OKLAHOMA GEOLOGICAL SURVEY
Charles J. Mankin, Director

MAP GM-38
Oklahoma Oil and Gas Production
By Reservoir Age

N
Scale 1:500,000
10 0 10 20 30 40 50 Miles
10 0 10 20 30 40 50 60 70 Kilometers
CIMARRON
TEXAS
BEAVER
HARPER
WOODS
ALFALFA
GRANT
KAY
OSAGE
WASHINGTON
NOWATA
CRAIG
OTTAWA
ROGERS
MAYES
DELAWARE
ELLIS
WOODWARD
MAJOR
GARFIELD
NOBLE
PAWNEE
TULSA
WAGONER
CHEROKEE
ADAIR
PAYNE
DEWEY
BLAINE
KINGFISHER
LOGAN
CREEK
ROGER MILLS
CUSTER
CANADIAN
OKLAHOMA
LINCOLN
OKMULGEE
MUSKOGEE
SEQUOYAH
OKFUSKEE
McINTOSH
BECKHAM
WASHITA
CADDO
CLEVELAND
POTTAWATOMIE
SEMINOLE
HASKELL
GRADY
HUGHES
GREER
KIOWA
McCLAIN
PITTSBURG
LATIMER
LE FLORE
HARMON
JACKSON
COMANCHE
GARVIN
PONTOTOC
COAL
STEPHENS
MURRAY
TILLMAN
COTTON
JEFFERSON
CARTER
JOHNSTON
ATOKA
PUSHMATAHA
MARSHALL
LOVE
BRYAN
CHOCTAW
McCURTAIN

Map of
Oklahoma Counties

NRIS* Geologic Unit and Number of Completions

Post-Pennsylvanian

Geologic Unit	Completions
Admire	38
Antioch/Maysville	30
Belveal	47
Brown Dolomite	260
Chase	248
Cottonwood	27
Council Grove	821
Cretaceous	12
Erick Lime	22
Foraker	74
Fortuna	**1385**
Garber	301
Glorieta	28
Granite Wash Permian	10
Herington	433
Hoy	67
Kisner	73
Krider	176
Neva	733
Nichols	37
Noble-Olson	464
Permian	**3026**
Pontotoc	**1221**
Red Bed	24
Red Cave	58
Red Eagle	36
Santa Fe	11
Verden	22
Winfield	143
Wolfcamp	23

Pennsylvanian (Virgilian/Missourian)

Geologic Unit	Completions
Abernathy	47
Ada	48
Armstrong	12
Avant	162
Bateman	18
Bayou	59
Belle City	23
Blaydes	30
Booth	22
Briscoe	67
Brundidge	29
Burkhart	13
Burlingame	120
Burns	82
Buzzard	62
Campbell	114
Canyon	51
Carmichael	121
Checkerboard	430
Chubbee	334
Cisco	615
Cleveland	**2946**
Coline	39
Cottage Grove	**1485**
County Line	14
Covington	14
Crews	194
Crinoidal	10
Culp	26
Daube	12
Dewey	37
Douglas	145
Dyer	23
Ebert	15
Edwards	53
Elgin	74
Endicott	171
Fort Riley	29
Gose	10
Granite Wash Missouri	71
Granite Wash Penn	84
Gregory	13
Griffin	18
Gunsight	77
Healdton	350
Helm	16
Hervey	29
Hodges	28
Hogshooter	208
Hominy	135
Hoover	594
Hotson	144
Hoxbar	**1783**
Kansas City	261
Keys	86
Lael	17
Lansing	195
Layton	**2290**
Loco	243
Lovell	92
Marchand	736
Mauldin	17
Mckinney	89
Medrano	262
Melton	61
Mervine	20
Missouri	38
Mussellem	54
Newberry	54
Newkirk	28
Niles	34
Okesa	14
Oolitic	27
Oread	63
Palo Pinto	24
Patty	37
Pawhuska	69
Perry	97
Priddy	183
Ragan	55
Rowe	122
Sams	48
Sears	19
Seminole	11
Shawnee	47
Soldier Creek	22
Stearns	206
Surber	10
Thomas	53
Tonkawa	**2628**
Topeka	211
Toronto	138
Tuley	41
Vertz	143
Virgilian	71
Wabaunsee	45
Wade	154
Whitney	26
Yates	35
Yule	105
Zypsie	84

*Natural Resource Information System

Pennsylvanian (Desmoinesian/Atokan)

Geologic Unit	Completions
Allen	382
Alma	56
Ashshalintubbi	38
Atoka	**1192**
Bartlesville	**19087**
Big Lime	**1188**
Boggy	65
Booch	**3333**
Boucher	10
Boyd	48
Boynton	26
Brazil	91
Bruner	21
Burbank	768
Burgess	**1630**
Cabaniss	17
Calvin	**1153**
Carpenter	177
Cashion	13
Cecil	12
Charlson	18
Cherokee	**1818**
Culberson	88
Deese	**3539**
Desmoines	894
Dutcher	**6416**
Dykeman	124
Earlsboro	**1389**
Eason	85
Fanshawe	180
Fields	10
Fusulinid	436
Georges Fork	61
Gibson	463
Gilcrease	**2772**
Glenn	472
Glover	20
Granite Wash	**1458**
Granite Wash Desmoines	110
Hart	**1118**
Hartshorne	**2051**
Hefner	119
Hewitt	39
Inola	644
Iron Post	90
Jones	339
Leidecker	37
Lone Grove	393
Marmaton	856
Mcalester	122
Mona	10
Morris	272
Mulky	311
Muskogee	281
Norris	46
Osborne	620
Oswego	**7263**
Panola	50
Peach Orchard	22
Peru	916
Pickens	137
Pink Lime	62
Pooler	21
Prue	**3999**
Red Fork	**12480**
Red Oak	684
Riverton	17
Salt Sand	214
Savanna	164
Senora	**1615**
Shay	11
Skinner	**6258**
Spiro	**1271**
Squirrel	193
Strawn	65
Stuart	21
Taneha	360
Tatums	194
Thurman	**1105**
Timber Ridge	197
Tucker	470
Tussy	760
Verdigris	52
Wainwright	23
Walnut	16
Wanette	37
Wayside	**1786**
Weir	15
Wewoka	101
Wheeler	27
Williams	57
Wimberly	42
Wiser	71

Pennsylvanian (Morrowan)

Geologic Unit	Completions
Cromwell	**3615**
Dornick Hills	287
Jack Fork	40
Jefferson	301
Kelly	31
Keyes	436
Morrow	**8489**
Primrose	72
Purdy	84
Puryear	13
Union Valley	539
Wapanucka	541

Miss. - Penn. (Springer Formation)

Geologic Unit	Completions
Aldridge	150
Boatwright	86
Britt	132
Cunningham	149
Flat Top	34
Goddard	89
Goodwin	355
Humphreys	396
Inscore	16
Markham	64
Springer	**2748**
Velma	16
Woods	13

U. Devonian through Pre-Springer Fm.

Geologic Unit	Completions
Arkansas Novaculite	49
Caney	15
Chat	497
Chester	**6473**
Kinderhook	28
Manning	**3785**
Marshall	169
Mayes	45
Meramec	**1475**
Misener	**2169**
Mississippi	**16431**
Mississippi Chat	**4495**
Mississippi Lime	**3811**
Mississippi Solid	760
Osage	250
Parvin	25
Pitkin	49
Sims	570
St Genevieve	111
St Louis	194
Stanley	58
Sycamore	**2249**
Woodford	**1001**

U. Ordovician through L. Devonian

Geologic Unit	Completions
Bois d' Arc	770
Chimneyhill	696
Dillard	18
Haragan	28
Henryhouse	11
Hunton	**11966**
Maquoketa	29
Sylvan	27

Cambrian through M. Ordovician

Geologic Unit	Completions
Arbuckle	**2391**
Big Fork	11
Birdseye Lime	64
Bromide	**1672**
Burgen	133
Fernvale	22
Joins	45
Kindblade	28
Mclish	673
Mollman	16
Oil Creek	**1086**
Reagan	26
Simpson	**1056**
Trenton	113
Tulip Creek	399
Turkey Mountain	24
Tyner	284
Viola	**6402**
West Spring Creek	38
Wilcox	**2689**

Explanation

Interval Name	Comments
Post-Pennsylvanian	Post-Arbuckle Orogeny
Pennsylvanian (Virgilian/Missourian)	Upper Pennsylvanian
Pennsylvanian (Desmoinesian/Atokan)	Middle Pennsylvanian
Pennsylvanian (Morrowan)	Lower Pennsylvanian
Miss. - Penn. (Springer Formation)	Clastic Reservoirs
U. Devonian through Pre-Springer Fm.	Mostly Mississippian Carbonate Reservoirs
U. Ordovician through L. Devonian	Below Pre-Woodford Unconformity
Cambrian through M. Ordovician	Below Upper Ordovician

Geologic Map 38

This map shows Oklahoma oil and gas production by productive stratigraphic interval. It is based on State records maintained in the Natural Resource Information System (NRIS) database, which is operated by Geo Information Systems. NRIS is the repository for much of the State's oil and gas data. This map is based on productive wells, the coordinates of the leases to which they are assigned, and the geologic units in which these wells were completed. The names of the productive units were determined by individual operators and submitted directly to the State on the Oklahoma Corporation Commission form 1002A. The data used are current through November 2001 and include about 225,000 completions and their associated lease coordinates.

Productive units in Oklahoma range in age from Cambrian through Cretaceous. On this map they have been divided into eight discreet intervals. Some intervals are bounded by regional geologic events; others are distinguished by reservoir rock type or chronostratigraphic age. The explanation lists the eight major productive stratigraphic intervals. The unit names recognized by the Oklahoma Corporation Commission and the number of completions for each are listed in alphabetical order. Because the complete geologic unit listing comprises about 7500 names, only those with at least 10 completions are shown. Major producing units (those with more than 1000 completions) are highlighted. In some cases the listed geologic unit partly or wholly duplicates another. For example, the Bois d'Arc Formation is part of the Hunton Group, and Burbank, Earlsboro, and Red Fork are different names for the same sandstone.

Area outlines were drawn irrespective of named field boundaries or the type of production involved (oil, gas, coalbed methane). Constructed as shape files in the mapping program ArcView 3.2, each productive area is depicted as unbroken (i.e. none have holes). This makes small, unproductive areas within the larger areas appear to be productive. The sixteen shape files on the map are layered in stratigraphic order, with the 8 colored borders placed on top of the 8 shades and/or patterns that fill them. Although no distinction is drawn between active and inactive production, only that considered "significant" is shown here. In general, this corresponds to three or more contiguous leases that encompass parts of at least three sections. Because of the large number of non-contiguous leases that could not be shown, this map is designed as a guide to the State's regional production trends and not individual fields or leases. In addition, because many areas have overlapping productive intervals, it was necessary to slightly adjust some outlines in order to more easily identify all productive intervals at the map scale. Where field outlines follow the State boundary, it can be assumed that this production continues into the adjoining state (Texas, Colorado, Kansas, Arkansas).

Source:
Geo Information Systems, 1818 West Lindsey, Suite A 105, Norman, Oklahoma 73069-4160; Phone: 405-325-3131; Wed Address: http://www.geo.ou.edu

Map Credits:
Compiled and produced by Dan T. Boyd. Drafted by G. Russell Standridge. Reviewed by Neil H. Suneson and Robert A. Northcutt. Map edited by Neil H. Suneson. Base map Lambert Conformal Conic projection.

MAP OF OKLAHOMA OIL AND GAS PRODUCTION
BY RESERVOIR AGE
By Dan T. Boyd
2002