

# **PETROLEUM EXPLORATION AND DEVELOPMENT IN IRELAND**

**Report Covering Period  
1 July, 2007 – 31 December, 2007**

Report by the Minister for Communications, Marine and Natural Resources for the six months ended 31 December 2007, in accordance with Section 57 of the *Petroleum and Other Minerals Development Act, 1960*, and the said Section 57 as applied by the *Continental Shelf Act, 1968*.

**PRN A8/0116**

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**Note:** Block numbers refer to blocks in the Williams Grid.

## INTRODUCTION

**This Report sets out:**

- the particulars of all Authorisations granted by the Minister for Communications, Marine and Natural Resources that were current during the reporting period;
- the amount of money relating to petroleum exploration and development collected by the Minister during the reporting period, and
- other information relating to petroleum exploration and development in Ireland.

**PART ONE**  
**PETROLEUM AUTHORISATIONS**

**PETROLEUM LEASES**

A **Petroleum Lease** vests in the Lessee the exclusive right to produce petroleum from the leased areas.

| <b>Lease</b>  | <b>Commencement Date</b> | <b>Block Nos</b>                        | <b>Area (km<sup>2</sup>)</b> | <b>Participants (* = Operator)</b>  | <b>% Interest</b>     |
|---|--------------------------|---|------------------------------|---|-----------------------|
| <b><u>Offshore Petroleum Lease No. 1: Kinsale/Ballycotton</u></b> | 7 May, 1970              | 48/20, 48/25, 49/16 & 49/21             | 1003.03                      | *Marathon Oil Ireland Limited.  | 100%                  |
| <b><u>Corrib Petroleum Lease</u></b>                              | 15 November, 2001        | 18/20(p) & 18/25(p)                     | 29.28                        | *Shell E&P Ireland Limited<br>Statoil Exploration (Ireland) Ltd.<br>Marathon International<br>Petroleum Hibernia Ltd. | 45%<br>36.5%<br>18.5% |
| <b><u>Seven Heads Petroleum Lease</u></b>                         | 13 November, 2002        | 48/23(p), 48/24(p), 48/29(p) & 48/30(p) | 168.5                        | *Marathon Seven Heads Limited<br>Island Oil and Gas Plc.<br>Sunningdale Oils (Ireland) Ltd.                           | 86.5%<br>12.5%<br>1%  |

P – part block

A total acreage of 123.21 km<sup>2</sup> was relinquished in the Seven Heads Petroleum Lease in June 2007. The area relinquished was in blocks 48/22, 48/23, 48/27 & 48/28.

## OFFSHORE PETROLEUM EXPLORATION LICENCES

A **Petroleum Exploration Licence** vests in the Holder the exclusive right of carrying out exploration for petroleum in a specific licensed offshore area.

**Twenty One** offshore Petroleum Exploration Licences were current during the reporting period. **Sixteen** of these Licences were subject to the 1992 '*Licensing Terms for Offshore Oil and Gas Exploration and Development*'. **Five** Licences which were awarded in 2007 were subject to the 2007 '*Licensing Terms for Offshore Oil and Gas Exploration, Production and Development*'.

A **Standard Exploration Licence** is issued for a period of six years in respect of an area with water depths of up to 200 metres and is subject to an annual rental fee of **€167** per km<sup>2</sup>. If acreage is surrendered at the end of the fourth year, the annual rental fee rises to **€335** per km<sup>2</sup>.

A **Deepwater Exploration Licence** is issued for a period of twelve years in respect of areas in which the water depth exceeds 200 metres and is subject to an annual rental fee of **€83** per km<sup>2</sup>. If acreage is surrendered at the end of the fourth year, the annual rental fee rises to **€167** per km<sup>2</sup>. At the end of the seventh year, this figure rises again to **€335** per km<sup>2</sup>.

A **Frontier Exploration Licence** may be issued in respect of an area with special difficulties related to physical environment, geology or technology – where such an area is specified and announced by the Minister for Communications, Marine and Natural Resources as a 'Frontier Area'. This Licence type is valid for a period of not less than fifteen years and is comprised of a maximum of four phases. Annual rental during the first phase is **€27** per km<sup>2</sup> and **€55** per km<sup>2</sup> during the second and subsequent phases. If acreage is surrendered at the end of the second or third phase, the annual rental fee rises to **€111** per km<sup>2</sup>.

The 1992 Terms also provide for an application fee of **€8,354** in each case.

| Licence                 | Licence Period                     | Block Nos.  | Area (km <sup>2</sup> ) | Participants (* = Operator)   | % Interest                |
|-------------------------|------------------------------------|---|-------------------------|---|---------------------------|
| <b>2/94</b><br>Frontier | 15 March, 1994 –<br>14 March, 2010 | 12/2(p), 12/3(p),<br>12/7(p), &<br>12/8(p)  | 465.6                   | * Shell E&P Ireland Ltd.<br>Eni Ireland BV<br>OMV (Ireland) Exploration<br>GMBH                                     | 50%<br>40%<br>10%         |
| <b>3/94</b><br>Frontier | 15 March, 1994 –<br>14 March, 2010 | 18/14(p),<br>18/15(p),<br>18/19(p) &<br>18/20(p)  | 467.2                   | * Shell E&P Ireland Ltd.<br>Statoil Exploration (Ireland) Ltd.<br>Marathon International<br>Petroleum Hibernia Ltd. | 45%<br>36.5%<br>18.5%     |
| <b>5/94</b><br>Frontier | 15 March, 1994 –<br>14 March, 2010 | 19/2(p), 19/3(p),<br>19/4(p), 19/7(p),<br>19/8, 19/11(p),<br>19/12(p),<br>19/16(p),<br>19/17(p) &<br>19/21(p) | 1316.04                 | * Statoil Exploration (Ireland) Ltd.<br>Enterprise Energy Ireland<br>Offshore Inc.<br>Shell E&P Ireland Ltd.        | 58.7%<br>23.65%<br>23.65% |
| <b>7/97</b><br>Frontier | 4 June, 1997 –<br>3 June, 2013     | 11/20, 11/23 (p),<br>11/24, 11/25,<br>11/28 (p), 12/11<br>(p), 12/12 (p) &<br>12/16 (p)                       | 1327.66                 | * Eni Ireland BV  | 100%                      |

P – part block

## OFFSHORE PETROLEUM EXPLORATION LICENCES (cont'd)

| Licence                        | Licence Period                           | Block Nos.                                      | Area (km <sup>2</sup> ) | Participants (* = Operator)  | % Interest               |
|--------------------------------|--|---|-------------------------|--|--------------------------|
| <b>1/99</b><br>Frontier        | 15 March, 1999 –<br>14 March, 2014       | 43/19, 43/20,<br>43/24, 43/25,<br>43/28 & 43/29 | 1553.62                 | * Eni Ireland BV   | 100%                     |
| <b>1/04</b><br>Frontier        | 15 April, 2004 –<br>14 April, 2019       | 26/27(p), 26/28,<br>35/2(p) & 35/3(p)           | 622.06                  | * Island Assets Porcupine<br>Limited<br>X-IPEC Limited<br>Valhalla Oil and Gas Limited   | 40%<br>35%<br>25%        |
| <b>2/04</b><br>Frontier        | 15 November, 2004 –<br>14 November, 2019 | 35/8 & 35/9                                     | 500.95                  | * Providence Resources Plc<br>Sosina Exploration Limited   | 80%<br>20%               |
| <b>3/04</b><br>Frontier        | 15 November, 2004 –<br>14 November, 2020 | 44/18, 44/23,<br>44/24, 44/29, &<br>44/30       | 1295.27                 | *Providence Resources Plc<br>ExxonMobil Exploration and<br>Production Ireland (Offshore)<br>Limited.<br>Sosina Exploration Limited | 16%<br>80%<br>4%         |
| <b>2/05</b><br>Frontier        | 1 July, 2005 –<br>30 June, 2021          | 11/10, 11/15 &<br>12/1, 12/6                    | 932.18                  | * Shell E&P Ireland Limited<br>Eni Ireland BV.<br>OMV (IRELAND) Exploration<br>GmbH  | 50%<br>40%<br>10%        |
| <b>3/05</b><br>Frontier        | 1 July, 2005 –<br>30 June, 2021          | 18/10, 19/1 &<br>19/6                           | 715.58                  | * Island Rockall JV Limited  | 100%                     |
| <b>4/05</b><br>Standard        | 1 November, 2005 –<br>31 October, 2011   | 49/17 (p), 49/22<br>(p) & 49/23 (p).            | 258.49                  | *Island Expro Limited  | 100%                     |
| <b>5/05</b><br>Standard        | 1 November, 2005 –<br>31 October, 2011   | 48/26 (p), 48/27<br>(p), 57/1 (p), 57/2         | 664.2                   | *Island Expro Limited<br>Celtex Exploration Services<br>Limited<br>Carob Limited<br>Bexley Investments Limited                     | 55%<br>15%<br>15%<br>15% |
| <b>1/06</b><br><b>Frontier</b> | 1 December, 2006 –<br>30 November, 2021  | 27/4, 27/5 (p)&<br>27/9                         | 610.55                  | * Serica Energy (UK) Limited   | 100%                     |
| <b>2/06</b><br><b>Frontier</b> | 1 December, 2006 –<br>30 November, 2021  | 19/9, 19/13 &<br>19/17 (p)                      | 653.53                  | *Statoil Exploration (Ireland) Ltd.<br>Shell E&P Ireland Ltd.  | 58.7%<br>41.3%           |

P – part block

## OFFSHORE PETROLEUM EXPLORATION LICENCES (cont'd)

| Licence                               | Licence Period                       | Block Nos.  | Area (km <sup>2</sup> ) | Participants (* = Operator)  | % Interest        |
|---------------------------------------|--------------------------------------|---|-------------------------|--|-------------------|
| <b><u>3/06</u></b><br><b>Frontier</b> | 1 December, 2006 – 30 November, 2021 | 13/4 (p), 13/5 (p), 13/9 (p), 13/13 (p), 13/14 (p) & 14/1 (p),                                  | 699.29                  | * Island Oil and Gas plc<br>Lundin Exploration BV<br>Endeavour Energy UK Limited               | 40%<br>40%<br>20% |
| <b><u>4/06</u></b><br>Frontier        | 1 December, 2006 – 30 November, 2021 | 27/17 (p), 27/18, 27/22 (p) & 27/23   | 741.48                  | * Island Oil and Gas plc<br>Lundin Exploration BV  | 50%<br>50%        |
| <b><u>1/07</u></b><br>Standard        | 1 February, 2007 – 31 January, 2013  | 41/25 (p), 42/21 (p), 41/30 (p), 42/26 (p) & 51/1 (p)   | 558.75                  | *Providence Resources Plc<br>Midmar Energy Limited   | 95%<br>5%         |
| <b><u>2/07</u></b><br>Standard        | 1 February, 2007 – 31 January, 2013  | 49/8 (p), 49/9 (p), 49/13 (p), 49/14 (p), 49/18 (p), 49/19 (p), 50/6 (p), 50/11 (p) & 50/12 (p) | 368.65                  | *Providence Resources Plc<br>Challenger Minerals (Celtic Sea) Limited<br>Midmar Energy Limited | 75%<br>20%<br>5%  |
| <b><u>3/07</u></b><br>Standard        | 1 April, 2007 – 31 March, 2013       | 48/29 (p), 48/30 (p) & 49/26 (p)  | 298.86                  | *Providence Resources Plc<br>Challenger Minerals (Celtic Sea) Limited<br>Midmar Energy Limited | 75%<br>20%<br>5%  |
| <b><u>4/07</u></b><br>Standard        | 1 August, 2007 – 31 July, 2013       | 49/11 (p), 49/12 (p), 49/17 (p) & 49/18 (p)   | 494.07                  | *Lansdowne Celtic Sea Limited  | 100%              |
| <b><u>5/07</u></b><br>Standard        | 1 August, 2007 – 31 July, 2013       | 48/17 (p), 48/18 (p), 48/19 (p), 48/22 (p) & 48/24 (p)  | 365.81                  | *Lansdowne Celtic Sea Limited<br>Island Expro Limited<br>Sunningdale Oils (Ireland) Limited    | 77%<br>22%<br>1%  |

P – part block

## RESERVED AREA LICENCES

A lessee may at any time apply for a **Reserved Area Licence** in respect of a specified area adjacent to or surrounding the leased area and which is not the subject of an authorisation other than a Petroleum Prospecting Licence granted to a person other than the lessee.

| Licence                         | Licence Period                         | Block Nos.             | Area (km <sup>2</sup> ) | Participants (* = Operator)   | % Interest            |
|---------------------------------|--|------------------------|-------------------------|---|-----------------------|
| <b><u>1/05</u></b><br>Deepwater | 1 January, 2005 –<br>31 December, 2008 | 18/25(p) &<br>18/30(p) | 130.21                  | * Shell E&P Ireland Ltd.<br>Statoil Exploration (Ireland) Ltd.<br>Marathon International<br>Petroleum Hibernia Ltd. | 45%<br>36.5%<br>18.5% |

P – part block

## ONSHORE PETROLEUM EXPLORATION LICENCES

| Licence              | Licence Period                         | Location   | Area (km <sup>2</sup> ) | Participants (* = Operator) | % Interest |
|----------------------|--|--|-------------------------|-----------------------------|------------|
| <b><u>ON1/05</u></b> | 1 November, 2005 –<br>31 October, 2011 | Northwest<br>Carboniferous<br>Basin, over parts<br>of Counties<br>Cavan and<br>Leitrim                               | 209.51                  | *Finavera Ltd.              | 100%       |
| <b><u>ON2/05</u></b> | 1 November, 2005 –<br>31 October, 2011 | Northwest<br>Carboniferous<br>Basin, over parts<br>of Counties<br>Sligo, Leitrim,<br>Cavan,<br>Roscommon and<br>Mayo | 1069.47                 | *Finavera Ltd.              | 100%       |

## LICENSING OPTIONS

A **Licensing Option** gives the Holder the first right to an Exploration Licence over all or part of the area covered by the Option.

| Option No          | Option Period                       | Block Nos.   | Area (km <sup>2</sup> ) | Participants (* = Operator)   | % Interest               |
|--------------------|-------------------------------------|--|-------------------------|---|--------------------------|
| <b><u>05/1</u></b> | 1 January, 2005 – 31 December, 2007 | 49/13(p)   | 160.74                  | * Milesian Oil & Gas Ltd  | 100%                     |
| <b><u>05/2</u></b> | 1 January, 2005 – 31 December, 2007 | 47/25 (p), 48/21(p) & 48/22(p)   | 435.93                  | * Milesian Oil & Gas Ltd  | 100%                     |
| <b><u>05/3</u></b> | 1 April, 2005 – 31 March, 2008      | 41/29(p), 41/30(p), 50/3(p), 50/4, 50/5 & 51/1(p)  | 841.56                  | * Providence Resources Plc.   | 100%                     |
| <b><u>06/1</u></b> | 1 September 2006 – 31 August 2009   | 61/14, 61/15, 61/17, 61/18, 61/19, 61/20, 61/22, 61/23, 61/24, 61/25, 62/11, 62/16, 62/17, 62/21 & 62/22 | 4029.53                 | *Providence Resources Plc<br>ExxonMobil Exploration and Production Ireland (Offshore) Limited.<br>Sosina Exploration Limited                              | 16%<br>80%<br>4%         |
| <b><u>07/1</u></b> | 1 September 2006 – 31 August 2009   | 49/15 (p), 50/7 (p), 50/8 (p), 50/11 (p), 50/12 (p) & 50/13 (p).   | 374.51                  | *Providence Resources Plc<br>Challenger Minerals (Celtic Sea) Limited,<br>DYAS B.V.,<br>Forest Gate Resources Inc<br>Atlantic Petroleum (Ireland) Limited | 45%<br>15%<br>15%<br>10% |
| <b><u>07/2</u></b> | 5 November 2007 – 4 November 2009   | 56/10, 57/3, 57/6, 57/7, 57/8, 57/1 (p) & 57/9 (p)   | 1565.09                 | *Valhalla Oil & Gas Limited   | 100%                     |

P – part block

Licensing Options 05/1 and 05/2 expired on the 31 December 2007.

## PETROLEUM PROSPECTING LICENCES

A Petroleum Prospecting Licence is non-exclusive and confers on the Licensee the right to search for petroleum in any area where an Exploration Licence, Reserved Area Licence or Petroleum Lease is not in force.

| Licence No. | No. of Years | Licence from     | Licensee                                |
|-------------|--------------|------------------|---|
| <u>4/04</u> | 3            | 20 October, 2004 | Black Rock Oil & Gas PLC                |
| <u>1/05</u> | 3            | 1 January, 2005  | Milesian Oil & Gas Limited              |
| <u>2/05</u> | 3            | 14 June, 2005    | Trans-International Oil Exploration Ltd |
| <u>3/05</u> | 3            | 1 October, 2005  | TGS-NOPEC Geophysical Company (UK)      |
| <u>1/06</u> | 3            | 8 March, 2006    | Lansdowne Celtic Sea Limited            |
| <u>2/06</u> | 3            | 22 May, 2006     | Shell E&P Ireland Limited               |
| <u>3/06</u> | 3            | 12 June, 2006    | Fugro Data Services AG                  |
| <u>1/07</u> | 3            | 23 April, 2007   | Providence Resources Plc                |
| <u>2/07</u> | 3            | 17 May, 2007     | GX Technology Corporation               |
| <u>3/07</u> | 3            | 5 November, 2007 | Valhalla Oil & Gas Limited              |

**Petroleum Prospecting Licence 4/04 (Black Rock Oil & Gas PLC) expired on 19 October 2007.**

**PART TWO**  
**MONEYS RECEIVED**

During the six months ended 31 December, 2007, the total amount of all moneys collected by the Minister either by way of rentals under or by virtue of any lease, licence or permit, sale of data and application fees was **€1,556,775.60**. Details are as follows:

| <b>Rentals</b> | <b>Application fees</b> | <b>Assignments of interest</b> | <b>Sale of data</b> | <b>Total</b>  |
|----------------|-------------------------|--------------------------------|---------------------|---------------|
| €1,326,875.25  | €43,150.00              | €29,232.00                     | €157,518.35         | €1,556,775.60 |

**PART THREE**  
**OTHER INFORMATION**

**WELLS drilled during the 6 months ended 31 December, 2007**

| Well No. (Block)          | Well Class              | Area                       | Operator                 | Rig Name  | TD (MD) | Water Depth | Spud Date/<br>Re-entry date | Rig Release Date | Well Result       | Well Status |
|---------------------------|-------------------------|----------------------------|--------------------------|-----------|---------|-------------|-----------------------------|------------------|-------------------|-------------|
| <b>18/20-6<br/>(P101)</b> | Development             | Slyne Basin (Corrib Field) | Shell E&P Ireland Ltd    | Sedco 711 | 3847m   | 349m        | 27 March 2007               | 25 October 2007  | Gas well          | Suspended   |
| <b>18/20-5<br/>(P6)</b>   | Development             | Slyne Basin (Corrib Field) | Shell E&P Ireland Ltd    | Sedco 711 | 4222m   | 348m        | 31 March 2007               | 22 October 2007  | Gas well          | Suspended   |
| <b>49/23-2,2z</b>         | Appraisal               | North Celtic Sea Basin     | Island Oil & Gas Plc     | Petrolia  | 5140ft  | 289ft       | 16 May 2007                 | 10 July 2007     | Gas well          | Suspended   |
| <b>57/2-3</b>             | Exploration / Appraisal | North Celtic Sea Basin     | Island Oil & Gas Plc     | Petrolia  | 2989ft  | 358ft       | 14 July 2007                | 12 August 2007   | Gas well          | Suspended   |
| <b>50/11-3</b>            | Exploration / Appraisal | North Celtic Sea Basin     | Providence Resources Plc | Petrolia  | 4974ft  | 239ft       | 17 August 2007              | 16 October 2007  | Oil and Gas Shows | Suspended   |

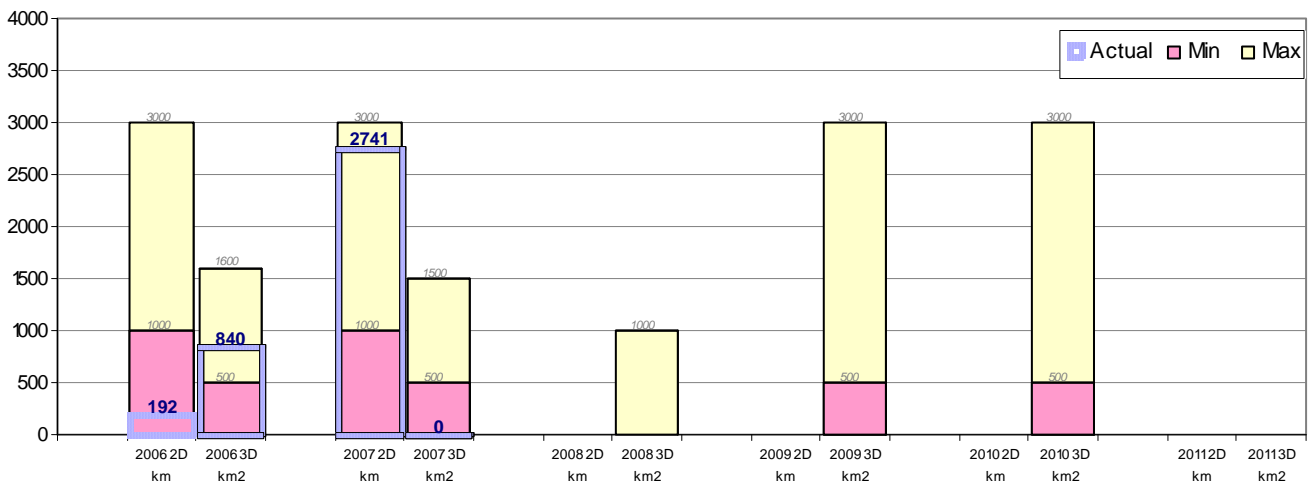
**SEISMIC SURVEYS carried out or commenced in the 6 months ended 31 December, 2007**

| Operator      | Authorisation                      | Contractor | Vessel           | 2D Line Km | 3D Km <sup>2</sup> | Survey Area         |
|---------------|------------------------------------|------------|------------------|------------|--------------------|---------------------|
| TGS Nopec     | Petroleum Prospecting Licence 3/05 | TGS Nopec  | Akademik Lazerev | 1857.5     | 0                  | East Rockall Margin |
| GX Technology | Petroleum Prospecting Licence 2/07 | SOPGC      | M/V Discoverer   | 3121       | 0                  | NE Atlantic         |

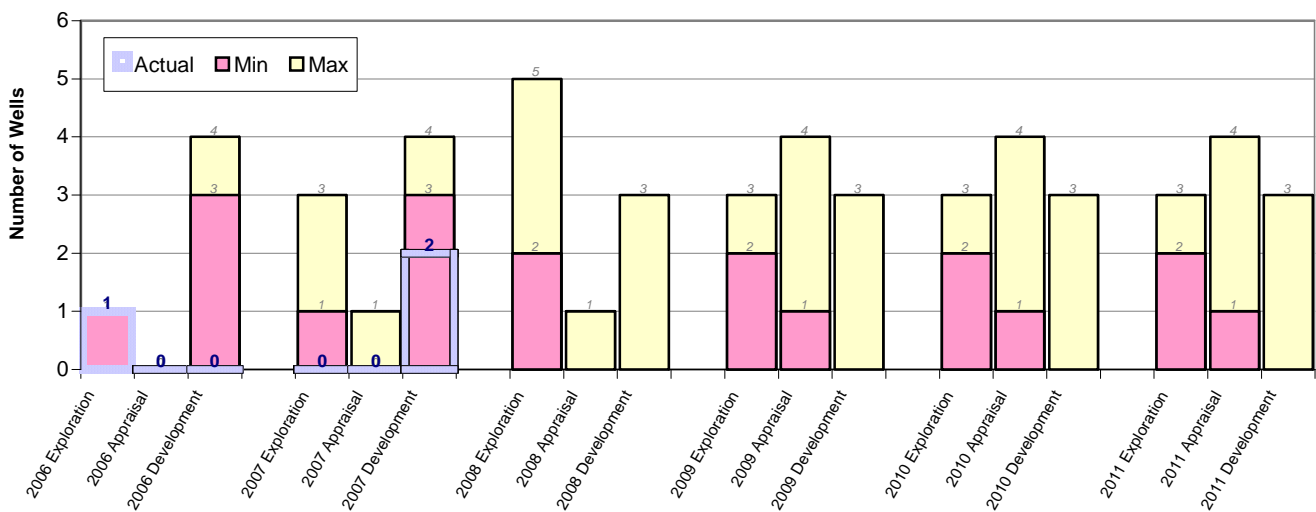
**Exploration activities forecast for the Slyne/Erris/Donegal area from new 2006 licences and pre-existing licences - 2006 to 2011 (from combined tables 4.1 and 4.2 of IOSEA1 Environmental Report)**

| Type of activity                        | 2006 |      | 2007 |      | 2008 |      | 2009 |      | 2010 |      | 2011 |     |
|---|------|------|------|------|------|------|------|------|------|------|------|-----|
|   | Min  | Max  | Min  | Max  | Min  | Max  | Min  | Max  | Min  | Max  | Min  | Max |
| 2D seismic survey (km)                  | 1000 | 3000 | 1000 | 3000 | -    | -    | -    | -    | -    | -    | -    | -   |
| 3D seismic survey (km <sup>2</sup> )    | 500  | 1600 | 500  | 1500 | -    | 1000 | 500  | 3000 | 500  | 3000 | -    | -   |
| Exploration drilling (numbers of wells) | 1    | 1    | 1    | 3    | 2    | 5    | 2    | 3    | 2    | 3    | 2    | 3   |
| Appraisal drilling (numbers of wells)   | -    | -    | -    | 1    | -    | 1    | 1    | 4    | 1    | 4    | 1    | 4   |
| Development drilling (numbers of wells) | 3    | 4    | 3    | 4    | -    | 3    | -    | 3    | -    | 3    | -    | 3   |

**Seismic Surveys in the Slyne/Erris/Donegal Area**



**Drilling in the Slyne/Erris/Donegal Area**



**Actual versus forecast levels of exploration activity – IOSEA1 area**