

5. Natural Gas Liquids Statistics

Natural Gas Liquids

Proved Reserves

U.S. natural gas liquids proved reserves increased 1 million barrels to 7,994 million barrels in 2002 (**Table 13**). Reserve additions replaced 100 percent of 2002 natural gas liquids production.

The reserves of six areas account for 81 percent of the Nation's natural gas liquids proved reserves.

| Area | Percent of U.S. NGL Reserves |
|---------------------------------|------------------------------|
| Texas | 34 |
| Gulf of Mexico Federal Offshore | 12 |
| Utah - Wyoming | 12 |
| New Mexico | 10 |
| Oklahoma | 9 |
| Alaska | 5 |
| Area Total | 82 |

The volumes of natural gas liquids proved reserves and production shown in **Table 13** are the sum of the natural gas plant liquid volumes listed in **Table 14** and the lease condensate volumes listed in **Table 15**.

Discoveries

Total discoveries of natural gas liquids reserves were 738 million barrels in 2002, a decrease of 26 percent from 2001 (997 million barrels). Areas with the largest total discoveries were:

- Texas (34 percent)
- Utah & Wyoming (19 percent)
- Gulf of Mexico Federal Offshore (17 percent)
- New Mexico (8 percent)
- Oklahoma (8 percent)
- Louisiana (6 percent).

New field discoveries in 2002 (48 million barrels) were 65 percent lower than in 2001 (138 million barrels). Areas with the largest new field discoveries were the Gulf of Mexico Federal Offshore (81 percent), Texas (6 percent), and Louisiana (6 percent).

New reservoir discoveries in old fields (78 million barrels) were 45 percent lower than they were in 2001 (142 million barrels). Areas with the largest new reservoir discoveries in old fields were the Gulf of Mexico Federal Offshore (54 percent), Texas (23 percent), and Louisiana (18 percent).

Extensions were 612 million barrels in 2002, 15 percent lower than the 2001 volume of extensions (717 million barrels). Areas with the largest extensions were Texas (37 percent), Utah & Wyoming (23 percent), and New Mexico (9 percent).

Revisions and Adjustments

In 2002, there were 982 million barrels of revision increases, 951 million barrels of revision decreases and 62 million barrels of adjustments. The net of revisions and adjustments was 93 million barrels.

Sales and Acquisitions

There were 512 million barrels of acquisitions, and 458 million barrels of sales in 2002. The net of these transactions added 54 million barrels of natural gas liquids proved reserves.

Production

Natural gas liquids production was an estimated 884 million barrels in 2002, a decrease of less than 1 percent from 2001. Alaska production stayed level at 20 million barrels in 2002.

Six areas accounted for about 87 percent of the Nation's natural gas liquids production.

- Texas (34 percent)
- Gulf of Mexico Federal Offshore (21 percent)
- New Mexico (9 percent)
- Oklahoma (8 percent)
- Louisiana (8 percent)
- Utah-Wyoming (7 percent).

Table 13. Natural Gas Liquids Proved Reserves, Reserves Changes, and Production, 2002
(Million Barrels of 42 U.S. Gallons)

| State and Subdivision | Published Proved Reserves 12/31/01 | Changes in Reserves During 2002 | | | | | | | New Reservoir Discoveries in Old Fields (+) | Estimated Production (-) | Proved Reserves 12/31/02 |
|---|------------------------------------|---------------------------------|------------------------|------------------------|------------|------------------|----------------|---------------------------|---|--------------------------|--------------------------|
| | | Adjustments (+,-) | Revision Increases (+) | Revision Decreases (-) | Sales (-) | Acquisitions (+) | Extensions (+) | New Field Discoveries (+) | | | |
| Alaska | 405 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 405 |
| Lower 48 States | 7,588 | 42 | 982 | 951 | 458 | 512 | 612 | 48 | 78 | 864 | 7,589 |
| Alabama | 64 | -3 | 3 | 2 | 1 | 0 | 3 | 0 | 0 | 7 | 57 |
| Arkansas | 5 | -1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| California | 76 | 21 | 8 | 4 | 1 | 1 | 4 | 0 | 0 | 10 | 95 |
| Coastal Region Onshore | 16 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 17 |
| Los Angeles Basin Onshore | 8 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 10 |
| San Joaquin Basin Onshore | 52 | 21 | 5 | 4 | 1 | 1 | 3 | 0 | 0 | 9 | 68 |
| State Offshore | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Colorado | 345 | 3 | 65 | 31 | 26 | 32 | 35 | 0 | 0 | 27 | 396 |
| Florida | 12 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 14 |
| Kansas | 302 | -22 | 25 | 20 | 2 | 1 | 4 | 0 | 0 | 25 | 263 |
| Kentucky | 72 | -8 | 13 | 13 | 0 | 2 | 3 | 0 | 0 | 3 | 66 |
| Louisiana | 391 | 25 | 57 | 125 | 21 | 23 | 24 | 3 | 14 | 68 | 323 |
| North | 62 | -6 | 8 | 12 | 3 | 3 | 3 | 0 | 0 | 6 | 49 |
| South Onshore | 269 | 18 | 43 | 81 | 18 | 18 | 16 | 2 | 9 | 50 | 226 |
| State Offshore | 60 | 13 | 6 | 32 | 0 | 2 | 5 | 1 | 5 | 12 | 48 |
| Michigan | 43 | -1 | 8 | 4 | 2 | 2 | 5 | 0 | 0 | 4 | 47 |
| Mississippi | 10 | 3 | 1 | 4 | 2 | 2 | 0 | 0 | 0 | 2 | 8 |
| Montana | 5 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 6 |
| New Mexico | 873 | -4 | 142 | 156 | 48 | 53 | 58 | 1 | 1 | 82 | 838 |
| East | 279 | 5 | 102 | 83 | 12 | 17 | 23 | 1 | 1 | 43 | 290 |
| West | 594 | -9 | 40 | 73 | 36 | 36 | 35 | 0 | 0 | 39 | 548 |
| North Dakota | 57 | -10 | 7 | 2 | 5 | 4 | 1 | 0 | 0 | 5 | 47 |
| Oklahoma | 694 | -18 | 107 | 80 | 38 | 44 | 56 | 1 | 1 | 72 | 695 |
| Texas | 2,653 | 38 | 315 | 271 | 209 | 238 | 227 | 3 | 18 | 301 | 2,711 |
| RRC District 1 | 40 | 0 | 4 | 2 | 9 | 9 | 1 | 0 | 0 | 4 | 39 |
| RRC District 2 Onshore | 67 | 8 | 10 | 11 | 7 | 7 | 7 | 0 | 2 | 12 | 71 |
| RRC District 3 Onshore | 226 | 38 | 29 | 43 | 33 | 31 | 31 | 0 | 4 | 42 | 241 |
| RRC District 4 Onshore | 378 | 15 | 51 | 66 | 50 | 47 | 44 | 3 | 5 | 57 | 370 |
| RRC District 5 | 49 | -6 | 10 | 7 | 4 | 5 | 7 | 0 | 0 | 4 | 50 |
| RRC District 6 | 269 | -2 | 26 | 15 | 12 | 11 | 24 | 0 | 2 | 26 | 277 |
| RRC District 7B | 29 | 10 | 5 | 4 | 10 | 1 | 0 | 0 | 0 | 6 | 25 |
| RRC District 7C | 290 | 19 | 38 | 23 | 36 | 55 | 38 | 0 | 1 | 31 | 351 |
| RRC District 8 | 525 | -17 | 74 | 57 | 21 | 20 | 34 | 0 | 2 | 50 | 510 |
| RRC District 8A | 251 | -62 | 17 | 13 | 3 | 4 | 3 | 0 | 0 | 16 | 181 |
| RRC District 9 | 189 | 20 | 14 | 5 | 5 | 21 | 26 | 0 | 0 | 22 | 238 |
| RRC District 10 | 335 | 16 | 36 | 24 | 19 | 27 | 12 | 0 | 0 | 30 | 353 |
| State Offshore | 5 | -1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 5 |
| Utah and Wyoming | 897 | -36 | 65 | 66 | 54 | 55 | 140 | 1 | 2 | 66 | 938 |
| West Virginia | 106 | -14 | 13 | 7 | 0 | 0 | 7 | 0 | 0 | 6 | 99 |
| Federal Offshore ^a | 976 | 65 | 149 | 163 | 49 | 55 | 43 | 39 | 42 | 184 | 973 |
| Pacific (California) | 9 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| Gulf of Mexico (Louisiana) ^a | 785 | 59 | 105 | 133 | 14 | 21 | 34 | 38 | 37 | 149 | 783 |
| Gulf of Mexico (Texas) | 182 | 7 | 44 | 30 | 35 | 34 | 9 | 1 | 5 | 35 | 182 |
| Miscellaneous ^b | 7 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 9 |
| U.S. Total | 7,993 | 62 | 982 | 951 | 458 | 512 | 612 | 48 | 78 | 884 | 7,994 |

^aIncludes Federal offshore Alabama.

^bIncludes Arizona, Illinois, Indiana, Maryland, Missouri, Nebraska, Nevada, New York, Ohio, Oregon, Pennsylvania, South Dakota, Tennessee, and Virginia.

Note: The production estimates in this table are based on data reported on Form EIA-23, "Annual Survey of Domestic Oil and Gas Reserves," and Form EIA-64A, "Annual Report of the Origin of Natural Gas Liquids Production." They may differ from the official Energy Information Administration production data for natural gas and natural gas liquids for 2002 contained in the publications *Petroleum Supply Annual 2002*, DOE/EIA-0340(02) and *Natural Gas Annual 2002* DOE/EIA-0131(02).

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

Table 14. Natural Gas Plant Liquids Proved Reserves and Production, 2002
(Million Barrels of 42 U.S. Gallons)

| State and Subdivision | 2002 Reserves | 2002 Production | State and Subdivision | 2002 Reserves | 2002 Production |
|-------------------------------------|---------------|-----------------|---|---------------|-----------------|
| Alaska | 405 | 20 | North Dakota | 41 | 5 |
| Lower 48 States | 6,243 | 657 | Oklahoma | 601 | 61 |
| Alabama | 28 | 3 | Texas | 2,368 | 256 |
| Arkansas | 3 | 0 | RRC District 1 | 34 | 4 |
| California | 95 | 10 | RRC District 2 Onshore | 60 | 10 |
| Coastal Region Onshore | 17 | 1 | RRC District 3 Onshore | 170 | 28 |
| Los Angeles Basin Onshore | 10 | 0 | RRC District 4 Onshore | 279 | 41 |
| San Joaquin Basin Onshore | 68 | 9 | RRC District 5 | 39 | 3 |
| State Offshore | 0 | 0 | RRC District 6 | 213 | 21 |
| Colorado | 329 | 23 | RRC District 7B | 24 | 6 |
| Florida | 14 | 1 | RRC District 7C | 326 | 29 |
| Kansas | 261 | 25 | RRC District 8 | 488 | 48 |
| Kentucky | 65 | 3 | RRC District 8A | 180 | 16 |
| Louisiana | 186 | 35 | RRC District 9 | 229 | 21 |
| North | 30 | 3 | RRC District 10 | 326 | 29 |
| South Onshore | 119 | 23 | State Offshore | 0 | 0 |
| State Offshore | 37 | 9 | Utah and Wyoming | 806 | 55 |
| Michigan | 42 | 3 | West Virginia | 98 | 6 |
| Mississippi | 2 | 1 | Federal Offshore ^a | 511 | 94 |
| Montana | 6 | 1 | Pacific (California) | 0 | 0 |
| New Mexico | 779 | 75 | Gulf of Mexico (Louisiana) ^a | 483 | 89 |
| East | 266 | 38 | Gulf of Mexico (Texas) | 28 | 5 |
| West | 513 | 37 | Miscellaneous ^b | 8 | 0 |
| | | | U.S. Total | 6,648 | 677 |

^aIncludes Federal Offshore Alabama.

^bIncludes Arizona, Illinois, Indiana, Maryland, Missouri, Nebraska, Nevada, New York, Ohio, Oregon, Pennsylvania, South Dakota, Tennessee, and Virginia.

Note: The production estimates in this table are based on data reported on Form EIA-23, "Annual Survey of Domestic Oil and Gas Reserves," and Form EIA-64A, "Annual Report of the Origin of Natural Gas Liquids Production." They may differ from the official Energy Information Administration production data for natural gas plant liquids for 2002 contained in the publications *Petroleum Supply Annual 2002*, DOE/EIA-0340(2002) and *Natural Gas Annual 2002*, DOE/EIA-0131(2002).

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

Table 15. Lease Condensate Proved Reserves and Production, 2002
(Million Barrels of 42 U.S. Gallons)

| State and Subdivision | 2002 Reserves | 2002 Production | State and Subdivision | 2002 Reserves | 2002 Production |
|-------------------------------------|---------------|-----------------|---|---------------|-----------------|
| Alaska | 0 | 0 | North Dakota | 6 | 0 |
| Lower 48 States | 1,346 | 207 | Oklahoma | 94 | 11 |
| Alabama | 29 | 4 | Texas | 343 | 45 |
| Arkansas | 1 | 0 | RRC District 1 | 5 | 0 |
| California | 0 | 0 | RRC District 2 Onshore | 11 | 2 |
| Coastal Region Onshore | 0 | 0 | RRC District 3 Onshore | 71 | 14 |
| Los Angeles Basin Onshore | 0 | 0 | RRC District 4 Onshore | 91 | 16 |
| San Joaquin Basin Onshore | 0 | 0 | RRC District 5 | 11 | 1 |
| State Offshore | 0 | 0 | RRC District 6 | 64 | 5 |
| Colorado | 67 | 4 | RRC District 7B | 1 | 0 |
| Florida | 0 | 0 | RRC District 7C | 25 | 2 |
| Kansas | 2 | 0 | RRC District 8 | 22 | 2 |
| Kentucky | 1 | 0 | RRC District 8A | 1 | 0 |
| Louisiana | 137 | 33 | RRC District 9 | 9 | 1 |
| North | 19 | 3 | RRC District 10 | 27 | 1 |
| South Onshore | 107 | 27 | State Offshore | 5 | 1 |
| State Offshore | 11 | 3 | Utah and Wyoming | 132 | 11 |
| Michigan | 5 | 1 | West Virginia | 1 | 0 |
| Mississippi | 6 | 1 | Federal Offshore ^a | 462 | 90 |
| Montana | 0 | 0 | Pacific (California) | 1 | 0 |
| New Mexico | 59 | 7 | Gulf of Mexico (Louisiana) ^a | 300 | 60 |
| East | 24 | 5 | Gulf of Mexico (Texas) | 154 | 30 |
| West | 35 | 2 | Miscellaneous ^b | 1 | 0 |
| | | | U.S. Total | 1,346 | 207 |

^aIncludes Federal Offshore Alabama.

^bIncludes Arizona, Illinois, Indiana, Maryland, Missouri, Nebraska, Nevada, New York, Ohio, Oregon, Pennsylvania, South Dakota, Tennessee, and Virginia.

Note: The estimates in this table are based on data reported on Form EIA-23, "Annual Survey of Domestic Oil and Gas Reserves" 2002.

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

Natural Gas Plant Liquids

Proved Reserves

Natural gas plant liquids proved reserves increased in 2002 to 6,648 million barrels, a 1 percent increase from the 2001 level (6,595 million barrels) (**Table 14**). Six areas accounted for about 83 percent of the Nation's natural gas plant liquids proved reserves:

| Area | Percent of U.S. Gas Plant Liquids |
|---------------------------------|-----------------------------------|
| Texas | 36 |
| Utah-Wyoming | 12 |
| New Mexico | 12 |
| Oklahoma | 9 |
| Gulf of Mexico Federal Offshore | 8 |
| Alaska | 6 |
| Area Total | 83 |

Production

Natural gas plant liquids production increased less than 1 percent in 2002—from 675 million barrels in 2001 to 677 million barrels of production (**Table 14**). The top six areas for proved reserves of natural gas plant liquids accounted for about 83 percent of the Nation's natural gas plant liquids production:

- Texas (38 percent)
- Gulf of Mexico Federal Offshore (14 percent)
- New Mexico (11 percent)
- Oklahoma (9 percent)
- Utah and Wyoming (8 percent)
- Alaska (3 percent).

Natural gas processing plants are usually located in the same general area where the natural gas is produced. Table E4 in Appendix E lists the volumes of natural gas produced and processed in the same State, and the volumes of liquids extracted.

Lease Condensate

Proved Reserves

Proved reserves of lease condensate in the United States were 1,346 million barrels in 2002 (**Table 15**). This was 4 percent less than the volume reported in 2001 (1,398 million barrels). The reserves of five areas account for about 86 percent of the Nation's lease condensate proved reserves.

| Area | Percent of U.S. Condensate Reserves |
|---------------------------------|-------------------------------------|
| Gulf of Mexico Federal Offshore | 34 |
| Texas | 25 |
| Louisiana | 10 |
| Utah-Wyoming | 10 |
| Oklahoma | 7 |
| Area Total | 86 |

Production

Production of lease condensate was 207 million barrels in 2002, a decrease of 4 percent from 2001's production (215 million barrels). The production of five areas account for about 91 percent of the Nation's lease condensate production.

- Gulf of Mexico Federal Offshore (43 percent)
- Texas (22 percent)
- Louisiana (16 percent)
- Utah and Wyoming (5 percent)
- Oklahoma (5 percent).

Reserves in Nonproducing Status

Like crude oil and natural gas, not all lease condensate proved reserves were producing during 2002. Proved reserves of 489 million barrels of lease condensate, a decrease of 13 percent from 2001's level (562 million barrels), were reported in nonproducing status in 2002 (**Appendix D, Table D10**). About 51 percent of the nonproducing lease condensate reserves were located in the Gulf of Mexico Federal Offshore.