



PRESS RELEASE
26 August 2008

Results of 3D Interpretation and Operational Update

Rockhopper Exploration plc (“Rockhopper” or the “Company”), the AIM traded (RKH) oil and gas explorer with licences in the North Falkland Basin, is pleased to provide an update on further technical work on the 3D seismic collected over licences PL032 and PL033 along with an operational update.

Highlights:

- Depth conversion of the 3D interpretation has been completed
- Directors’ best estimates of P50 unrisks reserves over licences PL032 and PL033 increased from 1.2 bn bbls recoverable to 1.8 billion barrels recoverable
- Modest drilling depths confirmed for oil plays
- AVO study shows strong indications of hydrocarbons inside the Sea Lion fan system within the 3D area
- Basin modelling studies suggest larger source kitchens with greater areas and more extensive oil windows than previously interpreted
- Independent log analysis of Shell well 14/5-1A confirms gas saturations over a 1,400 metre gross interval, new gas prospect mapped which this well tested in a flank position
- Initial review suggests this newly identified gas prospect could contain multi Tcf gas in place
- Updated economics
- Rockhopper intends to work closely with Desire and Arcadia to secure a suitable drilling unit for a minimum 6 well campaign in the North Falkland Basin

Depth conversion of 3D seismic interpretation

Depth conversion mapping has now been completed over licences PL032 and PL033 and the following table sets out the results:

| Play type | Prospect | P50 unrisks recoverable reserves (millions of barrels)* |
|------------------|-----------------|--|
|------------------|-----------------|--|

| | | |
|------------------------------------|----------|---------------------------------------|
| Pinchout | Sedge | 55 |
| | Tyssen | 14 |
| | Jason | 350 |
| Fans | Sea Lion | 230 |
| | Chatham | 65 |
| Downthrown Closures | Meredith | 23 |
| | Walker | 68 |
| | Louis | 82 |
| | Fox | 383 |
| | Stephens | 201 |
| Intra Basinal Structures | Johnson | <i>now reclassified as a gas play</i> |
| Central Basin Inversion Structures | Berkeley | 140 |
| | George | 157 |
| Total | | 1,768 |

* Directors' estimates

This represents an overall increase in directors' best estimates of P50 unrisks reserves on licences PL032 and PL033 from 1.2 billion barrels recoverable to 1.8 billion barrels recoverable and means that we now estimate that the Company has total P50 unrisks reserves of 4.3 billion barrels recoverable across our operated North Falkland Basin acreage. In addition, Rockhopper holds a 7.5% interest in licences PL003 and PL004, which are operated by Desire Petroleum plc.

AVO Studies

AVO studies indicate a clear response over the Sea Lion fan system in licence PL032 which is consistent with the presence of hydrocarbons. An AVO response is a type of Direct Hydrocarbon Indicator. The Sea Lion fan forms a prospect located in licence PL032 which the directors of Rockhopper estimate to represent P50 unrisks reserves of 230mm barrels recoverable.

A number of other prospects are being studied at present to establish whether additional AVO features are present.

Geochemical, maturation and basin modelling studies

During 1998 Shell drilled well 14/10-1 on what is now licence PL032. Live oil was recovered from that well. Rockhopper commissioned an independent review of existing data from previous wells and analysis on a sample bottle of oil recovered from well 14/10-1. These analyses were then combined with the 2D and 3D seismic interpretation.

The results are summarised below:

- The oil recovered in well 14/10-1 had a gravity of 27.1° API and was generated from a lacustrine source with no marine influence and very similar to lacustrine oils from other global basins. Certain fresh water biological markers have been reported for the first time from the North Falkland Basin. Otherwise, the analysis confirms and enhances the earlier work of Shell;
- A new conclusion is the evidence of significant uplift in the North Falkland Basin and a more accurate heat flow model that has enhanced the overall maturity profile of the source kitchens. Onset of oil generation is thought to have occurred at a shallower level than previously published; and
- The size and area of the Barremian lacustrine source kitchen is larger than previously thought. This effectively increases the potential quantity of oil that could have been generated and expelled into the Basin.

Evaluation of Shell well 14/5-1A

During 1998 Shell drilled well 14/5-1A in tranche B. This is now licence PL032 and PL033, operated 100% by Rockhopper. 14/5-1A encountered high gas levels during drilling. The Shell log interpretation identified two main gas bearing zones, Sand 3 and Sand 4, at approximately 3,200 and 4,200 metres, with a total net gas pay of 165 metres, porosity of 6% to 10% and water saturations ranging from 47% to 51%.

Unfortunately, due to prevailing economics, the well was not tested and no wireline gas or water samples were obtained. However, high levels of gas in the mud proved beyond doubt that the well was drilled in a hydrocarbon rich environment encountering significant gas shows. Rockhopper has carried out a new and independent log analysis on this well in addition to mapping the 2007 3D seismic.

The results of this work are summarised below:

- A large structural closure can be mapped on the 3D and 2D seismic in the northwest of licence PL032. This potential gas prospect has previously not been detailed. The structure extends beyond the current boundary of Rockhopper acreage;
- Well 14/5-1A tested the flank of this structure, 18 kilometres south of the northern licence boundary; and
- Work is continuing on the area but an initial review suggests that the prospect is capable of containing multi Tcf gas in place.

Although relatively poor reservoir was encountered in the well (due to the deep, basin-centre location), the directors of Rockhopper expect that reservoir quality will improve towards the shallower northern part of the block near the structural crest, and near the large bounding fault which could have generated additional sand sources.

Rockhopper does not believe it would be possible to re-enter this well and produce gas commercially owing to the poor quality of the reservoir encountered. However, if as is expected, the untested up-dip part of the newly mapped prospect contains better quality reservoir, then the prospect could contain sufficient volumes of gas for commerciality.

With energy prices now significantly higher than in 1998 and new technology, such as newly designed floating liquefied natural gas (“LNG”) systems, the potential for commercialising gas finds of more than 1 Tcf has changed considerably. Consequently, Rockhopper will now undertake additional technical work and consider the merit of drilling an exploration well up dip from well 14/5-1A, in addition to the oil exploration targets.

Prospect Ernest

Further AVO analysis on 2006 2D seismic over the Ernest prospect in licence PL024 has also revealed a number of amplitude anomalies that could be consistent with the presence of hydrocarbons. These studies are in addition to the existing CSEM data which is also consistent with the presence of hydrocarbons.

Economic Model

As energy prices and equipment costs have changed since the time of the Company's admission to AIM, Rockhopper has re-run its economic model to determine potential NPVs with new assumptions. The results are summarised below and show the potential NPV10 for a single discovery of 150 mmbbls recoverable:

| Recoverable Barrels | 150mmbbls | | | |
|----------------------------|------------------|-------|-------|-------|
| Oil Price (USD) | 80 | 100 | 120 | 140 |
| NPV10 (USD millions) | 2,025 | 2,850 | 3,674 | 4,499 |

Source: Barrett Petroleum Services

Update on drilling plans

The Board of Rockhopper notes the recent announcement of 14 August 2008 by Desire Petroleum plc (“Desire”) and welcomes Arcadia Petroleum Limited (“Arcadia”) to the North Falkland Basin. The Board also notes the stated intention of Desire and Arcadia to drill a total of 4 wells between them. To this programme of 4 wells Rockhopper intends to add a minimum of 2 wells bringing the total number to 6 wells.

Both drilling and water depths for oil prospects are relatively modest in the North Falkland Basin and most wells would be planned for 20 to 30 days.

Dr. Pierre Jungels, Executive Chairman of Rockhopper Exploration, said:

“After all the work we have completed over the last three years, we believe that the North Falkland Basin represents a world class exploration province which is now ready for drilling.

Our acreage contains proven source rocks mature for oil and gas, proven oil and gas, clear direct hydrocarbon indicators such as AVO and electromagnetic signatures within identified structures and a total estimated resource potential of over 4 billion barrels of oil and possibly multi Tcf gas.

At present and foreseeable oil and LNG prices, with current technologies and costs, the economics are very robust.

In a world where access to similar opportunities is difficult, expensive or not allowed by sovereign acreage holders, we believe that the North Falkland acreage of Rockhopper is unique.

We are continuing to meet with potential farm-in partners and are separately discussing rig availability with rig owners. When this process concludes we will be in a position to decide the best way forward for Rockhopper's shareholders."

NB: This statement has been approved by the Company's geological staff who include David Bodecott (Exploration Director), who is a Member of Petroleum Exploration Society of Great Britain (PESGB) and the American Association of Petroleum Geologists (AAPG) with over 30 years of experience in petroleum exploration and management, for the purpose of the Guidance Note for Mining, Oil and Gas Companies issued by the London Stock Exchange in respect of AIM companies, which outline standards of disclosure for mineral projects.

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Notes to editors

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The Rockhopper Group started trading in February 2004 to invest in and carry out an offshore oil exploration programme to the north of the Falkland Islands. The Group, floated on AIM in August 2005, has a 100 per cent. interest in four offshore production licences which cover approximately 3,800 sq. km. These licences have been granted by the Falkland Islands government.