

MONTANA

OIL and GAS

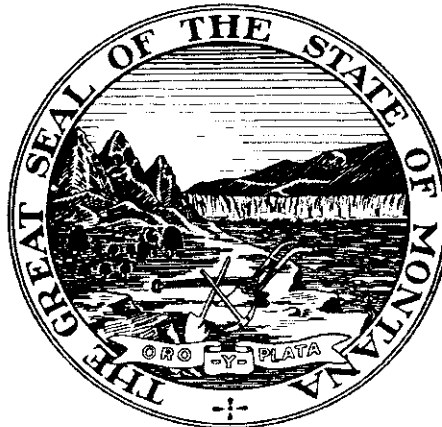
ANNUAL REVIEW 1997

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DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
OF THE STATE OF MONTANA

Oil and Gas Conservation Division

Marc Racicot, Governor



ANNUAL REVIEW FOR THE YEAR 1997

Relating to
OIL AND GAS
Volume 41

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September, 1998

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Annual Review for the Year 1997 Volume 41

ACTIVITY REVIEW

Montana's oil production was 16.07 million barrels in 1997, compared to 16.15 million barrels the previous year, which is a change of less than one-half of one percent. Gas production increased from 51.6 million MCF in 1996 to 53.5 million MCF in 1997. Well-drilling increased 77 percent over the previous year's activities, with 288 development and 83 exploratory wells drilled in 1997. During the year, 201 new gas wells and 90 new oil wells were completed.

Nine geophysical contractors were active during the year, and 38 seismic projects were completed. The Williston Basin received most of the seismic activity. A significant number of the permitted projects involved 3-D techniques.

Interest in using horizontal drilling techniques increased dramatically during 1997. Permits were issued for 91 new horizontal wells, and 20 horizontal re-completions of existing vertical wells were approved. The Board of Oil and Gas Conservation approved one new enhanced recovery project and the expansion of one existing enhanced recovery project, thereby

qualifying the incremental increase in production for a lower tax rate. Five horizontal re-completion efforts were certified for tax purposes.

The board's staff issued 484 permits to drill during the year, performing an environmental assessment for each application involving private or state-owned lands prior to permit issuance. The board issued 147 orders during the year. Most of these orders authorized increased well density to accommodate in-fill drilling programs, established permanent spacing for horizontal wells and exception wells, delineated new fields, and allowed exceptions to existing field rules. During the first full year of Underground Injection Control Program primacy, staff received 36 injection well permit applications. The board issued 19 new injection well permits and 2 new area (multiple well) permits. Staff approved 15 new wells in existing area permits.

A World Wide Web page with weekly activity reports, staff directory, rules and regulations, and other general information about the board's programs was permanently implemented during the year. The address of the page is <http://www.dnrc.state.mt.us/oilgas>.

1997
SUMMARY OF YEAR ACTIVITIES

OIL

	BBLs	BBLs/DAY
Oil Produced	16,069,023	44,025
Oil Imported From:		
Canada	39,295,769	
Wyoming	<u>12,840,484</u>	
Total	52,136,253	142,839
Oil Exported	13,800,000	37,800

GAS

	MCF	MCF/DAY
Gas Withdrawals:		
Natural	46,501,604	
Associated	<u>6,987,557</u>	
Total	53,489,161	146,546
Gas Imported From:		
Canada	12,590,363	
North Dakota	9,284,949	
Wyoming	<u>9,768,876</u>	
Total	31,644,188	86,696
Gas Exported To:		
North Dakota	27,287,463	
South Dakota	1,260,103	
Midwest	<u>17,877,835</u>	
Total	46,425,401	127,193

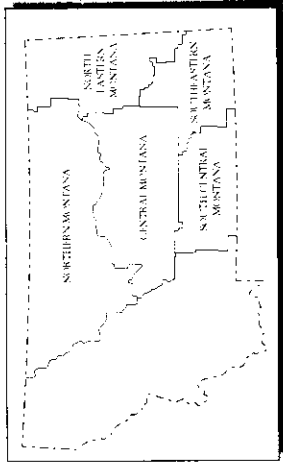
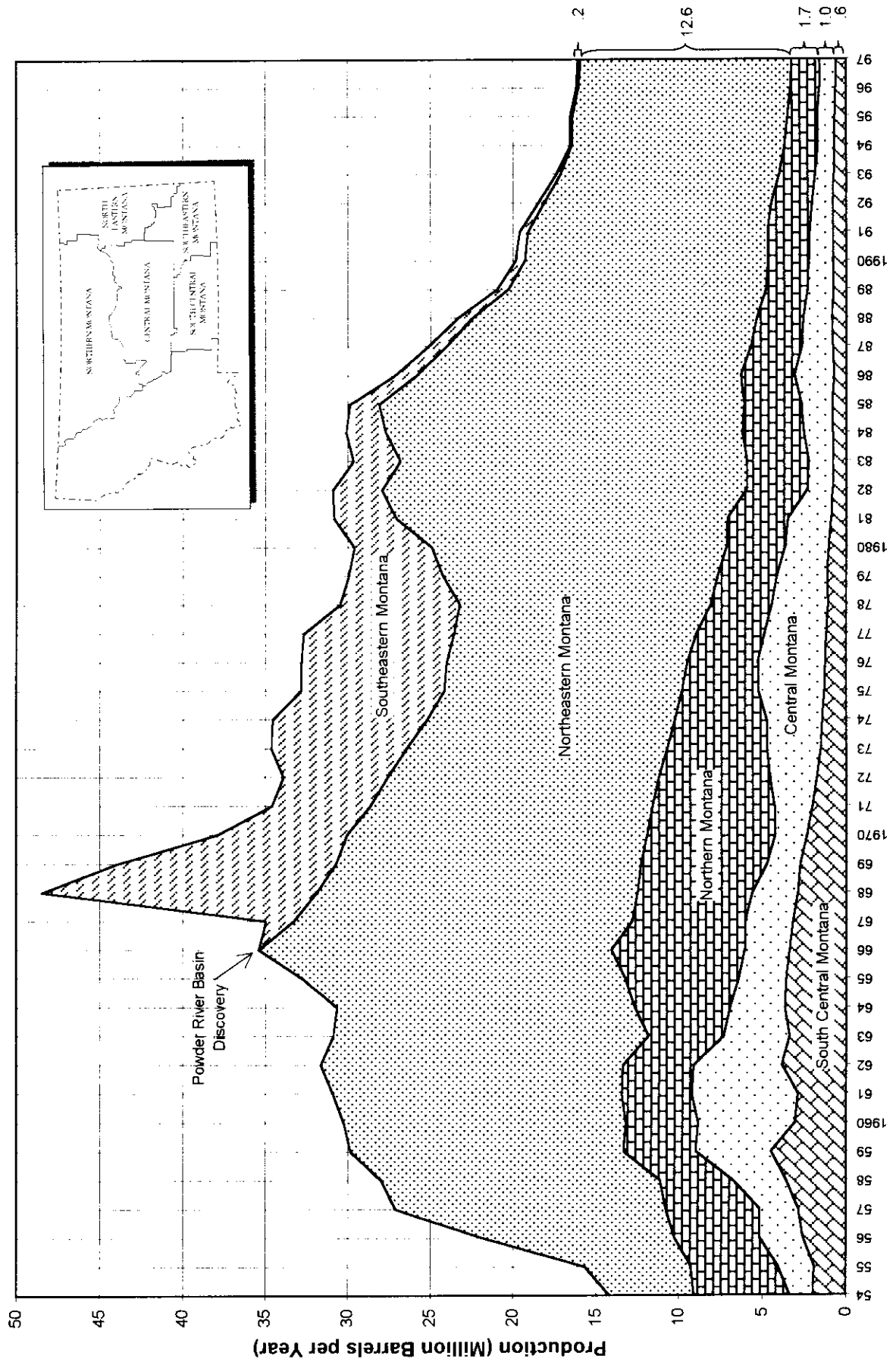
FIVE YEAR SUMMARY

	1993	1994	1995	1996	1997
OIL PRODUCTION IN BARRELS					
Northern Montana	2,143,943	2,003,272	1,783,331	1,735,895	1,677,301
South Central	772,668	733,965	698,537	653,723	606,858
Central	1,095,551	955,703	1,040,127	950,865	967,478
Williston Basin.....	13,110,882	12,747,075	12,877,305	12,695,462	12,637,980
Powder River Basin.....	272,517	90,965	126,524	115,662	179,406
TOTAL.....	17,395,561	16,530,980	16,525,824	16,151,607	16,069,023
NUMBER OF PRODUCING OIL WELLS					
Northern Montana.....	2,408	2,324	2,093	2,029	1,971
South Central.....	122	136	132	130	130
Central.....	298	272	249	239	231
Williston Basin.....	1,287	1,311	1,310	1,294	1,301
Powder River Basin.....	56	71	28	46	73
TOTAL.....	4,171	4,114	3,812	3,738	3,706
AVERAGE DAILY PRODUCTION/OIL WELL.					
Northern Montana.....	2.4	2.4	2.3	2.3	2.3
South Central.....	17.4	14.8	14.5	13.7	12.8
Central.....	10.1	9.6	11.4	10.8	11.5
Williston Basin.....	27.9	26.6	26.9	26.8	26.6
Powder River Basin.....	13.3	3.5	12.4	6.9	6.7
STATE AVERAGE.....	11.4	11.0	11.9	11.8	11.9
DEVELOPMENT WELLS DRILLED					
Oil Wells.....	39	34	53	68	59
Gas Wells.....	80	78	65	54	194
Dry Holes.....	18	29	14	15	33
Service Wells.....	1	5	10	4	4
TOTAL.....	138	146	142	141	290
EXPLORATORY WELLS DRILLED					
Oil Wells.....	9	23	7	13	31
Gas Wells.....	3	12	15	10	7
Dry Holes.....	29	45	44	40	41
Temporary Abandoned.....	3	6	3	5	2
TOTAL.....	44	86	69	68	81
TOTAL WELLS DRILLED.....	182	232	211	209	371
TOTAL FOOTAGE DRILLED.....	677,698	906,564	1,068,715	1,072,556	1,704,167
AVERAGE FOOTAGE DRILLED.....	3,723	3,908	5,065	5,131	4,593

COUNTY ACTIVITY SUMMARY - 1997

COUNTY	DEVELOPMENT		EXPLORATORY		SERVICE WELLS	TEMP. ABAND.	TOTAL WELLS	TOTAL FEET	AVERAGE FEET
	OIL	GAS	DRY	DRY					
Big Horn	0	9	2	0	0	0	11	6,518	592
Blaine	0	15	3	7	0	0	28	51,527	1,840
Carbon	0	0	1	2	0	0	3	12,409	4,136
Carter	0	0	0	0	0	0	1	1,600	1,600
Chouteau	0	0	0	2	0	0	2	5,823	2,911
Daniels	1	0	0	0	0	0	2	15,488	7,744
Dawson	3	0	0	2	1	1	7	75,719	10,817
Fallon	23	24	0	0	0	0	49	359,164	7,329
Glacier	7	0	0	0	0	0	7	23,725	3,389
Hill	0	19	8	2	0	0	31	51,264	1,653
Liberty	0	1	0	0	0	0	1	2,200	2,200
McCone	0	0	1	1	1	0	3	21,310	7,103
Musselshell	0	0	3	2	1	0	7	27,461	3,923
Phillips	0	119	0	0	0	0	119	183,916	1,545
Richland	5	0	5	6	1	0	34	364,605	10,723
Roosevelt	5	0	1	4	0	1	13	131,425	10,109
Rosebud	0	0	0	5	0	0	7	38,869	5,552
Sheridan	11	0	4	1	0	0	22	230,565	10,480
Stillwater	0	0	0	0	0	0	1	5,968	5,968
Toole	2	7	5	1	0	0	15	25,974	1,731
Valley	1	0	0	2	0	0	3	19,714	6,571
Wibaux	1	0	0	4	0	0	5	48,923	9,784
TOTALS	59	194	33	31	7	41	4	1,704,167	4,593

Crude Oil Production in Montana -- 1954-1997



Powder River Basin
Discovery

GAS PRODUCTION DATA - 1997

NATURAL GAS

Field	County	Reported Formation	Produced MCF
Amanda	Toole	Bow Island, Dakota, Sunburst, Swift	189,698
Antelope Coulee	Toole	Blackleaf, Bow Island	4,026
Arch Apex	Toole	Bow Island, Sunburst, Swift	229,342
Ashfield	Phillips	Bowdoin, Carlile, Greenhorn, Phillips	1,370,515
Badlands	Hill	Eagle	146,158
Battle Creek	Blaine	Eagle, Niobrara	1,748,032
Bears Den	Liberty	Bow Island, Swift	8,559
Bell Creek, Southeast	Powder River	Muddy	199,681
Big Coulee & Area	Golden Valley, Stillwater	Cat Creek, Morrison	162,007
Big Rock	Glacier	Blackleaf, Bow Island, Colorado	260,318
Bills Coulee	Teton	Kootenai, Moulton, Sunburst	39,184
Black Butte	Hill	Eagle	76,322
Black Coulee	Blaine	Eagle	141,303
Blackfoot	Glacier	Dakota, Sunburst	61,485
Blackjack	Liberty	Blackleaf, Bow Island, Second White Specks, Sunburst	66,326
Bowdoin and Area	Phillips, Valley	Bowdoin (Carlile), Greenhorn, Phillips	4,779,684
Bowes	Blaine	Eagle	396,586
Bradley	Glacier	Bow Island, Sunburst	3,167
Bullwacker	Blaine, Chouteau	Eagle, Judith River, Virgelle	706,164
Camp Creek	Chouteau	Eagle	18,311
Cedar Creek	Fallon	Eagle, Judith River	2,767,214
Clark's Fork	Carbon	Greybull	27,043
Coal Mine Coulee	Chouteau	Eagle, Second White Specks	15,471
Cut Bank	Glacier, Toole	Bow Island, Cut Bank, Dakota, Kootenai, Lander, Madison, Moulton, Sunburst	2,298,758
Devon	Toole	Bow Island	92,327
Devon, East	Toole	Bow Island	8,086
Dry Creek	Carbon	Eagle, Frontier, Greybull, Judith River, Virgelle	403,799
Dry Creek (Shallow Gas)	Carbon	Virgelle	25,199
Dry Creek, Middle	Carbon	Frontier	18,628
Dry Creek, West	Carbon	Greybull	22,417
Dry Fork	Pondera	Bow Island	18,825
Dunkirk	Toole	Dakota	82,503
Dunkirk, North	Toole	Bow Island, Sunburst, Swift	181,457
Dutch John Coulee	Toole	Sunburst	74,577
Eagle Springs	Toole	Bow Island, Sunburst, Swift	9,365
Ethridge	Toole	Swift	97,188
Ethridge, North	Toole	Bow Island, Swift	35,120
Fitzpatrick Lake	Toole	Bow Island, Swift	91,173
Flat Coulee	Liberty	Bow Island, Dakota, Swift	30,967
Fort Conrad	Toole, Pondera	Bow Island	28,309
Fred and George Creek	Toole	Bow Island, Sunburst, Swift	22,322
Fresno and Area	Hill	Eagle	30,476
Galata	Toole	Bow Island	76,060
Golden Dome	Carbon	Greybull, Eagle, Frontier	65,740
Grandview	Liberty	Bow Island, Sawtooth	46,184
Gypsy Basin	Pondera, Teton	Sunburst, Swift	20,657
Hardpan	Pondera, Chouteau	Bow Island	30,034
Hardpan Area	Pondera	Bow Island	3,921
Havre	Hill, Blaine	Eagle	19,412
Haystack Butte	Liberty	Bow Island	27,031
Haystack Butte, West	Liberty	Bow Island	53,718
Keith Area	Liberty	Bow Island, Niobrara, Sawtooth, Second White Specks	19,163
Keith, East	Liberty	Bow Island, Niobrara, Sawtooth, Second White Specks	476,975
Kevin Area	Toole	Swift	1,685
Kevin Southwest	Toole	Bow Island, Dakota, Sunburst, Swift	213,613
Kevin Sunburst	Toole	Bow Island, Burwash, Dakota, Eagle, Ellis, Nisku, Kootenai, Madison, Sunburst, Swift	498,613
Kevin Sunburst (Dakota)	Toole	Dakota	9,484
Kevin Sunburst-Bow Island	Toole	Bow Island	32,045
Kevin Sunburst Nisku & Area	Toole	Nisku, Swift	97,585
Kevin, East Bow Island	Toole	Bow Island, Sunburst	21,183
Kevin, East Gas	Toole	Bow Island, Sunburst, Swift	85,308
Kicking Horse	Toole	Bow Island, Sawtooth, Sunburst	102,281
Lake Basin	Stillwater	Claggett, Eagle, Frontier, Virgelle, Telegraph Creek	44,696
Ledger	Pondera	Bow Island	139,397

GAS PRODUCTION DATA - 1997

NATURAL GAS (continued)

Field	County	Reported Formation	Produced MCF
Leroy	Blaine	Eagle	196,842
Liscom Creek	Custer	Shannon	14,611
Little Creek	Chouteau	Eagle, Virgelle	16,066
Little Rock	Glacier	Blackleaf, Bow Island	52,010
Lohman	Blaine	Eagle	231,563
Loring	Phillips	Carlile, Greenhorn, Phillips	1,830,013
Loring, East	Phillips	Bowdoin, Carlile, Greenhorn, Phillips	1,031,922
Loring, West	Phillips	Carlile, Greenhorn, Phillips	27,056
Marias River	Toole, Pondera	Bow Island	43,176
Middle Butte	Toole, Liberty	Blackleaf, Bow Island, Second White Specks	52,494
Miners Coulee	Toole	Blackleaf, Bow Island, Sawtooth, Sunburst, Swift	59,467
Mount Lily	Liberty	Bow Island, Swift	7,609
O'Briens Coulee	Liberty	Bow Island, Blackleaf, Second White Specks, Spike	157,130
Old Shelby	Toole	Bow Island, Sunburst, Swift	941,094
Park City	Stillwater	Virgelle	4,531
Phantom	Toole	Sunburst	5,022
Phantom, West	Toole	Sunburst	23,867
Plevna	Fallon	Eagle	816
Police Coulee	Toole	Bow Island	44,850
Prairie Dell	Toole	Bow Island, Dakota, Sunburst, Swift	471,986
Prairie Dell, West	Toole	Blackleaf, Swift	15,926
Red Rock	Hill	Eagle	563,290
Rocky Boy Area	Hill	Eagle	168,202
Rudyard	Hill	Eagle, Sawtooth	43,826
Sage Creek	Liberty	Blackleaf, Bow Island, Second White Specks	86,930
Sawtooth Mountain & Area ...	Blaine	Eagle, Judith River	475,168
Shelby Area	Toole	Burwash, Sunburst	12,153
Shelby, East	Toole	Bow Island, Burwash, Sunburst, Swift	39,992
Sherard	Blaine, Chouteau	Eagle, Judith River	53,586
Sherard Area	Blaine, Chouteau	Eagle, Judith River	1,307,021
Sixshooter Dome	Sweet Grass	Eagle, Lakota	197,203
Snoose Coulee	Liberty	Bow Island	28,614
Snow Coulee	Liberty	Sunburst	3,812
Spring Coulee	Hill	Green Horn, Sawtooth, Second White Specks	7,819
Strawberry Creek Area	Toole	Bow Island, Burwash, Sunburst	41,682
Swanson Creek	Phillips, Valley	Carlile, Greenhorn, Phillips	375,126
Three Mile	Blaine	Eagle	46,076
Tiber Area	Toole	Bow Island	16,899
Tiber, East	Toole	Bow Island	82,014
Tiger Ridge and Area	Toole	Eagle, Judith River	14,506,789
Timber Creek, West	Toole	Sunburst	7,561
Trail Creek	Liberty, Toole	Bow Island, Sunburst, Swift	88,012
Utopia	Liberty	Sawtooth, Bow Island	128,763
Vandalia	Valley	Carlile	25,742
West Butte	Toole	Bow Island	18,911
West Butte Shallow Gas	Toole	Bow Island, Dakota	9,509
Whitewater	Phillips	Bowdoin, Carlile, Greenhorn, Phillips	2,467,487
Whitewater, East	Phillips	Bowdoin, Carlile, Greenhorn, Phillips	474,562
Whitlash	Liberty	Bow Island, Dakota, Madison, Spike, Sunburst, Swift	510,079
Whitelash, West	Toole	Bow Island, Sunburst, Swift	18,060
Williams	Pondera	Bow Island	64,752
Willow Ridge	Toole	Bow Island, Dakota, Sunburst, Swift	193,811
Willow Ridge, South	Toole	Sunburst	133,174
Willow Ridge, West	Toole	Bow Island	4,051
TOTAL NATURAL GAS			46,501,604

GAS PRODUCTION DATA - 1997

ASSOCIATED GAS

Field	County	Reported Formation	Produced MCF
Alkali Coulee	Sheridan	Red River	19,726
Anvil	Roosevelt	Nisku, Ratcliffe, Red River	99,098
Bainville	Roosevelt	Ratcliffe, Red River, Winnipegosis	20,248
Bainville (Ratcliffe/Mission Canyon)	Roosevelt	Ratcliffe	3,260
Bainville, North	Roosevelt	Madison, Nisku, Red River, Winnipegosis	502,736
Bainville, West	Roosevelt	Red River	4,746
Bainville II	Roosevelt	Ratcliffe, Red River	23,136
Beanblossum	Garfield	Tyler	2,051
Benrud, East	Roosevelt	Nisku	3,365
Bloomfield	Dawson	Dawson Bay, Interlake	8,724
Blue Hill	Richland	Red River	28,289
Breed Creek	Rosebud	Tyler	5,623
Brorson	Richland	Interlake, Madison, Red River	126,523
Brorson, South	Richland	Bakken, Madison, Mission Canyon	33,961
Brush Lake	Sheridan	Red River	87,810
Cabaret Coulee	Daniels	Madison	149
Cabin Creek	Fallon	Madison, Red River, Siluro-Ordovician	426,663
Canal	Richland	Madison, Mission Canyon, Red River	18,275
Cattails	Richland	Ratcliffe	46,680
Cattails, South	Richland	Madison	7,205
Charlie Creek	Richland	Bakken, Dawson Bay	13,995
Charlie Creek, East	Richland	Red River	17,609
Chelsea Creek	Roosevelt	Nisku	522
Clear Lake	Sheridan	Mission Canyon, Nisku, Ratcliffe, Red River	52,230
Clear Lake, South	Sheridan	Red River	1,741
Colored Canyon	Sheridan	Red River	26,089
Comertown	Sheridan	Duperow, Nisku, Ratcliffe, Red River	23,177
Comertown, South	Sheridan	Red River	3,351
Cottonwood	Richland	Ratcliffe	8,785
Cottonwood, East	Roosevelt	Ratcliffe	1,595
Crane	Richland	Devonian, Duperow, Interlake, Red River	33,511
Cupton	Fallon	Red River	26,745
Cut Bank	Pondera, Glacier, Toole	Cut Bank, Lander, Madison	57,406
Dagmar	Sheridan	Red River	12,128
Deer Creek	Dawson	Charles, Tyler	290,288
Diamond Point	Roosevelt	Interlake, Red River	22,625
Divide	Sheridan	Madison, Mission Canyon, Ratcliffe, Red River	64,428
Dooley	Sheridan	Ratcliffe	4,115
Dry Creek	Carbon	Greybull	29,232
Dwyer	Sheridan	Charles, Duperow, Nisku, Red River	31,815
Eagle	Richland	Duperow, Madison, Mission Canyon, Ratcliffe	12,790
Elk Basin	Carbon	Embar, Frontier, Madison, Tensleep	345,972
Elk Basin, Northwest	Carbon	Cloverly, Frontier, Madison	42,641
Enid, North	Richland	Red River	19,937
Epworth	Richland	Bakken	2,460
Fairview	Richland	Madison, Mission Canyon, Ratcliffe, Red River	167,610
Fairview, East	Richland	Ratcliffe, Winnipegosis	9,075
Fairview, West	Richland	Madison	24
Fishhook	Sheridan	Red River	7,019
Flat Coulee	Liberty	Swift	5,652
Flat Lake	Sheridan	Nisku, Ratcliffe, Red River	137,173
Flat Lake, South	Sheridan	Ratcliffe	1,416
Fort Gilbert	Richland	Madison, Mission Canyon, Red River	37,970
Four Mile Creek	Richland	Red River	3,670
Four Mile Creek, West	Richland	Red River	15,001
Fred & George Creek	Toole	Sunburst	72
Frog Coulee	Richland	Red River	4,914
Froid, South	Roosevelt	Red River, Winnipegosis	18,073
Girard	Richland	Bakken, Red River	11,486
Glendive	Dawson	Red River, Siluro-Ordovician, Stoney Mountain	28,284
Golden Dome	Carbon	Greybull	23,172
Goose Lake	Sheridan	Ratcliffe, Red River	14,857
Goose Lake, West	Sheridan	Red River	5,069
Gossett	Richland	Red River	459
Graben Coulee	Glacier	Cut Bank, Sunburst	5,708

GAS PRODUCTION DATA - 1997 ASSOCIATED GAS (continued)

Field	County	Reported Formation	Produced MCF
Green Coulee	Sheridan	Red River	1,014
Gunsight	Roosevelt	Mission Canyon	9,660
Hardscrabble Creek	Richland	Red River	6,862
Hawk Haven	Richland	Mission Canyon	292
Hay Creek	Richland	Mission Canyon, Red River	24,214
Hiawatha	Musselshell	Tyler	548
High Five	Rosebud	Stensvad, Tyler	12,607
Intake II	Richland	Mission Canyon	7,815
Jim Coulee	Musselshell	Tyler	1,644
Katy Lake	Sheridan	Red River	12,011
Katy Lake, North	Sheridan	Madison, Mission Canyon, Nesson, Red River	79,128
Kevin-Sunburst	Toole	Madison, Sunburst, Swift	22,248
Kevin, East Nisku Oil	Toole	Nisku	11,683
Kincheloe Ranch, West	Rosebud	Tyler	3,894
Laird Creek	Liberty	Swift	47
Lambert	Richland	Interlake, Red River	31,108
Landslide Butte	Glacier	Madison	120,978
Leary	Powder River	Muddy	7,470
Little Beaver	Fallon	Red River, Siluro-Ordovician	30,739
Little Beaver, East	Fallon	Mission Canyon, Red River, Siluro-Ordovician	19,460
Little Wall Creek	Musselshell	Stensvad, Tyler	9,705
Little Wall Creek, South	Musselshell	Stensvad, Tyler	6,471
Lone Butte	Richland	Mission Canyon, Red River	17,623
Lonetree Creek	Richland	Interlake, Red River	129,153
Long Creek, West	Roosevelt	Nisku	723
Lookout Butte	Fallon	Madison, Red River, Siluro-Ordovician	95,691
Lookout Butte, East	Fallon	Lodgepole, Red River	387,729
Lustre	Valley	Charles, Mission Canyon, Ratcliffe	47,172
Lustre, North	Valley	Charles	2,440
McCabe	Roosevelt	Ratcliffe	3,930
McCabe, East	Roosevelt	Red River	2,249
McCoy Creek	Sheridan	Red River	1,157
Medicine Lake	Sheridan	Devonian, Duperow, Gunton, Mission Canyon, Red River, Winnipegosis	48,991
Melstone	Musselshell	Tyler	14,742
Midfork	Valley	Charles, Nisku	16,696
Missouri Breaks	Richland	Nisku, Red River	2,344
Mon Dak, West	Richland	Duperow, Interlake, Madison, Mission Canyon, Ordovician, Ratcliffe, Red River, Stoney Mountain	207,454
Mona	Richland	Red River	11,773
Monarch	Fallon	Interlake, Red River, Siluro-Ordovician	26,380
Mustang	Richland	Bakken, Madison, Red River	52,403
Neiser Creek	Sheridan	Red River	70,041
Nielsen Coulee	Daniels	Madison	6,493
Ninemile	Toole	Nisku	495
Nohly	Richland	Madison, Mission Canyon, Nisku, Ratcliffe, Red River	259,740
North Fork	Richland	Mission Canyon	8,162
Ollie	Fallon	Red River	2,048
Otis Creek	Richland	Ratcliffe	3,443
Otis Creek, South	Richland	Ratcliffe	1,747
Outlook	Sheridan	Bakken, Nisku	32,246
Oxbow	Roosevelt	Madison, Red River	18,732
Oxbow II	Roosevelt	Nisku	47,703
Palomino	Roosevelt	Nisku	3,221
Pelican	Sheridan	Red River	1,848
Pennel	Fallon	Red River, Siluro-Ordovician, Stoney Mountain	518,746
Pine	Fallon, Wibaux, Prairie, Dawson	Mission Canyon, Stoney Mountain, Siluro-Ordovician	151,581
Poplar, Northwest	Roosevelt	Charles	21,788
Pronghorn	Sheridan	Red River	570
Putnam	Richland	Bakken, Interlake, Mission Canyon, Madison, Red River	46,458
Rattlesnake Butte	Petroleum	Cat Creek	4,876
Raymond	Sheridan	Duperow, Nisku, Red River, Winnipegosis	212,847
Reagan	Glacier	Madison	82,277
Red Bank	Roosevelt	Madison, Mission Canyon, Ratcliffe	12,696
Red Bank, South	Roosevelt	Red River	4,601

GAS PRODUCTION DATA - 1997 ASSOCIATED GAS (continued)

Field	County	Reported Formation	Produced MCF
Red Creek	Glacier	Cut Bank, Madison	27,365
Reserve	Sheridan	Red River, Winnipegosis	8
Red Water,	Richland	Red River, Winnipegosis	2,247
Red Water, East	Richland	Red River	5,272
Refuge	Sheridan	Red River	4,955
Reserve	Sheridan	Red River	40,125
Reserve II	Sheridan	Interlake	757
Reserve South	Sheridan	Ratcliffe	1,905
Ridgelawn	Richland	Mission Canyon, Ratcliffe, Red River	61,351
Ridgelawn, North	Richland	Madison	10,002
RipRap Coulee	Roosevelt	Ratcliffe	27,762
Rocky Point	Roosevelt	Red River	5,349
Royals	Dawson	Dawson Bay	4,770
Rush Mountain	Sheridan	Gunton	18,736
Salt Lake	Sheridan	Red River	2,175
Second Creek	Richland	Duperow, Mission Canyon, Ratcliffe, Red River	11,823
Shotgun Creek	Roosevelt	Ratcliffe	11,552
Sidney	Richland	Madison, Mission Canyon, Ratcliffe, Red River	30,122
Sioux Pass	Richland	Interlake, Red River	94,682
Sioux Pass, Middle	Richland	Red River	28,502
Sioux Pass, North	Richland	Madison, Ratcliffe, Red River	87,388
Sioux Pass, South	Richland	Red River	1,335
Snake Creek	Roosevelt	Winnipegosis	1,305
South Fork	Richland	Mission Canyon, Red River	18,414
Spring Lake	Richland	Bakken, Dawson Bay	16,637
Spring Lake, West	Richland	Bakken	5,290
Stampede	Richland	Bakken, Madison, Ratcliffe, Red River	21,685
Sunny Hill, West	Sheridan	Ratcliffe	8,218
Target	Roosevelt	Nisku	11,232
Three Buttes	Richland	Bakken, Red River	22,628
Tule Creek	Roosevelt	Devonian, Nisku	11,120
Tule Creek, East	Roosevelt	Nisku	2,395
Utopia	Liberty	Swift	11,385
Vaux	Richland	Bakken, Interlake, Madison, Mission Canyon, Ratcliffe, Red River, Stonewall	121,569
Wakea	Sheridan	Duperow, Nisku, Red River, Winnipegosis	33,414
Waterhole Creek	Fallon	Red River	1,667
Weed Creek	Yellowstone	Amsden	753
Whitlash	Liberty	Sunburst, Swift	36,140
Wills Creek, South	Fallon	Siluro-Ordovician	36,202
Woodrow	Dawson	Charles, Interlake	4,320
Wrangler	Sheridan	Red River	19,745
Wright Creek	Powder River	Muddy	10,372
Wildcat	Richland	Red River	4,117

TOTAL ASSOCIATED GAS

6,987,557

REFINERS' ANNUAL REPORT -- 1997

COMPANY	BEGINNING STORAGE	MONTANA OIL	WYOMING OIL	CANADA OIL	REFINED	ENDING STORAGE
Cenex	212,452	1,535,580	318,086	13,882,187	15,637,175	311,130
Conoco	150,217	600,006	833,367	17,788,440	19,251,551	120,481
Exxon Corp.	386,030	725,947	11,689,031	5,709,115	18,271,029	239,094
Montana Refining Co.	16,644	316,258	-0-	1,916,027	2,231,914	17,015
TOTALS	765,343	3,177,791	12,840,484	39,295,769	55,391,669	687,720

PERCENTAGE OF CRUDE OIL RECEIVED

YEAR	MONTANA	CANADA	WYOMING
1993	6.86	62.59	30.55
1994	5.94	71.40	22.66
1995	5.92	74.47	19.61
1996	5.49	76.98	17.53
1997	5.75	71.04	23.21

AVERAGE BARRELS PER DAY

YEAR	MONTANA	CANADA	WYOMING	TOTAL
1993	9,302	84,868	41,415	135,585
1994	8,518	102,420	32,506	143,444
1995	8,333	104,837	27,600	140,770
1996	8,288	116,254	26,466	151,008
1997	8,706	107,660	35,179	151,545

REFINING FIVE YEAR COMPARISON

1993	1994	1995	1996	1997
49,442,849	52,157,319	51,400,112	55,200,114	55,391,669

1997 STATEMENT OF CRUDE OIL PRODUCTION – ALL MONTANA FIELDS

FIELD	COUNTY	1997 BARRELS	CUMULATIVE BARRELS
Ace High	Rosebud	0	3,686
Agawan	Teton	0	79
Alkali Coulee	Sheridan	20,704	40,250
Andes	Richland	0	21,175
Antelope, North	Sheridan	0	2,484
Anvil	Roosevelt	117,160	4,702,952
Anvil, North	Sheridan	0	9,446
Ash Creek	Big Horn	3,140	868,155
Ator Creek	Sheridan	4,819	19,877
Autumn	Valley	0	35,546
Bainville	Roosevelt	29,997	1,012,218
Bainville (Ratcliffe/ Mission Canyon)	Roosevelt	7,007	16,962
Bainville II	Roosevelt	26,843	808,894
Bainville, North	Roosevelt	560,229	3,755,599
Bainville, West	Roosevelt	4,604	256,010
Bannatyne	Teton	7,035	422,406
Bascom	Musselshell	0	27,830
Beanblossom	Garfield	16,390	603,465
Bear's Den	Liberty	29,347	724,172
Belfry	Carbon	0	101,245
Bell Creek	Carter, Powder River	170,910	132,221,953
Benrud	Roosevelt	0	289,695
Benrud, East	Roosevelt	14,276	2,964,916
Benrud, Northeast	Roosevelt	455	1,019,598
Berthelote	Toole	705	98,351
Big Gully	Musselshell	345	113,977
Big Gully, North	Musselshell	0	29,892
Big Muddy Creek	Roosevelt	0	1,326,087
Big Rock	Glacier	0	12,444
Big Wall	Musselshell	47,333	8,224,898
Big Wall, North	Musselshell	0	7,218
Black Diamond	Wibaux	1,571	661,442
Blackfoot	Glacier	20,307	1,735,663
Blackfoot, East	Glacier	0	810
Blackleaf Canyon	Teton	0	32,922
Bloomfield	Dawson	18,986	602,893
Blue Hill	Richland	52,753	226,572
Blue Mountain	Wibaux	17,431	96,142
Border	Toole	5,934	1,477,762
Boulder	Richland	0	156,754
Bowes	Blaine	91,898	10,720,246
Box Canyon	Richland	0	245,847
Bradley	Glacier	767	268,844
Brady	Pondera	5,320	229,193
Bredette	Roosevelt	0	232,121
Bredette, North	Roosevelt	0	488,554
Breed Creek	Rosebud	192,769	2,136,986
Brorson	Richland	150,142	4,419,008
Brorson, South	Richland	49,840	2,197,189
Brush Lake	Sheridan	123,480	3,017,307
Buffalo Flats	Chouteau	0	603
Buffalo Lake	Glacier	0	936
Burget	Roosevelt	0	6,504
Burget, East	Roosevelt	13,384	310,104
Burns Creek	Dawson, Richland	920	260,204
Burns Creek, South	Dawson	0	79,958
Butchers Creek	Carbon	0	579
Bynum	Teton	0	5,971
Cabaret Coulee	Daniels	1,660	443,205
Cabin Creek	Fallon	1,222,955	102,237,047
Cadmus	Glacier	0	1,173
Canadian Coulee	Hill	0	2,145
Canal	Richland	27,431	1,292,595
Cannonball	Fallon	0	74,779
Carlyle	Wibaux	649	330,289

FIELD	COUNTY	1997 BARRELS	CUMULATIVE BARRELS
Cat Creek	Petroleum, Garfield	13,142	23,899,160
Cattails	Richland	53,581	882,024
Cattails, South	Richland	13,670	172,970
Charlie Creek	Richland	26,027	844,162
Charlie Creek, East	Richland	31,608	890,477
Charlie Creek, North	Richland	0	43,894
Chelsea Creek	Roosevelt	3,588	126,580
Clark's Fork	Carbon	571	94,755
Clark Fork's, North	Carbon	0	1,024,608
Clark Fork's, South	Carbon	0	80,553
Clear Lake	Sheridan	118,749	3,791,524
Clear Lake, South	Sheridan	5,293	215,148
Coal Ridge	Sheridan	0	22,937
Colored Canyon	Sheridan	47,566	941,556
Comertown	Sheridan	60,368	2,793,585
Comertown, South	Sheridan	11,777	427,172
Conrad, South	Pondera	0	159,410
Corner Pocket	Richland	0	14,483
Cottonwood	Richland	29,375	354,984
Cottonwood, East	Roosevelt	8,403	86,407
Cow Creek	McCone	0	127,813
Cow Creek, East	McCone	16,277	2,632,989
Crane	Richland	54,315	2,671,581
Crocker Springs, East	Pondera	0	3,464
Crooked Creek	Yellowstone	0	27,395
Culbertson	Roosevelt	0	175,652
Cupton	Fallon	46,373	2,669,100
Curllew	Sheridan	0	5,468
Cut Bank	Glacier, Toole	469,827	167,118,961
Dagmar	Sheridan	13,112	655,114
Dagmar, North	Sheridan	0	55,342
Deadman's Coulee	Roosevelt	0	264,528
Dean Dome	Stillwater	0	92,597
Deer Creek	Dawson	90,939	2,556,613
Delphia	Musselshell	2,519	354,923
Den	Daniels	13,296	41,054
Devil's Basin	Musselshell	534	129,467
Devil's Pocket	Golden Valley	0	53,796
Diamond Point	Roosevelt	25,896	1,044,159
Divide	Sheridan	98,447	2,868,272
Dooley	Sheridan	14,530	313,492
Dry Creek	Carbon	1,847	4,167,034
Dry Creek, Middle	Carbon	0	1,694
Dry Creek, West	Carbon	205	13,743
Dugout Coulee	Richland	0	66,740
Dunkirk, North	Toole	0	19
Dutch Henry	Daniels	5,149	208,115
Dutch John Coulee	Toole	7,115	244,619
Dwyer	Sheridan	81,978	9,057,349
Eagle	Richland	29,440	2,132,969
East Glacier	Glacier	405	25,163
Elk Basin	Carbon	458,349	86,848,671
Elk Basin, Northwest	Carbon	62,328	2,295,301
Enid, North	Richland	11,202	457,309
Epworth	Richland	7,277	62,419
Fairview	Richland	112,311	9,387,721
Fairview, East	Richland	17,906	467,441
Fairview, West	Richland	36,077	421,474
Fiddler Creek	Stillwater	0	2,574
Fishhook	Sheridan	17,096	1,154,284
Fitzpatrick Lake	Toole	0	257
Flat Coulee	Liberty	60,537	5,344,446
Flat Lake	Sheridan	396,315	16,903,873
Flat Lake, East	Sheridan	10,648	140,056
Flat Lake, South	Sheridan	6,526	1,261,699
Flaxville	Daniels	0	56,283

1997 STATEMENT OF CRUDE OIL PRODUCTION – ALL MONTANA FIELDS

FIELD	COUNTY	1997 BARRELS	CUMULATIVE BARRELS
Fort Gilbert	Richland	36,655	2,425,129
Four Buttes	Sheridan	0	41,067
Four Mile Creek	Richland	7,347	421,745
Four Mile Creek, West	Richland	23,136	425,971
Fox Creek	Richland	0	200,464
Fox Creek, North	Richland	0	75,398
Frannie	Carbon	0	773,613
Fred & George Creek	Toole	31,349	13,417,452
Frog Coulee	Richland	13,741	253,122
Froid, South	Roosevelt	23,457	288,532
Gage	Musselshell	1,375	655,614
Gage, Southwest	Musselshell	0	16,289
Gas City	Dawson	61,651	10,578,058
Gettysburg	Richland	0	304
Girard	Richland	26,739	570,522
Glendive	Dawson	106,834	13,786,062
Glendive, South	Dawson	0	68,936
Golden Dome	Carbon	1,227	113,120
Goose Lake	Sheridan	90,838	9,812,616
Goose Lake, East	Sheridan	0	4,522
Goose Lake, Southeast	Sheridan	0	45,527
Goose Lake, West	Sheridan	15,925	618,671
Gossett	Richland	3,003	392,100
Graben Coulee	Glacier	26,173	2,392,288
Grandview	Liberty	0	9,784
Grandview, East	Liberty	1,260	59,579
Gray Blanket	Big Horn	21,533	206,117
Green Coulee	Sheridan	4,398	212,913
Green Coulee, East	Sheridan	0	62,942
Gumbo Ridge	Rosebud	4,584	608,913
Gunsight	Roosevelt	15,718	355,143
Gypsy Basin	Pondera	1,171	507,924
Hardpan	Pondera	0	2,805
Hardscrabble Creek	Richland	8,762	145,410
Hawk Creek	Musselshell	0	13,277
Hawk Haven	Richland	3,244	32,003
Hay Creek	Richland	41,551	1,568,653
Hell Coulee	Daniels	0	53,815
Hiawatha	Musselshell	12,907	1,660,706
Hibbard	Rosebud	0	219,686
High Five	Rosebud	61,836	2,828,342
Highview	Pondera	2,580	103,589
Homestead	Roosevelt	0	303
Honker	Sheridan	0	117,078
Horse Creek	Liberty	0	13,516
Howard Coulee	Musselshell	5,964	192,521
Injun Creek	Rosebud	2,115	132,887
Intake II	Richland	15,641	931,574
Ivanhoe	Musselshell	25,250	4,644,498
Jack Creek	Carbon	0	1,310
Jim Coulee	Musselshell	20,474	4,468,020
Katy Lake	Sheridan	6,863	199,039
Katy Lake, North	Sheridan	164,181	5,486,677
Keg Coulee	Musselshell	13,192	5,762,426
Keg Coulee, North	Musselshell	2,036	445,300
Kelley	Musselshell	2,410	1,028,902
Kevin Nisku Oil, East	Toole	42,249	611,873
Kevin Sunburst	Toole	233,028	80,858,141
Kicking Horse	Toole	0	1,526
Kincheloc Ranch, West	Rosebud	13,941	814,000
Kippen, East	Toole	0	150
Krug Creek	Dawson	0	15,288
Laird Creek	Liberty	4,127	608,956
Lake Basin	Stillwater	0	473,639
Lakeside	Roosevelt	0	487
Lambert	Richland	59,928	565,915
Lambert, North	Richland	0	36,552

FIELD	COUNTY	1997 BARRELS	CUMULATIVE BARRELS
Lambert, South	Richland	57,488	86,745
Lamesteer Creek	Wibaux	0	31,845
Landslide Butte	Glacier	41,194	602,258
Lariat	Sheridan	0	3,599
Laurel	Yellowstone	0	1,017
Leary	Powder River	2,261	675,700
Ledger	Toole	0	275
Line Coulee	Daniels	0	57,789
Lisk Creek	Richland	0	1,939
Little Beaver	Fallon	226,866	14,925,596
Little Beaver, East	Fallon	107,307	6,438,566
Little Phantom	Toole	679	58,143
Little Wall Creek	Musselshell	98,563	5,046,105
Lobo	Sheridan,		
	Roosevelt	0	260,141
Lodge Grass	Big Horn	6,529	356,290
Lone Butte	Richland	12,431	802,125
Lone Rider	Roosevelt	0	5,903
Lonetree Creek	Richland	161,861	4,373,487
Lonetree Creek, West	Richland	0	33,029
Long Creek	Roosevelt	1,968	85,456
Long Creek, West	Roosevelt	19,009	812,706
Lookout Butte	Fallon	482,126	27,658,478
Lookout Butte, East	Fallon	583,558	3,218,651
Lost Creek	McCone	0	1,534
Lowell	Sheridan	6,531	300,231
Lustre	Valley	137,483	5,589,031
Lustre, North	Valley	1,899	189,693
Mackay Dome	Stillwater	2,269	79,603
Malcolm Creek	Sheridan	0	11,450
Mason Lake	Musselshell	5,746	1,001,743
Mason Lake, North	Musselshell	0	17,923
McCabe	Roosevelt	5,208	269,185
McCabe, East	Roosevelt	3,347	10,152
McCabe, South	Roosevelt	0	6,599
McCabe, West	Roosevelt	0	69,988
McCoy Creek	Sheridan	2,890	68,064
Meander	Pondera	208	7,178
Medicine Lake	Sheridan	66,412	3,827,360
Melstone	Musselshell	37,531	3,934,454
Midby	Sheridan	0	70,172
Midfork	Valley	48,293	566,965
Mineral Bench	Roosevelt	0	186,656
Miners Coulee	Toole	232	152,940
Missouri Breaks	Richland	14,639	410,232
Mon Dak, West	Richland	251,867	10,985,778
Monarch	Richland	2,257	146,667
Monarch	Fallon	195,489	6,811,466
Mosser Dome	Yellowstone	5,385	427,717
Musselshell	Musselshell	285	40,287
Mustang	Richland	60,057	874,313
Neiser Creek	Sheridan	50,650	431,859
Nielsen Coulee	Daniels	13,478	214,715
Ninemile	Toole	585	59,822
Nohly	Richland	312,302	6,895,812
Nohly, South	Richland	0	125,082
North Fork	Richland	19,188	587,114
Olje	Sheridan	0	163,449
Ollie	Fallon	5,162	260,084
Otis Creek	Richland	7,138	892,980
Otis Creek, South	Richland	5,166	287,497
Otter Creek	Sheridan	0	28,492
Outlet	Daniels	0	6,384
Outlook	Sheridan	35,992	9,008,330
Outlook, South	Sheridan	0	693,151
Outlook, Southwest	Sheridan	8,259	105,121
Outlook, West	Sheridan	13,338	932,836

1997 STATEMENT OF CRUDE OIL PRODUCTION – ALL MONTANA FIELDS

FIELD	COUNTY	1997 BARRELS	CUMULATIVE BARRELS
Oxbow	Roosevelt	14,633	502,628
Oxbow II	Roosevelt	75,286	534,313
Palomino	Roosevelt	98,783	2,556,454
Pasture	Dawson	0	2,869
Pasture Creek	Dawson	0	1,914
Pelican	Sheridan	3,144	194,638
Pennel	Fallon	1,956,377	94,640,228
Pete Creek	Toole	0	23,343
Phantom	Toole	0	43,585
Pine	Dawson, Fallon, Prairie, Wibaux	774,254	114,629,845
Pine, East	Wibaux	0	19,349
Pipeline	Sheridan	0	16,424
Plentywood	Sheridan	0	22,830
Pole Creek	Musselshell	0	169,726
Police Coulee	Toole	0	14
Pondera	Pondera, Teton	188,263	27,285,990
Pondera Coulee	Teton	3,570	100,440
Poplar, East	Roosevelt	121,882	46,454,877
Poplar, Northwest	Roosevelt	83,552	4,199,176
Poplar, Southeast	Roosevelt	0	162,546
Prairie Dell	Toole	0	1,575
Prairie Elk	McCone	0	104,226
Prichard Creek	Toole	16	164,444
Pronghorn	Sheridan	5,031	472,354
Putnam	Richland	71,334	5,420,267
Rabbit Hills	Blaine	133,860	1,935,610
Rabbit Hills, South	Blaine	21,621	37,023
Ragged Point	Musselshell	2,674	2,605,493
Ragged Point, Southwest	Musselshell	22,202	1,755,524
Rainbow	Richland	0	166,375
Rattler Butte	Rosebud	101,184	1,174,273
Rattlesnake Butte	Petroleum	14,053	630,081
Rattlesnake Coulee	Toole	0	91,024
Raymond	Sheridan	91,829	5,302,230
Raymond, North	Sheridan	798	122,971
Raymond, Northeast	Sheridan	0	120,687
Reagan	Glacier	102,930	9,600,182
Red Bank	Roosevelt	42,149	2,175,975
Red Bank, South	Roosevelt	6,431	382,608
Red Creek	Glacier	78,646	6,761,937
Red Fox	Roosevelt	0	380,137
Red Water	Richland	10,035	91,425
Red Water, East	Richland	6,803	276,607
Redstone	Sheridan	0	468,178
Refuge	Sheridan	5,947	243,720
Repeat	Carter	0	547,064
Reserve	Sheridan	63,816	1,934,292
Reserve II	Sheridan	1,816	214,733
Reserve, South	Sheridan	2,363	69,780
Richey	Dawson, McCone	0	2,030,144
Richey Area, West	McCone	0	11,062
Richey, East	Dawson	0	10,386
Richey, Southwest	McCone	0	1,903,129
Ridgelawn	Richland	167,684	7,091,722
Ridgelawn, North	Richland	17,316	216,902
RipRap Coulee	Roosevelt	24,083	784,936
River Bend	Richland	0	275,733
Rocky Point	Roosevelt	9,623	557,184
Roscoe Dome	Carbon	0	15,556
Rosebud	Rosebud	8,434	581,527
Rough Creek	Powder River	0	3,599
Royals	Dawson	6,629	349,777
Royals, South	Dawson	0	3,082
Rudyard	Hill	497	22,926
Runaway	Teton	0	4,532

FIELD	COUNTY	1997 BARRELS	CUMULATIVE BARRELS
Rush Mountain	Sheridan	44,605	728,495
Salt Lake	Sheridan	33,684	1,048,319
Salt Lake, West	Sheridan	22,389	173,965
Sand Creek	Dawson	10,714	2,376,452
Saturn	Daniels	0	32,773
Scobey	Daniels	0	3,916
Second Creek	Richland	27,958	1,390,154
Second Guess	Teton	1,721	20,059
Shepherd	Musselshell	0	76,942
Shotgun Creek	Roosevelt	66,334	603,481
Shotgun Creek, North	Roosevelt	0	89,673
Sidney	Richland	38,996	3,455,346
Sidney, East	Richland	3,091	590,723
Singletree	Roosevelt	13	373,992
Sioux Pass	Richland	153,413	4,028,667
Sioux Pass, East	Richland	0	89,267
Sioux Pass, Middle	Richland	38,205	1,693,427
Sioux Pass, North	Richland	106,419	4,655,354
Sioux Pass, South	Richland	5,031	299,717
Smoke Creek	Daniels	0	100,305
Snake Creek	Roosevelt	3,201	3,201
Snoose Coulee	Liberty	478	6,861
Snowden	Roosevelt	0	1,938
Snyder	Big Horn	713	476,486
Soap Creek	Big Horn	36,138	2,914,920
Soap Creek, East	Big Horn	6,624	199,599
South Fork	Richland	16,032	1,097,423
Spring Lake	Richland	57,835	1,271,663
Spring Lake, South	Richland	0	110,660
Spring Lake, West	Richland	3,472	68,083
Stampede	Richland	11,411	386,268
Stampede, North	Richland	0	4,566
Stensvad	Musselshell, Rosebud	16,792	10,267,334
Studhorse	Garfield	2,891	201,896
Sumatra	Rosebud	175,481	45,641,006
Sundown	Richland	28,573	32,443
Sunnyhill	Sheridan	4,265	269,603
Sunnyhill, West	Sheridan	6,061	189,206
Target	Roosevelt	33,747	930,517
Thirty Mile	Blaine	0	11,893
Three Buttes	Richland	27,614	519,163
Tinder Box	Musselshell	1,884	17,706
Tippy Buttes	Musselshell	0	126,246
Tule Creek	Roosevelt	34,935	8,384,252
Tule Creek, East	Roosevelt	2,737	2,048,831
Tule Creek, South	Roosevelt	7,833	976,621
Two Medicine Creek	Glacier	0	10,249
Two Waters	Richland	2,585	341,193
Utopia	Liberty	15,962	772,860
Vaux	Richland	147,528	5,011,552
Vida	McCone	0	264,988
Viking	Sheridan	0	160
Volt	Roosevelt	71,967	3,680,976
Wagon Box	Musselshell	0	32,379
Wagon Trail	Richland	0	43,321
Wakea	Sheridan	92,226	2,718,078
Waterhole Creek	Fallon	44,980	44,980
Weed Creek	Yellowstone	1,612	617,903
Weldon	McCone	0	7,050,531
West Butte	Toole	4,017	318,164
West Fork	Roosevelt	0	6,671
Weygand	Blaine	10,057	344,038
Whitlash	Liberty, Toole	26,524	5,546,547
Whitlash, West	Toole	312	132,526
Whitlash, West	Wibaux	0	23,580
Willow Creek, North	Musselshell	4,901	404,555

1997 STATEMENT OF CRUDE OIL PRODUCTION – ALL MONTANA FIELDS

FIELD	COUNTY	1997 BARRELS	CUMULATIVE BARRELS
Willow Ridge	Toole	1,522	59,591
Willow Ridge, South	Toole	0	3,267
Wills Creek, South	Fallon	144,390	1,462,677
Windmill	Richland	0	31,943
Windy Ridge	Fallon	8,511	8,511
Winnett Junction	Musselshell	16,961	1,043,777
Wolf Creek	Roosevelt	0	1,979
Wolf Springs	Yellowstone	15,074	4,833,143
Wolf Springs, South	Yellowstone	6,678	892,587
Woman's Pocket	Golden Valley	0	3,526
Woodrow	Dawson	12,710	1,290,438
Wrangler	Sheridan	23,253	701,943
Wrangler, North	Sheridan	3,267	143,742
Wright Creek	Powder River	6,235	351,442
Yates	Wibaux	0	70,861
Yellowstone	Dawson	0	39,405
Wildcat	Carbon	0	6,368

FIELD	COUNTY	1997 BARRELS	CUMULATIVE BARRELS
Wildcat	Daniels	0	3,779
Wildcat	Dawson	0	1,489
Wildcat	Fallon	0	11,647
Wildcat	Garfield	0	468
Wildcat	Glacier	0	48,412
Wildcat	Hill	0	405
Wildcat	Liberty	0	3,254
Wildcat	McCone	0	12,575
Wildcat	Musselshell	0	925
Wildcat	Powder River	0	27,445
Wildcat	Richland	3,404	343,260
Wildcat	Roosevelt	0	87,044
Wildcat	Sheridan	0	19,076
Wildcat	Stillwater	0	11,283
Wildcat	Teton	0	9,324
Wildcat	Toole	0	36,379
Wildcat	Valley	0	447
Wildcat	Wibaux	0	8,388
Statewide Totals		16,069,023	1,436,508,146

1997 VALUATION REPORT

OIL MARKETED:

	<u>OIL (BBLs)</u>	<u>VALUE</u>	<u>AVG (\$/BBLs)</u>
Horizontal (0-18 Mths)	1,025,332	\$17,248,069	\$16.82
Horizontal (18-24 Mths)	333,861	5,159,395	15.45
Horizontal (Regular)	346,753	5,502,326	15.87
New Vertical (0-12 Mths)	1,235,893	22,741,785	18.40
New Vertical 12-24 Mths)	374,739	6,860,618	18.31
Secondary (Post 85 Incr)	62,789	1,107,305	17.64
Tertiary (Post 85 Incr)	9,257	118,963	12.85
Post 85 (Regular)	2,698,128	46,628,931	17.28
Post 85 (Stripper)	332,848	5,386,650	16.18
Secondary (Pre 85 Incr)	209,540	3,698,381	17.65
Pre 85 (Regular)	8,177,903	140,846,302	17.22
Pre 85 (Stripper)	1,425,908	24,310,323	17.05
TOTAL	16,232,951	\$279,609,048	\$17.22

Estimated cumulative value for produced oil (12/31/97) is \$12,699,795,733.

GAS MARKETED:

	<u>GAS (MCF)</u>	<u>VALUE</u>	<u>AVG. (\$/MCF)</u>
New Vertical (0-12 Mths)	3,354,250	\$5,632,035	\$1.68
New Vertical (12-24 Mths)	2,289,698	3,292,770	1.44
Post 85 (Regular)	11,947,823	16,347,397	1.37
Post 85 (Stripper)	6,498,905	12,694,051	1.95
Pre 85 (Regular)	11,250,868	15,560,253	1.38
Pre 85 (Stripper)	15,067,235	26,789,550	1.78
Total	50,408,779	\$80,316,056	\$1.59

Information provided by Montana Department of Revenue.

1997 WELL COMPLETIONS

OPERATOR	LOCATION	WELL NAME	STATUS CODE	API #	FIELD	FORMATION	COMPLETION DATE	TOTAL DEPTH	IP OIL	IP GAS
003 Big Horn										
Redstone Gas Partners, LLC	NENW 11 9S 39E	Federal 1	2	21211	CX	Fort Union	04/23/97	522		
Redstone Gas Partners, LLC	SENE 15 9S 39E	Federal 2	2	21212	CX	Fort Union	04/21/97	353		
Redstone Gas Partners, LLC	NESE 23 9S 39E	Federal 3	2	21213	CX	Fort Union	04/03/97	351		
Redstone Gas Partners, LLC	SESW 27 9S 39E	Federal 4	2	21214	CX	Fort Union	04/01/97	580		
Redstone Gas Partners, LLC	NWNE 1 9S 39E	Federal 31EW-199	2	21220	CX	Fort Union	09/24/97	763		
Redstone Gas Partners, LLC	NWNE 25 9S 39E	Consol 31EW-2599	2	21221	CX	Fort Union	10/13/97	656		
Redstone Gas Partners, LLC	NWNE 24 9S 39E	Consol 31EW-2499	2	21222	CX	Fort Union	09/08/97	543		
Redstone Gas Partners, LLC	SENW 30 9S 40E	Consol 22EW-3090	2	21223	CX	Fort Union	08/28/97	590		
Redstone Gas Partners, LLC	NENE 31 9S 40E	Consol 41W-3190	3	21224	CX	Fort Union	09/11/97	700		
Redstone Gas Partners, LLC	SWNE 31 9S 40E	Willey 32EC-3190	2	21229	CX	Fort Union	10/20/97	586		
Redstone Gas Partners, LLC	SESE 21 9S 39E	Jensen 44EC-2199	3	21240	CX		10/24/97	874		
005 Blaine										
Behm, L.E., Inc.	NESW 27 31N 20E	Tilleman 1-27	6	22699	Wildcat		03/22/97	3770		
Brown, J. Burns Operating Co.	NWSW 26 35N 17E	Federal 26-35-17	5	22706	Wildcat	Eagle	10/02/97	1600		
Brown, J. Burns Operating Co.	NESW 2 33N 18E	Bronson 2-33-18	5	22707	Wildcat	Eagle	05/02/97	1550		
Brown, J. Burns Operating Co.	NESE 34 34N 18E	Brod 34-34-18	6	22728	Wildcat		10/23/97	1750		
Summit Resources, Inc.	SWNW 36 34N 19E	Rabbit 5-36	6	22739	Wildcat		12/24/97	4289		
UMC Petroleum Corp. (Ensource)	SWSE 2 30N 18E	S-B Ranch 2-12	2	22700	Tiger Ridge	Eagle	07/28/97	1500	355	
UMC Petroleum Corp. (Ensource)	SWSE 2 30N 18E	Hofeldt 2-15	2	22701	Tiger Ridge	Eagle	06/18/97	1400	267	
UMC Petroleum Corp. (Ensource)	NENE 10 30N 18E	Hofeldt 10-1	2	22702	Tiger Ridge	Eagle	05/31/97	1500	692	
UMC Petroleum Corp. (Ensource)	NENW 11 30N 18E	Hofeldt 11-2	2	22703	Tiger Ridge	Eagle	07/31/97	1300	33	
UMC Petroleum Corp. (Ensource)	SWNE 18 30N 19E	Hofeldt 18-7	3	22704	Tiger Ridge		05/07/97	1300		
UMC Petroleum Corp. (Ensource)	SENE 11 30N 17E	Blackwood 11-8	2	22708	Tiger Ridge	Eagle	08/01/97	1700		
UMC Petroleum Corp. (Ensource)	NWSE 3 30N 17E	Blackwood 3-10	2	22709	Tiger Ridge	Eagle	06/20/97	1800	1150	
UMC Petroleum Corp. (Ensource)	SWNW 10 30N 18E	US 10-5	2	22710	Tiger Ridge	Eagle	06/19/97	1500	11	
UMC Petroleum Corp. (Ensource)	NWNW 26 31N 18E	Paulson 26-4	2	22711	Tiger Ridge	Eagle	07/31/97	1800	29	
UMC Petroleum Corp. (Ensource)	SWSE 26 31N 18E	SB Ranch 26-15	2	22712	Tiger Ridge	Eagle	06/19/97	1800	785	
UMC Petroleum Corp. (Ensource)	SESE 30 31N 18E	Paulsen 30-16	2	22713	Tiger Ridge	Eagle	07/07/97	1300	800	
UMC Petroleum Corp. (Ensource)	NENE 35 31N 18E	Blackwood 35-1	3	22714	Tiger Ridge		05/15/97	1800		
UMC Petroleum Corp. (Ensource)	NWSE 36 32N 17E	State 36-10	2	22715	Tiger Ridge	Eagle	06/23/97	1500	224	
UMC Petroleum Corp. (Ensource)	NENW 27 32N 18E	Vogt 27-3	2	22721	Tiger Ridge	Eagle	08/21/97	1600	107	
UMC Petroleum Corp. (Ensource)	SWNW 13 31N 18E	Benson 13-5	2	22723	Tiger Ridge	Eagle	08/07/97	1600	792	
UMC Petroleum Corp. (Ensource)	NENE 28 32N 18E	Hiller 28-1	3	22724	Tiger Ridge		08/02/97	1578		
UMC Petroleum Corp. (Ensource)	SENE 34 32N 18E	Finch 34-8	2	22725	Tiger Ridge	Eagle	08/21/97	1700	75	
UMC Petroleum Corp. (Ensource)	NWSE 2 31N 18E	Finch 2-10B	2	22726	Tiger Ridge	Eagle	08/21/97	1500	13	
UMC Petroleum Corp. (Ensource)	NENE 24 26N 18E	US 24-1	5	22717	Wildcat	Eagle	10/06/97	2100	589	
UMC Petroleum Corp. (Ensource)	SWNW 28 26N 18E	US 28-5	6	22718	Wildcat		08/03/97	2040		
UMC Petroleum Corp. (Ensource)	SWSW 35 26N 19E	US 35-13	6	22720	Wildcat		07/30/97	1850		
UMC Petroleum Corp. (Ensource)	NENW 11 26N 17E	Jones 11-3	6	22722	Wildcat		08/18/97	2150		
UMC Petroleum Corp. (Ensource)	SESE 7 26N 18E	Biebinger 7-16	6	22727	Wildcat		08/07/97	2250		
009 Carbon										
Eclipse Energy, Inc.	SESE 23 6S 23E	E Bridger 16-23	6	21254	Wildcat		08/10/96	3086		
Great Northern Drilling Co.	NWSE 11 5S 21E	DeVries 31-11	6	21253	Wildcat		08/15/97	2490	0	0
KGH Operation Co.	SWSE 3 7S 21E	Robinson 3-15	3	21255	Dry Creek		10/29/97	6833		
011 Carter										
Sands Oil Company	NWNW 9 3S 56E	Keith Ranch Co 1-9	5	21340	Wildcat	Shannon	11/24/96	1600		21
015 Chouteau										
Western Interior Energy, Inc.	NESE 32 24N 12E	Danbrook 1-32	6	21673	Wildcat		09/02/96	4140		
Western Interior Energy, Inc.	SESW 28 24N 12E	Danbrook 1-28	6	21674	Wildcat		05/15/97	1683		
019 Daniels										
Union Pacific Resources Co.	NENE 14 34N 45E	#2 MT ST 1-4	1	21131	Dutch Henry		09/21/97	7643	65	
Union Pacific Resources Co.	SENW 17 34N 46E	Knob Hill 2-2-17H	4**	21132	Hell Coulee	McGowan	11/07/97	7845	66	
021 Dawson										
GCRL Energy Ltd.	SESE 34 16N 52E	Jonas 1	6	21138	Wildcat		08/31/97	7995		
Samedan Oil Corporation	NENE 26 17N 53E	Ekland 41-26H	1	21128	Deer Creek	Charles A	04/06/97	12350	413	
Samedan Oil Corporation	SWSW 14 17N 53E	Cartmell 14-14H	8	21129	Deer Creek		04/12/97	6676		
Samedan Oil Corporation	SWSW 14 17N 53E	Cartmell 14A-14H	1	21131	Deer Creek	Charles A	06/30/97	11935	211	
Samedan Oil Corporation	SWSE 15 17N 53E	Downs 43-15H	1	21135	Deer Creek	Charles C	09/09/97	12000	250	
Samedan Oil Corporation	SWSW 24 17N 53E	Ekland 14-24H	7	21133	Wildcat	Dakota	10/10/97	12244		
Winn Exploration Co., Inc.	NESW 19 17N 51E	Hansen 1 HZ ReEntry	6	21127	Wildcat		02/03/97	12519		
025 Fallon										
Bowers Oil & Gas, Inc.	SWSE 34 5N 60E	Johnson 1-34	5	21696	Wildcat	Eagle	09/25/97	1800		60
Burlington Resources Oil & Gas	SWSW 33 7N 61E	ELOB 14-33HR ReEntry	4	21541	Lookout Butte East	Red River	09/20/97	15070	268	
Burlington Resources Oil & Gas	SWNW 7 6N 61E	ELOB 12-7NH	1	21642	Lookout Butte East	Red River	05/02/97	14283	164	
Burlington Resources Oil & Gas	SWNW 7 6N 61E	ELOB 12-7SH	1	21643	Lookout Butte East	Red River	05/02/97	14179	245	
Burlington Resources Oil & Gas	NENE 36 7N 60E	ELOB 41-36NH	1	21645	Lookout Butte East	Red River	08/15/97	5219	157	
Burlington Resources Oil & Gas	SWSW 15 6N 61E	BR Husted 14-15H	1	21656	Lookout Butte East	Red River	07/11/97	15008	325	
Burlington Resources Oil & Gas	NENW 30 7N 61E	ELOB 21-30NH	1	21661	Lookout Butte East	Red River	08/02/97	15036	191	
Burlington Resources Oil & Gas	NENW 30 7N 61E	ELOB 21-30SH	1	21662	Lookout Butte East	Red River	07/30/97	15493	374	
Burlington Resources Oil & Gas	NENE 30 7N 61E	ELOB 41-30NH	1	21694	Lookout Butte East	Red River	11/03/97	15779	405	101
Burlington Resources Oil & Gas	SWSW 7 6N 61E	ELOB 14-7SH	1	21695	Lookout Butte East	Red River	11/25/97	15101	255	
Burlington Resources Oil & Gas	SWNW 5 6N 61E	ELOB 44-32SH	1	21640	Lookout Butte East (waterflood)	Red River	02/26/97	14748	110	
Burlington Resources Oil & Gas	SESE 32 7N 61E	ELOB 44-32NH	1	21641	Lookout Butte East (waterflood)	Red River	03/01/97	15514	149	

1997 WELL COMPLETIONS (CONTINUED)

OPERATOR	LOCATION	WELL NAME	STATUS CODE	API #	FIELD	FORMATION	COMPLETION DATE	TOTAL DEPTH	IP OIL	IP GAS
Burlington Resources Oil & Gas	SWSW 28 6N 61E	Waterhole Crk 14-28H	1	21680	Waterhole Creek	Red River	11/07/97	14016	197	
Burlington Resources Oil & Gas	NENE 28 8N 61E	Federal Mont 41-28H	1	21675	Windy Ridge	Red River	09/09/97	14848	56	0
Continental Resources Inc	SWSW 10 5N 61E	Little Beaver 14-10H	1	21644	Little Beaver, East	Red River	05/31/97	13580	155	46
Continental Resources Inc	NENE 21 5N 61E	LBE 41-21H	1	21693	Little Beaver, East	Red River	10/28/97	13090	145	44
Shell Oil Company	SESW 4 7N 60E	Pennel 24-04B Rentry	1	05250	Pennel	Red River	03/04/97	11063	33	6
Shell Western E & P Inc.	NENE 33 10N 58E	Cabin Crk 41-33 ReEn	1	05472	Cabin Creek	Stoney Mtn	03/24/97	9951	101	38
Shell Western E & P Inc.	SWNE 36 11N 57E	Unit 32-36 ReEntry	1	05600	Cabin Creek	Red River	06/17/97	11747	33	12
Shell Western E & P Inc.	NENW 20 10N 58E	Unit 21X-20AH ReEntry	1	21161	Cabin Creek	Red River	08/17/97	10266	40	2
Shell Western E & P Inc.	NWNW 19 7N 60E	Unit 11-19BH	1	21678	Lookout Butte	Red River	09/15/97	10242	213	97
Shell Western E & P Inc.	SWSW 30 9N 59E	Monarch 14-30H	1	21632	Monarch	Red River	12/12/96	13487	197	50
Shell Western E & P Inc.	SENE 28 7N 60E	Unit 42-28BH ReEntry	1	05187	Pennel	Red River	07/06/97	10462	72	5
Shell Western E & P Inc.	SENE 9 8N 59E	Unit 42-09H ReEntry	1	05372	Pennel	Red River	07/23/97	11518	444	0
Shell Western E & P Inc.	NWSW 30 11N 58E	Federal 13-30EH	1	21672	Pine	Red River	08/06/97	13025	157	55
Williston Basin Interstate	NENW 32 5N 61E	Federal 494	2	21620	Cedar Creek	Eagle	01/03/97	1850		243
Williston Basin Interstate	NESE 10 9N 58E	Fee 483	2	21624	Cedar Creek	Eagle	01/04/97	1950		211
Williston Basin Interstate	SWNW 34 10N 58E	Fee 2005	2	21636	Cedar Creek	Eagle	01/08/97	1950		304
Williston Basin Interstate	SWNW 12 5N 60E	Federal 2002	2	21637	Cedar Creek	Eagle	10/30/97	1850		1060
Williston Basin Interstate	SWSE 12 5N 60E	Federal 2003	2	21638	Cedar Creek	Eagle	10/30/97	1850		1175
Williston Basin Interstate	NWNW 36 6N 60E	State 491	2	21639	Cedar Creek	Eagle	01/06/97	1850		369
Williston Basin Interstate	SWSW 19 7N 60E	Fallon 2011	2	21653	Cedar Creek	Eagle	10/15/97	1900		740
Williston Basin Interstate	SENE 28 7N 60E	Fee 2013	2	21654	Cedar Creek	Eagle	10/16/97	1950		250
Williston Basin Interstate	SWNE 29 7N 60E	Fee 2012	2	21655	Cedar Creek	Eagle	10/16/97	1800		1240
Williston Basin Interstate	SWNW 32 7N 60E	Fee 2014	2	21657	Cedar Creek	Eagle	10/15/97	1895		1550
Williston Basin Interstate	SWNE 3 6N 60E	Fee 2017	2	21658	Cedar Creek	Eagle	10/17/97	1950		160
Williston Basin Interstate	SESE 32 7N 60E	Fee 2016	2	21659	Cedar Creek	Eagle	10/15/97	1840		920
Williston Basin Interstate	SENE 33 7N 60E	Fee 2015	2	21660	Cedar Creek	Eagle	10/16/97	1820		550
Williston Basin Interstate	NWSW 3 6N 60E	Fee 2037	2	21663	Cedar Creek	Eagle	10/17/97	1980		485
Williston Basin Interstate	SESW 9 6N 60E	Fee 2019	2	21664	Cedar Creek	Eagle	10/28/97	1950		1130
Williston Basin Interstate	NWNE 9 6N 60E	Fee 2038	2	21665	Cedar Creek	Eagle	10/17/97	1900		840
Williston Basin Interstate	NENE 15 6N 60E	Fee 2041	2	21666	Cedar Creek	Eagle	10/29/97	1950		750
Williston Basin Interstate	SESW 15 6N 60E	Fee 2022	2	21667	Cedar Creek	Eagle	10/29/97	1950		1020
Williston Basin Interstate	NENW 16 6N 60E	State 2008	2	21668	Cedar Creek	Eagle	10/28/97	950		350
Williston Basin Interstate	NWNE 14 6N 60E	Federal 2021	2	21669	Cedar Creek	Eagle	10/28/97	1950		148
Williston Basin Interstate	SWSW 14 6N 60E	Federal 2023	2	21670	Cedar Creek	Eagle	10/29/97	1950		900
Williston Basin Interstate	NWNE 22 6N 60E	Federal 2024	2	21671	Cedar Creek	Eagle	10/29/97	1900		1450
Williston Basin Interstate	SENE 25 6N 60E	Fee 2025	2	21673	Cedar Creek	Eagle	10/30/97	1804		350
Williston Basin Interstate	SWNE 4 8N 59E	Fee 2010	2	21674	Cedar Creek	Eagle	10/27/97	1900		1600
035 Glacier										
K2 America Corporation	SWSW 9 32N 5W	Texaco Fee F109	1	21941	Cut Bank	Cut Bank	05/05/96	3065	5	
K2 America Corporation	SENE 17 32N 5W	Hardwick B617	1	21959	Cut Bank	Cut Bank	07/31/96	3199	10	
North American Resources Co.	NENE 34 37N 7W	Tribal 194 41-34	1	21968	Reagan	Madison	12/18/97	5984		
Summit Resources, Inc.	NWSW 12 37N 5W	Red Creek 12A-12	1	21961	Red Creek	Madison	02/25/97	2870	27	
Summit Resources, Inc.	SENW 1 37N 5W	Red Creek 6B-1	1	21962	Red Creek	Madison	03/12/97	2902	75	
Summit Resources, Inc.	NESW 12 37N 5W	Red Creek 11C-12	1	21963	Red Creek	Madison	03/19/97	2815	2	
Summit Resources, Inc.	NWSE 1 37N 5W	Red Creek 10C-1	1	21964	Red Creek	Madison	06/24/97	2890	25	
041 Hill										
Brown, J. Burns Operating Co.	NENW 22 33N 14E	Morse 22-33-14	5	22563	Wildcat	Eagle	09/26/97	1550		
Brown, J. Burns Operating Co.	SENE 16 33N 14E	State 16-33-14	6	22575	Wildcat		06/06/97	4472		
Brown, J. Burns Operating Co.	SWNW 35 36N 16E	Willow Crk 35-36-16	6	22576	Wildcat		10/07/97	1650		
Brown, J. Burns Operating Co.	NENW 16 33N 14E	State 16-33-14B	5	22603	Wildcat	Eagle	09/30/97	1500		
UMC Petroleum Corp. (Ensource)	SENE 28 30N 15E	Boyce 28-6	3	22573	Tiger Ridge		06/28/97	2000		
UMC Petroleum Corp. (Ensource)	NESE 22 31N 17E	Olson 22-9	2	22574	Tiger Ridge	Eagle	06/23/97	1700		345
UMC Petroleum Corp. (Ensource)	NENW 27 30N 15E	Boyce 27-3B	2	22577	Tiger Ridge	Eagle	07/17/97	2000		435
UMC Petroleum Corp. (Ensource)	NWSW 27 30N 15E	Boyce 27-12	3	22578	Tiger Ridge		06/24/97	2000		
UMC Petroleum Corp. (Ensource)	NWNE 7 30N 15E	Rocky Boy 7-1	3	22579	Tiger Ridge		07/19/97	1405		
UMC Petroleum Corp. (Ensource)	NWSE 20 30N 15E	Rocky Boy 20-10	2	22580	Tiger Ridge	Eagle	07/16/97	1800		492
UMC Petroleum Corp. (Ensource)	SWNW 21 30N 15E	Rocky Boy 21-5	2	22581	Tiger Ridge	Eagle	07/15/97	1800		323
UMC Petroleum Corp. (Ensource)	NWSE 21 30N 15E	Rocky Boy 21-12	2	22582	Tiger Ridge	Eagle	07/16/97	1600		218
UMC Petroleum Corp. (Ensource)	NWNW 22 30N 15E	Rocky Boy 22-4B	2	22583	Tiger Ridge	Eagle	07/29/97	1700		2100
UMC Petroleum Corp. (Ensource)	NWSW 5 30N 15E	Rocky Boy 5-12	2	22584	Tiger Ridge	Eagle	08/04/97	1303		810
UMC Petroleum Corp. (Ensource)	SWNE 6 30N 16E	US 6-7	3	22585	Tiger Ridge		07/12/97	1515		
UMC Petroleum Corp. (Ensource)	SWNW 1 30N 15E	Solomon 1-5	2	22586	Tiger Ridge	Eagle	08/05/97	1600		47
UMC Petroleum Corp. (Ensource)	SENE 2 30N 15E	Solomon 2-8	3	22587	Tiger Ridge		07/14/97	1600		
UMC Petroleum Corp. (Ensource)	NESW 4 30N 15E	Herron 4-11	2	22588	Tiger Ridge	Eagle	08/05/97	1400		
UMC Petroleum Corp. (Ensource)	SENE 13 31N 14E	Waritz 13-8	3	22589	Tiger Ridge		07/21/97	1150		
UMC Petroleum Corp. (Ensource)	SWNE 2 31N 15E	Majerus 2-7B	2	22590	Tiger Ridge	Eagle	07/07/97	1400		85
UMC Petroleum Corp. (Ensource)	SWSW 24 31N 15E	Hegle 24-13	2	22591	Tiger Ridge	Eagle	10/03/97	1500		290
UMC Petroleum Corp. (Ensource)	SESE 24 31N 15E	Hegle 24-16	2	22592	Tiger Ridge	Eagle	07/07/97	1500		31
UMC Petroleum Corp. (Ensource)	SWSE 19 31N 16E	Armstrong 19-15	2	22593	Tiger Ridge	Eagle	07/14/97	1600		320
UMC Petroleum Corp. (Ensource)	NWNE 29 31N 16E	State 29-2	3	22594	Tiger Ridge		06/20/97	1569		
UMC Petroleum Corp. (Ensource)	SWSW 20 30N 15E	Rocky Boy 20-13	2	22595	Tiger Ridge	Eagle	08/06/97	1800		2450
UMC Petroleum Corp. (Ensource)	NWNE 34 32N 17E	O'Neil 34-2	2	22596	Tiger Ridge	Eagle	08/07/97	1600		1950
UMC Petroleum Corp. (Ensource)	NWSW 27 32N 14E	Greeneich 27-12	2	22598	Tiger Ridge	Eagle	08/06/97	1250		301
UMC Petroleum Corp. (Ensource)	LT 5 4 31N 14E	Daniel 4-1	3	22599	Tiger Ridge		07/17/97	1200		
UMC Petroleum Corp. (Ensource)	SWSE 33 32N 14E	Daniel 33-15	2	22600	Tiger Ridge	Eagle	07/30/97	1200		705
UMC Petroleum Corp. (Ensource)	NWNE 29 31N 16E	State 29-2X	2	22601	Tiger Ridge	Eagle	07/14/97	1400		480
UMC Petroleum Corp. (Ensource)	SWNE 6 30N 16E	US 6-7X	2	22602	Tiger Ridge	Eagle	08/08/97	1500		300
051 Liberty										
Branch Oil and Gas	SENE 18 35N 4E	Oswood 6-18	2	21698	Haystack Butte, West	Bow Island	10/24/97	2200		400
055 McCone										
Great Plains Operating LLC	SWSW 10 22N 47E	Peisker 14-10 SWD	7	21052	Cow Creek, East	Muddy	10/14/97	4775		
Vision Exploration Production	NENE 16 22N 47E	Hintz 41-16 ReEntry	3	21051	Cow Creek, East		09/27/97	6735		
Vision Exploration Production	SESE 7 21N 47E	BR 1-7	6	21190	Wildcat		09/26/97	9800		

1997 WELL COMPLETIONS (CONTINUED)

OPERATOR	LOCATION	WELL NAME	STATUS CODE	API #	FIELD	FORMATION	COMPLETION DATE	TOTAL DEPTH	IP OIL	IP GAS
065 Musselshell										
Black Hawk Resources, LLC	Lt 5 1 8N 24E	VA Hall 12X-1 ReEntry	7	21453	Mason Lake	Cat Creek 1	01/22/97	4428		
D L Incorporated	NWNE 8 11N 24E	Cody 8-2	3	21834	Devils Basin		04/21/97	1059		
FX Drilling Co., Inc.	NWSW 30 11N 25E	Murray 12-30	3	21836	Devils Basin		09/04/97	5781		
FX Drilling Co., Inc.	NWSW 30 11N 25E	Murray 12-30R	3	21838	Devils Basin		11/05/97	2581		
JN Exploration & Production	NWNE 22 7N 29E	Dyer Land 31-22	6	21837	Wildcat		11/30/97	6982		
Joaquin Oil & Gas Co., Inc.	SWSW 10 10N 25E	Thomas 10-21H ReEntry	4	21593	Wildcat	Heath	06/11/96	2665	2	
Summit Resources, Inc.	NWNE 31 11N 27E	BR 2-31	6	21835	Wildcat		05/31/97	3965		
071 Phillips										
Nor-Am Exploration Corporation	NWNW 17 36N 32E	Murdock 1762-1A-21	2	22422	Loring, East	Bdn/Grn/Phil	11/01/97	1900		26
North American Resources Co.	LT 1 30 37N 31E	Federal 3071-3-11	2	22332	Loring, East	Bdn/Grn/Phil	10/20/97	1970		92
North American Resources Co.	SESE 30 37N 31E	Federal 3071-4-44	2	22333	Loring, East	Bdn/Grn/Phil	10/20/97	1963		41
North American Resources Co.	NESE 32 37N 31E	Federal 3271-4-43	2	22334	Loring, East	Bdn/Grn/Phil	11/01/97	1906		145
North American Resources Co.	SESE 4 35N 32E	Federal 0452-1-44	2	22346	Loring, East	Bdn/Grn/Phil	11/03/97	2030		6
North American Resources Co.	NWSW 4 35N 32E	Federal 0452-2-13	2	22347	Loring, East	Bdn/Grn/Phil	11/03/97	1893		7
North American Resources Co.	SWSE 6 35N 32E	Federal 0652-2-34	2	22348	Loring, East	Bdn/Grn/Phil	11/03/97	1772		6
North American Resources Co.	LT 4 6 35N 32E	Federal 0652-3-11	2	22349	Loring, East	Bdn/Grn	11/03/97	1606		26
North American Resources Co.	SWNW 9 35N 32E	Federal 0952-4-12	2	22350	Loring, East	Bdn/Grn/Phil	11/03/97	2043		137
North American Resources Co.	NWSW 13 36N 31E	Federal 1361-3-13	2	22351	Loring, East	Bdn/Grn	09/11/97	1686		87
North American Resources Co.	NWSW 13 36N 31E	Federal 1361-4-34	2	22352	Loring, East	Bdn/Grn/Phil	10/30/97	1750		100
North American Resources Co.	BEBE 8 36N 32E	Federal 0862-2-41	2	22353	Loring, East	Bdn/Grn	11/03/97	1991		120
North American Resources Co.	NESW 8 36N 32E	Federal 0862-3-23	2	22354	Loring, East	Bdn/Grn/Phil	11/02/97	1933		150
North American Resources Co.	NESE 8 36N 32E	Federal 0862-4-43	2	22355	Loring, East	Bdn/Grn/Phil	11/02/97	1944		137
North American Resources Co.	NESW 17 36N 32E	Federal 1762-3-23	2	22356	Loring, East	Bdn/Grn/Phil	11/02/97	1900		112
North American Resources Co.	NESE 17 36N 32E	Federal 1762-4-23	2	22357	Loring, East	Bdn/Grn/Phil	11/02/97	1820		37
North American Resources Co.	SENE 19 36N 32E	Federal 1962-3-42	2	22358	Loring, East	Bdn/Grn/Phil	11/01/97	1850		80
North American Resources Co.	SESE 19 36N 32E	Federal 1962-4-44	2	22359	Loring, East	Bdn/Grn/Phil	11/01/97	1780		209
Samedan Oil Corporation	NWNW 23 31N 33E	Fee 2313-3	2	22331	Ashfield	Bdn/Grn/Phil	08/21/97	1400		93
Samedan Oil Corporation	SESE 25 31N 33E	Federal 2513-3	2	22369	Ashfield	Phillips	08/15/97	1462		318
Samedan Oil Corporation	SENE 26 31N 33E	Federal 2613-2	2	22370	Ashfield	Bdn/Phil	08/04/97	1400		84
Samedan Oil Corporation	SESE 34 31N 32E	Fee 3412-2	2	22402	Ashfield	Phillips	11/22/97	1237		345
Samedan Oil Corporation	LT 2 2 30N 32E	Federal 0202-3	2	22403	Ashfield	Phillips	11/23/97	1265		281
Samedan Oil Corporation	SESE 28 31N 32E	Federal 2812-2	2	22404	Ashfield	Phillips	11/20/97	1290		292
Samedan Oil Corporation	SENE 20 31N 32E	Federal 2012-2	2	22405	Ashfield	Phillips	11/17/97	1339		361
Samedan Oil Corporation	SWSW 22 31N 32E	Federal 2212-4	2	22406	Ashfield	Phillips	11/19/97	1280		306
Samedan Oil Corporation	SESE 6 31N 32E	Federal 612-2	2	22412	Ashfield	Grn/Phil	11/11/97	1350		101
Samedan Oil Corporation	NWSW 8 31N 32E	Fee 812-4	2	22413	Ashfield	Grn/Phil	11/14/97	1357		366
Samedan Oil Corporation	SESE 17 31N 32E	Federal 1712-2	2	22414	Ashfield	Phillips	11/16/97	1321		338
Samedan Oil Corporation	SESE 20 31N 32E	Federal 2012-3	2	22415	Ashfield	Phillips	11/18/97	1327		380
Samedan Oil Corporation	SWSW 21 31N 32E	Federal 2112-4	2	22416	Ashfield	Bdn/Grn/Phil	11/19/97	1283		435
Samedan Oil Corporation	NESW 27 31N 32E	Federal 2712-2	2	22417	Ashfield	Phillips	11/20/97	1256		364
Samedan Oil Corporation	LT 4 18 31N 33E	Federal 1813-2	2	22418	Ashfield	Phillips	11/21/97	1307		306
Samedan Oil Corporation	LT 3 19 31N 33E	Federal 1913-2	2	22419	Ashfield	Phillips	11/22/97	1316		316
Samedan Oil Corporation	SWSW 11 32N 31E	Fee 1121-4	2	22420	Ashfield	Phillips	11/25/97	1267		20
Samedan Oil Corporation	SENE 22 32N 31E	Federal 2221-2	2	22421	Ashfield	Phillips	11/26/97	1441		102
Samedan Oil Corporation	SWSW 10 32N 31E	Federal 1021-3	2	22423	Ashfield	Phillips	11/25/97	1335		20
Samedan Oil Corporation	SESE 27 32N 31E	Federal 2721-2	2	22424	Ashfield	Phillips	11/23/97	1285		263
Samedan Oil Corporation	SESW 22 32N 31E	Federal 2221-3	2	22426	Ashfield	Phillips	11/24/97	1435		10
Samedan Oil Corporation	SWSW 26 32N 31E	Federal 2621-3	2	22432	Ashfield	Phillips	11/24/97	1285		353
Samedan Oil Corporation	SESE 3 31N 33E	Federal 0313-2	2	22311	Bowdoin & Area	Bdn/Phil	08/06/97	1365		178
Samedan Oil Corporation	SESE 8 31N 33E	Federal 0813-2	2	22312	Bowdoin & Area	Bdn/Grn/Phil	07/12/97	1617		33
Samedan Oil Corporation	NESE 9 31N 33E	Federal 0913-2	2	22313	Bowdoin & Area	Bdn/Grn/Phil	07/12/97	1569		39
Samedan Oil Corporation	NENW 10 31N 33E	Federal 1013-2	2	22314	Bowdoin & Area	Bdn/Phil	08/05/97	1439		86
Samedan Oil Corporation	NESW 10 31N 33E	Federal 1013-3	2	22315	Bowdoin & Area	Bdn/Grn/Phil	07/12/97	1570		36
Samedan Oil Corporation	SESE 10 31N 33E	Federal 1013-4	2	22316	Bowdoin & Area	Bdn/Grn/Phil	07/11/97	1487		52
Samedan Oil Corporation	SWNW 11 31N 33E	Federal 1113-2	2	22317	Bowdoin & Area	Bdn/Phil	08/06/97	1462		41
Samedan Oil Corporation	SWSW 11 31N 33E	Federal 1113-3	2	22318	Bowdoin & Area	Bdn/Grn/Phil	07/11/97	1425		125
Samedan Oil Corporation	SESE 14 31N 33E	Federal 1413-2	2	22319	Bowdoin & Area	Bdn/Grn/Phil	07/09/97	1389		260
Samedan Oil Corporation	NENE 15 31N 33E	Federal 1513-2	2	22320	Bowdoin & Area	Bdn/Grn/Phil	07/11/97	1475		181
Samedan Oil Corporation	NESE 15 31N 33E	Federal 1513-3	2	22321	Bowdoin & Area	Bdn/Grn/Phil	07/10/97	1432		85
Samedan Oil Corporation	NWNE 18 31N 33E	Federal 1813-3	2	22322	Bowdoin & Area	Phillips	08/07/97	1309		373
Samedan Oil Corporation	NENE 22 31N 33E	Federal 2213-3	2	22323	Bowdoin & Area	Bdn/Grn/Phil	07/10/97	1425		50
Samedan Oil Corporation	NENE 25 31N 33E	Federal 2513-2	2	22324	Bowdoin & Area	Bdn/Phil	08/21/97	1380		113
Samedan Oil Corporation	SESW 3 33N 32E	Federal 0332-2	2	22325	Bowdoin & Area	Bdn/Grn	08/13/97	1397		211
Samedan Oil Corporation	NESW 4 33N 32E	Federal 0432-2	2	22326	Bowdoin & Area	Bdn/Grn	08/22/97	1372		154
Samedan Oil Corporation	NENE 10 34N 31E	Federal 1041-2	2	22327	Bowdoin & Area	Phillips	10/05/97	1525		340
Samedan Oil Corporation	SESW 23 34N 32E	Federal 2342-2	2	22328	Bowdoin & Area	Bdn/Phil	11/18/97	1790		20
Samedan Oil Corporation	NESW 14 31N 33E	Federal 1413-4	2	22330	Bowdoin & Area	Bdn/Grn/Phil	07/19/97	1460		235
Samedan Oil Corporation	SENW 25 37N 29E	Federal 2579-3	2	22250	Loring	Bdn/Grn/Phil	10/29/97	1770		343
Samedan Oil Corporation	SWSW 12 36N 30E	Federal 1260-4	2	22374	Loring	Phillips	12/02/97	1750		20
Samedan Oil Corporation	SWSW 20 36N 31E	Federal 2061-4	2	22375	Loring	Bowdoin	10/07/97	1686		186
Samedan Oil Corporation	LT 4 19 37N 30E	Federal 1970-3	2	22377	Loring	Bdn/Grn/Phil	10/29/97	1794		227
Samedan Oil Corporation	NWNE 25 37N 30E	Federal 2570-4	2	22378	Loring	Bdn/Grn/Phil	10/30/97	2024		237
Samedan Oil Corporation	NWNE 32 37N 30E	Federal 3270-4	2	22379	Loring	Bowdoin	11/01/97	1810		198
Samedan Oil Corporation	SWSW 17 37N 30E	Federal 1770-4	2	22381	Loring	Bdn/Grn/Phil	10/14/97	1899		299
Samedan Oil Corporation	NENE 18 37N 30E	Federal 1870-2	2	22382	Loring	Bdn/Grn/Phil	10/28/97	1930		152
Samedan Oil Corporation	NENE 19 37N 30E	Federal 1970-2	2	22383	Loring	Bdn/Grn/Phil	10/31/97	1876		183
Samedan Oil Corporation	SESE 26 37N 30E	Federal 2670-5	2	22384	Loring	Bdn/Grn	10/30/97	1964		192
Samedan Oil Corporation	SWSW 21 36N 31E	Fee 2161-4	2	22389	Loring	Bdn/Grn/Phil	11/20/97	1670		176
Samedan Oil Corporation	SWSW 3 37N 30E	Fee 0370-4	2	22390	Loring	Bdn/Grn/Phil	10/19/97	2100		317
Samedan Oil Corporation	NWNW 16 37N 30E	State 1670-5	2	22391	Loring		10/28/97	1974		406
Samedan Oil Corporation	SESW 31 37N 30E	Fee 3170-4	2	22392	Loring	Bowdoin	11/01/97	1680		367
Samedan Oil Corporation	SENE 13 36N 31E	Murdock 1361-2-42	2	22387	Loring, East	Bdn/Grn/Phil	09/03/97	1714		90
Samedan Oil Corporation	SENE 17 36N 32E	Murdock 1762-2-42	2	22388	Loring, East	Bdn/Grn/Phil	11/02/97	1900		64
Samedan Oil Corporation	SESW 16 37N 31E	State 1671-2	2	22393	Loring, East	Bdn/Grn/Phil	10/31/97	1808		295
Samedan Oil Corporation	SENE 10 33N 31E	Federal 1031-2	2	22009	Whitewater	Bdn/Phil	09/14/97	1632		89
Samedan Oil Corporation	NENE 11 33N 31E	Federal 1131-2	2	22010	Whitewater	Phillips	12/04/97	1636		32
Samedan Oil Corporation	SESE 1 34N 31E	Federal 0141-3	2	22014	Whitewater	Phillips	11/07/97	1462	0	143

1997 WELL COMPLETIONS (CONTINUED)

OPERATOR	LOCATION	WELL NAME	STATUS CODE	API #	FIELD	FORMATION	COMPLETION DATE	TOTAL DEPTH	IP OIL	IP GAS
Samedan Oil Corporation	SESE 3 33N 32E	Federal 0332-3	2	22335	Whitewater	Grm/Phil	08/22/97	1455		118
Samedan Oil Corporation	SWSW 10 33N 32E	Federal 1032-2	2	22336	Whitewater	Phillips	08/25/97	1313		352
Samedan Oil Corporation	SESE 27 34N 31E	Federal 2741-2	2	22337	Whitewater	Phillips	09/22/97	1533		20
Samedan Oil Corporation	SESE 34 34N 31E	Federal 3441-3	2	22338	Whitewater	Phillips	08/29/97	1539		84
Samedan Oil Corporation	SENE 17 34N 32E	Federal 1742-4	2	22339	Whitewater	Bdn/Grm/Phil	09/04/97	1526		147
Samedan Oil Corporation	SESE 17 34N 32E	Federal 1742-3	2	22340	Whitewater	Bdn/Grm/Phil	09/03/97	1522		56
Samedan Oil Corporation	NENE 30 34N 32E	Federal 3042-4	2	22341	Whitewater	Grm/Phil	09/02/97	1457		258
Samedan Oil Corporation	SWSW 3 35N 31E	Federal 0351-3	2	22342	Whitewater	Grm/Phil	10/06/97	1522		15
Samedan Oil Corporation	SWSW 20 34N 32E	Fee 2042-3	2	22343	Whitewater	Phillips	09/08/97	1423		204
Samedan Oil Corporation	SWSW 34 35N 31E	Federal 3451-4	2	22344	Whitewater	Grm/Phil	10/06/97	1500		32
Samedan Oil Corporation	NENE 34 35N 31E	Federal 3451-3	2	22345	Whitewater	Phillips	10/06/97	1499		46
Samedan Oil Corporation	NWSW 12 33N 31E	Federal 1231-3	2	22360	Whitewater	Grm/Phil	08/25/97	1552		147
Samedan Oil Corporation	SESE 12 33N 31E	Federal 1231-4	2	22361	Whitewater	Phillips	11/06/97	1498		730
Samedan Oil Corporation	SWSE 13 33N 31E	Federal 1331-3	2	22362	Whitewater	Phillips	11/05/97	1530		306
Samedan Oil Corporation	NENE 14 33N 31E	Federal 1431-4	2	22363	Whitewater	Bdn/Grm/Phil	09/12/97	1505		67
Samedan Oil Corporation	SWSE 14 33N 31E	Indian 1431-2	2	22364	Whitewater	Phillips	09/06/97	1322		69
Samedan Oil Corporation	NESE 15 33N 31E	Federal 1531-2	2	22365	Whitewater	Bdn/Grm/Phil	09/11/97	1295		95
Samedan Oil Corporation	SWSW 8 33N 32E	Federal 0832-4	2	22366	Whitewater	Grm/Phil	08/23/97	1392		148
Samedan Oil Corporation	SWNE 28 34N 32E	Federal 2842-3	2	22368	Whitewater	Phillips	10/18/97	1575		129
Samedan Oil Corporation	SESE 4 33N 32E	Federal 0432-3	2	22371	Whitewater	Phillips	08/13/97	1377		112
Samedan Oil Corporation	SESE 9 33N 32E	Federal 0932-4	2	22372	Whitewater	Bdn/Grm/Phil	10/04/97	1365		248
Samedan Oil Corporation	NWNE 11 34N 31E	Federal 1141-3	2	22373	Whitewater	Grm/Phil	11/10/97	1370		594
Samedan Oil Corporation	NWSW 7 34N 32E	Federal 0742-4	2	22380	Whitewater	Grm/Phil	09/22/97	1475		41
Samedan Oil Corporation	SESE 8 33N 32E	Fee 0832-3	2	22385	Whitewater	Phillips	09/21/97	1262		104
Samedan Oil Corporation	NENE 13 33N 31E	Federal 1331-2	2	22395	Whitewater	Phillips	09/10/97	1484		70
Samedan Oil Corporation	SWSE 10 33N 32E	Federal 1032-3	2	22396	Whitewater	Bdn/Phil	10/04/97	1394		174
Samedan Oil Corporation	SWSW 14 33N 32E	Federal 1432-2	2	22397	Whitewater	Phillips	09/26/97	1350		231
Samedan Oil Corporation	NENE 15 33N 32E	Federal 1532-4	2	22398	Whitewater	Phillips	10/05/97	1377		252
Samedan Oil Corporation	NWSW 34 34N 32E	Federal 3442-2	2	22399	Whitewater	Phillips	09/08/97	1505		312
Samedan Oil Corporation	NWNW 23 33N 32E	Federal 2332-2	2	22400	Whitewater	Phillips	09/25/97	1332		327
Samedan Oil Corporation	SWSW 13 33N 32E	Federal 1332-2	2	22407	Whitewater	Bdn/Phil	11/02/97	1479		201
Samedan Oil Corporation	SWSE 14 33N 32E	Federal 1432-3	2	22408	Whitewater	Phillips	10/13/97	1402		252
Samedan Oil Corporation	SENE 22 33N 32E	Fee 2232-2	2	22409	Whitewater	Phillips	11/04/97	1226		384
Samedan Oil Corporation	NWSW 23 33N 32E	Fee 2332-3	2	22410	Whitewater	Phillips	10/03/97	1220		456
Samedan Oil Corporation	LT 4 18 33N 33E	Fee 1833-2	2	22411	Whitewater	Bdn/Phil	11/02/97	1505		338
Samedan Oil Corporation	SESW 19 34N 32E	Whitewater 1942-3	2	22428	Whitewater	Bdn/Grm/Phil	11/06/97	1273		65
Samedan Oil Corporation	SWSW 11 33N 32E	Federal 1132-2	2	22434	Whitewater	Phillips	11/04/97	1438		155
Samedan Oil Corporation	SESE 13 33N 32E	Federal 1332-3	2	22435	Whitewater	Phillips	11/03/97	1471		330
Samedan Oil Corporation	SWSE 23 33N 32E	Federal 2332-4	2	22436	Whitewater	Phillips	12/01/97	1245		524
Samedan Oil Corporation	SWNE 25 33N 33E	Federal 2533-4	2	22401	Whitewater, East	Phillips	08/27/97	1466		47

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Chesapeake Operating, Inc.	SENE 5 25N 57E	Zoanni 5-1	4**	21841	Blue Hill	Red River	03/22/97	12700	253	218
Chesapeake Operating, Inc.	NESW 34 26N 59E	Noteboom 1-34	4**	21850	Nohly	Red River	01/24/97	13140	272	
Choctaw II Oil & Gas, Ltd.	SESW 2 25N 59E	Hopperstad 2-24	4**	21847	Nohly	Red River	02/15/97	13090	88	
Choctaw II Oil & Gas, Ltd.	SWNW 19 25N 58E	Tveit 19-12	3	21845	Sioux Pass		01/05/97	9500		
Choctaw II Oil & Gas, Ltd.	NESW 19 25N 58E	Tveit 19-23	1	21848	Sioux Pass	Red River	02/18/97	12900	200	
Choctaw II Oil & Gas, Ltd.	NENW 19 25N 58E	Tveit 19-21	3	21858	Sioux Pass		05/25/97	9450		
Collins and Ware, Inc.	NENW 17 23N 55E	BN 17-1	4**	21864	Box Canyon	Red River	09/30/97	11975	238	55
Collins and Ware, Inc.	NWSW 1 22N 55E	Prevost 1	4**	21853	Lambert	Red River	05/02/97	11920	176	120
Collins and Ware, Inc.	SENE 14 22N 55E	Oakland 14-1	4**	21862	Lambert	Red River	08/18/97	11830	243	111
Collins and Ware, Inc.	NESE 28 24N 55E	Qualley 28-1	6	21856	Wildcat		11/02/97	12310		
Collins and Ware, Inc.	NESW 28 24N 55E	Burgess 28-1	6	21859	Wildcat		05/27/97	8130		
Collins and Ware, Inc.	NWSE 18 24N 55E	Larson 18-1	4**	21860	Wildcat	Red River	07/09/97	12060	81	69
Columbus Energy Corp.	SWNE 1 22N 59E	CS Lien 3 HzReEntry	1	21693	Mondak, West	Mission Canyon	06/13/97	9273	25	14
Flying J Exploration & Prod.	SESW 26 23N 59E	Marvin 14B-26	1	21844	Mondak, West	Stoney Mtn	02/23/97	12472	41	28
Headington Oil Company	SWNE 28 24N 57E	Albin 31X-28	4**	21863	Mustang	Bakken	10/30/97	12580	130	66
Intermountain Operating, Inc.	LT 2 6 25N 54E	Amestoy 1 ReEntry	6	21723	Wildcat		03/30/96	11350	0	0
Liedtke Operating Corporation	SESW 10 25N 57E	Joy 10-24	3	21857	Sioux Pass		07/18/97	12920		
Luff Exploration Company	NWSE 16 26N 58E	State 2-16	1	21418	Sioux Pass, North	Ratcliffe	02/22/97	11662	6	
Luff Exploration Company	SWSW 17 26N 58E	Trudell M-17 HzReEnt	3	21808	Sioux Pass, North		01/02/97	8692	0	0
Luff Exploration Company	NENE 30 27N 57E	Lawson Federal A-30	7	21654	Wildcat		09/05/97	5200		
Lycro Operating Co.	SENE 2 23N 57E	4-J Ranch 1 ReEntry	4**	21690	Epworth	Bakken	08/21/97	10550	50	30
Lycro Operating Co.	SESW 18 24N 56E	Jambor 24-18 ReEntry	4**	21461	Girard	Bakken	04/21/97	10208	86	35
Lycro Operating Co.	NWNW 36 25N 54E	State B-1 ReEntry	3	05017	Spring Lake		09/15/97	6444		
Lycro Operating Co.	NWNE 33 25N 54E	Strand 2-33 ReEntry	4**	21628	Spring Lake	Bakken	04/11/97	9954	82	35
Lycro Operating Co.	NESE 24 23N 56E	Prevost 1-24 ReEntry	1	21246	Three Buttes	Bakken	10/03/97	12580	60	20
Lycro Operating Co.	SWNE 20 23N 57E	Putnam 2 ReEntry	4	21081	Wildcat	Bakken	09/24/97	12540	40	35
Lycro Operating Co.	N2NE 14 24N 54E	Stotts 1 ReEntry	6	21507	Wildcat		10/06/97	5759		
Lycro Operating Co.	NWSW 23 24N 57E	McMillen 23-13X ReEn	6	21611	Wildcat		07/27/97	4671		
Lycro Operating Co.	SWNW 13 25N 53E	Dennis 1 ReEntry	4**	21648	Wildcat	Bakken	04/01/97	9710	70	20
Navasota Resources, Ltd	NENE 27 25N 56E	Jan 1	4**	21861	Hardscrabble Creek	Red River	08/01/97	12495	319	149
Ritchie Exploration, Inc.	SWSW 8 22N 56E	OK Corral 14-8	4**	21840	Sundown	Red River	12/21/96	12025	448	
Summit Resources, Inc.	SWNE 29 24N 59E	Candee 29-2	4**	21849	Fort Gilbert	Red River	02/28/97	12820	60	
Union Pacific Resources Co.	NWNE 7 23N 59E	Gartner Denowh 31-7H	4**	21846	Sidney	Ratcliffe	11/03/96	12770	30	
Vastar Resources, Inc.	NWNW 2 23N 51E	Black Dog 1-2	6	21843	Wildcat		08/25/96	8925		

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BTA Oil Producers, Partnership	SESW 3 30N 48E	JV-P Fort Peck 1	6	21622	Wildcat		06/17/97	7760		
Columbus Energy Corp.	LT 4 2 29N 56E	McCabe 1X	1	21617	Froid, South	Red River	04/04/97	12200	86	60
Columbus Energy Corp.	SWNE 4 29N 56E	McCabe Farms 1-4	4**	21628	Froid, South	Red River	12/24/97	12120	135	110
Intermountain Operating, Inc.	NWSW 15 30N 57E	Jacobsen 1-15	4**	21613	Shotgun Creek	Ratcliffe	07/01/97	8750	28	20
JN Exploration & Production	NESW 18 27N 58E	Harmon 23X-18	8	21620	Wildcat		03/17/97	10542		
JN Exploration & Production	NWNE 20 27N 57E	McCann 31-20	6	21625	Wildcat		10/09/97	11110		
Murphy Exploration & Prod. Co.	SESE 28 29N 51E	Zimmerman EPU 114	1	21615	Poplar, East	Nisku	01/26/97	9200	26	0
Murphy Exploration & Prod. Co.	SESE 2 28N 51E	Zimmerman EPU 116	1	21618	Poplar, East	Madison	05/05/97	7500	19	
Murphy Exploration & Prod. Co.	SWSW 31 29N 51E	Richardson EPU 115	3	21621	Poplar, East		03/18/97	7343		
Panterra Petroleum MT GENL PRT	NESE 9 28N 58E	Baker 9-9	1	21624	Bainville, North	Red River	09/08/97	12680	296	190
Samedan Oil Corporation	SWSW 18 29N 59E	Dieterne 1-18	6	21607	Wildcat		09/10/96	13120		
Tipperary Oil & Gas Inc.	NWNE 28 29N 57E	Olson 31-28	1**	21599	McCabe, East	Red River	11/20/97	12550	100	114

1997 WELL COMPLETIONS (CONTINUED)

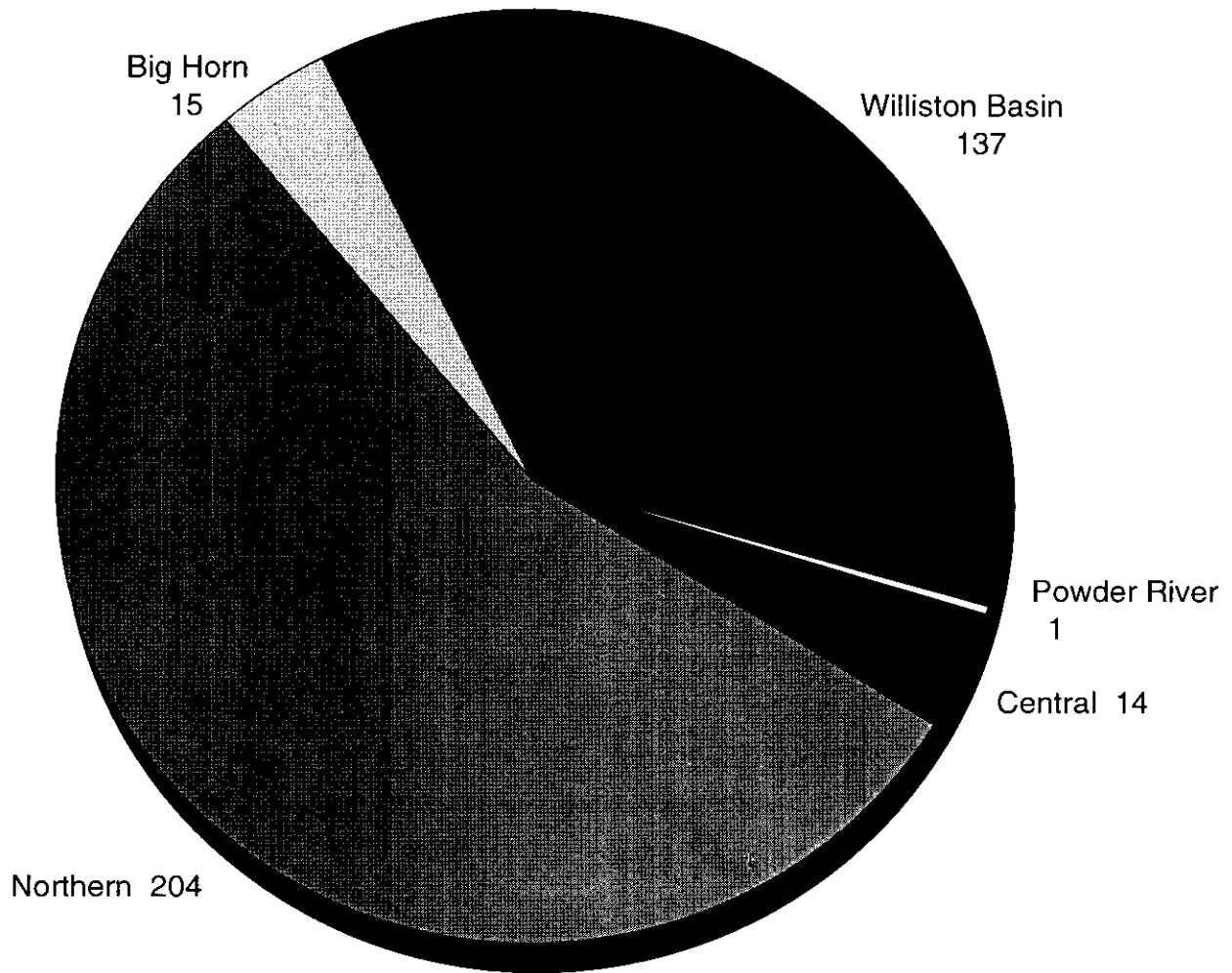
OPERATOR	LOCATION	WELL NAME	STATUS CODE	API #	FIELD	FORMATION	COMPLETION DATE	TOTAL DEPTH	IP OIL	IP GAS
UMC Petroleum Corp. (Ensource)	NESE 11 30N 49E	Red Elk 11-43	6	21619	Wildcat		04/09/97	6550		
087 Rosebud										
Florentine Exploration & Prod.	SENE 31 12N 33E	Infinity State 31-8	4**	21648	Rattler Butte	Tyler	06/03/97	5704	190	
Florentine Exploration & Prod.	LT 3 31 12N 33E	Infinity State 31-9	4**	21649	Rattler Butte	Tyler	07/18/97	5752	95	
Florentine Exploration & Prod.	LT 9 31 12N 33E	Infinity St 31-15	6	21652	Wildcat		11/11/97	5781		
Great Plains Resources Inc.	SWNW 36 12N 32E	State 5-36	6	21645	Wildcat		11/20/96	5490		
Great Plains Resources Inc.	SESE 26 12N 32E	Edward Coffee 16-26	6	21651	Wildcat		10/05/97	5432		
JN Exploration & Production	SWSW 17 12N 33E	JN Gault 14-17	6	21646	Wildcat		02/15/97	5330		
JN Exploration & Production	NENW 20 12N 33E	JN Hunt 21-20	6	21647	Wildcat		02/22/97	5380		
091 Sheridan										
Equitable Resources - Balcron	SESE 24 34N 58E	Sampson 44-27	3	21696	Divide		07/18/97	11500	0	0
Equitable Resources - Balcron	SENE 36 34N 58E	State 22-36	6	21697	Wildcat		08/26/97	11500	0	0
Hugoton Energy Corp.	SENE 17 31N 56E	Bolstad 1-17	1	21724	Pelican	Red River	10/07/97	12640	33	33
Hugoton Energy Corp.	NESE 30 35N 57E	Parrott 1-30	4	21725	Wildcat	Red River	11/26/97	11125	110	20
Lyc0 Operating Co.	SESW 13 33N 58E	Pumbaa Nielson 13-14	3	21726	Brush Lake		11/17/97	11520		
Lyc0 Operating Co.	NWNW 10 33N 58E	Kahoona Lodahl 10-4	3	21731	Brush Lake		12/23/97	11526		
Outlook Petroleum Corp.	SWNE 20 36N 53E	Tange 3	1	21706	Outlook	Bakken	02/08/97	9172	40	22
Panterra Petroleum MT GENL PRT	NE 1 33N 58E	Ibsen 7-1	1	21717	Brush Lake	Red River	07/18/97	11550	237	114
Texaco Exploration And Prod.	SENE 7 32N 57E	Fernyhough SK 1	1	21711	Colored Canyon	Red River	05/01/97	11500	131	
Texaco Exploration And Prod.	NWSW 7 32N 57E	Hoppy 1	3	21718	Colored Canyon		07/18/97	9850		
Texaco Exploration And Prod.	SESE 21 33N 56E	Vera Strand 1-H	4**	21699	Reserve	Red River	06/11/97	11508	250	75
Texaco Exploration And Prod.	NENE 31 33N 56E	Tailwynd 1	4**	21713	Reserve	Red River	06/13/97	11310	7	
Texaco Exploration And Prod.	SWNE 6 32N 57E	Bigwind 1	4	21714	Wildcat	Red River	06/30/97	11500	329	
Upton Resources USA Inc.	SENE 5 31N 59E	Federal 22-5	4**	21715	Rush Mountain	Ratcliffe	09/24/97	8980	72	
Wascana Oil & Gas, Inc.	SESW 7 37N 58E	Haugen 1H ReEntry	1	21705	Flat Lake	Ratcliffe	06/07/97	9610	14	
Wascana Oil & Gas, Inc.	NENE 17 37N 57E	McKinnon 1H	1	21710	Flat Lake	Ratcliffe	02/01/97	9553	25	
Wascana Oil & Gas, Inc.	SWSE 10 37N 57E	Hellegaard 4H	1	21716	Flat Lake	Nisku	06/01/97	9580	484	
Wascana Oil & Gas, Inc.	NWSW 19 37N 58E	Solberg 9H	1	21719	Flat Lake	Ratcliffe	07/01/97	8470	175	
Wascana Oil & Gas, Inc.	SWNW 12 37N 57E	Ward 8H	1	21722	Flat Lake	Nisku	08/07/97	9352	50	
Wascana Oil & Gas, Inc.	S2NE 11 37N 57E	Ward 9H	1	21728	Flat Lake	Nisku	10/06/97	9450	111	
Wascana Oil & Gas, Inc.	SESE 9 37N 57E	McKinnon 3H	1	21730	Flat Lake	Nisku	10/28/97	8150	35	
Wyoming Resources Corporation	LT 7 1 32N 55E	Seidensticker 1 Rnty	4**	21661	Alkali Coulee	Red River	01/21/97	11219	240	240
095 Stillwater										
Equitable Resources - Balcron	SESE 14 6S 17E	Foothills 44-14H	4**	21249	Mackay Dome	Greybull	04/17/97	5968	55	
101 Toole										
Ballard Petroleum LLC	NWSW 11 33N 2E	State 33-11R	6	23799	Wildcat		11/12/96	1639		
Coolidge, G. B., Inc.	NWNW 10 34N 1W	Johnson 3-10	2	23821	Kevin Sunburst	Sunburst	11/11/97	1383		116
Coolidge, G. B., Inc.	NWSW 11 34N 1W	MPCo 2-11	2	23822	Kevin Sunburst	Sunburst	11/05/97	1362		74
Great Northern Drilling Co.	SWNE 35 35N 1W	Norwood 32-35	2	23807	Kevin East Gas	Nisku	08/18/97	2940		1836
Hallwood Petroleum, Inc.	NESE 31 35N 1E	Wiegank 4-31 ReEntry	1	23667	Kevin Sunburst	Nisku	09/09/97	4276	25	
KCS Resources, Inc.	LT 1 30 33N 2E	Hellinger 11-30	3	23779	Devon		07/17/97	3085		
KCS Resources, Inc.	LT 2 7 33N 2E	Fowler 12-7	3	23789	Devon		01/04/97	1533		
KCS Resources, Inc.	LT 1 30 33N 2E	Hellinger 11R-30	3	23809	Devon		08/06/97	704		
KCS Resources, Inc.	LT 1 30 33N 2E	Hellinger 11R-30B	2	23812	Devon	Bow Isl	08/13/97	750		53
KCS Resources, Inc.	NENW 35 36N 2W	Yealy-Shaw 25A	2	23777	Kevin Sunburst	Bow Isl/Bikleaf	10/05/97	932		18
Somont Oil Company, Inc.	NENE 9 35N 2W	Howling C D-13	1	23805	Kevin Sunburst	Madison	07/15/97	1740	7	
Spectrum Energy, Inc.	NWNW 12 33N 1W	Batts 3-12	3	23800	Dunkirk, North		02/27/97	1441		
Spectrum Energy, Inc.	SESE 3 33N 1W	Seward 2-3	2	23801	Old Shelby	Bow Island	03/01/97	1318		79
Spectrum Energy, Inc.	NESW 32 33N 1W	Williams 1-32	3	23803	Old Shelby		03/05/97	1411		
Spectrum Energy, Inc.	LT 1 2 32N 2W	Welker 1R-2	2	23804	Old Shelby	Sunburst	04/12/97	1460		62
105 Valley										
Continental Resources Inc	SWSW 29 31N 44E	Offet C 1 HzReEntry	1	21338	Lustre	Charles C	11/13/97	7121	174	0
Continental Resources Inc	NENE 21 30N 45E	Yellow Robe 1-21	6	21429	Wildcat		04/17/97	7958	0	0
Ganey Oil Company	LT10 18 33N 39E	Wolf Creek 3-18	6	21430	Wildcat		02/11/97	4635		
109 Wibaux										
Shell Western E & P Inc.	SWNE 11 11N 57E	Unit 32X-11A ReEntry	1	21071	Pine	Red River	06/01/97	10773	76	22
Winn Exploration Co., Inc.	NENW 31 13N 59E	Bakken 2	6	21083	Wildcat		05/05/97	11040		
Winn Exploration Co., Inc.	SWSE 8 13N 58E	Delp 4	6	21084	Wildcat		06/12/97	10465		
Winn Exploration Co., Inc.	SWSW 36 13N 56E	State 5	6	21085	Wildcat		07/12/97	9400		
Winn Exploration Co., Inc.	SENE 17 13N 58E	Delp 7	6	21086	Wildcat		08/07/97	7245		

Status Codes:

- 1- Development Oil
 - 2- Development Gas
 - 3- Development Dry
 - 4- Exploratory Oil
 - 5- Exploratory Gas
 - 6- Exploratory Dry
 - 7- Service Well
 - 8- Other/Temp. Aband.
- * New Pay Zones
 - ** Extensions
 - *** New Discovery

Wells Completed in 1997

(371 Wells - by Region)



1997 SUMMARY OF SECONDARY RECOVERY PROJECTS

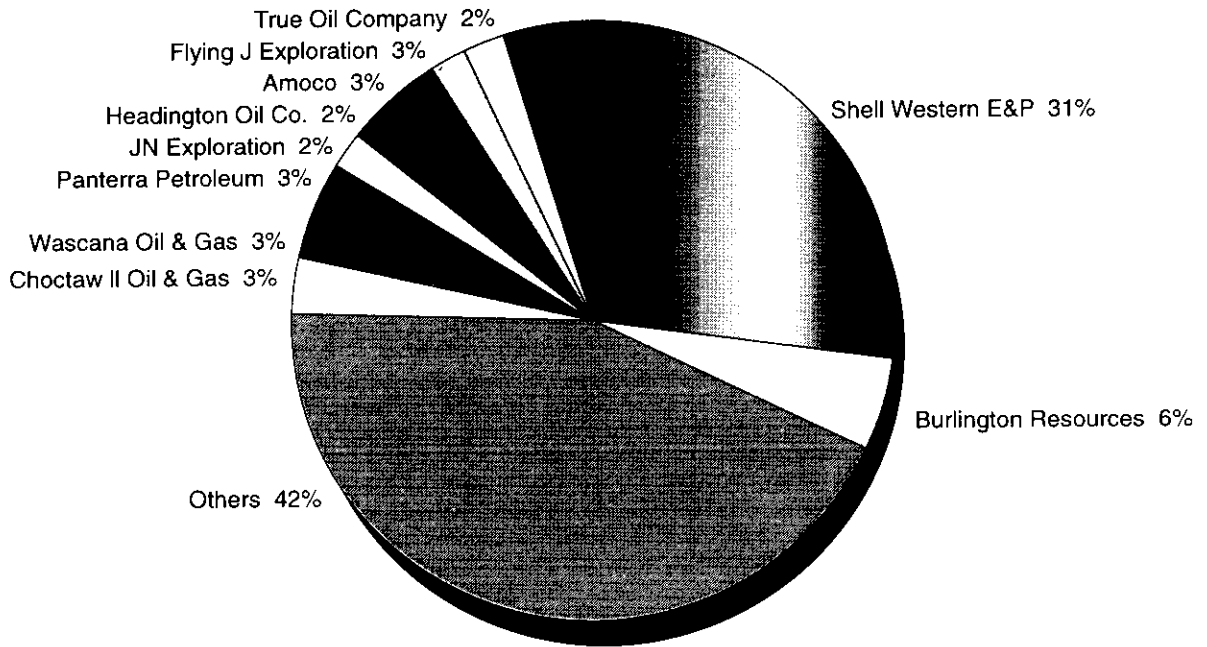
Field	Formation	Operator	Type of Project	Injection Pattern	Date Injection Commenced	1997		No. of Injection Wells	Source of Injection Media and Remarks
						Cumulative Injections MBBLS or MCF	Avg. Daily Injection Rate BBLs or MCF		
Ash Creek Crow Tribal	Shannon	Mobil	Waterflood	Peripheral	10/64	256	0	-	Idle
Ash Creek Sand Unit MT	Shannon	DNR Oil & Gas Inc.	Waterflood	Peripheral	10/64	1364	0	-	Idle
Bears Den	Swift	FX Drilling Co., Inc.	Waterflood	Random	11/90	1502	439	4	WSW/Produced
Bell Creek Consolidated	Muddy	Richardson Operating	Waterflood	5 Spot	*4/70	531740	7591	36	Produced (Consolidated 1/92)
Bell Creek, South	Muddy	Richardson Operating	Waterflood	Peripheral	2/91	1911	142	4	Produced
Big Wall BWLTSU	Lower Tyler	Citation Oil & Gas	Waterflood	Random	10/84	35640	6623	3	Produced
Big Wall BWUTSU	Upper Tyler	Citation Oil & Gas	Waterflood	Random	8/66	46182	3038	1	Produced
Blackfoot	Cut Bank	Croft Petroleum	Waterflood	Random	7/76	4581*	472	4	Madison
Border, New	Cut Bank	Gypsy Highview System	Waterflood	Random	1/82	-	0	-	Idle
Border, Old	Cut Bank	Gypsy Highview System	Waterflood	Random	6/73	1964*	100	1	Cut Bank
Breed Creek	Tyler	True Oil Co.	Waterflood	Random	11/92	2945	2966	3	WSW and Produced
Cabin Creek	Siluro-Ord.	Shell Western E&P	Waterflood	Semi-Perip	6/59	388069*	24526	26	Produced
Cat Creek East Dome	Ellis Sand	Carrell Oil Company	Waterflood	Semi-Perip	7/70	1689	74	2	Third Cat Creek (6 months)
Cat Creek Mosby Dome	Amsden	Carrell Oil Company	Waterflood	Random	6/71	313	0	-	Idle
Cat Creek Mosby Dome	Swift	Carrell Oil Company	Waterflood	Random	7/67	7073*	238	2	Third Cat Creek (6 months)
Cat Creek Unit 1	1st Cat	Carrell Oil Company	Waterflood	Semi-Perip	10/62	9110	573	1	Third Cat Creek (6 months)
Cat Creek Unit 1	2nd Cat	Carrell Oil Company	Waterflood	Semi-Perip	10/62	14060	800	2	Third Cat Creek (6 months)
Cat Creek Unit 2	1st Cat	Carrell Oil Company	Waterflood	Semi-Perip	12/59	10240	738	3	Third Cat Creek (6 months)
Cat Creek Unit 2	2nd Cat	Carrell Oil Company	Waterflood	Semi-Perip	12/59	14918	41	1	Third Cat Creek (6 months)
Cut Bank 2 Medicine	Cut Bank	Mont Mill Operating	Waterflood	Random	12/67	58519*	133	2	Produced (5 months)
Cut Bank Airport Unit	Cut Bank	Mercury Exploration	Waterflood	Random	6/93	741	246	1	Madison
Cut Bank Dahlquist	Cut Bank	KeeSun Corp.	Waterflood	Random	11/79	671	0	-	Idle
Cut Bank Lander A	Lander Sand	Quest Petroleum Corp.	Waterflood	Random	4/65	2115	0	-	Idle
Cut Bank Marina	Cut Bank	P&M Petroleum	Waterflood	5 Spot	6/72	2075	0	-	Idle
Cut Bank NCCBSU	Cut Bank	Gypsy Highview	Waterflood	5 Spot	5/78	5757	0	-	Idle
Cut Bank NECBSU	Cut Bank	J and G Operating	Waterflood	5 Spot	6/63	13409	0	-	Idle
Cut Bank NWCBSU	Cut Bank	Quest Petroleum Corp.	Waterflood	5 Spot	1/62	19794*	0	-	Idle
Cut Bank Rieckhoff	Cut Bank	FX Drilling Co., Inc.	Waterflood	Random	1983	25201	874	6	Madison/Recycle
Cut Bank SCCBSU	Cut Bank	Mercury Exploration	Waterflood	5 Spot	5/63	73908	2707	31	Madison
Cut Bank SWCBSU	Cut Bank	FX Drilling Co., Inc.	Waterflood	5 Spot	9/62	152751	6761	32	Madison/Recycle
Cut Bank Tesoro	Cut Bank	City Oil Co.	Waterflood	5 Spot	9/71	6759	-	-	Madison/Recycle
Cut Bank Tweedy	Cut Bank	Gypsy Highview	Waterflood	5 Spot	6/72	994*	18	1	Cut Bank
Darling	Cut Bank	Buttes Resources	Waterflood	Random	2/67	-	0	-	Idle
Darling North Unit	Moulton	Buttes Resources	Waterflood	Random	2/68	2472	0	-	Idle
Darling South Unit	Moulton	Buttes Resources	Waterflood	Random	2/67	7546	0	-	Idle
Dean Dome	Greybull	Eastern American	Steam Inj	Cyclic	8/81	29	0	-	Idle
Dwyer	Charles	CamWest LP	Waterflood	Peripheral	10/68	2984	456	1	Produced/Charles
Elk Basin	Frontier	Amoco	Waterflood	Crestal	12/72	6039	0	-	Idle
Elk Basin	Madison	Amoco	Waterflood	Semi-Perip	8/61	140081*	9239	13	Produced
Elk Basin NW	Madison	Amoco	Waterflood	Semi-Perip	12/88	3094	805	1	Produced (7 months)
Elk Basin NW	Tensleep	Amoco	Waterflood	Semi-Perip	1/67	5918	0	-	Idle
Elk Basin Unit	Tensleep	Amoco	Waterflood	Semi-Perip	4/67	2431	0	-	Idle
Fairview	Red River	Mepna, Inc.	Pressure M	Random	5/70	4186	0	-	Idle
Flat Coulee	Swift	Breck Operating Corp	Waterflood	Peripheral	2/72	21150	2781	12	Eagle & Produced
Flat Lake Unit	Ratcliffe	Wascana Oil & Gas Inc	Pressure M	Random	6/71	50864	2819	14	Produced
Flat Lake West	Ratcliffe	Wascana Oil & Gas Inc	Pressure M	Random	11/74	9928	1341	3	Produced
Frannie	Tensleep	Conoco	Waterflood	Random	11/70	526846*	-	-	Montana project P&A'd
Frannie	Tensleep	Conoco	LPG Inj	Random	11/70	23131*	0	-	Idle
Fred & George Creek	Sunburst "A"	William M. Fulton	Waterflood	Random	7/76	64356	1524	2	Madison/Eagle
Fred & George Creek	Sunburst	Fulton Fuel Company	Waterflood	Random	1/96	152	117	1	Eagle & Sunburst A
Fred & George Creek	Sunburst B	Fulton Fuel Company	Waterflood	Random	1/96	1004	1312	2	Eagle and Sunburst A
Gas City	Red River	Home-Stake Royalty Co	Waterflood	Semi-Perip	10/69	18658	723	3	Mission Canyon
Goose Lake	Ratcliffe	Makoll, Inc.	Waterflood	Semi-Perip	1/73	31337*	2298	2	Produced
Gumbo Ridge	Tyler B	Cline Production Co.	Waterflood	Semi-Perip	6/80	3338	314	1	Produced
Highview	Madison	Mountain States Res.	Waterflood	Random	12/91	196	73	1	Madison (Converted CO2)
Ivanhoe	Tyler	Tomahawk Oil Co.	Pressure M	Random	5/64	723	167	1	Produced
Jim Coulee	Tyler	Beartooth Oil & Gas	Waterflood	Semi-Perip	7/72	29685	2407	2	Produced Cat Creek
Keg Coulee NW Unit	Tyler	Charoil Company	Waterflood	Semi-Perip	3/64	6491	60	1	Madison
Keg Coulee Tyler Unit	Tyler	Cline Production Co.	Waterflood	Semi-Perip	12/69	3597*	67	2	Produced
Keg Coulee Unit	Tyler	Central Resources Inc	Waterflood	Semi-Perip	8/66	7147	8	1	Produced
Kelley	Tyler B	Grand Resources, Ltd.	Waterflood	Random	7/69	5046*	179	1	Produced
Kevin Homestake SU	Sunburst	KCS Resources, Inc.	Waterflood	Random	8/64	9741*	845	7	WSW & Produce
Kevin Sunburst Ferdig	Swift	Somont Oil Company	Waterflood	Random	8/92	104	80	2	Produced
Kevin Sunburst SU	Sunburst	Basin Operating Co.	Waterflood	Random	8/64	13108	0	-	Abandoned 8/96
Kincheloe Ranch	Tyler A	Tyler Rockies Explor.	Waterflood	Random	11/89	2434	629	1	Third Cat Creek
Kincheloe Ranch, West	Tyler A	Tyler Rockies Explor.	Waterflood	Random	02/92	237	136	1	Third Cat Creek
Laird Creek	Swift	KCS Resources, Inc.	Waterflood	Semi-Perip	2/77	807	0	-	Idle
Little Beaver	Red River	Shell Western E&P	Waterflood	Semi-Perip	8/66	62971*	3907	8	Produced
Little Beaver East	Red River	Shell Western E&P	Waterflood	Semi-Perip	4/65	27731*	1747	4	Produced
Little Wall - Hamilton	Tyler	Beartooth Oil & Gas	Waterflood	Random	07/92	37	0	-	Project Abandoned
Little Wall - Weisner	Tyler	Beartooth Oil & Gas	Waterflood	Random	01/92	484	225	1	Produced
Little Wall Creek	Tyler	Citation Oil & Gas	Waterflood	Random	1984	1234	209	2	Produced
Little Wall S Gunderson	Tyler	Beartooth Oil & Gas	Waterflood	Random	10/87	2106	814	1	Produced
Little Wall South Unit	Tyler	Beartooth Oil & Gas	Waterflood	Random	10/83	19262	2630	3	Produced
Lockett Butte Coral Crk	Red River	Shell Western E&P	Waterflood	Semi-Perip	4/67	72181*	6239	12	Produced
Lockett Butte East	Red River B	Meridian Oil Inc.	Waterflood	Random	7/88	1837	2860	15	Produced
Madison Lake	1st Cat Creek	Nielco, Inc.	Waterflood	Pilot	11/88	472	0	-	Idle
Madison North	Tyler	True Oil Co.	Waterflood	Unknown	1/83	9770	1912	4	3rd Cat Creek & produced
Madison	Siluro/Ord	Shell Western E&P	Waterflood	Unknown	12/73	7981	715	1	Produced
Madison	Siluro/Ord	Shell Western E&P	Waterflood	Random	8/69	309689*	29654	75	Produced
Madison C & D	Red River	Shell Western E&P	Waterflood	Semi-Perip	3/68	27029*	1128	2	Lodgepole
Madison South A	Siluro/Ord	Shell Western E&P	Waterflood	Semi-Perip	3/59	220675	17269	22	Fox Hills/ Produced
Madison Creek	Sunburst	Fulton Producing	Waterflood	Random	4/73	1184	0	-	Idle
Madison Hill	Sawtooth	Summit Resources	Polymer/WF	Random	1/96	201	303	1	Produced
Madison Point NW	Tyler	Grand Resources, Ltd.	Waterflood	Random	10/82	14524	2789	4	Produced

1997 SUMMARY OF SECONDARY RECOVERY PROJECTS (CONTINUED)

Field	Formation	Operator	Type of Project	Injection Pattern	Date Injection Commenced	1997	Avg. Daily Injection Rate BBSL or MCF	No. of Injection Wells	Source of Injection Media and Remarks
						Cumulative Injections MBBLS or MCF			
Ragged Point Tyler A	Tyler	Xeric Oil & Gas Corp.	Waterflood	Semi-Perip	12/66	12046	68	1	Produced (7 months)
Rattler Butte	Tyler	Cline Production Co.	Waterflood	Unknown	5/93	130	62	2	Produced & WSW
Raymond	Nisku	Costilla Petroleum	CO2 Inj.	Unknown	8/83	2461	162	1	Produced
Reagan Dome	Madison	No.American Resources	Waterflood	Random	7/73	10225	1416	4	Produced
Rid Creek	Cut Bank	Summit Resources, Inc	Waterflood	5 Spot	6/85	30057*	10331	3	Produced
Ridgelawn RDU	Duperow	Cowry Enterprises Ltd	Secondary	Unknown	7/90	4165	796	3	Duperow/ Dakota produced
Roscoe Dome	Lakota	E. American Energy	Steam Inj.	Unknown	5/82	5	-	-	Idle
Rosebud	Tyler	Cline Production Co.	ER	Random	09/91	762	352	1	WSW & Produced
Shepherd	Tyler	Summit Resources	Secondary	Random	11/84	95	-	-	Idle
Stensvad	Tyler	Tomahawk Oil Co.	Waterflood	Semi-Perip	12/83	299797	583	2	Produced
Sumatra Central	Tyler	Ballard & Associates	Waterflood	Semi-Perip	9/69	215771	24351	11	Produced
Sumatra Grebe	Tyler	Tomahawk Oil Co.	Waterflood	Random	6/75	1427	296	1	Produced
Sumatra NE	Tyler	Tomahawk Oil Co. Inc.	Waterflood	Semi-Perip	9/69	13545*	740	3	Produced
Sumatra SE	Tyler	Central Resources Inc	Waterflood	Semi-Perip	12/69	36360	3024	3	Produced
Sumatra Sawyer	Tyler	Central Resources Inc	Waterflood	Semi-Perip	6/80	1541	92	1	Madison
Sumatra W.Kincheloe	Tyler	Great Plains Oper.	Waterflood	Semi-Perip	5/82	30583	4884	7	Madison
Sumatra West	Tyler	Cline Production Co.	Waterflood	Semi-Perip	10/68	70838	5050	5	Produced
Tippy Buttes	Tyler	True Oil	Waterflood	Random	5/82	262	-	-	Abandoned
Utopia	Swift	True Oil Co.	Waterflood	Random	03/92	857	688	7	Sunburst WSW
Willow Ridge	Burwash	Croft Petroleum Co.	Waterflood	Waterflood	10/97	3	36	2	WSW (3 months)
Winnett Junction	Tyler	Beartooth Oil & Gas	Waterflood	Random	10/77	10675	1088	2	Produced
Wolf Springs South	Amsden	Beartooth Oil & Gas	Waterflood	Unknown	1/93	280	30	1	WSW and Produced

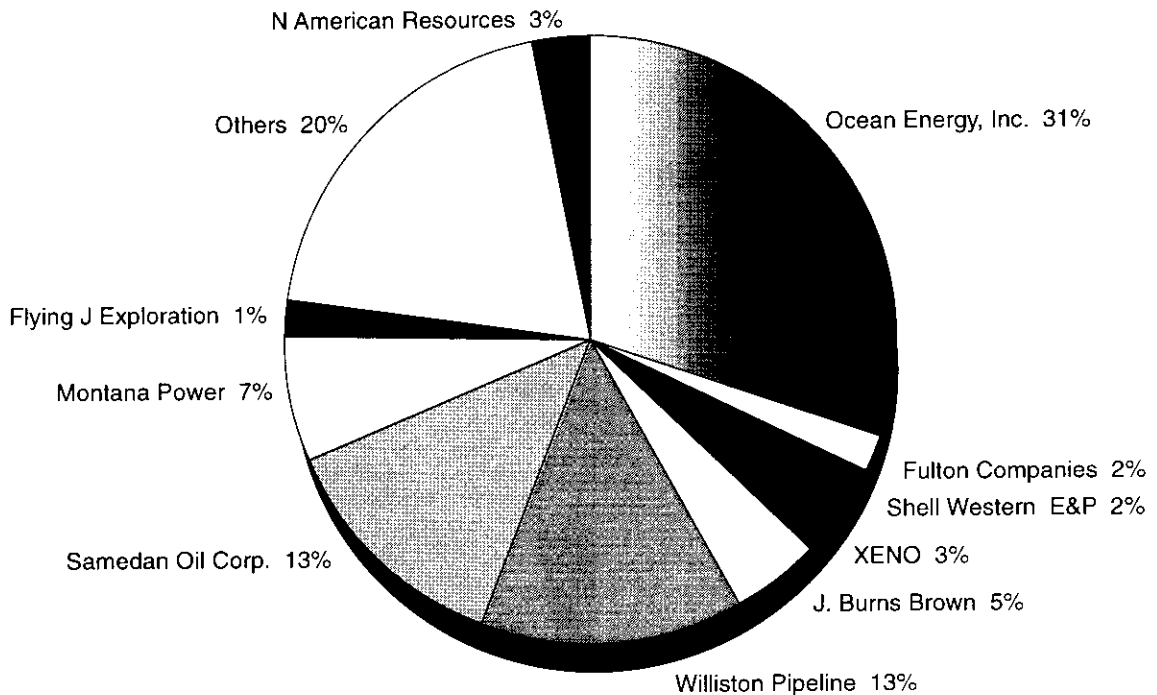
* Cumulative figures adjusted by operator

Top Producing Oil Companies - 1997
16,069,023 Barrels



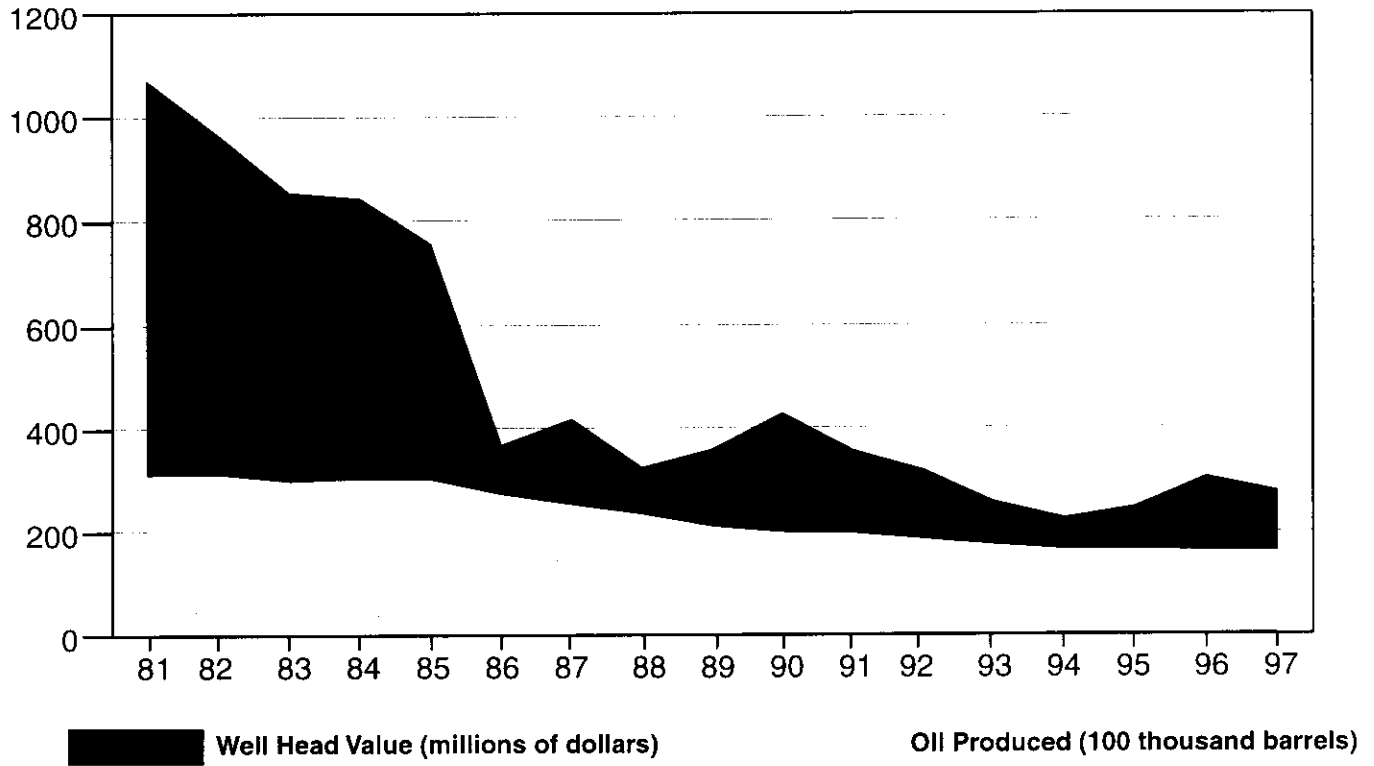
211 Active Oil Producers - 1997

Top Producing Gas Companies - 1997
53,489,161 Mcf

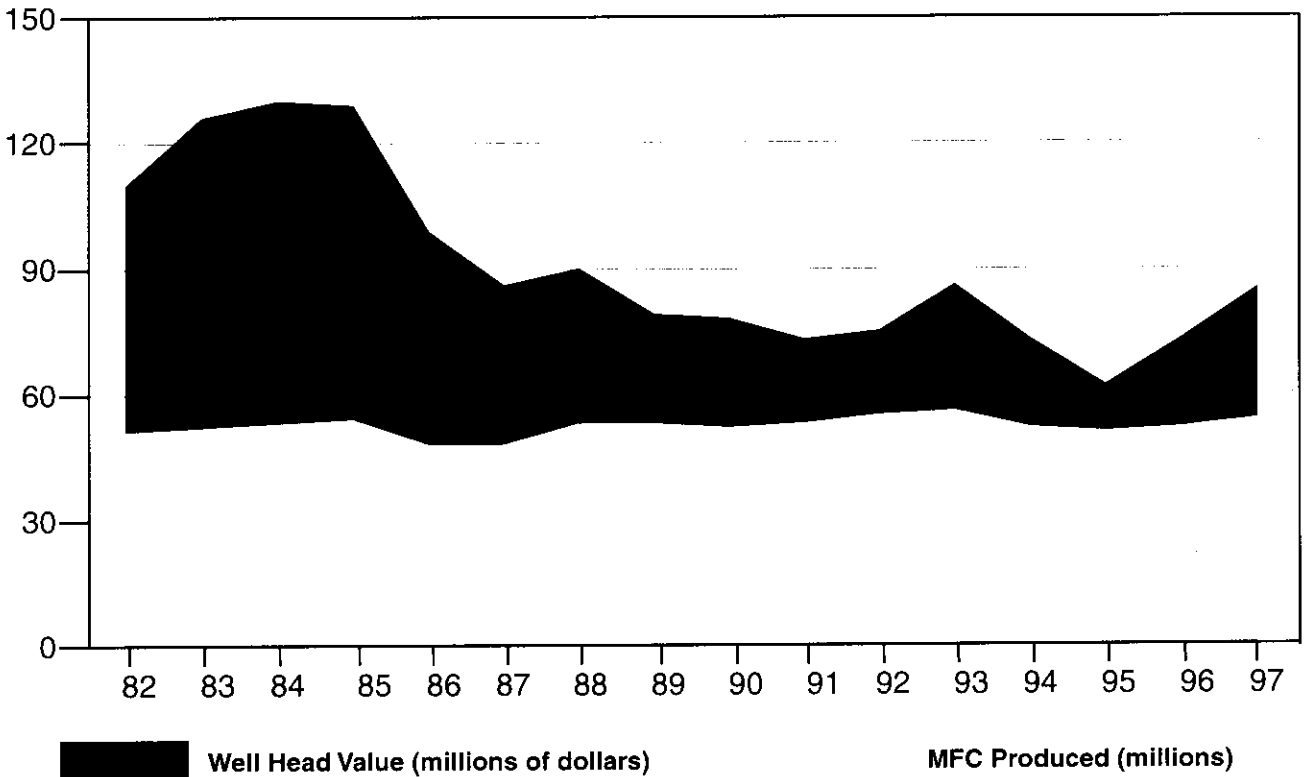


165 Active Gas Producers - 1997

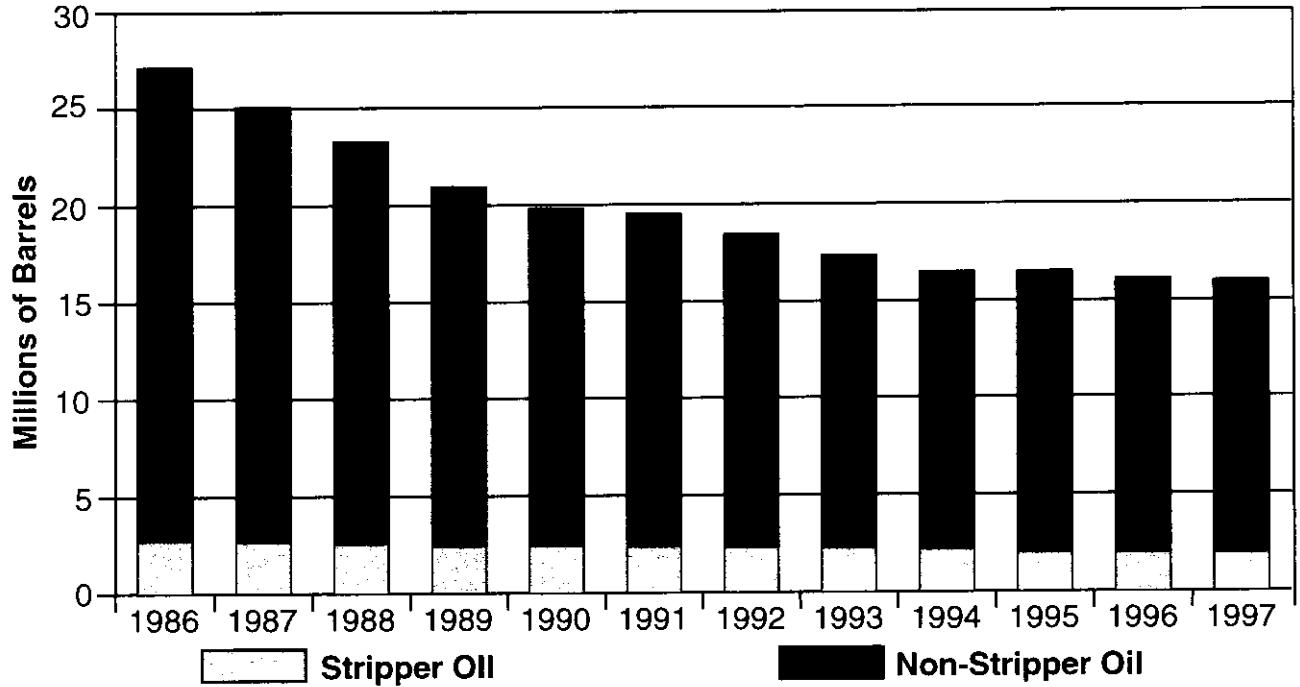
Oil Produced and Oil Value



Gas Produced and Gas Value Natural and Associated Gas

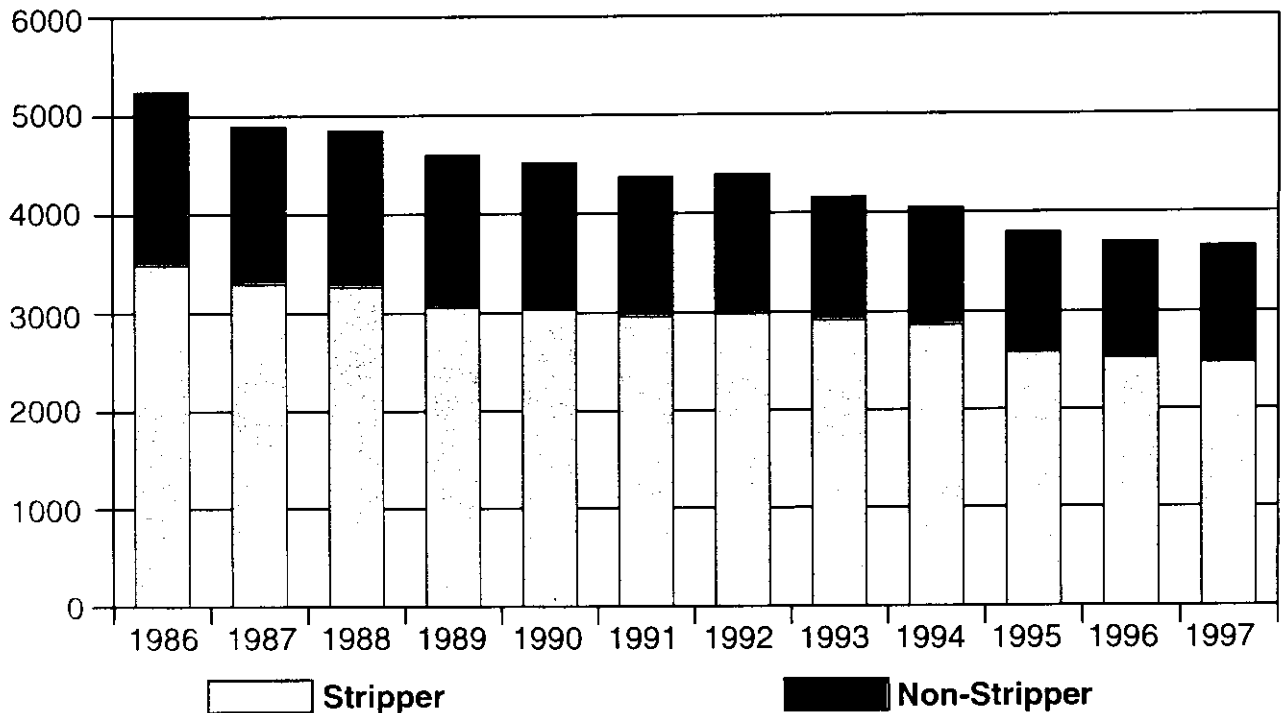


Stripper and Non-Stripper Oil Production



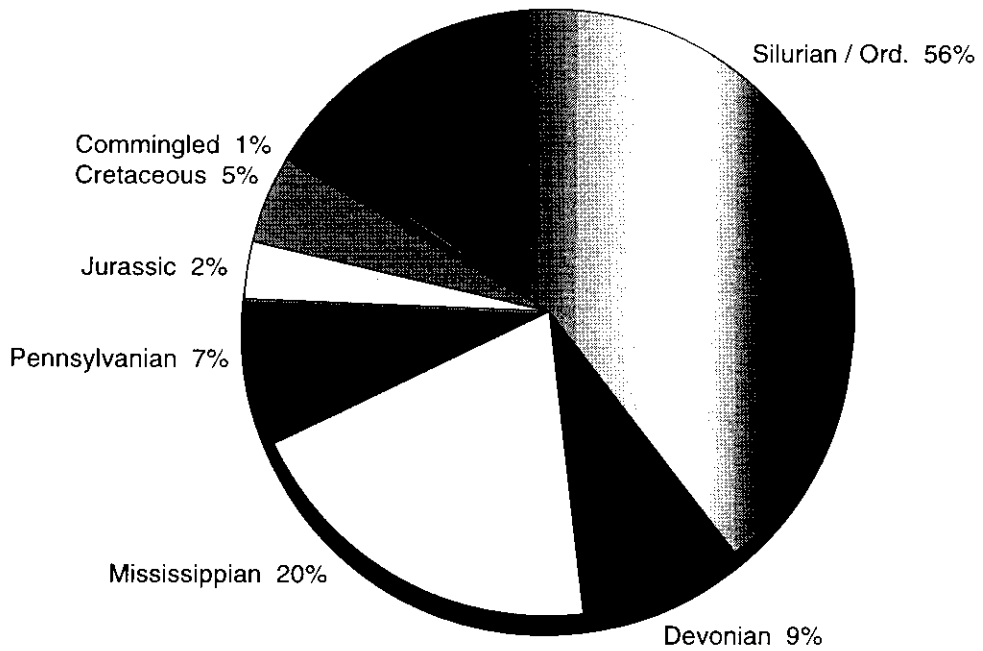
A Stripper Well Produces 10 BOPD or Less

Stripper and Non-Stripper Number of Producing Wells



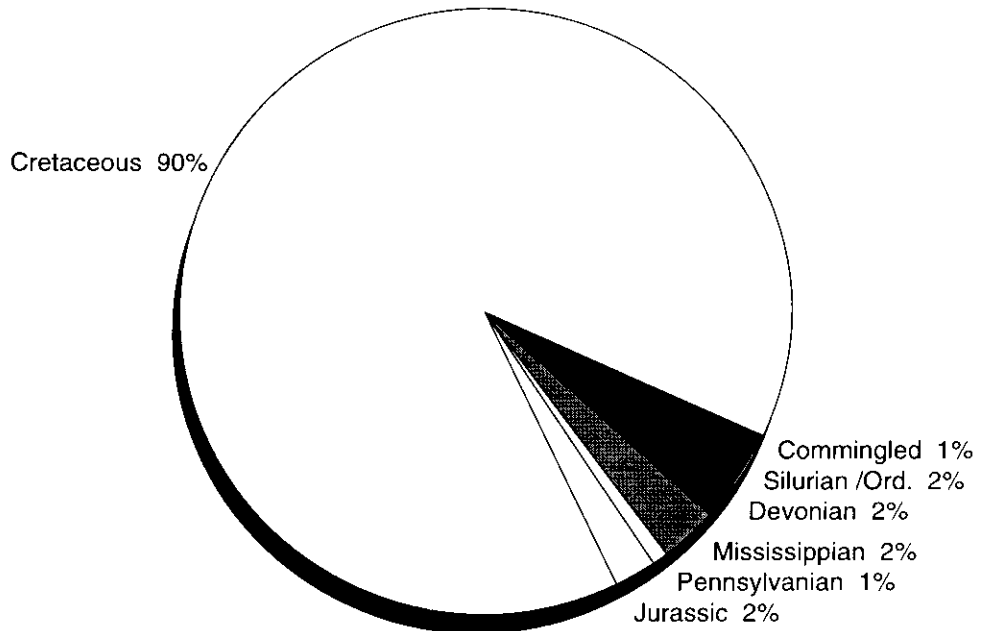
A Stripper Well Produces 10 BOPD or Less

Oil Production By Geologic Period



16,069,023 Bbls Produced

Gas Production By Geologic Period Natural and Associated Gas



53,489,161 Mcf Produced

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
ALKALI COULEE Red River	1	0	0	Statewide.
ALMA	0	0	0	640-acre spacing units for gas production from the Sawtooth, Bow Island, and shallower formations; location to be no closer than 990' to spacing unit boundary (Order 19-77).
AMANDA Bow Island	0	9	2	320-acre spacing units for gas with one well per horizon from the base of the Swift to the surface; wells to be no closer than 660' to spacing unit boundary; spacing units to consist of two contiguous quarter sections lying within one or two sections (Order 76-79). Field enlargement (Orders 25-83, 1-85, 25-88, 42-88, 2-89 and 29-91). Add Sec. 23-36N-4W for gas production below Bow Island and through the Swift (Order 63-91).
Bow Island, Dakota	0	2	0	
Burwash	0	1	0	
Dakota	0	1	0	
Sunburst	0	4	0	
Swift, Sunburst	0	8	0	
Swift	0	1	0	
ANTELOPE COULEE Bow Island	0	1	0	Statewide.
ANVIL Ratcliffe	1	2	0	320-acre spacing units for Red River "B" and "C" with one well per zone located no closer than 660' to spacing unit boundary; commingling approved with one well per spacing unit (Order 75-85).
Nisku	2	0	0	
Red River	6	0	1	
ARCH APEX Bow Island	0	39	5	Delineated for Colorado Blackleaf pool; wells to be 330' from legal subdivision, 2,400' from any other well drilling to or producing from the same reservoir; 75' topographic tolerance (Orders 5-56, 4-60). Single Bow Island spacing unit (Order 3-78).
Sunburst	0	1	1	
Swift, Sunburst	0	0	2	
ASH CREEK Shannon	2	0	0	Spacing waived within unitized portion of field except no well may be drilled closer than 660' to unit boundary (Order 4-65). Waterflood initiated October 1964 (Orders 22-64, 15-66).
ASHFIELD Bowdoin	0	70	5	640-acre spacing units for Bowdoin/Greenhorn/Phillips with two wells per formation (Orders 41-82 and 16-89). Amended to allow 4 wells per formation per 640-acre spacing unit located no closer than 660' to the spacing unit boundary, 1,320' between wells producing from the same formation with 150' geologic or topographic tolerance (Order 17-89). Amend to allow 8 wells per spacing unit in 4 spacing units and reduce between-well distance to 990' with 150' topographic tolerance (Order 8-92).
Bowdoin, Greenhorn	0	8	0	
Bowdoin, Greenhorn, Phillips	0	27	6	
Greenhorn-Phillips	0	56	0	
Phillips	0	29	3	
ATOR CREEK Red River	1	0	0	Single spacing unit comprised of W/2 NE/4 and E/2 NW/4, Sec. 36, T 35 N, R 55 E for production of oil from Red River Formation (Order 73-96).
BADLANDS Eagle	0	5	8	One Eagle Formation well per governmental section spacing unit; to be located no closer than 990' to a section line (Order 22-78).
BAINVILLE Ratcliffe	1	0	0	Single 320-acre spacing unit for Winnipegosis Formation (Order 117-84). Single spacing unit for Red River and Winnipegosis (Order 18-88).
Winnipegosis	1	0	0	
Red River	2	0	0	
BAINVILLE (RATCLIFFE/MISSION CANYON) Ratcliffe	1	0	0	Single spacing unit consisting of S/2 NW/4 and N/2 SW/4 Sec. 13, T28N, R58E for production from the Mission Canyon/Ratcliffe (Order 5-94).
BAINVILLE II Ratcliffe	1	0	0	320-acre Red River spacing units; no well closer than 660' to the unit boundaries (Order 36-82). Field reduction (Order 16-85). Single Red River spacing unit (Order 69-85). Single Madison Group spacing unit, NW/4 27N-59E-6 (Order 122-97).
Red River	2	0	0	
BAINVILLE, NORTH Mission Canyon	2	0	0	320-acre spacing units for Winnipegosis and Red River consisting of two governmental quarter sections located in either one or two sections; wells located no closer than 660' to unit boundary and 1,650' to any well producing from the same formation (Order 84-79). Amended to permit a topographic tolerance of 150' (Order 39-80). Single spacing units for the Nisku Formation (Orders 61-92, 57-96). Single Madison spacing unit (Order 16-93). Commingling authorized (Orders 34-97, 35-97, 112-97, 113-97).
Ratcliffe	2	0	0	
Nisku	4	0	0	
Winnipegosis	4	0	0	
Interlake	1	0	0	
Red River	7	0	0	

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
BAINVILLE, WEST Red River	1	0	0	320-acre spacing units for Madison Group to consist of two governmental quarter sections that may be in either one or two governmental sections; location to be no closer than 660' to the unit boundary or closer than 1,650' to another producing well within the field (Orders 19-78, 42-79). 320-acre Red River spacing units aligned in east-west direction with permitted well to be no closer than 660' to unit boundary (Order 57-80).
BANNATYNE Swift	17	0	0	Delineated for production from the Swift and Madison Formations; wells to be located at center of 10-acre tracts, 50' topographic tolerance; commingling permitted (Order 20-58). Pilot waterflood of Swift Formation suspended in 1963.
Madison	7	0	3	
BATTLE CREEK Eagle	0	56	11	Originally delineated for production of gas from all formations from surface to top of Virgelle with one well per producing horizon per section located no closer than 990' to section line but allowing additional wells in each section no closer than 1,320' to wells producing from same horizon (Order 40-86). Field rules amended to include Lower Eagle and Upper Colorado intervals in a portion of the field (Order 76-92).
Niobrara	0	2	0	
BEANBLOSSOM Lower Tyler	1	0	1	Three spacing units consisting of individual lots with one well per lot (Order 23-86).
BEARS DEN Bow Island	0	1	0	Swift unit delineated and spacing waived in unitized portion of field (Order 5-89). Statewide spacing for non-unitized lands and formations.
Swift	8	2	1	
BELL CREEK Muddy	65	0	204	Originally 40-acre spacing units with location 660' from unit boundary with 150' tolerance for topographic reasons only (Orders 37-67, 39-67, 50-67, 1-69, 17-70). Tertiary recovery program (Order 25-80). Dissolution of secondary and enhanced recovery units created under Orders 7-70, 23-70 8-71, 26-71, 35-71, 25-80, 82-84, 111-84, 112-84 and consolidation of said units as the Bell Creek Consolidated (Muddy) Unit approved 12-12-91 (Order 71-91). South Bell Creek (Muddy) Unit approved 6-28-90 (Order 24-90). Certification of Consolidated Unit (Order 44-96) and South Bell Creek Unit (Order 74-97) as expanded enhanced recovery projects.
BELL CREEK, SOUTHEAST Muddy	0	2	0	160-acre spacing units for Muddy gas production, wells 660' from spacing unit boundary (Order 31-72).
BENRUD	0	0	0	160-acre spacing for Devonian with wells no closer than 990' from spacing unit boundaries (Orders 1-62 and 44-62). Field rules amended to allow drilling not closer than 660' to the spacing unit boundaries (Order 6-65). Field reduction (Order 66-84).
BENRUD, EAST Nisku	1	0	1	160-acre spacing units for Nisku with permitted location within a 1,320' square in center of quarter section (Order 6-65). Single Nisku Formation spacing unit consisting of Lots 3 and 4, Sec. 6, T30N, R48E (Orders 108-84 and 7-85).
BENRUD, NORTHEAST Nisku	1	0	0	Same as East Benrud Field (Order 6-65). Field enlargement (Order 26-66).
BERTHELOTE Sunburst	3	0	0	Sunburst wells to be located 330' from lease lines; 660' between wells with no more than one well per governmental quarter-quarter section (Order 18-66).
BIG COULEE Big Elk	0	1	0	Statewide except for single spacing unit for production of gas from the Morrison Formation consisting of Sec. 29, T4N R20E (Order 25-86).
Cat Creek 3	0	6	0	
Morrison	0	1	0	
BIG GULLY Tyler	1	0	1	Statewide.
BIG GULLY, NORTH Tyler	0	0	1	Statewide.

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
BIG MUDDY CREEK				
Mission Canyon	0	0	1	One well per 320-acre spacing unit for Interlake and Red River with wells no closer than 660' from boundary of the four N/2-S/2 spacing units (Order 4-75).
Red River	0	0	1	
BIG ROCK GAS FIELD				
Colorado	0	5	0	640-acre spacing units for gas production from Blackleaf "A" Formation; location to be no closer than 990' to any governmental section line (Order 31-78). Amended to allow 2 wells per section in 5 sections (Order 64-85).
Blackleaf	0	25	1	
Bow Island	0	6	0	
BIG WALL				
Amsden	3	0	4	Basal Amsden Sand and Amsden Dolomite spaced by old statewide spacing; 330' from lease or property line, 990' between wells in same reservoir (Order 12-54). Waterflood of Tyler "B" sand started August 1966 (Order 22-66). A second Tyler "B" waterflood authorized by Order 96-83.
Tyler	8	0	0	
BILLS COULEE				
Dakota	0	0	1	Field without restrictions except that no well may be drilled closer than 330' to the exterior field boundary (Order 22-80).
Kootenai	0	1	2	
Moulton	0	2	0	
Sunburst	0	1	0	
Madison	0	0	1	
BLACK BUTTE				
Eagle	0	1	1	320-acre spacing units for gas production from the Eagle Sandstone consisting of either the N/2 and S/2 or E/2 and W/2 of the section with well location to be no closer than 990' to exterior field boundaries nor closer than 660' to the interior spacing unit boundaries (Order 134-80).
BLACK COULEE				
Eagle	0	3	9	320-acre Eagle spacing units; well to be located no closer than 990' to unit boundary (Order 6-73). Well location to be no closer than 660' to eastern boundary of Black Coulee Field (Order 37-79). Field enlargement (Order 71-79).
BLACK DIAMOND				
Duperow	1	0	1	320-acre spacing units for Duperow, Red River and Nisku Formations; well location no closer than 660' to unit boundary (Orders 147-81 and 51-86). Field enlarged (Order 15-87). Portion of existing field delineated for production from Ratcliffe Formation (Order 32-89).
BLACK JACK				
Second White Specks	0	1	0	Delineated for Sunburst and Swift with one gas well per 160 acre spacing unit, with well no closer than 660' to spacing unit boundaries (Order 3-69). Amended to include Blackleaf Formation in spacing and field rules (Order 4-74).
Blackleaf	0	2	0	
Bow Island	0	1	0	
Sunburst	0	11	0	
BLACKFOOT				
Bow Island, Dakota	0	2	0	Delineated for Cut Bank and Madison with one well per 40-acre spacing unit; 300' tolerance from center of spacing unit; dual completion in Cut Bank and Madison with administrative approval (Order 3-57). Waterflood started November 1976 (Order 34-76). Blackfoot Shallow Gas: 640-acre spacing units; one well per section per producing horizon above the Kootenai with location to be no closer than 990' to unit boundaries (Order 121-80).
Dakota	0	6	1	
Sunburst, Dakota	0	2	0	
Cut Bank, Madison	16	0	4	
Nisku	0	0	1	
BLACKLEAF CANYON				
Sun River Dolomite	0	0	4	Single 160-acre Madison spacing unit (Order 84-81). Knowlton Unit: Well spacing requirements suspended provided no well drilled to be closer than 990' to unit boundary (Order 47-81). Two 280-acre spacing units for Sun River (Order 25-85).
BLOOMFIELD				
Dawson Bay	1	0	0	320-acre spacing units for Interlake and Red River Formations consisting of two contiguous governmental quarter sections which need not be in the same section; wells located no closer than 660' to spacing unit boundaries (Order 38-83). Dawson Bay Formation added and commingling of Dawson Bay, Interlake, and Red River formations authorized (Order 16-84). Enlarged (Orders 32-84 and 26-89).
Interlake	1	0	0	
Red River	1	0	0	
BLUE HILL				
Red River	2	0	0	Statewide.
BLUE MOUNTAIN				
Red River	1	0	0	Statewide.

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
BORDER				
Cut Bank	10	0	7	Oil: Unitized, New and Old Border fields, waterflood approved (Orders 8-73, 9-73, 28-73). Gas: Location no closer than 330' to boundary of legal subdivision; 2,400' between wells in same formation on same lease; 75' topographic tolerance (Order 7-54).
Moulton	0	0	1	
Sunburst	0	0	1	
BOWDOIN & AREA				
Bowdoin	0	16	3	One well per quarter section not less than 1,000' from lease boundary or less than 2,000' from any gas well in same horizon (Order 29-55). Unitized 1958. Delineated (Order 3-72). Spacing and well location requirements waived within lands participating in Bowdoin and Hinsdale Units (Order 135-97).
Bowdoin, Greenhorn	0	6	0	
Bowdoin, Greenhorn, Phillips	0	9	3	
Greenhorn	0	344	8	
Phillips	0	39	5	
Cloverty	0	75	1	
BOWES				
Eagle	0	44	9	Eagle Sandstone gas wells to be located 660' from boundary of legal subdivision and 1,320' from other wells in same formation with 75' topographic tolerance (Order 23-54). 160-acre Eagle spacing units in Sec. 5, 6, 7, 8, 17, and 18, T31N, R19E (Order 44-75). Sawtooth (Piper) oil wells 330' from lease or property line, 990' between wells in the same formation (Order 13-54). Pilot waterflood initiated in 1961, expanded to fieldwide waterflood in 1965 (Order 6-61). Vacuum pumps authorized for Sawtooth Formation oil wells (Order 74-83). Location and spacing requirements waived for lands committed to unit agreement (Order 61-97). Certification as an expanded enhanced recovery unit (Order 85-97).
Sawtooth	46	0	34	
BOX CANYON				
Red River	0	0	1	Statewide.
BRADLEY				
Bow Island	0	1	0	One well per formation per section for production of gas from all horizons above the top of the Kootenai Formation (Order 91-84). Amended to allow two wells per spacing unit (Order 47-95).
Sunburst	1	1	0	
Madison	0	0	1	
BRADY				
Burwash	1	0	2	Originally delineated for Sunburst Sandstone; wells to be located at center of 10-acre spacing units with 75' topographic tolerance (Orders 34-62, 55-62). Field enlargement; operators may commingle production from Burwash and Sunburst formations in Section 16 (Order 86-81).
Sunburst	8	0	4	
Morrison	0	0	11	
BREED CREEK				
Tyler	11	0	2	Breed Creek Waterflood Unit approved; spacing waived within unitized area; wells to be located no closer than 330' to unit boundaries (Order 12-92). Certified as expanded enhanced recovery unit effective 9/1/94 (Order 90-94).
BROADVIEW				
Big Elk	0	0	1	Single 640-acre Frontier spacing unit comprised of Sec. 35, T5N, R22E (Order 8-86).
BRORSON				
Madison	4	0	0	One well per 160-acre spacing unit, wells no closer than 660' from spacing unit boundary for Mission Canyon and Red River Formations (Order 5-69). Field enlargement (Order 25-82).
Mission Canyon	3	0	0	
Ratcliffe	1	0	0	
Interlake	1	0	0	
Red River	5	0	0	
BRORSON, SOUTH				
Madison	1	0	0	Delineated for Red River production with one well per 160-acre spacing unit, no closer than 660' from spacing unit boundary (Order 26-68). Gas to Brorson Field Plant. Reduced Field Area (Order 26-77).
Mission Canyon	4	0	0	
Bakken	2	0	0	
Red River	0	0	1	
BROWNS COULEE				
Eagle	0	0	1	Delineated for Judith River and Eagle gas production; one well per 160-acre spacing unit located no closer than 660' to spacing unit boundary; commingling allowed upon administrative approval (Order 7-74).
BROWNS COULEE, EAST				
Eagle	0	0	3	Statewide.
Judith River	0	0	1	
BRUSH LAKE				
Red River	4	0	1	320-acre Red River spacing units with initial nine spacing units described in Order 15-71.
Stonewall	1	0	0	

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
BULLWACKER				
Eagle	0	41	2	Delineated for Judith River and Virgelle/Eagle gas production with one well per 320-acre spacing unit with well location no closer than 660' to internal spacing unit boundaries and 990' to exterior field boundary (Order 26-74). Field enlarged (Order 63-85).
Judith River	0	2	0	
Virgelle	0	1	0	
BURGET, EAST				
Madison	1	0	0	Statewide.
Mission Canyon	1	0	0	
Ratcliffe	1	0	0	
BURNS CREEK				
Red River	1	0	0	Statewide.
BURNS CREEK, SOUTH				
Red River	0	0	1	Statewide.
CABARET COULEE				
Madison	1	0	4	Statewide.
Ratcliffe	0	0	1	
CABIN CREEK				
Madison	8	0	14	Spacing waived and General Rules suspended until present Unit Agreement becomes inoperative (Order 36-62). Field boundaries amended and some spacing units designated (Order 118-84). Waterflood of Siluro-Ordovician (Orders 5-59, 15-60, and 30-63). Certified as an expanded enhanced recovery project effective 9/1/94 (75-94).
Siluro-Ordovician	93	0	8	
Red River	8	0	1	
CAMP CREEK				
Eagle	0	1	0	Statewide.
CANADIAN COULEE & AREA				
Firemoon	0	0	1	320-acre spacing units for Jurassic Sawtooth/Piper with well location no closer than 660' to interior spacing unit boundary, and 990' to field boundaries (Order 18-76).
CANADIAN COULEE, NORTH				
	0	0	0	640-acre spacing units for Jurassic Sawtooth. Wells to be no closer than 1,650' to section line (Order 15-74).
CANAL				
Madison	1	0	0	320-acre Red River spacing units consisting of E 1/2 and W 1/2 of governmental section (Order 34-70). 160-acre Madison spacing units; wells located no closer than 660' to unit boundary with 150' topographic tolerance (Order 58-85). Permanent spacing unit, E/2, 23N-59E-7, for horizontal Ratcliffe well (Order 95-97).
Mission Canyon	1	0	0	
Ratcliffe	1	0	0	
Red River	1	0	0	
CARLYLE				
Red River	1	0	0	320-acre Red River spacing units to consist of either the N/2 and S/2 or E/2 and W/2 of section or lots corresponding thereto; well location to be no closer than 660' to unit boundary nor closer than 1,650' to any well drilling or producing from the same pool (Order 39-79). E 1/2 of 18-11N-61E designated as a spacing unit for Nisku Formation with permission to commingle production with Red River (Order 29-87).
CAT CREEK, EAST DOME				
Ellis	5	0	0	220' from lease or property line, 440' from every other well in same formation (Order 17-55). Three separate producing areas, East, Mosby, and West Domes. Field enlargement; upper and lower Brindley wells in Sec. 1, T15N, R28E are to be no closer than 350' from other Morrison wells in said section (Order 101-82). Three Kootenai, two Ellis, and one Amsden waterflood approved by Orders 17-56, 18-59, 13-62, 8-68, 38-70, 11-71 utilizing water from Third Cat Creek Sandstone. Waterflood modified (Order 29-74).
CAT CREEK, MOSBY DOME				
Cat Creek 2	1	0	1	See Cat Creek, East Dome regulation summary.
Ellis	3	0	4	
Rierdon	0	0	1	
Amsden	2	0	0	
CAT CREEK, WEST DOME				
Cat Creek 1 & 2	50	0	6	See Cat Creek, East Dome regulation summary.
Cat Creek 2	0	0	4	
Mowry	0	0	2	
Ellis	0	0	1	
Morrison	3	0	0	

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
CATTAILS				
Ratcliffe	7	0	0	160-acre spacing units for Ratcliffe zone; wells no closer than 660' to unit boundaries (Order 31-88).
CATTAILS, SOUTH				
Madison	2	0	0	160-acre spacing units for Ratcliffe zone; wells no closer than 660' to spacing unit boundaries. Horizontal wells may cross spacing unit boundaries (Order 70-91).
Ratcliffe	1	0	0	
CEDAR CREEK				
Eagle	0	142	2	320-acre Eagle Formation spacing units for a portion of the area, with wells in center of NW 1/4 and SE 1/4 of each section with 200' topographic tolerance (Order 1-61). Delineation amendments (Order 23-76 and 32-86). Order 33-54 (original delineation) vacated, and a portion of the lands included in Order 1-61 removed by Order 32-86. Spacing in Baker North Eagle Unit waived; 660' setback from unit boundaries required (Order 93-94). Two Eagle Fm. wells per spacing unit for a portion of field (Order 4-97).
Judith River, Eagle	0	2	0	
CHAIN LAKES				
Eagle	0	0	1	Statewide.
CHARLIE CREEK				
Dawson Bay	1	0	0	Delineated for Red River, Duperow, and Nisku with 320-acre spacing units, oriented either east-west or north-south at option of operator; well no closer than 660' to spacing unit boundary and no closer than 1,650' to another producing well; spacing units may not cross section lines; commingling upon administrative approval (Order 66-76). Single 320 acre spacing unit for Dawson Bay oil production (Order 3-95).
CHARLIE CREEK AREA				
Bakken	1	0	0	Statewide.
CHARLIE CREEK, EAST				
Red River	3	0	0	Two 160-acre spacing units for Duperow Formation (Order 47-87). Two 320-acre spacing units for Red River Formation (Order 38-88).
CHARLIE CREEK, NORTH				
	0	0	0	Single Red River spacing unit (Order 37-82).
CHELSEA CREEK				
Nisku	1	0	0	Statewide.
CHINOOK, EAST				
Eagle	0	0	1	Statewide.
Sawtooth	0	0	2	
CHIP CREEK				
Eagle	0	0	3	160-acre spacing units for Virgelle/Eagle and shallower formations; location no closer than 660' to spacing unit boundary (Order 89-76).
CLARK'S FORK				
Greybull	0	1	0	330' from quarter-quarter section line; 1,320' between wells with 75' topographic tolerance (Order 17-54).
CLARK'S FORK, SOUTH				
	0	0	0	160-acre spacing for Frontier and deeper horizons; location no closer than 330' from quarter section line or 1,320' from any other well (Order 21-69).
CLEAR LAKE				
Mission Canyon	2	0	1	Statewide plus single spacing unit for Madison and Nisku consisting of E/2 NW/4 and W/2 NE/4 Sec. 8, T33N, R58E (Order 21-94).
Ratcliffe	3	0	0	
Nisku	2	0	0	
Red River	7	0	0	
CLEAR LAKE, SOUTH				
Red River	1	0	0	Statewide.
COAL COULEE				
Eagle	0	0	3	One Eagle well per governmental section, to be located no closer than 990' to section line and only one well permitted per formation (Order 25-78). Amendment to Order 25-78 provides 320-acre spacing units to be designated by the operator within certain sections; well to be located no closer than 990' to spacing unit boundary (Order 36-79).

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
COAL MINE COULEE				
Eagle	0	4	0	Delineated for Judith River and Eagle Formations with 4 wells per 640-acre spacing unit per formation with permitted well no closer than 990' to the exterior boundaries of the field and no closer than 660' to spacing unit boundaries with 150' topographic tolerance (Order 1-90).
Judith River	0	0	1	
Second White Specks	0	1	0	
COALRIDGE	0	0	0	Statewide.
COLORED CANYON				
Nisku	0	0	1	Single Red River spacing unit (Order 28-84; vacated by Order 2-97). Single 160-acre Nisku spacing unit (Order 86-85). Single Red River Fm. spacing unit, S/2 NW/4 and N/2 SW/4, 7-32N-57E (Order 115-97).
Red River	3	0	0	
COMERTOWN				
Ratcliffe	1	0	0	320-acre Red River spacing units; permitted well to be no closer than 660' to spacing unit boundary (Order 35-80). Field enlargement (Orders 9-81 and 150-81).
Nisku	1	0	1	
Nisku, Duperow	0	2	0	
Red River	4	0	1	
COMERTOWN AREA, SOUTH				
Red River	0	0	1	Statewide.
COMERTOWN, SOUTH				
Red River	1	0	0	320-acre designated spacing units, wells located no closer than 660' to unit boundary (Order 96-84). Enlarged (Order 20-85).
CONRAD, SOUTH				
Dakota	0	0	4	Delineated for Dakota production with 10-acre spacing units. Wells in center of each unit with 75' topographic tolerance (Orders 34-62, 31-63).
Sunburst	0	0	5	
COTTONWOOD				
Ratcliffe	2	0	0	Single 320-acre Red River spacing unit (Order 85-84). Amended to include Ratcliffe (Order 54-92).
COTTONWOOD, EAST				
Ratcliffe	1	0	0	Statewide.
COW CREEK				
	0	0	0	80-acre Charles spacing units, direction at option of operator but wells to be in SW 1/4 and NE 1/4 of each quarter section (Order 11-69).
COW CREEK, EAST				
Kibbey	5	0	0	40-acre spacing units for Charles and Kibbey Formations consisting of quarter-quarter section with permitted well to be at center with 150' topographic tolerance (Order 35-74). Amendment of Order 35-74 and designation of ten 80-acre Charles Fm. spacing units (Order 73-97).
CRANE				
Devonian	2	0	0	320-acre spacing units for Red River and Duperow Formations consisting of one half of a governmental section; well location to be no closer than 660' to spacing unit boundary and no closer than 1,650' to any well drilling to or producing from the same pool (Order 40-79).
Duperow	1	0	0	
Red River	1	0	0	
Red River, Interlake	2	0	0	
CROCKER SPRINGS, EAST				
Madison	0	0	1	Statewide (Order 68-82 which established 80-acre spacing units was vacated by Order 37-87).
CUPTON				
Red River	4	0	1	160-acre quarter section spacing units for Red River Formation. Location no closer than 660' to spacing unit boundary (Order 4-72).
CUPTON AREA				
Red River	1	0	0	Statewide plus single Red River spacing unit (Order 14-85).

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
CUT BANK				
Blackleaf	0	2	2	Oil: 330' from legal subdivision line, 650' between wells in same formation 5-spot on 40-acre tract permitted; 75' topographic tolerance (Order 10-54). Gas: 330' from legal subdivision, 2,400' between wells in same formation; 75' topographic tolerance except for setback from legal subdivision boundary (Order 10-54). Sec. 20, 29, and 32 of T36N, R4W spaced 320-acres (N 1/2 and S 1/2) (Order 26-70). Cut Bank Special Spacing area: E 1/2 and W 1/2 spacing units with wells to be located no closer than 330' to legal subdivision line nor less than 2,400' from any well drilling or producing from same reservoir (Orders 82-76, 6-77). Field extension (Order 3-79). Include all formations from surface to base of Madison Formation (Order 45-80). Field enlarged (Orders 68-83, 13-85). Additional wells in selected spacing units in Special Spacing area (Orders 14-93, 51-93, 2-94). SCCBSU enhanced recovery approved (Order 88-85). Cut Bank-Airport Unit approved (Order 26-92). Airport Unit vacated, Westbank Unit approved (Order 32-97).
Bow Island	0	24	0	
Cut Bank	397	202	305	
Dakota	0	1	0	
Kootenai	0	3	1	
Lander	1	2	3	
Moulton	15	5	42	
Moulton, Sunburst	2	0	0	
Sunburst	8	9	4	
Cut Bank, Madison	4	0	0	
Madison	38	2	26	
CX				
	0	0	0	160-acre spacing units for production of coalbed gas from surface to base of Fort Union Formation; 4 wells per coalbed or horizon per spacing unit with a 220' setback from spacing unit boundaries.
DAGMAR				
Red River	2	0	0	Statewide.
DEAN DOME				
	0	0	0	Statewide.
DEER CREEK				
Tyler	0	1	0	80-acre spacing units for Interlake and Red River consisting of any two adjacent quarter-quarter sections. Well location in center of NE and SW 1/4 of each quarter section, 75' topographic tolerance (Orders 23-55 and 14-59). Well location amendment. (Order 10-86) Commingling of production from the Interlake, Stony Mountain, Red River, and Charles with administrative approval (Order 18-63). 80-acre Charles Fm spacing unit, E/2 NE/4, 17N-53E-22 (Order 75-97). Regular section spacing units for Charles Fm horizontal wells (Orders 20-97, 90-97, 91-97, 118-97).
Charles	3	0	0	
Charles C	3	1	0	
DELPHIA				
Amsden	2	0	1	Statewide.
DEN				
McGowan	1	0	0	Delineated with single spacing unit for production of oil from Charles and Mission Canyon Formations with two existing wells as the designated wells (Order 34-95).
Ratcliffe	1	0	0	
DEVIL'S BASIN				
Tyler	1	0	0	10-acre spacing units for Heath Formation; well location to be in the center of each spacing unit with a 75' tolerance for topographic or geologic reasons (Order 114-80). Certain lands removed from field (Orders 103-94, 64-97).
Heath	2	0	1	
DEVILS POCKET				
	0	0	0	40-acre spacing units for Heath Formation; wells no closer than 165' to spacing unit boundary (Order 34-85).
DEVON				
Bow Island	0	25	7	160-acre spacing units for production of gas from all formations from surface to top of Kootenai Formation; wells located no closer than 330' to any quarter section line and 660' to exterior boundaries of field, existing wells excluded (Order 32-83). Field enlarged and amended to provide 320-acre spacing units for Bow Island Formation; wells located no closer than 660' to interior spacing unit line and 990' to section lines (Order 50-86). Field enlargement (Order 5-88).
DEVON, EAST				
Bow Island	0	2	4	320-acre spacing units for Bow Island gas production consisting of any two contiguous quarter sections; wells located no closer than 660' to spacing unit boundaries (Order 42-86). Field enlarged (Order 26-87).
DEVON, SOUTH UNIT				
Bow Island	0	0	11	South Devon Unit drilled on statewide spacing and unitized for primary production (Order 28-71, corrected). South Devon Field delineated for gas production from all horizons above the top of the Kootenai with 320-acre spacing units; wells located no closer than 660' to unit boundaries (Order 24-84). Field enlarged (Order 11-87).

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
DIAMOND POINT				
Interlake	1	0	0	320-acre spacing unit allowing two wells to produce from the Red River or from commercial production at any depth shallower (Order 20-80).
Red River	1	0	1	
DIVIDE				
Madison	3	0	0	Ratcliffe and Mission Canyon 160-acre spacing units, no closer than 660' to spacing unit boundaries and 1600' between wells; 150' topographic tolerance excluding boundary setback (Order 7-81).
Mission Canyon	1	0	0	
Ratcliffe	6	0	0	
Red River	1	0	0	
DIVIDE AREA				
Red River	3	0	0	Statewide.
DOOLEY				
Ratcliffe	3	0	0	Statewide.
DRY CREEK				
Eagle	0	0	1	Field delineated for Frontier gas production with E 1/2 or W 1/2 of sections as spacing units (Order 8-70). West Dome gas storage project approved (Order 31-66). Enlarged (Order 69-92). Order 8-70 modified to allow N 1/2 or S 1/2 of section as spacing units (Order 31-76).
Frontier	0	14	1	
Judith River	0	3	0	
Virgelle	0	3	0	
Greybull	0	1	0	
	0	0	0	
DRY CREEK(SHALLOW GAS)				
Eagle, Virgelle	0	2	0	160-acre spacing units with 1 well per productive horizon above Cody Shale per spacing unit; location no closer than 660' to spacing unit boundaries (Order 54-76). Additional wells (Order 13-90).
DRY CREEK, MIDDLE				
Frontier	0	2	1	320-acre spacing units for Frontier gas production consisting of two adjacent governmental quarter sections lying north-south or east-west at operator's option; permitted well no closer than 660' to spacing boundary (Order 25-75).
DRY CREEK, WEST				
Greybull	0	1	0	Originally 160-acre spacing units for Greybull Sandstone; well location anywhere in spacing unit but no closer than 660' to unit boundary (Order 43-78); amended to include Frontier Formation (Order 65-82). Field enlargement (Order 86-82).
DRY FORK				
Bow Island	0	6	3	One well per section per horizon above top of Kootenai; wells no closer than 990' to spacing unit boundaries (Order 32-82).
DUNKIRK				
Dakota	0	14	2	Only one well per section may produce from each producing zone, formation, or horizon above Kootenai Formation, but no closer than 990' to section lines (Order 58-81). Field enlargements (Orders 104-81 and 66-82).
DUNKIRK, NORTH				
Bow Island	0	27	8	One well per governmental section per Bow Island zone or horizon. Each producing well to be located anywhere within section but no closer than 990' to section line (Order 25-77). Field amended to allow 4 wells per section located no closer than 1,320' to another well producing from the same horizon (Order 7-89). Field enlargements (Orders 64-78, 157-81 and 6-89). Field reductions (Order 61-91, 6-95). Field amended to include Sunburst and Swift formations in 3 sections, 4 wells per formation per section with each Sunburst and Swift well located no closer than 660' to spacing unit boundaries and 1320' to any other well producing from same formation with a 75' topographic or geologic tolerance (Order 72-91).
Sunburst	0	1	0	
Swift	0	1	1	
DUTCH HENRY				
McGowan	1	0	2	Statewide plus two designated 160-acre spacing units (Orders 95-94 and 96-94).
Ratcliffe	1	0	1	
DUTCH JOHN COULEE				
Sunburst	1	3	4	Sunburst sand unitization and gas repressuring project approved; operator may drill additional wells anywhere in unit but no closer than 330' to unit boundaries (Order 27-88).

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
DWYER				
Charles	5	0	6	160-acre Madison spacing units; well location in center of SE 1/4 of spacing units with 175' topographic tolerance (Orders 25-60, 29-61). Field reduction (Order 30-85). Single 320-acre Nisku spacing unit (Order 30-87). Waterflood (Order 20-68). Single Red River spacing unit with 2 wells (Order 97-83). Single 320-acre Winnipegosis spacing unit (Order 10-91). Exception to produce Ratcliffe (Order 60-96).
Ratcliffe	1	0	1	
Nisku	0	0	1	
Nisku, Duperow	2	0	0	
Winnipegosis	0	0	1	
Red River	3	0	0	
Red River, Nisku	2	0	0	
EAGLE				
Madison	3	0	0	Statewide.
Mission Canyon	3	0	0	
Ratcliffe	2	0	1	
Duperow	1	0	0	
Red River	0	0	1	
EAGLE SPRINGS				
Bow Island	0	5	4	One well per governmental section per zone, located no closer than 990' to section line for all gas zones above the top of the Rierdon Formation; commingling of Swift and Sunburst permissible (Orders 4-78, 19-79). Enlargement (Order 20-93).
EAST GLACIER				
Greenhorn	1	0	1	160-acre spacing units for Greenhorn (Order 41-81). Amended to enlarge field and designate 80-acre spacing units; permitted well to be located no closer than 330' to the exterior boundaries (Order 112-81).
ELK BASIN				
Frontier	11	0	14	Spacing waived within unit areas (Order 10-61). Frontier: Water injection (Order 1-72). Embar-Tensleep pressure maintenance by crestal gas injection. Waterflood approved in 1966 (Order 5-66). Madison: Water injection (Order 17-61).
Embar, Tensleep	40	0	24	
Madison	15	0	3	
Big Horn	0	0	1	
ELK BASIN, NORTHWEST				
Frontier	0	2	5	Spacing waived within unitized portion except that bottom of hole be no closer than 330' from unit boundary and there be at least 1,320' surface distance between wells in same formation; 75' topographic tolerance (Orders 43-63, 28-64). Frontier waterflood in progress. Embar-Tensleep waterflood (Order 3-67, 6-74).
Cloverly	2	1	2	
Embar, Tensleep	0	0	8	
Madison	4	0	4	
ENID, NORTH				
Red River	1	0	3	Spaced for one-well Red River field, NE 1/4 of Section 10 and NW 1/4 of Section 11, T23N, R54E (Order 45-79).
EPWORTH				
Bakken	1	0	0	Statewide.
ETHRIDGE				
Swift	0	10	0	320-acre spacing units for Swift Formation; well locations no closer than 660' to unit boundaries (Order 4-90). Field enlarged (Order 4-92).
ETHRIDGE, NORTH				
Bow Island	0	6	1	320-acre spacing units for horizons above Rierdon; well location to be no closer than 660' to unit boundaries; Section 2, T33N, R4W to remain a 640-acre spacing unit (Order 98-81). Designation of a 640-acre spacing unit for Third Bow Island Sand gas production (Order 66-93).
Swift	0	0	1	
FAIRVIEW				
Madison	1	0	0	160-acre spacing units; well location anywhere in spacing unit but no closer than 660' to unit boundary (Orders 48-65, 1-67, 43-67, 44-67, 38-84). Field area reduced (Order 119-84). Field enlarged (Order 16-87). Northwest part of field unitized for gas injection utilizing gas from Fairview and Brorson fields (Order 11-70).
Mission Canyon	2	0	0	
Ratcliffe	3	0	0	
Red River	10	0	3	
FAIRVIEW, EAST				
Ratcliffe	1	0	0	320-acre designated Red River spacing units (Order 76-81).
Winnipegosis	1	0	0	
Red River	0	0	1	
FAIRVIEW, WEST				
Madison	3	0	0	Statewide.
Ratcliffe	3	0	0	

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
FERTILE PRAIRIE	0	0	0	80-acre north-south spacing units; well location in NW 1/4 and SE 1/4 of quarter section with 75' topographic tolerance (Orders 3-56, 7-62). Amended to provide well locations for each 80-acre spacing unit to be the center of the SW or NE quarter quarter section of each quarter section with 75' tolerance for surface obstructions (Order 65-80). Field enlargement (Order 70-94). Field rules vacated for Red River Formation (East Lookout Butte (Red River) unit, Order 70-95).
FIDDLER CREEK Greybull	0	0	1	Statewide.
FISHHOOK Madison	1	0	0	Statewide.
Red River	2	0	0	
FITZPATRICK LAKE Bow Island	0	9	1	One well per governmental section located no closer than 990' to section line for all gas zones above the top of the Kootenai (Order 31-79). Field enlarged (Orders 113-84 and 2-92). Authorization to complete two Swift Formation gas wells in Sec. 10, T36N, R4W (Order 50-93). Sec. 14 & 15, T36N, R4W delineated for formations above Swift and below Bow Island; 320-acre spacing units consisting of two regular quarter sections in one or two sections; 660' setback from spacing unit boundaries (Order 1-94).
Swift	0	0	1	
FLAT COULEE Bow Island	0	3	0	Bow Island Gas: wells to be 330' from boundary of legal subdivision and 1,320' from other wells in same reservoir (Orders 36-54, 16-55). Sawtooth/Swift oil: 40-acre spacing units; well in center of spacing unit with 150' topographic tolerance (Orders 16-62, 19-63). Waterflood unit and redelineation approved for Swift sandstone (Orders 13-71, 17-A-71, 22-71).
Dakota	0	3	1	
Swift	15	1	6	
FLAT LAKE Madison	1	0	0	160-acre Madison spacing units; well location in center of NE 1/4 of quarter section with 200' topographic tolerance; wells no closer than 961' to North Dakota state line and no closer than 1,600' to Canadian line (Orders 10-65, amended; 43-65, 23-66, 33-66). Unit operation for eastern part of field (Order 7-71). Unit operation for western part of field (Order 32-74). Lower Ratcliffe permanent spacing unit NE/4 Sec. 13 and NW/4 Sec. 18, 37N-57E, for horizontal well (Order 22-97).
Ratcliffe	33	0	34	
Nisku	6	0	0	
Red River	1	0	0	
FLAT LAKE, EAST Madison	1	0	0	Single 160-acre Madison spacing unit (Order 103-84).
FLAT LAKE, SOUTH Ratcliffe	3	0	1	160-acre spacing units for Ratcliffe (Order 2-67); modified to provide that wells may be located anywhere within the spacing unit but no closer than 660' to any unit boundary (Order 49-80).
FLAXVILLE	0	0	0	160-acre Madison spacing units; permitted well to be no closer than 660' to the exterior boundaries of the unit (Order 105-82). Order 105-82 amended to provide 150' tolerance for topographic reasons (Order 124-82).
FORT CONRAD Bow Island	0	16	0	640-acre spacing units for Bow Island gas production; well location to be no closer than 990' to the section line (Order 19-81). Field enlargement (Order 118-82).
FORT GILBERT Madison	3	0	0	160-acre Ratcliffe/Mission Canyon spacing units; well location no closer than 660' to unit boundary with 150' topographic tolerance (Order 94-81). Excess produced associated gas reinjected into Duperow Formation (Order 78-81).
Mission Canyon	1	0	1	
Red River	3	0	0	
FOUR MILE CREEK Red River	1	0	0	320-acre spacing units for Red River (Order 43-75). Field reduction (Order 10-83).
FOUR MILE CREEK, WEST Red River	1	0	0	Statewide.
FOX CREEK, NORTH	0	0	0	160-acre spacing units for Madison Formation; wells located no closer than 660' to the unit boundary with 150' topographic tolerance (Order 13-84).

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
FRANNIE	0	0	0	10-acre spacing units; well location in center of each unit with 100' topographic tolerance (Order 35-63). Unitized for waterflood of Phosphoria-Tensleep formations using produced fluids (Order 21-70). EOR approved (Order 62-85).
FRED & GEORGE CREEK				
Bow Island	0	3	1	Sunburst Oil: 40-acre spacing units; well location in center of unit with 250' topographic tolerance (Orders 29-63, 1-65, amended by Order 27-65). Sunburst Gas: same as Arch Apex (Order 4-60). Statewide for other formations. Several Sunburst A and B Sand waterflood units in field and area (Orders 13-70, 27-71, 40-80, 43-93, 44-93, 60-93, 64-93).
Sunburst	18	0	33	
Swift, Sunburst	0	0	2	
Swift	0	0	2	
FRESNO & AREA				
Eagle	0	3	4	640-acre spacing units for Eagle (Virgelle) and shallower horizons; wells located no closer than 990' to unit boundary; one well may be drilled within each spacing unit for each producing horizon within the spacing unit (Order 14-76). Field enlargement and modification of field rules within certain areas (Order 52-80).
FROG COULEE				
Red River	1	0	0	320-acre Red River spacing units; wells to be located no closer than 660' to the unit boundary (Order 55-79).
FROID, SOUTH				
Winnipegosis	1	0	0	Statewide.
Red River	3	0	0	
GAGE				
Cat Creek 1	0	0	1	40-acre Amsden spacing units; well location to be in center of each unit with a permitted tolerance of 150' for topographical or geological reasons (Order 120-80). Field enlargement (Order 44-81).
Amsden	2	0	0	
GALATA				
Bow Island	0	6	3	Two wells from same Bow Island horizon per section no closer than 1,320' to each other and 990' to section lines (Order 28-85). Field enlarged (Orders 21-84, 41-85 and 76-85).
GAS CITY				
Madison	2	0	0	80-acre spacing units consisting of E 1/2 and W 1/2 of quarter sections; well location in NW 1/4 and SE 1/4 of quarter section; 150' topographic tolerance; spacing waived and statewide rules for Deviation, Commingling, and Dual Completion are waived in unitized portion of field (Order 29-62). Waterflood using produced water and Madison water (Order 16-69).
Madison, Ordovician	2	0	0	
Siluro-Ordovician	6	0	3	
Red River	2	0	2	
GAS LIGHT				
Eagle	0	0	9	Statewide
GILFORD, NORTH				
	0	0	0	320-acre spacing units for Sawtooth production with no well closer than 660' to spacing unit boundary (Orders 9-58, 38-76, 9-79).
GIRARD				
Bakken	2	0	0	Statewide.
Red River	1	0	0	
GLENDIVE				
Siluro-Ordovician	6	0	1	80-acre spacing units consisting of any two adjacent quarter-quarter sections; wells located in center of NE 1/4 and SW 1/4 of each quarter section with 75' topographic tolerance (Orders 27-55, 19-62, 58-62, 20-66). Additional 80-acre spacing units; commingling of Red River and Madison formations (Order 95-84). Additional Red River Formation wells in specific spacing units (Orders 21-93, 22-93).
Red River	6	0	2	
Stony Mountain	2	0	0	
GOLD BUTTE				
Bow Island	0	0	1	640-acre spacing for Bow Island and Swift, well location any quarter-quarter section cornering on center of section (Order 26-59). Amended field boundary (Order 43-77).
GOLDEN DOME				
Eagle	0	1	0	Originally 160-acre spacing for Judith River, Claggett, and Eagle (Virgelle); wells to be 660' from spacing unit boundary (Order 15-72). Single spacing unit for Greybull Formation (Order 17-82). Field enlargement and inclusion of Frontier and Greybull formations (Order 135-82).
Frontier	1	6	0	
Greybull	0	1	0	

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
GOOSE LAKE Ratcliffe	16	0	11	160-acre spacing units for Ratcliffe Formation (Order 42-63). Field enlarged (Orders 40-66, 47-67, 16-68). Refer to said orders for authorized well locations. Field size reduced (Order 29-77). Single spacing unit for Red River (Order 1-82). North Goose Lake Unit waterflood (Order 17-72). Unit production curtailment (Order 45-77).
Red River	1	0	1	
GOOSE LAKE RED RIVER Red River	1	0	0	Two 320-acre spacing units for Red River Formation (Orders 1-82, 56-96). Red River 'D' zone excluded from Order 56-96 (Order 41-97).
GOOSE LAKE, WEST Red River	2	0	0	Statewide.
GOSSETT Ratcliffe	1	0	0	Statewide.
Red River	1	0	0	
GRABEN COULEE Cut Bank	55	1	30	Sunburst - 40-acre spacing units; well location no closer than 330' to legal subdivision boundary. Cut Bank and Madison - Oil: 330' from boundary of legal subdivision and 650' from any other well in same reservoir and on same lease; 75' topographic tolerance; 5-spot location on 40-acre tract allowed (Order 73-62). Waterflood of Cut Bank sands (Order 61-83).
Sunburst	8	0	6	
GRANDVIEW Bow Island	0	4	2	320-acre spacing units for all gas producing horizons, aligned in a north-south direction; well location no closer than 660' to a spacing unit boundary (Order 49-67).
Sawtooth	0	0	2	
GRANDVIEW, EAST Swift	2	0	0	Statewide.
GRAY BLANKET Tensleep	1	0	0	40-acre spacing units for Tensleep Formation. Wells located no closer than 330' to spacing unit boundary with 150' tolerance upon administrative approval (Order 20-92).
GREBE(TYLER S. U.) Tyler	3	0	0	Tyler secondary recovery unit approved (Order 5-75).
GREEN COULEE Ratcliffe	1	0	0	160-acre spacing units for Ratcliffe Formation; well location to be no closer than 660' to unit boundaries with 150' tolerance allowed for topographic or geologic reasons. 320-acre spacing units for the Red River Formation with well location to be no closer than 660' to the unit boundary nor closer than 1,650' to any well producing from the Red River (Order 56-81).
Red River	1	0	0	
GREEN COULEE, EAST	0	0	0	Delineated for production from Red River Formation with single 320-acre spacing unit (Order 99-82). Redelineation (Order 6-95).
GUMBO RIDGE Tyler	3	0	1	Tyler Formation waterflood unit (Order 54-79). Certified as an expanded enhanced recovery unit effective 1/1/95 (Order 1-95).
GUNSIGHT Madison	1	0	0	Statewide.
Mission Canyon	1	0	0	
Ratcliffe	1	0	0	
GYPSY BASIN Moulton	0	0	2	Sunburst-Swift - 330' from lease lines and 660' between wells in same formation; only two wells per quarter-quarter section (Order 7-66). Sawtooth-Madison oil and gas - 40-acre spacing units; wells no closer than 330' from lease line (Orders 7-66, 12-79).
Sunburst	0	2	8	
Morrison	0	0	1	
Swift	0	1	1	
Sawtooth	0	0	4	
Madison	6	0	20	
Devonian	0	0	1	
Nisku	0	0	1	
HAMMOND Muddy	0	0	9	320-acre spacing units for Muddy Formation; each unit shall consist of a regular half of a governmental section with well location to be no closer than 660' to a unit boundary nor closer than 990' to the exterior boundaries of the field (Order 97-80).

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
HARDPAN Bow Island	0	7	2	Spacing one well per section for Kootenai and above. Well location no closer than 990' to the section boundary (Order 145-81). Field enlargement (Order 131-82). Allow 2 wells per spacing unit in Sections 15, 20 and 21, T27N, R3E (Order 72-92).
HARDPAN AREA Bow Island	0	1	0	Statewide
HARDSCRABBLE CREEK Red River	1	0	0	Statewide.
HAVRE Eagle	0	1	1	Single spacing unit for production of gas from Eagle (Order 48-82).
HAWK CREEK Amsden	0	0	1	Statewide.
HAWK HAVEN Mission Canyon	1	0	0	Single 320-acre Madison spacing unit (Order 101-94).
HAY CREEK Madison	1	0	0	320-acre spacing for Red River, consisting of any two adjacent quarter sections, direction to be determined by operator; location no closer than 660' to unit boundary (Orders 15-69, 27-73).
Mission Canyon	2	0	0	
Interlake	1	0	0	
Red River	2	0	0	
HAYSTACK BUTTE Bow Island	0	4	4	640-acre spacing units; one well per producing horizon above Kootenai Formation; location no closer than 990' to spacing unit boundary (Order 85-76). Amended field boundary (Order 37-77).
HAYSTACK BUTTE, WEST Bow Island	0	9	0	320-acre regular half-section spacing units for all formations above Rierdon; wells located no closer than 660' to the unit boundaries; commingling of production authorized as specified (Order 6-88). Field enlarged (Order 46-91).
HELL COULEE	0	0	0	Statewide.
HIAWATHA Tyler	1	0	1	Statewide.
Tyler, Stensvad	2	0	0	
HIBBARD	0	0	0	Statewide.
HIGH FIVE Stensvad	5	0	4	Spacing waived, unitized, and polymer-waterflood authorized (Order 110-80).
Tyler	5	0	0	
HIGHLINE Eagle	0	0	1	Single 640-acre spacing unit for Eagle and shallower horizons (Order 35-88).
HIGHVIEW Swift	0	0	1	160-acre spacing units, located no closer than 660' from spacing unit boundary; 150' topographic tolerance (Order 84-76). Orders 32-76, 84-76 and 63-82 are amended to provide as follows: 1. Permitted wells to the Moulton, Sunburst, Morrison, and Swift formations shall be no closer than 330' from the lease line nor closer than 660' to a permitted well in the same formation with only two such wells per quarter quarter section with a 150' topographic tolerance. 2. Madison: (Gas) 160-acre spacing units with well location to be no closer than 660' from quarter section lines. 3. Madison: (Oil) 40-acre spacing units with permitted location to be no closer than 330' from the lease line with a 150' topographic tolerance. 4. Sawtooth: (Oil and Gas) 40-acre spacing units with permitted location to be no closer than 330' from the lease line with a 150' topographic tolerance (Order 136-82).
Sawtooth	1	0	0	
Madison	7	0	12	
Devonian	1	0	0	
HONKER	0	0	0	320-acre specified spacing units for Red River Formation; permitted well no closer than 660' to the unit boundary (Order 105-80). Single 160-acre Winnipegosis spacing unit (Order 82-81).
HORSE CREEK Swift	0	0	1	Statewide.

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
HOWARD COULEE Tyler	1	0	0	Statewide.
INJUN CREEK Stensvad	2	0	0	Statewide.
INTAKE II Madison, Ordovician	0	0	2	320-acre spacing units for Red River Formation; permitted well to be located no closer than 660' from the unit boundary (Order 99-81).
Mission Canyon	2	0	0	
IVANHOE Cat Creek 2	1	0	0	40-acre spacing unit for production from any one common formation; well location in center of unit with 200' topographic tolerance (Order 7-60 and 13-56). Field size reduced (Orders 27-89 and 29-89).
Morrison	1	0	1	
Amsden	1	0	0	
Amsden, Tyler	0	0	2	
Tyler	3	0	2	
JIM COULEE Tyler	5	0	1	Unitized, no well to be drilled closer than 330' to unit boundary (Order 18-72).
KATY LAKE Red River	1	0	0	Statewide.
KATY LAKE, NORTH Nesson	1	0	0	Statewide except for single 320-acre Red River spacing unit (Order 88-84), and single 160-acre Mission Canyon spacing unit (Order 89-84).
Madison	3	0	0	
Mission Canyon	1	0	0	
Red River	5	0	0	
KEG COULEE Lower Tyler	2	0	5	40-acre spacing in southwest portion of field; spacing is waived in unitized portion (Orders 3-64, 4-64, 23-64). 80-acre spacing in remainder of field with variable pattern (Orders 11-60, 28-62). 40-acre spacing: W 1/2 E 1/2 and W 1/2 Sec. 35-11N-30E; NW 1/4 Sec. 35-11N-30E; NW 1/4 Sec. 2-10N-30E (Order 23-72). Topographic tolerance varies from 100' to 250' (Order 11-60, 4-64, 23-64). Buffer zone waived (Order 16-65). Field reduction (Order 2-76). Orders 11-60, 4-64, and 2-76 amended by Order 58-76. Three waterflood units (Orders 3-64, 28-66, 14-69). Expanded enhanced recovery unit approved effective 11/1/94 (Order 94-94).
Stensvad	1	0	0	
Tyler	5	0	7	
KEG COULEE, NORTH Tyler	1	0	0	40-acre spacing units with wells to be located at center of each spacing unit; 150' topographic tolerance (Order 46-64). Field reduction (Order 59-76).
KEITH AREA Second White Specks	0	2	1	Statewide.
Bow Island	0	1	0	
Sawtooth	0	1	0	
KEITH, EAST Niobrara	0	1	0	Statewide, except unitized portions spaced by Order 22-62. Amended to allow additional wells in Johns and Osler units (Order 52-95). Designation of 36N-6E-13 as spacing unit; no more than 4 wells for each Cretaceous Fm and no more than 2 wells for each pre-Cretaceous Fm (Order 47-96). Kolhei Unit - no more than 4 wells for each Cretaceous Fm and no more than 2 wells for each pre-Cretaceous Fm (Order 48-96).
Second White Specks	0	11	0	
Bow Island	0	13	0	
Sawtooth	0	4	1	
KELLEY Tyler	1	0	2	40-acre spacing units with well at center of spacing unit with a 250' topographic tolerance (Order 15-67). Waterflood using Third Cat Creek water (Orders 8-69, 51-76). Certified as an expanded enhanced recovery unit effective 4/1/95 (Order 19-95).
KEVIN SOUTHWEST Bow Island	0	1	0	320-acre one-half section spacing units lying north-south or east-west at operator's option; location to be no closer than 660' to unit boundary for Sunburst-Swift formations and all formations above the top of the Kootenai (Orders 26-78, 47-78, 48-78). Field enlargement (Orders 82-79, 96-79, 47-80, 163-81 and 41-89).
Bow Island, Dakota	0	6	0	
Bow Island, Dakota, Sunburst	0	6	0	
Bow Island, Sunburst	0	6	2	
Dakota	0	5	0	
Kootenai	0	1	0	
Sunburst	0	7	2	
Sunburst, Dakota	0	4	0	
Bow Island, Dakota, Sunburst, Swift	0	4	0	
Swift	0	2	0	

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
KEVIN SUNBURST				
Blackleaf	0	1	0	Oil: 9 Wells per 40-acre tract; only 3 wells on any side of tract with set back at least 220' from line; Gas: Well to be no closer than 330' from the boundaries of any legal subdivision line, nor less than 2,400' from every other drilling or producible well on the same lease or unit (Orders 8-54, 28-55). Single spacing unit (Order 61-85). Field enlarged (Order 54-87). 160-acre Bow Island spacing units established (Orders 2-88, 17-88, and 60-88). Two 80-acre spacing units for production of gas from all formations from surface to base of Sunburst Sandstone (Order 40-92). There are three waterfloods in operation using Madison water (Orders 9-64, 17-64, 30-64, 36-65). H2S, CO2 and produced water disposed into Madison (EPA-87). SWD approved EPA-84, 85, 86, 87, 88. Enhanced recovery approved EPA-88, 91, 92. Ferdig Swift Unit approved (Order 52-92).
Bow Island	0	33	1	
Bow Island, Dakota	0	4	2	
Bow Island, Dakota, Kootenai, Sunburst	0	12	0	
Bow Island, Dakota, Sunburst	0	6	0	
Bow Island, Sunburst	0	18	2	
Bow Island, Swift	0	4	2	
Burwash	9	1	1	
Cut Bank	0	1	0	
Dakota	0	2	0	
Sunburst	94	39	59	
Sunburst, Dakota	0	4	0	
Swift, Sunburst	0	6	0	
Ellis	33	1	50	
Swift	28	10	6	
Ellis, Madison	0	0	4	
Madison	593	5	935	
Nisku	1	1	2	
Nisku, Sunburst	0	0	2	
KEVIN SUNBURST (DAKOTA)				
Dakota	0	1	0	Single spacing unit for gas production from Dakota (Order 45-90).
KEVIN SUNBURST, NISKU & AREA				
Nisku	0	2	0	Nisku Gas: 640-acre spacing units; location no closer than 990' to spacing unit boundary (Order 83-76). Nisku Oil: 80-acre spacing units; location no closer than 330' to spacing unit boundary (Order 7-86).
KEVIN SUNBURST-BOW ISLAND				
Bow Island	0	7	0	160-acre Bow Island spacing units; location no closer than 660' to spacing unit boundary (Orders 2-88, 60-88). Field enlargement (Orders 17-88, 11-91).
KEVIN, EAST				
Bow Island, Sunburst	0	4	0	320-acre designated spacing units for gas production from all horizons above the Rierdon Formation; 660' setback from spacing unit boundaries, 1 well per horizon per spacing unit, commingling authorized (Order 23-85). Field enlargements (Orders 29-86, 10-87, and 8-90).
Bow Island, Sunburst, Swift	0	3	0	
Sunburst	0	4	0	
Swift, Sunburst	0	2	0	
KEVIN, EAST BOW ISLAND GAS				
Bow Island	0	5	0	160-acre spacing units, one well no closer than 660' to spacing unit boundary per each producing zone, formation, or horizon from top of the Blackleaf to top of Dakota (Order 3-92).
Sunburst	0	1	0	
KEVIN, EAST NISKU OIL				
Nisku	15	1	3	80-acre spacing units consisting of E 1/2 or W 1/2 of governmental quarter section; wells located in center of SW 1/4 or NE 1/4 of each quarter section with 200' geologic or topographic tolerance (Order 46-84). Field enlarged (Order 9-86). Single spacing unit to produce gas from the gas cap (Order 24-88). Exception to drill and produce horizontal well (Order 29-97). Exception to drill NW/4 SW/4, 35N-1E-31 (Order 70-97).
KICKING HORSE				
Bow Island	0	13	0	320-acre spacing units for Madison and shallower horizons; location no closer than 660' to unit boundary and 990' to field boundary (Order 17-74). Board Order 17-74 is amended to include additional lands and provide that 320-acre spacing units may be either the N/2 & S/2 or E/2 & W/2 of section (Order 53-80).
Sunburst	0	3	1	
KINCHELOE RANCH, WEST				
Tyler	5	0	1	Statewide. Kincheloe Ranch Tyler "A" Unit approved (EPA-88 and Order 46-88). KR Tyler "A" Sand Unit approved. (Order 47-91)
KINYON COULEE AREA				
	0	0	0	Statewide.
KINYON COULEE SOUTH				
	0	0	0	Single Bow Island spacing unit with only one well allowed; location no closer than 990' to section line (Order 31-81).
KIPPEN AREA, EAST				
Madison, Swift	0	0	2	Statewide.
Sawtooth	0	0	1	

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
LAIRD CREEK(LAIRD CREEK UNIT)				
Swift	6	1	3	Unitized and waterflood authorized in Swift for oil production (Order 25-74), commenced 2-25-77. Single 320-acre spacing unit for Swift gas production (Order 37-92)
LAKE BASIN				
Big Elk	0	1	0	160-acre spacing units to base of Virgelle; wells no closer than 660' to unit boundary and 990' to field boundary; commingling with administrative approval (Order 9-74). Gas from Telegraph Creek pooled (Order 29-75).
Claggett	0	1	0	
Eagle	0	0	8	
Frontier	0	1	0	
LAKE BASIN, NORTH				
Eagle	0	0	1	640-acre spacing units consisting of one section for all productive horizons; locations 990' from section line (Orders 6-58, 3-74). 160-acre spacing units for Claggett and Eagle/Virgelle, wells located no closer than 660' to quarter section lines within restricted sections (Order 63-76).
LAMBERT				
Interlake	0	1	0	320-acre Red River spacing units consisting of the E 1/2 and W 1/2 of section (Order 3-83).
Red River	3	0	0	
LAMBERT, SOUTH				
Red River	1	0	0	Single Red River Formation Spacing Unit (Order 75-96).
LAMESTEER CREEK				
	0	0	0	Single Red River spacing unit (Order 101-84).
LANDSLIDE BUTTE				
Madison	10	1	6	Statewide.
Sun River Dolomite	1	0	2	
LAREDO				
Eagle	0	0	2	320-acre Eagle spacing with unit consisting of one-half section lying north-south or east-west; well no closer than 990' to unit boundary (Order 8-74).
LEARY				
Muddy	2	0	1	40-acre spacing units for Muddy Formation; wells located no closer than 330' to spacing unit boundary with 75' topographic tolerance (Order 115-84 which amended Orders 12-69, 19-70, and 68-76).
LEDGER				
Bow Island	0	43	9	640-acre Bow Island spacing; one well per section per sand to be located no closer than 990' to section line; permissible to commingle two or more sands with administrative approval (Order 53-77). Field enlargement and amendment to allow two wells per sand per section (Order 1-87).
Sawtooth	0	0	1	
LEROY				
Eagle	0	21	12	320-acre spacing for Judith River and Eagle/Virgelle with unit consisting of one-half section lying north-south or east-west. Wells no closer than 660' to unit boundary and 990' to field boundary. (Order 19-75) Tolerance of 330' allowed for topographic reasons (Order 72-80). Field enlargement (Order 31-87).
LISCOM CREEK				
Shannon	0	6	1	Shannon spacing, one well per 640 acres, with location no closer than 990' to section boundary (Order 20-72).
LITTLE BASIN				
	0	0	0	640-acre Frontier spacing units; one well per section located no closer than 990' to spacing unit boundary (Order 27-86).
LITTLE BEAVER				
Siluro-Ordovician	29	1	6	Spacing waived and General Rules suspended until unit agreement becomes inoperative (Order 41-62). Waterflood of the Red River was commenced in August 1967 (Order 3-66). Cedar Creek Units 8A & 8B certified as expanded enhanced recovery units effective 9/1/94 (Order 79-94).
Red River	1	0	5	
LITTLE BEAVER, EAST				
Mission Canyon	1	0	0	Same as for Little Beaver (Order 42-62). Waterflood of the Red River commenced in April 1965 (Order 33-64). Cedar Creek Units 8A & 8B certified as expanded enhanced recovery units effective 9/1/94 (Order 80-94).
Siluro-Ordovician	11	0	1	
Red River	4	0	0	
LITTLE CREEK				
Eagle	0	1	0	Statewide.
Eagle, Virgelle	0	4	0	
Virgelle	0	0	1	

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
LITTLE PHANTOM Sunburst	1	0	0	10-acre spacing units; well location to be located anywhere within the spacing unit but no closer than 220' to the exterior boundary lines of the field nor closer than 440' to any well capable of or producing from the Sunburst Sands (Order 46-81).
LITTLE ROCK Blackleaf	0	10	0	320-acre N 1/2 and S 1/2 spacing units for Blackleaf and Bow Island; well location no closer than 990' to west line of Section 14 and 660' to the remaining unit boundary lines (Order 40-78). Field enlargement (Orders 94-79 and 34-80). Allow two wells within each spacing unit no closer than 1,320' to each other and no closer than 660' to unit boundaries (Order 12-90). Two 320-acre spacing units for Lander Formation gas, 2 wells per spacing unit located no closer than 1320' to another Lander formation well and 330' to the spacing unit boundary (Order 56-91). Enlarge for Lander gas production (Order 48-93).
Bow Island	0	1	0	
Lander	0	2	0	
LITTLE WALL CREEK Tyler	3	0	0	Little Wall Creek, Tyler Sand Unit (Order 40-84). Weisner Tyler Sand Unit approved (Order 65-91).
Tyler, Stensvad	4	0	4	
LITTLE WALL CREEK, SOUTH Tyler	8	0	2	South Little Wall Creek Unit waterflood (Order 85-83). Gunderson Tyler Sand Unit (Order 39-87; unit area reduced by Order 21-92). Hamilton-Gunderson Tyler Sand Unit (Order 22-92).
LODGE GRASS Tensleep	2	0	0	Statewide.
LOHMAN Eagle	0	2	5	640-acre Eagle spacing; one well per section to be located no closer than 990' from section line (Order 23-78).
LOHMAN AREA Eagle	0	1	1	Statewide.
LONE BUTTE Madison	1	0	0	Single 320-acre spacing unit for Red River and Interlake formations; 160-acre spacing units for Madison with well location no closer than 660' to unit boundary; 150' topographic or geologic tolerance (Order 83-85).
Mission Canyon	2	0	0	
Ratcliffe	0	0	1	
Red River	2	0	0	
LONETREE CREEK Mission Canyon	1	0	0	320-acre Red River spacing, wells 660' from spacing boundary, 2,000' between wells (Order 29-72). Field reduction (Orders 162-81 and 84-85). Ratcliffe and Mission Canyon delineation for S/2, Sec. 10, T24N, R57E (Order 45-93). Interlake spacing unit consisting of the N/2, Sec. 10, T24N, R57E (Order 51-95).
Interlake	2	0	0	
Red River	4	0	1	
Red River, Interlake	2	0	0	
LONETREE CREEK, WEST	0	0	0	Red River spacing units shall be S 1/2 and N 1/2 of Section 12, T24N R56E. No well closer than 660' to spacing unit boundary or 1,320' to existing well. (Order 73-82)
LONG CREEK Charles C	1	0	0	Statewide.
LONG CREEK, WEST Nisku	2	0	0	80-acre spacing units comprised of two contiguous quarter quarter sections in either one or two governmental sections aligned either north-south or east-west with location to be no closer than 330' to unit boundary nor less than 1,000' from any other producing well (Order 27-77). Field enlarged (Order 71-83).
LOOKOUT BUTTE Madison	4	0	2	160-acre spacing; well location in center of SE 1/4 of each quarter section with 150' topographic tolerance (Order 21-62). Coral Creek Unit not subject to spacing rules. Redelineated (Orders 7-63, 5-95). Field reductions (Orders 57-85, 6-87, 69-94). Waterflood of Silurian-Ordovician approved in 1966 (Order 35-66). Pennel and Coral Creek Deep Units certified as expanded enhanced recovery units effective 9/1/94 (Orders 77-94, 78-94, 5-95).
Siluro-Ordovician	32	0	5	
Red River	8	0	0	

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
LOOKOUT BUTTE, EAST, AND AREA				
Lodgepole	1	0	0	22 delineated Red River spacing units with wells located no closer than 660' to the unit boundary with 175' topographic tolerance (Order 87-85). Field enlargement and inclusion of Madison group and all Silurian formations (Order 6-87). Pilot waterflood (Orders 19-88, 21-89, 42-90A, 49-90, 77-92, 35-93, 23-94). Redelineation of pilot area and certification as an expanded enhanced recovery project (Order 53-94). Approval of enhanced recovery unit for Red River Formation (Order 70-95).
Red River	57	0	7	
LORING				
Bowdoin	0	93	4	640-acre spacing units with 2 wells per formation (Order 79-82 and 12-89). Amended to allow 4 wells per formation per spacing unit, no closer than 660' to section boundaries, 1,320' between wells producing from same formation, 150' tolerance for geologic and topographic reasons (Order 13-89). Pilot infill drilling program approved for a portion of the field, with up to 8 wells per spacing unit with between well distance reduced to 990' (Order 15-91).
Bowdoin, Greenhorn	0	42	0	
Bowdoin, Greenhorn, Phillips	0	195	3	
Greenhorn	0	3	0	
Greenhorn-Phillips	0	62	0	
Phillips	0	4	2	
LORING, EAST				
Bowdoin	0	17	1	160-acre spacing units; where discrete gas formations (Bowdoin, Greenhorn and Phillips) exist, a well may be drilled to each discrete formation and may be located no closer than 660' from the spacing unit boundaries (Order 60-82). 640-acre spacing for lands under communitization agreements prior to field delineation, 4 wells per spacing unit; authorization to commingle (Order 39-97).
Bowdoin, Greenhorn	0	42	6	
Bowdoin, Greenhorn, Phillips	0	105	3	
Greenhorn	0	4	0	
Greenhorn-Phillips	0	16	0	
Phillips	0	26	4	
LORING, WEST				
Bowdoin	0	3	0	Spacing units comprised of 1 full section with 4 wells permitted to each formation in each spacing unit located no closer than 660' to the exterior boundary of the section and no closer than 1,320' to a well in the same formation (Order 7-87).
Greenhorn-Phillips	0	2	0	
LOWELL				
Red River	2	0	0	320-acre Red River spacing units consisting of two contiguous governmental quarter sections which may lie in either one or two governmental sections; wells to be located no closer than 660' to unit boundary or closer than 1,650' to well producing from the same horizon (Order 104-79).
LUSTRE				
Charles	8	0	2	80-acre Madison spacing units consisting of 1/2 of a regular governmental quarter section, either E 1/2 and W 1/2 or N 1/2 and S 1/2; well to be located in either NE 1/4 or SW 1/4 with 200' tolerance (Order 19-83). Field enlargement (Order 43-84). Field reduction (Order 43-96).
Charles C	15	0	1	
Mission Canyon	4	0	2	
Ratcliffe	5	1	0	
LUSTRE, NORTH				
Charles	1	0	0	80-acre spacing units for Madison Group Formations consisting of E 1/2 or W 1/2 of a governmental quarter section; wells located no closer than 660' to spacing unit boundary with 200' topographic or geologic tolerance (Order 39-84).
MACKAY DOME				
Greybull	1	0	0	Statewide.
MARIAS RIVER				
Bow Island	0	16	1	One well per section per horizon above the top of the Kootenai (Order 18-78). Field enlargement (Order 12-83). Field amended to allow 2 wells per zone in each spacing unit located no closer than 1,320' to each other and no closer than 990' to spacing unit boundaries (Order 26-90).
Dakota	0	0	1	
MASON LAKE				
Cat Creek 1	5	0	8	80-acre First Cat Creek Sand spacing units consisting of one half of a quarter section lying in either east-west or north-south direction; well location in center of the NE and SW quarter-quarter sections of each quarter section with 75' topographic tolerance (Order 35-78). Amend Order 35-78 for certain lots designated as spacing units (Order 66-78). Field enlargement (Order 16-79). Pilot enhanced recovery approved (Orders 37-88, 67-89 and 52-90). Mason Lake (1st Cat Creek) Unit approved (Order 80-96).
Cat Creek 3	0	0	2	
Muddy	0	0	1	
Amsden	1	0	2	
MCCABE				
Ratcliffe	1	0	0	160-acre spacing units for Madison group; permitted well to be no closer than 660' to spacing unit boundary (Orders 100-80, 43-79). 150' tolerance allowed for topographic reasons (Order 3-81). Board Order No. 100-80 amended to eliminate the requirement of 1,650' between wells producing from the Madison group (Order 37-81).

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
MCCABE, EAST Red River	1	0	0	Statewide.
MCCOY CREEK Red River	1	0	0	Statewide.
MEANDER Sunburst	2	0	0	40-acre spacing units for Sunburst with wells not closer than 330' to spacing unit boundaries (Order 30-82).
MEDICINE LAKE Madison	0	0	1	Delineated for formations from the base of the Winnipeg to the base of the Last Charles Salt; 320-acre spacing units comprised of any two contiguous governmental quarter sections in either one or two governmental sections; wells to be located no closer than 660' to unit boundary nor closer than 1,650' to any well producing from the same formation (Order 50-79). Additional Red River 'C' well, S/2 Sec. 22, T32N, R56E (Order 10-96).
Mission Canyon	1	0	0	
Devonian	1	0	0	
Duperow	1	0	0	
Winnipegosis	1	0	0	
Gunton	2	0	1	
Red River	3	0	0	
MELSTONE Tyler	2	0	0	Statewide.
MELSTONE, NORTH Tyler	4	0	4	Waterflood unit approved (Order 125-82). Polymer-augmented tertiary recovery project approved (Order 37-84). Certification as expanded enhanced recovery unit effective 11/1/94 (Order 89-94).
MIDDLE BUTTE Second White Specks	0	1	0	Orders 3-60, 21-75 amended to delineate field extension and 320-acre spacing units for Bow Island consisting of the E 1/2 and W 1/2 of each section; well location no closer than 990' to the section line and 660' to the interior boundary (Order 47-77). Enlarge (Order 25-93).
Blackleaf	0	1	0	
Bow Island	0	3	2	
MIDFORK Charles C	6	0	1	Statewide. Also a single 80-acre Charles Formation spacing unit (Order 46-92).
Nisku	1	0	1	
MINERS COULEE Blackleaf	0	1	0	Oil: 40-acre units Sunburst/Swift consisting of quarter-quarter sections; well location no closer than 330' to lease or property line and 660' to any other well (Order 9-66). Order 9-66 amended to comply with Order 5-74. Gas: 160-acre spacing units for horizons above Rierdon; wells to be located 990' from boundary (Orders 5-74, 43-76, 44-77). Sawtooth gas spacing unit (Order 43-76). Field redelineation/enlargement (Orders 77-76, 44-77, 4-80).
Bow Island	0	11	5	
Sunburst	1	2	8	
Swift, Sunburst	0	2	0	
Sawtooth	0	0	1	
Sawtooth, Madison	0	2	0	
MISSOURI BREAKS Nisku	1	0	0	
MON DAK, WEST Madison	8	0	0	320-acre spacing units for Silurian and Ordovician pools; Spacing units to consist of either N 1/2 and S 1/2, or E 1/2 and W 1/2; well location to be no closer than 660' to unit boundary or closer than 1,650' to any well drilling to or producing from same pool (Order 42-77). 320-acre spacing units for interval below Last Charles Salt and above the Devonian; units to consist of either N 1/2 and S 1/2, or E 1/2 and W 1/2 of the section; well location to be no closer than 660' to a quarter section line or section line and no closer than 1,650' to any well drilling to or producing from same pool (Order 23-77). Madison Formation delineation (Order 51-79 as amended by Order 95-83). Field Reduction (Order 42-96).
Madison, Ordovician	2	0	0	
Mission Canyon	6	0	0	
Ratcliffe	3	0	0	
Devonian	0	0	1	
Duperow	1	0	0	
Interlake	1	0	0	
Siluro-Ordovician	0	0	1	
Red River	3	0	0	
Red River, Stony Mountain	2	0	0	
Stony Mountain	2	0	0	
MONA Red River	1	0	0	Statewide.

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
MONARCH				
Madison	0	0	2	80-acre Madison spacing units consisting of E 1/2 and W 1/2 of quarter section; well location in SW 1/4 and NE 1/4 of quarter section; Location within 660' square at center of quarter section (Order 18-61). 160-acre Siluro-Ordovician spacing units consisting of a quarter section; well location in center of SW 1/4 of each quarter section with 175' topographic tolerance (Orders 12-59, 4-63). Spacing waived within Siluro-Ordovician waterflood area (Order 23-73). Certified as expanded enhanced recovery unit effective 9/1/94 (Order 76-94). Red River spacing unit (Order 81-94). Field expansion (Order 2-96).
Interlake	4	0	0	
Siluro-Ordovician	14	0	4	
Red River	3	0	2	
MOSSER DOME				
Mosser Sand	23	0	1	Spacing waived. Future development requires administrative approval (Order 27-62).
MT. LILLY				
Bow Island	0	1	0	640-acre spacing for Madison; well location in approximate center of any of the four quarter-quarter sections adjoining center of section; 250' topographic tolerance (Order 37-63).
Swift	0	1	0	
Madison	0	0	2	
MUD CREEK				
	0	0	0	640-acre spacing units; wells located no closer than 1320' to section lines (Order 9-63). Amended to allow production from two wells in Sec. 12,T6N,R17E (Order 49-92).
MUSSELSHELL				
Tyler	1	0	1	Statewide.
MUSTANG				
Madison	1	0	0	Statewide.
Bakken	3	0	0	
Red River	2	0	0	
MUSTANG (BAKKEN)				
	0	0	0	NE/4 Sec. 33, T24N, R 57E approved as single-well spacing unit for Bakken oil production (Order 54-94).
NEISER CREEK				
Red River	2	0	0	Single 160-acre Red River spacing unit (Order 78-82). Enlargement (Order 63-96). Include Winnipegosis and commingling in single spacing unit (Order 98-97).
NIELSEN COULEE				
Madison	2	0	0	Statewide. Second well in quarter section authorized (Order 37-93).
NINEMILE				
Nisku	2	0	0	Statewide.
NOHLY				
Madison	4	0	0	Single Red River spacing unit (Order 77-83). Field enlarged, 320-acre designated Red River spacing units (Order 54-84). 160-acre Nisku spacing units, 660' setback from spacing unit boundaries, 150' topographic tolerance (Order 55-84). Nohly (Ratcliffe/Mission Canyon) field delineation; 160-acre spacing units with wells located no closer than 660' to the spacing unit boundaries (Order 70-92). Ratcliffe/Mission Canyon Field enlargement (Orders 6-94, 105-94).
Mission Canyon	2	0	0	
Ratcliffe	3	0	0	
Nisku	3	0	1	
Red River	3	0	0	
NOHLY AREA				
Ratcliffe	2	0	0	Statewide.
NORTH FORK				
Mission Canyon	4	0	0	Statewide, plus single Madison spacing unit, N/2 Sec. 23, T24N, R59E, with designated well (Order 104-94).
O'BRIENS COULEE				
Second White Specks	0	1	0	Statewide.
Blackdeaf	0	1	1	
Bow Island	0	11	4	
Bow Island Spike	0	4	0	

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
OLD SHELBY				
Bow Island	0	4	1	320-acre spacing units to be comprised of either E 1/2, W 1/2, N 1/2, or S 1/2 of a section for Swift, Kootenai, Dakota, and Sunburst gas; also delineated for Bow Island excluding T32N, R1W, Section 3 and T33N, R1W, Sections 14, 23, 26, and 35; two wells per spacing unit per gas producing horizon with well location to be no closer than 660' to spacing unit boundaries or 1320' to another well producing from the same horizon in the same spacing unit; wells drilled prior to April 1, 1953 exempted (Order 17-94 which supercedes all earlier orders). Field enlargement (Order 31-95).
Sunburst	0	62	6	
Swift, Sunburst	0	8	0	
Swift	0	36	3	
OLJE				
Mission Canyon	0	0	1	Single 160-acre spacing unit (Order 35-85).
OLLIE				
Red River	1	0	0	320-acre specified spacing units for the Red River and Duperow formations with the permitted well for each spacing unit to be located no closer than 660' to the spacing unit boundary (Order 73-80).
OTIS CREEK				
Ratcliffe	1	0	0	Statewide.
OTIS CREEK, SOUTH				
Ratcliffe	1	0	0	320-acre spacing units for Red River; well to be located no closer than 660' to unit boundary (Order 39-72). Extended field boundary (Orders 56-76, 67-76). Orders 39-72 and 56-76 amended to eliminate spacing units with new spacing units to consist of quarter sections; well location no closer than 660' from spacing unit boundary or 1,650' from producing well with 150' tolerance (Order 73-81). Designation of single 160-acre spacing unit for Charles Formation production (Order 9-95).
OUTLET				
	0	0	0	Delineated for production from the Madison Group; 160-acre spacing units with wells to be located no closer than 660' to spacing unit boundaries (Order 11-94).
OUTLOOK				
Bakken	2	0	0	160-acre spacing units for Siluro-Devonian; well location in center of either SW 1/4 or NE 1/4 of each quarter section; 175' topographic tolerance (Order 19-59A).
Duperow	0	0	1	
Nisku	3	0	1	
Gunton	0	0	1	
OUTLOOK, SOUTH				
	0	0	0	160-acre spacing for Siluro-Devonian; permitted wells in either SW 1/4 or NE 1/4 of quarter section; 175' topographic tolerance (Order 19-59A). Red River and Siluro-Devonian commingling permitted in single spacing unit (Order 45-64).
OUTLOOK, SOUTHWEST WINNIPEGOSIS				
Winnipegosis	1	0	0	Single 320-acre spacing unit (Order 92-94).
OUTLOOK, WEST				
Winnipegosis	1	0	1	160-acre spacing units for Winnipegosis consisting of quarter sections; permitted wells in 840' square in the center of spacing unit and no closer than 900' to quarter section boundaries (Order 7-67 as amended by Order 26-67). Field reduction (Order 50-94).
Red River	1	0	0	
OXBOW				
Madison	1	0	0	320-acre spacing units consisting of two contiguous governmental quarter sections which may be in one or two governmental sections lying east-west or north-south at operator's option; location to be no closer than 660' to the unit boundary or closer than 1,650' to a well producing from same pool (formations below 11,000) (Order 7-78). Field enlargement (Order 137-80).
Red River	1	0	0	
OXBOW II				
Nisku	1	0	0	320-acre spacing units for Red River consisting of two contiguous quarter sections which may cross section lines; wells located no closer than 660' to spacing unit boundaries (Order 50-84).
Red River	1	0	0	
PALOMINO				
Nisku	6	0	0	Statewide.
PARK CITY				
Frontier	0	1	1	Statewide.

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
PELICAN	0	0	0	320-acre Ordovician spacing unit; well to be located no closer than 660' to any governmental section or quarter section line boundary (Order 21-79). Field rules vacated (Order 81-97).
PENNEL				
Siluro-Ordovician	136	1	20	Field originally delineated with 80-acre spacing units consisting of E and W 1/2 of quarter section; wells located in center of SE 1/4 and NW 1/4 of quarter sections with 150' topographic tolerance (Order 15-61). 80-acre spacing units on west side and 160-acre spacing units on east side of pool wells to be located in SE 1/4 and NW 1/4 of each quarter section (80 acres) and in SE 1/4 of each quarter section on 160-acre spacing (Orders 1-56, 8-56, 15-61, 20-62, 4-63, 7-63). Spacing rules waived within unitized area (Order 24-68). Commingling approved (Order 59-62). Waterflood for Siluro-Ordovician (Order 24-68). Pennel Unit certified as expanded enhanced recovery unit effective 9/1/94 (Order 78-94). Field reduction (Order 2-96).
Red River	29	0	3	
Stony Mountain	2	0	0	
PENNEL AREA				
Red River	1	0	0	Statewide.
PETE CREEK				
Sunburst	0	0	1	Statewide.
PHANTOM				
Sunburst	0	2	4	Gas: wells permitted anywhere within the unit but no closer than 990' to the unit boundary. Oil: wells with projected depths greater than 6,000' to be located no closer than 660' to the unit boundary; those with projected depths less than 6,000' to be located no closer than 330' to the unit boundary; formations between surface and top Rierdon included (Order 48-77).
PHANTOM, WEST				
Sunburst	0	2	0	Delineated for Sunburst Sandstone gas production with one well per spacing unit to be located no closer than 660' to the exterior boundaries of the three designated spacing units (Order 65-78).
PINE				
Madison	0	0	3	Statewide spacing rules are waived within the Pine Unit. 80-acre spacing units outside of unit area; well location in NW 1/4 and SE 1/4 of quarter section; 150' topographic tolerance (Order 37-62). A waterflood program for the south area was started in 1959. A waterflood of the north area was approved in 1967 (Orders 13-68, 1-60, 8-62, 32-67). Brine and CO2 injection test (Order 70-83). North Pine and South Pine Units certified as expanded enhanced recovery projects effective 9/1/94 (Orders 73-94, 74-94). Re-delineation (Order 16-97).
Mission Canyon	1	0	0	
Siluro-Ordovician	84	0	48	
Stony Mountain	0	0	1	
PLEVNA				
Eagle	0	2	0	Delineated for gas production from the Judith River and Eagle Formations with wells to be located not closer than 1200' to the boundaries of any quarter section line and not closer than 2400' to any other drilling or producing well on the same lease (Order 34-54). Field enlargement (Order 4-57).
POLICE COULEE				
Bow Island	0	8	1	320-acre spacing units for Bow Island Formation; location no closer than 990' to section line and 660' to half section lines; spacing units to consist of N 1/2 or S 1/2, E 1/2 or W 1/2 at discretion of operator (Order 53-76). Field enlargements (Orders 24-77, 20-79, and 46-79).
PONDERA				
Madison	286	0	126	Delineated for production from Ellis/Madison contact; Oil: 220' from legal subdivision, 430' from other wells in same reservoir on same lease; 75' topographic tolerance (Order 2-54). Porter Bench Extension: 330' from legal subdivision line; 650' from other wells in same reservoir on same lease or unit; 75' topographic tolerance (Order 9-54). Gas: Well to be located no closer than 1,320' from the boundaries of any quarter section line, nor less than 3,700' from every other drilling or producible well on the same lease or unit (Order 9-54 corrected). Amend Order 9-54 to designate six 160-acre spacing units for gas with wells to be located no closer than 660' from unit boundaries (Order 26-83).
Sun River Dolomite	13	0	1	
PONDERA COULEE				
Madison	3	0	3	330' from legal subdivision lines or upon a 10-acre spacing pattern; 75' topographic tolerance (Order 5-62).
Sun River Dolomite	5	0	0	
POPLAR AREA, NORTHWEST				
	0	0	0	Statewide.

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
POPLAR, EAST				
Heath	2	0	1	Statewide spacing; field delineated (Order 7-55). Redelineation of field (Order 25-76). Horizontal well exception and removal of production restrictions for horizontal wells (Order 67-93). Unitized in 1955 (Order 7-55). Removal of internal setback requirements except for non-committed lands (Order 69-96).
Charles	3	0	0	
Charles C	1	0	0	
Madison	39	0	20	
Nisku	1	0	1	
POPLAR, NORTHWEST				
Charles	3	0	1	80-acre spacing units, E 1/2 and W 1/2 of each quarter section; wells located in the center of NW 1/4 or SE 1/4 of each quarter section; 75' tolerance for surface hazards and obstructions (Order 18-55). 80-acre designated spacing units with well location in the center of the NW 1/4 or SE 1/4 of each quarter section; 150' topographic or geologic tolerance (Order 26-76). 80-acre spacing units to be N 1/2 and S 1/2 or E 1/2 and W 1/2 of each quarter section; wells located in center of each NE 1/4 or SW 1/4 of each quarter section, 150' topographic or geologic tolerance (Orders 124-80, 83-83, 97-84 and 6-85). 80-acre spacing units for test wells to the Charles formation; spacing units to be N 1/2 and S 1/2 or E 1/2 and W 1/2 of each quarter section; wells in center of NE 1/4 or SW 1/4 of each quarter section, 150' tolerance for archeological reasons only (Order 161-81). Field enlargement with 80-acre spacing units consisting of N 1/2 and S 1/2 of each quarter section; wells in center of the NE or SW quarter of each quarter section with 150' topographic or geologic tolerance (Order 42-83).
Charles B	1	0	0	
Charles C	17	0	1	
Madison	1	0	0	
POTTER GAS				
	0	0	0	Single section delineated for production of gas from all formations between the surface and the top of the Jurassic Rierdon Formation with one designated well for the spacing unit (Order 8-93).
PRAIRIE DELL				
Bow Island	0	14	1	320-acre spacing units for all horizons above the Rierdon with well location no closer than 660' to spacing unit boundary (Order 10-76). Field enlargement (Orders 28-78, 24-79, 132-80, 40-81, 54-81, 142-81, 56-83, 9-85, 60-86, 12-87, 21-95, 63-97). Two wells per spacing unit approved for a portion of the field, well locations no closer than 1,320' to a producing well from the same zone and 660' to the spacing unit boundary (Orders 21-88, 3-91, 35-92, 48-92 and 51-92). Two 160-acre spacing units (Order 3-89).
Bow Island, Dakota	0	24	0	
Bow Island, Dakota, Kootenai, Swift	0	4	0	
Bow Island, Dakota, Sunburst	0	27	3	
Bow Island, Sunburst	0	36	4	
Bow Island, Sunburst, Swift	0	18	0	
Bow Island, Swift	0	10	2	
Sunburst	0	9	4	
Sunburst, Dakota	0	6	0	
Swift, Sunburst	0	2	0	
Bow Island, Dakota, Sunburst, Swift	0	40	0	
Bow Island, Dakota, Swift	0	21	0	
Dakota, Sunburst, Swift	0	3	0	
Swift	0	10	0	
Madison	0	0	1	
PRAIRIE DELL, WEST				
Bow Island, Dakota, Kootenai, Sunburst	0	4	0	640-acre spacing unit for Swift Formation with well no closer than 990' to spacing unit boundary (Order 16-78). Amended to include all horizons above the Rierdon Formation (Order 54-78). Field enlarged (Order 55-78). Field enlarged and amended to allow 4 wells per spacing unit no closer than 1,320' to each other and no closer than 660' to the unit boundaries (Order 22-90).
Bow Island, Dakota, Swift	0	6	0	
Swift	0	1	0	
PRICHARD CREEK				
Bow Island	0	0	1	Sunburst/Swift spacing rules waived with locations subject to administrative approval. Unitized for Sunburst waterflood (Order 7-73).
Sunburst	0	0	4	
Swift	1	0	0	
PRONGHORN				
Red River	1	0	0	160-acre spacing units for Red River; wells located no closer than 660' to unit boundary with 150' topographic or geologic tolerance (Orders 75-84 and 110-84).

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
PUTNAM				
Madison	1	0	0	Statewide, except for single spacing unit consisting of portions of Sections 15 and 16, T23N, R57E for production from all formations between 6,000 to 11,000 feet (Order 2-84 as amended by Order 11-85). Single Mission Canyon Formation spacing unit consisting of E/2 NE/4, Sec. 32 and W/2 NW/4, Sec. 33, T23N, R57E (Order 18-93).
Mission Canyon	7	0	0	
Ratcliffe	1	0	0	
Bakken	3	0	0	
Interlake	1	0	0	
Red River	1	0	1	
Red River, Interlake	2	0	0	
RABBIT HILLS				
Sawtooth	4	0	0	Statewide. Pilot tertiary recovery project including a portion of Northeast Rabbit Hills Field (Order 78-95).
RABBIT HILLS, NORTHEAST				
Sawtooth	10	0	1	160-acre (quarter section) spacing units for Sawtooth, wells not closer than 660' to spacing unit boundaries (Order 33-76, referring to Order 34-74). Field reduction (Order 98-83). Amended to allow 1 well per quarter quarter section no closer than 330' to the quarter quarter section line (Order 48-91). Pilot tertiary recovery project (Order 78-95). Pilot Tertiary Recovery Project (Order 14-96).
RABBIT HILLS, SOUTH				
Sawtooth	1	0	0	Statewide
RABBIT HILLS, SOUTHWEST				
Sawtooth	2	0	0	160-acre (quarter section) spacing units for Sawtooth, with wells not less than 660' from spacing unit boundaries (Order 33-76, referring to order 34-74). Allow 4 wells in NW 1/4 Section 24, T34N, R19E (Order 78-92). NE 1/4, Sec. 23 downspaced to 40-acre spacing units (Order 3-93).
RAGGED POINT				
Tyler	2	0	8	40-acre spacing units; 75' topographic tolerance (Order 8-59). Spacing waived for Tyler "A" sand reservoir within Tyler "A" Sand Unit except no well can be closer than 660' to unit boundary (Order 35-65). A waterflood project on the Tyler "A" sand was commenced in February 1966, using Third Cat Creek water (Order 35-65). Certification of expanded enhanced recovery project effective 4/1/95 (Order 18-95).
Madison	0	0	1	
RAGGED POINT, SOUTHWEST				
Tyler	9	0	1	Waterflood approval; applicants may drill and produce wells to the Tyler "A" Formation anywhere within the unit but not closer than 330' to the unit boundaries (Order 83-82).
RAINBOW				
	0	0	0	Single 160-acre Red River spacing unit (Order 69-82).
RAPELJE				
Eagle	0	0	3	160-acre spacing for formations from surface to base of Telegraph Creek; wells no closer than 990' to unit boundary; commingling after administrative approval (Order 29-73).
Eagle, Claggett, Virgelle	0	0	12	
Virgelle	0	0	3	
RATTLER BUTTE				
Cat Creek 3	0	0	1	Rattler Butte (Tyler "A") Unit approved (Order 39-92).
Tyler	6	0	0	
RATTLESNAKE BUTTE				
Cat Creek 1	1	0	1	Statewide.
Cat Creek 2	1	0	1	
Amsden	3	0	3	
RATTLESNAKE COULEE				
Bow Island	0	0	2	Statewide.
Sunburst	0	0	1	
RAYMOND				
Mississippian Undifferentiated	0	0	8	320-acre spacing units for Red River, Winnipegosis, Duperow, and Nisku formations. Wells 660' from spacing unit boundary (Order 38-72). Gas Storage (Order 50-78 and amended by Order 60-79). Mississippian pool delineation with 40-acre spacing units, wells no closer than 330' to spacing unit boundary (Order 35-79). Field enlargement for Mississippian pool (Orders 31-80 and 128-80). Field reduction for Nisku pool (Order 135-81). Nisku Formation rules suspended for unit except for 660' setback distance from external unit boundaries (Order 3-86). Authorization to inject Duperow gas into the Nisku Formation (Order 135-81).
Duperow	0	1	0	
Nisku	1	2	0	
Winnipegosis	1	0	0	
Red River	1	0	1	

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
RAYMOND, NORTH Red River	1	0	0	Statewide.
REAGAN Madison	53	1	13	Statewide. (Order 17-54) A pressure maintenance project utilizing gas injection was started in 1961 (Order 21-60). Waterflood (Order 27-72).
RED BANK Madison	3	0	1	Statewide.
Mission Canyon	4	0	1	
Ratcliffe	2	0	1	
Red River	1	0	0	
RED BANK, SOUTH Red River	1	0	0	Statewide.
RED CREEK Cut Bank	4	0	1	40-acre spacing units; wells in center of spacing unit with 75' topographic or obstruction tolerance; spacing and field rules waived for unitized portion (Orders 16-58, 31-64, 5-70). Field enlarged (Order 9-62), redelineated (Order 73-62).
Sunburst	1	0	0	
Cut Bank, Madison	18	0	6	
Madison	14	0	7	
RED FOX	0	0	0	Field consists of one 160-acre spacing unit for Nisku production which straddles the section line (Order 20-67).
RED ROCK Eagle	0	8	7	Eagle Spacing units consisting of the N 1/2 and S 1/2 of section with permitted well to be no closer than 990' to exterior section line nor closer than 660' to half section line (Order 89-79).
Judith River	0	0	4	
RED WATER Bakken	1	0	0	Statewide.
Winnipegosis	1	0	0	
Red River	1	0	0	
RED WATER, EAST Red River	1	0	0	320-acre spacing units for Red River Formation consisting of 2 contiguous quarter sections with permitted well to be no closer than 660' to exterior boundaries of spacing unit (Order 31-83).
REDSTONE Winnipegosis	0	0	1	160-acre spacing units for production from the Winnipegosis; wells to be located no closer than 660' to spacing unit boundaries (Order 30-67).
REFUGE Red River	1	0	0	Statewide.
RESERVE Red River	4	0	0	Delineated for Red River, Silurian, and Winnipegosis production with 160-acre spacing units; permitted well within 1,320' square in center of quarter section; Commingling of Red River and Interlake production permitted on individual well basis (Orders 34-66, 27-67). Field reduction (Order 68-85, 100-94). Redelineation and temporary spacing (Orders 11-96, 12-96, 66-96).
RESERVE II Interlake	1	0	0	Single 160-acre spacing unit for Red River (Order 44-87). Single 160-acre spacing unit for Winnipegosis, Interlake and Gunton (Order 55-88).
Red River	0	0	1	
RESERVE, SOUTH Ratcliffe	1	0	0	Single spacing unit for Red River production (Order 33-86).
RICHEY Charles	0	0	2	Statewide, original 80-acre spacing revoked (Order 11-73).
RICHEY, SOUTHWEST	0	0	0	160-acre spacing units for production from Devonian, Silurian, and Ordovician; wells no closer than 900' to boundary of spacing unit (Order 25-62). A waterflood project in the Interlake and Dawson Bay was started in 1965 (Order 34-65).

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
RIDGELAWN				
Madison	3	0	0	160-acre Duperow spacing units; wells no closer than 660' to spacing unit boundary with 150' topographic tolerance (Order 18-89). Ridgelawn Duperow Unit approved for secondary recovery (Orders 49-89, 55-89 and 11-90).
Mission Canyon	7	0	1	
Ratcliffe	3	0	0	
Duperow	4	0	2	
Red River	3	0	0	
RIDGELAWN, NORTH				
Madison	1	0	0	Single 640-acre spacing unit (Order 11-92).
RIPRAP COULEE				
Ratcliffe	4	0	0	160-acre spacing units for Ratcliffe; wells located no closer than 660' from spacing unit boundary with 150' topographic and geologic tolerance (Order 93-84).
RIVER BEND				
	0	0	0	Statewide.
ROCKY BOY AREA				
Eagle	0	6	0	Statewide.
ROCKY POINT				
Red River	1	0	0	320-acre Red River spacing unit; well to be located no closer than 660' to exterior boundary (Order 22-79).
ROSCOE DOME				
	0	0	0	Statewide. Steam injection into Greybull and Lakota formations (Order 40-82).
ROSEBUD				
Tyler	3	0	1	Statewide. Rosebud "Tyler B" waterflood unit approved (Order 30-91).
ROYALS				
Dawson Bay	1	0	0	Statewide.
RUDYARD				
Eagle	0	4	1	640-acre spacing units for Sawtooth gas production; well location in center of NW 1/4 of section with 75' topographic tolerance (Order 2-58). Field boundaries reduced (Order 39-76). Allow two wells per 640-acre spacing unit with a 990' setback from spacing unit boundaries, 1320' between wells in the same spacing unit (Order 15-93). Rudyard (Eagle) delineation: 640-acre spacing units for Eagle Formation, 2 wells per spacing unit to be located no closer than 330' to interior spacing unit boundaries, 990' to field boundaries (Order 33-94).
Sawtooth	1	2	2	
RUNAWAY				
Madison	0	0	1	Statewide.
RUSH MOUNTAIN				
Ratcliffe	1	0	0	Statewide. Commingling of Gunton and Winnipegosis in Hoffelt #2 well approved (Order 17-85).
Gunton	1	0	0	
SAGE CREEK				
Second White Specks	0	15	5	640-acre spacing for horizons above the Kootenai, one producing well per section per formation to be located no closer than 990' from section line (Order 38-77). Amended field boundary (Order 86-79). Field enlargement (Orders 33-81, 65-83 and 36-84).
Blackleaf	0	2	0	
Bow Island	0	1	0	
SALT LAKE				
Nisku	2	0	1	Four 160-acre spacing units for Red River Formation with production allocation by stipulated agreement (Order 48-89).
Gunton	1	0	0	
Red River	2	0	1	
SALT LAKE, WEST				
Ratcliffe	1	0	0	Single 160-acre spacing unit for Ratcliffe oil and gas production (Order 47-92).
SAND CREEK				
Charles	2	0	0	80-acre spacing units for production from the Silurian and Ordovician consisting of any two adjacent quarter-quarter sections; wells to be located in the center of NW and SE 1/4 of each quarter section with 150' topographic tolerance (Order 16-59). Commingling of Interlake and Red River production (Order 49-62). Field enlargement (Order 20-66).
SANDWICH				
Swift	0	0	1	320-acre spacing units for production of gas from Swift; wells to be located no closer than 990' to spacing unit boundaries (Order 17-77).

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
SATURN				
Ratcliffe	0	0	1	Statewide.
SAWTOOTH MOUNTAIN & AREA				
Eagle	0	29	5	640-acre spacing units for Eagle and Judith River formations, one well per section per formation, location to be not less than 990' from governmental section line (Order 45-76). Amended to allow one well per formation per quarter section in six sections; wells no closer than 660' to quarter section lines and 990' to section lines (Order 65-85). Amended to allow 4 wells per formation per section for 3 additional sections (Ordered 62-89).
Judith River	0	3	4	
SECOND CREEK				
Mission Canyon	1	0	0	303.1-acre Red River spacing unit (Order 34-78). 160-acre Duperow spacing units; well locations for each unit to be as specified (Order 119-80).
Ratcliffe	1	0	1	
Duperow	1	0	0	
Red River	2	0	0	
SECOND GUESS				
Madison	2	0	0	40-acre spacing units for oil production from top 100' of Mississippian Madison Formation to the surface; wells to be located no closer than 330' to the spacing unit boundaries with 75' for topographic tolerance (Order 57-91).
SHELBY AREA				
Sunburst	0	1	0	Statewide.
SHELBY, EAST				
Bow Island	0	1	0	640-acre spacing units for all formations from the surface to the top of the Rierdon Formation (Order 8-91). Field enlarged and amended to allow 2 wells per spacing unit no closer than 990' to the section line and no closer than 990' to another well in the same section producing from the same horizon (Order 45-91). Field enlarged for Bow Island production (Order 61-91).
Burwash	0	1	0	
Sunburst	0	5	3	
Swift, Sunburst	0	2	0	
SHERARD				
Eagle	0	10	4	640-acre Eagle spacing units; 990' setback from section line (Order 1-74). 160-acre Eagle spacing units for Section 8, T25N, R17E; wells to be located no closer than 990' from section line, 660' from quarter section line (Order 7-77). Enlarged field boundary with well locations no closer than 660' from quarter section line in enlarged area (Order 4-83). 320-acre Eagle gas spacing units for Sections 19 and 30, T26N, R17E; wells located no closer than 990' to unit boundaries (Order 24-87).
Judith River	0	1	0	
SHERARD, AREA				
Eagle	0	35	38	Statewide, with numerous exceptions.
Judith River	0	3	3	
SHOTGUN CREEK				
Mission Canyon	0	0	1	Statewide.
Ratcliffe	5	0	1	
SHOTGUN CREEK, NORTH				
	0	0	0	320-acre spacing units for Red River and Gunton production; wells to be located no closer than 660' to spacing unit boundaries and 1500' to another well producing from the same formation (Order 49-77).
SIDNEY				
Madison	3	0	0	160-acre spacing units for Madison group with one well per spacing unit to be located no closer than 660' from unit boundary and no closer than 1,650' to well producing from the same formation (Order 5-79). Field enlargement (Order 99-80).
Mission Canyon	2	0	0	
Ratcliffe	4	0	0	
Red River	2	0	0	
SIDNEY, EAST				
Mission Canyon	1	0	0	Statewide.
Ratcliffe	1	0	0	
SINGLETREE				
Ratcliffe	1	0	0	Single spacing unit for production from Winnipegosis (Order 78-84).
SIOUX PASS				
Red River	7	0	0	320-acre spacing units for Interlake and Red River consisting of two adjacent governmental quarter sections lying north-south or east-west at operator's option; permitted well no closer than 660' from unit boundary; 160-acre spacing units for Mission Canyon with well no closer than 660' from unit boundary; commingling of Interlake and Red River production authorized (Orders 10-75, 15-77). Amended field boundary (Order 15-77). Field reduction (Order 89-81). Additional wells (Orders 82-96, 83-96).
Red River, Interlake	4	0	0	

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
SIOUX PASS, EAST Red River	0	0	1	Statewide.
SIOUX PASS, MIDDLE Red River	4	0	0	320-acre spacing units for Red River Formation to consist of two contiguous governmental quarter sections at operator's option; location to be no closer than 660' from exterior boundary of unit and no closer than 1,650' from well producing from same formation; commingling permissible with Administrative approval (Order 55-76). Exception location (Order 39-81).
SIOUX PASS, NORTH Madison	2	0	1	320-acre spacing units for Red River, Intertake, Winnipegosis, Nisku, Madison; well locations at least 660' from unit boundary (Orders 12-75, 17-76, 8-79). Commingling approved (Order 17-76). 150' topographic tolerance (Order 10-81). Field extensions (Orders 12-77, 13-79 and 48-81). Two 320-acre spacing units for Duperow (Orders 107-80, 74-82). Additional well, E2 26N-58E-7 (Order 30-97).
Ratcliffe	2	0	1	
Red River	8	0	0	
Red River, Nisku	0	0	2	
SIOUX PASS, SOUTH Red River	2	0	0	Statewide.
SIXSHOOTER DOME Eagle	0	2	2	160-acre spacing units for gas production at a depth from 969' to 1500'; wells no closer than 660' to spacing unit boundary with 75' topographic tolerance (Order 18-92).
Telegraph Creek	0	1	0	
Lakota	0	3	0	
SNAKE CREEK Winnipegosis	1	0	0	Single 320-acre spacing unit comprised of the E 1/2 of S33, T29N, R58E for production from the Winnipegosis, Gunton, and Red River Formations (Order 63-98).
SNOOSE COULEE Bow Island	0	8	1	640-acre spacing units for Bow Island and shallower formations; location no closer than 990' to spacing unit boundary (Order 18-77). 320-acre Sunburst gas spacing unit approved (Order 58-88).
Sunburst	0	0	1	
SNOW COULEE Sunburst	0	1	0	Two 320-acre spacing units for Sunburst gas production (Order 78-76).
SNYDER Tensleep	2	0	2	10-acre spacing units with center 5-spot permitted; 150' topographic tolerance (Order 45-62).
SOAP CREEK Tensleep	8	0	2	One well per 10-acre spacing unit per producing formation; well location in center of spacing unit with 100' topographic tolerance. Delineation includes Madison, Amsden, and Tensleep formations (Order 26-60).
Amsden	1	0	0	
Madison, Amsden	10	0	4	
Madison	16	0	1	
SOAP CREEK, EAST Tensleep	3	0	0	Statewide.
SOBERUP COULEE	0	0	0	320-acre 2nd Bow Island Sandstone spacing units, consisting of E 1/2 and W 1/2 of delineated section with locations no closer than 660' to spacing unit boundaries (Order 25-79).
SOUTH FORK Mission Canyon	1	0	0	Statewide.
Red River	2	0	0	
SPRING COULEE Greenhorn	0	2	2	Statewide.
SPRING LAKE Bakken	4	0	0	Delineated for Red River and Nisku formations with one well per 160-acre spacing unit; well location anywhere within 840' square in center of spacing unit (Order 6-63). Field redelineation (Orders 30-76, 49-76). Single 320-acre spacing unit for Bakken Formation production (Order 26-95).
Dawson Bay	1	0	0	
Red River	0	0	1	
SPRING LAKE, WEST Bakken	1	0	0	Single 160-acre Duperow spacing unit (Order 42-82).

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
STAMPEDE				
Madison	1	0	0	320-acre specified spacing units for the Red River Formation; 160-acre spacing units for the Duperow Formation with well location to be no closer than 660' from a spacing unit boundary line (Order 19-82).
Ratcliffe	1	0	0	
Bakken	1	0	0	
Red River	1	0	0	
STENSVAD				
Stensvad	0	0	1	40-acre spacing units; well location in center of spacing unit with 200' tolerance (Orders 2-59 and 7-60). Wells may be drilled anywhere within waterflood unit boundary, no closer than 660' to unit boundary (Order 5-65, amended). Field enlarged (Order 22-59). Waterflood area enlarged (Order 9-67).
Tyler	5	0	10	
STRAWBERRY CREEK AREA				
Bow Island	0	1	1	Statewide.
Burwash	0	1	0	
STUDHORSE				
Tyler	4	0	2	Statewide.
SUMATRA				
Amsden	2	0	0	40-acre spacing units; well located in center of unit with 75' tolerance (Order 14-58). Field redelineated (Orders 14-75 and 16-72). Vacuum pumps permitted on certain wells (Orders 99-79 and 32-80). Seven waterflood units using Madison water (Orders 48-67, 6-69, 19-69, 23-69, 5-75, 21-78, and 43-80). Convert CSTSU, SESTSU and Kinckeloe Sumatra Unit to tertiary recovery projects (Orders 99-84, 100-84 and 29-85). Certification of Kinckeloe Sumatra Unit (Order 23-95) and West Sumatra Unit (Order 68-95) as an expanded enhanced recovery projects.
Lower Tyler	8	0	3	
Tyler	35	0	34	
Heath	1	0	0	
SUNDOWN				
Red River	1	0	0	Single Red River Formation spacing unit (Order 11-97).
SUNNY HILL				
Ratcliffe	1	0	0	320-acre Red River & Duperow spacing units; location to be no closer than 660' to the section or quarter section line which is the exterior boundary of the unit nor closer than 1,650' to any well producing from same formation. 160-acre Madison spacing units consisting of regular quarter sections; location no closer than 660' to section or quarter section lines (Order 39-78). Field boundaries reduced (Order 79-84).
SUNNY HILL, WEST				
Ratcliffe	1	0	0	Single 320-acre spacing unit consisting of S/2, Sec. 14, T31N, R57E, with designated well (Order 55-93).
SWANSON CREEK				
Bowdoin	0	2	0	320-acre spacing units (Order 36-75), amended to enlarge field and provide that spacing units may run north-south or east-west with permitted wells to be no closer than 990' to section or quarter section lines (Order 11-78). Field boundaries extended by Orders 32-78, 92-79, 66-80 and 55-81. All previous Swanson Creek orders are amended to allow one additional well in each existing 320-acre spacing unit that shall be drilled in a manner that there be no more than one well per quarter section and located no closer than 660' to the quarter section boundaries (Order 28-82).
Greenhorn-Phillips	0	14	0	
Phillips	0	67	1	
SWEETGRASS				
Sunburst	0	0	1	Single Sunburst gas spacing unit (Order 121-82).
SWEETGRASS AREA				
Sunburst	0	0	1	Statewide.
TARGET				
Madison	0	0	2	Single spacing unit for Mission Canyon/Ratcliffe formations (Order 18-82). Amendment to Order 18-82 for field enlargement and establishing 160-acre spacing units with permitted well locations to be no closer than 660' to the unit boundaries; 150' tolerance for topographic reasons (Order 35-82). Field enlargement (Order 23-84).
Mission Canyon	0	0	2	
Ratcliffe	3	0	3	
Nisku	2	0	0	
THIRTY MILE				
Sawtooth	0	0	2	Statewide.
THREE BUTTES				
Bakken	3	0	0	160-acre spacing units for Madison Group formations, with well location no closer than 660' from governmental quarter section line or unit boundary (Order 11-81). Red River and Bakken Fm. delineation, SW/4 23N-57E-19 (Order 59-97).
Red River	1	0	1	

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
THREE MILE Eagle	0	2	4	Statewide.
TIBER Bow Island	0	0	2	Two wells per each gas producing horizon from the surface down to and including the Kootenai Formation per section; 990' setbacks and 1,320' between wells in each section (Orders 143-81, 21-84 and 28-85).
TIBER AREA Bow Island	0	2	0	Statewide.
TIBER, EAST Bow Island	0	9	0	Two wells from same Bow Island horizon per section no closer than 990' to section lines and 1,320' to each other (Orders 21-84 and 28-85).
TIGER RIDGE Eagle	0	352	94	Field delineation and redelineations (Orders 17-67, 23-68, 10-70, 13-75, 46-78, 48-79, 26-80, 30-89, 10-90 and 66-91). Statewide spacing for field area not unitized. Numerous spacing rule amendments.
Judith River	0	5	0	
TIGER RIDGE AREA Eagle	0	0	2	Statewide.
TIGER RIDGE, NORTH Eagle	0	1	0	160-acre spacing units; one well per horizon per spacing unit from the Virgelle Formation to the surface; well to be no closer than 990' to the section line nor closer than 660' to the interior quarter section line (Order 80-79).
TIMBER CREEK	0	0	0	320-acre Sunburst Sandstone spacing units consisting of two contiguous quarter sections oriented either North-South or East West; locations no closer than 660' to internal spacing unit boundaries, or 990' to external boundaries (Order 24-75).
TIMBER CREEK, WEST Sunburst	0	1	0	Single 640-acre spacing unit for Sunburst Sandstone production in Sec. 6, T35N, R1E (Order 91-76).
TINDER BOX Tyler	1	0	0	Statewide.
TRAIL CREEK Bow Island	0	5	1	One well per 320-acres consisting of S 1/2 and N 1/2 of each governmental section but not closer than 990' from spacing boundary (Orders 33-70, 28-76). Field enlargements (Order 135-80).
Sunburst	0	2	0	
Swift, Sunburst	0	2	0	
TULE CREEK Devonian	1	0	0	160-acre spacing units with permitted well anywhere within 1,320' square in center of each unit (Orders 26-62, 6-65, 11-67, 5-77, 52-86).
Nisku	2	0	0	
TULE CREEK, EAST Nisku	1	0	0	160-acre Nisku spacing units for Devonian Nisku with permitted well anywhere within 1,320' square in center of each unit (Orders 40-64, 6-65, 4-86).
TULE CREEK, SOUTH Nisku	1	0	0	160-acre Nisku spacing units with permitted well anywhere within a 1,320' square in center of each unit (Orders 34-64, 6-65).
TWO FORKS Eagle	0	0	1	Statewide.
Judith River	0	0	1	
TWO WATERS Bakken	3	0	0	Statewide.
UTOPIA Bow Island	0	4	0	640-acre spacing units for formations between top of Kootenai and top of Greenhorn; well location no closer than 990' to any governmental section line (Order 13-80). 40-acre spacing units for Swift Formation; location to be in center of quarter-quarter section with no more than 100' topographic tolerance (Order 9-78). Order 9-78 amended; spacing units shall consist of 1 well per quarter-quarter section located no closer than 330' to the section boundary (Order 96-81). Utopia Swift Unit approved for secondary recovery (Orders 11-89, 38-89 and 33-90). Certification as expanded enhanced recovery project effective 10/1/94 (Order 88-94).
Swift	18	0	3	
Sawtooth	0	2	0	

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
VALIER Blackleaf	0	0	2	320-acre spacing units for production of gas from all formations from the top of the Kootenai Formation to the surface; one well per spacing unit per formation, wells no closer than 660' to spacing unit boundaries and 990' to field boundaries (Order 15-91).
VANDALIA Bowdoin	0	7	1	160-acre spacing units; where discrete gas formations (Bowdoin, Greenhorn, and Phillips) exist a well may be drilled to each discrete formation; wells to be located no closer than 660' to the spacing unit boundaries (Order 61-82).
VAUX Madison	7	0	0	Single spacing unit with commingling approved for Madison group (Order 63-83). Single spacing unit for Mississippian Bakken formation (Order 20-86). Single 160-acre spacing unit for Mission Canyon Formation (Order 25-87).
Mission Canyon	9	0	0	
Ratcliffe	1	0	1	
Bakken	2	0	0	
Interlake	1	0	0	
Red River	3	0	1	
Stonewall	1	0	0	
VOLT Madison	1	0	0	160-acre Nisku spacing units with permitted well anywhere within a 1,320' square in center of each unit (Orders 27-64, 6-65, 32-65).
Nisku	4	0	0	
WAKEA Nisku	2	0	0	Two 320-acre spacing units (Order 84-83). Field enlarged; wells located no closer than 660' to spacing unit boundaries. Delineation includes Red River, Nisku, Duperow, Winnipegosis, Interlake and Gunton formations (Order 34-84). Commingling of production from Nisku and Duperow formations approved for one well (Order 59-91).
Nisku, Duperow	2	0	0	
Winnipegosis	1	0	1	
Red River	2	0	0	
WATERHOLE CREEK Red River	3	0	0	Delineation of numerous lands for production of oil from horizontal Red River Formation wells; spacing units set by order (Order 120-97).
WEED CREEK Amsden	1	0	1	Statewide.
WEST BUTTE Bow Island	0	3	1	Sawtooth-Madison gas commingled, unitized; no well closer than 330' to unit boundary (Order 5-72).
Sunburst	3	0	3	
WEST BUTTE SHALLOW GAS Bow Island	0	2	1	160-acre spacing units; with one well to be permitted to produce from each individual gas producing formation above the top of the Kootenai to the surface within each 160-acre spacing unit; well locations to be anywhere within the spacing unit but not closer than 990' to the spacing unit boundaries (Order 39-77).
WEYGAND Sawtooth	3	0	1	Statewide.
WHITEWATER Bowdoin	0	97	0	640-acre spacing units with 2 wells per formation (Orders 41-82 and 14-89). Amend to allow 4 wells per formation per spacing unit no closer than 660' to spacing unit boundaries, 1,320' between wells producing from the same formation with 150' of tolerance for geologic or topographic reasons (Order 15-89). Pilot infill drilling program approved for a portion of the field with up to 8 wells per spacing unit with between-well distance reduced to 990' (Order 15-91). Expand pilot infill drilling program (Order 6-92).
Bowdoin, Greenhorn	0	40	0	
Bowdoin, Greenhorn, Phillips	0	174	3	
Greenhorn	0	22	0	
Greenhorn-Phillips	0	142	2	
Phillips	0	26	3	
WHITEWATER, EAST Bowdoin	0	12	0	640-acre spacing units with two wells allowed per formation to be located anywhere within the spacing unit but not closer than 990' to spacing unit boundary (Order 100-83). Amend to allow 4 wells per formation per spacing unit no closer than 1,320' to another well producing from the same formation with 150' tolerance for geologic or topographic reasons (Order 65-89). Pilot infill drilling program in Section 31, T33N, R34E allowing up to 8 wells with 990' between wells, 150' tolerance and 660' setbacks (Order 7-92).
Greenhorn-Phillips	0	20	0	
Phillips	0	18	0	

OIL AND GAS FIELDS

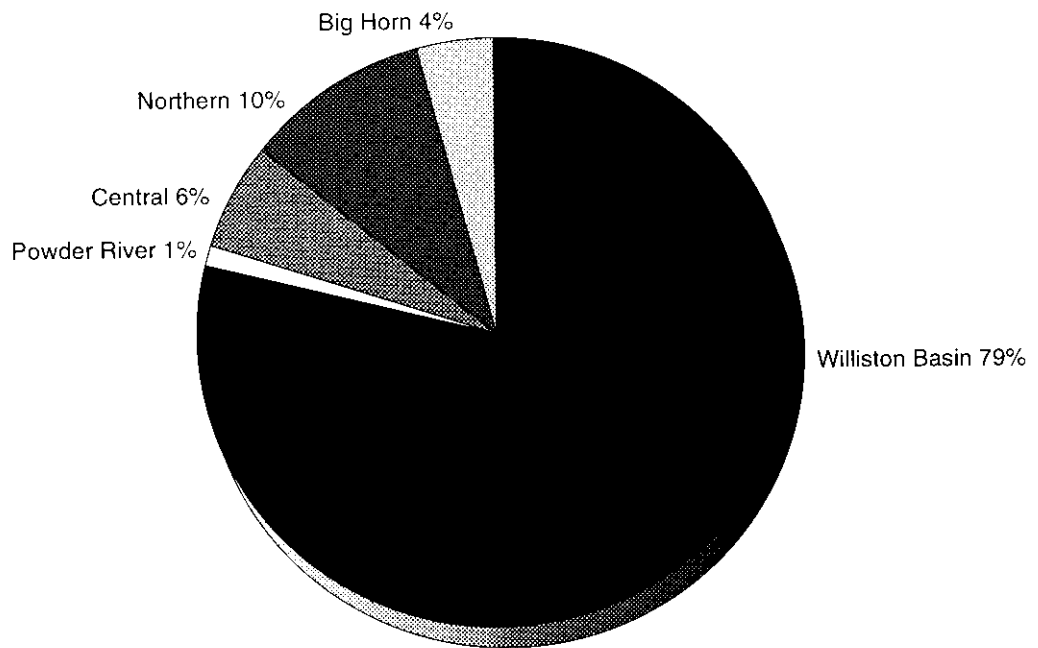
Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
WHITLASH				
Bow Island	5	28	3	Gas: 300' from legal subdivision line and 2,400' between wells, 75' topographic tolerance. Oil: 330' from legal subdivision line and 650' between wells; 5-spot location at center of 40-acre tract permitted; 75' topographic tolerance (Orders 16-54, 27-70). Order 16-54 amended to include S 1/2 of Section 30, T37N, R4E. SW 1/4 of 30 is 1 spacing unit, SE 1/4 is the other; well location no closer than 990' from spacing unit boundary (Order 45-81).
Bow Island Spike	0	2	0	
Bow Island, Dakota	0	4	0	
Dakota	0	0	3	
Sunburst	0	1	3	
Swift, Sunburst	36	2	42	
Rierdon	0	0	1	
Swift	17	7	24	
Madison	0	1	1	
WHITLASH, WEST				
Bow Island	0	1	0	Gas: 160-acre spacing units consisting of quarter sections; well location anywhere within a 660' square in center of spacing unit. Oil: 330' from legal subdivision line, 650' between wells in same reservoir on same lease; 5-spot location permitted (Orders 61-62, 22-65 as amended). Orders 61-62 amended by Order 48-77. Field extension (Order 18-79).
Sunburst	0	5	6	
Swift, Sunburst	2	0	6	
WILLIAMS				
Bow Island	0	15	3	640-acre spacing unit; well to be located no closer than 990' to exterior boundary for all formations above the Kootenai (Order 49-79). Amendment enlarging field boundary (Order 102-79, 11-83).
WILLOW CREEK, NORTH				
Tyler	2	0	2	Statewide. Pilot waterflood (Order 19-72).
WILLOW RIDGE				
Bow Island	0	12	0	640-acre spacing units; wells no closer than 990' to unit boundary for gas production from all formations from the surface to the top of the Kootenai (Order 29-78). Amended to allow four gas wells per spacing unit (Order 12-97). 40-acre spacing units for Burwash oil production, with 5 wells per spacing unit; wells located in the center of each 10 acre quarter-quarter section and one in the center of each 40-acre subdivision with a 75' topographic tolerance allowed (Order 30-78). Willow Ridge (Burwash) Unit (Order 88-97).
Burwash	4	0	0	
Sunburst	0	1	0	
WILLOW RIDGE, SOUTH				
Bow Island	0	1	0	Statewide.
Sunburst	0	1	0	
WILLOW RIDGE, WEST				
Bow Island	0	2	0	Delineated for gas production from the 4th Bow Island sand; 640-acre spacing units, wells to be located no closer than 990' to spacing unit boundaries (Order 3-88).
WILLS CREEK, SOUTH				
Siluro-Ordovician	4	0	1	160-acre spacing units for Siluro-Ordovician; well location in center of SE 1/4 of each unit with 175' topographic tolerance (Orders 5-64, 30-66). Waterflood initiated 12-1-73 (Order 23-73). Field enlargement and designation of single 640-acre spacing unit for up to 4 horizontal or vertical wells (Order 4-95).
WINDY RIDGE				
Red River	1	0	0	Delineation of numerous lands for production of oil from horizontal Red River Formation wells; spacing units set by order; delineation to be reviewed in October, 2000 (Order 121-97).
WINNETT JUNCTION				
Tyler	3	0	1	20-acre spacing units to be designated as W 1/2 and E 1/2 of quarter-quarter section, no closer than 120' to the boundary of a spacing unit (Order 57-76). Certain lands bound by Order 57-76 vacated by Order 41-77. A waterflood operation commenced October 1, 1977 into Tyler Formation. (Order 41-77)
WOLF SPRINGS				
Amsden	3	0	3	80-acre Amsden spacing units consisting of N 1/2 and S 1/2 of each quarter section; well location in center of NW 1/4 and SE 1/4 of each quarter section with 75' topographic tolerance (Orders 4-56, 9-59). Boundary changes (Order 92-76 and 5-90).
WOLF SPRINGS AREA				
Amsden	1	0	0	Statewide.

OIL AND GAS FIELDS

Field, Formation	Oil	Gas	Shut-In	Spacing Regulations, Field Rules, and Remarks
WOLF SPRINGS, SOUTH Amsden	1	0	3	80-acre spacing units for Amsden comprised of W 1/2 or E 1/2 of quarter section; wells located center of NW 1/4 or SE 1/4 of quarter section with 150' topographic tolerance (Order 57-84). Field enlargement (Order 8-85). South Wolf Springs Amsden Unit approved (Order 23-92). Certified as expanded enhanced recovery unit effective 6/29/94 (Order 52-94).
WOODROW Charles	1	0	0	80-acre spacing units consisting of any two adjacent quarter-quarter sections; well locations in center of NE 1/4 and SW 1/4 of each quarter section with 200' topographic tolerance (Order 47-62).
Charles, Interlake	2	0	0	
Interlake	0	0	1	
WRANGLER Red River	2	0	0	320-acre spacing units for production from Red River Formation consisting of W 1/2 and E 1/2 of S25, T34N, R56E (Order 44-85).
WRANGLER, NORTH Red River	1	0	0	Statewide.
WRIGHT CREEK Muddy	6	0	1	80-acre spacing units for Muddy Sandstone production consisting of N 1/2 and S 1/2 of quarter section with locations in NW 1/4 and SE 1/4 of each quarter section with 200' tolerance (Order 27-69). Field area reduction (Order 69-76).
YATES	0	0	0	320-acre spacing units; well locations as specified for the Duperow and Red River formations that may be dually completed (Order 92-81). Single 320-acre spacing unit for Ratcliffe/Mission Canyon formations (Order 22-86).

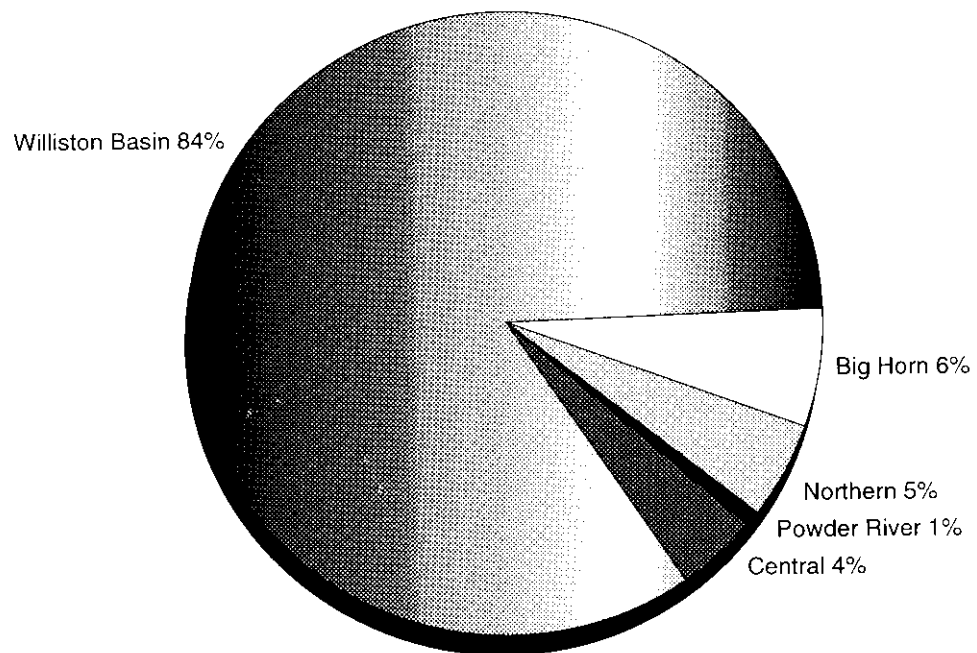
1997 Oil Production by Region

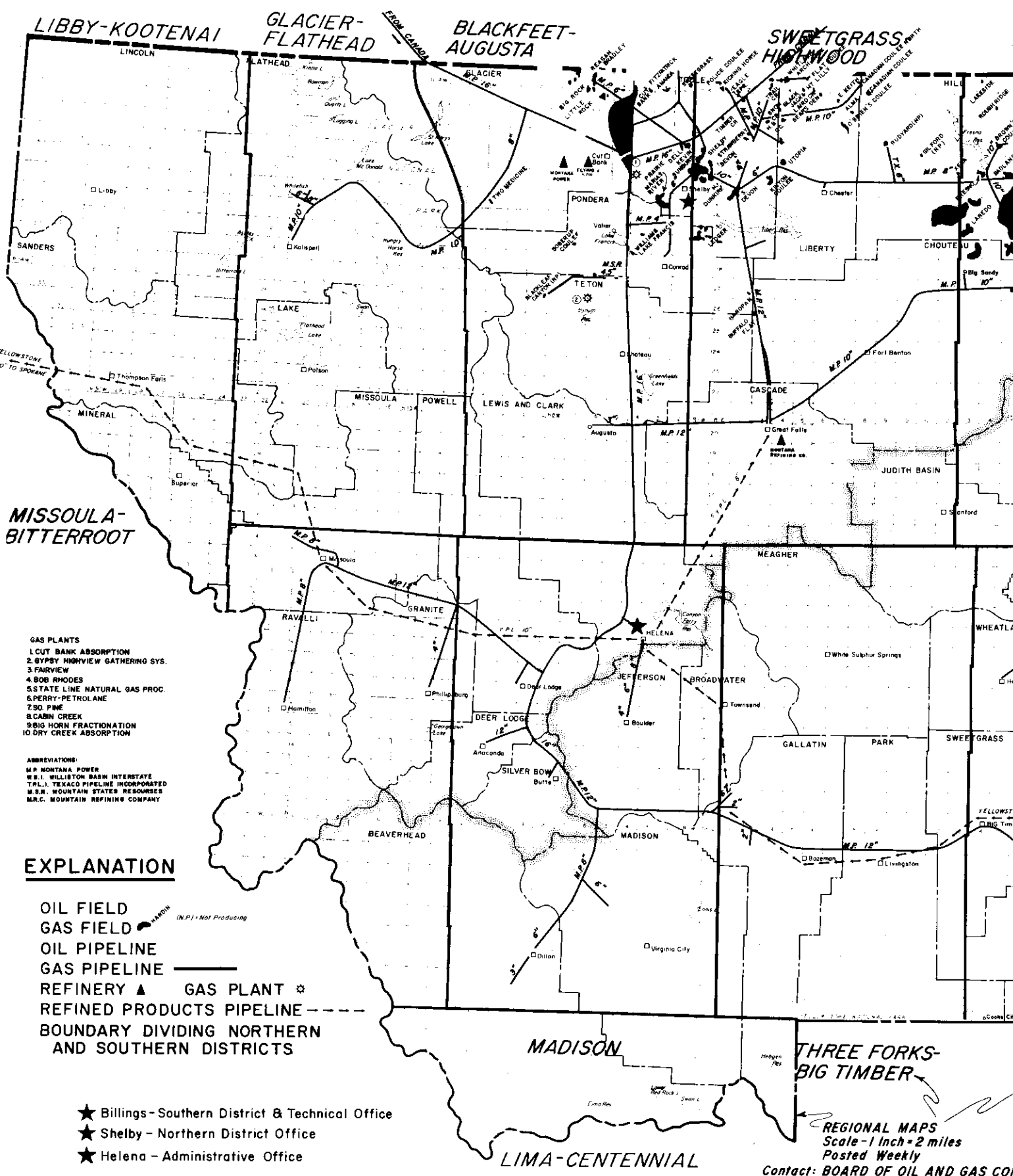
16,069,023 Barrels



1997 Oil Reserves by Region

(127 Million Barrels)





- GAS PLANTS**
1. CUT BANK ABSORPTION
 2. GYPSY HIGHVIEW GATHERING SYS.
 3. FAIRVIEW
 4. BOB RHODES
 5. STATE LINE NATURAL GAS PROC.
 6. PERRY-PETROLANE
 7. SO. PINE
 8. CAIN CREEK
 9. BIG HORN FRACTIONATION
 10. DRY CREEK ABSORPTION

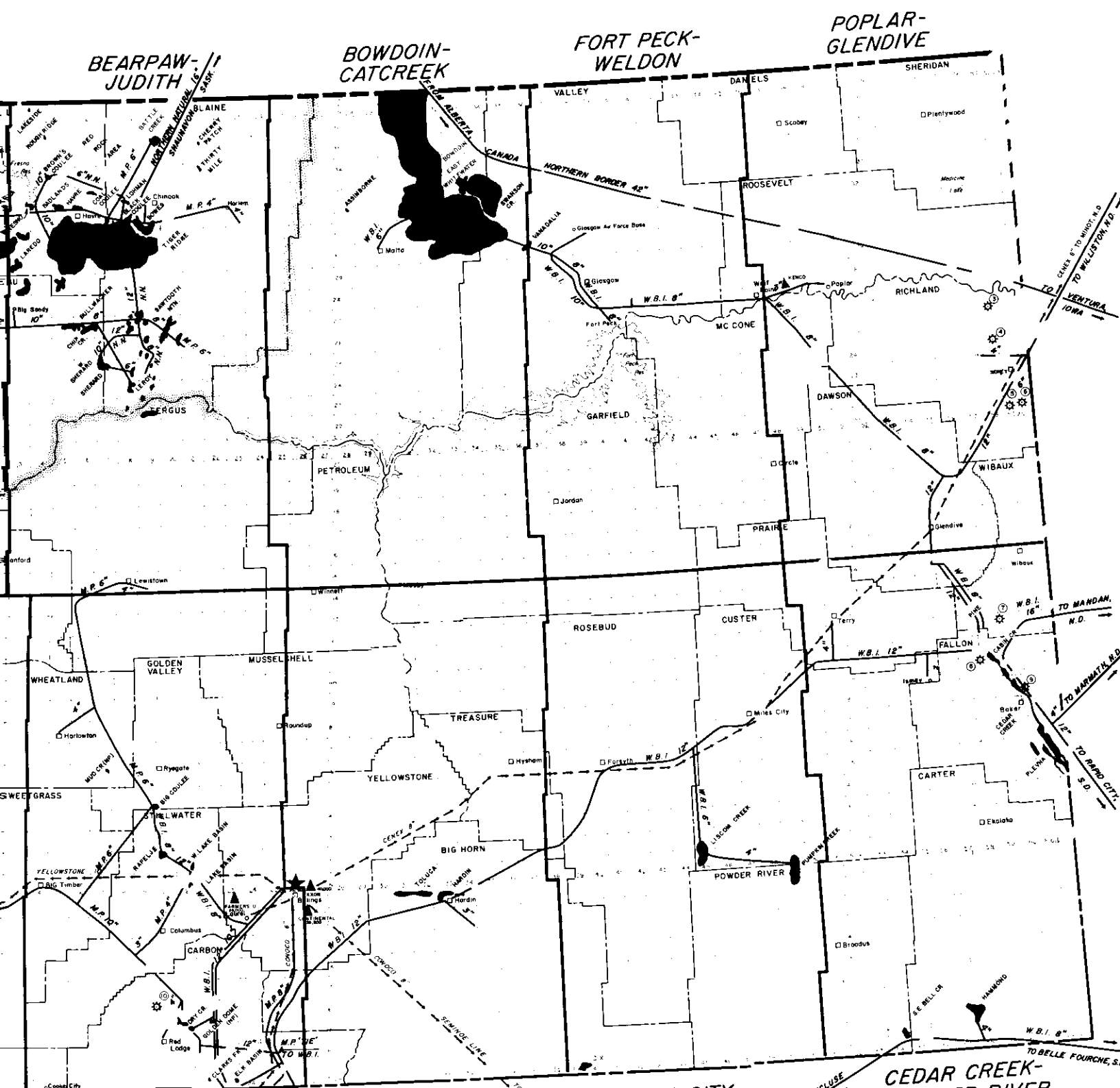
- ABBREVIATIONS:**
- M.P. MONTANA POWER
 - W.S.I. WILLISTON BARN INTERSTATE
 - T.P.L. TEXACO PIPELINE INCORPORATED
 - M.S.R. MOUNTAIN STATES RESOURCES
 - M.R.C. MOUNTAIN REFINING COMPANY

EXPLANATION

- OIL FIELD
- GAS FIELD (IN P) - Not Producing
- OIL PIPELINE
- GAS PIPELINE
- REFINERY ▲
- GAS PLANT *
- REFINED PRODUCTS PIPELINE - - - -
- BOUNDARY DIVIDING NORTHERN AND SOUTHERN DISTRICTS

- ★ Billings - Southern District & Technical Office
- ★ Shelby - Northern District Office
- ★ Helena - Administrative Office

REGIONAL MAPS
 Scale - 1 inch = 2 miles
 Posted Weekly
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MONTANA
OIL AND GAS FIELDS, PIPELINES AND REFINERIES
 1987

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 Billings, Mont. 59102 (406)656-0040

SUMMARY OF PRODUCING

LINE NO.	PRODUCING FIELD	FORMATION	COUNTY	YEAR OF DISCOVERY	DEPTH	GRAVITY API	F.V.F.	NET PAY FT.	POROSITY(%)	% WATER	RECOVERY FACTOR %	
											PRIM.	SECN
1.	Anvil	Nisku	Roosevelt	1981	10900	40.0	1.50	14	17	34	43	0
2.	Anvil	Ratcliffe	Roosevelt	1982	8990	36.0	1.35	22	11	50	7	0
3.	Anvil	Red River	Roosevelt	1978	12600	47.0	1.63	26	14	32	13	0
4.	Bainville	Ratcliffe	Roosevelt	1988	8630	38.0	0.00	16	0	0	0	0
5.	Bainville	Siluro/Ord.	Roosevelt	1969	12402	44.0	0.00	8	25	31	0	0
6.	Bainville II	Red River	Roosevelt	1981	12700	42.0	1.20	40	10	35	5	0
7.	Bainville, North	Nisku	Roosevelt	1992	10832	43.4	0.00	8	0	0	0	0
8.	Bainville, North	Ratcliffe	Roosevelt	1980	8800	30.0	0.00	13	14	52	0	0
9.	Bainville, North	Red River/Interlake	Roosevelt	1979	12400	43.0	1.55	40	9	32	14	0
10.	Bainville, North	Winnipegosis	Roosevelt	1979	11400	44.0	1.60	35	7	20	13	0
11.	Bainville, West	Red River	Roosevelt	1978	8500	34.0	1.50	12	6	45	13	0
12.	Bannatyne	Swift	Teton	1927	1500	27.0	1.05	39	15	43	2	0
13.	Beanblossom	Lower Tyler	Garfield	1985	4562	32.0	1.05	22	21	35	6	0
14.	Bears Den	Swift	Liberty	1924	2300	39.0	1.08	20	9	35	27	0
15.	Bell Creek	Muddy	Powder River	1967	4400	36.0	1.11	10	26	23	31	28
16.	Benrud, East	Nisku	Roosevelt	1962	7500	46.0	1.37	22	15	30	37	0
17.	Big Wall	Arnsden	Musselshell	1953	2500	19.0	1.01	17	16	35	27	0
18.	Big Wall	Lower Tyler Unit	Musselshell	1948	3000	31.0	1.02	22	17	40	34	1
19.	Big Wall	Upper Tyler Unit	Musselshell	1948	3000	30.8	1.03	16	17	32	4	0
20.	Blackfoot	Devonian/Madison	Glacier	1957	3500	30.0	1.10	15	15	35	27	22
21.	Bloomfield	Dawson Bay	Dawson	1984	10500	41.0	1.38	15	2	25	49	0
22.	Bloomfield	Interlake/Red River	Dawson	1983	10650	43.0	1.32	13	4	0	22	0
23.	Blue Hill	Red River	Richland	1977	12600	48.0	1.35	32	10	60	14	0
24.	Blue Mountain	Red River	Wibaux	1984	11949	31.0	1.25	20	18	15	3	0
25.	Bowes Sawtooth Unit	Sawtooth	Blaine	1949	3300	19.0	1.02	32	12	31	15	0
26.	Brady	Sunburst	Pondera	1942	1500	34.0	1.01	10	12	30	5	0
27.	Breed Creek	Tyler	Rosebud	1976	4900	32.0	1.15	20	15	37	47	0
28.	Brorson	Madison	Richland	1954	9600	32.0	1.40	40	5	40	16	0
29.	Brorson	Red River	Richland	1968	12600	48.0	1.70	20	10	35	33	0
30.	Brorson, South	Bakken	Richland	1990	10400	42.0	0.00	24	0	4	0	0
31.	Brorson, South	Madison	Richland	1978	9000	42.0	0.00	52	0	0	0	0
32.	Brush Lake	Red River	Sheridan	1969	11400	40.0	1.50	30	14	35	11	0
33.	Burget, East	Madison	Roosevelt	1981	9000	0.0	0.00	36	0	0	0	0
34.	Cabarett Coulee	Madison	Daniels	1990	6340	36.0	0.00	30	0	0	0	0
35.	Cabin Creek Unit 1	Siluro/Ord.	Fallon	1953	9000	33.0	1.20	50	13	30	10	11
36.	Cabin Creek Unit 2	Madison	Fallon	1956	7300	33.0	1.13	25	11	30	52	0
37.	Canal	Madison	Richland	1977	9200	33.0	1.30	47	2	41	29	0
38.	Canal	Red River	Richland	1970	12700	47.0	2.07	58	8	40	22	0
39.	Cat Creek West Dome	1st and 2nd Cat	Petroleum	1920	1100	52.0	1.10	51	21	19	16	5
40.	Cattails	Ratcliffe	Richland	1987	8975	31.6	0.00	0	0	0	0	0
41.	Cattails, South	Ratcliffe	Richland	1991	9445	33.4	0.00	26	0	0	0	0
42.	Charlie Creek	Dawson Bay	Richland	1994	10600	0.0	0.00	10	0	0	0	0
43.	Charlie Creek, East	Red River	Richland	1980	11900	45.0	0.00	27	0	0	0	0
44.	Clear Lake	Madison	Sheridan	1978	7600	33.0	1.15	10	5	30	41	0
45.	Clear Lake	Nisku	Sheridan	1979	9000	43.0	1.53	31	11	27	5	0
46.	Clear Lake	Red River	Sheridan	1977	11200	42.0	1.65	32	18	35	8	0
47.	Clear Lake, South	Red River	Sheridan	1984	11500	38.0	1.39	10	23	21	4	0
48.	Colored Canyon	Red River	Sheridan	1978	11300	40.0	1.40	18	13	28	6	0
49.	Comertown	Duperow/Nisku	Sheridan	1983	10672	36.0	1.30	13	17	39	11	0
50.	Comertown	Red River	Sheridan	1980	10500	30.0	1.30	19	10	38	44	0
51.	Comertown, South	Red River	Sheridan	1984	11000	38.0	1.08	17	12	50	6	0
52.	Cottonwood	Ratcliffe	Richland	1992	8805	0.0	0.00	12	0	0	0	0
53.	Cottonwood, East	Ratcliffe	Richland	1990	8842	31.5	0.00	36	0	46	0	0
54.	Cow Creek, East	Kibby	McCone	1971	6300	35.0	1.05	15	15	0	10	0
55.	Crane	Devonian	Richland	1979	11900	47.0	1.65	20	12	35	23	0
56.	Crane	Siluro/Ord.	Richland	1979	12700	44.4	1.50	8	12	18	33	0
57.	Cupton	Red River	Fallon	1955	9600	38.0	1.25	40	12	16	6	0
58.	Cut Bank	Cut Bank/Madison	Glacier/Toole	1932	2900	31.0	1.09	18	15	35	21	6
59.	Dagmar	Red River	Sheridan	1976	11300	37.0	1.65	22	16	35	6	0
60.	Dagmar, North	Madison	Sheridan	1983	7952	0.0	0.00	24	0	0	0	0
61.	Deer Creek	Charles+Tyler	Dawson	1990	7870	30.2	1.00	10	13	50	10	0
62.	Diamond Point	Red River	Roosevelt	1976	11900	47.0	0.00	26	0	0	0	0
63.	Divide	Madison	Sheridan	1979	7900	33.0	1.35	25	7	42	19	0
64.	Divide	Red River	Sheridan	1987	11398	35.4	0.00	14	0	0	0	0
65.	Dooley	Ratcliffe	Sheridan	1987	6451	28.0	0.00	0	0	0	0	0
66.	Dutch John Coulee	Sunburst	Toole	1985	2040	48.0	1.20	12	21	30	11	0
67.	Dwyer	Nisku	Sheridan	1987	9120	43.0	0.00	0	0	0	0	0
68.	Dwyer	Red River	Sheridan	1982	11552	35.0	0.00	0	0	0	0	0
69.	Dwyer Non Unit	Ratcliffe	Sheridan	1960	8000	33.2	0.00	0	0	0	0	0
70.	Dwyer Unit	Charles	Sheridan	1960	8000	37.0	1.32	38	11	56	16	5
71.	Eagle	Madison	Richland	1977	8900	32.0	1.22	15	9	35	10	0
72.	Elk Basin	Frontier	Carbon	1915	1400	28.9	0.00	0	0	0	0	0
73.	Elk Basin	Madison	Carbon	1942	5300	28.0	1.12	224	12	9	34	0
74.	Elk Basin	Tensleep	Carbon	1942	5000	29.0	1.16	124	11	10	24	0
75.	Elk Basin, NW	Madison/Tensleep	Carbon	1964	6000	37.0	1.15	27	12	22	5	3
76.	Enid, North	Red River	Richland	1979	11800	47.0	1.75	8	7	34	27	0
77.	Fairview	Madison	Richland	1981	9520	34.0	1.60	45	4	51	16	0

PRODUCING OIL FIELDS — 1997

RECOVERY FACTOR %		PROV-DUCTIVE AREA ACRES	OOIP		ULTIMATE RECOVERY					1997 PRODUCTION		CUMUL. PROD. 1-98 (M BBLs)	RE-SERVES (M BBLs)	LINE NO.
PRIM.	SECND.		M BBLs	BBLs/AC	PRIM. (M BBLs)	SECND. (M BBLs)	TOTAL (M BBLs)	BBLs/ACRE	BBLs/ACRE FT.	BBLs	BPOD			
43	0	480	3900	8125	1660	0	1660	3458	247	41978	115	1191	469	1.
7	0	480	3338	6954	250	0	250	521	24	8069	22	241	9	2.
13	0	2560	30159	11780	4010	0	4010	1566	60	67181	184	3269	741	3.
0	0	320	0	0	0	0	0	0	0	9231	25	82	22	4.
0	0	1920	0	0	0	0	0	0	0	20766	57	606	75	5.
5	0	960	16137	16809	840	0	840	875	22	24343	67	713	127	6.
0	0	480	0	0	0	0	0	0	0	83262	228	296	238	7.
0	0	640	0	0	0	0	0	0	0	30811	84	324	192	8.
14	0	2560	31367	12252	4280	0	4280	1672	42	380406	1042	2030	2250	9.
13	0	1280	12165	9503	1640	0	1640	1281	37	68951	189	1136	504	10.
13	0	960	1966	2047	260	0	260	271	23	4604	13	247	13	11.
2	0	1000	24637	24637	470	0	470	470	12	7035	19	422	48	12.
6	0	480	10650	22187	610	0	610	1271	58	16390	45	518	92	13.
27	0	360	3026	8405	820	0	820	2278	114	29347	80	724	96	14.
31	28	16000	223878	13992	69760	62690	132450	8278	828	170910	468	132222	228	15.
37	0	640	8372	13081	3090	0	3090	4828	219	14276	39	2967	123	16.
27	0	320	4346	13581	1190	0	1190	3719	219	9364	26	1172	18	17.
34	1	1220	20822	17067	7040	210	7250	5943	270	27912	76	6927	323	18.
4	0	480	6687	13931	290	0	290	604	38	10057	28	127	163	19.
27	22	360	3713	10313	1000	820	1820	5056	337	18247	50	1733	87	20.
49	0	320	405	1265	200	0	200	625	42	4001	11	183	17	21.
22	0	640	1956	3056	440	0	440	688	53	14985	41	412	28	22.
14	0	640	4708	7356	650	0	650	1016	32	52753	145	227	423	23.
3	0	320	6077	18990	170	0	170	531	27	17431	48	96	74	24.
15	0	3760	75774	20152	11130	0	11130	2960	93	91898	252	10694	436	25.
5	0	680	4387	6451	240	0	240	353	35	5320	15	228	12	26.
47	0	480	6120	12750	2900	0	2900	6042	302	192769	528	2107	793	27.
16	0	1760	11703	6649	1850	0	1850	1051	26	41891	115	1623	227	28.
33	0	1600	9492	5932	3120	0	3120	1950	98	78626	215	2672	448	29.
0	0	480	0	0	0	0	0	0	0	17286	47	233	74	30.
0	0	640	0	0	0	0	0	0	0	32554	89	310	197	31.
11	0	2240	31628	14119	3520	0	3520	1571	52	117989	323	3012	508	32.
0	0	640	0	0	0	0	0	0	0	13384	37	272	215	33.
0	0	320	0	0	0	0	0	0	0	1660	5	444	14	34.
10	11	16320	480065	29415	46790	52810	99600	6103	122	1167336	3198	86898	12702	35.
52	0	2260	29868	13215	15590	0	15590	6898	276	55619	152	15338	252	36.
29	0	640	2118	3309	620	0	620	969	21	19250	53	569	51	37.
22	0	320	3339	10434	750	0	750	2344	40	8181	22	722	28	38.
16	5	1480	90551	61183	14360	4530	18890	12764	250	8565	23	18794	96	39.
0	0	1120	0	0	0	0	0	0	0	53581	147	883	294	40.
0	0	640	0	0	0	0	0	0	0	13670	37	174	26	41.
0	0	320	0	0	0	0	0	0	0	15001	41	93	20	42.
0	0	960	0	0	0	0	0	0	0	31608	87	707	99	43.
41	0	960	2267	2361	930	0	930	969	97	27827	76	744	186	44.
5	0	480	6059	12622	300	0	300	625	20	13819	38	201	99	45.
8	0	2240	39432	17603	3050	0	3050	1362	43	77103	211	2827	223	46.
4	0	640	6490	10140	260	0	260	406	41	5293	15	215	45	47.
6	0	1920	17926	9336	1020	0	1020	531	30	47566	130	904	116	48.
11	0	640	5149	8045	590	0	590	922	71	4020	11	583	7	49.
44	0	800	5624	7030	2460	0	2460	3075	162	52909	145	1983	477	50.
6	0	960	7034	7327	400	0	400	417	25	11777	32	327	73	51.
0	0	320	0	0	0	0	0	0	0	29375	80	179	202	52.
0	0	160	0	0	0	0	0	0	0	8403	23	87	44	53.
10	0	1600	26599	16624	2690	0	2690	1681	112	16277	45	2633	57	54.
23	0	960	7041	7334	1590	0	1590	1656	83	19134	52	1507	83	55.
33	0	960	3909	4071	1300	0	1300	1354	169	35181	96	1164	136	56.
6	0	2240	56054	25024	3130	0	3130	1397	35	46373	127	2658	472	57.
21	6	49000	612063	12491	131370	36720	168090	3430	191	473041	1296	167128	962	58.
6	0	1280	13770	10757	760	0	760	594	27	13112	36	655	105	59.
0	0	160	0	0	0	0	0	0	0	2869	8	61	10	60.
10	0	1120	5648	5042	550	0	550	491	49	90939	249	243	307	61.
0	0	640	0	0	0	0	0	0	0	25896	71	1045	177	62.
19	0	2240	13066	5833	2470	0	2470	1103	44	47794	131	2103	367	63.
0	0	1280	0	0	0	0	0	0	0	50653	139	747	345	64.
0	0	640	0	0	0	0	0	0	0	14530	40	314	41	65.
11	0	200	2281	11405	240	0	240	1200	100	7115	19	208	32	66.
0	0	160	0	0	0	0	0	0	0	4906	13	63	6	67.
0	0	1600	0	0	0	0	0	0	0	44147	121	1628	335	68.
0	0	1440	0	0	0	0	0	0	0	4343	12	560	10	69.
16	5	2960	31996	10809	5180	1600	6780	2291	60	28582	78	6618	162	70.
10	0	3040	16963	5579	1630	0	1630	536	36	26648	73	1606	24	71.
0	0	520	0	0	0	0	0	0	0	11283	31	1748	13	72.
34	0	1080	182989	169434	62800	0	62800	58148	260	218222	598	59353	3447	73.
24	0	1400	114941	82100	28130	0	28130	20093	162	228844	627	24990	3140	74.
5	3	2080	35461	17048	1660	1060	2720	1308	48	62328	171	2286	434	75.
27	0	960	1573	1638	430	0	430	448	56	11202	31	397	33	76.
16	0	960	4106	4277	660	0	660	688	15	18963	52	613	47	77.

SUMMARY OF PRODUCTION

LINE NO.	PRODUCING FIELD	FORMATION	COUNTY	YEAR OF DISCOVERY	DEPTH	GRAVITY API	F.V.F.	NET PAY FT.	POROSITY(%)	% WATER	RECOVERY FACTOR %	
											PRIM.	SEC.
78.	Fairview NW Unit	Red River	Richland	1965	12700	47.7	0.00	0	0	0	0	0
79.	Fairview Non Unit	Red River	Richland	1965	12700	47.0	1.70	35	11	28	22	0
80.	Fairview, East	Madison	Richland	1994	9157	0.0	0.00	30	0	0	0	0
81.	Fairview, East	Winnipegosis	Richland	1990	11590	36.8	0.00	7	8	30	0	0
82.	Fairview, West	Madison	Richland	1980	9200	37.0	0.00	60	3	0	0	0
83.	Fishhook	Red River	Sheridan	1980	11200	41.0	1.28	10	10	31	21	0
84.	Flat Coulee Unit	Swift	Liberty	1933	2900	37.0	1.10	18	21	35	13	0
85.	Flat Lake	Madison/Nisku	Sheridan	1982	8042	0.0	0.00	0	0	0	0	0
86.	Flat Lake	Ratcliffe	Sheridan	1964	6500	33.0	1.26	14	15	45	26	0
87.	Flat Lake, East	Madison	Sheridan	1984	6523	28.0	0.00	0	0	0	0	0
88.	Flat Lake, South	Ratcliffe	Sheridan	1966	6500	32.0	1.26	9	12	45	31	0
89.	Fort Gilbert	Madison	Richland	1981	9200	35.0	1.30	30	6	55	9	0
90.	Fort Gilbert	Red River	Richland	1970	12500	48.0	1.89	42	12	20	7	0
91.	Four Mile Creek	Red River	Richland	1975	12500	47.0	1.50	35	15	35	9	0
92.	Four Mile Creek, W.	Red River	Richland	1976	12500	45.0	1.30	15	13	40	18	0
93.	Fred & George Creek	Sunburst	Toole	1963	2600	39.0	1.20	31	27	30	10	14
94.	Frog Coulee	Red River	Richland	1979	11000	49.0	1.42	15	18	35	12	0
95.	Gas City	Red River/Madison	Dawson	1955	8900	38.0	1.28	25	12	35	28	5
96.	Girard	Red River	Richland	1985	11850	43.6	0.00	8	0	9	0	0
97.	Glendive	Siluro/Ord.	Dawson	1952	8900	38.0	1.24	147	8	35	13	0
98.	Goose Lake	Ratcliffe	Sheridan	1962	7000	34.0	1.20	40	16	55	4	3
99.	Goose Lake	Red River	Sheridan	1980	11063	0.0	0.00	0	0	0	0	0
100.	Goose Lake, West	Red River	Sheridan	1981	11500	39.0	0.00	29	0	0	0	0
101.	Gray Blanket	Tensleep	Big Horn	1991	6115	22.0	1.05	9	18	18	18	0
102.	Gunsight	Madison	Roosevelt	1980	9550	36.0	0.00	0	0	0	0	0
103.	Hay Creek	Siluro/Ord.	Richland	1969	12600	46.0	1.90	53	12	30	9	0
104.	Hiawatha	Tyler	Musselshell	1967	5000	33.0	1.15	34	12	25	21	0
105.	High Five	Tyler/Stensvad	Rosebud	1976	5600	33.0	1.15	20	20	0	12	0
106.	Howard Coulee	Tyler	Musselshell	1974	3498	31.0	0.00	0	0	0	0	0
107.	Intake II	Ratcliffe	Richland	1982	9200	32.3	0.00	10	13	43	0	0
108.	Ivanhoe	Morrison	Musselshell	1960	4135	33.0	1.10	11	15	40	11	0
109.	Ivanhoe	Tyler/Amsden	Musselshell	1956	4100	33.0	1.08	29	15	20	33	0
110.	Jim Coulee Unit	Tyler	Musselshell	1971	3700	33.0	1.10	37	15	33	3	6
111.	Katy Lake	Red River	Sheridan	1984	11523	0.0	0.00	11	0	0	0	0
112.	Katy Lake, North	Mission Canyon	Sheridan	1981	8056	35.0	1.34	18	18	57	30	0
113.	Katy Lake, North	Nesson	Sheridan	1981	7798	34.0	1.50	20	12	31	8	0
114.	Katy Lake, North	Red River	Sheridan	1979	11300	46.0	1.42	19	15	30	26	0
115.	Keg Coulee Non Unit	Tyler	Musselshell	1960	4650	0.0	0.00	0	0	0	0	0
116.	Keg Coulee Tyler SU	Tyler	Musselshell	1960	4600	33.0	1.00	19	14	32	26	3
117.	Kelley	Tyler	Musselshell	1966	4400	33.0	1.15	50	13	30	14	0
118.	Kevin East Nisku Oil	Nisku	Toole	1984	3000	39.0	1.10	7	9	30	48	0
119.	Kevin Sunburst	Total Production	Toole	1922	1500	32.0	1.08	7	20	35	23	3
120.	Kincheloe Ranch, W.	Tyler Non Unit	Rosebud	1980	5344	38.0	0.00	18	0	0	0	0
121.	Kincheloe Ranch, W.	Tyler Unit	Rosebud	1979	5500	32.1	1.10	8	13	40	57	0
122.	Lambert	Red River	Richland	1980	12200	44.0	0.00	7	13	40	0	0
123.	Landslide Butte	Madison/Sun River	Glacier	1967	4700	41.0	0.00	24	0	0	0	0
124.	Little Beaver Unit	Red River	Fallon	1952	8300	29.0	1.29	37	12	35	6	10
125.	Little Beaver, East	Mission Canyon	Fallon	1993	6772	31.5	0.00	4	0	0	0	0
126.	Little Beaver, East	Red River	Fallon	1954	8300	30.0	1.50	24	13	35	30	0
127.	Little Wall Creek	Tyler/Stensvad	Musselshell	1970	3700	33.0	1.10	40	15	33	19	0
128.	Lodge Grass	Tensleep	Big Horn	1964	6520	22.0	1.16	15	15	34	6	0
129.	Lone Butte	Red River	Richland	1974	12544	45.0	1.70	14	11	30	15	0
130.	Lonetree Creek	Mission Canyon	Richland	1991	9147	35.1	0.00	0	0	50	0	0
131.	Lonetree Creek	Red River/Interlake	Richland	1970	12500	47.0	1.86	19	11	30	26	0
132.	Long Creek	Charles	Roosevelt	1976	6500	38.0	0.00	30	0	20	0	0
133.	Long Creek, West	Nisku	Roosevelt	1977	7700	39.0	1.25	24	16	20	18	0
134.	Lookout Butte	Red River/Madison	Fallon	1961	8900	33.0	1.15	15	15	25	4	19
135.	Lookout Butte, East	Red River	Fallon	1984	9300	31.3	0.00	0	0	0	0	0
136.	Lowell	Red River	Sheridan	1979	11300	35.0	0.00	7	8	45	0	0
137.	Lustre	Madison	Valley	1982	7200	33.0	1.19	27	16	45	5	0
138.	McCabe	Ratcliffe	Roosevelt	1973	8700	37.0	1.50	20	13	40	8	0
139.	Medicine Lake	Devonian	Sheridan	1980	10300	44.0	0.00	11	0	49	0	0
140.	Medicine Lake	Siluro/Ord.	Sheridan	1984	11319	43.5	1.55	38	9	35	11	0
141.	Melstone	Tyler	Musselshell	1948	4400	34.0	1.09	25	15	30	28	0
142.	Midfork	Charles	Valley	1985	7174	38.3	0.00	0	0	0	0	0
143.	Midfork	Nisku	Valley	1990	7200	45.6	0.00	4	0	0	0	0
144.	Missouri Breaks	Nisku	Roosevelt	1994	10044	41.9	0.00	4	0	0	0	0
145.	Monarch Non Unit	Siluro/Ord.	Fallon	1958	8400	0.0	0.00	0	0	0	0	0
146.	Monarch Unit	Siluro/Ord.	Fallon	1958	8400	32.0	1.00	31	7	35	2	4
147.	Mondak West	Devonian	Richland	1979	10600	41.4	1.50	8	10	25	34	0
148.	Mondak West	Madison	Richland	1976	9200	30.0	1.30	100	4	60	6	0
149.	Mondak West	Siluro/Ord.	Richland	1976	12200	48.0	1.64	45	10	43	18	0
150.	Mustang	Bakken	Richland	1994	10565	44.0	0.00	0	0	0	0	0
151.	Mustang	Madison	Richland	1988	9200	33.7	0.00	0	0	0	0	0
152.	Mustang	Red River	Richland	1979	12500	47.0	1.41	17	12	0	8	0
153.	Neisser Creek	Red River	Sheridan	1982	10900	46.0	2.00	15	17	21	31	0
154.	Nilsen Coulee	Madison	Daniels	1992	6266	39.5	0.00	15	12	0	0	0

PRODUCING OIL FIELDS — 1997

RECOVERY FACTOR %		PROV-DUCTIVE AREA ACRES	OOIP		ULTIMATE RECOVERY					1997 PRODUCTION		CUMUL. PROD. 1-98 (M BBLs)	RE-SERVES (M BBLs)	LINE NO.
PRIM.	SECND.		M BBLs	BBLs/AC	PRIM. (M BBLs)	SECOND. (M BBLs)	TOTAL (M BBLs)	BBLs/ACRE	BBLs/ACRE FT.	BBLs	BPOD			
0	0	2240	0	0	0	0	0	0	0	47032	129	732	228	78.
22	0	2880	36432	12650	8090	0	8090	2809	80	44168	121	7929	161	79.
0	0	320	0	0	0	0	0	0	0	6484	18	22	34	80.
0	0	320	0	0	0	0	0	0	0	11422	31	65	46	81.
0	0	800	0	0	0	0	0	0	0	36077	99	411	118	82.
21	0	1280	5353	4182	1110	0	1110	867	87	14227	39	1000	110	83.
13	0	640	11090	17328	1470	0	1470	2297	128	56522	155	1027	443	84.
0	0	800	0	0	0	0	0	0	0	139047	381	209	1583	85.
26	0	9600	68270	7111	17740	0	17740	1848	132	195149	535	16610	1130	86.
0	0	160	0	0	0	0	0	0	0	10648	29	142	202	87.
31	0	1120	4096	3657	1270	0	1270	1134	126	6526	18	1261	9	88.
9	0	2240	10828	4833	970	0	970	433	14	17728	49	927	43	89.
7	0	1280	21185	16550	1510	0	1510	1180	28	18927	52	1498	12	90.
9	0	320	5648	17650	490	0	490	1531	44	7347	20	422	68	91.
18	0	640	4469	6982	800	0	800	1250	83	23136	63	427	373	92.
10	14	1480	56060	37878	5682	7848	13530	9142	295	31349	86	13385	145	93.
12	0	320	3068	9587	380	0	380	1188	79	13741	38	253	127	94.
28	5	2800	33093	11818	9280	1650	10930	3904	156	61651	169	10473	457	95.
0	0	320	0	0	0	0	0	0	0	12999	36	146	118	96.
13	0	2400	114778	47824	14550	0	14550	6063	41	106834	293	13786	764	97.
4	3	6880	128100	18619	5690	3840	9530	1385	35	59914	164	9430	100	98.
0	0	640	0	0	0	0	0	0	0	30924	85	356	278	99.
0	0	960	0	0	0	0	0	0	0	15925	44	623	64	100.
18	0	160	1570	9812	280	0	280	1750	194	21533	59	206	74	101.
0	0	480	0	0	0	0	0	0	0	15718	43	350	62	102.
9	0	960	17451	18178	1500	0	1500	1563	29	34010	93	1244	256	103.
21	0	400	8257	20642	1710	0	1710	4275	126	12907	35	1662	48	104.
12	0	960	25905	26984	3160	0	3160	3292	165	61836	169	2829	331	105.
0	0	160	0	0	0	0	0	0	0	5964	16	193	59	106.
0	0	320	0	0	0	0	0	0	0	15641	43	205	60	107.
11	0	80	559	6987	60	0	60	750	68	4625	13	30	30	108.
33	0	600	14999	24998	4950	0	4950	8250	284	20625	57	4615	335	109.
3	6	1920	50353	26225	1410	2880	4290	2234	60	20474	56	4162	128	110.
0	0	320	0	0	0	0	0	0	0	6863	19	198	52	111.
30	0	800	6453	8066	1960	0	1960	2450	136	49685	136	1465	495	112.
8	0	160	1370	8562	110	0	110	688	34	3753	10	96	14	113.
26	0	1920	20927	10899	5450	0	5450	2839	149	110743	303	3925	1525	114.
0	0	200	0	0	0	0	0	0	0	6932	19	118	7	115.
26	3	1520	21330	14032	5560	640	6200	4079	215	6260	17	6185	15	116.
14	0	240	7367	30695	1040	0	1040	4333	87	2410	7	1030	10	117.
48	0	640	1991	3110	960	0	960	1500	214	42249	116	583	377	118.
23	3	48720	318475	6536	73070	7970	81040	1663	238	235433	645	79864	1176	119.
0	0	80	0	0	0	0	0	0	0	4257	12	197	9	120.
57	0	320	1408	4400	800	0	800	2500	313	9684	27	769	31	121.
0	0	1280	0	0	0	0	0	0	0	59928	164	566	294	122.
0	0	520	0	0	0	0	0	0	0	41194	113	599	124	123.
6	10	4960	86087	17356	5350	8850	14200	2863	77	220623	604	12204	1996	124.
0	0	160	0	0	0	0	0	0	0	4987	14	54	17	125.
30	0	2240	23495	10488	6940	0	6940	3098	129	102320	280	6385	555	126.
19	0	1120	31754	28351	5960	0	5960	5321	133	98563	270	5044	916	127.
6	0	640	6356	9931	400	0	400	625	42	6529	18	366	34	128.
15	0	960	4723	4919	710	0	710	740	53	7403	20	701	9	129.
0	0	480	0	0	0	0	0	0	0	5133	14	79	17	130.
26	0	3200	19527	6102	5090	0	5090	1591	84	156728	429	4293	797	131.
0	0	160	0	0	0	0	0	0	0	1968	5	86	6	132.
18	0	320	6101	19065	1100	0	1100	3438	143	19009	52	813	287	133.
4	19	13120	149358	11383	6480	28380	34860	2657	177	492354	1349	27669	7191	134.
0	0	15680	0	0	0	0	0	0	0	583558	1599	3223	4196	135.
0	0	960	0	0	0	0	0	0	0	6531	18	125	11	136.
5	0	8000	123919	15489	6120	0	6120	765	28	137671	377	5598	522	137.
8	0	480	3873	8068	310	0	310	646	32	5208	14	270	40	138.
0	0	480	0	0	0	0	0	0	0	15647	43	247	78	139.
11	0	1600	17802	11126	1870	0	1870	1169	31	44233	121	1593	277	140.
28	0	800	14947	18683	4170	0	4170	5213	209	37531	103	3942	228	141.
0	0	1120	0	0	0	0	0	0	0	42862	117	490	82	142.
0	0	160	0	0	0	0	0	0	0	5431	15	60	7	143.
0	0	160	0	0	0	0	0	0	0	14639	40	64	32	144.
0	0	2400	0	0	0	0	0	0	0	169115	463	1363	657	145.
2	4	2720	29764	10942	610	1190	1800	662	21	26374	72	1680	120	146.
34	0	320	993	3103	340	0	340	1063	133	12460	34	263	77	147.
6	0	10880	103886	9548	5840	0	5840	537	5	74624	204	5466	374	148.
18	0	3200	38828	12133	7080	0	7080	2213	49	164783	451	5267	1813	149.
0	0	480	0	0	0	0	0	0	0	23366	64	66	62	150.
0	0	160	0	0	0	0	0	0	0	9210	25	74	44	151.
8	0	960	10775	11223	810	0	810	844	50	27481	75	725	85	152.
31	0	320	2501	7815	780	0	780	2438	163	50650	139	432	348	153.
0	0	320	0	0	0	0	0	0	0	13478	37	215	7	154.

SUMMARY OF PRODUCTION

LINE NO.	PRODUCING FIELD	FORMATION	COUNTY	YEAR OF DISCOVERY	DEPTH	GRAVITY API	F.V.F.	NET PAY FT.	POROSITY(%)	% WATER	RECOVERY FACTOR %	
											PRIM.	SECN.
155.	Nohly	Nisku	Richland	1983	10700	38.0	1.30	15	11	39	75	0
156.	Nohly	Red River	Richland	1972	12900	46.0	1.43	27	10	40	28	0
157.	Nohly Area	Ratcliffe	Richland	1984	9444	32.0	1.23	17	10	57	29	0
158.	North Fork	Madison	Richland	1977	9500	35.0	1.37	18	3	70	52	0
159.	Ollie	Red River	Fallon	1980	10200	36.0	0.00	56	10	35	0	0
160.	Otis Creek	Ratcliffe	Richland	1993	8900	35.0	0.00	0	0	0	0	0
161.	Outlook	Nisku	Sheridan	1958	9170	40.0	0.00	20	0	0	0	0
162.	Outlook, Southwest	Winnipegosis	Sheridan	1994	8886	0.0	0.00	10	0	0	0	0
163.	Outlook, West	Winnipegosis	Sheridan	1958	9100	39.0	1.12	16	8	30	34	0
164.	Oxbow	Red River	Roosevelt	1978	12600	47.0	1.50	18	12	45	31	0
165.	Oxbow Area	Nisku	Roosevelt	1993	10653	38.8	1.36	6	22	25	43	0
166.	Palomino	Nisku	Roosevelt	1980	7500	48.0	1.15	39	16	20	11	0
167.	Pennel	Siluro/Ord.	Fallon	1955	7000	31.0	1.10	38	3	30	67	11
168.	Pine	Red River	Fallon/Wibaux	1952	8400	34.0	1.17	32	12	30	19	23
169.	Pondera	Madison/Sun River	Pondera	1927	2100	34.0	1.20	15	16	31	17	0
170.	Poplar, East	Heath	Roosevelt	1969	4900	38.0	1.10	8	11	50	30	0
171.	Poplar, East	Madison	Roosevelt	1952	5500	40.0	1.10	25	11	30	19	0
172.	Poplar, Northwest	Madison	Roosevelt	1952	6300	40.0	1.10	16	10	45	14	0
173.	Pronghorn	Red River	Sheridan	1983	10580	40.0	1.30	17	13	54	5	0
174.	Putnam	Bakken	Richland	1982	7100	0.0	0.00	0	0	0	0	0
175.	Putnam	Interlake/Red River	Richland	1969	11900	41.0	1.75	16	9	30	20	0
176.	Putnam	Madison	Richland	1978	9500	34.0	1.42	92	6	35	1	0
177.	Rabbit Hills	Sawtooth	Blaine	1972	4000	21.0	1.15	12	18	16	34	0
178.	Rabbit Hills, SW	Sawtooth	Blaine	1972	5540	21.0	0.00	16	0	0	0	0
179.	Ragged Point	Tyler	Musselshell	1956	3600	32.0	1.11	13	14	32	24	10
180.	Rattler Butte	Tyler	Rosebud	1975	5300	35.0	1.10	25	12	60	57	0
181.	Rattlesnake Butte	Cat Creek/Amsden	Petroleum	1984	2732	27.7	1.10	26	21	70	18	0
182.	Raymond	Nisku	Sheridan	1972	7900	50.0	1.40	22	9	0	14	0
183.	Raymond	Red River	Sheridan	1972	10000	39.0	1.42	33	12	10	6	0
184.	Raymond	Winnipegosis	Sheridan	1972	9300	42.0	1.17	40	5	27	20	0
185.	Reagan	Madison	Glacier	1947	3700	38.0	1.10	11	12	30	46	14
186.	Red Bank	Madison	Roosevelt	1980	13000	31.0	2.00	16	14	11	5	0
187.	Red Bank, South	Red River	Roosevelt	1981	13000	44.0	1.60	17	17	30	12	0
188.	Red Creek Unit	Cut Bank/Madison	Glacier	1958	2600	31.0	1.08	20	19	30	25	2
189.	Red Water, East	Red River	Richland	1983	12025	47.0	1.40	20	11	40	14	0
190.	Refuge	Red River	Sheridan	1979	11300	44.0	1.69	13	5	30	39	0
191.	Reserve	Red River	Sheridan	1966	11100	39.0	1.30	18	6	30	31	0
192.	Ridgelawn	Duperow	Richland	1984	11314	46.6	1.60	27	10	20	8	0
193.	Ridgelawn	Madison	Richland	1977	8900	35.0	1.18	54	3	50	15	0
194.	Ridgelawn	Red River	Richland	1980	12500	49.0	1.90	15	12	35	41	0
195.	Ridgelawn, North	Madison	Richland	1991	12038	36.0	0.00	0	0	0	0	0
196.	Riprap Coulee	Ratcliffe	Roosevelt	1975	8800	34.0	1.30	14	14	45	18	0
197.	Rocky Point	Red River	Roosevelt	1978	11800	49.0	1.80	19	14	47	15	0
198.	Rosebud	Tyler	Musselshell	1974	5000	34.0	1.24	32	14	48	19	0
199.	Royals	Dawson Bay	Dawson	1980	11700	43.0	1.93	46	5	32	19	0
200.	Rush Mountain	Winnipegosis/Gunton	Sheridan	1968	12000	39.0	1.62	14	10	33	62	0
201.	Salt Lake	Ratcliffe	Sheridan	1992	6520	33.7	0.00	36	0	92	0	0
202.	Salt Lake	Red River/Gunton	Sheridan	1987	10554	34.7	1.30	13	10	25	30	0
203.	Shotgun Creek	Ratcliffe	Roosevelt	1984	9234	0.0	0.00	20	0	0	0	0
204.	Sidney	Madison	Richland	1976	9000	34.0	1.30	60	4	50	6	0
205.	Sidney	Red River	Richland	1981	12500	41.0	1.70	30	11	45	8	0
206.	Sioux Pass	Siluro/Ord.	Richland	1973	12700	47.0	1.70	40	9	35	16	0
207.	Sioux Pass, Middle	Red River	Richland	1976	12600	45.0	1.40	17	16	25	9	0
208.	Sioux Pass, North	Madison	Richland	1974	12000	45.0	1.60	44	12	40	2	0
209.	Sioux Pass, North	Red River	Richland	1974	12000	45.0	1.60	44	12	40	7	0
210.	Soap Creek	Tensleep	Big Horn	1952	1900	20.0	1.05	20	15	35	19	0
211.	Soap Creek, East	Tensleep	Big Horn	1977	3400	17.0	1.02	15	15	35	22	0
212.	South Fork	Mission Canyon	Richland	1986	9100	29.8	1.50	6	7	51	53	0
213.	South Fork	Red River	Richland	1976	12400	46.0	1.00	41	11	0	1	0
214.	Spring Lake	Bakken	Richland	1982	10800	42.0	1.50	17	8	20	14	0
215.	Spring Lake	Dawson Bay	Richland	1995	10688	0.0	0.00	34	0	0	0	0
216.	Stampede	Red River	Richland	1980	11800	45.0	1.31	40	8	40	7	0
217.	Stensvad	Tyler	Musselshell	1958	5500	33.0	1.17	25	14	20	44	14
218.	Sumatra	Tyler	Rosebud	1949	4500	32.0	1.16	30	19	35	27	7
219.	Sunny Hill, West	Ratcliffe	Sheridan	1993	8100	0.0	0.00	38	0	0	0	0
220.	Target	Madison	Roosevelt	1981	10500	34.5	1.20	16	8	35	9	0
221.	Target	Nisku	Roosevelt	1992	10503	0.0	0.00	0	0	0	0	0
222.	Three Buttes	Red River/Gunton	Richland	1978	12400	43.0	0.00	12	0	0	0	0
223.	Tule Creek	Nisku	Roosevelt	1960	7500	46.0	1.41	25	15	30	47	0
224.	Tule Creek, East	Nisku	Roosevelt	1964	7500	43.0	1.91	30	18	30	42	0
225.	Tule Creek, South	Duperow/Nisku	Roosevelt	1964	7600	43.0	1.40	8	12	30	53	0
226.	Utopia	Swift	Liberty	1977	2300	33.0	1.15	17	16	40	7	1
227.	Vaux	Interlake/Stonewall	Richland	1981	12100	45.0	0.00	0	0	25	0	0
228.	Vaux	Madison/Bakken	Richland	1977	8800	34.0	1.20	40	4	43	16	0
229.	Vaux	Red River	Richland	1976	12400	48.0	1.60	24	14	45	9	0
230.	Volt	Charles	Roosevelt	1965	6000	46.0	1.20	12	18	40	3	0
231.	Volt	Nisku	Roosevelt	1964	7300	47.0	1.40	14	20	30	56	0

PRODUCING OIL FIELDS — 1997

RECOVERY FACTOR %		PROV-DUCTIVE AREA ACRES	OOIP		ULTIMATE RECOVERY					1997 PRODUCTION		CUMUL. PROD. 1-98 (M BBLs)	RE-SERVES (M BBLs)	LINE NO.
PRIM.	SECD.		M BBLs	BBLs/AC	PRIM. (M BBLs)	SECD. (M BBLs)	TOTAL (M BBLs)	BBLs/ACRE	BBLs/ACRE FT.	BBLs	BPOD			
75	0	800	4805	6006	3600	0	3600	4500	300	66454	182	3304	296	155.
28	0	960	8437	8788	2400	0	2400	2500	93	102313	280	1960	440	156.
29	0	1760	8115	4610	2350	0	2350	1335	79	143535	393	1617	733	157.
52	0	960	881	917	460	0	460	479	27	19188	53	423	37	158.
0	0	160	0	0	0	0	0	0	0	5162	14	161	21	159.
0	0	160	0	0	0	0	0	0	0	7138	20	43	34	160.
0	0	640	0	0	0	0	0	0	0	21975	60	153	34	161.
0	0	160	0	0	0	0	0	0	0	8259	23	142	7	162.
34	0	480	2979	6206	1020	0	1020	2125	133	13338	37	933	87	163.
31	0	320	1966	6143	610	0	610	1906	106	14069	39	499	111	164.
43	0	320	1807	5646	780	0	780	2438	406	70521	193	443	337	165.
11	0	960	32329	33676	3440	0	3440	3583	92	98783	271	2552	888	166.
67	11	28960	162989	5628	108460	18000	126460	4367	115	1946149	5332	94458	32002	167.
19	23	16480	293731	17823	54900	67500	122400	7427	232	774254	2121	114582	7818	168.
17	0	15600	167014	10706	27630	0	27630	1771	118	188263	516	27275	355	169.
30	0	480	1490	3104	450	0	450	938	117	8597	24	363	87	170.
19	0	18070	245327	13576	46410	0	46410	2568	103	105370	289	45857	553	171.
14	0	5440	33763	6206	4680	0	4680	860	54	83552	229	4189	491	172.
5	0	1280	7765	6066	350	0	350	273	16	5031	14	329	21	173.
0	0	480	0	0	0	0	0	0	0	10799	30	74	10	174.
20	0	5440	24309	4468	4770	0	4770	877	55	28260	77	4698	72	175.
1	0	1600	31364	19602	240	0	240	150	2	32275	88	130	110	176.
34	0	800	9792	12240	3330	0	3330	4163	347	133860	367	1936	1394	177.
0	0	320	0	0	0	0	0	0	0	18512	51	85	121	178.
24	10	1440	12456	8650	3020	1250	4270	2965	228	24876	68	4231	39	179.
57	0	360	3047	8463	1750	0	1750	4861	194	101184	277	1228	522	180.
18	0	320	3697	11553	660	0	660	2063	79	14053	39	614	46	181.
14	0	640	7022	10971	970	0	970	1516	69	13986	38	926	44	182.
6	0	960	18693	19471	1150	0	1150	1198	36	26412	72	1065	85	183.
20	0	960	9294	9681	1900	0	1900	1979	49	47615	130	1726	174	184.
46	14	2600	16943	6516	7770	2300	10070	3873	352	102930	282	9597	473	185.
5	0	5120	39594	7733	1850	0	1850	361	23	41260	113	1744	106	186.
12	0	320	3139	9809	390	0	390	1219	72	6431	18	383	7	187.
25	2	1410	26942	19107	6620	540	7160	5078	254	78646	215	6762	398	188.
14	0	320	2341	7315	320	0	320	1000	50	6803	19	276	44	189.
39	0	320	668	2087	260	0	260	813	63	5947	16	244	16	190.
31	0	1600	7219	4511	2260	0	2260	1413	79	63816	175	1930	330	191.
8	0	1600	16757	10473	1420	0	1420	888	33	74356	204	889	531	192.
15	0	4480	23858	5325	3600	0	3600	804	15	51598	141	3423	177	193.
41	0	1600	7644	4777	3120	0	3120	1950	130	41730	114	2779	341	194.
0	0	320	0	0	0	0	0	0	0	17316	47	181	90	195.
18	0	800	5147	6433	910	0	910	1138	81	24083	66	785	125	196.
15	0	640	3889	6076	600	0	600	938	49	9623	26	557	43	197.
19	0	200	2915	14575	550	0	550	2750	86	8434	23	536	14	198.
19	0	320	2012	6287	390	0	390	1219	27	6629	18	350	40	199.
62	0	320	1437	4490	890	0	890	2781	199	42750	117	727	163	200.
0	0	160	0	0	0	0	0	0	0	22389	61	177	142	201.
30	0	480	2793	5818	840	0	840	1750	135	29236	80	569	271	202.
0	0	800	0	0	0	0	0	0	0	66334	182	496	197	203.
6	0	7040	50415	7161	3110	0	3110	442	7	31273	86	3085	25	204.
8	0	640	5301	8282	420	0	420	656	22	9541	26	371	49	205.
16	0	2880	30755	10678	4830	0	4830	1677	42	153413	420	3983	847	206.
9	0	1920	21705	11304	1870	0	1870	974	57	38205	105	1694	176	207.
2	0	1920	29493	15360	640	0	640	333	8	21644	59	608	32	208.
7	0	4480	68817	15360	4640	0	4640	1036	24	84775	232	4035	605	209.
19	0	1240	17866	14408	3310	0	3310	2669	133	36138	99	2871	439	210.
22	0	120	1335	11125	290	0	290	2417	161	6624	18	197	93	211.
53	0	160	170	1062	90	0	90	563	94	4944	14	47	43	212.
1	0	960	33589	34988	300	0	300	313	8	11088	30	261	39	213.
14	0	640	3601	5626	520	0	520	813	48	33868	93	315	205	214.
0	0	320	0	0	0	0	0	0	0	23967	66	106	121	215.
7	0	640	7277	11370	520	0	520	813	20	10629	29	364	156	216.
44	14	960	17824	18566	7840	2500	10340	10771	431	16792	46	10267	73	217.
27	7	5520	136779	24778	36770	9540	46310	8389	280	175481	481	45649	661	218.
0	0	160	0	0	0	0	0	0	0	6061	17	46	20	219.
9	0	1760	9467	5378	810	0	810	460	29	11486	31	746	64	220.
0	0	320	0	0	0	0	0	0	0	22261	61	147	120	221.
0	0	640	0	0	0	0	0	0	0	14728	40	482	119	222.
47	0	1280	18487	14442	8680	0	8680	6781	271	34935	96	8384	296	223.
42	0	320	4913	15353	2070	0	2070	6469	216	2737	7	2049	21	224.
53	0	480	1787	3722	940	0	940	1958	245	7833	21	889	51	225.
7	1	960	10569	11009	789	71	860	896	53	15962	44	772	88	226.
0	0	960	0	0	0	0	0	0	0	36636	100	757	116	227.
16	0	3360	19811	5896	3240	0	3240	964	24	91331	250	2416	824	228.
9	0	2240	20071	8960	1870	0	1870	835	35	19561	54	1786	84	229.
3	0	160	1341	8381	40	0	40	250	21	2601	7	34	6	230.
56	0	800	8689	10861	4860	0	4860	6075	434	69366	190	3647	1213	231.

SUMMARY OF PRODUCTION

LINE NO.	PRODUCING FIELD	FORMATION	COUNTY	YEAR OF DISCOVERY	DEPTH	GRAVITY API	F.V.F.	NET PAY FT.	PORO-SITY(%)	% WATER	RECOVERY FACTOR	
											PRIM.	S
232.	Wakea	Nisku	Sheridan	1988	9906	41.0	1.40	15	13	32		18
233.	Wakea	Red River	Sheridan	1983	11133	42.1	1.57	6	14	31		52
234.	Wakea	Winnipegosis	Sheridan	1985	10179	43.6	1.42	12	14	30		52
235.	Weygand	Sawtooth	Blaine	1991	4200	0.0	0.00	6	0	0		0
236.	Willow Creek, North	Tyler	Musselshell	1970	4000	32.0	1.20	12	13	54		57
237.	Wills Creek, South	Red River	Fallon	1964	8700	33.0	1.20	12	18	35		35
238.	Winnett Junction	Tyler	Musselshell	1973	2500	28.0	1.10	12	18	30		24
239.	Wolf Springs	Amsden	Yellowstone	1955	6200	30.0	1.07	11	6	23		64
240.	Wolf Springs, South	Amsden	Yellowstone	1984	6100	30.0	1.05	15	8	40		18
241.	Woodrow	Red River+Charles*	Dawson	1952	9600	42.0	1.30	25	14	35		19
242.	Wrangler	Red River	Sheridan	1979	11200	30.0	1.00	6	10	0		29
243.	Wrangler, North	Red River	Sheridan	1979	10000	41.0	1.40	18	16	45		5
244.	Miscellaneous Small Fields											
245.	State Totals											

PRODUCING OIL FIELDS — 1997

RECOVERY FACTOR %		PROV-DUCTIVE AREA ACRES	OOIP		ULTIMATE RECOVERY					1997 PRODUCTION		CUMUL. PROD. 1-98 (M BBLS)	RE-SERVES (M BBLS)	LINE NO.
PRIM.	SECND.		M BBLS	BBLS/AC	PRIM. (M BBLS)	SECOND. (M BBLS)	TOTAL (M BBLS)	BBLS/ACRE	BBLS/ACRE FT.	BBLS	BPOD			
18	0	480	3527	7347	620	0	620	1292	86	39441	108	435	185	232.
52	0	960	2749	2863	1420	0	1420	1479	247	25635	70	1247	173	233.
52	0	320	2056	6425	1070	0	1070	3344	279	27150	74	1009	61	234.
0	0	120	0	0	0	0	0	0	0	10057	28	344	68	235.
57	0	160	742	4637	420	0	420	2625	219	4901	13	404	16	236.
35	0	640	5809	9076	2060	0	2060	3219	268	144390	396	1463	597	237.
24	26	240	2559	10662	620	670	1290	5375	448	16961	46	996	294	238.
64	0	2080	7664	3684	4880	0	4880	2346	213	15074	41	4831	49	239.
18	0	960	5107	5319	920	0	920	958	64	6678	18	893	27	240.
19	0	560	7603	13576	1460	0	1460	2607	104	12710	35	1294	166	241.
29	0	640	2979	4654	870	0	870	1359	227	23253	64	702	168	242.
5	0	320	2809	8778	150	0	150	469	26	3267	9	144	6	243.
										691,590	1895		29	244.
										16,069,023	44,025		126,981	245.

ERA	PERIOD	SOUTHWEST MONTANA (GENERALIZED)	CRAZY MOUNTAINS BASIN	CENTRAL MONTANA		BIG HORN BASIN		
CENOZOIC	TERTIARY	SIXMILE CREEK FM RENOVA FM SPHINX CK	TONGUE RIVER MBR TFO MBR TULLOCK MBR			TONGUE RIVER MBR LEBO MBR TULLOCK MBR		
	CRETACEOUS	UPPER ELKHORN VOLCANICS MONTANA SP UNDWYD BEAUFORT CBL MONTANA SP UNDWYD EAGLE FM TELEGRAPH CK CODY SH FRONTIER FM CO. ORANJUP UNDWYD MOWRY SH MUDDY SS THERMOPOL S SH (RUSTY RFD MBR) KOOTENAI FM	UPPER L. WINNISON GP L. UNION FM HELL CREEK FM LENNEP FM BEARPAW FM JUDITH RIVER FM CLAGGET FM EAGLE FM (VIRGELLE MBR) TELEGRAPH CK FM NIOBRARA FM FRONTIER FM CARLELE FM GREENHORN FM BELL FOURCHL FM RIG ELK SS MOWRY FM MUDDY SS SKULL CK SH DAKOTA SILT DAKOTA (1st CAT CREEK) KOOTENAI FM	UPPER MONTANA GP FRONTIER FM CARLELE FM GREENHORN FM BELL FOURCHL FM RIG ELK SS MOWRY FM MUDDY SS SKULL CK SH DAKOTA SILT DAKOTA (1st CAT CREEK) KOOTENAI FM	UPPER MONTANA GP FRONTIER FM CARLELE FM GREENHORN FM BELL FOURCHL FM RIG ELK SS MOWRY FM MUDDY SS SKULL CK SH DAKOTA SILT DAKOTA (1st CAT CREEK) KOOTENAI FM	UPPER MONTANA GP FRONTIER FM CARLELE FM GREENHORN FM BELL FOURCHL FM RIG ELK SS MOWRY FM MUDDY SS SKULL CK SH DAKOTA SILT DAKOTA (1st CAT CREEK) KOOTENAI FM	UPPER MONTANA GP FRONTIER FM CARLELE FM GREENHORN FM BELL FOURCHL FM RIG ELK SS MOWRY FM MUDDY SS SKULL CK SH DAKOTA SILT DAKOTA (1st CAT CREEK) KOOTENAI FM	UPPER MONTANA GP FRONTIER FM CARLELE FM GREENHORN FM BELL FOURCHL FM RIG ELK SS MOWRY FM MUDDY SS SKULL CK SH DAKOTA SILT DAKOTA (1st CAT CREEK) KOOTENAI FM
MESOZOIC	JURASSIC	MORRISON FM SWIFT FM RIERDON FM SAWTOOTH FM	MORRISON FM SWIFT FM RIERDON FM PIPER FM	MORRISON FM SWIFT FM RIERDON FM PIPER FM		MORRISON FM SWIFT FM RIERDON FM PIPER FM		
	TRIASSIC	THAYNES FM WOODSIDE FM DINWOODY FM	CHUGWATER FM DINWOODY FM	CHUGWATER FM DINWOODY FM		CHUGWATER FM DINWOODY FM		
	PERMIAN	PHOSPHORIA FM DANK C TY MBR	PHOSPHORIA FM	PHOSPHORIA FM		PHOSPHORIA FM		
PALEOZOIC	PENNSYLVANIAN	QUADRIANT FM AMSDEN GP	QUADRIANT FM AMSDEN GP	TENSI F FM AMSDEN GP (ALASKA BLNCH) TYLER FM		TENSI F FM AMSDEN FM LAWREN SS		
	MISSISSIPPIAN	BIG SNOWY GP MISSION CANYON LS LODGEPOLE FS SAPHINGTON MBR THREE FORKS FM	BIG SNOWY GP CHARLES FM MISSION CANYON LS LODGEPOLE FS SAPHINGTON MBR THREE FORKS FM	BIG SNOWY GP CHARLES FM MISSION CANYON LS LODGEPOLE FS BAKKEN FM		BIG SNOWY GP MISSION CANYON LS LODGEPOLE FS BAKKEN FM		
	DEVONIAN	JEFFERSON FM MAYWOOD FM	JEFFERSON FM MAYWOOD FM	JEFFERSON FM MAYWOOD FM		JEFFERSON FM MAYWOOD FM		
	SILURIAN							
	ORDOVICIAN	HORN FM	HORN FM	HORN FM		HORN FM		
	CAMBRIAN	RED LION FM HASMAIK FM SILVER HILL FM FLATHEAD SS	SNOWY RANGE FM PILGRIM FM PARK SH MILAGHER LS WOLSEY SH FLATHEAD SS	SNOWY RANGE FM PILGRIM FM PARK SH MILAGHER LS WOLSEY SH FLATHEAD SS	SNOWY RANGE FM PILGRIM FM PARK SH MILAGHER LS WOLSEY SH FLATHEAD SS		SNOWY RANGE FM PILGRIM FM PARK SH MILAGHER LS WOLSEY SH FLATHEAD SS	
	PROTEROZOIC	BEELT SUPERGROUP	BEELT SUPERGROUP	BEELT SUPERGROUP		BEELT SUPERGROUP		
PRECAMBRIAN	ARCHEAN	PRE-BELT METAMORPHIC AND IGNEOUS ROCKS	PRE-BELT METAMORPHIC AND IGNEOUS ROCKS	PRE-BELT METAMORPHIC AND IGNEOUS ROCKS		PRE-BELT METAMORPHIC AND IGNEOUS ROCKS		

SWEETGRASS ARCH		NORTHERN DISTURBED BELT		PERIOD	ERA
				TERTIARY	CENOZOIC
<p>WILLOW CK FM</p> <p>ST MARY RIVLR FM</p> <p>HORSETHIEF SS</p> <p>BFARPAW FM</p> <p>JUDITH RIVER FM</p> <p>TWO MEDICINE FM</p> <p>VIRGELLE SS</p> <p>TELEGRAPH CK FM</p> <p>KEYNSH MBR</p> <p>FERD G MBR</p> <p>2ND WHITE SPK (GREENHORN)</p> <p>FLOWFREE MBR</p> <p>(FISH SCALE SS)</p> <p>BOOTLEGGER MBR</p> <p>(RED SPK)</p> <p>VAUGHN (BOW ISLAND)</p> <p>TAFT HILL</p> <p>FLOOD (DAKOTA)</p> <p>(BLRWASH)</p> <p>KOOTENA FM</p> <p>(SUNBURST)</p> <p>(GLIT BANK)</p>		<p>WILLOW CK FM</p> <p>ST MARY RIVLR FM</p> <p>HORSETHIEF SS</p> <p>TWO BEARPAW FM</p> <p>MEDICINE FM</p> <p>VIRGELLE SS</p> <p>TELEGRAPH CK FM</p> <p>KEVIN SH MBR</p> <p>FERDIG MBR</p> <p>2ND WHITE SPK (GREENHORN)</p> <p>FLOWFREE MBR</p> <p>VAUGHN MBR</p> <p>TAFT HILL MBR</p> <p>FLOOD MBR</p> <p>KOOTENA FM</p> <p>MT. PABLO (MOUNT BANK)</p>		UPPER	CRETACEOUS
<p>BROWN'S C. & E. BULLWACKER COAL MINE C. LEROY RED ROCK SAWTOOTH MTN. TIGLER RIDGE TWO FORKS</p> <p>BADLANDS UNIT F CK BLACK BUTTE BLACK C. BOWFS. BROWN'S C. & E. BULLWACKER CHAIN LAKES CHIP CK COAL C. COAL MINE C. HITSNO HAVRE HIGHLINE LAREDO LEROY LOHMAN RED ROCK HUDYARD SAWTOOTH MTN. SHEPARD TIGER 400G. TWO FORKS</p> <p>ASHFIELD BOWDOIN LORING E & W. ORANG SWANSON CK. VANDALIA WHITEWATER & F</p> <p>ASHFIELD BOWDOIN COAL MINE C. GORMAN C. LORING & E. SPRING C. SWANSON CK. VANDALIA WHITEWATER & E. WILD HORSE</p>		<p>BLACKHACK E KEITH MIDDLE BUTTE OHRIFNS C. SAGE CK</p> <p>ALMA AN'ELOPE C. BIG ROCK LITTLE ROCK ALMA AMANDA ARCH APEX BIG ROCK BUFFALO FLAT CUT BANK DEVON JURY FORK DUNKIRK FIZPATRICK FLAT C. FT CONRAD GALATA GRANDVIEW HAROPAN HAYSTACK BUTTE E. KLT KEVIN SUNBURST SW KEVIN KICKING HORSE LUDGER MARIAS HIVER MINNERS C. OBIEN C. O'DSHELBY POLICE C. PRAIRIE DILL SNOOZE C. SORFER UP C. THFR TRAIL CK. WHITEASH WILLAMS WILLOW RIDGE</p> <p>S. CONRAD</p> <p>BLACKFOOT BRADLEY CUT BANK DUNKIRK FLAT C. KEVIN SUNBURST KICKING HORSE W BUTTE PRAIRIE 3F11 W BUTTE WHITEASH WILLOWRIDGE BRADY KEVIN SUNBURST STRAWBERRY CK WILLOW RIDGE</p> <p>BRADY KEVIN SUNBURST STRAWBERRY CK WILLOW RIDGE</p> <p>AMANDA ARCH APEX BLACKFOOT DUNKIRK L & SW KEVIN O'DSHELBY PRAIRIE DILL BURKHOLTE BRADY S CONRAD BUTCH JOHN PRED & GEORGE GRABEN C. GYPSY B. KEVIN SUNBURST PHANTOM & W. W BUTTE WHITEASH & W</p> <p>BLACKFOOT & E. BOHMLER RED C. CUT BANK GRABEN C. HTD CK</p>		LOWER	
<p>MORRISON FM</p> <p>SWIFT FM</p> <p>RIEHOON FM</p> <p>SAWTOOTH FM</p>		<p>MORRISON FM</p> <p>SWIFT FM</p> <p>RIEHOON FM</p> <p>SAWTOOTH FM</p>		JURASSIC	MESOZOIC
<p>BOWFS. RABBIT HILLS & NE & SW THIRTY MILE CANADIAN C. E. CHINOOK N G. DUFFORD HUCKYARD</p>		<p>ARCH APEX BANNATYNE DEARS DEN FLAT C. FRED & GEORGE CK. GRANDVIEW HORSE CK. AIRD CK. FRIGHATO CK. UTOPIA. WHITEASH & W</p> <p>AMANDA EAGLE SPOGS ET-HUDGF. SW KEVIN O'DSHELBY PRAIRIE DILL & W. WEST BUTTE</p> <p>GYPSY B. HIGHVIEW KEVIN SUNBURST</p> <p>CANADIAN C. FLAT C. KEITH KICKING HORSE. MINFRS C. UTOPIA</p>			
				TRIASSIC	
				PERMIAN	PALEOZOIC
				PENNSYLVANIAN	
				MISSISSIPPIAN	
<p>SUN RIVER DOLOMIT</p> <p>MISSION CANYON LS</p> <p>LONG POLE LS</p> <p>EXSHAW (BARKEN) FM</p>		<p>SUN RIVER MBR</p> <p>CASTLE RLT 130L</p> <p>LOWLR MBR</p> <p>ALLAN MOUNTAIN LS</p> <p>EXSHAW (BARKEN) FM</p>		• BLACKLIF C & UNIT TWO MEDICINE	
<p>THREE FORKS THREE FORKS SHALE</p> <p>POTLAICH ANHY</p> <p>HIRDBEAR (NISKIUS) FM</p> <p>DUPREHOW FM</p> <p>SOURIS HIVER FM</p>		<p>THREE FORKS THREE FORKS SHALE</p> <p>B. ROEBER (NISKIUS) FM</p> <p>JIFFERSON FM</p> <p>LOWER MBR (DUPFROW)</p> <p>MAYWOOD (SOURIS HIVER) FM</p>			
				DEVONIAN	
				SILURIAN	
				ORDOVICIAN	
<p>RED LON FM</p> <p>PILGRIM FM</p> <p>PARK SH</p> <p>MEAGHERS</p> <p>WOLSEY SH</p> <p>FLATHEAD SS</p>		<p>DEVILS GRIN DOL</p> <p>SWITCHBACK S</p> <p>STEAMBOAT LS</p> <p>PENTAGON SH</p> <p>PAGODA LS</p> <p>DEANSBORO LS</p> <p>DAMNATION LS</p> <p>GORDON SH</p> <p>FLATHEAD SS</p>			CAMBRIAN
<p>PRE-BELT ROCKS</p>		<p>BELT SUPPLGRKOLP</p> <p>PRE BELT ROCKS</p>		PROTEROZOIC	PRECAMBRIAN
SWEETGRASS ARCH		NORTHERN DISTURBED BELT			