

Crude oil & NGL extraction data

Richard Heede
Climate Mitigation Services
File started: 11 January 2005
Last modified: July 2013

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Chevron Corporation, USA

www.chevron.com

San Francisco

yellow column
indicates
original

Investor-owned

Production / Extraction data

Crude Oil & NGL

Company 1	Company 2	Company 3	Company 4	Company 5	Company 6	Company 7	Sum production	Company 1	Company 2	Company 3	Company 4	Company 5	Company 6	Company 7	Company 8	Sum production
Thousand bbl /d	Thousand bbl /d	Thousand bbl /d	Thousand bbl /d	Thousand bbl /d	Thousand bbl /d	Thousand bbl /d	Thousand bbl /d	Million bbl /yr	Million bbl /yr	Million bbl /yr	Million bbl /yr	Million bbl /yr	Million bbl /yr	Million bbl /yr	Million bbl /yr	Million bbl /yr
Standard Oil of California, and Chevron	Texaco	Pacific Western, & Getty	Tide Water Petr., acq by Getty	Mission & Skelly Oil Co's (acq. by Getty)	Gulf Oil 1937-1984	Tenneco 1950-1988	Total	Socal and Chevron	California Petr., Texas Co. & Texaco	Pacific Western, Getty	Tide Water Petroleum, acq by Getty	Mission & Skelly Oil, acq. by Getty	Gulf Oil	Tenneco	Union Oil, Pure Oil, Unocal	Total

Year	Company 1	Company 2	Company 3	Company 4	Company 5	Company 6	Company 7	Sum production	Company 1	Company 2	Company 3	Company 4	Company 5	Company 6	Company 7	Company 8	Sum production
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2009																	
2010																	
Total																	

Total Worldwide	2,210	2,258	2,240	2,175	2,208
Gross production of crude oil and natural gas liquids	1,649	1,796	1,752	1,688	1,718
Other production volumes	27	27	109	143	149
Gross production of natural gas	6,265	6,082	5,882	4,386	4,391
Net production of natural gas	5,125	5,019	4,676	4,233	4,308
Net oil-equivalent production	2,500	2,619	2,607	2,517	2,509
Refinery inputs	1,804	1,833	1,989	1,883	1,958
Sales of refined products	8,429	8,484	8,621	8,725	8,875
Sales of natural gas liquids	273	278	286	271	285
Total sales of petroleum products	3,762	3,762	3,847	3,996	4,160
Sales of natural gas	14,441	14,416	14,520	14,899	14,508
Worldwide - Excludes Equity in Affiliates					
Number of wells completed (net)					
Oil and gas	1,605	1,597	1,575	1,565	1,587
Dry	11	8	32	36	34
Production of oil and gas wells (net)	12,291	11,528	10,603	9,508	8,426
Gross production represents the company's share of total production before deducting taxes, royalties and government's agreed share of production costs (production sharing costs). Net production is gross production minus royalty paid to license and government.					
Includes natural gas converted to production (tonnes)	76	65	55	49	52
Total	598	608	675	686	701

Chevron AnnRpt 2008, p. 92, data for 2008 (left column) to 2004 (right column).

Net Liquids Production*

Thousands of barrels per day

Get Caltex (Socal/Texas Co joint) dat.

Get Casco data (became Aramco in '77)

Note:

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Coal extraction data

Richard Heede
Climate Mitigation Services
File started: 11 January 2005
Last modified: August 2011

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Annual report data

Chevron Corporation, USA

Production / Extraction data

Coal

Company 1	Company 2	Sum production	Company 1	Company 2	Sum production
Million tons/yr	Million tons/yr	Million tons/yr	Million tonnes/yr	Million tonnes/yr	Million tonnes/yr
	Pittsburgh & Midway / Gulf Oil / Chevron				

Refined Product Sales	Year ended December 31				
Thousands of barrels per day	2010	2009	2008	2007	2006
United States	700	720	692	728	712
Gasoline	332	326	325	321	332
Gas oil and kerosene	223	254	274	271	280
Jet fuel	99	110	127	138	128
Residual fuel oil	99	93	91	99	122
Other petroleum products	192	176	182	171	166
Total United States	1,349	1,403	1,413	1,457	1,494
International¹	521	555	589	581	595
Gasoline	583	647	710	730	776
Gas oil and kerosene	271	264	278	274	266
Jet fuel	197	209	257	271	324
Residual fuel oil	192	176	182	171	166
Other petroleum products	1,764	1,851	2,016	2,027	2,127
Total International	1,764	1,851	2,016	2,027	2,127
Worldwide²	1,221	1,275	1,281	1,309	1,307
Gasoline	825	873	939	951	1,028
Gas oil and kerosene	494	518	552	545	546
Jet fuel	296	319	384	409	452
Residual fuel oil	287	269	273	270	288
Other petroleum products	3,113	3,254	3,429	3,484	3,621
Total Worldwide	3,113	3,254	3,429	3,484	3,621

Net Natural Gas Production ^{1,2}	Year ended December 31				
Millions of cubic feet per day	2010	2009	2008	2007	2006
Consolidated Companies					
United States	24	29	30	31	36
Alaska	48	54	56	62	67
California	32	27	30	30	30
Colorado	96	90	88	97	101
Louisiana	104	102	90	98	100
New Mexico	332	358	300	405	443
Oklahoma	97	99	103	101	122
Texas	39	42	45	52	55
Utah	3	1	40	48	50
Wyoming	38	39	46	64	95
Other states	110	99	129	135	153
Total United States	1,314	1,399	1,501	1,699	1,810
Other Americas					
Argentina	5	27	45	50	54
Brazil	7	4	4	5	6
Canada	249	245	209	178	174
Colombia	223	199	189	174	174
Trinidad and Tobago	-	-	-	-	21
Total Other Americas	468	475	447	407	429
Africa	52	49	52	48	47
Angola	6	5	5	4	4
Democratic Republic of the Congo	1	1	1	2	2
Nigeria	86	48	72	15	29
Republic of the Congo	10	13	12	7	8
Total Africa	155	116	142	76	90
Asia	11	10	7	5	4
Azerbaijan	404	387	404	275	126
Bangladesh	13	16	22	22	18
China	236	268	319	277	302
Indonesia	149	161	153	149	143
Kazakhstan	81	76	89	100	89
Myanmar	23	21	20	17	19
Partitioned Zone	124	128	128	126	108
Philippines	875	794	884	916	856
Thailand	1,916	1,870	2,046	1,887	1,665
Total Asia	468	434	376	372	360
Europe	116	119	142	132	146
Denmark	35	41	40	5	7
Netherlands	194	222	208	220	242
Norway	346	383	391	358	396
United Kingdom	4,677	4,677	4,903	4,799	4,750
Total Europe	4,677	4,677	4,903	4,799	4,750
Equity Share in Affiliates	338	289	195	193	193
TCD	10	8	9	10	9
Petroplus (Hemac prior to 2008)	6	6	7	6	1
Petrobrascan ³	9	9	11	11	3
Petrolindpendent ⁴	363	312	222	220	206
Total Equity Share in Affiliates	5,040	4,989	5,125	5,019	4,956
Total Worldwide	5,040	4,989	5,125	5,019	4,956

¹ 2006 through 2009 confirmed to 2010 geographic presentation.

² Net natural gas production includes royalty interests and a government's owned shares of production under a PSC, includes natural gas consumed in operations.

³ Includes production from L-452 through September 2006.

⁴ Joint stock company formed in October 2006.

⁵ Includes production from L-452 through September 2006.

⁶ Joint stock company formed in October 2006.

⁷ Includes production from L-452 through September 2006.

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Chevron Annual Report 2010, page 41.

Net production of oil and gas through concessions, joint ventures, etc.

Angola, page 21.

Nigeria, page 23

Cell: J9	Chevron
Comment: Rick Heede:	History (wikipedia: en.wikipedia.org/wiki/Chevron_Corporation) "Chevron traditionally traces its roots to an oil discovery in Pico Canyon (now the Pico Canyon Oilfield) north of Los Angeles. The discovery led to the formation, in 1879, of the Pacific Coast Oil Company (also known as "Coast Oil"), the oldest predecessor of Chevron Corporation. In 1895, Coast Oil initiated its enduring marine history when it launched California's first steel tanker, the George Loomis, which could ship 6,500 barrels of crude between Ventura and San Francisco.[6] Coast Oil was acquired in 1900 by the Standard Oil Co. (Iowa), a subsidiary of John D. Rockefeller's Standard Oil company. In 1906, Coast Oil was reincorporated as Standard Oil Co. (California). Another side of the genealogical chart points to the founding of The Texas Fuel Company in 1901, a modest enterprise that started out in three rooms of a corrugated iron building in Beaumont, Texas, United States. This company was known as the Texas Company and later Texaco. In 1911, Standard Oil Co. (California) was severed from its parent corporation, Standard Oil, as a result of the federal government's successful lawsuit against Standard Oil under the Sherman Antitrust Act. It went on to become part of the "Seven Sisters" that dominated the world oil industry in the early 20th century. In 1926, the company fixed its awkward parenthetical name by changing its name to Standard Oil Co. of California, or SoCal. In 1933, Saudi Arabia granted SoCal a concession to find oil, and oil was found in 1938. In 1948, SoCal discovered the world's largest oil field (Ghawar) in Saudi Arabia. SoCal's subsidiary, California-Arabian Standard Oil Company, developed over years, to become the Arabian American Oil Company (ARAMCO) in 1944. In 1973, the Saudi government began buying into ARAMCO. By 1980, the company was entirely owned by the Saudis, and in 1988, the name was changed to Saudi Arabian Oil Company (Saudi Aramco). Standard Oil of California and Gulf Oil merged in 1984, the largest merger in history at that time. Under the antitrust regulation, SoCal divested many of Gulf's operating subsidiaries, and sold some Gulf stations and a refinery in the eastern United States. SoCal changed the name to Chevron Corporation. In January 1996, NGC (formerly NYSE: NGL) and Chevron announced plans to merge Chevron's natural gas and natural gas liquids business with NGC. On May 23, 1996, the companies reached an agreement in principle to merge their business. Under the agreement, Chevron transferred its natural gas gathering, operating and marketing operation to NGC in exchange for a roughly 25 percent equity stake in NGC. On August 30, shareholders approved the deal creating North America's largest natural gas and gas liquids wholesaler. In 1998, NGC Corporation was renamed Dynegy (NYSE: DYN). In a merger completed February 1, 2000, Illinova Corp. (formerly NYSE: ILN) became a wholly owned subsidiary of Dynegy Inc., in which Chevron also took a 28% stake. However, Chevron in May 2007 sold its roughly 12 percent (at the time) Class A common stock in the company for approximately \$985 million, resulting in a gain of \$680 million. On October 15, 2000 Chevron announced it would acquire Texaco (NYSE: TX) creating the second largest oil company in the United States and the world's fourth-largest publicly traded oil company with a combined market value of approximately \$95 billion. On October 9, 2001, the shareholders of Chevron and Texaco voted to approve the merger creating ChevronTexaco. The deal was valued at \$45 billion. On May 9, 2005, ChevronTexaco announced it would drop the Texaco moniker and return to the Chevron name. Texaco remains as a brand under the Chevron Corporation On April 4, 2005, Chevron announced it planned to purchase Unocal Corporation (NYSE: UCL) for \$18.4 billion increasing the company's petroleum and natural gas reserves by about 15 percent. On August 10, 2005, Unocal Corporation shareholders approved Chevron's acquisition of the company. The deal was valued at \$18 billion. Because of Unocal's large South East Asian geothermal operations, Chevron became the world's largest producer of geothermal energy. In July 2010, Chevron ended retail operations in the Mid Atlantic US, removing the Chevron and Texaco names from 1,100 stations in Delaware, Indiana, Kentucky, North Carolina, New Jersey, Maryland, Ohio, Pennsylvania, South Carolina, Virginia, West Virginia, Washington, D.C., and parts of Tennessee. On November 9, 2010, Chevron announced it would acquire Pennsylvania based Atlas Energy Inc. (NASDAQ: ATLS) for \$3.2 billion in cash and an additional \$1.1 billion in existing debt owed by Atlas. On February 18, 2011, the shareholders of Atlas energy voted to approve the merger. The deal was valued at \$4.3 billion."
Cell: T11	
Comment: Rick Heede:	On this worksheet we report extractive data for each company or state-owned enterprise. Three columns under crude oil and natural gas allow for data reported in one of three formats (e.g., thousand barrels per day, or million barrels per year, or million tonnes per year). Coal is normally reported in short tons or metric tonnes per year. The subtraction of the fraction typically sequestered in petrochemicals and other non-combusted uses such as road oils, waxes, lubricants, greases, etc. Non-fuel uses are accounted for in the emission factors and applied to each entity in the oil, gas, and coal summary worksheets.
Cell: T12	
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 (after royalty production is deducted). We rely on company annual reports, Form 10-k, or other company data where available. In some cases -- particularly for state-owned oil and gas companies -- we use production data from the Oil & Gas Journal in its OGI150 and OGI100. Crude production includes natural gas liquids (NGL) unless noted.
Cell: AM12	
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: AW12	
Comment: Rick Heede:	Coal production by coal mining companies and state-owned enterprises, including subsidiaries of oil and gas companies. The coal rank (which reflects the heating value and carbon content per tonne) of produced coals is noted where reported by each entity. See the coal entity workbooks or summary worksheets for details.
Cell: D15	
Comment: Rick Heede:	Standard Oil (California) becomes independent upon the dissolution of Standard Oil by the the Supreme Court in 1911. Known as Socal since 1926. Acquired Signal Oil in 1947. Acquired Standard Oil (KY) in 1961. Gulf Oil merges with Socal and becomes Chevron Corporation in 1984.
Cell: E15	
Comment: Rick Heede:	Texaco: Texas Fuel Company founded in 1901. Acquired California Petroleum Corp in 1928 and Indian Refining Co in 1931, Trinidad Oil Co in 1956, Seaboard Oil Co in 1958, and Paragon Oil Co in 1959. Texaco acquired Getty Oil in 1984. We have not tracked or included Trinidad, Seabord, or Paragon oil and gas production. Getty Oil Co.'s production is included, but neither Mission nor Skelly production has been included.
Cell: F15	
Comment: Rick Heede:	Getty Oil: Pacific Western Oil Corp founded 1928; changes name to Getty Oil Co in 1956; Mission Corp and Skelly Oil Co merge into Getty Oil in 1977; acquired by Texaco in 1984.
Cell: G15	
Comment: Rick Heede:	http://en.wikipedia.org/wiki/Texaco - "Texaco bought Getty Oil (including Tidewater Petroleum) in 1984. The Getty name and stations in the Northeastern United States were sold to Power Test and are now owned by Lukoil. Getty's Skelly stations in several Midwestern states rebranded as Texaco stations. http://en.wikipedia.org/wiki/Tidewater_Petroleum "In 1878 Tidewater Oil Company of Pennsylvania moved to Bayonne, NJ. In 1928, Pacific Western Oil Corporation incorporated as a holding company for Edward L. Dohery and family which subsequently came under the control of J. Paul Getty. In 1938, Tidewater merged with Associated Oil from the west coast to form Tide Water Associated Oil which began to use the "Flying A" symbol of Associated Oil. In 1966, "Flying A" stations on the west coast were sold and the new east coast company became the Getty Oil Company, and in 1969 the brand became Getty. Getty was later acquired by Texaco in 1984."
Cell: I15	
Comment: Rick Heede:	Gulf Oil (J.M. Guffey Petroleum in 1907) acq Warren Petroleum in 1956. Spencer Chemical and its subsidiary The Pittsburgh & Midway Coal Mining Co. acq in 1963. Gulf Oil merges with Socal and becomes Chevron Corporation in 1984. Wiki: Getty Oil is an oil company founded by J. Paul Getty in 1964. Soon after 1970, the Getty Oil Company sold its European activities to Burmah Oil. At that time its assets included the rights to the Veedol name and a refinery in Gaeta, Italy (which had an associated Getty branded service station).[2] Burmah kept Veedol separate from its main Castrol brand, and the name was still in used in several countries after BP bought Burmah in 2000. In 1984, Texaco bought Getty Oil of Los Angeles, California. By General Assignment, Conveyance, Bill of Sale and Transfer dated December 31, 1984, Getty Oil Company transferred its upstream interests to Texaco. On November 19, 1985, Pennzoil won a US\$10.53 billion verdict from Texaco in the largest civil verdict in US history. (Texaco established a signed contract to buy Getty Oil after Pennzoil had already entered into an unsigned, yet still binding, buyout contract with Getty.)
Cell: J15	
Comment: Rick Heede:	Tenneco assets acquired by Chevron Corp in 1988. ChevTex history at website.
Cell: AS15	
Comment: Rick Heede:	Gulf Oil acquired Pittsburgh & Midway Coal Mining Company in 1963 (unknown source, CK details, including the coal company's disposition by Gulf prior to being acquired by Texaco in 1984, or perhaps thereafter).
Cell: M17	
Comment: Rick Heede:	Getty net oil production; no deduction for Skelly.
Cell: M19	
Comment: Rick Heede:	Chevron reports both gross and net production. Since most company data is given in net, we report net here. For benchmarking total production, gross for 1984 = 2,855 Mcf/d whereas net = 2,365 Mcf/d. (gross = 1.21 of net).
Cell: G33	
Comment: Rick Heede:	"Letter from Paul Shoup, President, Associated Oil Company, San Francisco, March 6, 1926. To the Stockholders of the Associated Oil Company: Enclosed statement and offer are submitted by resolution of the Board of Directors of your Company for your consideration. The statement [not on the file] sets forth comprehensively a plan for the affiliation of the Associated Oil Company (of California) and the Tide Water Oil Company through the organization of the Tide Water Associated i Company of Delaware which will acquire the stock of the other two companies.... The two companies handle about 130,000 barrels per day, approximately one-half their own production and the other half purchased."
Cell: G34	
Comment: Rick Heede:	CMS does not have Tide Water Petroleum annual reports subsequent to the 1926 production estimate. CMS assumes a growth in crude oil and NGL production of a modest 1.0 percent per year through 1959, at which point CMS also assumes Tide Water's production is reflected in Getty's 1969 annual report. Actual production data will, of course, differ from our estimated production, however conservative.
Cell: M34	
Comment: Rick Heede:	CMS estimates Getty's production of natural gas by assuming a constant crude oil to gas ratio based on the known ratio in 1960. CMS only estimates gas production for 1956-1959.
Cell: L36	OilGasAdnoc_Encana.xls
Comment: Rick Heede:	

Standard Oil Company of California reports crude oil production (gross only) for years 1930 through 1952. CMS estimates net oil production (including NGL for 1943-1951) based on the net equal to 0.9413 of gross in 1952. Details below.

Cell: D37

Comment: Rick Heede:

Standard Oil Company of California annual report for 1931, p. 3, shows company gross production of 35.45 million bbl (97,136 bbl per day) in 1931, and 41.27 million bbl (113,070 bbl per day) in 1930. CMS estimates company net production (details below and in column K).

Cell: L37

Comment: Rick Heede:

Standard Oil Company of California net production estimated from reported gross production in annual reports for 1931 through 1938. Details below and in column D.

Cell: Y38

Comment: Rick Heede:

Oil plus NGL production 1971-1973 from Socal (1976) AnnRpt 1975, p. 41. Gross production only.

Cell: D40

Comment: Rick Heede:

Standard Oil Company of California annual report for 1934, p. 3, shows company gross production of 36.04 million bbl domestic (field development in Bahrain, but no reported production). CMS estimates company net production (details below and in column K).

Cell: N40

Comment: Rick Heede:

Net crude oil production from Texas Company and Texaco Annual Reports, various years, is shown in column M, starting in 1935 (1912-21934 is California Petroleum Company, acquired by Texas Co in 1929). We are missing annual reports for 1941 and 1942, and we interpolate between 1940 and 1943. All years report net production, except 1934-1938, in which years we apply the known net of gross factor for 1939 (net = 0.823 of gross).

No natural gas production data reported in any annual reports from 1934 through 1949.

Cell: D41

Comment: Rick Heede:

Standard Oil Company of California annual report for 1934, p. 5, shows company gross production of 37.616 million bbl domestic, plus 0.285 million bl in Bahrain, for a total of 37.901 million bbl. CMS estimates company net production (details below and in column K).

Cell: M41

Comment: Rick Heede:

Texas Company Annual Report for 1935, p. 1, only reports gross production for 1934 and 1935. We apply the known net of gross factor in 1939, in which year net = 0.8230 of gross.
1934: reported gross of 37.4183 * 0.8230 = estimated net of 30.7953 million bbl.

Cell: D42

Comment: Rick Heede:

Standard Oil Company of California annual report for 1935, p.5, shows crude oil production (domestic) totaling 44.54 million bbl; CMS may be missing this report's pages that detail foreign production. Since net production, or in the day's parlance, "working interest barrels," is not shown, CMS applies the net of gross factor shown for the company in 1952, when net totaled 0.9413 of gross.

Note: likely production of wet gas and processed "natural gasoline" is not reported and not estimated here.

Cell: M42

Comment: Rick Heede:

Texas Company Annual Report for 1936, p. 2, only reports gross production for 1935 and 1936). In 1939, net = 0.8230 of gross.

1935: reported gross of 45.707 * 0.8230 = estimated net of 37.617 million bbl.

1936: reported gross of 53.838 * 0.8230 = estimated net of 44.309 million bbl.

Cell: AF42

Comment: Rick Heede:

Standard Oil of California reports production of natural gas for most years from 1939. CMS estimates gas production for 1935-1938 based on the known crude oil / natural gas ratio in 1939, but as increasing from 50 percent of the ratio in 1935 to ninety percent of the ratio in 1938 in order to reflect the rapidly increasing market for natural gas in the U.S.

Cell: D43

Comment: Rick Heede:

Standard Oil Company of California annual report for 1936, p.6, shows crude oil production (domestic) totaling 43.06 million bbl; CMS may be missing this report's pages that detail foreign production.* Since net production, or in the day's parlance, "working interest barrels," is not shown, CMS applies the net of gross factor shown for the company in 1952, when net totaled 0.9413 of gross.

Note: likely production of wet gas and processed "natural gasoline" is not reported and not estimated here.

* Company acreage in Venezuela, Mexico, Colombia, Arabia, Bahrain, Java, and Sumatra is mentioned.

Cell: L43

Comment: Rick Heede:

Estimated net production; see column D.

Cell: N43

Comment: Rick Heede:

Pacific Western Oil Corporation Annual Report for 1937, p. 8, shows gross and net crude oil production; we enter net production here. 1937 net (2.815 million bbl) was 0.759 of gross (3.595 million bbl).

Cell: Q43

Comment: Rick Heede:

Net crude oil production from Gulf Oil annual reports.

Cell: L44

Comment: Rick Heede:

Standard Oil Company of California annual report for 1937, p.3, shows "Working Interest Barrels" totaling 44.04 million bbl (Gross production of 48.15 million bbl less 3.74 million bbl of "Lessors Royalty"). CMS adds reported "royalty received barrels" of 0.364 million bbl. Total net production reported here = 44.41 million bbl.

Cell: M44

Comment: Rick Heede:

Texas Company Annual Report for 1938, p. 3, only reports gross production (60.4766 million bbl). We apply the "net of gross" datum reported in 1939: 60.4766 * 0.8230 = 49.770 million bbl estimated net in 1938.

Cell: Q44

Comment: Rick Heede:

Gulf Oil Corporation (1939) 1938 Annual Report, p. 5, shows gross and net crude oil produced; we report net here; 1938 net = 62.984 million bbl, gross = 74.900 million bbl, net = 0.841 of gross.

Cell: L45

Comment: Rick Heede:

Standard Oil Company of California annual report for 1938, p.3, shows "Working Interest Barrels" totaling 41.9 million bbl (Gross production of 44.8 million bbl less 2.8 million bbl of "Lessors Royalty"). CMS adds reported "royalty received barrels" of 0.143 million bbl. Total net production reported here = 42.01 million bbl.

Cell: M45

Comment: Rick Heede:

Texas Company Annual Report for 1939, p. 3. Net crude oil production of 48.16 million bbl, and 58.52 million bbl gross; net = 0.8230 of gross.

Cell: N45

Comment: Rick Heede:

Pacific Western Oil Corporation Annual Report for 1938, p. 8, shows gross and net crude oil production; we enter net crude oil production (2.437 million bbl) plus net Casinghead Gasoline production (0.163 million bbl) here.

Cell: P45

Comment: Rick Heede:

Mission Corporation / Tide Water Associated Oil Company (1940) Annual Report for 1939, shows 20.768 million bbl net production in 1938. See following note.

Cell: D46

Comment: Rick Heede:

Standard Oil Company of California gross world-wide production.

Cell: L46

Comment: Rick Heede:

Standard Oil Company of California net production is estimated by multiplying the company's gross production by its "net of gross" shown in 1952. See below for details.

Cell: M46

Comment: Rick Heede:

The Texas Company (1941?) Annual Report for 1940, p. 4, reports net and gross crude oil production for 1939 and 1940. In 1940, gross totaled 99.07 million bbl, and net of 84.60 million bbl; net = 0.854 of gross. We report net production here.

Cell: N46

Comment: Rick Heede:

Pacific Western Oil Corporation Annual Report for 1939, p. 8, shows gross and net crude oil production; we enter net crude oil production (1.882 million bbl) plus net Casinghead Gasoline production (0.109 million bbl) here.

Cell: P46

Comment: Rick Heede:

Mission Corporation / Tide Water Associated Oil Company (1941) Annual Report for 1940, shows 21.7575 million bbl net production in 1940 and 20.5603 million bbl in 1939. Tide Water (presumably) became Skelly the following year, with (presumably) some disinvestment of assets (since 1940 production is reported as 21.7 million bbl here and as 8.6 million bbl the following year. We have, therefore, used the datum for 1939: 20.56 million bbl.

Cell: Q46	Chevron
Comment: Rick Heede: Gulf Oil Corporation (1940) Annual Report for 1939, p. 5.	
Cell: AC46	
Comment: Rick Heede: CMS estimates Gulf Oil's production of natural gas by assuming a the known crude oil to gas ratio in 1956, but, as conservatism, a ration that declines by ten percent for each year prior to 1950. CMS estimates gas production for 1940-1955.	
Cell: AG46	
Comment: Rick Heede: CMS estimates Texas Co's production of natural gas by assuming a constant crude oil to gas ratio based on the known ratio in 1950; the ratio is discounted by 10 percent for 1940-1948. CMS only estimates gas production for 1940-1949.	
Cell: H47	
Comment: Rick Heede: Mission Corporation / Skelly Oil Company (1942) 22nd Annual Report, 1941.	
Cell: H48	
Comment: Rick Heede: Mission Corporation / Skelly Oil Company (1943) 23rd Annual Report, 1942. "Company's net crude oil production for 1942 and 1941 in both bbl per day and per year.	
Cell: M48	
Comment: Rick Heede: Texas Company Annual Report 1950, p. 34-35, shows net and gross crude oil and condensate produced.	
Cell: Q49	
Comment: Rick Heede: Gulf Oil Corporation (1943) Annual Report for 1942, p. 7; production was "substantially less than in 1941. decrease in foreign production" (mostly Mexico and Venezuela). However, no statistical data is shown. The report also mentions natural gas wells, but no production data. Gulf Oil's 1943 Annual Report shows gross and net production for 1942 and 1943; we report net crude oil prod'n here. 1943: net = 0.852 of gross.	
Cell: AB49	
Comment: Rick Heede: Mission Corporation / Skelly Oil Company (1943) 23rd Annual Report, 1942. The company reports on oil and gas wells completed, and crude oil produced, but no natural gas production, except in the "Manufacturing" paragraph, in which the company "processed 57,118,778 M cu. ft. of natural and casinghead gas" in 1942 (= 57.119 Bcf); also reports 58.096 Bcf in 1941. We assume here that two-thirds of this gas is net natural gas production, or 104.326 million cf per day in 1942 and 106.111 million cf/d in 1941.	
Cell: D50	
Comment: Rick Heede: Standard Oil Company of California gross world-wide production of crude oil and NGL. CMS estimates net production as discussed in column K for 1943 to 1951.	
Cell: L50	
Comment: Rick Heede: Standard Oil Company of California annual report for 1952, pp. 12-13, does not report world-wide net production. (The company instead reports gross and net western hemisphere crude oil plus NGL, the company's proportion of eastern hemisphere gross crude oil production by stock interest, purchases of crude oil (excluding royalty), refinery runs, sales of crude oil, and sales of petroleum products.) Given the lack of reported net world-wide crude plus NGL production, CMS estimates SoCal's global net oil plus NGL production by multiplying its reported global gross crude oil plus NGL times the 1952 global net of gross reported in the company's 1961 annual report, when net = 0.9413 of gross production.	
Cell: M50	
Comment: Rick Heede: The Texas Company (1945?) Annual Report for 1944, "statistical information" shows net and gross crude oil production for 1943 and 1944 (which is reported below). In 1943, gross totals 84.70 million bbl, and net of 71.952 million bbl; net = 0.849 of gross. We report net production here. Operating data also shows additional "crude oil purchased" of 70.19 million bbl in 1943.	
Cell: N50	
Comment: Rick Heede: Pacific Western Oil Corporation Annual Report for 1943, p. 4, shows gross and net crude oil production; we enter net crude oil production.	
Cell: AF50	
Comment: Rick Heede: Standard Oil Company of California annual report for 1952, pp. 12-13.	
Cell: H51	
Comment: Rick Heede: Data for 1944-1952 from Mission Corporation / Skelly Oil Company (1954) Annual Report for 1953, table on production. Data is "net production, total liquids, bbl per day," sum of crude oil and NGL (of which NGL is 5 to 8 percent).	
Cell: M51	
Comment: Rick Heede: The Texas Company (1946) Annual Report for 1945, consolidated operating data shows net and gross crude oil produced in 1945 and 1944. Gross totals 101.64 million bbl in 1945 and net of 86.44 million bbl; net = 0.850 of gross. We report net production here. Operating data also shows additional "crude oil purchased" of 94.865 million bbl in 1945.	
Cell: Q51	
Comment: Rick Heede: Gulf Oil Corporation (1946) Annual Report for 1945, p. 19, shows net and gross production for 1944 and 1945; we show net.	
Cell: AB51	
Comment: Rick Heede: The Mission / Skelly Annual Report for 1953 shows crude oil and substantial NGL production, but no natural gas production is shown. If we assume that natural gas production is a constant relative to reported NGL production, which was 310.8 million cf of gas and 14,226 bbl of NGL (in 1953, in the 1962 AnnRpt), or 21,846 cf per bbl of NGL, then 1944 reported NGL production of 4,591 bbl per day suggests 100.29 million cf of natural gas production per day.	
Cell: M53	
Comment: Rick Heede: The Texas Company (1948) Annual Report, consolidated operating data shows net and gross crude oil and condensate production in US and South America in 1946 and 1947. Gross totals 108.79 million bbl in 1947 and net of 92.34 million bbl; net = 0.849 of gross. We report net production here. Operating data also shows additional "crude oil purchased, less sales" of 53.55 million bbl in 1947.	
Cell: Q53	
Comment: Rick Heede: Gulf Oil Corporation (1948) Annual Report for 1947, p. 7, shows gross and net; we report "net crude oil produced, US plus foreign plus Kuwait (Gulf's share)" of 129.215 million bbl in 1946; excluding Kuwait, net = 0.844 of gross.	
Cell: M55	
Comment: Rick Heede: The Texas Company (1950) Annual Report, consolidated operating data shows net and gross crude oil and condensate production in US, Canada, and South America. Gross totals 114.515 million bbl in 1949 and net of 96.281 million bbl; net = 0.841 of gross. We report net production here. Operating also shows additional "crude oil purchased, less sales" of 66.446 million bbl in 1949.	
Cell: N55	
Comment: Rick Heede: Pacific Western Oil Corporation Annual Report for 1949, p. 4, shows net crude oil production only for 1948 and 1949. CMS estimates net production for 1947 by interpolation.	
Cell: Q55	
Comment: Rick Heede: Gulf Oil Corporation (1948) Annual Report for 1947, p. 7, shows gross and net; we report "net crude oil produced, US plus foreign" of 171.859 million bbl in 1949; net = 0.844 of gross.	
Cell: D57	
Comment: Rick Heede: Total crude oil production for Standard Oil Company of California cited in Bamberg (2000) for the year 1950 totaled 450,000 bbl per day, or 164.3 million bbl per year, which is quite close to our estimatd net production in the same year (168.4 million bbl).	
Cell: E57	
Comment: Rick Heede: Bamberg (2000) "History of British Petroleum" shows Texaco oil production estimates for 1950, 1955, 1960, 1965, and 1970. Bamberg presumably reports gross production, but this is not explicit, and we infer this from comparing his estimates to actual net and gross production data from Texas Company reports, when available.	
Cell: I57	
Comment: Rick Heede: Bamberg, History of British Petroleum, Gulf oil production estimates for 1950, 1961, 1965, and 1970.	
Cell: M57	
Comment: Rick Heede: Texaco Inc. Annual Report 1959, Operations Summary, shows "net crude oil produced, including equity in affiliates" (405.2 million bbl in 1959 *) and "production of natural gas liquids" (11.5 million bbl in 1950). CMS adds these data for each year 1950-1959. * note: Texaco includes operations of the Paragon group of companies for 1958 and 1959 only "to reflect a pooling of interests in 1959." Production data for the year 1950 overlaps prduction data in the 1950 annual report (see below), in which net production of 10.29 million bbl is reported. In the 1959 annual report, however, shows 1950 net production of 179.1 million bbl of crude oil plus 5.2 million bbl of NGL. CMS uses this data set for 1950 through 1959 on the assumption that newer data reflect better estimates and the production by acquired companies and operations. Texas Company Annual Report 1950, p. 34-35, shows net (102.9 million bbl) and gross (122.2 million bbl) crude oil and condensate produced in 1950 (net = 0.917 of gross); the report shows production for 1941-1950. The Company does not report natural gas production for these years. Note: the above 1950 Annual Report shows lower production than subsequent reports.	OilGasAdnoc_Encana.xls

	Texaco crude oil production data for 1950, 1955, 1960, 1965, and 1970 inferred from a chart comparing crude oil production 1950-1970 (five-year "datums"). Bamberg (2000) British Petroleum and Global Oil 1950-1975, Fig. 9.1 (p. 221) shows production by all Seven Sisters (SONJ, Shell, BP, Gulf, Texaco, Socal, and Socony Mobil (in that order in 1961)). Original data in kbbl/d. Texaco 1950 = 500 kbbl/d, 1955 = 800, 1960 = 1,400, 1965 = 2,050, and 1970 = 3,200 kbb/d.
Cell: Q57	
Comment: Rick Heede:	Gulf Oil Corporation (1960) Annual Report for 1959, p. 16-17, shows gross and net; we report "net crude oil and condensate produced." By 1959, net (476 million bbl) had increased to 0.927 of gross (513.5 million bbl).
Cell: AG57	
Comment: Rick Heede:	Texaco Inc. Annual Report 1959, Operations Summary, shows "natural gas sales" for 1950-1959. Production data is not shown.
Cell: E58	
Comment: Rick Heede:	Interpolated production data 1951-1954, and 1956-1959.
Cell: N58	
Comment: Rick Heede:	Getty Oil Company (1961) 32nd Annual Report for 1960, pp. 6-7, shows "Net company barrels Crude Oil Produced and Sold," we sum domestic and foreign; all US in 1951, but 89 percent foreign by 1960.
	No natural gas production is shown.
Cell: AC58	
Comment: Rick Heede:	Gulf annual reports do not show natural gas production for 1950-1955. CMS estimates gas production by assuming that the company's crude oil production for the same years is a reasonably accurate guide to its gas production. Thus, the known ratio between oil and gas (997,452 bbl/d and 830 Bcf/d) in 1956 is applied to Gulf's oil prduction for 1950-1955 to estimate gas production for hte same years. Actual production likely differs somewhat, and may be updated if Gulf provides gas production data prior to 1956 (and oil production prior to 1950, for that matter).
Cell: L59	
Comment: Rick Heede:	Standard Oil Company of California annual report for 1961, pp. 30-31, reports "net production of crude oil and natural gas liquids" world-wide for 1952-1961. Also reports gross production and sales of petroleum products.
	Gross production: 222.7 million bbl in 1952 and 401.0 million bbl in 1961.
	Net production: 209.6 million bbl in 1952 and 376.5 million bbl in 1961.
	Net of gross: 0.941 in 1952 and 0.939 in 1961.
	Sales of petroleum products: 225.1 million bbl in 1952 and 436.1 million bbl in 1961.
	Sales of net production: 1.074 in 1952 and 1.158 in 1961.
Cell: AF59	
Comment: Rick Heede:	Standard Oil Company of California 1961 Annual Report, p. 30-31: "Sales of natural gas," billion cu. ft. per year, for 1952-1960, western hemisphere only (no gas sales reported for worldwide or eastern hemisphere, although gross production of natural gas liquids is reported, but combined with crude oil.
Cell: H60	
Comment: Rick Heede:	Data for 1953-1961 from Mission Corporation / Skelly Oil Company (1963) Annual Report for 1962, table on production. Data is "net production, total liquids, bbl per day," sum of crude oil and NGL (of which NGL is 18 to 26 percent).
	As in 1962, there is a reporting discontinuity at 1953; the 1954 report shows 99,024 bbl per day for 1953 whereas the 1963 rpt shows 78,514 bbl per day, a discrepancy of over 20 thousand bbl/d or 7.5 million bbl per year.
Cell: AB60	
Comment: Rick Heede:	Data for 1953-1961 from Mission Corporation / Skelly Oil Company (1963) Annual Report for 1962, table on production. Data is "net natural gas produced," in thousand cf per day (entered here in million cf/d).
Cell: I61	
Comment: Rick Heede:	Gulf annual report 1955, p. 2, shows net crude oil produced for 1954 and 1955.
Cell: J61	
Comment: Rick Heede:	Tennessee Gas Transmission Annual Report 1955 shows substantial gas purchases (539 Bcf in 1955) and transmission for 1946-1955, but no oil or natural gas production (although 860 to 1,430 producing wells are shown in the table for 1954 and 1955, and zero prior to 1954).
Cell: J62	
Comment: Rick Heede:	Tennessee Gas Transmission Company (Tenneco) Annual Report 1964 shows net crude oil and condensate, NGLs, and natural gas production, daily bbl and mcf. We sum crude + condensate and NGL (9,516 bbl per day of 63,247 bbl per day total liquids, or 0.150 of total liquids in 1964).
Cell: AD62	
Comment: Rick Heede:	Tennessee Gas Transmission Company (Tenneco) Annual Report 1964 shows net natural gas production, daily mcf.
Cell: I63	
Comment: Rick Heede:	Gulf annual report 1965, pp. 36-37, shows "net crude and condensate produced" and "net natural gas liquids" for 1956-1965. CMS adds these data sets.
Cell: AC63	
Comment: Rick Heede:	Gulf Annual report 1965, pp. 36-37 shows "net natural gas production" for 1956-1965. CMS uses a later annual report for 1965, however, since that year's production totaled 2,092 Bcf per day in the 1969 report and 1,982 Bcf per day in the 1965 report. Which suggests that production for 1956-1964 may also be higher than reported here; such updating happens with regularity.
Cell: I64	
Comment: Rick Heede:	Oil production global data for 1957 and 1958 only from Gulf Oil (1959) Annual Report, pp. 18-19.
Cell: AC64	
Comment: Rick Heede:	Gas production (US only) data for 1957 and 1958 only from Gulf Oil (1959) Annual Report, pp. 18-19.
Cell: I66	
Comment: Rick Heede:	Oil production (net) for 1959 and 1960 in Gulf Oil (1961) Annual Report, p. 12. Also reports annual production (gross) of 513.52 million bbl in 1959 and (net) of 476.03 million bbl.
Cell: E67	
Comment: Rick Heede:	Texaco, Inc. Annual Report 1969, Ten-Year Operations Summary 1960-1969, shows "net production of crude oil and natural gas liquids, worldwide, including equity in affiliates," in million bbl per day. Also reports gross production; in 1969, net (2,755 thousand bbl per day), gross (2,987 thousand bbl per day), net = 0.922 of gross.
Cell: G67	
Comment: Rick Heede:	Tide Water oil production for 1960 to the company's acquisition by Getty in 1966 is included in the data provided in Getty's Annual Report for 1969.
Cell: Z67	
Comment: Rick Heede:	Texaco, Inc. Annual Report 1969, Ten-Year Operations Summary 1960-1969, shows "natural gas sales, worldwide, including equity in affiliates."
Cell: AA67	
Comment: Rick Heede:	Getty net natural gas production data for 1960-1969 is entered here. Production calculated in Column AB, however, is net of Getty's "100 percent (ownership) of Skelly Oil Company."
Cell: AH67	
Comment: Rick Heede:	Getty Oil (1970) 41st Annual Report, 1969, shows "net daily production of natural gas" (entered in Column U). Getty production includes "100 percent of Missions Corporation and Skelly Oil," hence we deduct Skelly production from the total entered in this Column AB with the following formula: =(U41*0.365)-AC41, etc.
Cell: D68	
Comment: Rick Heede:	Standard Oil Company of California / Chevron Annual report for 1970, table on operating data, pp. 30-31, "worldwide net production of crude oil and natural gas liquids" for 1961-1970 is reported in column D. The company also reports gross production, and its net of gross is atypically high: in 1961, net of gross was 0.9388 and in 1970 was 0.9397. Later annual reports would only report gross production.
Cell: I68	
Comment: Rick Heede:	OilGasAdnoc_Encana.xls Bamberg (2000) British Petroleum and Global Oil 1950-1975, Fig. 9.1 shows comparative 1961 production by seven sisters by region: SONJ (2.7 million bbl/d), Shell (2.3 Mbbbl/d), BP (1.6 Mbbbl/d), Gulf (1.6 Mbbbl/d), Texaco (1.6 Mbbbl/d), Socal (1.1 Mbbbl/d), and Socony Mobil (0.87

Mbbld).

Chevron

Cell: N68

Comment: Rick Heede:

Getty Oil (1970) 41st Annual Report, 1969, shows "net daily production of crude oil and condensate, plus NGL" in barrels per day (entered in Column F). Getty production includes "100 percent of Missions Corporation and Skelly Oil," hence we deduct Skelly production from the total entered in this Column M with the following formula: $=(F52*0.365)-N52$, etc.

Cell: Y68

Comment: Rick Heede:

Standard Oil Company of California 1970 Annual Report, p. 29-30: "Sales of natural gas, millions of cu. ft. daily" for 1961-1970, western hemisphere only (no gas sales reported for worldwide or eastern hemisphere, although gross production of natural gas liquids is reported, but combined with crude oil.

Cell: H69

Comment: Rick Heede:

Data for 1962-1970 from Mission Corporation / Skelly Oil Company (1972) Annual Report for 1971, table on production data. Data is "net production, total liquids, bbl per day," sum of crude oil, condensate, and NGL.
Note on discontinuity at 1961/1962: The Annual Reports (1962 and 1971) differ with respect to reported production in the year 1962. Both report the same crude oil prod'n (62,566 bbl per day), but the 1962 rpts 22,581 bbld of NGL compared to 8,577 bbld in the 1971 report. The later report "net quantity of liquids recovered from the company's lease interest in wet gas delivered for processing. No reduction has been made for in such quantities for the portion retained by gas processing plants for extraction of liquids" (Note 1.)

Cell: P69

Comment: Rick Heede:

Skelly, 1962-1970, original data in kbbld, converted to million bbl per year.

Cell: AB69

Comment: Rick Heede:

Data for 1962-1970 from Mission Corporation / Skelly Oil Company (1972) Annual Report for 1971, table on production data. Data is "net production, natural gas" (chiefly LA, TX, OK). Data in thousand cf/day reported here in million cf/day.
Note: as in oil production, there is a discontinuity at 1962: the 1962 Annual Rpt shows 333,749 thousand cf/day, whereas the 1971 Rpt shows 300,547 thousand cf/day. We enter the later datum here.

Cell: AI69

Comment: Rick Heede:

Data from Skelly, in million cf/day, Bcf/yr here.

Cell: J72

Comment: Rick Heede:

Tenneco, Inc Annual Report 1966 shows (in chart form only) crude oil + condensate, NGL, and natural gas production (net). Data accuracy is slightly compromised (~+/- 2 percent).

Cell: AC72

Comment: Rick Heede:

Gulf Oil Corporation Annual Report 1969, p. 31, shows "net natural gas produced," chiefly in the U.S.

Cell: E73

Comment: Rick Heede:

Oil plus NGL production (net) from 1966-1975 from Texaco (1976) AnnRpt 1975, p.45.
We report net production, not gross. In 1966, net = 2,057 kbbld and gross = 2,250 kbbld. In 1975 = 3,591 kbbld and gross = 3,770 kbbld.
Net of gross: 0.914 in 1966 and 0.953 in 1975.

Cell: I73

Comment: Rick Heede:

Gulf Oil Corporation Annual Report 1969, p. 31, shows "net crude oil, condensate, and natural gas liquids produced."

Cell: Z73

Comment: Rick Heede:

Natural gas SALES from 1966-1975 from Texaco (1976) AnnRpt 1975, p.45. Production data not available.

Cell: I76

Comment: Rick Heede:

Gulf Oil Corporation 1972 Annual Report, p. 17, shows "net crude oil, condensate, and natural gas liquids produced" for 1968-1972.

Cell: N77

Comment: Rick Heede:

Getty Oil Company 43rd Annual Report, 1971, p. 2, shows "net production of crude oil and condensate and NGL" in the US and outside US; we list "Getty and wholly owned subsidiaries" (thus excluding listed totals for Mission and Skelly, which are accounted for in a separate column). In 1970, 351 k bbl per day = 128.115 million bbl. Also shows natural gas.

Cell: Y77

Comment: Rick Heede:

Standard Oil Company of California 1974 Annual Report, p. 37: "Sales of natural gas, millions of cu. ft. daily" western hemisphere only (no gas sales reported for worldwide or eastern hemisphere, although gross production of natural gas liquids is reported, but combined with crude oil.

Cell: AC77

Comment: Rick Heede:

Gulf Oil Corporation 1972 Annual Report, p. 17, shows "net natural gas produced" for 1968-1972 (CMS enters 1970-1972 here).

Cell: AH77

Comment: Rick Heede:

Getty Oil Company 43rd Annual Report, 1971, p. 2, shows "production of natural gas" in the US and outside US; we list "Getty and wholly owned subsidiaries" (thus excluding listed totals for Mission and Skelly, which are accounted for in a separate column). In 1970, 746 million cf per day = 272.29 Bcf. Note: no mention of production being gross or net, or marketed production; we assume the latter.

Cell: P78

Comment: Rick Heede:

Data for 1971-1975 from Mission Corporation / Skelly Oil Company (1976) Annual Report for 1975, table on production data. Data is "net production, total liquids," i.e., crude oil and condensate, plus NGL (~10-14 percent of total), in million bl per year.

Cell: AI78

Comment: Rick Heede:

Data for 1971-1975 from Mission Corporation / Skelly Oil Company (1976) Annual Report for 1975, table on production data. Data is "net production, natural gas" (chiefly LA, TX, OK). Data in million cf per year converted to Bcf/yr.

Cell: F79

Comment: Rick Heede:

Getty Oil Company 47th Annual Report 1975, p. 62, shows net daily production of crude oil and NGL (US and foreign), including Mission and Skelly Oil, which we subtract at the Getty annual production (column M) with the following formula: $=(F53*0.365)-N53$

Cell: N79

Comment: Rick Heede:

Getty oil production (net) specifically excludes Mission and Skelly production; see note under daily oil production.

Cell: AA79

Comment: Rick Heede:

Getty Oil Company 47th Annual Report 1975, p. 62, shows net daily production of natural gas (US and foreign), including Mission and Skelly Oil, which we subtract at the Getty annual production (column AB) with the following formula: $=(U53*0.365)-AC53$

Cell: I80

Comment: Rick Heede:

Gulf Oil Corporation annual report 1977, p. 46-47, shows "net crude oil produced, including participatoin and long-term purchase arrangements (daily average barrels" for 1973-1977. Unlike previous annual reports, this give details on equity production, participation purchases, and long-term purchases. This allows CMS to estimate total net production with better accuracy than in previous years by deducting long-term purchases in Venezuela (95,500 bbl per day in 1977), Kuwait (439,000 bbl per day in 1977), and Iran (305,400 bbl per day in 1977). Thus, Gulf Oil Corporation's net production is reduced from 1.61 million bbl per day (in 1977) to 771,300 bbl per day. CMS also adds net production of natural gas liquids (p. 47) of 76,000 bbl per day for a 1977 total net production of 847,300 bbl per day, or 1.06 billion bbl per year. Note: CMS assumes that "participation purchases" are procured from crude production that Gulf has an equity interest in, and is therefore added to net production. Future information from Chevron may change this estimate.

Cell: AC80

Comment: Rick Heede:

Gulf Oil Corporation 1977 Annual Report and Form 10-K, p. 48, shows "net natural gas produced."

Cell: D81

Comment: Rick Heede:

Oil data production data 1974-1978 from Socal (1979) AnnRpt 1978, p. 46. Only reports gross production.

Cell: J81

Comment: Rick Heede:

Oil production data for 1974-1979 from Tenneco (1979) Annual Report, p.11.

Cell: Y81

Comment: Rick Heede:

Natural gas production data 1974-1978 from Socal (1979) AnnRpt 1978, p. 46. Only reports gross production.

OilGasAdnoc_Encana.xls

Cell: AD81	Chevron
Comment: Rick Heede: Gas production data for 1974-1979 from Tenneco (1979) Annual Report, p.11.	
Cell: E83	
Comment: Rick Heede: Oil plus NGL production gross (net not reported) from 1976-1980 from Texaco (1981) AnnRpt 1975, p.78. We report gross production, not net.	
Cell: F83	
Comment: Rick Heede: Getty Oil Company 51st Annual Report 1979, p. 61, shows net daily production of crude oil and NGL (US and foreign), but no mention of Mission and Skelly Oil, which we therefore do NOT subtract from the Getty annual production (column M).	
Cell: K83	
Comment: Rick Heede: We estimate Socal net production for 1971-1983 (only reported gross for those years), based on Chevron's 1984: net production of 952 kbbl /day, and gross of 1,335 kbbl /day; net of gross = ~0.713. Socal merges with Gulf Oil in 1984 to become Chevron. While Gulf consistently reports net production, and Socal varies from net and gross (sometimes both), we nonetheless apply Chevron's net of gross to Socal gross production for 1971-1983. This may be revised at a later date if better data becomes available. Chevron (1995) AnnRpt 1994, p. 62.	
Cell: P83	
Comment: Rick Heede: 1976 production assumed equal to 1975. Companies acquired by Getty in 1977. CMS assumes merger at mid-year, and 1977 production = 0.5 of 1976.	
Cell: Z83	
Comment: Rick Heede: Natural gas SALES (production, neither net nor gross, is reported) from 1976-1980 from Texaco (1981) AnnRpt 1975, p. 78.	
Cell: AI83	
Comment: Rick Heede: 1976 production assumed equal to 1975. Companies acquired by Getty in 1977. CMS assumes merger at mid-year, and 1977 production = 0.5 of 1976.	
Cell: I85	
Comment: Rick Heede: Gulf Oil Corporation annual report 1980, p. 55, shows net crude oil and natural gas liquids in bbl per day (exclusive of "Long-Term Purchases," which declined from 1.18 million bbl per day in 1976 to 413,600 bbl per day in 1980. CMS adds NGL production to net crude oil production (1980 crude of 650,100 bbl per day plus NGL of 105,700 bbl per day = 755,800 bbl per day total net production).	
Cell: AC85	
Comment: Rick Heede: Gulf Oil Corporation annual report 1980, p. 57, shows "Net natural gas produced" for 1976-1980. A footnote states: "In the U.S. natural gas volumes are before extraction of natural gas liquids."	
Cell: D86	
Comment: Rick Heede: Oil data 1979-1983 from Socal (1984) AnnRpt 1983, p. 50. Only reports gross production.	
Cell: Y86	
Comment: Rick Heede: Gas data 1979-1983 from Socal (1984) AnnRpt 1983, p.50. Only reports gross production.	
Cell: F87	
Comment: Rick Heede: Getty Oil Company 1982 Annual Report, p. 68, shows "net production of crude oil, condensate, and natural gas liquids for 1978-1982.	
Cell: J87	
Comment: Rick Heede: Crude oil and condensate production data for 1979-1984 from Tenneco (1985) Annual Report, p.10.	
Cell: AA87	
Comment: Rick Heede: Getty Oil Company 1982 Annual Report, p. 68, shows "net natural gas production" for 1978-1982.	
Cell: AD87	
Comment: Rick Heede: Gas production data for 1979-1984 from Tenneco (1985) Annual Report, p.10.	
Cell: E88	
Comment: Rick Heede: Oil plus NGL net production from 1980-1985 from Texaco (1986) AnnRpt 1985, p. 78. Texaco reports both net and gross. Gross in 1981= 3188 kbbl/d, net = 3053 kbbl/d. Gross over net = 1.044.	
Cell: I88	
Comment: Rick Heede: Gulf Oil Corporation annual report 1983, p. 44, shows total net production of crude oil (506,600 bbl per day in 1983) and net production of natural gas liquids (86,300 bbl per day in 1983). CMS does not include "Crude Oil Purchases (including royalty purchases)," which totaled 992,900 bbl per day in 1983. Gulf also purchases substantial quantities of NGLs (132,200 bbl per day in 1983). Total net crude and NGL in 1983 = 592,900 bbl per day (~35 percent of Gulf's total crude and NGL supply of 1.718 million bbl per day). Gulf sold an average of 1.11 million bbl per day of oil products worldwide (19,287 outlets, of which 14,908 in the US (of which 4,063 were direct retail)). Natural gas liquids in bbl per day (exclusive of "Long-Term Purchases," which declined from 1.18 million bbl per day in 1976 to 413,600 bbl per day in 1983. CMS adds NGL production to net crude oil production (1983 crude of 650,100 bbl per day plus NGL of 105,700 bbl per day = 755,800 bbl per day total net production).	
Cell: Z88	
Comment: Rick Heede: Natural gas net production from 1980-1985 from Texaco (1986) AnnRpt 1985, p. 78.	
Cell: F90	
Comment: Rick Heede: CMS has not acquired Getty annual reports for 1983 and 1984, and we have assumed 1983 crude & NGL to average 1980-1982, and have assumed 1984 (the year Getty was acquired by Texaco) at 50 percent of 1983.	
Cell: AA90	
Comment: Rick Heede: CMS has not acquired Getty annual reports for 1983 and 1984, and we have assumed 1983 natural gas to average 1980-1982, and have assumed 1984 (the year Getty was acquired by Texaco) at 50 percent of 1983.	
Cell: AS90	
Comment: Rick Heede: Gulf Oil Corporation annual report 1983, p.45, shows coal production similar to the Keystone production data; 1983 = 12.4 million tons.	
Cell: D91	
Comment: Rick Heede: Oil data 1984-1994 from Chevron (1995) AnnRpt 1994, p. 62. Reports net production (gross is ~40 percent higher). Chevron reports both gross and net production. Since most company data is given in net, we report net here. For benchmarking total production, gross for 1984 = 1,335 kbbl/d whereas net = 952 kbbl/d. Note: OGJ reports about 10-15 percent lower production than actual Chevron data per year.	
Cell: I91	
Comment: Rick Heede: CMS does not have a copy of Gulf Oil's 1984 annual report, and we assume mid-year merger and thus 1984 production equal to half of 1983.	
Cell: Y91	
Comment: Rick Heede: Natural gas production (net) 1984-1994 from Chevron (1985) AnnRpt 1995.	
Cell: AC91	
Comment: Rick Heede: CMS does not have Gulf gas production for 1984, and a mid-year acquisition by Texaco is assumed, thus one-half of 1983.	
Cell: R92	
Comment: Rick Heede: Oil production 1985-1987 from Oil & Gas Journal (various) Databook. OGJ's Tenneco production in 1984 = 50 million bbl; we use Tenneco annual report datum of 127.4 kbbl/d (=46.5 million bbl) in 1984.	
Cell: AG93	
Comment: Rick Heede: Oil & Gas Journal data for 1986-2004.	

Comment: Rick Heede: CMS assumes 1988 production equal to half of 1987, i.e., merger effective at mid-year. Chevron

Cell: AK95

Comment: Rick Heede: CMS assumes a merger at mid-year 1988 and estimates gas production at 50 percent of the 1987 production.

Cell: L102

Comment: Rick Heede: Oil & Gas Journal.

Cell: AF102

Comment: Rick Heede: Oil & Gas Journal data for 1995-2004.

Cell: D106

Comment: Rick Heede: Chevron Annual rpt.

Cell: Y106

Comment: Rick Heede: Chevron Corporation annual report for 2003, Five-Year Summary, net production of natural gas. The company also reports natural gas sales, which are typically considerable higher than both net and gross production. In 2000, for example, net was 4,466, gross was 5,352, and sales totaled 9,700 million cf per day.

Cell: BA110

Comment: Rick Heede: Angola LNG Chevron has a 36.4 percent interest in Angola LNG Limited, which will operate the 5.2 million-metric-ton-per-year LNG plant. The onshore plant in Soyo, Angola, is designed with the capacity to process 1.1 billion cubic feet of natural gas per day with expected average total daily sales of 670 million cubic feet of regasified LNG and up to 63,000 barrels of NGLs. The project is expected to enter production in 2012. The estimated total cost of the plant is \$9.0 billion, and the anticipated life is in excess of 20 years.

Cell: D111

Comment: Rick Heede (Dec09): Chevron Annual Rpt 2008, p. 5 and 92; "Net production of crude oil and natural gas liquids." Includes "net production of oil sands" (27,000 bbl per day in 2007 and 2008, 109,000 in 2006, 143,000 in 2005, and 140,000 bbl per day in 2004).

Cell: E111

Comment: Rick Heede (Dec09): Chevron Annual Rpt 2008, p. 92. Five-Year Operating Summary also lists "gross production" data 2004-2008: "Gross production represents the company's share of total production before deducting lessors' royalties and a government's agreed-upon share of production under a production-sharing contract. Net production is gross production minus royalties paid to lessors and a government."

Cell: Y111

Comment: Rick Heede (Dec09): Chevron Annual Rpt 2008, p. 5 and 92; "net production of natural gas." As footnote 2 in Chevron's table explains (see oil section at left), "Includes natural gas consumed in operations;" e.g., worldwide own consumption of 520 million cf/day in 2008, vs 343 million cf/day in 2004.

Cell: Z111

Comment: Rick Heede: Chevron Annual Rpt 2008, p. 92. Five-Year Operating Summary also lists "gross production" data 2004-2008: "Gross production represents the company's share of total production before deducting lessors' royalties and a government's agreed-upon share of production under a production-sharing contract. Net production is gross production minus royalties paid to lessors and a government."

Cell: BA112

Comment: Rick Heede: Page 23: Nigeria Chevron operates and holds a 40 percent interest in 13 concessions, predominantly in the onshore and near-offshore regions of the Niger Delta. The concessions cover approximately 2.2 million acres (8,900 sq km) and are operated under a joint-venture arrangement with the Nigerian National Petroleum Corporation (NNPC), which owns a 60 percent interest. The company also holds acreage positions in 10 deepwater blocks with working interests ranging from 18 percent to 100 percent. Production in 2010, total daily production averaged 524,000 barrels of crude oil (237,000 net), 206 million cubic feet of natural gas (86 million net) and 5,000 barrels of LPG (2,000 net).

Cell: AD114

Comment: Rick Heede: Nigerian NPC Statistical Bulletin 2010, Table 11. Chevron 2010: 194.3 Bcf produced, 5.7 Bcf used as fuel, 23.5 Bcf sold to third parties, 21.2 Bcf sold to NGC, 0 Bcf re-injected, 3.1 Bcf used for LPG/NGL AS, 0 Bcf for LNG, 22.5 Bcf for gas lift; 76.0 Bcf utilized (61 percent); 118.3 Bcf flared (39 percent).

Cell: BA114

Comment: Rick Heede: Kazakhstan Chevron has a 50 percent interest in the Tengizchevroil (TCO) affiliate and a 20 percent nonoperated working interest in the Karachaganak Field. TCO production is from the Tengiz and Korolev fields. Total daily production in 2010 from TCO and Karachaganak was 831,000 barrels of crude oil and NGLs (291,000 net) and 1.7 billion cubic feet of natural gas (487 million net). page 25.

Cell: AS115

Comment: Rick Heede (Dec09): CMS could find only one reference to Chevron's coal production for 2005 through 2008, namely for 2008. CMS interpolates between 2004 and 2008. Chevron website: "As part of its diverse portfolio of energy resources, Chevron owns and operates three U.S.-based coal mines. Chevron Mining Inc. is one of the oldest continuously operating mining companies in the United States and currently operates mines in North River, Alabama; McKinley County, New Mexico; and Kemmerer, Wyoming. The company's coal sales in 2008 reached 11.1 million tons. As part of its diverse portfolio of energy resources, Chevron owns and operates three U.S.-based coal mines. Chevron Mining Inc. is one of the oldest continuously operating mining companies in the United States and currently operates mines in North River, Alabama; McKinley County, New Mexico; and Kemmerer, Wyoming. The company's coal sales in 2008 reached 11.1 million tons. In 2007, the Pittsburg & Midway Mining Co. and MolyCorp Inc., both wholly owned subsidiaries of Chevron, merged to form Chevron Mining Inc. Chevron operates two coal mines and a minerals mine in the United States through its subsidiary Chevron Mining Inc. Headquartered in Englewood, Colorado, Chevron Mining's 1,200 employees provide coal and molybdenum to customers around the world. www.chevron.com/about/ourbusiness/otherbusinesses/mining/

Cell: D116

Comment: Rick Heede: Chevron AR 2010 pdf, pg 73.net + other produced volumes. Chevron reports production of 524,000 bbl per day "under a joint-venture arrangement with the Nigerian National Petroleum Corporation (NNPC), which owns a 60 percent interest" and net to Chevron of 237,000 bbl per day. Chevron AnnRpt, page 23. Note: 237 of 524 is 45.2 percent, not 40 percent, and the reason for this discrepancy is not clear.

Cell: Y116

Comment: Rick Heede: Chevron AR 2010 pdf, pg 73

Cell: AS116

Comment: Rick Heede: Chevron AR 2010 Supplement pdf, pg 61, updated 2006 value; business report says Chevron selling off coal interests in 2011.

Cell: BA116

Comment: Rick Heede: Bangladesh Production In 2010, total daily production averaged 883 million cubic feet of natural gas (404 million net) and 5,000 barrels of condensate (2,000 net).

Cell: BA118

Comment: Rick Heede: Partitioned Zone, page 31. Chevron holds a concession with the kingdom of Saudi Arabia to operate the kingdom's 50 percent interest in the hydrocarbon resources of the onshore area of the Partitioned Zone between Saudi Arabia and Kuwait. Under the concession agreement, Chevron has the right to Saudi Arabia's 50 percent interest in the hydrocarbon resources. The concession expires in 2039. Production During 2010, total daily production from four fields averaged 236,000 barrels of crude oil (94,000 net) and 45 million cubic feet of natural gas (23 million net). During 2010, 67 wells were drilled, and 1,062 wells were producing at the end of 2010. Development drilling, well workovers and numerous facility-enhancement programs scheduled for 2011 and 2012 are expected to partially offset overall field declines.