

Oil and natural gas extraction data

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Rosneft, Russia

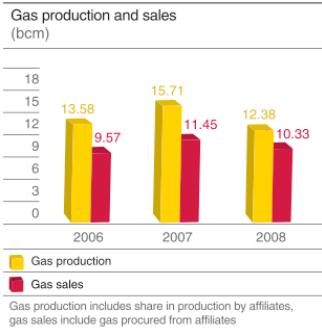
yellow column indicates original reported units
75.16% State-owned entity

www.rosneft.ru/english/ Moscow (formed in 1993 from USSR Ministry of Oil Industry)

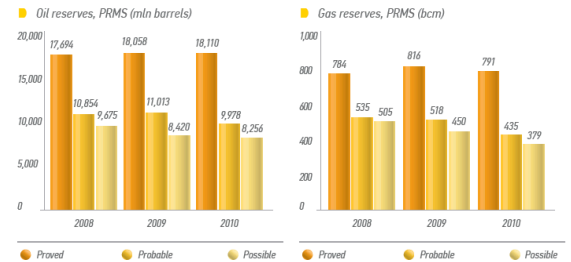
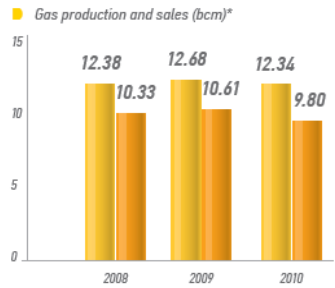
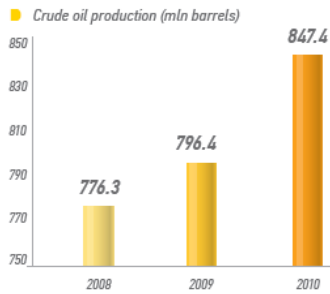
Production / Extraction data

Year	Crude Oil & NGL			Natural Gas			Background data	
	Net production	Net production	Net production	Net production	Net production	Net production		
	Thousand bbd	Million bbyr	Million tonnes/yr	Million cf/d	Million SCM/d	Billion cf/yr	Million tons/yr	Million tonnes/yr
		Rosneft 1993-2010			Rosneft 1993-2010			

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Rosneft Annual Report 2008, page 24.



Rosneft Annual Report 2010, page 53.

Reserves	Crude Oil million bbl	Natural Gas billion m ³
Proven	18,110	791
Probable	9,978	435
Possible	8,256	379

1 SCM =	35,315 cf
1 tonne	7,330 bbl

Rosneft Annual Report 2010, page 37.

Rosneft Annual Report 2010, page 37.

Year	Mt	Million bbl /yr	Attribute Yukos production to Rosneft?	Bcf/yr
1990	18.0	131.9	OGJ100	183.9
1991	16.7	122.4	no data	170.6
1992	15.2	111.4	1990-2003	155.3
1993	14.0	102.6		143.0
1994	12.9	94.6		131.8
1995	12.8	93.8		130.8
1996	12.5	91.6		127.7
1997	12.1	88.7		123.6
1998	11.9	87.2	Rosneft data	168.6
1999	12.6	92.4	interpolated	183.6
2000	13.4	98.2	El data	198.6
2001	15.1	110.7	El data	216.4
2002	16.1	118.0	interpolated	252.0
2003	20.1	147.3	interpolated	287.6
2004	bbl	157.7	9.2	324.9
2005	bbl	535.2	millionSCM/yr	459.1
2006	bbl	582.7	13,584	479.7
2007	bbl	740.0	15,705	554.6
2008	bbl	776.3	12,377	437.1
2009	bbl	796.4	12,680	447.8
2010	bbl	847.4	12,340	435.8

estimated on basis of average gas/oil ratio 1998-2010 applied to 1990-1997

Ave. gas/oil ratio		Rosneft AnnRpt08	
874	weighted	Million bbl /yr	
1,394	simple annual	582.7	
cf gas/bbl oil		740.0	
1,933		563	
1,988		562	
2,022		514	
1,956		18,117	
2,136			
1,952			
2,060			
OGJ100			
858			
823			
749			
563			
562			
514			

Total	na	5,927	na	5,613
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APPENDIX 3: DYNAMICS OF ROSNEFT OIL PRODUCTION, 1990 – 2005 (UNIT: MILLION TONS)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Rosneft	18	16.7	15.2	14	12.9	12.8	12.5	12.1	11.9	12.6	13.4	15.1	16.1	20.1	21.6	74.4
Including:																
Purneftegaz	11.7	10.8	9.8	9.4	8.4	8.4	8.4	8.3	8.2	8.1	8.9	9.6	9.9	9.8	9.6	9.4
Sakhalinm-orneftegas	1.9	1.8	1.6	1.5	1.5	1.5	1.4	1.6	1.5	1.4	1.4	1.4	1.5	1.6	1.8	1.8
Yuganskneftegas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51.2

Poussenkova, 2007, Rosneft NOC, Baker Institute.

APPENDIX 1: ROSNEFT (BEFORE YUGANSKNEFTEGAS ACQUISITION) AMONG ITS PEERS

Company	Proved Reserves (2002), SPE*	Oil Production**		Oil Exports**		Oil Refining (2003)**	Gas Output (2004)***	Number of Fuel Stations	Lifting Costs (2002)#	Drilling (2003) ##		Number of Oil Wells (Dec 2004)	
		2004	2003	2003	% of Oil Output					Devel.	Expl.	Total	Idle
YUKOS	13.7	85.7	80.7	30.3	35.3%	31.5	3.4	1100	1.52	1,180.90	43.1	17,366	4,540
LUKOIL	15.3	84.1	78.8	31.8	37.8%	35.2	5	1400	2.59	1,073.40	125.3	26,502	4,741
TNK-BP	9.4	70.3	61.5	29.1	41.3%	14.6	8	2100	2.49	399.2	21.9	25,749	10,366
Surgut	6.6	59.6	54	20.8	34.8%	15.9	14.3	300	2.96	2,777.50	244.1	16,719	1,985
Sibneft	4.6	34	31	10.1	29.7%	14.3	1.9	1000	1.75	687.8	50.6	8,099	4,643
Tatneft	6	25	24	11.5	46.0%	6.4	0.7	400	4.17	602.5	48.2	21,682	3,904
Slavneft	1.6	22	18	8.1	36.8%	12.4	0.9	600	2.22	251.8	N/a	3,987	761
Rosneft	2.9	21.6	19.5	7.4	34.2%	9.3	9.3	600	3.02	483.2	39.1	8,529	573
Rank	7	8	7	7	7	7	2	5-6	7	6	7	7	1
Bashneft	N/a	12	12	3.8	31.6%	-	0.3	N/a	N/a	333.9	70.9	18,600	3,202

* billion barrels

** million tons

*** billion cubic meters

\$ per barrel

kilometers

Poussenkova, Appendix 1.



Cell: H9**Comment:** Rick Heede:

The history of Rosneft is inseparably linked with that of the Russian oil industry. The Company's core enterprises were established in the Soviet era, when large-scale exploration and development of new oil & gas fields began. In the 1990s, many Russian fuel and energy companies, together with other related state-owned enterprises, were consolidated into vertically integrated companies on the model of the world's largest oil & gas corporations. These new companies were then sold, either fully or in part, to private investors. Management of those oil & gas assets which remained in state ownership became the responsibility of the state enterprise Rosneft.

Russian Government Decree Nr. 971 of September 29, 1995 established a new entity, Open Joint-Stock Company Rosneft Oil Company, which was the legal successor of the previously existing state enterprise. In 1998, Russia's economic crisis presented significant financial and operational challenges for Rosneft, including a production decline due to a severely depleted resource base, low capacity utilization at refineries, and a fall in retail sales. Highly depreciated equipment and outdated technology also put obstacles in the way of Company development.

Source: Rosneft Annual report 2010.

Cell: M9**Comment:** Rick Heede:

Rosneft Annual Report 2008, page 22: "The Company is primarily engaged in exploration and production of hydrocarbons, production of petroleum products and petrochemicals, and marketing of outputs. Rosneft has been included in the Russian Government's List of Strategic Enterprises and Organizations. The state holds 75.16% in the Company (through OJSC ROSNEFTEGAZ), while approximately 15% of shares are in free-float."

Cell: D11**Comment:** Rick Heede:

Company website / history: "In the 1990s, many Russian fuel and energy companies, along with other related state-owned enterprises, were consolidated into vertically integrated companies based on the model of the world's largest corporations. These newly established companies were subsequently fully or partially sold to private investors. Oil and gas assets still owned by the state were managed by the state enterprise Rosneft. Russian Government Decree No. 971 of September 29, 1995 established Rosneft as it is today (Open Joint-Stock Company 'Rosneft Oil Company'). The Company took control of assets previously managed by the state enterprise of the same name."

Cell: D12**Comment:** Rick Heede:

Total net worldwide crude oil plus natural gas liquids produced by each company or state-owned enterprise. Where data is available, we list gross production (before royalty production is netted out). More often, however, oil companies report production net of royalty production.

Crude production includes natural gas liquids (NGL) unless noted.

Cell: H12**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.

Net production typically excludes a number of diverted gas streams. Quantities and fractions vary; ExxonMobil's exclusions are probably typical of the industry: "Net production available for sale quantities are the volumes withdrawn from ... natural gas reserves, excluding royalties and volumes due to others when produced, and excluding gas purchased from others, gas consumed in producing operations, field processing plant losses, volumes used for gas lift, gas injections and cycling operations, quantities flared, and volume shrinkage due to the removal of condensate or natural gas liquids production." ExxonMobil Corporation (2004) 2003 Financial and Operating Review, www.exxonmobil.com, p. 55.

Cell: E15**Comment:** Rick Heede:

www.rosneft.ru/english/company/history.html: Rosneft founded in 1993 (from USSR Ministry of Oil Industry). Caspian Sea, Sakhalin-5, Algeria, Colombia. Rosneft acquired Severnaya Neft (Northern Oil) company in 2003.

Cell: D54**Comment:** Rick Heede:

Poussenkova, Nina (2007) Rosneft as a Mirror of Russia's Revolution, Case Study Series: The Changing Role of National Oil Companies in International Energy Markets, Baker Institute for Public Policy, March, 87 pp. From Appendix, at page 84.

Cell: J56**Comment:** Rick Heede:

Since the gas/oil production ratio over the period 1998 to 2010 declined from 1,933 cf/bbl in 1998 to 514 cf/bbl in 2010, and the weighted average works out to 874 cf per bbl, we average the annual ratios over 13 years 1998-2010, or 1,394 cf per bbl. This is still conservative relative to the ratio in 1998.

Cell: C64**Comment:** Rick Heede:

Oil production data 1998 and 2004 from www.rosneft.ru (in million tonnes/yr). Expected oil production in 2015: 125 million tonnes

Cell: H64**Comment:** Rick Heede:

Gas production data 1998 and 2004 from www.rosneft.ru (in billion cubic meters/yr). Expected gas production in 2015: 50 billion cm.

Cell: I66**Comment:** Rick Heede:

Energy Intelligence, Top 100 data from Rosneft 2000-2001. 544 million cv per day in 2000 (198.6 Bcf, and 593 million cf in 2001 (216.4 Bcf).

Cell: J66**Comment:** Rick Heede:

Energy Intelligence, Top 100 data from Rosneft 2000-2001. 544 million cv per day in 2000 (198.6 Bcf, and 593 million cf in 2001 (216.4 Bcf).

Cell: O66**Comment:** Rick Heede:

Oil and gas production data from EI (2003) Top 100, p. 221.

Cell: D70**Comment:** Rick Heede:

We cite Rosneft production data from annual reports. Poussenkova cites slightly different data, e.g., 21.6 Mt (158.3 million bbl) in 2004 and 74.4 Mt (545.4 million bbl) in 2005.

Cell: E70**Comment:** Rick Heede:

We cite Rosneft production data from annual reports. Poussenkova cites slightly different data, e.g., 21.6 Mt (158.3 million bbl) in 2004 and 74.4 Mt (545.4 million bbl) in 2005.

Cell: D75

Comment: Rick Heede:

AR 2010 pdf pg 54; 2008-2010; 2008 agrees with OGJ100.

Cell: E75

Comment: Rick Heede:

AR 2010 pdf pg 54; 2008-2010; 2008 agrees with OGJ100.

Cell: H75

Comment: Rick Heede:

AR 2010 pg 62 (pdf pg 57); consistent with 2008 value from OGJ100; not consistent with 2009 OGJ100 value of 554.4

Cell: E100

Comment: Rick Heede:

Poussenkova, Nina (2007) Rosneft as a Mirror of Russia's Revolution, Case Study Series: The Changing Role of National Oil Companies in International Energy Markets, Baker Institute for Public Policy, March, 87 pp. Appendix, page 84.