## **ASX** Release



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# **EXTENSION OF KERKOUANE LICENSE OFFSHORE TUNISIA ENABLES ADX TO FOCUS ON LARGE DOUGGA GAS** DISCOVERY

### AUSTRALIA

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#### **HIGHLIGHTS**

The General Department of Energy for Tunisia has approved the extension of the Kerkouane offshore permit containing the Dougga gas condensate discovery.

ADX has reported previously that Dougga contains an independently assessed most www.adxenergy.com.au likely (2C) Contingent Resource of 517 BCF of Sales Gas and 91 mmbbls of liquids. ADX subsequently announced additional ADX estimates of Prospective Resources of 53 bcf sale gas and 25 mmbbls of liquids relating to up dip potential from the original Dougga gas condensate discovery well based on ADX revised 3D, resulting in a total recoverable resource of 220 mmboe (2C + Best-prospective) seismic interpretation and mapping. Refer Note 1.

Since the Arab spring, ADX has concentrated on the exploration potential of the permit in order to maximize the value of its 740 sqkm Geostreamer 3D seismic however ADX believes a Dougga commercialisation strategy is more desirable in the current investor climate for the following reasons:

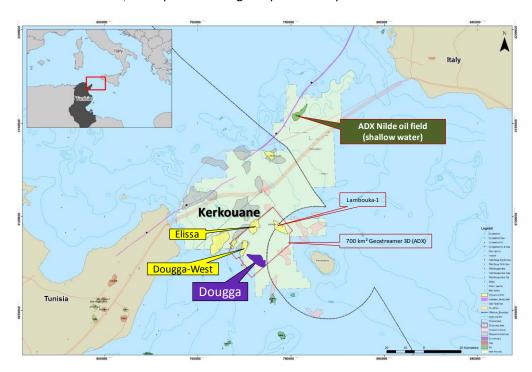
- Dougga is a large gas and liquids resource with large 3C upside potential (333 mmboe) located only 45 kms from shore and proximal to onshore gas infrastructure, strong market demand and favourable local gas pricing conditions.
- Feasibility studies based on a subsea tie back to a shore based liquids removal gas plant rather than the previous basis of design utilizing an offshore facility for condensate separation and offloading is expected to yield significant capital cost savings.
- Encouraging recent discussions that the further appraisal and development of Dougga would be viewed favourably by Tunisian authorities.
- A favourable contractor environment provides the opportunity to undertake feasibility studies in a cost effective and commercially aligned manner.
- Substantial tie in potential exists with nearby stranded gas condensate discoveries defined on 3D seismic.

Note 1. 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 estimated a 70% chance of success for a commercial developmen



ADX Energy Ltd (ASX:ADX) has been awarded a one year extension for the Kerkouane permit located offshore Tunisia in the Sicily channel. ADX holds the permit at a 100% equity. The main work program commitment in the permit is the drilling of one well. ADX believes the drilling of a Dougga appraisal well targeting up dip potential identified on high quality 3D seismic will satisfy the work commitment and potentially demonstrate the commerciality of the large Dougga gas and liquids discovery.

Since the Arab Spring, ADX has concentrated on the large oil exploration potential in the large approx. 3100 sqkm Kerkouane block rather than the commercialisation of the Dougga discovery. It has also extended its Sicily Channel portfolio into Italy and now holds about 5,000 sqkm of acreage as per the map below.



ADX has previously reported a prospective resource of 970 MMBOE (best case, mainly oil) for the top three exploration projects however ADX believes an appraisal strategy is more desirable than higher risk exploration. Importantly the commerciality of Dougga can be significantly enhanced though substantial cost savings associated with a revised basis of design utilising subsea wells tied back to an onshore liquids removal and gas processing facility.

ADX acquired 740 km<sup>2</sup> 3D seismic survey (700 km<sup>2</sup> full fold) over the Dougga area and near field exploration potential. The excellent data quality allowed ADX to confidently define the field's gross rock volume. It also showed that the Dougga-1 well which encountered a 500m gas column and flowed liquids rich gas was drilled



approximately 300 meters downdip from the crest of the structure. The ADX mapping of the field (excluding the up dip potential) was independently assessed TRACS/AGR resulting in the contingent resources estimated tabulated below.

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

ADX believes that by demonstrating a compelling commercial case for the development of Dougga funding can be secured for an appraisal well. A Dougga appraisal well is intended to prove the viability of a development through the demonstration of commercial flow rates and potentially add to the gas and liquids resources based on the substantial 3D seismic defined up dip potential.

The Board of ADX believes Dougga represents a large, valuable resource project with substantial long term potential that compliments the near term cash flow generation opportunity recently identified and currently being defined at the Nilde Oil Re-development Project located in Italian waters offshore Sicily.

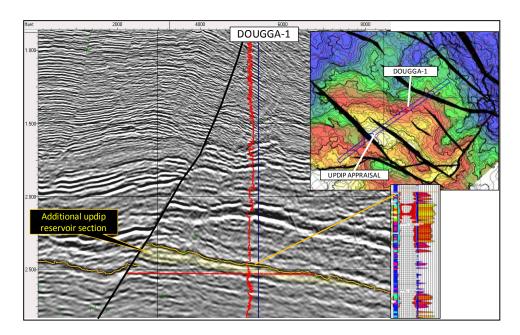
#### Dougga Gas Condensate Discovery Background

Shell discovered the Dougga gas field in 1981, a time when gas was of little value and offshore condensate stripping not a readily available technology. The discovery well shortly flowed condensate rich gas from a mechanically failed well test. The total hydrocarbon column is around 500 meters under a thick regional seal of over 550 meters.

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. Top reservoir (U. Cretaceous Abiod) was encountered at 3103 m total vertical depth subsea. The discovery well is in good proximity to landfall for onshore gas processing and is well positioned to access domestic and export infrastructure. There is a strong demand for gas in Tunisia at internationally attractive pricing. The liquid-rich nature of Dougga gas enhances the commercial potential of any development.

In 2010 ADX acquired a 740 km² Dual Sensor 3D seismic survey including the Dougga area. The excellent data quality allowed ADX to confidently define the field's GRV. It also showed that the Dougga-1 well was drilled approximately 300 meters downdip from the crest of the structure.





Map and 3D seismic cross section showing Dougga discovery and up dip potential.

CONTINGENT RESOURCES & DEFINITIONS Refer to ASX announcement by ADX dated 26/9/2012. ADX confirms that it is not aware of any new information or data that affects the information included in that market announcement 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 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.

#### **Exploration Potential Background**

The ADX operated acreage (approx. 5,000 km² including the Italian part of the Sicily Channel) is located between the oil and gas producing Gulf of Hammamet foreland area in Tunisia and the thrust belts of the Northern Tunisian Atlas zone. The structural setting is similar to and geologically on trend with the Southern Apennines oil and gas fields, most notably the giant Monte Alpi and Tempa Rossa oil fields. Although geographically closer, the oil and gas fields of the Tunisian Pelagian shelf and Gulf of Hammamet are not a structural analogy for the prospects and discoveries of the inverted foreland and foothill belt zones within the ADX acreage. This is an important distinction indicating much larger size structural traps can be expected.

Historically 2D seismic could not illuminate the significantly larger but also more complex structures of the inverted foreland and foothill belt area. This is a key reason that seismic acquisition almost ceased in the early 1980's. The recent acquisition of the 740 km² dual sensor 3D seismic has however proven that modern technology can



overcome this difficulty and significantly reduce exploration risk in an area with proven oil & gas generation. In addition to the potentially very large structures, the combination of several independent play types existing at different reservoir age intervals and multiple source rocks provides a suitable setting for a large discovery.

ADX has generated two 3D defined prospects and number of leads.

The *Dougga West exploration prospect* is located 9 kilometers North West of the Dougga condensate field and in Tunisian waters (350 meters water depth). The prospect has a 31 km² area, 4-way dip closure *with an ADX estimated 226 mmbbls best case prospective oil resource at Birsa reservoir level*. Dougga West is fault independent and on trend with the onshore oil fields of the Cap Bon. The top of the Birsa reservoir is expected at approximately 1,950 meters TVDSS. 3D seismic allows excellent correlation with the near by Dougga-1 well and shows clear evidence for good reservoir and seal presence.

The *Elissa exploration prospect* is situated 15 km NNW of the Dougga-1 well and in 110 to 350 meters of water depth. Also within the foothill belt and on trend with the Nilde and Belli oil fields. Elissa is set up by underlying thrusts and related folding, but has experienced additional structuration (inversion) from Middle Miocene times onwards. The result is a very large structural feature with a closure area of 47 km² for the Middle Miocene Birsa reservoir alone *with an ADX estimated 616 mmbbls best case prospective resource at Birsa reservoir level*. Structural closures also exists at Upper Cretaceous (Abiod), Jurassic and older levels, but these are offset to the Birsa level crest. The top of the Birsa reservoir is expected at approximately 1,700 meters total vertical depth subsea.

PROSPECTIVE RESOURCES & DEFINITIONS Refer to ASX announcement by ADX dated 6/9/2013. ADX confirms that it is not aware of any new information or data that affects the information included in that market announcement 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. The estimates have been prepared by the company in accordance with the definitions and guidelines set forth in the Petroleum Resources Management System, 2011 approved by the Society of Petroleum Engineer. Prospective Resource estimates are for recoverable volumes and unless otherwise stated this report quotes Best Estimates. The estimates are unrisked and have not been adjusted for both an associated chance of discovery and a chance of development.

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PERSON 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 Ltd. 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)

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