
Oil and Gas Reporting and Disclosure In Selected Countries

Focus On Cost / Field Detail Reporting

Summary

- **In the vast majority of regimes around the world companies are required to disclose detailed data**
 - Prospective (plans) and actual
 - Typically down to well / field level detail
- **Data is provided to both resource-management and fiscal/taxation authorities**
 - Intra-governmental sharing
 - Greater flow to, rather than from, fiscal authorities
- **Reporting and public disclosure are two separate issues**
 - Public reporting is common
 - Though typically in aggregated or summary form

Why Does Alaska Need To Receive Data ?

- **Required in order to properly manage the State's resources**
 - "The energy resources of this State belong to the people of Alaska¹"
- **Full understanding of technical and commercial factors**
- **Ability to plan and control**
 - Exploitation policy
 - Budget
- **These are universal principles**
 - Not unique to Alaska

¹ Adapted from Accountability principle of Alberta Royalty Review Panel

Forms Of Reporting and Sharing

- **Production and well data**
 - Monthly or as completed
- **Annual or Semi-Annual field-level information**
 - Typically collected by Ministry / Regulatory Body
- **Tax returns**
 - Collected by fiscal authority
- **Intra-Governmental Sharing**
 - Degree of sharing varies by country
 - Typically greater sharing by Ministry / Regulatory Body than by fiscal authority

Public Reporting

- **Mostly in aggregated / summary form**
- **Some countries provide field-level summaries**
 - Reserves
 - Capex
 - More often as total, but sometimes as annual time series
- **Opex rarely disclosed at field-level, although subscription services do provide this**
 - Data quality dependent upon various sources, including “oil company guidance”
 - Sometimes occurs in stock market documentation released by (usually) smaller companies

Examples Of Data Disclosure (Production and Cost Focus)

UK Summary

- **UK requires data disclosure at field level**
 - Field development plans
 - Annual (and semi-annual) data / statistical analysis
 - PRT returns
- **Disclosure to**
 - DTI (Oil & Gas Directorate)
 - Fiscal authorities
- **Publication of aggregated information**



United Kingdom

Detailed field-level production and cost projections (in standardized electronic format) are required as part of the Field Development plan submission / approval

Production Sales Volume Capex Opex Tariffs

| Well No: | Field name: | Operator: | Company contact: Contact details: | | Date: | CONVERSION FACTOR | | | Please | | | | | | | | | | | |
|---------------------------|----------------------|-----------------|--------------------------------------|----------------|-----------------|--------------------|----------------------------|-----------------------------|---------------------|---|--|----------------------------------|---------------------------|---|-------------------------|-----------------------|---------------------------|-------------|-------------|-----|
| | Type of development: | Oil | NG | Gas | | | | | | | | | | | | | | | | |
| Discovery date: | | | | | | | | | | | | | | | | | | | | |
| Depth: | | | | | | | | | | | | | | | | | | | | |
| Year | Production | | | Sales | | | Other oil/gas uses | | | Costs £ million (constant 2006 prices) | | | | TARIFFS | | | | | | |
| | Oil 000 tonnes | NGLs 000 tonnes | Gas million therms | Oil 000 tonnes | NGLs 000 tonnes | Gas million therms | Gas Flaring million therms | Re-injection million therms | Fuel use 000 tonnes | Other oil/gas usage apart from sales (please specify) | Exploration and Appraisal Drilling expenditure | Development Drilling expenditure | Other Capital expenditure | Operating expenditure (excluding tariff payments and lease costs) | Lease Costs (FPSOs etc) | Decommissioning Costs | Tariff Expenditure/Income | Oil £/tonne | NGL £/tonne | Gas |
| Previous spend 1997 | | | | | | | | | | | | | | | | | | | | |
| Previous spend 1998 | | | | | | | | | | | | | | | | | | | | |
| Previous spend 1999 | | | | | | | | | | | | | | | | | | | | |
| Previous spend 2000 | | | | | | | | | | | | | | | | | | | | |
| Previous spend 2001 | | | | | | | | | | | | | | | | | | | | |
| Previous spend 2002 | | | | | | | | | | | | | | | | | | | | |
| Previous spend 2003 | | | | | | | | | | | | | | | | | | | | |
| Previous spend 2004 | | | | | | | | | | | | | | | | | | | | |
| Previous spend 2005 | | | | | | | | | | | | | | | | | | | | |
| Previous spend 2006 | | | | | | | | | | | | | | | | | | | | |
| Already committed in 2007 | | | | | | | | | | | | | | | | | | | | |
| other 2007 | | | | | | | | | | | | | | | | | | | | |
| 2008 | | | | | | | | | | | | | | | | | | | | |
| 2009 | | | | | | | | | | | | | | | | | | | | |
| 2010 | | | | | | | | | | | | | | | | | | | | |
| 2011 | | | | | | | | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | | | | | | | | |

Annual time series ...

Once complete please send to field team coordinator by email

United Kingdom

Annual UKCS Income and Expenditure summarized on an annual basis

Income from and Expenditure on UK Continental Shelf Exploration, Development and Operating Activities
(£ million)

| | <i>Sales</i> | | | | | <i>Opex</i> | | | | <i>Capex</i> | | | | <i>Prices</i> | | | |
|------|--------------|-----------|-----------|-----------------------------|--------------|-----------------|--------------------------------|-------------------------------|----------------|--|--------------------|------------------|---------------------------|---------------|-----------------------------|-----------------------------|-------------------------|
| | Oil Sales | NGL Sales | Gas Sales | Other Income ⁽¹⁾ | Total Income | Operating Costs | of which decommissioning costs | Other expenses ⁽²⁾ | Total Expenses | Gross Operating Surplus ⁽³⁾ | ESA ⁽⁴⁾ | of which seismic | Investment other than ESA | Total | Average Oil Price (£/tonne) | Average Gas Price (p/therm) | GDP Deflator (2005=100) |
| 1970 | 0 | 0 | 0 | 4 | 6 | 6 | n/a | 0 | 6 | -2 | 20 | n/a | 53 | 73 | n/a | n/a | 9.9 |
| 1971 | 0 | 0 | 80 | 8 | 88 | 11 | n/a | 0 | 11 | 78 | 57 | n/a | 72 | 129 | n/a | n/a | 10.8 |
| 1972 | 0 | 1 | 114 | 9 | 124 | 15 | n/a | 0 | 15 | 110 | 43 | n/a | 112 | 164 | n/a | n/a | 11.7 |
| 1973 | 0 | 2 | 133 | 11 | 146 | 18 | n/a | 0 | 18 | 129 | 69 | n/a | 215 | 284 | n/a | n/a | 12.6 |
| 1974 | 0 | 3 | 156 | 21 | 180 | 20 | n/a | 0 | 20 | 170 | 153 | n/a | 584 | 737 | n/a | n/a | 14.4 |
| 1975 | 43 | 15 | 190 | 29 | 277 | 46 | n/a | 0 | 46 | 231 | 242 | n/a | 1,374 | 1,818 | n/a | n/a | 18.3 |
| 1976 | 624 | 21 | 258 | 21 | 924 | 130 | n/a | 0 | 130 | 794 | 301 | n/a | 2,070 | 2,372 | n/a | 1.8 | 21.1 |
| 1977 | 2,197 | 29 | 317 | 20 | 2,662 | 207 | n/a | 0 | 207 | 2,356 | 375 | n/a | 2,107 | 2,482 | n/a | 2.1 | 24.0 |
| 1978 | 2,771 | 35 | 432 | 12 | 3,250 | 346 | n/a | 0 | 346 | 2,904 | 261 | n/a | 2,170 | 2,431 | n/a | 3.1 | 26.8 |
| 1979 | 5,641 | 53 | 538 | 44 | 6,276 | 502 | n/a | 18 | 518 | 5,757 | 241 | n/a | 2,064 | 2,306 | n/a | 3.8 | 30.7 |
| 1980 | 8,719 | 132 | 647 | 82 | 9,680 | 692 | n/a | 34 | 728 | 8,954 | 379 | n/a | 2,388 | 2,787 | n/a | 4.9 | 36.7 |
| 1981 | 12,206 | 135 | 843 | 114 | 13,298 | 1,017 | n/a | 45 | 1,063 | 12,235 | 550 | n/a | 2,847 | 3,397 | n/a | 6.5 | 40.8 |
| 1982 | 14,129 | 312 | 956 | 180 | 15,667 | 1,309 | n/a | 73 | 1,382 | 14,174 | 875 | n/a | 3,059 | 3,894 | 142.0 | 7.4 | 43.9 |
| 1983 | 16,496 | 528 | 1,117 | 188 | 18,328 | 1,495 | n/a | 67 | 1,682 | 16,767 | 993 | n/a | 2,853 | 3,848 | 148.3 | 8.4 | 46.3 |
| 1984 | 19,927 | 659 | 1,290 | 256 | 22,133 | 1,733 | n/a | 62 | 1,798 | 20,338 | 1,395 | n/a | 3,189 | 4,684 | 164.9 | 10.0 | 48.4 |
| 1985 | 19,204 | 692 | 1,709 | 384 | 21,888 | 2,248 | n/a | 76 | 2,324 | 19,664 | 1,445 | n/a | 2,754 | 4,239 | 158.3 | 11.9 | 51.1 |
| 1986 | 8,909 | 396 | 1,927 | 455 | 11,878 | 2,144 | n/a | 57 | 2,201 | 9,476 | 1,039 | n/a | 2,419 | 3,467 | 73.3 | 12.6 | 52.9 |
| 1987 | 9,513 | 358 | 1,990 | 533 | 12,384 | 2,107 | n/a | 55 | 2,182 | 10,232 | 809 | n/a | 2,044 | 2,863 | 81.7 | 12.4 | 56.7 |
| 1988 | 7,084 | 249 | 2,046 | 859 | 10,238 | 2,060 | n/a | 58 | 2,118 | 8,120 | 1,129 | n/a | 2,126 | 3,266 | 63.4 | 13.1 | 59.2 |
| 1989 | 7,214 | 272 | 2,187 | 547 | 10,220 | 2,330 | n/a | 57 | 2,388 | 7,833 | 1,182 | n/a | 2,635 | 3,817 | 81.1 | 14.2 | 63.6 |
| 1990 | 8,432 | 277 | 2,377 | 405 | 11,481 | 2,892 | n/a | 46 | 2,938 | 8,552 | 1,637 | n/a | 3,478 | 6,118 | 94.6 | 14.3 | 68.5 |
| 1991 | 7,578 | 385 | 2,988 | 476 | 11,428 | 3,295 | n/a | 58 | 3,364 | 8,073 | 1,955 | n/a | 5,101 | 7,067 | 86.0 | 15.9 | 73.0 |
| 1992 | 7,430 | 380 | 3,016 | 626 | 11,453 | 3,312 | n/a | 53 | 3,365 | 8,088 | 1,508 | n/a | 5,428 | 8,895 | 81.9 | 15.8 | 76.0 |
| 1993 | 8,110 | 523 | 3,568 | 699 | 12,899 | 3,561 | n/a | 47 | 3,708 | 9,191 | 1,213 | n/a | 4,661 | 5,874 | 85.8 | 15.0 | 78.0 |
| 1994 | 8,964 | 528 | 3,836 | 974 | 14,302 | 3,860 | n/a | 40 | 3,900 | 10,401 | 939 | 150 | 3,671 | 4,809 | 77.0 | 16.3 | 79.2 |
| 1995 | 9,881 | 614 | 4,141 | 1,156 | 15,802 | 3,913 | n/a | 37 | 3,950 | 11,852 | 1,085 | 204 | 4,355 | 5,440 | 81.1 | 16.3 | 81.4 |
| 1996 | 11,850 | 749 | 5,295 | 1,243 | 18,138 | 3,978 | n/a | 31 | 4,009 | 15,127 | 1,097 | 190 | 4,364 | 5,481 | 97.3 | 16.6 | 84.2 |
| 1997 | 10,327 | 700 | 5,254 | 1,279 | 17,681 | 4,150 | n/a | 34 | 4,184 | 13,377 | 1,194 | 181 | 4,263 | 5,467 | 87.4 | 16.7 | 86.6 |
| 1998 | 7,487 | 551 | 5,313 | 1,453 | 14,806 | 4,190 | n/a | 111 | 4,301 | 10,503 | 762 | 129 | 4,596 | 6,768 | 59.8 | 16.2 | 88.9 |
| 1999 | 10,297 | 727 | 5,031 | 1,436 | 17,460 | 4,249 | n/a | 282 | 4,631 | 12,920 | 457 | 69 | 3,063 | 5,620 | 80.0 | 13.7 | 90.9 |
| 2000 | 16,275 | 1,117 | 6,606 | 1,488 | 25,488 | 4,360 | n/a | 106 | 4,488 | 21,020 | 348 | 40 | 2,750 | 3,088 | 138.1 | 15.8 | 92.1 |
| 2001 | 13,646 | 963 | 8,140 | 1,435 | 24,186 | 4,347 | n/a | 49 | 4,398 | 19,789 | 420 | 34 | 3,570 | 3,980 | 125.7 | 19.0 | 94.1 |
| 2002 | 13,629 | 894 | 8,199 | 1,397 | 24,118 | 4,595 | n/a | 48 | 4,643 | 19,475 | 389 | 45 | 3,598 | 3,988 | 123.8 | 16.4 | 97.0 |
| 2003 | 13,365 | 1,105 | 7,554 | 1,538 | 23,682 | 4,496 | n/a | 8 | 4,604 | 19,058 | 334 | 42 | 3,412 | 3,748 | 130.0 | 17.4 | 100.0 |
| 2004 | 13,477 | 1,266 | 7,443 | 1,178 | 23,384 | 4,664 | 145 | 87 | 4,751 | 18,613 | 396 | 07 | 3,302 | 3,888 | 154.0 | 21.0 | 102.6 |
| 2005 | 15,656 | 1,684 | 8,902 | 1,451 | 28,888 | 5,113 | 412 | 128 | 6,241 | 23,462 | 460 | 34 | 4,371 | 4,831 | 215.8 | 27.6 | 104.9 |

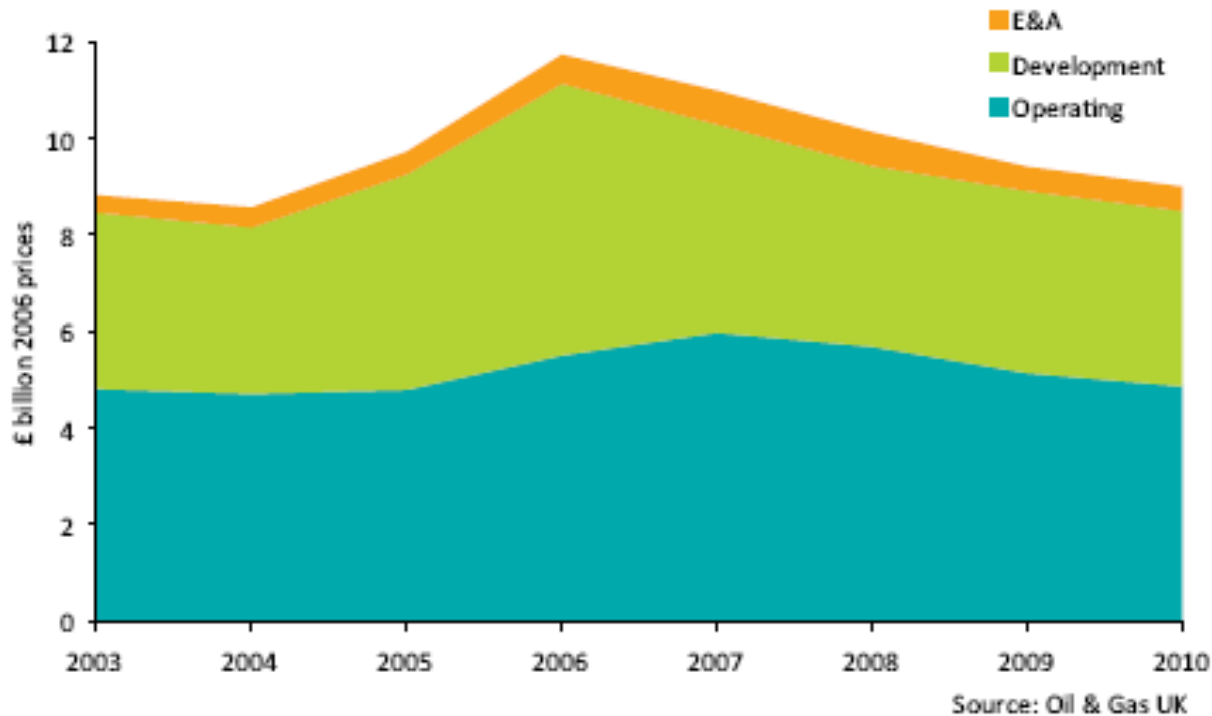
Notes

- (1) Revenues from pipelines and terminals, and other revenues of operators and production licensees.
- (2) Other costs of operators and production licensees not attributable to oil or gas fields.
- (3) Gross Operating Surplus = Total Income less Total Expenses.
- (4) E&A costs include Exploration and the cost of Appraisal wells drilled prior to development approval. The figures exclude change in stocks and book value of stocks.

United Kingdom

Medium-term forecasts derived from annual returns

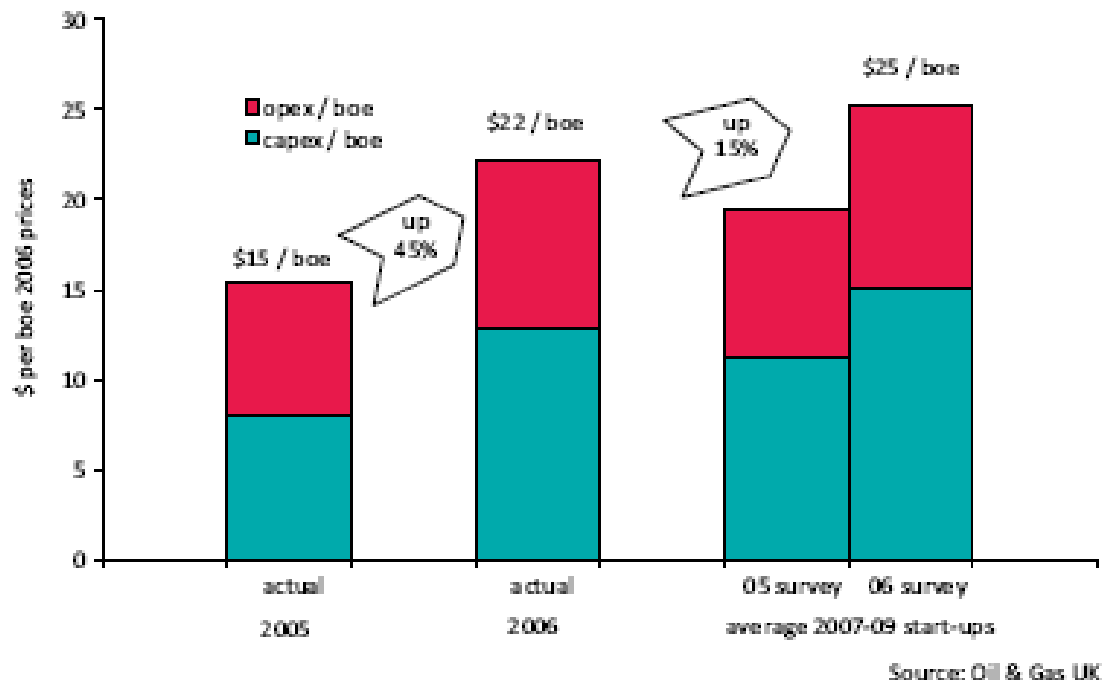
Figure 30: UKCS Expenditure Forecast 2003-2010



United Kingdom

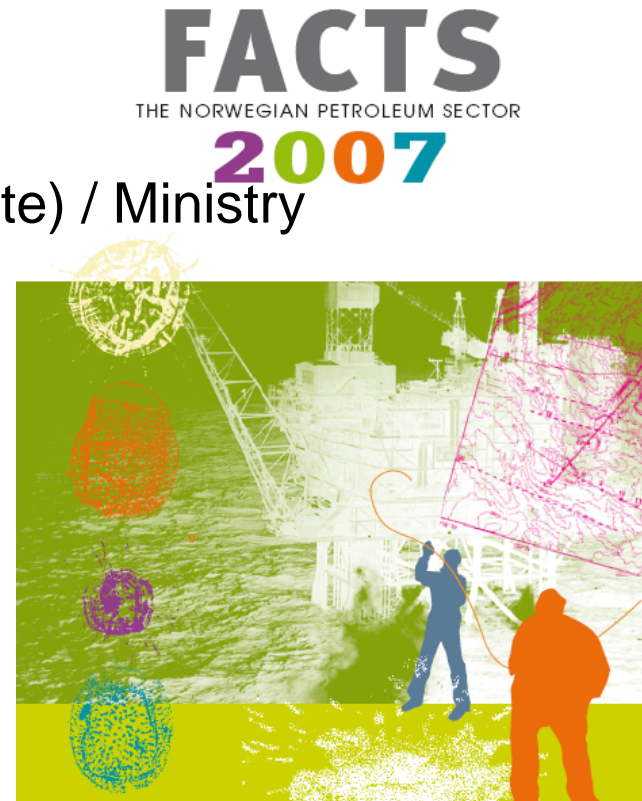
Cost trends

Figure 33: UKCS New Developments' Unit Technical Cost 2005-2009



Norway Summary

- **Norway requires data disclosure at field level**
 - Field development plans
 - Annual data / statistical analysis
 - Tax returns
- **Disclosure to**
 - NPD (Norwegian Petroleum Directorate) / Ministry
 - Fiscal authorities
- **Publication of aggregated information**



Norway

Field / discovery listing of resource volumes

Tilstedeværende ressursar i felt

In-place resources in fields

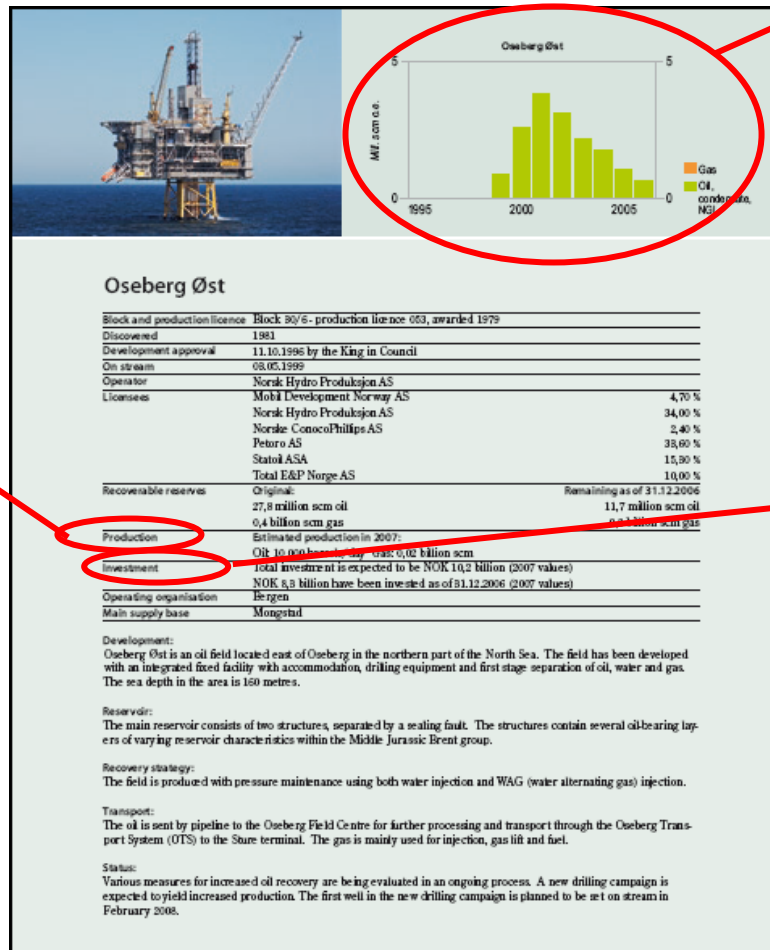


| Felt | Olje mill Sm3 <i>Oil million Sm3</i> | Assosiert væske NGL/Kondensat mill Sm3 <i>Associated liquids million Sm3</i> | Assosiert gass mrd Sm3 <i>Associated gas (billion Sm3)</i> | Fri gass mrd Sm3 <i>Free gas billion Sm3</i> |
|--------------|---|---|--|---|
| ALBUSKJELL | 36 | 0 | 56 | 0 |
| ALVHEIM | 81 | 0 | 8 | 9 |
| BALDER | 137 | 0 | 7 | 0 |
| BLANE | 3 | 0 | 0 | 0 |
| BRAGE | 137 | 7 | 11 | 3 |
| COD | 5 | 0 | 11 | 0 |
| DRAUGEN | 212 | 0 | 12 | 0 |
| EDDA | 16 | 0 | 5 | 0 |
| EKOFISK | 1,071 | 0 | 286 | 0 |
| ELDFISK | 470 | 0 | 124 | 0 |
| EMBLA | 43 | 0 | 15 | 0 |
| ENOECH | 2 | 0 | 0 | 0 |
| FRAM | 58 | 0 | 8 | 8 |
| FRIGG | 0 | 1 | 0 | 150 |
| FRØY | 35 | 0 | 8 | 0 |
| GIMLE | 8 | 0 | 0 | 0 |
| GLITNE | 24 | 0 | 1 | 0 |
| GRANE | 209 | 0 | 3 | 0 |
| GULLFAKS | 583 | 0 | 69 | 0 |
| GULLFAKS SØR | 154 | 43 | 36 | 118 |

Norway

Detail on field-by-field basis

Production forecast by year



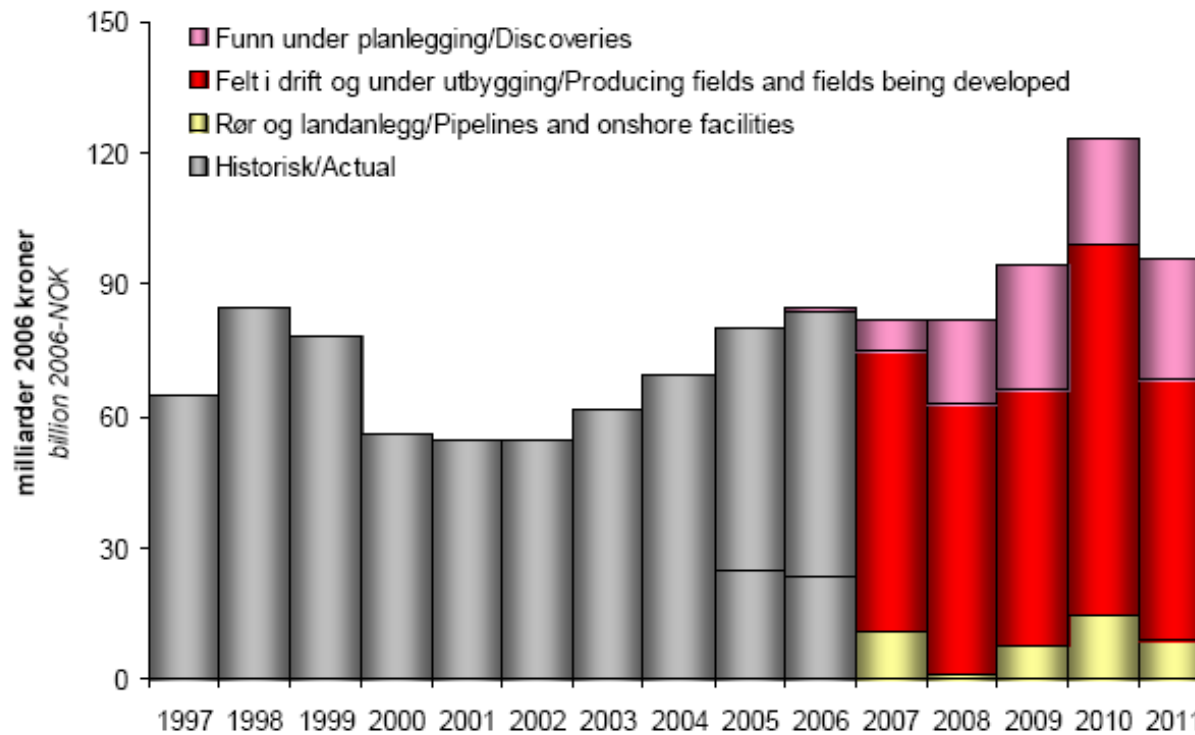
Reserves and EUR

Total capital investment - historical - expected ultimate

Norway

Medium-term forecasts derived from annual returns

Investments (excluding exploration costs)

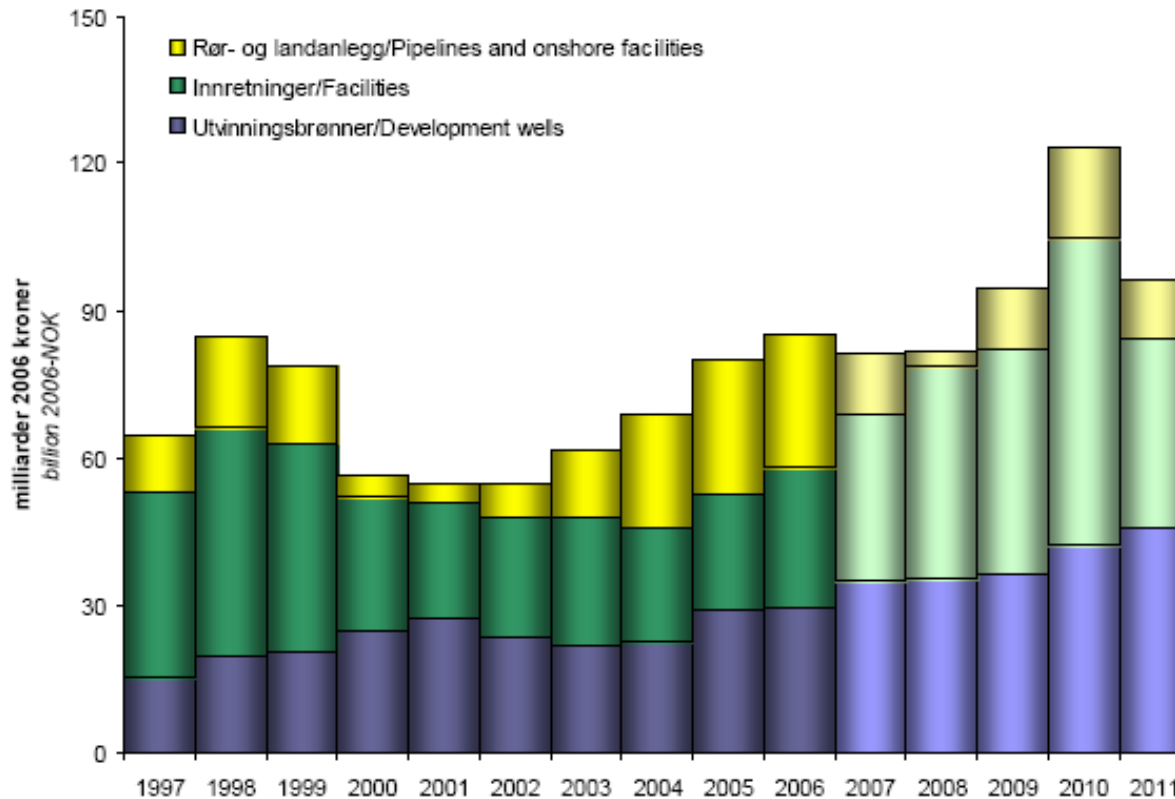


Norway

Medium-term forecasts derived from annual returns



Investments (excluding exploration costs)



Norway

Source of Investment

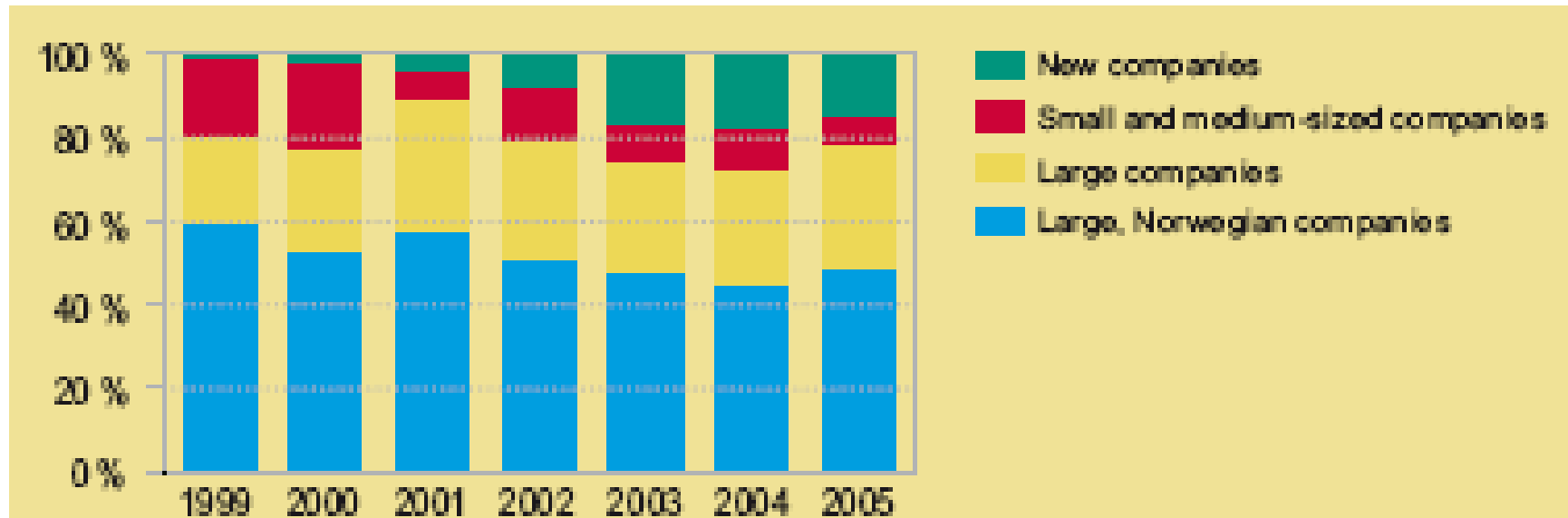
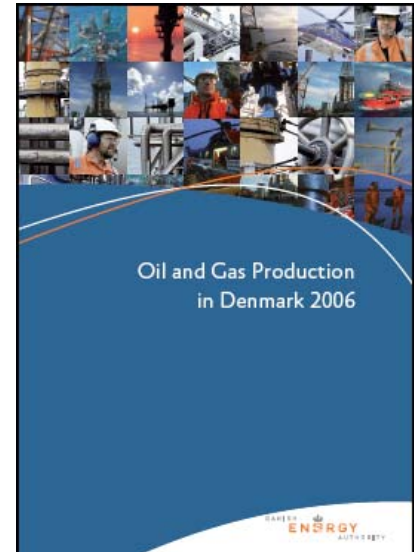


Figure 3.8 Exploration costs in production licences on the Norwegian continental shelf, distributed according to the size of the companies

(Source: Norwegian Petroleum Directorate)

Denmark Summary

- **Denmark requires data disclosure at field level**
 - Field development plans
 - Annual data / statistical analysis
 - Tax returns
- **Disclosure to**
 - Danish Energy Authority
 - Fiscal authorities
- **Publication of some detailed plus aggregated information**



Denmark

Field listing of annual capital investments .. both historical ..

Table 7.4 Investments, DKK million, nominal prices

| | 2002 | 2003 | 2004 | 2005 | 2006* |
|----------------|--------------|--------------|--------------|--------------|--------------|
| Cecilie | 223 | 660 | 309 | (18) | 4 |
| Dagmar | - | - | - | - | 148 |
| Dan | 437 | 943 | 750 | 750 | 684 |
| Gorm | 242 | 107 | 108 | 291 | 304 |
| Halfdan | 2,412 | 1,779 | 1,124 | 683 | 1,293 |
| Harald | 0 | 4 | 22 | 53 | 1 |
| Kraka | 3 | - | 2 | - | - |
| Nini | 285 | 1,288 | 319 | 163 | 19 |
| Roar | - | - | - | - | - |
| Rolf | - | 37 | 4 | - | 1 |
| Siri | 111 | 406 | 425 | 73 | 140 |
| Skjold | 5 | 77 | 8 | 11 | 4 |
| South Arne | 849 | 764 | 762 | 310 | 451 |
| Svend | 223 | - | - | - | - |
| Tyra | 85 | 305 | 459 | 1,020 | 1,520 |
| Tyra Southeast | 569 | 82 | 96 | 45 | - |
| Valdemar | (1) | 200 | 52 | 553 | 992 |
| NOGAT pipeline | - | 766 | 664 | 12 | - |
| Not allocated | 31 | (31) | 2 | 5 | 97 |
| Total | 5,475 | 7,386 | 5,105 | 3,951 | 5,658 |

*Estimate

Denmark

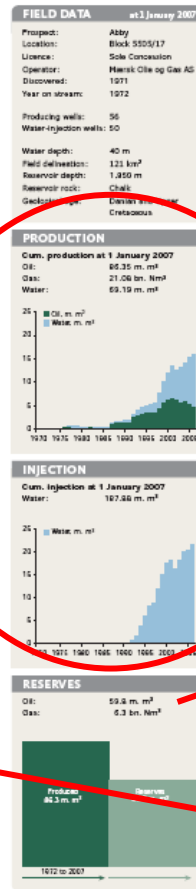
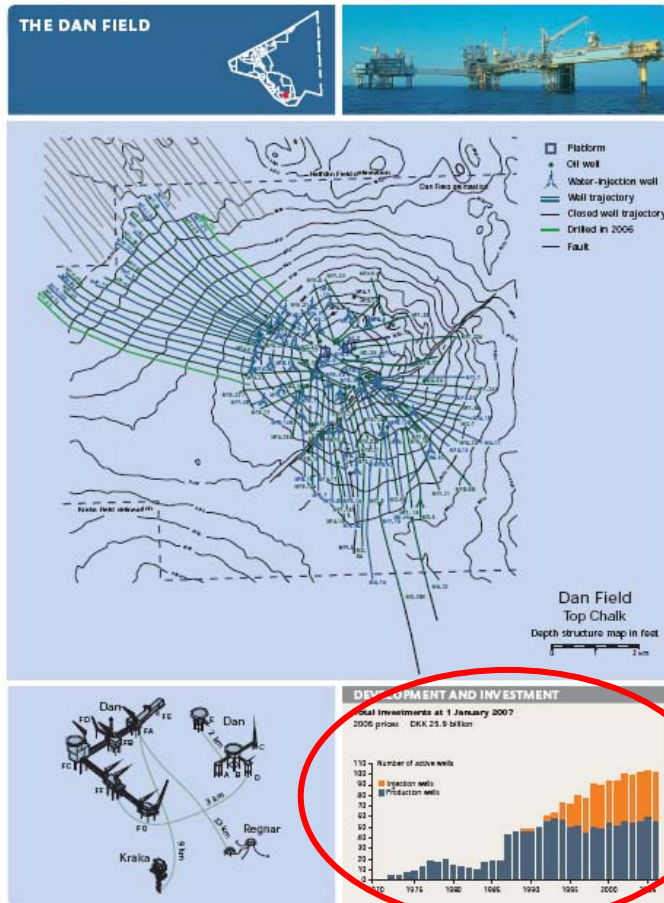
.. and projected

Table 7.5 Estimated investments in development projects, 2007-2011, DKK billion, 2006 prices

| | 2007 | 2008 | 2009 | 2010 | 2011 |
|-----------------------------|------------|------------|------------|------------|------------|
| Ongoing and approved | | | | | |
| Adda | - | 0.1 | 0.6 | - | - |
| Alma | - | 0.6 | 0.5 | - | - |
| Boje | - | - | - | 0.8 | - |
| Cecilie | - | - | - | - | - |
| Dagmar | - | - | - | - | - |
| Dan | 0.9 | 0.6 | - | - | - |
| Elly | 0.3 | 1.6 | - | - | - |
| Gorm | 0.1 | 0.0 | - | - | - |
| Halfdan | 2.0 | 0.9 | 0.1 | - | - |
| Harald | 0.0 | 0.1 | - | - | - |
| Kraka | 0.3 | - | - | - | - |
| Lulita | - | - | - | - | - |
| Nini | 0.1 | - | - | - | - |
| Regnar | - | - | - | - | - |
| Roar | - | - | - | - | - |
| Rolf | - | - | - | - | - |
| Siri | 0.3 | - | - | - | - |
| Skjold | - | - | - | - | - |
| South Ame | 0.8 | - | - | - | - |
| Svend | - | - | - | - | - |
| Tyra | 0.4 | 0.4 | 0.4 | 0.0 | 1.3 |
| Tyra Southeast | 0.5 | - | - | - | - |
| Valdemar | 1.6 | 0.7 | - | - | - |
| Total | 7.3 | 5.1 | 1.5 | 0.8 | 1.3 |
| Planned | - | - | - | - | 0.8 |
| Possible | - | 0.7 | 4.7 | 6.6 | 4.0 |
| Expected | 7.3 | 5.8 | 6.2 | 7.4 | 6.2 |

Denmark

Detail on field-by-field basis



REVIEW OF GEOLOGY

The Dan Field is an anticlinal structure induced partly due to salt tectonics. A major fault divides the field into two reservoir blocks, which, in turn, are intersected by a number of minor faults. The chalk reservoir has high porosity, although low permeability. There is a gas cap in the field.

Recovery takes place from the central part of the Dan Field and from large sections of the flanks of the field. Particularly the western flank of the Dan Field, close to the Halfdan Field, has demonstrated good production properties.

PRODUCTION STRATEGY

Recovery from the field is based on the simultaneous production of oil and injection of water. Water injection was initiated in 1989, and later water injection was introduced in large sections of the field. The recovery of oil is optimized by flooding the reservoir with water to the extent possible.

PRODUCTION FACILITIES

The Dan Field comprises six wellhead platforms, A, D, E, FA, FB and FE, a combined wellhead and processing platform, FF, a processing platform with a flare tower, FG, two processing and accommodation platforms, B and FC, and two gas flare stacks, C and FD.

At the Dan Field, there are facilities for receiving production from the adjacent Tyra and Regnar satellite fields, as well as for receiving gas produced at the Halfdan Field.

The Dan installations supply the Halfdan Field with injection water.

After final processing, the oil is transported to shore via the user platform, Gorm E.

The gas is pre-processed and transported to Tyra East for final processing. The production water from Dan and its satellite fields is discharged into the sea.

The Dan Field has accommodation facilities for 97 persons on the FC platform. The B platform has accommodation facilities for five persons.

Production and injection history

Reserves and EUR

Total capital investment and development drilling

Nova Scotia Summary

- Requirement for public Review of field developments
- Deep Panuke development recently submitted
 - Approved Oct 3, 2007



Nova Scotia Deep Panuke

Includes sales gas forecast ...



Table 6.1 Sales Gas Forecast

| Year | P90 | | P50 | | P10 | | Mean | |
|------|--------------------------------------|----------|--------------------------------------|----------|--------------------------------------|----------|--------------------------------------|----------|
| | (10 ⁶ sm ³ /d) | (MMscfd) | (10 ⁶ sm ³ /d) | (MMscfd) | (10 ⁶ sm ³ /d) | (MMscfd) | (10 ⁶ sm ³ /d) | (MMscfd) |
| 2010 | 5.7 | 202 | 5.7 | 201 | 5.7 | 202 | 5.7 | 201 |
| 2011 | 8.5 | 300 | 8.4 | 300 | 8.5 | 300 | 8.5 | 300 |
| 2012 | 7.0 | 249 | 8.5 | 300 | 8.4 | 300 | 8.2 | 291 |
| 2013 | 4.5 | 159 | 6.4 | 228 | 8.4 | 300 | 6.2 | 219 |
| 2014 | 3.1 | 110 | 4.8 | 171 | 7.7 | 275 | 5.0 | 177 |
| 2015 | 2.2 | 79 | 3.8 | 136 | 6.0 | 213 | 4.0 | 143 |
| 2016 | 1.6 | 58 | 3.1 | 110 | 4.7 | 168 | 3.4 | 119 |
| 2017 | 1.3 | 45 | 2.5 | 90 | 4.1 | 145 | 2.7 | 97 |
| 2018 | 1.1 | 40 | 2.1 | 76 | 3.3 | 118 | 2.3 | 81 |
| 2019 | 0.0 | 0 | 1.6 | 58 | 2.9 | 103 | 1.9 | 67 |
| 2020 | 0.0 | 0 | 1.5 | 52 | 2.4 | 86 | 1.6 | 55 |
| 2021 | 0.0 | 0 | 1.5 | 52 | 2.1 | 73 | 1.3 | 47 |
| 2022 | 0.0 | 0 | 1.3 | 45 | 1.7 | 62 | 1.3 | 45 |
| 2023 | 0.0 | 0 | 1.1 | 40 | 1.6 | 55 | 1.1 | 41 |
| 2024 | 0.0 | 0 | 0.0 | 0 | 1.4 | 50 | 0.0 | 0 |
| 2025 | 0.0 | 0 | 0.0 | 0 | 1.4 | 51 | 0.0 | 0 |
| 2026 | 0.0 | 0 | 0.0 | 0 | 1.3 | 47 | 0.0 | 0 |
| 2027 | 0.0 | 0 | 0.0 | 0 | 1.2 | 41 | 0.0 | 0 |
| 2028 | 0.0 | 0 | 0.0 | 0 | 1.1 | 38 | 0.0 | 0 |

Nova Scotia Deep Panuke

... and cost forecast by expenditure type

6.3.1 Development Phase Expenditures

Estimates for the development phase include costs incurred by EnCana, as operator of the Project, from the fourth quarter 2006 to first gas production, scheduled to occur in the fourth quarter of 2010.

The costs shown in Table 6.2 are for the M&NP option, and exclude any costs associated with the MOPU, which will be included as operating costs payable during the production life of the Project.

The SOEP Subsea Option would see a reduction in the cost of the export pipeline during the Development Phase. However, there would be an increase in operating costs for tariffs charged as a result of using the SOEP pipeline. At this time, these costs are not defined.



| Table 6.2 Development Phase Expenditures | CS Millions 2006 |
|--|---------------------|
| EnCana Project Management & Engineering | 115 |
| Subsea | 135 |
| Export Pipeline | 200 |
| Drilling and Completions | 160 |
| <i>Subtotal:</i> | 610 |
| <i>Contingency</i> | 90 |
| Total Cost to First Gas | 700 |

Annual operating costs, including the field centre (MOPU) lease, are estimated at \$150 million per year, +/-25%.

Nova Scotia

Deep Panuke approval explicitly requires continual update to cost information submitted with Annual Production Report

Condition 30: Submission of Economic Data

The Proponent shall inform the Board of any material changes to the cost information and production profiles that were submitted with the Development Plan. This information shall be included with the Annual Production Report. This should include details of the operating and capital expenditures for the previous two years, the current year and projections for the next two years as well as reserve revisions

Publicly Available Sources

Example detailed field cashflow available from Deloitte's subscription service

MAGNUS

BP operated UKCS

field

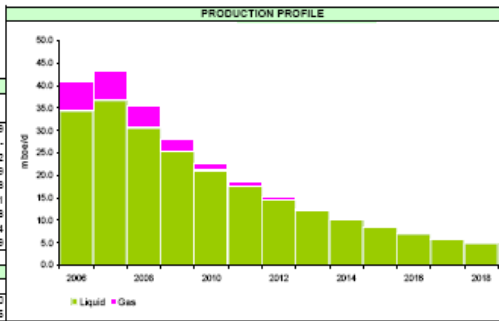
| Year | PRODUCTION | | Gross Revenue GBPmm | Royalty GBPmm | Opex / Tariff GBPmm | Operating Profit GBPmm | Capex/ Abandonment GBPmm | Gross Profit GBPmm | TAXATION | | Remaining NPV @ 10% On Jan 1 GBPmm |
|-------|------------------|-------------|------------------------|------------------|---------------------------|------------------------------|--------------------------------|--------------------------|--------------------|-------------|---|
| | Liquids mmbbl | Gas mmcf | | | | | | | PRT/A/PRT GBPmm | CT GBPmm | |
| 2006 | 34.4 | 38.8 | 498.7 | - | 81.0 | 417.7 | 33.0 | 386.7 | 170.2 | 86.6 | 2,521.0 |
| 2007 | 36.7 | 38.0 | 484.7 | - | 80.2 | 404.5 | 32.7 | 371.8 | 188.6 | 90.6 | 2,603.6 |
| 2008 | 30.6 | 28.0 | 362.2 | - | 73.8 | 288.3 | 33.4 | 255.0 | 135.8 | 71.1 | 2,651.5 |
| 2009 | 25.4 | 16.0 | 267.6 | - | 65.5 | 202.1 | - | 202.1 | 101.9 | 53.3 | 2,698.4 |
| 2010 | 21.1 | 9.2 | 180.8 | - | 60.3 | 120.5 | - | 120.5 | 64.7 | 35.8 | 2,718.4 |
| 2011 | 17.6 | 5.3 | 140.4 | - | 55.5 | 84.9 | - | 84.9 | 41.9 | 23.4 | 2,737.5 |
| 2012 | 14.6 | 3.0 | 113.1 | - | 51.5 | 61.5 | - | 61.5 | 21.5 | 16.8 | 2,751.0 |
| 2013 | 12.2 | 1.7 | 87.9 | - | 48.1 | 49.8 | - | 49.8 | 24.7 | 13.2 | 2,762.9 |
| 2014 | 10.1 | 1.0 | 69.0 | - | 45.1 | 23.9 | - | 23.9 | 25.0 | 13.1 | 2,778.7 |
| 2015 | 8.4 | 0.8 | 56.1 | - | 43.4 | 12.7 | - | 12.7 | 21.5 | 11.7 | 2,788.2 |
| 2016 | 7.0 | 0.3 | 47.7 | - | 40.7 | 7.0 | - | 7.0 | 16.3 | 9.2 | 2,795.7 |
| 2017 | 5.8 | 0.2 | 39.9 | - | 37.8 | 2.1 | - | 2.1 | 11.4 | 6.8 | 2,800.5 |
| 2018 | 4.8 | 0.1 | 32.1 | - | 34.9 | - | - | - | 8.2 | 5.1 | 2,804.5 |
| 2019 | - | - | 25.3 | - | - | - | 42.2 | (42.2) | 0.8 | (12.8) | 2,774.2 |
| 2020 | - | - | 18.5 | - | - | - | 36.3 | (36.3) | - | (19.3) | 2,757.2 |
| 2021 | - | - | 11.7 | - | - | - | 30.2 | (30.2) | - | (16.1) | 2,743.1 |
| 2022 | - | - | 5.0 | - | - | - | 25.7 | (25.7) | - | (13.6) | 2,731.0 |
| 2023 | - | - | - | - | - | - | - | - | - | (4.3) | 2,735.3 |
| 2024 | - | - | - | - | - | - | - | - | - | - | 2,735.3 |
| 2025 | - | - | - | - | - | - | - | - | - | - | 2,735.3 |
| 2026 | - | - | - | - | - | - | - | - | - | - | 2,735.3 |
| 2027 | - | - | - | - | - | - | - | - | - | - | 2,735.3 |
| 2028 | - | - | - | - | - | - | - | - | - | - | 2,735.3 |
| 2029 | - | - | - | - | - | - | - | - | - | - | 2,735.3 |
| 2030 | - | - | - | - | - | - | - | - | - | - | 2,735.3 |
| 2031 | - | - | - | - | - | - | - | - | - | - | 2,735.3 |
| 2032 | - | - | - | - | - | - | - | - | - | - | 2,735.3 |
| 2033 | - | - | - | - | - | - | - | - | - | - | 2,735.3 |
| 2034 | - | - | - | - | - | - | - | - | - | - | 2,735.3 |
| 2035 | - | - | - | - | - | - | - | - | - | - | 2,735.3 |
| 2036 | - | - | - | - | - | - | - | - | - | - | 2,735.3 |
| 2037 | - | - | - | - | - | - | - | - | - | - | 2,735.3 |
| 2038 | - | - | - | - | - | - | - | - | - | - | 2,735.3 |
| <2006 | mmb | bcf | - | - | - | - | - | - | - | - | - |
| 2006+ | 813.5 | 326.7 | 11,437.6 | 956.8 | 1,771.4 | 8,709.5 | 2,006.5 | 6,703.0 | 3,147.9 | 1,162.9 | 2,392.1 |
| 2006+ | 93.5 | 51.8 | 2,517.3 | - | 718.1 | 1,799.1 | 232.6 | 1,566.5 | 852.6 | 370.7 | 243.2 |
| Total | 897 | 379 | 13,655 | 957 | 2,490 | 10,509 | 2,239 | 8,269 | 4,001 | 1,534 | 2,735 |

| CURRENT YEAR PRODUCT DETAILS | | |
|------------------------------|-----------------|-----|
| 2006 | Liquids USD/bbl | Gas |
| Price | 65.4 | 3.7 |
| Tariff | - | 1.5 |

| TAX SUMMARY | | | PER BARREL ANALYSIS | |
|-------------|-------------|---------------------------|----------------------|---------------------------|
| Royalty | Govt Take % | Gross profit less Royalty | Real 2006 GBP/bbl | 21.59 |
| | Past | Future | | |
| PRT | 12.45% | 0.00% | 10.37% | Gross Revenue |
| CT | 41.10% | 54.43% | 43.36% | Royalty & GDP |
| Total | 15.18% | 23.67% | 16.62% | Opex & Tariff Expenditure |
| | 68.77% | 78.09% | 70.35% | Operating Profit |
| | | | | Capex & Abandonment |
| | | | | Gross Profit |
| | | | | CT |
| | | | | Net Profit |

| CT LOSS OFFSET OPTION | | |
|-----------------------|-------------|------|
| GBP mm | Description | PRT |
| 11.31 | | 5.68 |
| 1.94 | | 1.94 |
| 3.79 | | 3.79 |

| OIL ALLOWANCE | | RECOVERABLE RESERVES | |
|---------------------------------|-----------|----------------------|----------|
| Total available over field life | 5,000,000 | Technical | Economic |
| Remaining 1 Jan 2006 | - | Liquids mmb | 897.0 |
| Unused at end of field life | - | Gas bcf | 378.6 |



| NET PRESENT VALUE On 1 January 2008 | | |
|-------------------------------------|--------|----------|
| Discount Rate | Pre CT | Post tax |
| 8.0% | 1311.0 | 315.3 |
| 10.0% | 1257.2 | 302.2 |
| 12.5% | 1195.5 | 296.8 |
| 15.0% | 1139.4 | 287.0 |
| 20.0% | 1041.8 | 268.9 |

| PROJECT ECONOMICS | |
|-----------------------------------|--------|
| Discounting Method | Mid |
| Project payback year @ 10% | 1984.5 |
| IRR (from development start) | 25% |
| PVI (from 2006) | 3.6 |
| Cover Ratio : 5 Years | N/A |
| Cover Ratio : 10 Years | N/A |
| Development start year | 1975.0 |
| Production start year | 1983.5 |
| Last PRT safeguard year | 1987.5 |
| Abandonment Year | 2018.5 |
| Technical production life (years) | 35.5 |
| Actual production life (years) | 35.0 |

OIL PRICE (USD/bbl): 2006 - 65.59, 2007 - 59.00, 2008 - 54.00, 2009 - 49.00, 2010 - 43.00, 2010+ - inflated thereafter @ 2.50% | EXCHANGE RATE (GBP-USD): 1.75 | INFLATION: 2.30%

Source: Deloitte Petroleum Services