

#### **ASX ANNOUNCEMENT**

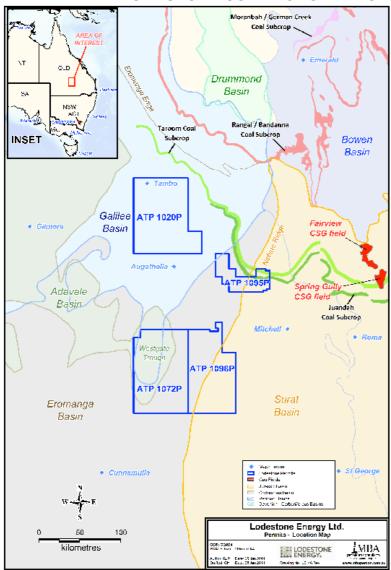
22 February 2011

# **EXCITING OIL AND GAS TARGETS IDENTIFIED IN ATPS**

LODESTONE ENERGY LIMITED (ASX: LOD) has received independent expert advice indicating it has a new series of both unconventional and conventional oil and gas targets in its expanded petroleum acreage held by the Company and its wholly-owned subsidiary Surat Gas Pty Ltd in the Surat/Eromanga/Galilee Basins in Queensland. As previously advised, Surat Gas is the preferred tenderer for ATP's 1072, 1095 and 1098 in the Queensland Government's 2010 Petroleum Land Release tender process.

MBA Petroleum Consultants (MBA) have completed an independent review of the prospectivity of Lodestone's new and existing petroleum acreage and have identified a number of exciting new conventional and unconventional targets.

#### LODESTONE/SURAT GAS PETROLEUM ACREAGE



(Includes preferred tenderer status, new ATPs yet to be formally aranted)

### ATP HIGHLIGHTS - KEY POINTS

- ✓ Four ATPs more than 20,000 sq km
- ✓ Source rocks, shales and coals
- ✓ Unconventional and conventional targets
- ✓ Permian (Bandanna) and Jurassic (Walloon) coals
- ✓ Shale gas plays
- ✓ Traversed by, or near to pipelines
- ✓ Conventional oil targets





Lodestone Chairman Roger Clarke said that the Company was excited about the results from MBA's review given the range of new petroleum targets identified and the value this has added to its petroleum acreage.

"These new findings serve the basis for the potential spin-off of Surat Gas, and/or strategic partnering discussions in the coming months," Mr Clarke said.

MBA's key findings regarding the petroleum prospectivity of the ATP portfolio held by the Company, are summarised below.

- New targets indentified: The review process has yielded a series of untested unconventional gas targets in prospective Permian and Jurassic coal seams, along with shale gas, and conventional oil and gas targets in graben structures within the permits.
- New Bandanna coals targets: Permian (Bandanna) coals provide some of the most prospective and appealing leads in the northern portion of the ATP 1020, where new CSG leads have been identified within the thicker Bandanna Formation Permian coals. The Late Permian Bandanna Formation is equivalent to the very successful (for CSG) Bandanna Formation of the adjacent Bowen Basin (eg. Fairview and Spring Gully CSG fields).

The diagrams below illustrate the seismic interpretation and location of some of the Bandanna Formation CSG targets.

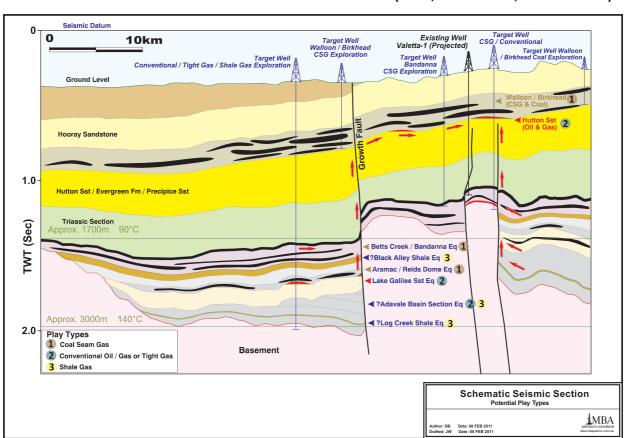
# 0 10km Y81A-1149 ATP 1020P SP 3100 3200 3600 3700 3900 4000 3300 3400 3500 3800 0.00 0.5 (Sec) Thickening of 2.5-**ATP 1020P** SEISMIC LINE Y81A-1149 kilometres MBA Line of Section with Depth to Top Permian

**NEW CSG TARGETS: BANDANNA COALS IN ATP 1020** 



- Jurassic Coal targets: MBA suggest the Jurassic Birkhead Formation may also host suitable coals. Historical oil wells were drilled on structural highs where seismic interpretation suggests Jurassic coal intersections are thinnest. Future exploration efforts will target the low side of the major faults and structures within the permits, where increased coal development, thermal maturity and gas contents are likely to be optimal.
- Shale gas targets: Graben fill sequences within the permits are also expected to be prospective for shale gas, particularly within Black Alley Shale and pre-Permian section.
- **Conventional petroleum targets**: Deep graben fill sections are expected to be the most productive units within the permits. The limited data available suggests that such grabens in Lodestone's ATPs may host mature source rocks, reservoirs, seals and structural trapping mechanisms.

# SCHEMATIC CROSSECTION: MULTIPLE PLAY TYPES (CSG, OIL & GAS, SHALE GAS)



(Interpretation by MBA based on seismic reprocessing of seismic line Y81-1104)

Gilmore Gas Field-type setting: MBA identified deep graben sequences which may host conventional and/or shale gas/oil plays similar to the successful Gilmore Gas Field west of ATP 1020. The Black Alley Shale identified is likely to be the most prospective target unit in this regard, and MBA has identified a number of specific encouraging leads for future drilling.



# **Additional Conventional Oil & Gas Targets**

MBA advises that sequences targeted for conventional hydrocarbons within the permits lie in the present-day hydrocarbon generation window and therefore have the potential to be productive for oil and gas. MBA suggests that numerous proven reservoirs are present within ATP 1020 and that they display excellent porosity and the presence of sealing units in core and cuttings descriptions in historical wells.

Results from historical wells and seismic data also suggest that the Permian and deeper (e.g. Devonian) graben-filling stratigraphy in ATP 1020 hosts coal seams and other source rocks that may currently be generating hydrocarbons.

In addition to the Permian section within the permits, MBA has advised that the Devonian to Carboniferous Drummond Basin equivalents dip in a manner that would allow hydrocarbon migration upwards into structures into the Eromanga Basin sequence providing oil and gas drilling targets (refer below for seismic interpretation).

# 2700 TWT (Sec) Potential Hydrocarbo Migration Pathway

Seismic Line - PWY87-96

#### CONVENTIONAL OIL AND GAS LEADS: ATP 1072

#### **Spin-Off and Partnering Activities**

The Company is reviewing its options for monetising its petroleum projects, including spin off, merger, farm out, and continued 100% ownership with active direct exploration of its petroleum portfolio. These alternatives include the separate ASX listing of its Surat Gas subsidiary.



The results of the review conducted by MBA are currently being included in a technical information package being prepared for potential strategic partners and/or for possible use in spin-off documentation.

Interested parties may register their interest by contacting the Company for further information.

Further information:

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#### **ABOUT LODESTONE ENERGY**

Lodestone Energy Limited is an ASX-listed company (ASX:LOD) that is investing in and developing early stage upstream energy projects from the exploration stage, where significant value can be added most rapidly. The Company plans to seek strategic partners for key projects for their full development to production stage.

The Company holds a significant portfolio of coal and petroleum exploration projects in Queensland.

With one of the largest coal exploration permit areas in Queensland, the Company is focused on coal projects, while actively seeking partners or spin-off opportunities for its petroleum subsidiary, Surat Gas Pty Ltd, and its minerals projects.