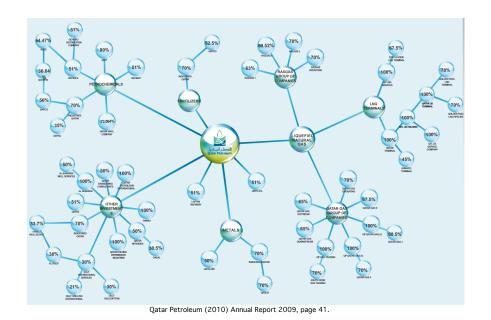


_	Α	В	С	D	E	F G	Н	I	J	K	L	М	N	0	Р	Q
80	_			· Information del	esimiatratia e ter	motional Fusion Co.	atiotics.	1			He decided to the	212	1			
82 83 84 85 86 87 88		US E	nergy:	/ Information Ad		rnational Energy Sta /emeu/internationalener		Vente <mark>d &amp; Fla</mark> re			Updated April 20 red of	_				
84				Qatar Oil, NGPL, other	Qatar Oil, NGPL, other	Oil, QP of Qatar	Qatar Prod Marketed Gas	<b>Qatar</b> Dry natural gas	Qatar Vented & Flared	gross	<b>Qatar</b> Reinjected	<b>Qatar</b> Gross Prod'n				
86	_		_	k bbl per day	million bbl per yr	percent	Bcf per year	Bcf per year	Bcf per year	%	Bcf per year	Bcf per year				
88		1980 1981		482 429	176 157	60% 60%	NA NA	184 157	42 53		NA NA	NA NA				
89		1982		360	131	60%	NA	186	17		NA	NA				
90		1983 1984		320 422	117 154	60% 60%	NA NA	174 209	3 2		NA NA	NA NA				
89 90 91 92 93 94 95 96 97 98 99		1985		331	121	60%	NA	191	-		NA	NA				
93		1986 1987		330 317	120 116	60% 60%	NA NA	193 198	-		NA NA	NA NA				
95		1988		376	137	60%	NA	207	-		NA	NA				
96		1989 1990		404 446	147 163	60% 60%	NA 276	215 276	-	0.0%	NA -	NA 276				
98		1991 1992		445 478	162 175	60% 60%	356 457	328 401	13	3.5% 0.0%	-	369 457				
100		1993		468	171	60%	540	477	-	0.0%	109	650				
101 102 103		1994 1995		465 497	170 181	60% 60%	540 540	477 477	-	0.0%	106 109	646 650				
103		1996		560	205	60%	554	484	-	0.0%	115	669				
104		1997 1998		620 781	226 285	60% 60%	706 789	614 691	-	0.0%	131 136	837 925				
106 107		1999 2000		776 870	283 318	60% 60%	893 1,162	779 1,028	-	0.0%	141 150	1,035 1,312				
108		2001		864	315	60%	1,104	954	11	0.8%	136	1,250				
109		2002 2003		839 916	306 334	60% 60%	1,201 1,277	1,042 1,109	11 11	0.8%	134 127	1,346 1,414				
111 112 113		2004		1,033	377	60%	1,574	1,383	11	0.6%	127	1,712				
113		2005 2006		1,100 1,130	402 412	60% 60%	1,826 1,999	1,617 1,790	138 109	6.8% 5.0%	71 81	2,034 2,190				
114		2007 2008		1,101 1,180	402 431	60% 60%	2,454 2,915	2,232 2,719	113 127	4.2% 4.0%	134 168	2,705 3,210				
116		2009		1,189	434	60%	3,353	3,154	140	3.9%	137	3,630				
117 118		2010 2011		1,414 1,614	516 589	60%	3,595 4,898	3,402 4,705	99 99	2.5% 1.9%	198 187	3,892 5,184				
119	L	2012		1,552	566	1000 0011							1			
121						1990-2011 totals	33,010	30,138	880	2.4%	2,499	36,393				
122																
116 117 118 119 120 121 122 123 124 125 126 127 128 130 131 131 132 133 134 135 136 137																
125				51%								3	147	000000	110	
127			44	A7% OCHUM2 DETRESITION COMPNOY		52.5%	69.52%		67.5%			1		1	17	П
129				80		9400	RIGING B	70%	SOUTH HOOK LING TERMANA.			24			- 1	Н
130			3	6.64 51%	51% golean	70%	RASGAS GROUP OF	RASSAS OPERATING	100%	70%		-	AL	h 1		Н
132				L X	HEMICALS		COMPANIES		SPURE SPRVICES	TERMINAL.				0		Н
133			6	70%		FERTILIZERS	\		LNG OXTARIO	70			(6)	A		
135				MELISTRES GARAGE 73	064%		\_		100%	GOLDH LNG PE	NPASS POLINE				Physical Control of the Control of t	
137				GMAC GC	A VINNE, MANARY	السترول فيطر السترول مستومات المسترول	LIQUEFI NATURA GAS	EO	100%	0%		Khamia Kh	polife, the tindal	and akin diver	attached to the Divine	1
138 139						فطر للبغرول Qutar Petroleum	GAS		GATAR SER TERMINAL	LUS NICE BANY	www	Barge at U			PHistory.aspx	
140				50% 50%	% 100%				45% ACHARC TERMAN				-1-5577		KA.	ı
141				WELL SERVICES 100% COMMISSION COMMIS	SH COO'R SHING PETROLIUM CHOTS PETROLIUM	4	51%	70%							1	
143				51%	OTHER	51%	онжап. 65%		5%					A TENING		
145			0	QATEX N	ESTMEN 100%		QNIAN GA LPSTREAM	GATAR GAS GROUP OF GOMPANIES	RGAST				10	<del></del>		
146 147			33.79 PARELL REAL DECK	70%	50%	METALS	65%		00% MARIGMACH 68.5%					17-17		
148					100% OKUNE 30.5%		COWNSTR	100% 100%	QAFAN GARS			/EVE			-	
150				30% AL KOOT 30%	NTOPMEDATE PALETHES GASAL	50%	NOUSTRESONIA	OP OAS TRADING OP CALLY CAS IN	)				48 1 3		C1 1	
151 152				NTERNATIONAL SERVICES		QATALIM	5	70% SOLITHACING				4 2 2	7 7	150	1 3 8	
153				QUI ORLING	30%		70%					AN ALL	10/2	The state of the s		
155				PHENNONAL	Qatar	Petroleum (2010) Annu	al Report 2009, pa	ge 41.							Park	
156							•						(	Qatar Petro	oleum website	
158					Name and Address of the Owner, where the Owner, which the											ı
159 160						The state of the s						No.				
161	100	1		色品	•			The same of the sa			Legio .	A.				
163								and .							V	
164																
166			10			Win Win	1/20/5	1			Charles .	-				
167 168							A F S				A POPULA	1				
140 141 142 143 144 145 146 147 148 150 151 152 153 154 155 156 157 158 160 161 162 163 164 165 166 167 168 170 177								1					-	30		
170									TANK I				1			
172	_					111										





Khamis Khalifa, the tindal 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



#### Cell: 19

#### 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/Oatar 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 bbld (53,300 m3/d) in 2006 to 350,000 bbld (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 bbld (38,000 m3/d) at the beginning of 2006 to 525,000 bbld (83,500 m3/d) by the end of 2009. When completed, Qatar would have more than 1,100,000 bbld (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:

Oil and gas data from EI (2003) Top 100, p. 217.

## 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. Wikepedia, Oatar Petroleum. See cell note at "Oatar Petroleum. cell I 9 above.

We attribute 25 percent of total oil and liquids production to Qatar Petroleum in 1973, and 60 percent 1974-2010. 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:

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

## Cell: 130

## Comment: Rick Heede:

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

OilGasOxy\_Shell.xls

**Cell**: 134

#### 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:** 140

#### Comment: Rick Heede:

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

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: 146

#### 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: 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: P69

#### 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 Oatar Petroleum. Indeed, our estimates are also below Oil & Gas Journal estimates.

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: 071

# Comment: Rick Heede:

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

Cell: P71

## Comment: Rick Heede:

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

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, 3Oct2011.

Cell: F76

# Comment: Rick Heede:

Oil & Gas Journal OGJ100, 3Oct2011.