GEOLOGICAL SURVEY OF WYOMING
Gary B. Glass, State Geologist

MS-35

OIL AND GAS MAP OF WYOMING

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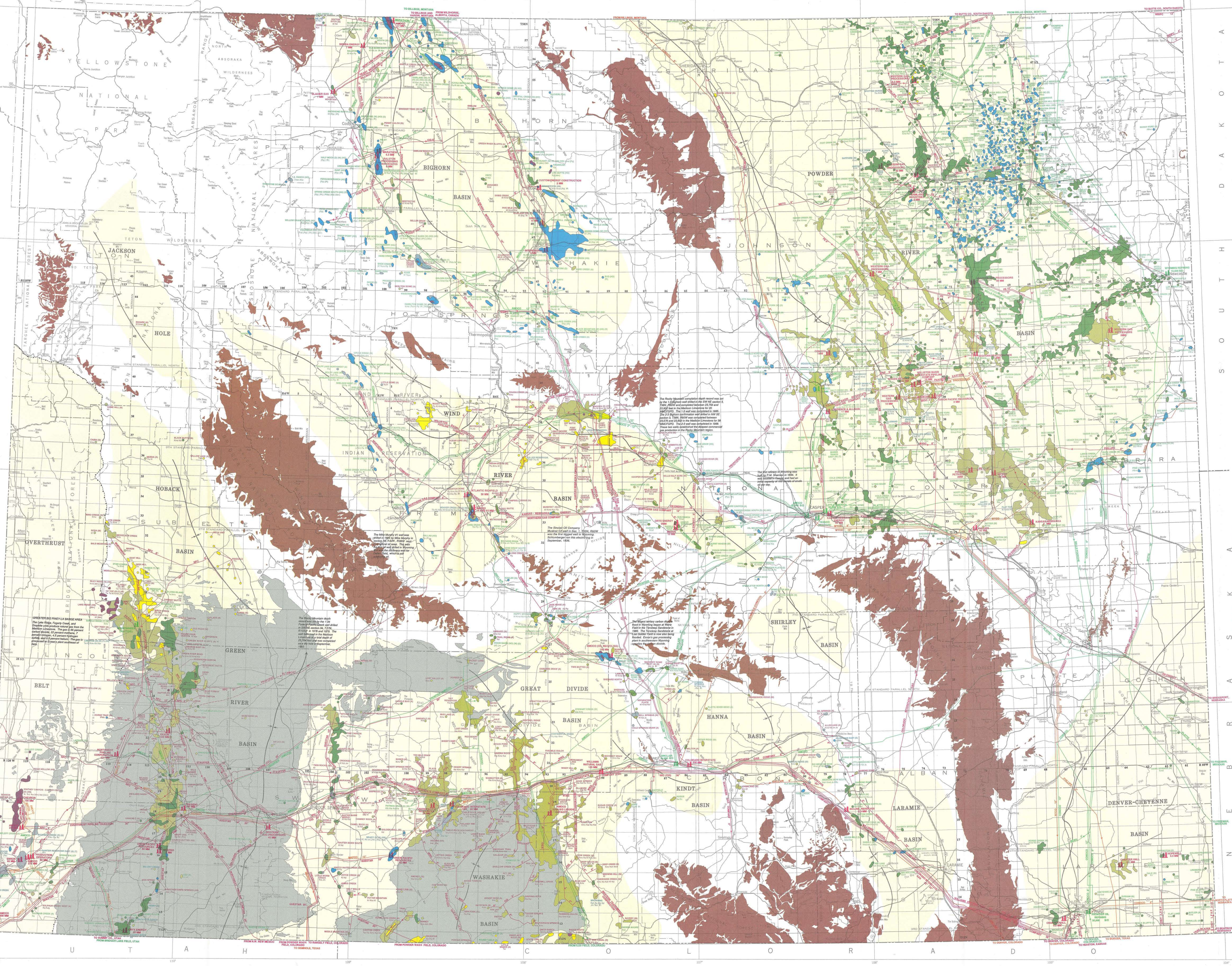

SCALE 1:500,000
1 inch equals approximately 8 miles
Lambert conformal conic projection based on standard parallels 33° and 45°

Base from U.S. Geological Survey.
Geologic base from Love and Christensen (1985).
Cartography by Phyllis A. Ranz.
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The Geological Survey of Wyoming would like to thank the Wyoming Oil and Gas Conservation Commission, the Wyoming Public Service Commission, and the Petroleum Association of Wyoming for information about fields, pipelines, gas processing plants, and refineries. A special thanks is given to all the oil, gas, and pipeline companies who sent updated information on the pipelines that they operate.

STRUCTURE INDEX MAP

Allocthonous blocks associated with Heart Mountain detachment
Precambrian rocks
Tertiary and Quaternary igneous intrusive rocks
Volcanics
Approximate basin extent (Paleocene and younger rocks)
Thrust fault
Normal fault
Fault, displacement unspecified
Anticline, end arrow shows plunge
Syncline, end arrow shows plunge
Monocline
Yellowstone caldera boundary

EXPLANATION

PREDOMINANT AGE OF RESERVOIR ROCKS

- TERTIARY
- UPPER CRETACEOUS
- LOWER CRETACEOUS
- JURASSIC-TRIASSIC
- PERMIAN-PENNSYLVANIAN
- MISSISSIPPIAN-DEVONIAN-ORDOVICIAN-CAMBRIAN

FIELD DESIGNATIONS

(A)	Abandoned field	(H)	Steam injection project
(AIR)	Air injection project	(HO)	Heavy oil
(CM)	Coalbed methane	(HS)	Hydrogen sulfide
(D)	Water disposal project	(S)	Gas or LPG storage
(G	Gas injection project	(SI)	Shut-in field
(GD)	Gas disposal	(T)	Tertiary recovery project
		(W)	Waterflood project

FIELDS

New fields are spotted through January 1, 1990.
Field boundaries are approximate.

HATFIELD Kd JTkn Pp Pl — Names in green denote fields that primarily produce oil.

BARTLETT (A) Jm — Names in red denote fields that primarily produce natural gas.

BUCK DRAW Kmvp Kl Kd — Names in blue denote fields that produce significant amounts of both oil and gas.

REFINERY

SINCLAIR 54,000 B/D — Notation includes operator and capacity in barrels of oil per day. Locations are approximate.

GAS PROCESSING PLANT

PRESIDIO 100 MM — Notation includes operator and capacity in millions of cubic feet per day. Locations are approximate.

PIPELINES

Notation includes operator, pipe diameter, and direction of flow. Proposed pipelines are dashed. Locations are plotted as accurately as possible from maps supplied by operators.

AMOCO 10" — CRUDE OIL
COLORADO INTERSTATE 16" — GAS
PHILLIPS 6" — REFINERY OR GAS PROCESSING PLANT PRODUCTS

KEY TO NUMBERED OIL FIELDS IN THE POWDER RIVER BASIN

1. ADON ROAD PPml	27. CARDINAL (D) PPml	53. FLORIDA Kmd	79. JOYCES PPml	105. MELLOTT RANCH (W) PPml	131. RAINBOW RANCH NORTH (W)(T) Kmd PPml	157. TERRACE (D) PPml
2. ADON ROAD NORTH Kmd PPml	28. CHALK HILLS PPml	54. FOURCHE PPml	80. KIEHL (T) (W) PPml	106. MILLER CREEK (D) Kmd Kd PPml	132. REEL (W) PPml	158. TEXAS TRAIL (D) PPml
3. AJAX (SI) PPml	29. CLABAUGH PPml	55. GAP PPml	81. KIEHL WEST (T) (W) PPml	107. MISSOURI PPml	133. REYNOLDS RANCH (D) PPml	159. THOLSON (W) (D) PPml
4. ALPHA (T) (D) PPml	30. CLUBHOUSE Kmd	56. GARNER LAKE (W) PPml	82. KICKEN DRAW PPml	108. MITCHELL CREEK PPml	134. RIGHT A WAY (T) (W) PPml	160. THORSON (D) PPml
5. AMERICAN (T) PPml	31. CORONA PPml	57. GIBBS (W) PPml	83. KUEHNE RANCH (W) PPml	109. MOORCROFT Kmd PPml	135. ROCKY BUTTE PPml	161. TIMBER CREEK (W) (D) Kmd PPml
6. AMRIRK (W) Kmr Kmd Kd PPml	32. COUNTY LINE PPml	58. GIBBS NORTH PPml	84. KUEHNE RANCH EAST (W) PPml	110. MOORCROFT EAST Kmd	136. ROEHRS (W) PPml	162. TIMBER CREEK NORTHWEST PPml
7. AMMO (W) Kmd PPml	33. DEADMAN CREEK (T) (W) (D) PPml	59. GIBBS SOUTH (D) PPml	85. KUEHNE RANCH NORTHEAST (SI) PPml	111. MOORCROFT WEST (W) (T) Kmd Kd PPml	137. ROYAL DRAW (W) PPml	163. TIMBER CREEK SOUTH PPml
8. ASH PPml	34. DEER FLY (T) (W) (D) PPml	60. GLO (T) (W) PPml	86. KUEHNE RANCH SOUTHEAST PPml	112. MORAN (W) PPml	138. RULE PPml	164. T-T ROAD PPml
9. BASIN (SI) PPml	35. DEMOTT DRAW PPml	61. GLO NORTH (W) (T) PPml	87. KUMMERFELD (W) (D) Kd Kla	113. MOREL PPml	139. S-BAR Kmd	165. VI BAR RANCH Kmd
10. BASIN NORTHWEST (W) PPml	36. DILLINGER RANCH (W) PPml	62. GOLD MINE DRAW (W) PPml	88. KUMMERFELD WEST (W) Kmd Kd PPml	114. MULE HERDER PPml	140. SCRIBNER PPml	166. WAGON SPOKE (W) PPml
11. BAUMFALK PPml	37. DILLINGER RANCH EAST Kmr	63. GRASSLAND PPml	89. LANE (SI) PPml	115. NETA PPml	141. SEMLEK SOUTHWEST Kmd	167. WALLACE (W) PPml
12. BIG HAND (W) (D) Kmr Kmd Kd PPml	38. DONKEY CREEK (W) (D) Kmd Kd PPml	64. GRAY (A) PPml	90. LANEY (SI) PPml	116. O'CONNOR Kmd	142. SEMLEK WEST (W) (D) Kmd Kla PPml	168. WALLACE SOUTH PPml
13. BISHOP RANCH (W) PPml	39. DONKEY CREEK NORTH (HO) Kmd Kd (PPml)	65. GRAY SOUTH PPml	91. LILY (T) (W) (D) PPml	117. OK (T) (W) PPml	143. SHARP Tfu PPml	169. WARD CREEK (A) Kmd PPml
14. BISHOP RANCH EAST (SI) PPml	40. DOUBLE SHIELD (D) PPml	66. GUTHERY (W) PPml	92. LITTLE MITCHELL CREEK (W) PPml	118. OLSEN (D) PPml	144. SHEARING PEN DRAW Kmd	170. WELL CREEK PPml
15. BISHOP RANCH SOUTH (W) PPml	41. DOUD SOUTHEAST PPml	67. HAIGHT (W) PPml	93. LITTLE MO PPml	119. OSHOTO (D) Kmd PPml	145. SHIPPY PPml	171. WHISLER (W) (D) PPml
16. BOOTON PPml	42. DRY GULCH (W) PPml	68. HAL PPml	94. LONE CEDAR (T) (W) PPml	120. OTTIE DRAW PPml	146. SIDNER DRAW PPml	172. WILDFIRE (HO) (PPml)
17. BRACKEN (T) Kmd PPml	43. DUCK NEST CREEK Kmd	69. HALVERSON (W) Kd PPml	95. M-D (D) PPml	121. OXBOW PPml	147. SIMPSON NORTH PPml	173. WINDMILL (W) (HO) Kcd (PPml)
18. BREAKS (D) PPml	44. DUNLAP PPml	70. HAMM (W) PPml	96. MAC (D) PPml	122. PEBBLE BEACH PPml	148. SIMPSON RANCH (W) PPml	174. WINTER DRAW (T) PPml
19. BREEN Kmr Kmd PPml	45. DUTCH (D) PPml	71. HAWKEYE PPml	97. MALMQUIST PPml	123. PICKREL RANCH (SI) PPml	149. SLATTERY (D) PPml	175. WOLF DRAW (T) PPml
20. BRENNAN (W) PPml	46. DUVALL RANCH (W) PPml	72. HEATH (D) Kmd PPml	98. MAPES (D) PPml	124. PIERCE PPml	150. SODA WELL PPml	176. WOLFF (D) PPml
21. BRONCO PPml	47. EAST DRAW Kmd	73. HELLS DRAW Kmd	99. MARNIE (D) PPml	125. PINEY PPml	151. SPRING (W) PPml	177. YELLOW HAMMER (A) PPml
22. BULLMARCH PPml	48. EINAR PPml	74. HIGH ROAD (D) PPml	100. MARNIE SOUTH PPml	126. PLEASANT VALLEY (D) PPml	152. SPRING HOLE (W) PPml	178. YORK (D) PPml
23. BUTTE CREEK PPml	49. ENYARD DRAW PPml	75. HILDA PPml	101. MARY RESERVOIR PPml	127. POWNALL RANCH (W) (T) PPml	153. STEWART (T) (W) PPml	179. YORK NORTH (W) PPml
24. C-H (W) PPml	50. FD PPml	76. HIRSCH Kmd	102. MAYSDORF (W) PPml	128. PRAIRIE CREEK (D) Kmd	154. STEWART EAST (W) PPml	
25. CABIN CANYON (A) PPml	51. FISH PPml	77. HOOVER GULCH (D) PPml	103. MAYSDORF SOUTH PPml	129. PRAIRIE CREEK SOUTH (W) PPml	155. SUMMERFIELD (W) (T) PPml	
26. CANDY DRAW (T) PPml	52. FISHING LAKE PPml	78. JB PPml	104. McCREERY PPml	130. RAINBOW RANCH (W) PPml	156. T.A. BUTTES (W) PPml	

LIST OF OIL AND GAS PRODUCING GROUPS, FORMATIONS, AND MEMBERS

Both abandoned and currently producing formations are shown for each field.

On the map, formations from which heavy oil is produced are enclosed in parentheses and formations from which significant hydrogen sulfide is produced are enclosed in brackets.

TERTIARY
- Twr — White River Formation
- Tw — Wasatch Formation
- Twk — Knight Formation[1]
- Twdr — Wind River Formation
- Tfu — Fort Union Formation
- Ta — Almy Formation[1]

UPPER CRETACEOUS
- Kl — Lance Formation
- Kfh — Fox Hills Sandstone
- Kle — Lewis Shale
- Kme — Meeteetse Formation
- Kmv — Mesaverde Formation or Group
- Kal — Almond Formation
- Ke — Ericson Sandstone
- Kr — Rock Springs Formation
- Kbl — Blair Formation
- Kmvt — Teapot Sandstone
- Kmvp — Parkman Sandstone
- Kba — Baxter Shale
- Kc — Cody Shale
- Kh — Hilliard Shale
- Ks — Steele Shale
- Ksx — Sussex Sandstone
- Ksh — Shannon Sandstone
- Kn — Niobrara Formation
- Kcd — Codell Sandstone[1]
- Ktr — Turner Sandstone[1]
- Kg — Greenhorn Formation
- Kf — Frontier Formation

LOWER CRETACEOUS
- Ka — Aspen Shale
- Kmr — Mowry Shale
- Kbr — Bear River Formation
- Knc — Newcastle Sandstone
- Kmd — Muddy Sandstone
- Ksc — Skull Creek Shale
- Kcv — Cloverly Formation
- Kd — Dakota Sandstone[1]
- Kfr — Fall River Formation
- Kla — Lakota Formation

CRETACEOUS-JURASSIC
- KJg — Gannett Group

JURASSIC
- Jm — Morrison Formation
- Js — Sundance Formation
- Jtc — Twin Creek Limestone

JURASSIC-TRIASSIC
- JTRn — Nugget Sandstone

TRIASSIC
- TRa — Ankareh Formation
- TRt — Thaynes Limestone
- TRcm — Crow Mountain Sandstone
- TRc — Chugwater Formation or Group
- TRca — Alcova Limestone
- TRcr — Red Peak Formation or Member
- TRd — Dinwoody Formation

PERMIAN
- Pm — Minnekahta Limestone
- Pp — Phosphoria Formation

PERMIAN-PENNSYLVANIAN
- PPml — Minnelusa Formation
- PPc — Casper Formation

PENNSYLVANIAN
- Pt — Tensleep Sandstone
- Pw — Weber Sandstone

PENNSYLVANIAN-MISSISSIPPIAN
- PMa — Amsden Formation

MISSISSIPPIAN
- Md — Darwin Sandstone
- Mm — Madison Limestone

DEVONIAN
- Dj — Jefferson Limestone
- Dd — Darby Formation

ORDOVICIAN
- Obh — Bighorn Dolomite

CAMBRIAN
- Cgv — Gros Ventre Formation
- Cf — Flathead Sandstone

PRECAMBRIAN
- PC — Precambrian undivided

[1]Formation name extended from neighboring states, not formally recognized in Wyoming, or not commonly used in Wyoming.

OIL SHALE-BEARING STRATA — The outlined area depicts the oil shale occurrence (no implication of quantity or quality intended). Oil shale occurs in the Lumen Tongue, Fontenelle Tongue, Tipton Tongue, Tipton Shale Member, and Laney Shale Member of the Green River Formation in the Greater Green River Basin (Bradley, 1964; Love and Christensen, 1985), the Tatman Formation along the southwest margin of the Bighorn Basin (J.D. Love, personal communication, 1984), and the Wagon Bed Formation in the Lysite Mountain area, Ts 41-42N, Rs 89-92W (Bay, 1969), all of Eocene age, and in petroliferous shales of other ages. The U.S. Geological Survey estimates Wyoming's oil shale resource at 320 billion barrels in rock yielding fifteen gallons per ton or more in the Green River Basin and Washakie Basin (Brobst and Pratt, 1973, p. 500).

MAJOR WYOMING BASINS AND OVERTHRUST BELT

UNDIFFERENTIATED PRECAMBRIAN ROCKS EXPOSED AT SURFACE

APPROXIMATE LOCATION OF MAJOR BASIN AXIS

MAJOR THRUST FAULTS FORMING EASTERN BOUNDARY OF OVERTHRUST BELT

LIST OF ABBREVIATIONS FOR PIPELINE OPERATORS

- CHEY LF & P - Cheyenne Light Fuel and Power
- CIG - Colorado Interstate Gas
- KN ENERGY - Kansas-Nebraska Energy
- MFS - Mountain Fuel Supply
- NPC - Northwest Pipeline Corporation
- PE - Panhandle Eastern
- WBIPC - Williston Basin Interstate Pipeline Company
- WGP - Western Gas Processors
- WIC - Wyoming Interstate Company
- WNG - Williams Natural Gas
- WOTC - Western Oil Transmission Company
- WYCAL - Wyoming-California Pipeline

McCulloch Gas Transmission Company's (MGTC) and McCulloch Interstate Gas Company's (MIGC) pipelines were purchased by Western Gas Processors. The abbreviations, MGTC and MIGC, are retained as the designations for these two subsidiaries of Western Gas Processors.

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