

Oil and natural gas extraction data

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 Climate Mitigation Services
 File started: 11 January 2005
 Last modified: December 2011

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Occidental Petroleum, USA

www.oxy.com Los Angeles

yellow column indicates original reported units
 Investor-owned

Production / Extraction data

Year

Year	Crude Oil & NGL				Natural Gas				Background data
	Net production	Company 1	Company 2	Sum production	Net production	Company 1	Company 2	Sum production	
	Thousand bbl /d	Million bbl /yr	Million bbl /yr	Million bbl /yr	Million cf/d	Billion cf/yr	Billion cf/yr	Billion cf/yr	
		Occidental 1920-2010	Vintage Petr. 1992-2004			Vintage Petr. 1992-2004	Occidental Petroleum		



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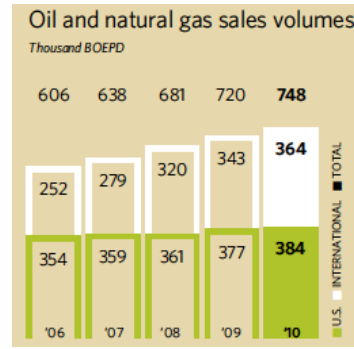
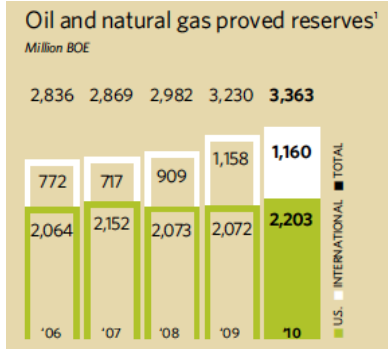
Year	Occidental (Thousand bbl/d)	Company 1 (Million bbl/yr)	Company 2 (Million bbl/yr)	Sum production (Million bbl/yr)	Occidental (Million cf/d)	Company 1 (Billion cf/yr)	Company 2 (Billion cf/yr)	Sum production (Billion cf/yr)
1957	0.36							
1958	20.4	interpolated		20.4	interpolated	1.7		1.7
1959	40.4	interpolated		40.4	interpolated	3.4		3.4
1960	60.4	interpolated		60.4	interpolated	5.1		5.1
1961	80.4	interpolated		80.4	interpolated	6.7		6.7
1962	100.4	interpolated		100.4	interpolated	8.4		8.4
1963	120.4	interpolated		120.4	interpolated	10.1		10.1
1964	140.5	interpolated		140.5	interpolated	11.7		11.7
1965	160.5	interpolated		160.5	interpolated	13.4		13.4
1966	180.5	interpolated		180.5	interpolated	15.0		15.0
1967	200.5	interpolated		200.5	interpolated	16.7		16.7
1968	220.5	interpolated		220.5	interpolated	18.4		18.4
1969	659.0	240.5		240.5	interpolated	20.0		20.0
1970	586.4	214.0		214.0	interpolated	21.7		21.7
1971	380.0	138.7		138.7	interpolated	23.4		23.4
1972	252.0	92.0		92.0	interpolated	24.1		24.1
1973	166.0	60.6		60.6	interpolated	20.1		20.1
1974	143.0	52.2		52.2	interpolated	33.9		33.9
1975	174.0	63.5		63.5	interpolated	34.3		34.3
1976	252.0	92.0		92.0	interpolated	33.9		33.9
1977	326.0	119.0		119.0	interpolated	35.0		35.0
1978	353.0	128.8		128.8	interpolated	38.7		38.7
1979	296.0	108.0		108.0	interpolated	42.0		42.0
1980	266.0	97.1		97.1	interpolated	39.8		39.8
1981	282.0	102.9		102.9	interpolated	62.1		62.1
1982	423.0	154.4		154.4	interpolated	275.9		275.9
1983	OGJ100	113.0		113.0	Oxy acq Cities	258.0		258.0
1984	data 1984-03	119.0		119.0	OGJ100	265.0		265.0
1985	Acq MidCon 1986	119.0		119.0	data 1984-03	265.0		265.0
1986		110.0		110.0		298.0		298.0
1987		85.0		85.0		308.0		308.0
1988		72.0		72.0		283.0		283.0
1989		80.0	Vintage Petroleum	80.0		258.0		258.0
1990		72.0	OGJ, million bbl /yr	72.0		257.0		257.0
1991		71.0		73.0		244.0		244.0
1992		79.0		83.8		238.0		238.0
1993		87.0		93.7		246.0		246.0
1994		101.0		108.6		269.0		269.0
1995		105.0		116.9		262.0		262.0
1996		101.0		116.5		258.0		258.0
1997		117.0		133.4		256.0		256.0
1998	Acq 78% Elk Hills NPR	112.0		128.9		261.0		261.0
1999		461.0		144.9		259.0		259.0
2000		112.0		134.0		261.0		261.0
2001		150.0		170.9		229.0		229.0
2002	411.0	163.0		181.0	627.4	221.0		221.0
2003	446.6	168.0		185.5	605.5	233.0		233.0
2004	460.3	252.0	Acq Vintage 2005	252.0	638.4	165.0		165.0
2005		142.0	OGJ2006	142.0		272.0		272.0
2006	Acq Altura 2000	166.0	OGJ2007	166.0		261.0		261.0
2007		531.0	OGJ2008 171 MB	193.8	PGJ2008 307	913	335.5	335.5
2008		552.0	OGJ2010 201 MB	201.5		997	366.4	366.4
2009		551.0		201.1		1180	433.7	433.7
2010								
Total		6,406	180	6,586	na	3659	8,078	8,647

Occidental owns Island Creek (1984)
 1970 AnnRpt shows coal sales \$ 1961

Year	Oil (million bbl)	Gas (Bcf)
1970	22.9	20.8
1971	22.6	20.5
1972	22.9	20.8
1973	20.8	18.9
1974	19.4	17.6
1975	17.6	16.0
1976	16.8	15.3
1977	13.7	12.4
1978	19.5	17.6
1979	19.7	17.9
1980	19.4	17.6
1981	16.1	14.6
1982	10.5	9.5
1983	11.7	10.6

no data
 See Oxy / Island Creek Coal for details

Proven Reserves, 2010	
Oil (million bbl)	Gas (Bcf)
2,476	5,320



Oxy Annual Report 2010, page 4.

Comparative Oil and Gas Proved Reserves and Sales Volumes

Oil in millions of barrels; natural gas in billions of cubic feet; barrels of oil equivalent (BOE) in millions of barrels of oil equivalent

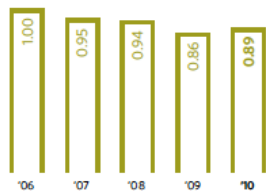
	2010			2009			2008		
	Oil ^(a)	Gas	BOE ^(b)	Oil ^(a)	Gas	BOE ^(b)	Oil ^(a)	Gas	BOE ^(b)
PROVED RESERVES									
United States	1,697	3,034	2,203	1,606	2,799	2,072	1,547	3,153	2,073
International	613 ^(c)	2,104	964 ^(c)	657 ^(c)	2,228	1,028 ^(c)	533 ^(c)	1,299	749 ^(c)
Continuing Operations	2,310	5,138	3,167	2,263	5,027	3,100	2,080	4,452	2,822
Held for Sale ^(e)	166	182	196	108	130	130	135	149	160
Total	2,476	5,320	3,363^(f)	2,371	5,157	3,230^(f)	2,215	4,601	2,982^(f)
SALES VOLUMES									
United States	99	247	140	99	232	137	96	215	132
International	88 ^(d)	172	117 ^(d)	69 ^(d)	95	85 ^(d)	63 ^(d)	84	77 ^(d)
Continuing Operations	187	419	257	168	327	222	159	299	209
Held for Sale ^(e)	14	12	16	13	11	15	12	8	13
Total	201	431	273	181	338	237	171	307	222

- (a) Includes NGLs and condensate.
- (b) Natural gas volumes have been converted to BOE based on energy content of six thousand cubic feet (Mcf) of gas to one barrel of oil.
- (c) Excludes the former noncontrolling interest in a Colombian subsidiary because on December 31, 2010, Occidental restructured its Colombian operations to take a direct working interest in the related assets.
- (d) Includes the noncontrolling interest in a Colombian subsidiary.
- (e) Occidental has classified its Argentine operations as held for sale.
- (f) Stated on a net basis after applicable royalties. Includes proved reserves related to production-sharing contracts (PSCs) and other similar economic arrangements of 1.1 billion BOE in 2010, 1.1 billion BOE in 2009 and 825 million BOE in 2008.

Occidental Annual Report 2010 page 3 (pdf page 19).

Energy use index

Base year 2006=1.0
(excludes energy used to generate electricity exported to the grid)



Estimated GHG emissions (equity share basis)*

Million metric tons CO₂ equivalents



Oxy SRI report 2010, page 12.
Direct: Scope 1. Indirect: Scope 2.

Enhanced Oil Recovery

500 billion cubic feet

Amount of carbon dioxide Oxy injected into oil reservoirs in the Permian Basin in 2010, making Oxy the largest handler of CO₂ in the world.

Oxy SRI report 2010, page 12.

Cell: I9**Comment:** Rick Heede:

Occidental ("Oxy") was established in 1920 in California. Led by Armand Hammer into early production in Libya and Soviet Union.

2010: Oxy announced the acquisition of assets in South Texas and North Dakota and the selling of its assets in Argentina. Eni, Oxy and Korea Gas signed a contract with Iraq's state-owned South Oil Company and Missan Oil Company as State Partner, to redevelop the Zubair Field, near Basra in southern Iraq. The government of Abu Dhabi selected Oxy to help develop the Shah Gas Field, one of the largest gas fields in the Middle East. Oxy holds a 40-percent participating interest in a 30-year contract.

2009: Oxy announced a significant discovery of oil and gas reserves in Kern County, California — believed to be the state's largest oil and gas discovery in 35 years. Oxy and Mubadala Development Company (Mubadala) with the National Oil and Gas Authority of Bahrain (NOGA) started operations for the further development of the Bahrain Field. Oxy also acquired the commodities investment company Phibro from Citigroup and OxyChem acquired Dow Chemical Company's calcium chloride operations, the world's largest.

2008: Oxy signed agreements for various projects in the Middle East/North Africa region, including an agreement to develop gas fields and to explore for potential new discoveries in the Sultanate of Oman. In the U.S., Oxy purchased interests in the Permian and Piceance basins.

2007: The giant Dolphin Project, one of the largest energy projects ever undertaken in the Middle East, became fully operational and currently delivers natural gas to customers in the United Arab Emirates and Oman. Oxy has been a partner in the Dolphin Project since 2002.

2006: Oxy acquired production assets from Vintage Petroleum in Latin America, California and the Middle East. OxyChem acquired chemical assets in the U.S. from Vulcan Materials Company.

2005: Oxy signed an agreement with Libya's National Oil Company to re-enter the country to participate in exploration and production operations.

2004: Oxy signed a new production-sharing contract for the Mukhaizna oilfield, one of the largest in Oman.

2000: The purchase of Altura Energy, Ltd., in the Permian Basin of West Texas and southeast New Mexico made Oxy the largest oil producer in Texas.

1998: Oxy became the largest natural gas producer in California with the purchase of the U.S. Department of Energy's 78-percent interest in Elk Hills Naval Petroleum Reserve.

Cell: O11**Comment:** Rick Heede:

Oil and natural gas production for 1958 from Occidental Petroleum (1959) Annual Report, p.1.

Cell: G12**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: 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.

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: E25**Comment:** Rick Heede:

Oil and natural gas production for 1958 from Occidental Petroleum (1959) Annual Report, p.1.

Cell: E26**Comment:** Rick Heede:

Sum of interpolated oil production 1959-1969 is 1,325 million bbl .

Cell: B28**Comment:** Rick Heede:

1961: Oxy's first "major discovery" in Sacramento Basin.

Cell: D37**Comment:** Rick Heede:

Occidental Petroleum Corporation 1971 Annual Report, p. 6, shows daily and annual crude oil production, but no data on condensate or NGL (or natural gas, for that matter). Nor does the report state whether production is net or gross, or includes oil produced for the Libyan Government (which is shown in the 1974 AnnRpt).

Cell: N37**Comment:** Rick Heede:

Have 1970 and 1979 AnnRpts Ten Year Summaries, but financial data only, no production data. Coal sales are shown back to 1961 (\$79.8 million, compared to 262.2 million in 1970).

Cell: N38**Comment:** Rick Heede:

Occidental Petroleum Corporation 1975 Annual Report, Island Creek Coal Division, p. 34, shows coal production 1971-1975 and marketed coal by rank: of the total mined in 1975 (19.421 million tons), 11.067 million tons was utility coal, 2.494 million tons industrial and retail, and 2.329 (domestic) plus 4.416 million tons (export) metallurgical coal (coal sales totaled 20.306 million tons).

Cell: D39**Comment:** Rick Heede:

Occidental Petroleum Corporation 1974 Annual Report, Statistical Highlights, shows crude oil production (net or gross is not stated). CMS has NOT included reported crude oil produced for the Government of Libya: 53,000 bbl per day in 1972, 112,000 in in 1973, and 164,000 bl per day in 1974.

Cell: I39**Comment:** Rick Heede:

Occidental Petroleum Corporation 1974 Annual Report, Statistical Highlights, shows natural gas production in million cf per day for 1972-1974.

Cell: D42**Comment:** Rick Heede:

Production data (disaggregated by region and not summed) for 1975-1979 from Occidental Petroleum (1980) Annual Report, p. 16.

Cell: I42**Comment:** Rick Heede:

Production data (disaggregated by region and not summed) for 1975-1979 from Occidental Petroleum (1980) Annual Report, p. 16.

Cell: N42

Comment: Rick Heede:
Coal production data 1975-1984 from various company annual reports.

Cell: D46

Comment: Rick Heede:
Oxy reports production by region, but (apparently) reports total production for several joint projects rather than Oxy's equity production. We had to calculate equity production in 1979 (for example) at 353,000 bbl vs total production of 838,000 bbl.

Cell: N47

Comment: Rick Heede:
Occidental Petroleum Corporation Annual Report for 1984, p. 16, mentions "Occidental's Island Creek coal operations." CMS does not have later annual reports and do not know the date of divestiture.

Occidental also refers to joint development of the Ping Shuo coal mine in PR China, with Occidental interest of 25 percent, Bank of China trust 25 percent, and China National Coal Development Corporation holding 50 percent.

Cell: B49

Comment: Rick Heede:
Oxy acquired Cities Service 1982 (no data available in Oil & Gas Journal)

Cell: N52

Comment: Rick Heede:
Occidental coal production does not show up in any EIA Coal Industry Annual or Keystone Coal Industry Manual 1983-fwd.

Cell: F57

Comment: Rick Heede:
• 1983: Vintage Petroleum is incorporated (Tulsa). • 1990: Initial public offering of stock is completed. • 1992: First California properties are acquired. • 1995: Company makes first acquisitions in Argentina. • 1996: Company makes first acquisitions in Bolivia. • 1998: Ecuador and Yemen interests are added. • 2000: First Canadian property is acquired. Approximately 60 percent of its total production is generated in North America, with nearly an equal split between gas and oil production.

Cell: D67

Comment: Rick Heede:
Occidental's annual reports are among the most obscure in the industry; the company only reports combined oil & gas in oil equivalent units. This year 2000 datum is thousand BOE.

Cell: E69

Comment: Rick Heede:
Original data from Occidental (2004) SEC Form 10-K, p. 4.

The table shows the following footnotes:

Oil "includes natural gas liquids and condensate."

Oil production also includes "Occidental's share of reserves and production from equity investees in Russia and Yemen, partially offset by minority interests for a Colombian affiliate" of 9 million bbl in 2004, 10 in 2003, and 8 in 2002.

Cell: D75

Comment: Rick Heede:
2008-2010 data from Occidental AR 2010 page 83 (pdf p.98), production volumes per day, including Occidental's Argentine operations as "held for sale".

Cell: J75

Comment: Rick Heede:
Occidental Annual Report 2010, page 83 (production data, including gas production "held for sale" 2008-2010).

Cell: O75

Comment: Rick Heede:
Occidental Annual Report 2010 page 3 (pdf page 19).

Cell: E77

Comment: Rick Heede:
Oil & Gas Journal OGJ150 30Oct2011, page 38 shows 201 million bbl world production.