

Oil and natural gas extraction data

Richard Heede
Climate Mitigation Services
File started: 11 January 2005
Last modified: April 2020

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Qatar Petroleum, Qatar

www.qp.com.qa Doha

yellow column indicates original reported units SOE, 100 percent

Production / Extraction data

Year	Crude Oil & NGL			Natural Gas			Background data
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Net production	Net production	Net production	Net production	Net production	Net production
Thousand bbl /d	Million bbl /yr	Million bbl /yr	Bcf/yr	Bcf/yr	Bcf/yr

- 1950
- 1951
- 1952
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- 1957
- 1958
- 1959
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- 1961
- 1962
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- 2016
- 2017
- 2018

Qatar Petroleum established 1974



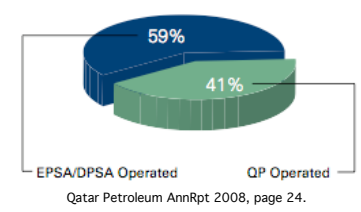
His Highness Sheikh Tamim Bin Hamad Al-Thani Emir of the State of Qatar

Qatar	Qatar Petroleum
Million bbl /yr	Million bbl /yr
61	6
63	6
64	6
68	7
70	7
78	8
84	8
106	11
118	12
124	12
130	13
132	13
157	16
176	18
208	52
191	115
163	98
185	148
164	131
179	144
189	151
176	141
157	125
131	105
117	93
154	123
121	97
120	96
116	93
137	110
147	118
163	130
162	130
174	140
171	137
170	136
181	145
205	164
226	181
285	228
283	227
319	255
321	257
317	254
368	294
420	336
454	363
466	373
491	393
530	424
570	456
646	517
695	556
727	582
746	597
745	597
732	559
722	538
717	519
706	499

QP of Qatar	Qatar	Qatar	Qatar Petroleum	QP of Qatar
10%	gross production	net production	attributed prod'n	%
10%	Bcf/yr	Bcf/yr	Billion cf/yr	
10%		2.8	0	10%
10%		2.9	0	10%
10%		2.9	0	10%
10%		3.5	0	10%
10%	80	23	2	10%
10%	126	37	4	10%
10%	127	39	4	10%
10%	159	46	5	10%
10%	180	52	5	10%
10%	246	56	14	25%
60%	225	60	36	60%
60%	192	78	47	60%
80%	167	52	42	80%
80%	interpolated	85	68	80%
80%	interpolated	118	94	80%
80%	interpolated	151	121	80%
80%		184	147	80%
80%		157	126	80%
80%		186	149	80%
80%		174	139	80%
80%		209	167	80%
80%		191	153	80%
80%		193	154	80%
80%		198	158	80%
80%		207	166	80%
80%		215	172	80%
80%		222	178	80%
80%		269	216	80%
80%		446	357	80%
80%		477	381	80%
80%		477	381	80%
80%		477	381	80%
80%		484	387	80%
80%		614	492	80%
80%		691	553	80%
80%		779	623	80%
80%		1,028	822	80%
80%		939	752	80%
80%		1,042	833	80%
80%		1,109	887	80%
80%		1,383	1,107	80%
80%		1,617	1,294	80%
80%		1,790	1,432	80%
80%		2,232	1,786	80%
80%		2,719	2,175	80%
80%		3,154	2,523	80%
80%		4,121	3,297	80%
80%		5,130	4,104	80%
80%		5,546	4,437	80%
80%		5,800	4,640	80%
35%		6,145	1,962	35%
33%		5,794	1,895	33%
33%		5,869	1,933	33%
31%		5,775	1,795	31%
32%		6,196	1,975	32%

EIA Qatar Crude 1970-1980	EIA Qatar NGL 1970-1980
thousand bbl /day	thousand bbl /day
362	0.3
431	0.3
482	0.3
570	0.3
518	5.0
438	10.0
497	10.0
445	5.0
487	5.0
508	10.0
472	10.0

2008 Total Oil Production by Operator



Qatar Petroleum AnnRpt 2008, page 24.



Source	million bbl	Bcf
World Bank, QP, 2004-2007 ave.	325	1,571
Oil & Gas Journal, 2004-2007 ave.	288	1,363
EIA, total Qatar, 2004-2007 ave.	458	1,756
This project, 2004-2007 ave:	366	1,405

Oil & Gas Journal OGJ100	Crude + NGLs	Natural Gas
million bbl	million bbl	Bcf
299	274	4,135
274	265	4,225
265	259	4,200
OGJ Sep16	239	6,145
OGJ Sep16	239	6,303
OGJ Sep17	238	6,457
OGJ Sep18	219	5,777
OGJ Sep19	225	6,413

allocation, see note at K28
allocation, see note at K28

Total	na	10,537	na	45,570
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QatarP

88	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
89																		
90	53,418 See excel worksheet for BP Oil & Gas data 1970-2018																	
91	7,848 net loss for rpt Dry Nat Gas 1980-2014																	
92	51,718																	
93	6,148 net loss for allocating 60% of EIA Qatari gas prod to QP 2011-2018																	
94	Qatar AnnRpt 2012																	

US Energy Information Administration, International Energy Statistics

www.eia.gov/emeu/international/energy.html

Updated April 2013

Vented & Flared of

	Qatar			Qatar		Qatar		Qatar		Qatar		BP Stat Review 2019	
	Oil, NGPL, other k bbl per day	Oil, NGPL, other million bbl per yr	Oil, QP of Qatar percent	Prod Marketed Gas Bcf per year	Dry natural gas Bcf per year	Vented & Flared Bcf per year	gross %	Reinjected Bcf per year	Gross Prod'n Bcf per year	Crude oil & NG Mb	Natural Gas Bcf		
1980	482.0	176	80%	NA	184	42	-	NA	NA	174	173	1980	
1981	429.0	157	80%	NA	157	53	-	NA	NA	154	158		
1982	360.0	131	80%	NA	186	17	-	NA	NA	126	185		
1983	320.0	117	80%	NA	174	3	-	NA	NA	115	191		
1984	422.0	154	80%	NA	209	2	-	NA	NA	129	216		
1985	331.0	121	80%	NA	191	-	-	NA	NA	115	200		
1986	330.0	120	80%	NA	193	-	-	NA	NA	130	212		
1987	317.0	116	80%	NA	198	-	-	NA	NA	115	205		
1988	376.0	137	80%	NA	207	-	-	NA	NA	132	214		
1989	404.0	147	80%	NA	215	-	-	NA	NA	147	227		
1990	446.0	163	80%	276	222	-	-	-	242	158	230	1990	
1991	445.0	162	80%	356	269	18	4.9%	42	358	153	279		
1992	478.0	174	80%	457	446	-	0.0%	100	602	181	290		
1993	468.0	171	80%	540	477	-	0.0%	109	650	168	303		
1994	464.9	170	80%	540	477	-	0.0%	106	646	165	316		
1995	496.7	181	80%	540	477	-	0.0%	109	650	168	329		
1996	560.5	205	80%	554	484	-	0.0%	115	669	207	342		
1997	619.9	226	80%	706	614	-	0.0%	131	837	253	474		
1998	780.6	285	80%	789	691	-	0.0%	136	925	256	573		
1999	775.9	283	80%	893	779	-	0.0%	141	1,035	264	754		
2000	874.7	319	80%	1,162	1,028	-	0.0%	150	1,312	311	908	2000	
2001	879.6	321	80%	1,104	939	-	0.0%	148	1,238	312	987		
2002	869.1	317	80%	1,201	1,042	11	0.8%	134	1,346	293	1,078		
2003	1,007.7	368	80%	1,277	1,109	11	0.7%	127	1,414	346	1,148		
2004	1,151.4	420	80%	1,574	1,383	11	0.6%	127	1,712	394	1,428		
2005	1,242.6	454	80%	1,826	1,617	138	6.8%	71	2,034	419	1,674		
2006	1,276.5	466	80%	1,999	1,790	109	5.0%	81	2,190	452	1,853		
2007	1,344.2	491	80%	2,454	2,232	113	4.2%	134	2,705	461	2,310		
2008	1,451.9	530	80%	2,915	2,719	127	4.0%	168	3,210	523	2,806		
2009	1,562.8	570	80%	3,353	3,154	140	3.9%	137	3,630	517	3,264		
2010	1,770.1	646	80%	4,359	4,121	99	2.1%	198	4,611	595	4,348	2010	
2011	1,905.0	695	80%	5,272	5,130	20	0.4%	74	5,298	666	5,310		
2012	1,993.1	727	80%	5,616	5,546	25	0.4%	94	5,757	704	5,725		
2013	2,044.0	746	80%	5,616	5,800	26	0.4%	96	6,015	727	5,939		
2014	2,041.4	745	35%	5,650	5,794	25	0.4%	94	5,861	721	5,988		
2015	2,005.4	732	33%	5,794	5,794	25	0.4%	89	6,001	705	6,180		
2016	1,978.4	722	33%	5,869	-	-	-	-	NA	707	6,121		
2017	1,963.9	717	31%	5,875	-	-	-	-	NA	684	6,087		
2018	1,934.2	706	32%	6,196	-	-	-	-	NA	686	6,196		

Updated June 2019
Crude oil, condensate, & NGPL

Updated June 2019

Updated June 2019

Updated June 2019
(dry gas, EIA stat to 2017)

1990-2011 totals	34,148	31,200	795	2.1%	2,541	37,313
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The data below does not correspond to O&G data for 2016
QP data may exclude gas produced for LNG. Get data.

Note on QP LNG production vs natgas

QP production 2016

	Land crude kbpd	Marine crude kbpd	Condensate kbpd	Total kbpd	Total Mb	
2016	176	177	29	382	139	QP AnnRev 2016
2017	173	170	14	357	130	QP AnnRev 2017

	Gas Mcfpd	Gas Bcf	
2016	792	289	Qatar Petroleum Annual Review 2016, page 41.
2017	1,210	442	Qatar Petroleum Annual Review 2017, page 21.

Crude Oil

Qatar Land Crude
Qatar Marine Crude

172,655 bbl/d

PS-1	87,443 bbl/d
PS-2	22,722 bbl/d
PS-3	32,248 bbl/d
Al-Khalij	17,838 bbl/d
Al-Karkara & A-Structures	4,974 bbl/d
Al Rayyan	4,621 bbl/d
Total Qatar Marine Crude	169,846 bbl/d



Gas & Condensate Production (QP-Operated Fields)

Condensate:
Dukhan AD GCR Condensate 14,492 bbl/d

Gas
Dukhan Gas production (AD & Khuff) 347.2 MMscf/d

PS2 + PS3 50.4 MMscf/d
PS4 812.0 MMscf/d



Production Figures	
Crude Oil	
Qatar Land Crude	176,325 bpd
Qatar Marine Crude	
PS-1	93,508 bpd
PS-2	23,386 bpd
PS-3	34,728 bpd
Al-Khalij	19,243 bpd
Al-Karkara & A-Structures	5,070 bpd
Total Production	176,641 bpd
Gas & Condensate Export (QP-Operated Fields)	
Condensate	1,786 mmcsf/d
PS2 + PS3	28,677 bpd
PS4	
Gas:	
PS2 + PS3	71 mmcsf/d
PS4	721 mmcsf/d
Halul Terminal & Export	
Oil Export	181,649 bpd

Qatar Petroleum Annual Review 2016, page 41.

Qatar Petroleum Annual Review 2017, page 21.

QP international operations

International Footprint

Qatar Petroleum manages an expanding international upstream presence comprising of a portfolio of exploration and production assets and licenses, and it continuously evaluates new business and growth opportunities.

Cyprus

In April 2017, QP and ExxonMobil were the successful bidders for the offshore Block 10 in the south-west of Cyprus. The QP-ExxonMobil consortium has signed an exploration and production-sharing contract for the block with the government of Cyprus.

Alto de Cabo Frio-Oeste block in the Santos hydrocarbon basin in offshore Brazil. The block was offered as part of Brazil's third production sharing bidding round.

Oman

QP signed a farm-in agreement with Eni to acquire a 30% working interest in offshore Block 52 in the Sultanate of Oman.

Canada

In June 2017, QP and its partner Centrica sold their Canadian oil and gas exploration and production business to Hong Kong-listed MIE Holdings Corp for a total value of \$722 million.

South Africa

In December 2017, QP acquired a 25% participating interest from Total in the Exploration Block 11B/12B in offshore South Africa. The other members of the consortium consist of Total (the operator) with 45%, Canadian Natural Resources Limited (CNR) with 20%, and Main Street with a 10% participating interest.

Brazil

In October 2017, QP was part of a winning consortium with Shell and China National Offshore Oil Corporation for exploration in the

Jetty boil-off gas recovery; flare reductions
Fluffy words on climate change; no data.

THE ENVIRONMENT AND CLIMATE CHANGE

Qatar Petroleum is committed to protecting our shared natural environment by aligning with world-class environmental standards and practices. We use proactive environmental management, implement optimization programs, and invest in leading technologies and ground-breaking projects that are recognized internationally.

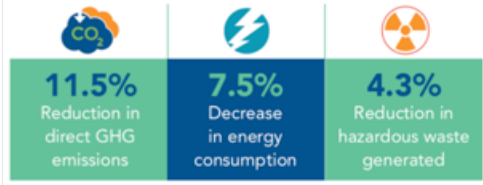
reduction in GHG emissions and a cleaner environment in Qatar to benefit public health.

We also introduced a blended diesel in the domestic market, with up to 50% ultra-low sulfur GTL diesel. This clean-burning alternative fuel will help reduce high sulfur emissions from diesel engines without the need for vehicle modification.

As part of our flare management plans, we continued to focus on monitoring and minimizing flaring across our operations. We also took a proactive approach to upgrade our domestic fuel (gas and diesel) specifications in Qatar to meet the new Euro V requirements internationally. While Qatar Petroleum isn't subject to the Euro V regulations, it recognizes the benefits of compliance, including a

An industry survey has been conducted under the governance of the Offshore Operators Forum (OOF) to identify handling practices for Naturally Occurring Radioactive Materials (NORM) in Qatar. A guideline related to the best practices for handling and the permanent disposal of NORM is under development in collaboration with QP's Corporate HSE & Quality Department and the other operators in Qatar.

Performance Highlights

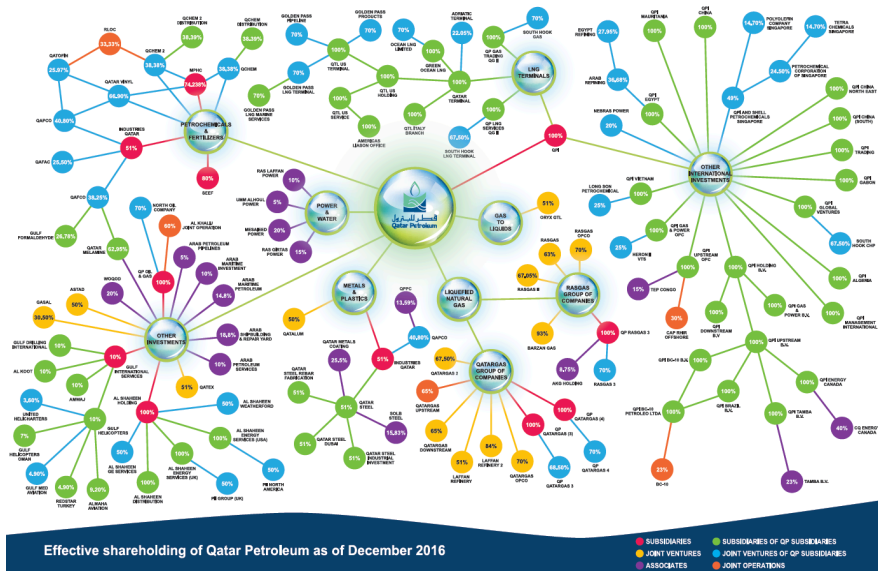


Qatar Petroleum Annual Review 2017, p2

Qatar Petroleum Annual Review 2017, page 19.

QATAR PETROLEUM INVESTMENT PORTFOLIO

www.qp.com.qa

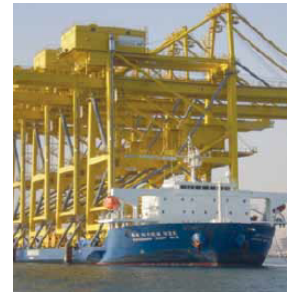


Qatar Petroleum Annual Review 2016, page 98.



Khamis Khalifa, the tinal and skin diver attached to the Diving Barge at Umm Said, February 1981.

www.qp.com.qa/en/Homepage/AboutUs/QPHistory.aspx



Qatar Petroleum website



Halul Island, Qatar AnnRpt 2012, page 49.

S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH
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Qatar Petroleum Annual Review 2017, page 19.

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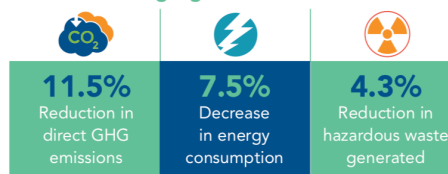
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Performance Highlights



Qatar Petroleum Annual Review 2017, page 64.



APPENDIX B 2018 PERFORMANCE DATA

THE DATA IN THE TABLE BELOW REPRESENTS QP'S 100%-OWNED OPERATIONS.

Energy Consumption	2014	2015	2016	2017	2018
Direct energy consumption (GJ)	N/A	81,253,165	68,247,488	63,162,260	61,247,627
Direct energy intensity (GJ/tonnes of hydrocarbon produced)	1.41	1.43	1.41	1.38	1.37
Total GHG emissions (tonnes of CO2eq)	4,941,866	5,439,143	5,495,192	4,910,554	4,801,552
Scope 1 - Direct GHG emissions (tonnes of CO2eq)	4,941,866	5,439,143	5,155,602	4,563,638	4,477,063
Scope 2 - Indirect GHG emissions (tonnes of CO2eq)	N/A	N/A	339,590	346,916	324,489
Direct GHG emissions intensity (tonnes of CO2eq/ tonnes of hydrocarbon produced)	0.10	0.10	0.11	0.10	0.10
Flaring and Air Pollutants	2014	2015	2016	2017	2018
Flaring (MMSCF)	16,290	9,999	9,544	14,058	12,496
SO2 emitted (tonnes)	22,636	23,951	20,409	272,351	220,776
NOX emitted (tonnes)	6,806	6,901	7,119	11,314	9,360
VOC (tonnes)	2,142	1,762	2,452	2,194	1,883
Operational Performance	2014	2015	2016	2017	2018
Crude oil production (barrels per day)	234,220	232,540	234,697	230,394	228,649
North Field Alpha Lean Gas (KMMBTU/day)	702	558	652	681	694
Total refinery throughput (barrels per day)	116,458	109,786	117,772	113,264	101,656
Total revenue (QAR in 000)	168,661,173	99,160,599	88,003,196	95,217,970	108,794,786
Total expenses (QAR in 000)	111,665,960	72,297,226	54,098,208	55,872,271	63,671,248
Net operating profit (QAR in 000)	56,995,213	26,863,373	33,904,888	39,345,699	45,123,538
Share in profits of joint ventures and associates (QAR in 000)	98,189,586	55,188,508	29,432,091	34,104,224	50,320,760
Net profit for the year (QAR in 000)	112,612,946	64,171,160	49,536,531	58,404,836	80,436,409

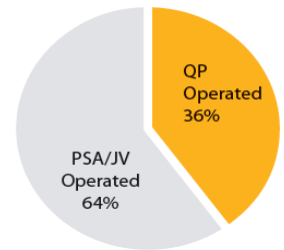
Qatar Petroleum Sustainability Report 2018, page 84.

Note: QP's 100% owned assets only

bpd	Mb	Gbtu/day	Bcf
228.6	83.5	694	0.25

Note: North Field Lean Gas in units of "KMMBTU/day" is not defined. Clearly does not mean thousand million Btu per day.

2016 Total Oil Production by Operator



Btu/cf
1,015

Cell: I9

Comment: Rick Heede:

The first well, Dukhan 1, was drilled in 1939. Development continued after World War II and in 1949 the first crude exports occurred and the first offshore concessions were granted. In 1960, the Idd Al-Shargi and Maydan Mahzam fields were discovered. The largest offshore field, Bul Hanine, was discovered in 1970 and came onstream in 1972. Qatar Petroleum was created in 1974.

History (en.wikipedia.org/wiki/Qatar_Petroleum):

"Qatar Petroleum (QP) is a state owned petroleum company in Qatar. The company operates all oil and gas activities in Qatar, including exploration, production, refining, transport, and storage. QP's Chairman & Managing Director Mohammed Bin Saleh Al-Sada, is also the head of the Ministry of Energy and Industry of Qatar. QP's operations are therefore directly linked with state planning agencies, regulatory authorities, and policymaking bodies. Together, revenues from oil and natural gas amount to 60% of the country's GDP. Currently it is the third largest oil company in the world by oil and gas reserves. History After World War I and the collapse of the Ottoman Empire, Qatar fell within the British sphere of influence and the first onshore oil concession in Qatar was awarded in 1935 to British Petroleum's predecessor, the Anglo-Iranian Oil Company (AIOC). Because of its obligations under the Red Line Agreement, AIOC transferred the concession to an associate company of the Iraq Petroleum Company, Petroleum Development (Qatar) Ltd. (PDQ), which would operate the concession. PDQ was later renamed the Qatar Petroleum Company (QPC). In October 1938, Dukhan No. 1 was spudded and was yielding 5,000 barrels of oil per day by January 1940. However, World War II delayed development until 1947 and the first crude exports occurred in 1949. The first offshore concessions were granted in 1949 to two U.S. companies, the Superior Oil Company and the Central Mining & Investment Co. In 1952, the Shell Company-Qatar (SCQ) acquired exploration rights to most offshore territory. In 1960, the Idd Al-Shargi and Maydan Mahzam fields were discovered. The largest offshore field, Bul Hanine, was discovered in 1970 and came onstream in 1972. Qatar Petroleum was created in 1974 following the government's nationalization of the oil sector. In 1973, the state took a 25% stake in onshore concessions of QPC and offshore concessions of SCQ. Early in 1974, the state increased its share in both companies to 60%. In 1976, QP took full control of QPC's onshore concessions and SCQ's offshore activities the following year. In 1991, Qatar Petroleum initiated an upgrade program for oil production facilities. The program included bringing the Diyab structure (Dukhan) online and enhanced oil recovery (EOR), particularly at the Dukhan field. QP expects to boost capacity at Dukhan from 335,000 bbl/d (53,300 m3/d) in 2006 to 350,000 bbl/d (56,000 m3/d) in 2008. QP is carrying out similar work at several smaller fields, including the offshore Bul Hanine and Maydam Mahzam. Prospects for new discoveries are limited. QP carried out much exploration activity during the early 1980s but exploration declined as the oil glut of the mid-1980s gathered pace. Since then, QP has encouraged foreign operators to apply for exploration licenses. Although the number of wells drilled grew significantly towards the end of the 1980s, there was little success. Most new E&P is done offshore by international oil companies, including ExxonMobil, Chevron, and Total. While substantial E&P is underway, there have not been any major oil discoveries in Qatar during the last decade. Most anticipated new oil production will come from Maersk Oil (Denmark), which operates the Al Shaheen field. Maersk reached an agreement with Qatar Petroleum in December 2005, under which the company intends to drill more than 160 production and water injection wells and establish three offshore platforms. The total oil production from Al Shaheen is planned to be gradually increased from 240,000 bbl/d (38,000 m3/d) at the beginning of 2006 to 525,000 bbl/d (83,500 m3/d) by the end of 2009. When completed, Qatar would have more than 1,100,000 bbl/d (170,000 m3/d) in crude production capacity." en.wikipedia.org/wiki/Qatar_Petroleum

Cell: M9

Comment: Rick Heede:

World Bank, 2008b: "Qatar Petroleum (QP) is a state-owned corporation, formed by Emiri Decree No 10, in 1974. QP is engaged in all sectors of oil and gas industry in the country." 100 percent of the shares are controlled by the government. World Bank (2008b) A Citizen's Guide to National Oil Companies, Part B: Data Directory, World Bank, Washington, & Center for Energy Economics, Bureau of Economic Geology Jackson School of Geosciences University of Texas, Austin, 764 pp. At page 493.

Cell: D11

Comment: Rick Heede:

Minerals Yearbook for 1971, p. 798, shows Qatar's marketed natural gas production as well as gross production (marketed plus vented, flared, and re-injected natural gas) for 1969-1971. These quantities are very much higher, reflecting Qatar's immature gas marketing infrastructure (which has matured dramatically, especially with respect to LNG production and export):
1969: gross = 126 Bcf, marketed production = 37 Bcf;
1970: gross = 127 Bcf, marketed production = 39 Bcf;
1971: gross = 159 Bcf, marketed production = 46 Bcf (0.292 of gross).

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. Re-injected gas, for example, flared and vented gas.

Cell: D23

Comment: Rick Heede:

U.S. Bureau of Mines data for Qatari production 1959-1969.
Energy Information Administration International Energy Statistics for Qatar 1970-2010.

Cell: E23

Comment: Rick Heede:

Qatar Petroleum was created in 1974 following the government's nationalization of the oil sector. In 1973, the state took a 25% stake in onshore concessions of QPC and offshore concessions of SCQ. Early in 1974, the state increased its share in both companies to 60%. In 1976, QP took full control of QPC's onshore concessions and SCQ's offshore activities the following year. Wikipedia, Qatar Petroleum. See cell note at "Qatar Petroleum, cell I 9 above. We attribute 25 percent of total oil and liquids production to Qatar Petroleum in 1973, and 60 percent 1974-forward. We also attribute 10 percent of production up to 1973 to cover concession agreement and contracts prior to nationalization in 1974.

Cell: G24

Comment: Rick Heede:

25 percent in 1973, 60 percent 1974-2010, and 10 percent prior to 1973. See cell notes at E23 and I9 for details.

Cell: D25

Comment: Rick Heede:

U.S. Bureau of Mines Minerals Yearbook, various years, for Qatar crude oil production 1959-1969.

Cell: H28

Comment: Rick Heede:

U.S. Bureau of Mines Minerals Yearbook various years shows Qatar's gross natural gas production (marketed plus vented, flared, and re-injected natural gas); first year reported for Qatar (or any other Persian Gulf state) is for 1968.

Cell: K28

Comment: Rick Heede:

25 percent in 1973, 60 percent 1974-1975, 80% 1976-forward, and 10 percent prior to 1973. See cell notes at E23 and I9 for details.
Note: In July 2019 CAI adjusted the allocation of Qatari gas production to Qatar Petroleum from 60% to 80% to reflect QP taking control of the majority of onshore and offshore oil, condensate, and gas production in 1976 - forward. This revision brings allocation of gas production to QP in line with gas produced for LNG export. The factor, or allocated production, may be revised with better data and/or feedback from Qatar Petroleum.

Cell: I30

Comment: Rick Heede:

U.S. Bureau of Mines Minerals Yearbook 1968, page 750, "marketed production" for 1964-1968.

Cell: I34

Comment: Rick Heede:

U.S. Bureau of Mines Minerals Yearbook 1970, page 784, "marketed production" for 1968-1970.

Cell: D36

Comment: Rick Heede:

U.S. Energy Information

Cell: B40

Comment: Rick Heede:

Qatar Petroleum was created in 1974 following the government's nationalization of the oil sector.

Cell: I40

Comment: Rick Heede:

QatarP

U.S. Bureau of Mines Minerals Yearbook 1976, page 888, gross production and marketed production for 1974-1976.

Cell: K42

Comment: Rick Heede:

In July 2019 CAI adjusted the allocation of Qatari gas production to Qatar Petroleum from 60% to 80% to reflect QP taking control of the majority of onshore and offshore oil, condensate, and gas production in 1976 - forward. This revision brings allocation of gas production to QP in line with gas produced for LNG export. The factor, or allocated production, may be revised with better data and/or feedback from Qatar Petroleum.

Cell: D46

Comment: Rick Heede:

U.S. Energy Information Administration, International Energy Statistics, crude oil, lease condensate, and natural gas plant liquids (NGPLs), 1980-1989, See page 2 for details.

Cell: I46

Comment: Rick Heede:

U.S. Energy Information Administration, International Energy Statistics, dry natural gas production 1980-1989, and production of marketed natural gas 1990-2010. See page 2 for details, including vented and flared natural gas, reinjected gas, etc.

Cell: P65

Comment: Rick Heede:

We cannot ascertain the accuracy of the World Bank estimates (325 million bbl and 1,571 Bcf), but clearly considerably higher than our results, which are 60 percent of total Qatari production attributed to Qatar Petroleum. Indeed, our estimates are also below Oil & Gas Journal estimates.

Cell: E66

Comment: Rick Heede:

Oil and gas production data from Energy Intelligence (2003) Top 100, p. 217, for Qatar, 2000 and 2001 at 499 thousand and 622 thousand bbl per day, equals 182 and 231 million bbl per year, respectively. OGJ100 estimates are somewhat lower (159 million bbl for each 2000 and 2001).

Cell: F66

Comment: Rick Heede:

Oil and gas production data from Energy Intelligence (2003) Top 100, p. 217, for Qatar, 2000 and 2001 at 499 thousand and 622 thousand bbl per day, equals 182 and 231 million bbl per year, respectively. OGJ100 estimates are somewhat lower (159 million bbl for each 2000 and 2001).

Cell: O67

Comment: Rick Heede:

World Bank, 2008b, page 493, estimates average Qatar Petroleum oil production for 2004-2007 at 325 million bbl.

Cell: P67

Comment: Rick Heede:

World Bank, 2008b, page 493, estimates average Qatar Petroleum natural gas production for 2004-2007 at 1,571 Bcf.

Cell: E70

Comment: Rick Heede:

World Bank, 2008b, page 493, estimates average Qatar Petroleum oil production for 2004-2007 at 325 million bbl.

Cell: H71

Comment: Rick Heede:

Interpolated, OGJ100 data missing.

Cell: E74

Comment: Rick Heede:

OGJ100 6Sep10 pg 69; updated 2008 production from 314 to 309.5

Cell: F74

Comment: Rick Heede:

OGJ100 6Sep10 pg 69; updated 2008 production from 314 to 309.5

Cell: H74

Comment: Rick Heede:

same as 6Sep10 value

Cell: E76

Comment: Rick Heede:

Oil & Gas Journal OGJ100, 30Oct2011.

Cell: F76

Comment: Rick Heede:

Oil & Gas Journal OGJ100, 30Oct2011.

Cell: H150

Comment: Rick Heede:

IHS (2018) Qatar LNG Exports Outlook, "Qatar is the world's largest LNG exporter, with 82 MMT in exports in 2017" ... "Qatar's LNG production comes from seven LNG projects, each majority-owned by Qatar Petroleum (QP), a state-owned firm whose net liquefaction capacity exceeds that of any other company. To streamline its operations and LNG marketing, QP merged its Qatargas and RasGas joint ventures into a single entity under the Qatargas name at the start of 2018." ... "Qatar shows no signs of relinquishing its position in the global market. In 2017, QP lifted its moratorium on new gas production from the North Field that feeds its liquefaction plants and has since announced plans to build three new LNG megatrans." IHS 2017: 82 Mt = 3,936 Bcf, excluding dry gas prodn for domestic and QP use <https://ihsmarket.com/topic/qatar-lng-exports-outlook.html>

Cell: D151

Comment: Rick Heede:

QP: "On 4 July 2017, Qatar Pet. announced its intention to raise Qatar's LNG production from 77 million to 100 million tons per year. The new additional volumes will be secured by doubling the size of the new gas project in the southern sector of the North Field. Qatar Petroleum Annual Review 2017, page 23." Using QP's own conversion factor, 1 Mt LNG = 48.0 Bcf; thus 77 Mt LNG requires gas prodn of 3,696 Bcf, well above reported gas prodn (presumably for QP use and domestic sale).