

# T5 OIL & GAS

## Onshore Senegal Farmout Executive Summary



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### Scale

- Onshore block of 27,000km<sup>2</sup> with 90% initial working interest
- Virtually un-explored but easily accessible terrain near Dakar / St. Louis
- Palaeozoic play with multiple trapping scenarios
- Two 1950's key wells establish Silurian shales as potential source rock
- Open seismic grid indicates large scale thrust anticlines
- Accessible drilling depths 1,800m-5,000m

### Senegal Louga Block: Licence Terms

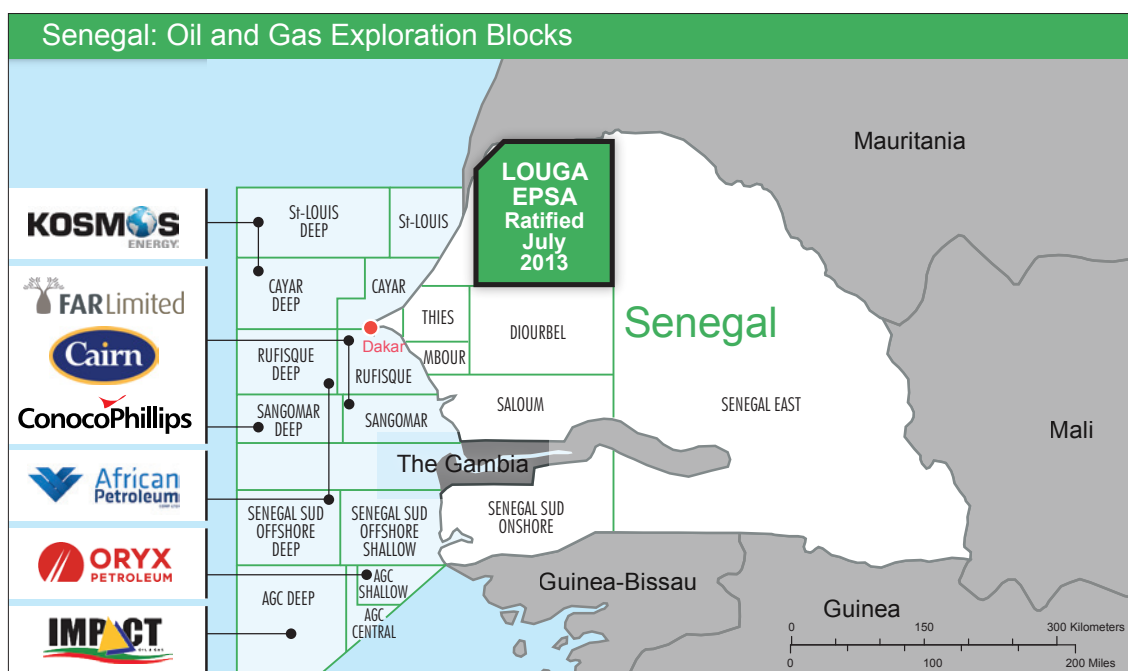
- Period: 7 year exploration licence. 3 year initial period to July 2016
- Work commitment: 1,100km of 2D seismic. 1 well to 3,000m
- Good cost recovery and production sharing splits
- Stability clause in contract, well defined petroleum code

### Exploration Strategy - Conventional/ Non-Conventional

- Major seismic programme and focussed basin modelling studies are key to defining prospectivity of emerging Palaeozoic play
- Flexible timing on farmout to quality industry partner
- Initial programme will assess the prospectivity of both the conventional play and non-conventional shale play

## Senegal – Recent Discoveries have Re-ignited Industry Attention on the Basin

- P50 950 and 330 mmbbls discoveries made by the Cairn led JV in October and November 2014
- Kosmos Energy made a significant gas discovery in the St. Louis deep block increasing their Pmean gross resource estimate for the Tortue West structure to 11 Tcf
- T5 management team long involvement in Senegal
- Political stability, pro-business and attractive contract terms
- Region has major energy deficit; ready market for oil or gas
- Area is highly accessible with good infrastructure, major port at Dakar



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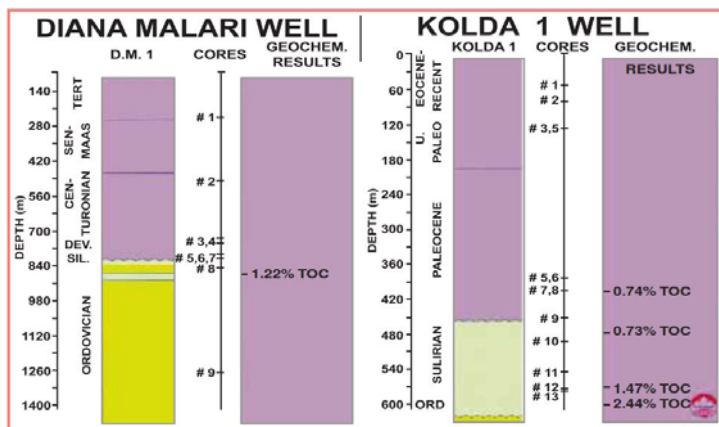
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### Louga Block Petroleum Geology

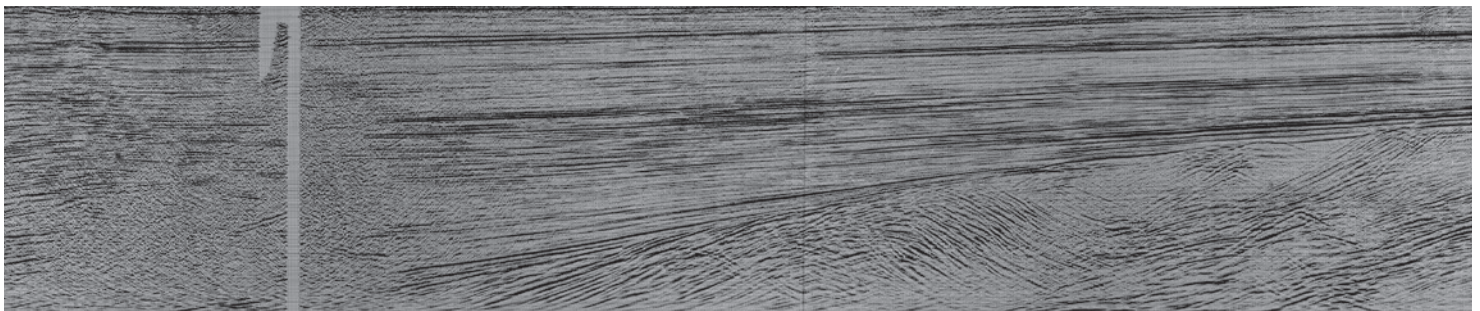
- Palaeozoic Basin defined by gravity & magnetics, key exploration wells and 1970's 2D seismic acquired by Shell
- Palaeozoic at outcrop in the Bove Basin of Guinea Bissau indicates significant thicknesses of sand / shale sequences. Shales have high organic content
- Dm-1 and Ko-1 wells in onshore Casamance area encountered good TOC silurian black shales and good quality fractured Ordovician and Devonian clastic reservoirs. Widespread regional seals
- Source-maturation studies by Petrosen / PCIAC indicate potential for oil generation
- Louga block traps are high amplitude, areally large thrust anticlines. Unconformity traps and pinchouts to base Mesozoic
- Traps may therefore have potential for high volumes of oil / gas at accessible drilling depths
- Analogues are classic North African fields ~ Palaeozoic reservoirs sourced by Silurian Tannezouft shale. Multi-million barrel / TCF+ prolific fields in Algeria, Libya and Tunisia



| LITHOSTRATIGRAPHIC COLUMN FOR SENEGAL BASIN |                  |                        |                                     |                                                      |
|---------------------------------------------|------------------|------------------------|-------------------------------------|------------------------------------------------------|
| STRATIGRAPHY                                |                  | LITHOSTRA-<br>TIGRAPHY | THICK-<br>NESS (m)                  | LITHOLOGY                                            |
| CENOZOIC                                    |                  |                        | 300 - 1000                          | LIMESTONE, SANDSTONE, SHALE                          |
| MESOZOIC                                    | CRETACEOUS       | MAASTRICHTIAN          | 200 - 1250                          | SANDSTONE, SHALE & SAND                              |
|                                             |                  | CAMPANIAN              | 100 - 450                           | SHALE & SAND                                         |
|                                             |                  | L. SENONIAN            | 150 - 1000                          | SANDSTONE                                            |
|                                             |                  | TURONIAN               | 50 - 150                            | SHALE                                                |
|                                             |                  | CENOMANIAN             | 150 - 950                           | LIMESTONE, SANDSTONE, SHALE & SAND                   |
|                                             |                  | ALBIAN                 | 200 - 1200                          | LIMESTONE, SANDSTONE, SAND & SHALE                   |
|                                             |                  | APTIAN                 | 150 - 1400                          | ANHYDRITE, LIMESTONE, SANDSTONE, SAND & SHALE        |
|                                             |                  | NEOCOMIAN              | 300 - 1200                          | LIMESTONE & SHALE                                    |
|                                             | JURASSIC         | MALM & DOGGER          | ? - 2000 ?                          | LIMESTONE & DOLOMITE                                 |
|                                             |                  | LIAS                   |                                     |                                                      |
| TRIASSIC                                    |                  | 200 - 1500             | SALT & ANHYDRITE                    |                                                      |
| PALEOZOIC                                   | PERMIAN          | 200 - 1500?            | SHALE & SANDSTONE                   |                                                      |
|                                             | DEVONIAN         | 350                    | SANDSTONE, SILTSTONE & SHALE        |                                                      |
|                                             | SILURIAN         | 350                    | SHALE & SAND                        |                                                      |
|                                             | ORDOVCIAN        | 300 - 1000             | CONGLOMERATE, SANDSTONE & QUARTZITE |                                                      |
|                                             | CAMBRO-ORDOVCIAN | 500 - 3000             | SANDY CONGLOMERATE                  |                                                      |
| PROTEROZOIC                                 |                  |                        | 2000 - 4000                         | CONGLOMERATE, SHALE, SANDSTONE, LIMESTONE & DOLOMITE |
| ARCHEAN                                     |                  |                        |                                     | BASEMENT                                             |

Lithological descriptions for the Senegal Basin. The Triassic-Liasic salts are missing from the onshore Casamance. The right hand side of the LithoLog is the most relevant to the onshore section, sands are more prevalent than shales. This figure is taken from [www.petrosen.sn](http://www.petrosen.sn).

### Regional Seismic Line Across Louga Block



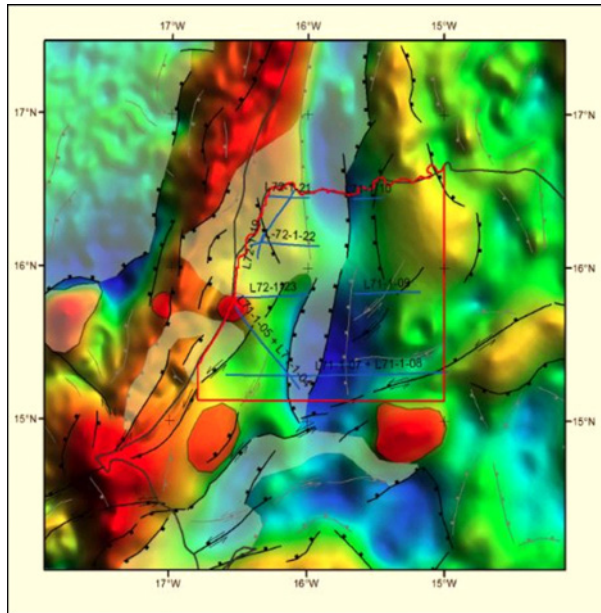
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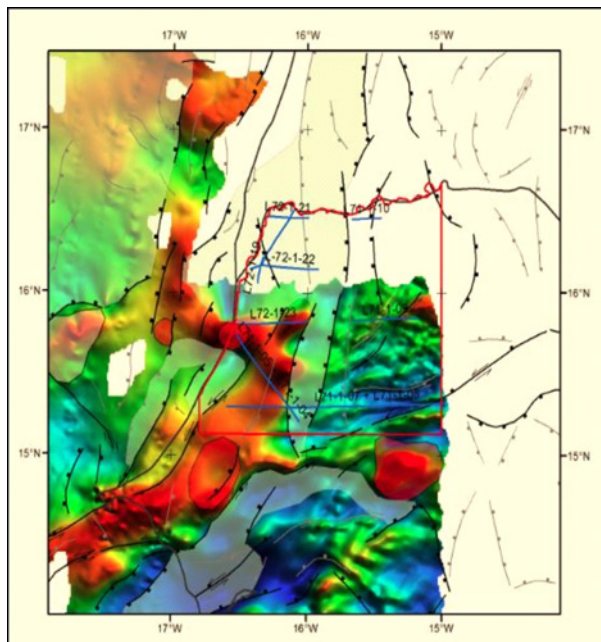
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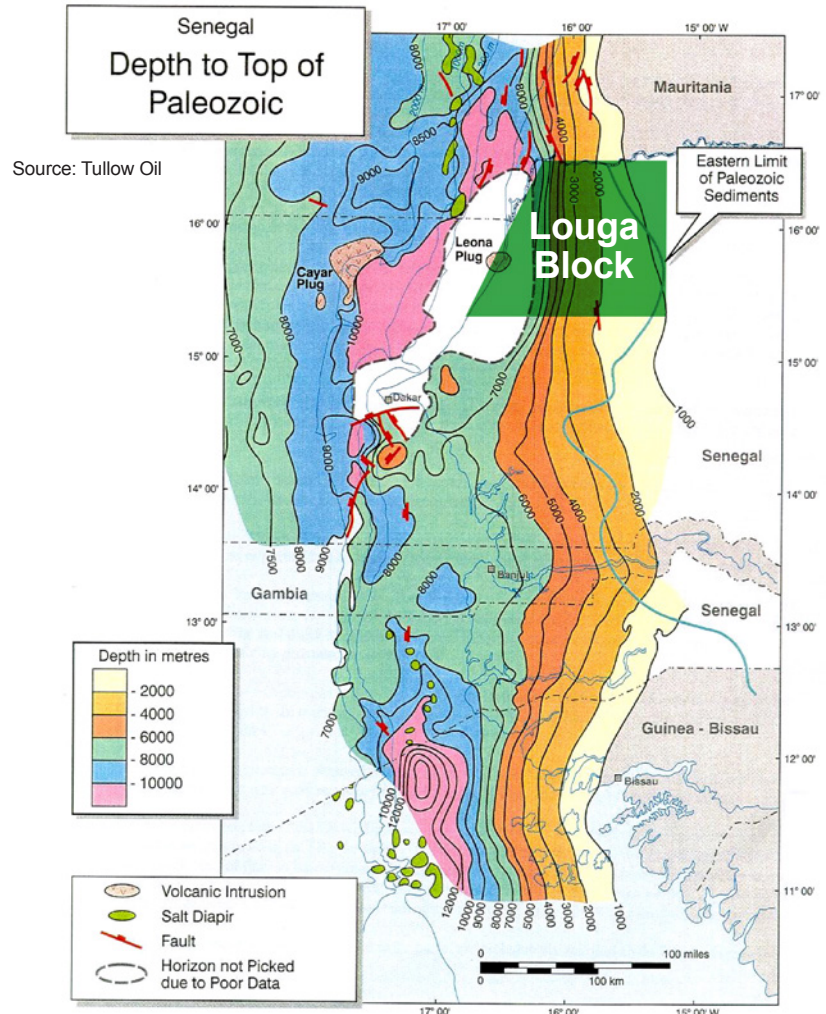
### Reprocessed Gravity & Magnetic Data - Reveal Complex Basin Structural Trends



Gravity Data (Getech)



Magnetic Data (Getech)



T5 recently commissioned a report from Getech incorporating all existing gravity and magnetic data covering the licence area, which further advanced the prospective thesis on the target areas. Following integration with seismic and remote sensed data the report included the following positive findings:

- Location and form of important sub-basins, identifying potential as local source areas
- Revealed complex fault patterns, including strong east-west component, important for trap formation
- Confirmation of the extent of volcanic areas such as Leona High
- The integration with Shell 2D seismic supports existence of onshore syn-rift sedimentation and a possible new play
- Confirmation of the North West and South Central areas of Louga as areas of significant interest, focusing the seismic programme target areas

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### Opportunity

T5 is undertaking a 2D seismic programme on its Louga licence in Senegal in H2 2016 and is now offering the opportunity to interested parties to become a partner in the licence in return for a material equity interest.

Enquiries should be made to:



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