT CONCEPT

lecea Mare and Carpinis are situated in an active oil and gas province with gas infrastructure nearby. Processing produced gas through the nearby Calacea facility 15km from Carpinis is currently the preferred development option.

- The Calacea facility includes oil and gas processing as well as compressors and a sales gas export point to the national gas grid (Transgaz network)
- A buried pipeline can transport dehydrated gas from the potential production sites to the Calacea processing plant with mostly agricultural land and only minor public infrastructure to be crossed.
- The Calacea facility is owned by OMV Petrom and operated by Expert Petroleum.
- Third party gas is already being processed at Calacea in addition to OMV's own gas production.



The approximate distance from the drilling locations to the Calacea gas plant (shown above) is 15 km.

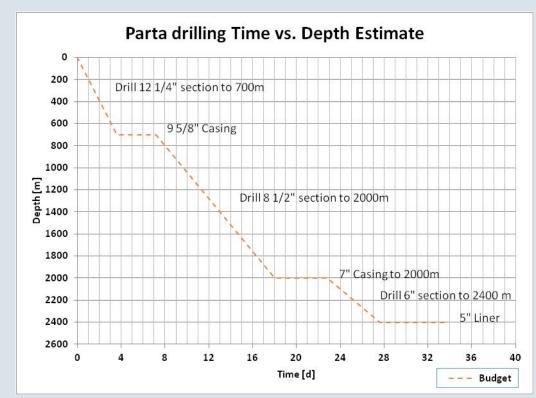




#### **DRILLING DESIGN & COST ESTIMATES**

The planned appraisal wells are essentially redrills of previous discovery wells and will be designed to be converted to gas producers contingent upon appraisal success. Time vs Depth and cost estimates are shown below.

- Drilling costs in the Pannonian basin are moderate to low compared to other European basins due to low labour costs and good rates of drilling penetration in the young, less consolidated regional sediments.
- For the initial program, cost efficient vertical wells are envisaged at both the lecea Mare and Carpinis locations where the proposed well design includes a 20" hammered conductor, a 9 5/8" surface casing and a 7" production casing.
- For the deepest lecea Mare target a 4 ½" or 5" liner might be considered which also provides a general contingency for possible well problems.



Casing	200,000
Casing Accessories and handling	35,000
Casing running services	50,000
Wellhead and related service	80,000
Bits	60,000
Rig&Rig Logistics	240,000
Mob/Demob	30,000
Drilling Fluids	180,000
Cementing	180,000
Directional drilling/MWD services	150,000
Logging	200,000
Mud logging	50,000
Surface works	150,000
Transports	20,000
Miscellaneous rental tools	30,000
Miscellaneous purchases	20,000
Rents and compensations	15,000
Supervision	70,000
Engineering	70,000
Hole drilled and cased total	1,830,000
Completion and Well Testing (2 targets)	500,000

Appraisal Drilling Costs Estimates [in US\$]

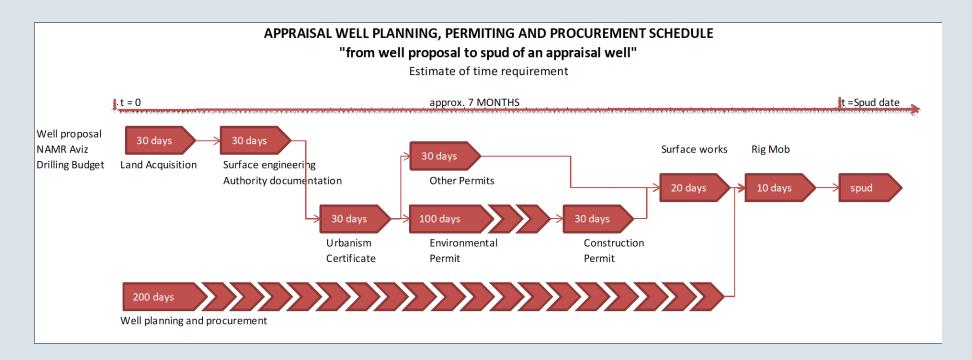
Note: Drilling estimates are based on data available on previous drilling programs by two different operators in the Pannonian basin in NW Romania





#### **SCHEDULE**

The timing of spudding a well is estimated at approximately 7 months after the submission of a well proposal to the Romanian designated authority.







**Ian Tchacos Executive Chairman** 

Paul Fink Chief Executive

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