

# Oil and natural gas extraction data

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Climate Mitigation Services  
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## China National Offshore Oil Co., PR China

www.cnocctd.com Hong Kong

yellow column indicates original reported units 66% State-owned entity

### Production / Extraction data

| Year | Crude Oil & NGL |                 |                 |                 |                 | Natural Gas  |               |              |               |               | Background data |
|------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------|---------------|--------------|---------------|---------------|-----------------|
|      | Nexen           | Nexen           | CNOOC           | CNOOC           | CNOOC + Nexen   | Nexen        | Nexen         | CNOOC        | CNOOC         | CNOOC + Nexen |                 |
|      | Thousand bbl /d | Million bbl /yr | Thousand bbl /d | Million bbl /yr | Million bbl /yr | Million cf/d | Billion cf/yr | Million cf/d | Billion cf/yr | Billion cf/yr |                 |



CNOOC Annual Report 2018, cover photo.



|  | 2014             | 2015             | 2016             | 2017             | 2018             |
|--|------------------|------------------|------------------|------------------|------------------|
| <b>Production</b>  |                  |                  |                  |                  |                  |
| <b>Net production of crude and liquids (barrels/day)</b> |                  |                  |                  |                  |                  |
| China  | 626,791          | 761,019          | 739,378          | 706,955          | 705,366          |
| Bohai  | 403,927          | 477,804          | 455,002          | 433,591          | 433,305          |
| Western South China Sea                                  | 80,493           | 89,958           | 86,351           | 96,543           | 109,381          |
| Eastern South China Sea                                  | 141,169          | 180,255          | 182,948          | 173,192          | 159,212          |
| East China Sea   | 1,206            | 2,632            | 3,177            | 3,829            | 3,347            |
| Overseas   | 305,345          | 338,440          | 321,131          | 335,887          | 317,224          |
| Asia (excluding China)                                   | 37,227           | 45,640           | 48,577           | 57,265           | 59,249           |
| Oceania  | 4,297            | 3,320            | 4,278            | 3,891            | 4,251            |
| Africa   | 76,838           | 83,677           | 80,297           | 73,825           | 59,944           |
| North America (excluding Canada)                         | 49,814           | 54,692           | 48,073           | 46,785           | 53,120           |
| Canada   | 48,183           | 46,712           | 40,334           | 37,711           | 44,028           |
| Europe   | 87,918           | 103,268          | 98,672           | 95,730           | 73,878           |
| South America  | 1,058            | 1,110            | 920              | 929              | 3,098            |
| <b>Subtotal</b>  | <b>932,137</b>   | <b>1,099,459</b> | <b>1,060,509</b> | <b>1,042,842</b> | <b>1,022,589</b> |
| <b>Net production of natural gas (mmcf/day)</b>          |                  |                  |                  |                  |                  |
| China  | 643.3            | 731.9            | 648.7            | 721.4            | 825.0            |
| Bohai  | 137.9            | 138.9            | 134.3            | 149.3            | 165.0            |
| Western South China Sea                                  | 241.7            | 314.3            | 273.9            | 273.5            | 265.2            |
| Eastern South China Sea                                  | 186.8            | 224.9            | 195.9            | 238.2            | 243.4            |
| East China Sea   | 26.8             | 45.8             | 54.6             | 56.3             | 49.4             |
| Overseas   | 546.6            | 492.1            | 472.5            | 432.8            | 453.9            |
| Asia (excluding China)                                   | 154.4            | 140.0            | 150.2            | 141.4            | 164.2            |
| Oceania  | 111.2            | 93.5             | 111.4            | 96.5             | 111.1            |
| North America (excluding Canada)                         | 112.7            | 134.6            | 127.3            | 130.3            | 126.4            |
| Canada   | 117.5            | 68.4             | 48.9             | 38.7             | 34.5             |
| Europe   | 50.7             | 45.5             | 34.8             | 25.8             | 17.6             |
| <b>Subtotal</b>  | <b>1,189.9</b>   | <b>1,214.0</b>   | <b>1,121.2</b>   | <b>1,154.2</b>   | <b>1,278.9</b>   |
| <b>Total net production (BOE/day)</b>                    |                  |                  |                  |                  |                  |
| China  | 735,533          | 884,346          | 848,322          | 827,941          | 845,171          |
| Bohai  | 426,913          | 500,719          | 477,380          | 458,473          | 460,822          |
| Western South China Sea                                  | 138,972          | 143,816          | 144,835          | 142,870          | 154,248          |
| Eastern South China Sea                                  | 163,970          | 229,679          | 213,835          | 212,895          | 216,877          |
| East China Sea   | 5,676            | 10,271           | 12,273           | 13,016           | 11,580           |
| Overseas   | 407,804          | 423,919          | 426,300          | 412,832          | 398,187          |
| Asia (excluding China)                                   | 65,290           | 70,987           | 75,780           | 82,958           | 88,662           |
| Oceania  | 25,902           | 21,673           | 26,107           | 22,598           | 26,034           |
| Africa   | 76,838           | 83,677           | 80,297           | 73,825           | 59,944           |
| North America (excluding Canada)                         | 66,396           | 76,915           | 69,230           | 66,507           | 74,184           |
| Canada   | 67,770           | 58,119           | 48,446           | 46,167           | 69,783           |
| Europe   | 96,370           | 110,842          | 104,473          | 100,046          | 76,615           |
| South America  | 1,058            | 1,110            | 920              | 929              | 3,098            |
| <b>Total</b>   | <b>1,137,337</b> | <b>1,307,664</b> | <b>1,253,643</b> | <b>1,240,773</b> | <b>1,243,357</b> |
| <b>Net production in equity method investees</b>         |                  |                  |                  |                  |                  |
| Crude and liquids (barrels/day)                          | 23,510           | 24,588           | 22,592           | 22,144           | 28,199           |
| Natural gas (mmcf/day)                                   | 140.2            | 149.8            | 155.0            | 146.4            | 173.7            |
| <b>Subtotal (BOE/day)</b>                                | <b>47,640</b>    | <b>50,357</b>    | <b>49,280</b>    | <b>47,355</b>    | <b>58,080</b>    |
| <b>Total (BOE/day)</b>                                   | <b>1,184,977</b> | <b>1,358,022</b> | <b>1,302,923</b> | <b>1,288,128</b> | <b>1,301,438</b> |

|   | Year ended December 31, |         |           |
|---|-------------------------|---------|-----------|
|   | 2013                    | 2014    | 2015      |
| Net production of crude oil (bbl/day) <sup>(1)</sup>    | 912,603                 | 955,647 | 1,124,047 |
| Net production of natural gas (mmcf/day) <sup>(1)</sup> | 1,247.4                 | 1,330.1 | 1,363.6   |

CNOOC 20-F 2015.

|   | Year ended December 31, |           |           |
|---|-------------------------|-----------|-----------|
|   | 2016                    | 2017      | 2018      |
| Net production of crude oil (bbl/day) <sup>(1)</sup>    | 1,083,101               | 1,064,986 | 1,050,749 |
| Net production of natural gas (mmcf/day) <sup>(1)</sup> | 1,276.2                 | 1,300.6   | 1,452.6   |

(1) Including our interest in equity method investees.

CNOOC 20-F for 2018, p. 58.

### CNOOC acquires Nexen Feb 13.

| Year         | Nexen           |                       |                 |                 | CNOOC        |                |               |              |              | CNOOC + Nexen |              |              |              |  |
|--------------|-----------------|-----------------------|-----------------|-----------------|--------------|----------------|---------------|--------------|--------------|---------------|--------------|--------------|--------------|--|
|              | OGJ100          | OGJ100                | OGJ100          | OGJ100          | Bcf / yr     | million cf/day | Bcf/yr        | Bcf/yr       | Bcf/yr       | Bcf/yr        | Bcf/yr       | Bcf/yr       | Bcf/yr       |  |
|              | million bbl /yr | thousand bbl /d       | million bbl /yr | million bbl /yr | OGJ1987-1992 | OGJ1987-1992   | OGJ1987-1992  | OGJ1987-1992 | OGJ1987-1992 | OGJ1987-1992  | OGJ1987-1992 | OGJ1987-1992 | OGJ1987-1992 |  |
| 1987         | 8.7             |                       |                 | 9               | 56.5         |                |               |              |              |               |              |              | 57           |  |
| 1988         | 8.8             |                       | 0.6             | 9               | 74.5         |                |               |              |              |               |              |              | 75           |  |
| 1989         | 8.2             |                       | 0.1             | 8               | 77.5         |                |               |              |              |               |              |              | 78           |  |
| 1990         | 11.7            | interpolated          | 15.8            | 28              | 75.6         |                |               |              |              |               |              |              | 76           |  |
| 1991         | 12.1            | interpolated          | 31.6            | 44              | 73.0         |                |               |              |              |               |              |              | 73           |  |
| 1992         | 12.8            | interpolated          | 47.3            | 60              | 71.2         |                |               |              |              |               |              |              | 71           |  |
| 1993         | 19.9            | interpolated          | 63.1            | 83              | 226          | 82.5           |               |              |              |               |              |              | 82           |  |
| 1994         | 41.6            | interpolated          | 78.8            | 120             | 241          | 88.0           |               |              |              |               |              |              | 88           |  |
| 1995         | 46.7            | interpolated          | 94.6            | 141             | 222          | 81.0           |               |              |              |               |              |              | 81           |  |
| 1996         | 50.2            |                       | 110.3           | 161             | 244          | 89.1           |               |              |              |               |              |              | 181          |  |
| 1997         | 68.1            |                       | 118.9           | 187             | 388          | 141.6          |               |              |              |               |              |              | 285          |  |
| 1998         | 71.4            |                       | 120.0           | 191             | 420          | 153.3          |               |              |              |               |              |              | 290          |  |
| 1999         | 70.4            |                       | 129.7           | 200             | 278          | 101.5          |               |              |              |               |              |              | 256          |  |
| 2000         | 75.5            | 206                   | 75.2            | 151             | 274          | 100.0          | 198           |              |              |               |              |              | 172          |  |
| 2001         | 83.5            | 229                   | 83.6            | 167             | 295          | 107.7          | 195           |              |              |               |              |              | 179          |  |
| 2002         | 109.0           | million tonnes oil eq | 109.0           | 218             | 279          | 101.8          |               |              |              |               |              |              | 201          |  |
| 2003         | 79.6            | 33                    | 111.0           | 191             | 303          | 110.6          |               |              |              |               |              |              | 217          |  |
| 2004         | 73.1            | million tonnes        | 116.6           | 190             | 297          | 108.4          |               |              |              |               |              |              | 211          |  |
| 2005         | 197.8           | 32                    | 234.3           | 307             | 263          | 96.0           | 7.0           | 248.3        |              |               |              |              | 344          |  |
| 2006         | 171.8           | 373                   | 136.0           | 199             | 239          | 87.2           |               | 490          | 178.9        |               |              |              | 266          |  |
| 2007         | 214.6           | 372                   | 135.7           | 214             | 235          | 85.8           |               | 560          | 204.3        |               |              |              | 290          |  |
| 2008         | 212.4           | 422                   | 154.1           | 232             | 227          | 82.9           |               | 621          | 226.7        |               |              |              | 310          |  |
| 2009         | 204.6           | 510                   | 186.0           | 261             | 228          | 83.2           |               | 654          | 238.5        |               |              |              | 322          |  |
| 2010         | 202.8           | 705                   | 257.3           | 331             | 260          | 94.9           |               | 952          | 347.3        |               |              |              | 442          |  |
| 2011         | 185.8           | 683                   | 249.1           | 317             | 225          | 82.1           | 1,035         |              | 377.8        |               |              |              | 460          |  |
| 2012         | 189.4           | 720                   | 262.7           | 332             | 198          | 72.3           | 972           |              | 354.7        |               |              |              | 427          |  |
| 2013         |                 | 913                   | 333.1           | 333             |              |                | 1,274         |              | 465.2        |               |              |              | 465          |  |
| 2014         |                 | 956                   | 340.2           | 340             |              |                | 1,330         |              | 434.3        |               |              |              | 485          |  |
| 2015         |                 | 1,124                 |                 | 410             |              |                | 1,364         |              |              |               |              |              | 498          |  |
| 2016         |                 | 1,083                 |                 | 395             |              |                | 1,276         |              |              |               |              |              | 466          |  |
| 2017         |                 | 1,065                 |                 | 389             |              |                | 1,301         |              |              |               |              |              | 475          |  |
| 2018         |                 | 1,051                 |                 | 384             |              |                | 1,453         |              |              |               |              |              | 530          |  |
| <b>Total</b> | <b>na</b>       | <b>1,428</b>          | <b>3,595</b>    | <b>6,600</b>    | <b>na</b>    | <b>2,378</b>   | <b>13,680</b> | <b>4,084</b> | <b>8,482</b> | <b>10,968</b> |              |              |              |  |

Reserves, Oil 3298.3 Mb  
Reserves, Gas: 7626.8 Bcf

1 tonne 7.33 bbl  
1 cubic meter = 35.31 cubic feet

Original data 2008 Ann Rpt before correction 2010 Ann Rpt  
million tonnes oil eq 33.4  
million tonnes 32.0 billion cubic meters 7.0  
31.5 8.8  
30.6 9.9  
32.4 10.5

377.8  
354.7  
407.7

5.825

**Cell: J9****Comment:** Rick Heede:

"China National Offshore Oil Corporation (CNOOC Group) is one of the major national oil companies of China. It is the third-largest national oil company in the People's Republic of China after CNPC (parent of PetroChina), and China Petrochemical Corporation (parent of Sinopec). The CNOOC Group focuses on the exploitation, exploration and development of crude oil and natural gas offshore of China. The CNOOC Group is a state-owned oil company, fully owned by the government of the People's Republic of China." Wikipedia.  
 Also see: Xu, Xiaojie (2007) Chinese NOCs' Overseas Strategies: Background, Comparison, and Remarks, Baker Institute for Public Policy, March, 39 pp.  
 Jiang, BinBin (2012) "China National Petroleum Corporation (CNPC): a balancing act between enterprise and government," in Victor et al, eds, Oil & Governance, pp. 379-417.  
 Guo, Sizhi (2007) The Business Development of China's National Oil Companies: The Government to Business Relationship in China, Case Study Series: The Changing Role of National Oil Companies in International Energy Markets, Baker Institute for Public Policy, March, 30 pp.  
 Barnes, Joe, & Matthew E. Chen (2007) NOCs and U.S. Foreign Policy, Case Study Series: The Changing Role of National Oil Companies in International Energy Markets, Baker Institute for Public Policy, March, 64 pp.  
 Lewis, Stephen W. (2007b) "Energy Security and the Consuming Country: China's NOCs," Baker Institute, in: The Changing Role of National Oil Companies in International Energy Markets, Baker Institute for Public Policy, Rice Univ., 1 March 2007.

**Cell: Q9****Comment:** Rick Heede:

World Bank, 2008b, page 17: "CNOOC Ltd. is a joint stock company incorporated in the People's Republic of China (PRC). Its ultimate parent company is China National Offshore Oil Corp. (CNOOC-Parent) which is 100% owned by the government. CNOOC-Parent owns 100% of Overseas Oil & Gas Corp., Ltd. (Bermuda) which in turn owns 100% of CNOOC (BVI) Ltd. (British Virgin Islands) which in turn owns 66% of CNOOC Ltd. 100% government owned CNOOC-Parent owns 66% of the shares of CNOOC Ltd through various internationally-based wholly owned subsidiaries."  
 World Bank (2008b) A Citizen's Guide to National Oil Companies, Part B: Data Directory, World Bank, Washington, & Center for Energy Economics, Bureau of Economic Geology Jackson School of Geosciences University of Texas, Austin, 764 pp.

**Cell: L12****Comment:** Rick Heede:

Natural gas is typically reported as dry gas; natural gas liquids are reported under crude oil. Carbon dioxide is normally removed from the gas flow at the production site (see "Vented Carbon Dioxide"). "SCM/d" = standard cubic meters per day.  
 "cf/d" = cubic feet per day.

**Cell: H47****Comment:** Rick Heede:

CNOOC Ltd agreed to buy Nexen Inc for \$15.1 billion as China's largest foreign deal in July 2012. Bloomberg.com, 23 July 2012. Canadian and US regulators approved the deal in December (the US due to Nexen's activities in the Gulf of Mexico). CNOOC completed the acquisition in February 2013.

**Cell: P52****Comment:** Rick Heede:

CNOOC Annual Report 2018, p. 4. Net proved reserves of oil and liquids, 2014-2018. 2018 reserves, China: 1,783 Mb, Overseas: 1,515 Mb. Gas reserves, China: 6,108 Bcf, overseas: 1,519 Bcf.

**Cell: G53****Comment:** Rick Heede:

CNOOC Annual Report 2013, page 4, net production of crude and liquids, thousand bbl per day.

**Cell: F66****Comment:** Rick Heede:

Oil and gas production data from Energy Intelligence (2003) Top 100: Ranking the World's Oil Companies, p. 124.

**Cell: L66****Comment:** Rick Heede:

Oil and gas production data from Energy Intelligence (2003) Top 100: Ranking the World's Oil Companies, p. 124.

**Cell: F69****Comment:** Rick Heede:

CNOOC Annual Rpt 2003, page 7: "total output of oil and gas reached 33.36 million tons of oil equivalent." Rpt does not disaggregate oil from gas.

**Cell: P69****Comment:** Rick Heede:

CNOOC Annual Rpt 2003, page 7: "total output of oil and gas reached 33.36 million tons of oil equivalent." Rpt does not disaggregate oil from gas.

**Cell: F71****Comment:** Rick Heede:

CNOOC Annual Rpt 2008, page 11. Data in million tonnes per year. CMS Note: OGJ100 for 2005 estimates CNOOC oil production at 127 million bbl, and gas production at 154.8 Bcf.

**Cell: L71****Comment:** Rick Heede (Dec09):

CNOOC Annual Rpt 2008, page 11. Data in billion cubic meters per year.

**Cell: P71****Comment:** Rick Heede:

CNOOC Annual Rpt 2008, page 11. Data in million tonnes per year.  
 CMS Note: OGJ100 for 2005 estimates CNOOC oil production at 127 million bbl, and gas production at 154.8 Bcf.

**Cell: Q71****Comment:** Rick Heede (Dec09):

CNOOC Annual Rpt 2008, page 11. Data in billion cubic meters per year.

**Cell: F72****Comment:** Rick Heede:

CNOOC AR 2010 pg 3 shows "net production of crude and liquids"

**Cell: D75****Comment:** Rick Heede:

AR 2010 pdf pg xix shows production before royalties

**Cell: D77****Comment:** Rick Heede:

Nexen AnnRpt, MDA page 6. Production, after royalties, conventional oil (150.5 thousand bbl /d) plus oil sands (38.9 thousand bbl /d), total 189.4 thousand bbl per day in 2012. Total before royalties: 197.9 thousand bbl per day. For details see production table reproduced here. Nexen acquired by CNOOC effective 25 Feb 2013.

**Cell: F79****Comment:** Rick Heede:

CNOOC 20-F for 2015, page 59: Net production of crude oil (bbl/day) and Natural Gas (Mcf/day) (million cf/day)

**Cell: L79****Comment:** Rick Heede:

CNOOC 20-F for 2015, page 59: Net production of Natural Gas (Mcf/day) (million cf/day)

**Cell: F81****Comment:** Rick Heede:

CNOOC 20-F for 2017, page 56: Net production of crude oil (bbl/day) and natural gas Mcf/day).

**Cell: L81****Comment:** Rick Heede:

CNOOC 20-F for 2017, page 56: Net production of crude oil (bbl/day) and natural gas Mcf/day).

**Cell: F84****Comment:** Rick Heede:

CNOOC Ltd SEC Form 20-F, page 58. See table above, oil net production, in kbpd, for 2016-2018. Sales volume of "crude and liquids" in 2018 (page 65) totaled 372.9 Mb (and 380.1 Mb in 2017).

**Cell: L84****Comment:** Rick Heede:

CNOOC Ltd SEC Form 20-F, page 58. See table above, gas net production, in Mcf/day, for 2016-2018. Sales volume in 2018 (page 65) totaled 469.9 Bcf (and 421.5 Bcf in 2017).