

PetroBase Explorer Scorecard

Top Eastern Kansas Oil Producers

PetroBase

| Rank | Operator | Prior Year Production | 12/17-11/18 Production | Percent Decline | Reported Prod Wells | Reported KDOR #'s |
|-------|---|-----------------------|------------------------|-----------------|---------------------|-------------------|
| # 1. | RJ Energy, LLC | 169,759 | 170,045 | 0.2% | 1,231 | 81 |
| # 2. | Colt Energy Inc | 185,033 | 168,631 | -8.9% | 763 | 73 |
| # 3. | Laymon Oil II, LLC | 123,248 | 139,065 | 12.8% | 669 | 38 |
| # 4. | Trimble & Maclasley Oil LLC | 157,124 | 134,458 | -14.4% | 428 | 65 |
| # 5. | Haas Petroleum, LLC | 115,265 | 97,653 | -15.3% | 1,061 | 102 |
| # 6. | Altavista Energy, Inc. | 87,081 | 89,329 | 2.6% | 468 | 33 |
| # 7. | Daylight Petroleum, LLC | 62,653 | 71,977 | 14.9% | 743 | 67 |
| # 8. | Bobcat Oilfield Service, Inc. | 71,160 | 66,818 | -6.1% | 697 | 26 |
| # 9. | Birk Petroleum | 55,934 | 43,170 | -22.8% | 528 | 45 |
| # 10. | Kansas Resource Exploration & Development, LL | 53,945 | 42,087 | -22.0% | 270 | 16 |
| # 11. | Verde Oil Company | 44,656 | 41,898 | -6.2% | 239 | 22 |
| # 12. | SM Oil & Gas, Inc. | 26,134 | 41,751 | 59.8% | 69 | 12 |
| # 13. | Cross Bar Energy, LLC | 42,562 | 39,634 | -6.9% | 58 | 12 |
| # 14. | D & Z Exploration, Inc. | 43,994 | 36,770 | -16.4% | 177 | 8 |
| # 15. | Owens Petroleum LLC | 41,889 | 36,548 | -12.8% | 485 | 38 |
| # 16. | McFadden Oil Co. | 34,665 | 35,657 | 2.9% | 288 | 22 |
| # 17. | S & B Operating LLC | 41,973 | 33,035 | -21.3% | 352 | 22 |
| # 18. | Schankie Well Service, Inc. | 29,019 | 29,538 | 1.8% | 74 | 16 |
| # 19. | J-V Oil, LLC | 25,055 | 28,523 | 13.8% | 216 | 17 |
| # 20. | Hughes Drilling Co, a General Partnership | 29,263 | 27,094 | -7.4% | 164 | 14 |
| # 21. | Stelbar Oil Corporation, Inc. | 30,212 | 26,814 | -11.3% | 9 | 2 |
| # 22. | River Rock Operating, LLC | 32,474 | 25,798 | -20.6% | 217 | 54 |
| # 23. | Kansas Energy Company, L.L.C. | 24,144 | 25,349 | 5.0% | 150 | 20 |
| # 24. | D. E. Exploration, Inc. | 21,894 | 21,390 | -2.3% | 53 | 6 |
| # 25. | Petroleum Property Services, Inc. | 17,994 | 21,188 | 17.8% | 13 | 11 |

Top Eastern Kansas Gas Producers

PetroBase

| Rank | Operator | Prior Year Production | 12/17-11/18 Production | Percent Decline | Reported Prod Wells | Reported KDOR #'s |
|-------|---------------------------------|-----------------------|------------------------|-----------------|---------------------|-------------------|
| # 1. | River Rock Operating, LLC | 11,182,878 | 9,792,628 | -12.4% | 2,015 | 1,951 |
| # 2. | RedBud Oil & Gas Operating, LLC | 5,632,602 | 5,199,682 | -7.7% | 1,537 | 950 |
| # 3. | Cherokee Wells LLC | 1,023,989 | 911,095 | -11.0% | 244 | 126 |
| # 4. | Colt Energy Inc | 979,985 | 888,130 | -9.4% | 108 | 108 |
| # 5. | Entranco Energy, LLC | 520,465 | 466,600 | -10.4% | 160 | 103 |
| # 6. | Gateway Resources U.S.A., Inc. | 372,513 | 341,841 | -8.2% | 198 | 90 |
| # 7. | Endeavor Energy Resources, LP | 277,075 | 253,494 | -8.5% | 45 | 45 |
| # 8. | SEK Energy, LLC | 236,543 | 183,028 | -22.6% | 86 | 58 |
| # 9. | BPG Capital, LLC | 97,591 | 134,235 | 37.6% | 1 | 1 |
| # 10. | N & B Enterprises, Inc. | 112,612 | 106,963 | -5.0% | 79 | 22 |
| # 11. | CherokeeNRG LLC | 128,258 | 100,667 | -21.5% | 79 | 35 |
| # 12. | Fastrak Energy, LLC | 95,686 | 82,140 | -14.2% | 30 | 8 |
| # 13. | New Western Operating, LLC | 56,338 | 59,325 | 5.3% | 8 | 1 |
| # 14. | Kansas Gas Co., Inc. | 48,537 | 49,618 | 2.2% | 32 | 1 |
| # 15. | Whitlow Energy, Inc. | 50,912 | 46,437 | -8.8% | 33 | 20 |

Eastern Kansas Lease & Well Counts

PetroBase

| Title | Jun 18 | Jul 18 | Aug 18 | Sep 18 | Oct 18 | Nov 18 | Dec 18 | Jan 19 | Feb 19 |
|---------------------------|--------|--------|--------|--------|--------|------------|--------|--------|--------|
| New Oil Leases/KDOR | 4 | 3 | 1 | 3 | 3 | 1 | | | |
| New Gas Leases/KDOR | 3 | 0 | 0 | 0 | 1 | 0 | | | |
| Totals | 7 | 3 | 1 | 3 | 4 | 1 | | | |
| Outstanding Intents Filed | 13 | 16 | 48 | 10 | 26 | 45 | 38 | 10 | 0 |
| Prod. Spuds/Completions | 53 | 82 | 61 | 65 | 38 | 35 | 19 | 2 | 0 |
| SWD/Inj Completions | 18 | 11 | 20 | 13 | 16 | 15 | 11 | 0 | 0 |
| D&A'd | 7 | 5 | 1 | 3 | 4 | 3 | 2 | 0 | 0 |
| P&A'd | 129 | 58 | 68 | 115 | 78 | 39 | 71 | 28 | 0 |
| Totals | 220 | 172 | 198 | 206 | 162 | 137 | 141 | 40 | 0 |

Top Eastern KS Oil Leases (Nov '18)

PetroBase

| Rank | Operator | Lease | County | Sec-Twn-Rng | Prod. Wells | Time on Prod. | Cumulative Prod. | 11/18 BOPM |
|-------|-------------------------|--------------------|------------|-------------|-------------|---------------|------------------|------------|
| # 1. | Laymon Oil II LLC | Glades | Woodson | 9-24S-16E | 99 | 48.9 yr. | 846,314 | 7,158 |
| # 2. | Daylight Petroleum L... | Fuller | Woodson | 33-23S-16E | 40 | 48.9 yr. | 347,465 | 2,209 |
| # 3. | Trimble & Maclaskey ... | Babinger A 1 | Lyon | 24-21S-10E | 25 | 8.8 yr. | 319,862 | 1,920 |
| # 4. | Colt Energy Inc | Lauber | Woodson | 23-26S-14E | 19 | 48.9 yr. | 935,809 | 1,700 |
| # 5. | Stelbar Oil Corporat... | Floyd A. | Chautauqua | 24-32S-10E | 8 | 48.9 yr. | 1,050,302 | 1,666 |
| # 6. | Daylight Petroleum L... | Renn | Wilson | 21-30S-16E | 8 | 48.9 yr. | 38,129 | 1,534 |
| # 7. | Verde Oil Company | Campbell | Allen | 29-26S-20E | 32 | 44.9 yr. | 368,163 | 1,396 |
| # 8. | Thompson Oil Co | Montfort Darrel | Allen | 15-24S-18E | 76 | 21.6 yr. | 167,870 | 1,237 |
| # 9. | RJ Energy LLC | Murrow Dean | Linn | 16-23S-22E | 11 | 41.9 yr. | 58,321 | 1,131 |
| # 10. | D & Z Exploration In... | Sugarridge Farm | Johnson | 29-14S-22E | 30 | 7.3 yr. | 147,299 | 1,035 |
| # 11. | Blake Production Co ... | Davis 'a' | Wabaunsee | 33-13S-10E | 13 | 53.9 yr. | 8,997,662 | 988 |
| # 12. | S & K Oil Production... | Page 1, 2, 3 And 4 | Bourbon | 18-25S-22E | 50 | 8.1 yr. | 78,033 | 987 |
| # 13. | Colt Energy Inc | Overall Cleve | Anderson | 29-22S-19E | 12 | 28.6 yr. | 188,149 | 961 |
| # 14. | Bobcat Oilfield Serv... | Snyder | Linn | 8-20S-23E | 111 | 48.9 yr. | 256,542 | 958 |
| # 15. | Kansas Resource Expl... | Knabe Old | Johnson | 15-14S-22E | 34 | 32.9 yr. | 217,948 | 916 |
| # 16. | ST Petroleum Inc | Thomas 'a' | Johnson | 29-14S-22E | 41 | 7.2 yr. | 158,823 | 909 |
| # 17. | Cross Bar Energy LLC | Burkett C | Greenwood | 24-23S-10E | 14 | 44.9 yr. | 521,042 | 907 |
| # 18. | Altavista Energy Inc | Windler (gregor | Miami | 21-18S-24E | 11 | 48.9 yr. | 88,648 | 891 |
| # 19. | Laymon Oil II LLC | G. A. Fulhage | Woodson | 8-25S-16E | 23 | 48.9 yr. | 429,036 | 864 |
| # 20. | Farmer John O Inc | NIELSEN 1 | Lyon | 25-16S-10E | 1 | 5 mo. | 3,890 | 835 |
| # 21. | SM Oil & Gas Inc | TRUST | Chautauqua | 17-33S-10E | 7 | 1.3 yr. | 21,443 | 831 |
| # 22. | Colt Energy Inc | Jon Conley | Allen | 19-23S-20E | 19 | 13.3 yr. | 86,242 | 822 |
| # 23. | McFadden Oil Co | Winslow - Seber | Allen | 34-24S-20E | 46 | 48.9 yr. | 722,955 | 821 |
| # 24. | D & Z Exploration In... | East Gordon | Johnson | 27-14S-22E | 22 | 5.3 yr. | 89,253 | 818 |
| # 25. | Kansas Resource Expl... | Guetterman | Johnson | 19-14S-22E | 46 | 33.9 yr. | 141,809 | 804 |

Top Eastern KS Oil Leases (Dec '17-Nov '18)

PetroBase

| Rank | Operator | Lease | County | Sec-Twn-Rng | Prod. Wells | Time on Prod. | Cumulative Prod. | BOPY |
|-------|-------------------------|-----------------|------------|-------------|-------------|---------------|------------------|--------|
| # 1. | Laymon Oil II LLC | Glades | Woodson | 9-24S-16E | 99 | 48.9 yr. | 846,314 | 56,685 |
| # 2. | Trimble & Maclaskey ... | Babinger A 1 | Lyon | 24-21S-10E | 25 | 8.8 yr. | 319,862 | 26,861 |
| # 3. | Daylight Petroleum L... | Fuller | Woodson | 33-23S-16E | 40 | 48.9 yr. | 347,465 | 25,119 |
| # 4. | Colt Energy Inc | Lauber | Woodson | 23-26S-14E | 19 | 48.9 yr. | 935,809 | 21,152 |
| # 5. | Colt Energy Inc | Cobble-mcallist | Woodson | 22-26S-14E | 27 | 48.9 yr. | 82,988 | 19,882 |
| # 6. | Stelbar Oil Corporat... | Floyd A. | Chautauqua | 24-32S-10E | 8 | 48.9 yr. | 1,050,302 | 19,716 |
| # 7. | Verde Oil Company | Campbell | Allen | 29-26S-20E | 32 | 44.9 yr. | 368,163 | 18,728 |
| # 8. | SM Oil & Gas Inc | TRUST | Chautauqua | 17-33S-10E | 7 | 1.3 yr. | 21,443 | 16,545 |
| # 9. | Thompson Oil Co | Montfort Darrel | Allen | 15-24S-18E | 76 | 21.6 yr. | 167,870 | 15,687 |
| # 10. | Hughes Drilling Co a... | Braun | Johnson | 36-14S-21E | 31 | 32.9 yr. | 252,298 | 13,551 |
| # 11. | D & Z Exploration In... | East Gordon | Johnson | 27-14S-22E | 22 | 5.3 yr. | 89,253 | 13,133 |
| # 12. | Bobcat Oilfield Serv... | Snyder | Linn | 8-20S-23E | 111 | 48.9 yr. | 256,542 | 13,041 |
| # 13. | Altavista Energy Inc | Windler (gregor | Miami | 21-18S-24E | 11 | 48.9 yr. | 88,648 | 11,658 |
| # 14. | Kansas Resource Expl... | Knabe Old | Johnson | 15-14S-22E | 36 | 32.9 yr. | 217,948 | 11,405 |
| # 15. | D & Z Exploration In... | Sugarridge Farm | Johnson | 29-14S-22E | 30 | 7.3 yr. | 147,299 | 10,899 |
| # 16. | J-V Oil LLC | Dotson | Bourbon | 26-26S-21E | 65 | 38.9 yr. | 548,120 | 10,734 |
| # 17. | Laymon Oil II LLC | G. A. Fulhage | Woodson | 8-25S-16E | 23 | 48.9 yr. | 429,036 | 10,568 |
| # 18. | ST Petroleum Inc | Thomas 'a' | Johnson | 29-14S-22E | 41 | 7.2 yr. | 158,823 | 10,408 |
| # 19. | Kansas Resource Expl... | Guetterman | Johnson | 19-14S-22E | 46 | 33.9 yr. | 141,809 | 10,241 |
| # 20. | Haas Petroleum LLC | Benjamin & E Ca | Franklin | 17-18S-21E | 114 | 36.9 yr. | 283,080 | 10,013 |
| # 21. | Viva International I... | Pearson | Greenwood | 22-23S-10E | 16 | 53.9 yr. | 382,337 | 9,800 |
| # 22. | Petroleum Resource M... | Hammond Leases | Woodson | 8-24S-16E | 41 | 6.6 yr. | 106,333 | 9,791 |
| # 23. | Cross Bar Energy LLC | Burkett Unit E | Greenwood | 27-23S-10E | 14 | 23.9 yr. | 293,942 | 9,764 |
| # 24. | Cross Bar Energy LLC | Burkett C | Greenwood | 24-23S-10E | 14 | 44.9 yr. | 521,042 | 9,712 |
| # 25. | Laymon Oil II LLC | Robison | Woodson | 29-23S-16E | 62 | 48.9 yr. | 309,725 | 9,626 |

Eastern Kansas Oil Leases Top Month-Over-Month Increases (Nov '18) **PetroBase**

| Rank | Operator | Lease | County | Sec-Twn-Rng | Time on Prod. | 10/18 BOPM | 11/18 BOPM | BOPM Incr. |
|-------|-------------------------|------------------|-----------|-------------|---------------|------------|------------|------------|
| # 1. | Laymon Oil II LLC | Glades | Woodson | 9-24S-16E | 48.9 yr. | 4,169 | 7,158 | 2,989 |
| # 2. | RJ Energy LLC | Murrow Dean | Linn | 16-23S-22E | 41.9 yr. | 241 | 1,131 | 890 |
| # 3. | North Plains Corp | Grossnickle | Nemaha | 23-5S-12E | 33.9 yr. | | 484 | 484 |
| # 4. | Sauder Oil Co LLC | Warren | Greenwood | 6-23S-11E | 51.9 yr. | | 444 | 444 |
| # 5. | Daylight Petroleum L... | Renn | Wilson | 21-30S-16E | 48.9 yr. | 1,107 | 1,534 | 426 |
| # 6. | Greenwood Resources ... | Mcgilvray A | Greenwood | 17-23S-11E | 48.9 yr. | 352 | 718 | 365 |
| # 7. | Birk Petroleum | Sutherland T.n | Coffey | 31-22S-16E | 48.9 yr. | | 337 | 337 |
| # 8. | Blake Production Co ... | Davis 'a' | Wabaunsee | 33-13S-10E | 53.9 yr. | 660 | 988 | 328 |
| # 9. | German Oil Company | Kramer | Woodson | 4-24S-17E | 6.5 yr. | 162 | 484 | 322 |
| # 10. | Thompson Oil Co | Montfort Darrel | Allen | 15-24S-18E | 21.6 yr. | 917 | 1,237 | 320 |
| # 11. | Owens Oil Company LL... | PURCELL LES JR | Woodson | 20-25S-17E | 1.6 yr. | | 315 | 315 |
| # 12. | S & B Operating LLC | Barkis | Miami | 17-16S-24E | 48.9 yr. | 167 | 481 | 313 |
| # 13. | Colt Energy Inc | Cline | Allen | 16-24S-18E | 48.9 yr. | 477 | 786 | 308 |
| # 14. | RJ Energy LLC | DENNIS CROTTS | Coffey | 28-22S-16E | 1 mo. | | 307 | 307 |
| # 15. | Running Foxes Petrol... | Herrmann 13-3B M | Brown | 3-1S-15E | 4.3 yr. | | 306 | 306 |

Leases with Month-Over-Month Increases of 300 BOPM or greater.

Eastern Kansas Oil Leases (Dec '17-Nov '18) Top Year-Over-Year Increases **PetroBase**

| Rank | Operator | Lease | County | Sec-Twn-Rng | Time on Prod. | Prior BOPY | Current BOPY | BOPM Incr. |
|-------|-------------------------|--------------------|------------|-------------|---------------|------------|--------------|------------|
| # 1. | Laymon Oil II LLC | Glades | Woodson | 9-24S-16E | 48.9 yr. | 28,273 | 56,685 | 28,412 |
| # 2. | SM Oil & Gas Inc | TRUST | Chautauqua | 17-33S-10E | 1.3 yr. | 4,897 | 16,545 | 11,648 |
| # 3. | Altavista Energy Inc | Windler (gregor | Miami | 21-18S-24E | 48.9 yr. | 2,281 | 11,658 | 9,377 |
| # 4. | Viva International I... | Pearson | Greenwood | 22-23S-10E | 53.9 yr. | 820 | 9,800 | 8,980 |
| # 5. | Murfin Drilling Co I... | YOUNGMEYER | Elk | 2-29S-8E | 1.2 yr. | 162 | 8,414 | 8,252 |
| # 6. | Colt Energy Inc | Lauber | Woodson | 23-26S-14E | 48.9 yr. | 13,034 | 21,152 | 8,118 |
| # 7. | SM Oil & Gas Inc | UNDERWOOD | Chautauqua | 8-33S-10E | 3.9 yr. | 1,434 | 8,287 | 6,852 |
| # 8. | Daylight Petroleum L... | Renn | Wilson | 21-30S-16E | 48.9 yr. | 603 | 6,712 | 6,109 |
| # 9. | RJ Energy LLC | A. J. Bradley | Linn | 16-23S-22E | 38.9 yr. | 2,593 | 8,362 | 5,769 |
| # 10. | Colt Energy Inc | Overall Cleve | Anderson | 29-22S-19E | 28.6 yr. | 814 | 6,121 | 5,307 |
| # 11. | Kansas Energy Compan... | J. R. Hyder | Chautauqua | 5-35S-13E | 48.9 yr. | 2,647 | 7,372 | 4,725 |
| # 12. | Daylight Petroleum L... | Fuller | Woodson | 33-23S-16E | 48.9 yr. | 20,629 | 25,119 | 4,490 |
| # 13. | Colt Energy Inc | Jon Conley | Allen | 19-23S-20E | 13.3 yr. | 2,061 | 6,494 | 4,433 |
| # 14. | SM Oil & Gas Inc | Goode 'a' | Chautauqua | 17-33S-10E | 48.9 yr. | 2,810 | 7,230 | 4,421 |
| # 15. | Colt Energy Inc | J C B Unit #1 | Anderson | 29-22S-19E | 28.7 yr. | 3,884 | 7,927 | 4,042 |
| # 16. | Farmer John O Inc | NIELSEN 1 | Lyon | 25-16S-10E | 5 mo. | | 3,890 | 3,890 |
| # 17. | Farmer John O Inc | PRELLWITZ 1 | Lyon | 16-16S-11E | 5 mo. | | 3,421 | 3,421 |
| # 18. | JTC Oil Inc | Cooper-wingart- | Miami | 9-17S-22E | 38.9 yr. | | 3,233 | 3,233 |
| # 19. | Owens Oil Company LL... | COLLINS | Woodson | 28-25S-17E | 1.4 yr. | 1,700 | 4,875 | 3,175 |
| # 20. | S & K Oil Production... | Page 1, 2, 3 And 4 | Bourbon | 18-25S-22E | 8.1 yr. | 5,980 | 8,917 | 2,936 |
| # 21. | RJ Energy LLC | Martin | Anderson | 30-22S-19E | 27.9 yr. | 3,438 | 6,358 | 2,920 |
| # 22. | Colt Energy Inc | Martin | Anderson | 29-22S-19E | 28.2 yr. | 811 | 3,531 | 2,720 |
| # 23. | ST Petroleum Inc | THOMAS C | Johnson | 14-14S-22E | 5 mo. | | 2,578 | 2,578 |
| # 24. | RJ Energy LLC | FUNDIS | Coffey | 14-23S-16E | 3.5 yr. | 5,074 | 7,555 | 2,480 |
| # 25. | Running Foxes Petrol... | Vogel | Bourbon | 36-24S-23E | 10.4 yr. | | 2,332 | 2,332 |

Top Eastern KS Gas Leases (Nov '18)

PetroBase

| Rank | Operator | Lease | County | Sec-Twn-Rng | Prod. Wells | Time on Prod. | Cumulative Prod. | 11/18 MCFPM |
|-------|-------------------------|----------------------------------|------------|-------------|-------------|---------------|------------------|-------------|
| # 1. | RedBud Oil & Gas Ope... | Evans Et Al. 18 | Montgomery | 18-32S-16E | 3 | 12.3 yr. | 2,600,939 | 7,498 |
| # 2. | BPG Capital LLC | PETERSON A | Montgomery | 7-34S-14E | 1 | 4 yr. | 511,132 | 6,731 |
| # 3. | Fastrak Energy LLC | Lorenz 14 | Labette | 33-31S-18E | 11 | 11.2 yr. | 568,655 | 5,216 |
| # 4. | Kansas Gas Co Inc | Jefferson 13076 | Montgomery | 1-34S-15E | 17 | 42.9 yr. | 8,703,032 | 4,124 |
| # 5. | Cherokee Wells LLC | Unit 2 Master | Wilson | 14-27S-14E | 17 | 10.1 yr. | 834,549 | 3,861 |
| # 6. | New Western Operatin... | Farwell Lease | Wilson | 34-28S-15E | 8 | 14.4 yr. | 1,023,827 | 3,726 |
| # 7. | N & B Enterprises In... | Morlan | Allen | 6-25S-19E | 6 | 24.1 yr. | 436,289 | 3,717 |
| # 8. | Colt Energy Inc | Shaw 14-27 | Montgomery | 27-32S-17E | 1 | 7.9 yr. | 287,838 | 3,185 |
| # 9. | Endeavor Energy Reso... | Muller,fred 9-3 | Montgomery | 9-34S-17E | 1 | 10.5 yr. | 332,300 | 3,039 |
| # 10. | RedBud Oil & Gas Ope... | Stover 11-22 | Montgomery | 22-32S-16E | 2 | 14.2 yr. | 172,524 | 2,784 |
| # 11. | Keen Oil Co | Lewis Mstr Mtr | Chautauqua | 20-33S-12E | 8 | 8.8 yr. | 276,717 | 2,630 |
| # 12. | River Rock Operating... | Olson, Ruby A. 2-1 | Wilson | 2-28S-16E | 14 | 12.2 yr. | 483,938 | 2,535 |
| # 13. | Cherokee Wells LLC | Porter, W. 'a' 3 | Wilson | 30-28S-15E | 1 | 11.8 yr. | 389,979 | 2,487 |
| # 14. | River Rock Operating... | Beachner Brothers 25-28-19-2 | Neosho | 25-28S-19E | 1 | 10.7 yr. | 297,626 | 2,467 |
| # 15. | River Rock Operating... | Coomes, Charles D. 33-1 | Neosho | 33-29S-20E | 1 | 10.2 yr. | 309,647 | 2,376 |
| # 16. | RedBud Oil & Gas Ope... | Martinr&d13w2ne | Montgomery | 13-32S-15E | 1 | 10.2 yr. | 804,419 | 2,354 |
| # 17. | RedBud Oil & Gas Ope... | Clubie J 34 | Montgomery | 34-32S-14E | 2 | 11.3 yr. | 624,699 | 2,326 |
| # 18. | RedBud Oil & Gas Ope... | Southwinds Buffalo Ranch 'b' 2-2 | Montgomery | 2-34S-14E | 2 | 13.8 yr. | 756,983 | 2,313 |
| # 19. | RedBud Oil & Gas Ope... | Neill | Wilson | 25-29S-14E | 3 | 19.9 yr. | 1,223,056 | 2,304 |
| # 20. | RedBud Oil & Gas Ope... | Smith 'a' | Montgomery | 8-31S-15E | 5 | 26.2 yr. | 794,851 | 2,289 |
| # 21. | Riviera Operating LL... | HELTEMESB4ATU28 | Allen | 32-26S-39W | 1 | 3.8 yr. | 138,206 | 2,220 |
| # 22. | Colt Energy Inc | Curlis 15-30 | Montgomery | 30-33S-17E | 1 | 9.5 yr. | 263,022 | 2,219 |
| # 23. | RedBud Oil & Gas Ope... | W&a Farlow Tr21 | Montgomery | 21-33S-14E | 4 | 13.2 yr. | 1,159,517 | 2,193 |
| # 24. | Cherokee Wells LLC | Clairborne Living Trust 'a' 10 | Wilson | 7-28S-15E | 1 | 12.1 yr. | 325,827 | 2,185 |
| # 25. | Colt Energy Inc | Presson 9-3 | Montgomery | 3-32S-17E | 1 | 8.7 yr. | 297,992 | 2,158 |

Top Eastern KS Gas Leases (Dec '17-Nov '18)

PetroBase

| Rank | Operator | Lease | County | Sec-Twn-Rng | Prod. Wells | Time on Prod. | Cumulative Prod. | MCFPY |
|-------|-------------------------|----------------------------------|------------|-------------|-------------|---------------|------------------|---------|
| # 1. | BPG Capital LLC | PETERSON A | Montgomery | 7-34S-14E | 1 | 4 yr. | 511,132 | 134,235 |
| # 2. | RedBud Oil & Gas Ope... | Evans Et Al. 18 | Montgomery | 18-32S-16E | 3 | 12.3 yr. | 2,600,939 | 94,357 |
| # 3. | New Western Operatin... | Farwell Lease | Wilson | 34-28S-15E | 8 | 14.4 yr. | 1,023,827 | 59,325 |
| # 4. | Fastrak Energy LLC | Lorenz 14 | Labette | 33-31S-18E | 11 | 11.2 yr. | 568,655 | 49,899 |
| # 5. | Kansas Gas Co Inc | Jefferson 13076 | Montgomery | 1-34S-15E | 32 | 42.9 yr. | 8,703,032 | 49,618 |
| # 6. | Cherokee Wells LLC | Unit 2 Master | Wilson | 14-27S-14E | 17 | 10.1 yr. | 834,549 | 48,714 |
| # 7. | Colt Energy Inc | Shaw 14-27 | Montgomery | 27-32S-17E | 1 | 7.9 yr. | 287,838 | 40,909 |
| # 8. | River Rock Operating... | Olson, Ruby A. 2-1 | Wilson | 2-28S-16E | 14 | 12.2 yr. | 483,938 | 35,880 |
| # 9. | RedBud Oil & Gas Ope... | Clubie J 34 | Montgomery | 34-32S-14E | 2 | 11.3 yr. | 624,699 | 34,143 |
| # 10. | RedBud Oil & Gas Ope... | Neill | Wilson | 25-29S-14E | 5 | 19.9 yr. | 1,223,056 | 33,882 |
| # 11. | Endeavor Energy Reso... | Muller,fred 9-3 | Montgomery | 9-34S-17E | 1 | 10.5 yr. | 332,300 | 33,874 |
| # 12. | Cherokee Wells LLC | Porter, W. 'a' 3 | Wilson | 30-28S-15E | 1 | 11.8 yr. | 389,979 | 31,069 |
| # 13. | RedBud Oil & Gas Ope... | Smith 'a' | Montgomery | 8-31S-15E | 6 | 26.2 yr. | 794,851 | 30,217 |
| # 14. | River Rock Operating... | Beachner Brothers 25-28-19-2 | Neosho | 25-28S-19E | 1 | 10.7 yr. | 297,626 | 30,208 |
| # 15. | RedBud Oil & Gas Ope... | Martinr&d13w2ne | Montgomery | 13-32S-15E | 1 | 10.2 yr. | 804,419 | 30,167 |
| # 16. | RedBud Oil & Gas Ope... | M And B Becker 12 | Montgomery | 12-31S-14E | 4 | 14.6 yr. | 1,243,924 | 29,799 |
| # 17. | Colt Energy Inc | Presson 9-3 | Montgomery | 3-32S-17E | 1 | 8.7 yr. | 297,992 | 29,602 |
| # 18. | RedBud Oil & Gas Ope... | Southwinds Buffalo Ranch 'b' 2-2 | Montgomery | 2-34S-14E | 2 | 13.8 yr. | 756,983 | 29,126 |
| # 19. | River Rock Operating... | Coomes, Charles D. 33-1 | Neosho | 33-29S-20E | 1 | 10.2 yr. | 309,647 | 28,664 |
| # 20. | Colt Energy Inc | Curlis 15-30 | Montgomery | 30-33S-17E | 1 | 9.5 yr. | 263,022 | 27,783 |
| # 21. | RedBud Oil & Gas Ope... | W&a Farlow Tr21 | Montgomery | 21-33S-14E | 4 | 13.2 yr. | 1,159,517 | 27,669 |
| # 22. | River Rock Operating... | Shockley, Marjorie L. 6-1 | Wilson | 6-28S-17E | 4 | 12.3 yr. | 351,003 | 26,891 |
| # 23. | Riviera Operating LL... | HELTEMESB4ATU28 | Allen | 32-26S-39W | 1 | 3.8 yr. | 138,206 | 26,535 |
| # 24. | Entransco Energy LLC | Obrien 4,6&8-36 | Labette | 36-33S-18E | 3 | 8.6 yr. | 181,389 | 26,476 |
| # 25. | CHEROKEE WELLS LLC | DART ET AL 6-20 | Wilson | 20-27S-16E | 1 | 12 mo. | 26,144 | 26,144 |

Eastern Kansas Gas Leases Top Month-Over-Month Increases (Nov '18) PetroBase

| Rank | Operator | Lease | County | Sec-Twn-Rng | Time on Prod. | 10/18 MCFPM | 11/18 MCFPM | MCFPM Incr. |
|-------|-------------------------|----------------------------|------------|-------------|---------------|-------------|-------------|-------------|
| # 1. | Kansas Gas Co Inc | Jefferson 13076 | Montgomery | 1-34S-15E | 42.9 yr. | 896 | 4,124 | 3,228 |
| # 2. | N & B Enterprises In... | Morlan | Allen | 6-25S-19E | 24.1 yr. | 1,558 | 3,717 | 2,159 |
| # 3. | Keen Oil Co | Lewis Mstr Mtr | Chautauqua | 20-33S-12E | 8.8 yr. | 1,091 | 2,630 | 1,539 |
| # 4. | Gateway Resources US... | Rutland 11-8 | Montgomery | 8-33S-16E | 17.4 yr. | 134 | 1,555 | 1,421 |
| # 5. | ROBERTSON RICHARD | DALSING #1 | Montgomery | 6-34S-16E | 2.9 yr. | 473 | 1,460 | 987 |
| # 6. | Entransco Energy LLC | Goins B 23-2 | Neosho | 23-30S-17E | 12.8 yr. | 556 | 1,176 | 620 |
| # 7. | ROBERTSON RICHARD | SPRINGER #1 | Montgomery | 31-33S-16E | 2.9 yr. | 67 | 607 | 540 |
| # 8. | Clark Energy LLC | Koons 1 | Montgomery | 13-33S-13E | 7 yr. | 491 | 1,024 | 533 |
| # 9. | Gateway Resources US... | Brooks 31-1 | Montgomery | 31-33S-15E | 15.4 yr. | 842 | 1,326 | 484 |
| # 10. | River Rock Operating... | Reinhardt, Richard R. 33-1 | Neosho | 33-27S-19E | 11 yr. | | 450 | 450 |
| # 11. | RedBud Oil & Gas Ope... | T. Rigdon Et Al. B2-32 | Montgomery | 32-34S-15E | 12.1 yr. | 314 | 730 | 416 |
| # 12. | Fastrak Energy LLC | Lorenz 14 | Labette | 33-31S-18E | 11.2 yr. | 4,808 | 5,216 | 408 |
| # 13. | River Rock Operating... | Timmons,n. 31-2 | Wilson | 31-28S-15E | 11.2 yr. | 124 | 529 | 405 |
| # 14. | Roberts Randy | Powers | Chautauqua | 33-33S-12E | 24.2 yr. | 327 | 682 | 355 |
| # 15. | River Rock Operating... | Smith, Jimmy R. 11-1 | Labette | 11-31S-17E | 13.8 yr. | 750 | 1,085 | 335 |
| # 16. | RedBud Oil & Gas Ope... | L&a Hansen 'b' 2-23 | Montgomery | 23-32S-15E | 11.8 yr. | 560 | 880 | 320 |
| # 17. | Perkins Oil Enterpri... | Brougham Master | Chautauqua | 1-33S-12E | 11.3 yr. | 298 | 600 | 302 |
| # 18. | Cherokee Wells LLC | Sierman 'a' 2 | Wilson | 31-28S-14E | 11.8 yr. | | 295 | 295 |
| # 19. | RedBud Oil & Gas Ope... | Bomac Farms 3-9 | Montgomery | 9-32S-14E | 12.6 yr. | 468 | 763 | 295 |
| # 20. | RedBud Oil & Gas Ope... | Hiner,j. Sr B2-10 | Montgomery | 10-34S-14E | 12.2 yr. | 122 | 413 | 291 |
| # 21. | River Rock Operating... | Kepley Frm 13-3 | Neosho | 13-28S-17E | 12.8 yr. | 31 | 301 | 270 |
| # 22. | River Rock Operating... | Erbe, Monte 31-1 | Wilson | 31-29S-17E | 11.4 yr. | 822 | 1,091 | 269 |
| # 23. | Jones Oil Exploratio... | WITT #2 | Montgomery | 14-33S-15E | 1.6 yr. | 56 | 322 | 266 |
| # 24. | Cherokee Wells LLC | J Seiwart A-14 | Wilson | 8-28S-15E | 12.1 yr. | 128 | 384 | 256 |
| # 25. | River Rock Operating... | Carter, Phillip | Wilson | 5-29S-17E | 16.8 yr. | 525 | 776 | 251 |

Eastern Kansas Gas Leases (Dec '17-Nov '18) Top Year-Over-Year Increases PetroBase

| Rank | Operator | Lease | County | Sec-Twn-Rng | Time on Prod. | Prior MCFPY | Current MCFPY | MCFPY Incr. |
|-------|-------------------------|----------------------------|---------|-------------|---------------|-------------|---------------|-------------|
| # 1. | CHEROKEE WELLS LLC | DART ET AL 6-20 | Wilson | 20-27S-16E | 12 mo. | | 26,144 | 26,144 |
| # 2. | River Rock Operating... | Ldh Farms 4-2 | Neosho | 4-29S-19E | 12.6 yr. | 9,977 | 22,770 | 12,793 |
| # 3. | River Rock Operating... | Stone Fam Res 1 | Wilson | 35-27S-16E | 11.7 yr. | 4,716 | 16,618 | 11,902 |
| # 4. | CHEROKEE WELLS LLC | DART ET AL 7-20 | Wilson | 20-27S-16E | 6 mo. | | 11,088 | 11,088 |
| # 5. | River Rock Operating... | Smith, Jimmy R. 11-1 | Labette | 11-31S-17E | 13.8 yr. | 2,869 | 13,343 | 10,474 |
| # 6. | Entransco Energy LLC | Hinkle 1-1 | Labette | 1-33S-18E | 9.3 yr. | | 8,916 | 8,916 |
| # 7. | RedBud Oil & Gas Ope... | Westfall 10-26 | Wilson | 26-30S-13E | 9.9 yr. | | 7,978 | 7,978 |
| # 8. | Cherokee Wells LLC | O Black A-3 | Wilson | 31-27S-15E | 12 yr. | 790 | 6,958 | 6,168 |
| # 9. | Entransco Energy LLC | E. Goins 'b' 25-3 | Neosho | 25-30S-17E | 12.2 yr. | | 5,764 | 5,764 |
| # 10. | River Rock Operating... | Tennis Rev. Trust 15-1 | Neosho | 15-28S-18E | 7.3 yr. | 18,866 | 24,582 | 5,716 |
| # 11. | Entransco Energy LLC | Obrien 4,6&8-36 | Labette | 36-33S-18E | 8.6 yr. | 21,024 | 26,476 | 5,452 |
| # 12. | Entransco Energy LLC | Mitchell 'c' 10-4 | Wilson | 10-30S-17E | 12.2 yr. | 16,372 | 21,532 | 5,160 |
| # 13. | River Rock Operating... | Hutchens, E. Ray 35-1 | Neosho | 35-29S-18E | 15.9 yr. | 2,627 | 7,720 | 5,093 |
| # 14. | Entransco Energy LLC | Jaynes | Wilson | 9-30S-17E | 16.8 yr. | 9,996 | 14,823 | 4,827 |
| # 15. | River Rock Operating... | Carlson, David L. 8-1 | Wilson | 8-28S-17E | 12.2 yr. | 1,326 | 5,896 | 4,570 |
| # 16. | River Rock Operating... | Hines,l. 12-1 | Neosho | 12-29S-19E | 11.5 yr. | 771 | 5,325 | 4,554 |
| # 17. | River Rock Operating... | Gibson, Wayne B., Jr. 20-1 | Neosho | 20-29S-20E | 7.8 yr. | 3,681 | 7,915 | 4,234 |
| # 18. | River Rock Operating... | Crawshaw,v.17-1 | Wilson | 17-29S-17E | 17.1 yr. | 14,078 | 18,297 | 4,219 |
| # 19. | River Rock Operating... | Fail,i.j. 29-1 | Wilson | 29-28S-17E | 12.4 yr. | 3,428 | 7,644 | 4,216 |
| # 20. | River Rock Operating... | Timmons, Floyd 'a' 29-1 | Wilson | 29-28S-15E | 10.8 yr. | 1,270 | 5,427 | 4,157 |
| # 21. | RedBud Oil & Gas Ope... | Compton 3-26 | Wilson | 26-30S-14E | 12.1 yr. | 2,256 | 6,374 | 4,118 |
| # 22. | River Rock Operating... | D.thornton 23-1 | Neosho | 23-29S-17E | 15.3 yr. | 5,894 | 9,924 | 4,030 |
| # 23. | RedBud Oil & Gas Ope... | Mcguire, J. D1-12 | Wilson | 12-30S-15E | 12.8 yr. | | 4,020 | 4,020 |
| # 24. | River Rock Operating... | Robert Merritt 29-1 | Wilson | 29-29S-17E | 17.8 yr. | 8,008 | 11,962 | 3,954 |
| # 25. | River Rock Operating... | Leck,fred 20-1 | Neosho | 20-30S-18E | 14.6 yr. | 4,202 | 8,111 | 3,909 |