

THE AMERICAN OIL & GAS REPORTER®

SEPTEMBER 2000

The "Better Business" Publication Serving the Exploration / Drilling / Production Industry

OPEC Oil Production Nearing Capacity

By George S. Littell

HOUSTON—The members of the Organization of Petroleum Exporting Countries have the capacity to produce approximately 30.3 million barrels of crude oil, 1.1 million barrels of condensate, and 2.6 million barrels of gas liquids a day.

OPEC adopted a definition of condensate in 1988, but lacks a formal definition of crude oil. In concept, production quotas apply only to crude oil. Condensate and the liquids from gas processing plants (ethane, propane, butanes and natural gasoline) are not subject to production controls.

Outside OPEC, statistical convention is to include most condensate in figures for "crude oil" production. When applied to OPEC, that practice prompts allegations of cheating. It also produces inflated fig-

ures for total production. Actual cheating is minimal because quotas for most OPEC members are close to their capacity to produce crude oil.

Chronic overstatement of actual production encourages OPEC to raise quotas to levels that exceed market demand at stable prices. The result is periods of depressed prices even as production is nearing capacity.

Capacity Tested Only Twice

Since OPEC was formed in 1960, its production capacity has been tested only twice. The first occasion was in 1973, after the Texas Railroad Commission raised allowables to 100 percent. The second was in 1979 and 1980, before and during the revolution in Iran and the start of Iran's war with Iraq. Table 1 shows actual production in these two peak periods.

In 1973, both Venezuela and Kuwait were operating under self-imposed production limits. Peak daily crude oil production in Venezuela was 3.8 million barrels in 1970, while peak daily production in Kuwait proper (excluding the Neutral Zone) was 3.8 million barrels of crude oil in 1972.

The first quotas for crude oil production—totaling 17.5 million barrels a day—were agreed to by OPEC members in March 1982. Actual crude oil production by member nations continued to decline to its low point of only 16.1 million barrels a day in 1985. By 1985, daily condensate production had increased to 578,000 barrels and daily gas liquids production was up to 908,000 barrels.

All of the OPEC members have continued to expand the use of natural gas. Algeria, Indonesia, Qatar and Abu Dhabi are exporters of natural gas as well as oil. Nigeria, Qatar and Abu Dhabi operate cycling projects in gas fields, which make it possible to produce condensate and gas

liquids despite the lack of a market for natural gas.

In 1998, total OPEC production was 30.1 million barrels a day. Table 2 shows how this production volume was distributed among member nations. Taking into account development projects and new fields in Algeria, Libya, Nigeria and

TABLE 1
OPEC Production in Peak Periods
Thousand Barrels Per Day

	1973	1979	1980
Algeria	1,067	1,038	912
Indonesia	1,339	1,523	1,499
Iran	5,861	3,168	1,467
Iraq	2,018	3,477	2,646
Libya	2,175	2,092	1,827
Nigeria	2,054	2,302	2,058
Qatar	570	508	471
<u>United Arab Emirates</u>			
Abu Dhabi	1,313	1,484	1,341
Dubai	220	354	349
Other	-	13	10
Venezuela	3,366	2,353	2,162
Kuwait	2,753	2,213	1,389
Neutral Zone	529	568	544
Saudi Arabia	7,335	9,251	9,631
Crude Oil	30,600	30,344	26,306
<u>Condensate</u>			
Algeria	27	99	97
Indonesia	-	67	76
Venezuela	3	4	3
<u>Gas Liquids</u>			
Saudi Arabia	92	303	378
Algeria	5	39	25
Other	236	277	246
Total	30,963	31,133	27,131



**GEORGE
LITTELL**

George Littell is a partner of Groppe, Long & Littell, a Houston-based consulting firm engaged in long-term forecasting, planning and development for the energy industry. The firm was founded in 1955 and the current name was adopted in 1976, a year after Littell joined the company following nine years with Mobil (interrupted by military service as an artillery officer with the U.S. Army during the war in Vietnam). He holds degrees from Yale, New York University and LaSalle Extension University.

TABLE 2

OPEC Production in 1998
Thousand Barrels Per Day

	<u>Crude</u>	<u>Condensate</u>	<u>Gas Liquids</u>
Algeria	827	388	243
Indonesia	1,316	147	93
Iran	3,253	14	131
Iraq	2,154	-	79
Libya	1,403	-	65
Nigeria	1,939	108	60
Qatar	613	64	95
<u>United Arab Emirates</u>			
Abu Dhabi	1,701	116	185
Dubai	243	8	19
Other	2	53	25
Venezuela	3,047	18	202
Kuwait	1,777	-	163
Neutral Zone	529	-	-
Saudi Arabia	8,006	-	1,020
Crude Oil	26,810	916	2,380

Qatar, OPEC's production capacity is now 100,000-300,000 barrels a day higher than it had been in 1998.

Table 3 shows how the organization's current capacity of 34.1 million barrels a day is distributed. The quotas for crude oil adopted at the June 2000 OPEC meeting total 25.4 million barrels a day, excluding Iraq. The total increases to 28.1 million barrels a day when Iraq is included, which compares with the capacity estimates shown in Table 4.

With OPEC crude oil production getting close to capacity, the oil situation in 2000 resembles the situation in 1973. And the collapse of the peace negotiations at Camp David this summer makes the re-

semblance even stronger. The third Middle East war in October 1973 followed a similar period of contention. A big difference is that OPEC members now produce more than 900,000 barrels of condensate and 2.4 million barrels of gas liquids a day.

Confusing Numbers

OPEC's Secretariat, the professional staff in Vienna, collected data for crude oil production from member nations in 1997. Table 5 compares these data with the average quotas and other estimates. At a meeting in Jakarta, Indonesia, in November 1997, the mistaken belief that OPEC was already producing 27.2 million barrels of crude oil a day

played a major role in the organization's decision to raise quotas to 27.5 million barrels a day. Disaster ensued well before Iraq gained relief from restraints on its oil production by the United Nations in June 1998.

The Secretariat has not collected monthly statistics from members since 1997. Instead, it compiles statistics from the *Oil Market Report*, which is published monthly by the International Energy Agency, and other "secondary sources" of information. Although the members of OPEC include some of the more corrupt governments on earth, it is fascinating that OPEC has resorted to the *Oil Market Report* and the trade press for data about its own production.

After all of the downsizing and mergers in a long bear market, the industry no longer does much analysis. The *Oil Market Report* gets a lot of attention, even from the industry itself, because there is essentially nothing else available in the public domain. The Secretariat's consensus of the secondary sources is invariably only slightly different from what appears in the *Oil Market Report*.

The IEA's monthly report, however, routinely reports figures for OPEC crude oil production that include condensate and natural gasoline. Total OPEC production is then overstated because the other liquids are counted twice: first as crude oil, and then as gas liquids. It is always true, of course, that a number for "crude oil" that includes condensate and/or natural gasoline is greater than the number for crude oil. Except for Algeria, where condensate production is rarely mentioned and statistics are practically a state secret, all OPEC members with significant condensate are reported to be "cheating" (producing crude

TABLE 3

OPEC Capacity - 2000
Thousand Barrels Per Day

	<u>Crude</u>	<u>Condensate</u>	<u>Gas Liquids</u>
Algeria	875	410	285
Indonesia	1,225	135	85
Iran	3,375	23	137
Iraq	2,705	-	95
Libya	1,420	-	60
Nigeria	2,050	115	90
Qatar	700	140	140
<u>United Arab Emirates</u>			
Abu Dhabi	2,270	240	245
Dubai	228	7	17
Other	2	48	23
Venezuela	2,950	20	210
Kuwait	2,025	-	190
Neutral Zone	650	-	-
Saudi Arabia	9,800	-	1,060
Crude Oil	30,275	1,138	2,637

TABLE 4

Quotas and Capacity
Thousand Barrels Per Day

	<u>Quotas</u>	<u>Capacity</u>
Algeria	811	875
Indonesia	1,317	1,225
Iran	3,727	3,375
Iraq	2,705	2,705
Kuwait	2,037	2,350
Libya	1,361	1,420
Nigeria	2,091	2,050
Qatar	658	700
Saudi Arabia	8,253	10,125
U.A.E.	2,219	2,500
Venezuela	2,926	2,950
Crude Oil	28,105	30,275
Condensate		1,138
Gas Liquids		2,637
Total		34,050

TABLE 5**OPEC Production in 1997
Thousand Barrels Per Day**

	OPEC Members	Oil Market Report	Groppe, Long & Littell	Quotas
Algeria	0.80	0.85	0.85	0.75
Indonesia	1.33	1.36	1.33	1.33
Iran	3.60	3.60	3.29	3.60
Iraq	1.38	1.15	1.37	1.37
Kuwait	2.01	2.11	2.01	2.00
Libya	1.40	1.42	1.42	1.39
Nigeria	1.88	2.28	2.22	1.86
Qatar	0.40	0.62	0.49	0.38
Saudi Arabia	8.01	8.35	8.01	8.00
U.A.E.	2.16	2.28	2.14	2.16
Venezuela	2.41	3.18	3.02	2.36
Crude Oil	25.38	27.20	26.15	25.20
Other Liquids		2.71	3.13	
Total		29.91	29.28	

oil in excess of the allotted quota).

There were minor amounts of real cheating in 1997 by the African members of OPEC and blatant disregard for its quota by Venezuela. Further increases in quotas have helped considerably to correct those problems.

In recent history, OPEC members have not had bad experiences because of cheating on crude oil quotas. The problem is that the chronic overstatement of actual production encourages raising quotas to levels that exceed market demand at stable prices. The result is that OPEC can manage to cause periods of low oil prices even as quotas approach capacity, and the stage is set for the next oil crisis. □