

Appendix A

Operator Data by Size Class

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Appendix A provides a series of tables of the proved reserves and production by production size class for the years 1996 through 2001 for oil and gas well operators. The tables show the volumetric change and percent change from the previous year and from 1996. In addition they show the 2001 average per operator in each class. All companies that reported to EIA were ranked by production size for each of the 6 years. We computed company production size classes as the sum of the barrel oil equivalent of the crude oil production, lease condensate production, and wet gas production for each operator. The companies were then placed in the following production size classes: 1–10, 11–20, 21–100, 101–500, and all “other” oil and gas operators. The “other” category contains 22,019 small operators. We estimated production and reserves for small operators for 2001 from a sample of approximately 3 percent.

Class 1–10 contains the 10 highest producing companies each year on a barrel oil equivalent basis. These companies are not necessarily the same 10 companies each year.

We also include statistics for operator Category sizes at the bottom portion of tables in this appendix. These are the categories used by EIA in processing and assessing reserves surveys and are presented here as additional perspective. For further explanation of categories sizes see definitions and descriptions in Appendix E.

Natural Gas

Proved Reserves

The wet natural gas proved reserves reported for 1996 through 2001 have changed from 175,147 billion cubic feet to 191,743 billion cubic feet (Table A1). These proved reserves are highly concentrated in the larger companies. In 2001, the top 20 operators (Class 1–10 and Class 11–20) producing companies had 59 percent of the proved reserves of natural gas. The next two size classes contain 80 and 400 companies and account for 26 and 10 percent of the U.S. natural gas proved reserves, respectively. The top 20 operators had an increase of 16 percent in their natural gas proved

reserves from 1996 to 2001. The rest of the operators in (Class 21–100, Class 101–500, and Class Other) had an increase of 5 percent in their reserves. In 2001, the top 20 operators’ natural gas reserves increased by 9 percent from 2000.

Production

Wet natural gas production has increased from 20,164 billion cubic feet in 2000 to 20,642 billion cubic feet in 2001 (Table A2). In 2001, the top 20 producing companies had 59 percent of the proved reserves and production of wet natural gas. The next two size classes have 24 and 13 percent of the wet natural gas production, respectively. The top 20 operators had an increase of 16 percent in their wet natural gas production from 1996 to 2001. The rest of the operators had a decrease of 9 percent from 1996 to 2001. The top 20 operators’ wet natural gas production had a increase of 6 percent in 2001 from 2000.

Crude Oil

Proved Reserves

Proved reserves of crude oil are more highly concentrated in a few companies than those of natural gas. The 20 largest oil and gas producing companies in 2001 had 73 percent of U.S. proved reserves of crude oil (Table A3), in contrast to wet natural gas where these same companies operated 59 percent of the total proved reserves.

U.S. proved reserves of crude oil increased 2 percent in 2001. The top 20 producing companies proved reserves of crude oil during 2001 increased 6 percent. The top 20 class had an increase of 7 percent in their crude oil proved reserves from 1996 to 2001.

Production

Crude oil production reported for 1996 to 2001 has decreased from 2,173 million barrels to 1,915 million barrels (Table A4). The 20 largest oil and gas producing companies had 68 percent of U.S. production of crude oil in 2001. In 1996 they accounted for 65 percent of

production. This is in contrast to wet natural gas where these same companies produced only 59 percent of the total. U.S. production of crude oil declined by 12 percent from 1996 to 2001. The top 20 operators had a decline of 7 percent in their oil production during the same period. U.S. production of crude oil increased by 2 percent from 2000 to 2001, while the top 20 operators production increased by 3 percent.

Fields

The number of fields in which Category I and Category II operators were active dropped during the 1996–2001 period (Table A5). From 1996-2001, the number of fields in which the top 20 operators were active increased by 765 (15 percent), while in 2001 the number increased by 639 (12 percent) from 2000.

Table A1. Natural Gas Proved Reserves, Wet After Lease Separation, by Operator Production Size Class, 1996–2001
(Billion Cubic Feet at 14.73 psia and 60° Fahrenheit)

Size Class	1996	1997	1998	1999	2000	2001	2000–2001 Volume and Percent Change	1996–2001 Volume and Percent Change	2001 Average Reserves per Operator
Class 1-10	72,606	68,876	64,336	64,320	81,437	88,936	7,499	16,330	8,893.630
Percent of Total	41.5%	39.2%	37.3%	36.5%	43.7%	46.4%	9.2%	22.5%	
Class 11-20	25,416	27,705	28,338	24,925	22,590	24,588	1,998	-828	2,458.787
Percent of Total	14.5%	15.8%	16.4%	14.1%	12.1%	12.8%	8.8%	-3.3%	
Class 21-100	43,300	45,593	47,009	52,160	48,832	50,055	1,223	6,755	625.690
Percent of Total	24.7%	25.9%	27.3%	29.6%	26.2%	26.1%	2.5%	15.6%	
Class 101-500	22,483	23,338	24,471	25,967	22,620	19,046	-3,575	-3,437	47.614
Percent of Total	12.8%	13.3%	14.2%	14.7%	12.1%	9.9%	-15.8%	-15.3%	
Class Other (22,019)	11,342	10,209	8,289	8,289	11,030	9,118	-1,912	-2,224	0.414
Percent of Total	6.5%	5.8%	4.8%	5.0%	5.9%	4.8%	-17.3%	-19.6%	
Category I (179)	146,601	147,491	146,458	146,458	162,144	169,056	6,912	22,455	944.445
Percent of Total	83.7%	83.9%	84.9%	82.8%	86.9%	88.2%	4.3%	15.3%	
Category II (430)	18,382	17,764	18,033	18,033	13,123	13,346	222	-5,036	31.037
Percent of Total	10.5%	10.1%	10.5%	12.5%	7.0%	7.0%	1.7%	-27.4%	
Category III (22,519)	10,164	10,467	7,952	7,952	11,243	9,342	-1,901	-822	0.426
Percent of Total	5.8%	6.0%	4.6%	4.7%	6.0%	4.9%	-16.9%	-8.1%	
Total Published	175,147	175,721	172,443	176,159	186,510	191,743	5,233	16,596	8.515
Percent of Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	2.8%	9.5%	

Note: There were 21,910 active Category III operators in the 2001 sample frame. The reserves and production of Category III operators were estimated from an adjusted sample of 1,797 Category III operators (Table E2). The "other" size class represents 22,019 operators in the 2001 frame (22,519 active operators minus the 500 largest operators).

Source: Energy Information Administration, Office of Oil and Gas.

Table A2. Natural Gas Production, Wet After Lease Separation, by Operator Production Size Class, 1996–2001
(Billion Cubic Feet at 14.73 psia and 60° Fahrenheit)

Size Class	1996	1997	1998	1999	2000	2001	2000–2001 Volume and Percent Change	1996–2001 Volume and Percent Change	2001 Average Production per Operator
Class 1-10	7,448	7,178	6,954	6,881	8,495	9,019	525	1,571	901.934
Percent of Total	37.5%	35.7%	35.4%	34.7%	42.1%	43.7%	6.2%	21.1%	
Class 11-20	3,002	3,286	3,317	3,560	2,886	3,064	178	62	306.430
Percent of Total	14.5%	15.8%	16.4%	14.1%	14.3%	14.8%	6.2%	2.1%	
Class 21-100	5,316	5,729	5,595	5,523	4,965	4,949	-16	-367	61.865
Percent of Total	24.7%	25.9%	27.3%	29.6%	24.6%	24.0%	-0.3%	-6.9%	
Class 101-500	2,623	2,665	2,721	2,793	2,780	2,609	-171	-14	6.523
Percent of Total	12.8%	13.3%	14.2%	14.7%	13.8%	12.6%	-6.2%	-0.5%	
Class Other (22,019)	1,484	1,276	1,035	1,099	1,038	1,000	-38	-484	0.045
Percent of Total	6.5%	5.8%	4.8%	5.0%	5.1%	4.8%	-3.7%	-32.6%	
Category I (179)	16,381	16,897	16,619	16,248	17,096	17,672	576	1,2919	8.725
Percent of Total	83.7%	83.9%	84.9%	82.8%	84.8%	85.6%	3.4%	7.9%	
Category II (430)	2,128	1,979	2,019	2,556	1,921	1,932	11	-196	4.493
Percent of Total	10.5%	10.1%	10.5%	12.5%	9.5%	9.4%	0.6%	-9.2%	
Category III (22,519)	1,364	1,258	984	1,052	R1,147	1,038	-109	-326	0.047
Percent of Total	5.8%	6.0%	4.6%	4.7%	R5.7%	5.0%	-9.5%	-23.9%	
Total Published	19,873	20,134	19,622	19,856	20,164	20,642	478	769	0.917
Percent of Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	2.4%	3.9%	

Note: There were 21,910 active Category III operators in the 2001 sample frame. The reserves and production of Category III operators were estimated from an adjusted sample of 1,797 Category III operators (Table E2). The "other" size class represents 22,019 operators in the 2001 frame (22,519 active operators minus the 500 largest operators).

Source: Energy Information Administration, Office of Oil and Gas.

Table A3. Crude Oil Proved Reserves by Operator Production Size Class, 1996–2001
(Million Barrels of 42 U.S. Gallons)

Size Class	1996	1997	1998	1999	2000	2001	2000–2001 Volume and Percent Change	1996–2001 Volume and Percent Change	2001 Average Reserves per Operator
Class 1-10	13,362	11,434	11,501	11,121	12,367	13,590	1,223	228	1,359.041
Percent of Total	60.7%	50.7%	54.7%	51.1%	56.1%	60.5%	9.9%	1.7%	
Class 11-20	2,013	2,977	2,894	2,585	3,172	2,901	-270	888	290.146
Percent of Total	9.1%	13.2%	13.8%	11.9%	14.4%	12.9%	-8.5%	44.1%	
Class 21-100	3,155	4,384	3,677	4,338	2,505	2,856	351	-299	35.696
Percent of Total	14.3%	19.4%	17.5%	19.9%	11.4%	12.7%	14.0%	-9.5%	
Class 101-500	1,838	2,111	1,754	2,379	2,286	1,794	-492	-44	4.485
Percent of Total	8.3%	9.4%	8.3%	10.9%	10.4%	8.0%	-21.5%	-2.4%	
Class Other (22,019)	1,649	1,640	1,208	1,342	1,716	1,305	-411	-344	0.059
Percent of Total	7.5%	7.3%	5.7%	6.2%	7.8%	5.8%	-24.0%	-20.9%	
Category I (179)	19,312	19,461	18,819	18,952	19,421	20,325	904	1,013	113.549
Percent of Total	87.7%	86.3%	89.5%	87.1%	88.1%	90.6%	4.7%	5.2%	
Category II (430)	1,117	1,400	1,018	1,521	873	794	-78	-323	1.848
Percent of Total	5.1%	6.2%	4.8%	7.0%	4.0%	3.5%	-8.9%	-28.9%	
Category III (22,519)	1,588	1,685	1,197	1,293	1,751	1,326	-425	-262	0.061
Percent of Total	7.2%	7.5%	5.7%	5.9%	7.9%	5.9%	-24.3%	-16.5%	
Total Published	22,017	22,546	21,034	21,765	22,045	22,446	401	429	0.997
Percent of Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	1.8%	1.9%	

Note: There were 21,910 active Category III operators in the 2001 sample frame. The reserves and production of Category III operators were estimated from an adjusted sample of 1,797 Category III operators (Table E2). The "other" size class represents 22,019 operators in the 2001 frame (22,519 active operators minus the 500 largest operators).

Source: Energy Information Administration, Office of Oil and Gas.

Table A4. Crude Oil Production by Operator Production Size Class, 1996–2001
(Million Barrels of 42 U.S. Gallons)

Size Class	1996	1997	1998	1999	2000	2001	2000–2001 Volume and Percent Change	1996–2001 Volume and Percent Change	2001 Average Production per Operator
Class 1-10	1,220	1,047	1,025	974	961	1,061	99	-159	106.050
Percent of Total	56.1%	49.0%	51.5%	49.9%	51.1%	55.4%	10.4%	-13.1%	
Class 11-20	185	262	255	241	304	240	-64	55	24.032
Percent of Total	8.5%	12.3%	12.8%	12.3%	16.2%	12.5%	-21.1%	29.9%	
Class 21-100	307	373	342	350	214	233	19	-74	2.912
Percent of Total	14.1%	17.4%	17.2%	17.9%	11.4%	12.2%	8.9%	-24.1%	
Class 101-500	213	237	206	208	211	195	-15	-18	0.488
Percent of Total	9.8%	11.1%	10.3%	10.7%	11.2%	10.2%	-7.3%	-8.3%	
Class Other (22,019)	248	219	163	179	190	186	-4	-62	0.008
Percent of Total	11.4%	10.2%	8.2%	9.2%	10.1%	9.7%	-2.1%	-25.1%	
Category I (179)	1,791	1,760	1,714	1,617	1,572	1,612	40	-179	9.007
Percent of Total	82.4%	82.3%	86.1%	82.8%	83.6%	84.2%	2.6%	-10.0%	
Category II (430)	143	157	118	160	111	112	1	-31	0.260
Percent of Total	6.6%	7.3%	5.9%	8.2%	5.9%	5.8%	0.9%	-21.8%	
Category III (22,519)	239	221	159	175	R197	191	-6	-48	0.009
Percent of Total	11.0%	10.3%	8.0%	9.0%	R10.5%	10.0%	-3.3%	-20.1%	
Total Published	2,173	2,138	1,991	1,952	1,880	1,915	35	-258	0.085
Percent of Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	1.9%	-11.9%	

Note: There were 22,519 active Category III operators in the 2001 sample frame. The reserves and production of Category III operators were estimated from an adjusted sample of 2,136 Category III operators (Table E2). The "other" size class represents 21,910 operators in the 2001 frame (22,019 active operators minus the 500 largest operators).

Source: Energy Information Administration, Office of Oil and Gas.

Table A5. Operator Field Count by Operator Production Size Class, 1996–2001

Size Class	1996	1997	1998	1999	2000	2001	2000–2001 Number and Percent Change	1996–2001 Number and Percent Change	2001 Average Number of Fields per Operator
Class 1-10	2,800	2,566	2,475	2,559	3,444	3,794	350	994	379.400
Percent of Total	10.7%	10.4%	9.5%	10.0%	13.0%	14.0%	10.2%	35.5%	
Class 11-20	2,441	2,257	1,822	1,514	1,923	2,212	289	-229	221.200
Percent of Total	9.3%	9.1%	7.0%	5.9%	7.2%	8.2%	15.0%	-9.4%	
Class 21-100	7,526	7,159	7,526	8,180	7,084	7,195	111	-331	89.938
Percent of Total	28.7%	28.9%	29.0%	32.0%	26.7%	26.5%	1.6%	-4.4%	
Class 101-500	12,492	12,878	12,817	12,344	12,580	12,435	-145	-57	31.088
Percent of Total	47.7%	52.0%	49.4%	48.2%	47.4%	45.9%	-1.2%	-0.5%	
Rest	^a 952	1,332	1,524	1,287	1,529	1,480	-49	528	13.578
Percent of Total	3.6%	5.4%	5.9%	5.0%	5.8%	5.5%	-3.2%	55.5%	
Category I	15,635	15,232	15,666	15,120	16,174	16,196	22	561	90.480
Percent of Total	59.7%	61.5%	60.4%	59.1%	60.9%	59.7%	0.1%	3.6%	
Category II	10,576	R9,530	10,271	10,467	10,146	10,764	618	188	25.033
Percent of Total	40.3%	38.5%	39.6%	40.9%	38.2%	39.7%	6.1%	1.8%	
Total	26,211	R24,762	25,937	25,587	26,560	27,116	556	905	44.525
Percent of Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	2.1%	3.5%	

^aThe reduced 1996 survey had fewer operators and fields in the “rest” class.

R = Revised

Note: Includes only data from Category I and Category II operators. In 2001, there were 179 Category I operators and 430 Category II operators. The “rest” size class had 109 operators in 2001.

Source: Energy Information Administration, Office of Oil and Gas.

