

# Oil and natural gas extraction data

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Climate Mitigation Services  
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## Suncor Energy / Petro-Canada

www.suncor.com Calgary

yellow column indicates original reported units  
Investor-owned

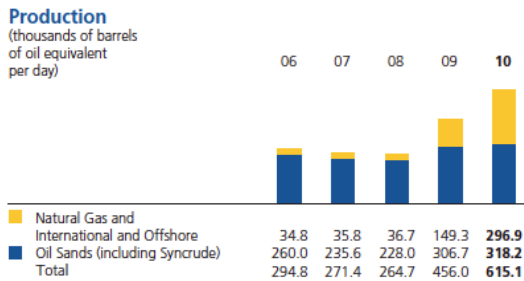
### Production / Extraction data

Year	Crude Oil & NGL			Natural Gas			Background data	
	Net production	Net production	Net production	Net production	Net production	Net production		
	Million bbl /yr	Million bbl /yr	Million bbl /yr	Billion cf/yr	Billion cf/yr	Billion cf/yr	Million tons/yr	Million tonnes/yr

- 1950
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- 2006
- 2007
- 2008
- 2009
- 2010



Suncor acquired Petro-Canada in August 2009.



Suncor Annual Rpt 2010, page 1.



Suncor's Fort McMurray plant in 1964

Year	OGJ100			OGJ100		
	Petro-Canada	Suncor	Suncor/Petro-Can	Petro-Canada	Suncor	Suncor/Petro-Can
	million bbl /yr	million bbl /yr	million bbl /yr	Bcf/yr	Bcf/yr	Bcf/yr
1987	32.9	3.9	37	258.8	23.2	282
1988	33.5	3.9	37	177.6	29.7	207
1989	36.5	3.3	40	209.1	24.5	234
1990	34.0	4.1	38	181.8	25.6	207
1991	33.8	3.9	38	185.0	-	185
1992	29.1	4.5	34	186.5	0.6	187
1993	29.1	4.7	34	205.0	0.6	206
1994	14.7	30.8	46	197.1	56.6	254
1995	16.2	33.5	50	199.3	63.1	262
1996	35.5	34.4	70	259.9	82.5	342
1997	34.7	35.7	70	277.4	87.6	365
1998	36.9	40.1	77	263.4	87.6	351
1999	34.8	38.5	73	262.4	131.4	394
2000	33.0	41.6	75	271.0	99.3	370
2001	28.3	45.0	73	260.6	65.0	326
2002	89.4	75.1	165	301.1	65.3	366
2003	107.5	79.1	187	316.8	68.3	385
2004	84.0	82.7	167	311.0	80.6	392
2005	104.0	62.5	167	302.0	76.2	378
2006	83.4	94.9	178	255.9	76.2	332
2007	98.5	86.0	184	216.8	78.4	295
2008	92.2	83.2	175	213.5	80.4	294
2009		139.3	139		162.9	163
2010		189.5	190		209.8	210
	*net after royalties*					
<b>Total</b>	<b>1,122</b>	<b>1,220</b>	<b>2,342</b>	<b>5,312</b>	<b>1,675</b>	<b>6,987</b>
	<b>1,111</b>					<b>1,060</b>

**Cell:** I9

**Comment:** Rick Heede:

History: "The skeptics said Canada's oil sands could never be developed commercially. In 1967, Suncor Energy proved them wrong. Our people — their perseverance, dedication and innovation — turned vision into reality. Today, Suncor is Canada's premier integrated energy company, the fifth largest North American energy company and has a place on the global stage as one of the largest independent energy companies in the world. We provide thousands of well-paid jobs, put millions of dollars into Canadian businesses every year, take action on environmental issues, and support our communities by funding local initiatives. Our track record as an oil sands pioneer is both cause for celebration and inspiration for the future. Look to Suncor to continue leading the way — expanding our oil sands operations to one of the world's largest positions, developing renewable energy and investing in new technologies to improve our environmental performance. We're still making history."  
www.suncor.com/en/about/1918.aspx

"Suncor was founded in 1919 in Montreal as Sun Company of Canada, a subsidiary of Sun Oil (now Sunoco). In 1979, Sun formed Suncor by merging its Canadian refining and retailing interests; Great Canadian Oil Sands (a majority-owned subsidiary, which constructed and operated the first commercial plant to develop Canada's Athabasca oil sands and went on production in 1967); and its conventional oil and gas interests. In 1981, the Government of Ontario purchased a 25% stake in the company; it divested in 1993. In 1993 Sun Oil also divested its interest in the company, although Suncor maintained the Sunoco retail brand in Canada. Suncor took advantage of these two divestitures to become an independent, widely-held public company.

On March 23, 2009, Suncor announced the acquisition of Petro-Canada. This merger created a company with a combined market capitalization of C\$43.3 billion. On 4 June 2009, a 98% approval rate was reached by Suncor's shareholders for the acquisition of Petro-Canada and the competition bureau approved the merger on June 21, 2009. The merger with Canada's 11th largest company was completed on August 1, 2009 in a \$21 billion deal to form the second-largest company in Canada." Suncor (wikipedia: en.wikipedia.org/wiki/Suncor\_Energy)

**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 net 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:** L44

**Comment:** Rick Heede:

Suncor's (then Sun Oil Company Ltd) started construction of its Great Canadian Oil Sands plant in Fort McMurray in 1964. Photo courtesy Suncor website: The Oil Sands Story (1960s, 1970s & 1980s).

**Cell:** D54

**Comment:** Rick Heede:

OGJ data for 1987-2005, company data 2006-2008; see column "L".

**Cell:** E54

**Comment:** Rick Heede:

OGJ data for 1987-1998, company data 1999-2008; see column "M".

**Cell:** H54

**Comment:** Rick Heede:

CMS cites Oil & Gas Journal OGJ100 natural gas production estimates for 1987-2005, and Petro-Canada's AnnRpt data for 2006-2008.

**Cell:** I54

**Comment:** Rick Heede:

CMS cites Oil & Gas Journal OGJ100 data for 1987-2003, and company data for 2004-2008.

**Cell:** I58

**Comment:** Rick Heede:

OGJ100 reports 0.0 gas production in 1991. In view of bracketed by higher production in prior and subsequent years suggests erroneous data for 1991-1993.

**Cell:** E66

**Comment:** Rick Heede:

Suncor Annual Rpt 2003, page 3. Suncor oil sands production in 2003 of 216,600 bbl per day = 79.1 million bbl per year.

**Cell:** E71

**Comment:** Rick Heede:

Suncor Annual Rpt 2007, page 34 confirms Oil & Gas Journal OGJ100 production estimates, e.g., Suncor oil sands production in 2007 of 235,600 bbl per day = 62.5 million bbl per year.

**Cell:** I71

**Comment:** Rick Heede:

Suncor 2008 Annual Rpt, page 1 shows natural gas production in BOE. CMS uses the conventional 6,000 cf per bbl of oil equivalent in Suncor's absence of definition. Thus 2008: 36.7 thousand BOE \* 6,000 cf/BOE \* 0.365 = 80.4 Bcf.

**Cell:** D73

**Comment:** Rick Heede:

Petro-Canada Annual Rpt 2008, page 33; oil sands production and bitumen production totaled 52,200 bbl per day in 2006, 56,900 bbl per day in 2007, and 59,900 bbl per day in 2008. CMS converts to million bbl per year.

Petro-Canada reports crude oil and oil sands production in three separate tables (pp. 33, 38, and 42, oil sands, other Canada, and international production, respectively). In 2008, production in these regions totaled, in thousand bbl per day:  $(59.9+90.5+157.2)*0.365 = 112.3$  million bbl for the year. Then, on page 48, total average daily production for 2008 is 266,000 bbl per day for crude oil, NGL, and bitumen ("net before royalties," and 222,900 bbl /day "net after royalties," PLUS 34,700 of synthetic crude oil (before royalties, or 29,700 bbl /day after royalties).

Thus CMS revises the previous calculation by reporting total petroleum (after royalties of 222,900 + 29,700 bbl per day = 92.20 million bbl in 2008.

Similar data for 2007 shows 238,700 + 31,100 bbl per day = 98.48 million bbl in 2007.

**Cell:** H73

**Comment:** Rick Heede:

Petro-Canada (2009) 2008 Annual Report, page 29. 2006 gas production of 701 million cf/d, 2007 = 674 million cf/d, and 2008 = 665 million cf/d. CMS converts to Bcf/yr.

Suncor

Suncor AnnRpt 2008, page 48: 2008 gas production "net before royalties" totaled 706 million cf/day (and 585 million cf/day "net after royalties"). And for 2007: gas production "net before royalties" totaled 728 million cf/day (and 594 million cf/day "net after royalties").  
CMS uses "net after royalties" data for 2007 and 2008.

**Cell:** E75

**Comment:** Rick Heede:

Suncor 2008 Annual Rpt, page 3.

**Cell:** E76

**Comment:** Rick Heede:

AR 2010 pg 10, oil sands in 306.7 thousand boe/d in 2009 and 318.2 k bbday in 2010.

**Cell:** I76

**Comment:** Rick Heede:

Suncor AR 2010 pg 10; nat gas continuing operations+discontinued operations; equals 2008 reported production. Units in BOE of gas production (at 6,000 cf per bbl).

**Cell:** M80

**Comment:** Rick Heede:

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